

ALMANAC L TRANSITS VISIBLE FROM JUPITER IN CE

The almanac L contains a list of transits visible from Jupiter from the 1st millennium CE to the 125th millennium CE.

During the period of 250 000 years, the total number of transits visible from Jupiter is 170 301 transits visible from Jupiter (68 795 transits of Mercury, 49 274 transits of Venus, 23 635 transits of Earth, 23 635 transits of Moon, 4 962 transits of Mars).

1ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 1st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	1-05-21 02:09 J		1721563.52	1721563.59	1721563.66	0.0493	0.0453	
Mercury	1-08-19 08:38 J		1721653.70	1721653.86	1721654.02	0.0494	0.0227	
Venus	2-07-14 21:21 J		1721983.20	1721983.39	1721983.59	0.0502	0.0157	
Mars	6-04-20 09:50 J		1723358.74	1723358.91	1723359.08	0.0537	0.0397	
Mercury	7-04-23 03:50 J		1723726.54	1723726.66	1723726.79	0.0533	0.0020	
Venus	8-05-23 22:47 J		1724123.28	1724123.45	1724123.62	0.0523	0.0273	
Mercury	13-06-07 06:28 J		1725963.59	1725963.77	1725963.95	0.0494	0.0056	
Venus	14-03-19 21:50 J		1726249.34	1726249.41	1726249.50	0.0500	0.0458	
Earth	15-06-07 15:50 J		1726694.03	1726694.16	1726694.29	0.0514	0.0433	
Moon	15-06-07 17:45 J		1726694.09	1726694.24	1726694.39	0.0514	0.0402	*
Mercury	19-02-09 07:40 J		1728036.69	1728036.82	1728036.94	0.0533	0.0138	
Mercury	19-05-09 14:24 J		1728126.03	1728126.10	1728126.17	0.0532	0.0446	
Venus	20-01-27 14:52 J		1728388.92	1728389.12	1728389.32	0.0525	0.0083	
Mars	24-04-09 11:45 J		1729922.70	1729922.99	1729923.28	0.0490	0.0102	
Mercury	25-03-26 04:19 J		1730273.51	1730273.68	1730273.86	0.0493	0.0115	
Venus	26-07-17 11:02 J		1730751.81	1730751.96	1730752.11	0.0505	0.0339	
Moon	27-06-12 11:16 J		1731081.75	1731081.97	1731082.19	0.0515	0.0159	
Earth	27-06-12 14:24 J		1731081.88	1731082.10	1731082.33	0.0515	0.0152	*
Mercury	30-11-28 11:02 J		1732346.86	1732346.96	1732347.07	0.0534	0.0292	
Mercury	31-02-25 18:14 J		1732436.16	1732436.26	1732436.37	0.0532	0.0300	
Venus	31-10-02 07:12 J		1732654.69	1732654.80	1732654.91	0.0527	0.0440	
Moon	32-12-07 18:43 J		1733087.13	1733087.28	1733087.45	0.0513	0.0354	
Earth	32-12-07 20:24 J		1733087.17	1733087.35	1733087.53	0.0513	0.0321	*
Mercury	37-01-12 02:24 J		1734583.46	1734583.60	1734583.75	0.0493	0.0281	
Mercury	37-04-12 09:21 J		1734673.79	1734673.89	1734674.00	0.0494	0.0408	

Venus	38-03-22 09:07 J	1735017.68	1735017.88	1735018.09	0.0502	0.0024
Earth	39-06-17 09:35 J	1735469.68	1735469.90	1735470.14	0.0517	0.0124
Moon	39-06-17 13:40 J	1735469.83	1735470.07	1735470.30	0.0517	0.0092 *
Mars	42-01-23 07:26 J	1736420.56	1736420.81	1736421.06	0.0537	0.0140
Mercury	42-09-16 14:09 J	1736657.02	1736657.09	1736657.16	0.0535	0.0454
Mercury	42-12-14 21:35 J	1736746.28	1736746.40	1736746.53	0.0533	0.0145
Venus	44-01-30 10:33 J	1737157.85	1737157.94	1737158.03	0.0522	0.0464
Earth	44-12-12 08:52 J	1737474.64	1737474.87	1737475.10	0.0511	0.0059
Moon	44-12-12 11:45 J	1737474.76	1737474.99	1737475.22	0.0511	0.0065 *
Mercury	48-10-31 00:28 J	1738893.45	1738893.52	1738893.60	0.0492	0.0448
Mercury	49-01-29 06:57 J	1738983.63	1738983.79	1738983.95	0.0494	0.0232
Venus	49-11-25 08:24 J	1739283.68	1739283.85	1739284.02	0.0500	0.0284
Moon	51-06-22 05:31 J	1739857.59	1739857.73	1739857.88	0.0519	0.0416
Earth	51-06-22 09:07 J	1739857.73	1739857.88	1739858.02	0.0519	0.0410 *
Mercury	54-10-03 01:40 J	1741056.44	1741056.57	1741056.70	0.0534	0.0001
Venus	55-10-05 04:47 J	1741423.50	1741423.70	1741423.90	0.0524	0.0120
Moon	56-12-16 17:31 J	1741862.03	1741862.23	1741862.43	0.0509	0.0228
Earth	56-12-16 20:52 J	1741862.16	1741862.37	1741862.58	0.0509	0.0200 *
Mercury	60-11-17 03:50 J	1743293.48	1743293.66	1743293.84	0.0493	0.0050
Mercury	66-07-22 05:45 J	1745366.62	1745366.74	1745366.87	0.0534	0.0142
Mercury	66-10-19 12:43 J	1745455.96	1745456.03	1745456.10	0.0532	0.0444
Venus	67-06-09 22:19 J	1745689.25	1745689.43	1745689.62	0.0526	0.0231
Earth	68-12-21 08:09 J	1746249.75	1746249.84	1746249.94	0.0507	0.0455
Moon	68-12-21 11:45 J	1746249.91	1746249.99	1746250.08	0.0507	0.0467 *
Mercury	72-09-05 01:40 J	1747603.40	1747603.57	1747603.75	0.0493	0.0121
Venus	73-11-27 19:55 J	1748052.14	1748052.33	1748052.52	0.0504	0.0204
Mercury	78-05-10 09:21 J	1749676.79	1749676.89	1749677.00	0.0534	0.0295
Mercury	78-08-07 16:33 J	1749766.09	1749766.19	1749766.30	0.0532	0.0297
Mercury	84-06-23 23:45 J	1751913.35	1751913.49	1751913.64	0.0493	0.0289
Mercury	84-09-22 06:43 J	1752003.68	1752003.78	1752003.89	0.0495	0.0401

Venus	85-08-02 19:26 J	1752318.11	1752318.31	1752318.51	0.0502	0.0106
Mercury	90-02-26 12:57 J	1753986.97	1753987.04	1753987.10	0.0534	0.0451
Mercury	90-05-26 20:24 J	1754076.22	1754076.35	1754076.47	0.0533	0.0148
Venus	91-06-12 18:00 J	1754458.10	1754458.25	1754458.42	0.0523	0.0318
Mercury	96-04-11 22:04 J	1756223.36	1756223.42	1756223.50	0.0492	0.0451
Mercury	96-07-11 04:33 J	1756313.53	1756313.69	1756313.85	0.0494	0.0228
Venus	97-04-07 18:57 J	1756584.18	1756584.29	1756584.41	0.0499	0.0410
Moon	98-06-06 10:19 J	1757008.84	1757008.93	1757009.03	0.0512	0.0461
Earth	98-06-06 12:57 J	1757008.98	1757009.04	1757009.12	0.0512	0.0491 *
Mercury	102-03-14 23:31 J	1758386.35	1758386.48	1758386.61	0.0534	0.0012
Venus	103-02-15 10:04 J	1758723.71	1758723.92	1758724.12	0.0525	0.0040
Mercury	108-04-29 02:09 J	1760623.41	1760623.59	1760623.77	0.0493	0.0054
Venus	109-08-05 06:43 J	1761086.65	1761086.78	1761086.92	0.0504	0.0383
Earth	110-06-11 09:35 J	1761396.69	1761396.90	1761397.12	0.0514	0.0216
Moon	110-06-11 13:26 J	1761396.85	1761397.06	1761397.28	0.0514	0.0225 *
Mercury	114-01-01 03:21 J	1762696.52	1762696.64	1762696.77	0.0534	0.0159
Mercury	114-03-31 10:19 J	1762785.86	1762785.93	1762786.01	0.0532	0.0430
Venus	114-10-21 02:52 J	1762989.49	1762989.62	1762989.76	0.0527	0.0393
Earth	115-12-07 21:50 J	1763402.25	1763402.41	1763402.56	0.0514	0.0377
Moon	115-12-08 00:14 J	1763402.38	1763402.51	1763402.66	0.0514	0.0409 *
Mercury	120-02-15 23:02 J	1764933.29	1764933.46	1764933.64	0.0493	0.0129
Venus	121-04-10 04:33 J	1765352.49	1765352.69	1765352.89	0.0503	0.0067
Moon	122-06-16 04:19 J	1765784.45	1765784.68	1765784.92	0.0517	0.0034
Earth	122-06-16 08:09 J	1765784.60	1765784.84	1765785.07	0.0517	0.0063 *
Mercury	125-10-20 07:26 J	1767006.71	1767006.81	1767006.92	0.0534	0.0302
Mercury	126-01-17 14:38 J	1767096.01	1767096.11	1767096.22	0.0533	0.0292
Venus	127-02-18 08:24 J	1767492.83	1767492.85	1767492.86	0.0521	0.0519
Moon	127-12-12 08:09 J	1767789.62	1767789.84	1767790.06	0.0511	0.0117
Earth	127-12-12 11:31 J	1767789.76	1767789.98	1767790.20	0.0511	0.0111 *
Mercury	131-12-04 21:07 J	1769243.24	1769243.38	1769243.52	0.0493	0.0297

Mercury	132-03-04 03:50 J	1769333.55	1769333.66	1769333.77	0.0494	0.0391
Venus	132-12-14 04:19 J	1769618.50	1769618.68	1769618.86	0.0501	0.0240
Earth	134-06-21 09:07 J	1770172.71	1770172.88	1770173.05	0.0519	0.0353
Moon	134-06-21 11:16 J	1770172.81	1770172.97	1770173.13	0.0519	0.0369 *
Mercury	137-08-08 11:02 J	1771316.90	1771316.96	1771317.03	0.0534	0.0455
Mercury	137-11-05 18:28 J	1771406.15	1771406.27	1771406.40	0.0533	0.0144
Venus	138-10-24 01:12 J	1771758.36	1771758.55	1771758.75	0.0523	0.0169
Earth	139-12-16 21:35 J	1772177.18	1772177.40	1772177.62	0.0510	0.0145
Moon	139-12-17 01:12 J	1772177.34	1772177.55	1772177.77	0.0510	0.0176 *
Mars	142-09-27 12:00 J	1773192.77	1773193.00	1773193.24	0.0490	0.0295
Mercury	143-09-22 19:12 J	1773553.25	1773553.30	1773553.36	0.0493	0.0463
Mercury	143-12-22 01:40 J	1773643.40	1773643.57	1773643.73	0.0494	0.0218
Mercury	149-08-24 22:19 J	1775716.30	1775716.43	1775716.56	0.0533	0.0016
Venus	150-06-28 17:31 J	1776024.04	1776024.23	1776024.42	0.0526	0.0189
Moon	151-12-21 05:31 J	1776564.59	1776564.73	1776564.87	0.0508	0.0405
Earth	151-12-21 08:24 J	1776564.72	1776564.85	1776565.00	0.0508	0.0400 *
Mercury	155-10-09 23:31 J	1777953.30	1777953.48	1777953.67	0.0493	0.0050
Venus	156-12-16 16:33 J	1778387.02	1778387.19	1778387.37	0.0503	0.0252
Mars	160-07-13 08:52 J	1779691.67	1779691.87	1779692.09	0.0536	0.0314
Mercury	161-06-13 01:12 J	1780026.43	1780026.55	1780026.68	0.0534	0.0172
Mercury	161-09-10 08:24 J	1780115.77	1780115.85	1780115.92	0.0532	0.0417
Mercury	167-07-28 21:21 J	1782263.21	1782263.39	1782263.57	0.0493	0.0124
Venus	168-08-21 15:21 J	1782652.94	1782653.14	1782653.34	0.0501	0.0062
Mercury	173-04-01 05:02 J	1784336.61	1784336.71	1784336.82	0.0534	0.0320
Mercury	173-06-29 12:28 J	1784425.91	1784426.02	1784426.12	0.0533	0.0275
Venus	174-07-01 13:40 J	1784792.92	1784793.07	1784793.21	0.0523	0.0365
Mars	178-07-03 14:09 J	1786255.83	1786256.09	1786256.36	0.0490	0.0207
Mercury	179-05-16 18:14 J	1786573.12	1786573.26	1786573.40	0.0493	0.0306
Mercury	179-08-15 00:57 J	1786663.43	1786663.54	1786663.66	0.0494	0.0381
Venus	180-04-26 13:26 J	1786918.93	1786919.06	1786919.20	0.0500	0.0373

Mercury	185-01-18 09:07 J	1788646.82	1788646.88	1788646.94	0.0535	0.0464
Mercury	185-04-17 16:33 J	1788736.07	1788736.19	1788736.32	0.0533	0.0137
Venus	186-03-06 08:09 J	1789058.64	1789058.84	1789059.05	0.0525	0.0021
Mercury	191-03-04 16:19 J	1790883.14	1790883.18	1790883.23	0.0492	0.0472
Mercury	191-06-02 22:33 J	1790973.28	1790973.44	1790973.61	0.0494	0.0207
Venus	192-08-24 02:38 J	1791421.50	1791421.61	1791421.72	0.0505	0.0429
Moon	193-06-10 05:02 J	1791711.51	1791711.71	1791711.91	0.0514	0.0286
Earth	193-06-10 08:52 J	1791711.67	1791711.87	1791712.07	0.0514	0.0273 *
Mars	196-04-17 23:16 J	1792754.26	1792754.47	1792754.70	0.0537	0.0267
Mercury	197-02-03 20:24 J	1793046.23	1793046.35	1793046.48	0.0533	0.0021
Venus	197-11-09 00:14 J	1793324.36	1793324.51	1793324.66	0.0526	0.0343
Moon	198-12-06 18:57 J	1793717.21	1793717.29	1793717.40	0.0514	0.0465
Earth	198-12-06 22:19 J	1793717.32	1793717.43	1793717.56	0.0514	0.0431 *
Mercury	203-03-21 20:38 J	1795283.17	1795283.36	1795283.54	0.0494	0.0037
Venus	204-04-29 01:55 J	1795687.38	1795687.58	1795687.78	0.0503	0.0117
Earth	205-06-15 08:24 J	1796099.61	1796099.85	1796100.08	0.0516	0.0013
Moon	205-06-15 11:02 J	1796099.73	1796099.96	1796100.19	0.0516	0.0016 *
Mercury	208-11-23 00:00 J	1797356.38	1797356.50	1797356.62	0.0534	0.0166
Mercury	209-02-20 06:57 J	1797445.72	1797445.79	1797445.87	0.0532	0.0420
Earth	210-12-11 10:33 J	1798104.73	1798104.94	1798105.16	0.0512	0.0169
Moon	210-12-11 14:09 J	1798104.88	1798105.09	1798105.31	0.0512	0.0166 *
Mercury	215-01-07 18:43 J	1799593.11	1799593.28	1799593.46	0.0493	0.0130
Venus	216-01-03 01:26 J	1799953.38	1799953.56	1799953.75	0.0501	0.0192
Moon	217-06-20 04:33 J	1800487.50	1800487.69	1800487.89	0.0517	0.0302
Earth	217-06-20 05:45 J	1800487.55	1800487.74	1800487.94	0.0517	0.0288 *
Mercury	220-09-11 03:07 J	1801666.53	1801666.63	1801666.73	0.0534	0.0330
Mercury	220-12-09 10:19 J	1801755.82	1801755.93	1801756.04	0.0533	0.0264
Venus	221-11-11 19:26 J	1802093.12	1802093.31	1802093.50	0.0524	0.0210
Moon	222-12-15 18:28 J	1802492.04	1802492.27	1802492.50	0.0511	0.0117
Earth	222-12-15 21:35 J	1802492.18	1802492.40	1802492.63	0.0511	0.0086 *

Mercury	226-10-26 16:47 J	1803903.05	1803903.20	1803903.34	0.0493	0.0300
Mercury	227-01-24 23:16 J	1803993.36	1803993.47	1803993.59	0.0494	0.0387
Venus	227-09-08 01:12 J	1804219.54	1804219.55	1804219.58	0.0499	0.0496
Mercury	232-06-30 06:43 J	1805976.73	1805976.78	1805976.83	0.0535	0.0481
Mercury	232-09-27 14:24 J	1806065.97	1806066.10	1806066.22	0.0533	0.0120
Venus	233-07-17 12:43 J	1806358.84	1806359.03	1806359.23	0.0526	0.0144
Earth	234-12-20 09:21 J	1806879.73	1806879.89	1806880.07	0.0509	0.0342
Moon	234-12-20 11:31 J	1806879.82	1806879.98	1806880.15	0.0509	0.0346 *
Mercury	238-08-14 13:40 J	1808213.04	1808213.07	1808213.11	0.0492	0.0480
Mercury	238-11-12 19:55 J	1808303.16	1808303.33	1808303.49	0.0494	0.0198
Venus	240-01-05 11:02 J	1808721.79	1808721.96	1808722.12	0.0504	0.0291
Mercury	244-07-16 18:43 J	1810376.15	1810376.28	1810376.40	0.0534	0.0028
Venus	245-03-22 06:28 J	1810624.71	1810624.77	1810624.84	0.0528	0.0499
Mercury	250-08-31 17:45 J	1812613.06	1812613.24	1812613.42	0.0493	0.0027
Venus	251-09-10 10:33 J	1812987.74	1812987.94	1812988.15	0.0502	0.0021
Mercury	256-05-04 22:33 J	1814686.31	1814686.44	1814686.56	0.0534	0.0170
Mercury	256-08-02 05:31 J	1814775.65	1814775.73	1814775.80	0.0532	0.0418
Venus	257-07-20 11:02 J	1815127.85	1815127.96	1815128.09	0.0522	0.0418
Mercury	262-06-19 15:50 J	1816922.98	1816923.16	1816923.33	0.0493	0.0142
Venus	263-05-16 11:02 J	1817253.81	1817253.96	1817254.12	0.0500	0.0326
Mercury	268-02-22 01:55 J	1818996.48	1818996.58	1818996.69	0.0534	0.0323
Mercury	268-05-21 09:21 J	1819085.78	1819085.89	1819086.00	0.0532	0.0271
Venus	269-03-25 04:04 J	1819393.47	1819393.67	1819393.88	0.0524	0.0065
Mercury	274-04-07 14:09 J	1821232.95	1821233.09	1821233.23	0.0493	0.0305
Mercury	274-07-06 20:52 J	1821323.26	1821323.37	1821323.49	0.0494	0.0382
Venus	275-09-13 00:14 J	1821756.46	1821756.51	1821756.58	0.0505	0.0483
Earth	276-06-09 08:24 J	1822026.68	1822026.85	1822027.04	0.0513	0.0327
Moon	276-06-09 11:31 J	1822026.82	1822026.98	1822027.16	0.0513	0.0348 *
Mercury	279-12-11 04:47 J	1823306.66	1823306.70	1823306.76	0.0534	0.0488
Mercury	280-03-09 12:28 J	1823395.90	1823396.02	1823396.15	0.0533	0.0113

Venus	280-11-27 18:28 J	1823659.11	1823659.27	1823659.44	0.0527	0.0303
Earth	281-12-05 21:35 J	1824032.34	1824032.40	1824032.47	0.0515	0.0491
Mercury	286-01-24 12:14 J	1825542.97	1825543.01	1825543.06	0.0492	0.0472
Mercury	286-04-24 18:28 J	1825633.10	1825633.27	1825633.44	0.0494	0.0206
Venus	287-05-18 22:47 J	1826022.25	1826022.45	1826022.64	0.0503	0.0165
Moon	288-06-14 03:50 J	1826414.42	1826414.66	1826414.91	0.0515	0.0078
Earth	288-06-14 05:45 J	1826414.50	1826414.74	1826414.97	0.0515	0.0052 *
Mercury	291-12-27 16:19 J	1827706.06	1827706.18	1827706.31	0.0534	0.0038
Moon	293-12-10 08:52 J	1828419.66	1828419.87	1828420.09	0.0513	0.0218
Earth	293-12-10 12:14 J	1828419.81	1828420.01	1828420.22	0.0513	0.0226 *
Mars	296-12-20 13:40 J	1829525.80	1829526.07	1829526.34	0.0490	0.0198
Mercury	298-02-10 15:07 J	1829942.95	1829943.13	1829943.31	0.0493	0.0019
Venus	299-01-21 19:55 J	1830288.14	1830288.33	1830288.53	0.0501	0.0154
Earth	300-06-19 01:55 J	1830802.37	1830802.58	1830802.80	0.0517	0.0222
Moon	300-06-19 01:55 J	1830802.38	1830802.58	1830802.79	0.0517	0.0239 *
Mercury	303-10-15 20:38 J	1832016.24	1832016.36	1832016.48	0.0534	0.0175
Mercury	304-01-13 03:35 J	1832105.58	1832105.65	1832105.73	0.0532	0.0414
Venus	304-11-30 18:57 J	1832428.12	1832428.29	1832428.46	0.0524	0.0272
Earth	305-12-15 02:52 J	1832807.39	1832807.62	1832807.85	0.0511	0.0040
Moon	305-12-15 04:47 J	1832807.48	1832807.70	1832807.93	0.0511	0.0073 *
Mercury	309-11-29 13:12 J	1834252.88	1834253.05	1834253.22	0.0493	0.0149
Venus	310-09-26 20:38 J	1834554.28	1834554.36	1834554.44	0.0499	0.0457
Earth	312-06-24 03:50 J	1835190.64	1835190.66	1835190.70	0.0519	0.0513
Mars	314-10-07 05:02 J	1836025.47	1836025.71	1836025.95	0.0537	0.0185
Mercury	315-08-04 00:28 J	1836326.42	1836326.52	1836326.62	0.0534	0.0323
Mercury	315-11-01 07:40 J	1836415.71	1836415.82	1836415.93	0.0533	0.0272
Venus	316-08-05 12:00 J	1836693.80	1836694.00	1836694.20	0.0525	0.0085
Moon	317-12-19 12:57 J	1837194.84	1837195.04	1837195.23	0.0509	0.0295
Earth	317-12-19 13:40 J	1837194.89	1837195.07	1837195.26	0.0509	0.0295 *
Mercury	321-09-17 11:16 J	1838562.84	1838562.97	1838563.12	0.0493	0.0315

Mercury	321-12-16 18:00 J	1838653.13	1838653.25	1838653.37	0.0494	0.0372
Venus	323-01-24 09:35 J	1839056.75	1839056.90	1839057.05	0.0504	0.0346
Mercury	327-05-23 03:50 J	1840636.61	1840636.66	1840636.72	0.0534	0.0478
Mercury	327-08-20 11:31 J	1840725.86	1840725.98	1840726.11	0.0533	0.0123
Venus	328-04-10 03:35 J	1840959.56	1840959.65	1840959.77	0.0527	0.0449
Mars	332-09-26 00:28 J	1842589.31	1842589.52	1842589.75	0.0490	0.0327
Mercury	333-07-06 10:04 J	1842872.88	1842872.92	1842872.97	0.0493	0.0474
Mercury	333-10-04 16:19 J	1842963.01	1842963.18	1842963.34	0.0494	0.0204
Venus	334-09-29 09:21 J	1843322.69	1843322.89	1843323.10	0.0502	0.0037
Mercury	339-06-08 14:52 J	1845035.99	1845036.12	1845036.25	0.0533	0.0037
Venus	340-08-08 06:57 J	1845462.70	1845462.79	1845462.88	0.0522	0.0465
Mercury	345-07-23 13:55 J	1847272.90	1847273.08	1847273.27	0.0493	0.0033
Venus	346-06-04 08:52 J	1847588.70	1847588.87	1847589.04	0.0500	0.0274
Mars	350-07-12 06:43 J	1849087.60	1849087.78	1849087.97	0.0536	0.0371
Mercury	351-03-27 18:43 J	1849346.16	1849346.28	1849346.40	0.0534	0.0184
Mercury	351-06-25 01:40 J	1849435.49	1849435.57	1849435.65	0.0532	0.0405
Venus	352-04-13 01:12 J	1849728.35	1849728.55	1849728.75	0.0525	0.0117
Mercury	357-05-11 10:47 J	1851582.78	1851582.95	1851583.12	0.0493	0.0153
Moon	359-06-09 03:07 J	1852341.49	1852341.63	1852341.78	0.0513	0.0409
Earth	359-06-09 05:31 J	1852341.58	1852341.73	1852341.89	0.0513	0.0386 *
Mercury	363-01-13 22:47 J	1853656.35	1853656.45	1853656.55	0.0535	0.0327
Mercury	363-04-13 06:14 J	1853745.65	1853745.76	1853745.87	0.0533	0.0269
Venus	363-12-17 19:40 J	1853994.14	1853994.32	1853994.50	0.0527	0.0236
Mercury	369-02-27 09:07 J	1855892.75	1855892.88	1855893.02	0.0493	0.0318
Mercury	369-05-28 15:35 J	1855983.03	1855983.15	1855983.27	0.0494	0.0367
Venus	370-06-06 18:43 J	1856357.10	1856357.28	1856357.47	0.0503	0.0210
Earth	371-06-14 05:31 J	1856729.50	1856729.73	1856729.96	0.0515	0.0106
Moon	371-06-14 06:00 J	1856729.53	1856729.75	1856729.97	0.0515	0.0131 *
Mercury	374-11-02 02:38 J	1857966.55	1857966.61	1857966.67	0.0535	0.0475
Mercury	375-01-30 10:19 J	1858055.80	1858055.93	1858056.05	0.0533	0.0126

Earth	376-12-09 18:43 J	1858735.08	1858735.28	1858735.47	0.0513	0.0265
Moon	376-12-09 20:38 J	1858735.17	1858735.36	1858735.56	0.0513	0.0250 *
Mercury	380-12-16 07:40 J	1860202.78	1860202.82	1860202.86	0.0492	0.0480
Mercury	381-03-16 13:40 J	1860292.90	1860293.07	1860293.24	0.0494	0.0198
Venus	382-02-09 19:26 J	1860623.11	1860623.31	1860623.51	0.0501	0.0098
Earth	383-06-19 06:57 J	1861117.56	1861117.79	1861118.01	0.0517	0.0181
Moon	383-06-19 08:24 J	1861117.63	1861117.85	1861118.08	0.0517	0.0201 *
Mercury	386-11-18 14:09 J	1862365.96	1862366.09	1862366.22	0.0533	0.0024
Venus	387-12-20 17:31 J	1862763.07	1862763.23	1862763.39	0.0523	0.0328
Moon	388-12-14 06:00 J	1863122.51	1863122.75	1863122.99	0.0511	0.0025
Earth	388-12-14 06:57 J	1863122.56	1863122.79	1863123.02	0.0511	0.0008 *
Mercury	393-01-02 12:00 J	1864602.82	1864603.00	1864603.18	0.0494	0.0032
Venus	393-10-15 20:24 J	1864889.23	1864889.35	1864889.48	0.0499	0.0400
Moon	395-06-24 03:50 J	1865505.58	1865505.66	1865505.74	0.0519	0.0483
Earth	395-06-24 07:12 J	1865505.70	1865505.80	1865505.91	0.0519	0.0462 *
Mercury	398-09-06 17:16 J	1866676.10	1866676.22	1866676.34	0.0534	0.0182
Mercury	398-12-05 00:28 J	1866765.44	1866765.52	1866765.60	0.0532	0.0407
Venus	399-08-25 09:07 J	1867028.67	1867028.88	1867029.08	0.0525	0.0033
Moon	400-12-18 16:33 J	1867510.00	1867510.19	1867510.39	0.0510	0.0243
Earth	400-12-18 17:16 J	1867510.02	1867510.22	1867510.43	0.0510	0.0246 *
Mercury	404-10-21 10:04 J	1868912.75	1868912.92	1868913.09	0.0493	0.0137
Venus	406-02-12 08:38 J	1869391.74	1869391.86	1869391.98	0.0504	0.0404
Mercury	410-06-25 21:07 J	1870986.28	1870986.38	1870986.48	0.0534	0.0331
Mercury	410-09-23 04:33 J	1871075.58	1871075.69	1871075.80	0.0533	0.0265
Venus	411-04-30 01:55 J	1871294.45	1871294.58	1871294.72	0.0527	0.0392
Earth	412-12-23 06:00 J	1871897.72	1871897.75	1871897.80	0.0508	0.0499
Moon	412-12-23 08:38 J	1871897.78	1871897.86	1871897.96	0.0508	0.0470 *
Mercury	416-08-09 07:12 J	1873222.66	1873222.80	1873222.94	0.0492	0.0317
Mercury	416-11-07 13:40 J	1873312.95	1873313.07	1873313.19	0.0494	0.0367
Venus	417-10-18 05:16 J	1873657.52	1873657.72	1873657.92	0.0502	0.0078

Mercury	422-04-14 01:12 J	1875296.49	1875296.55	1875296.60	0.0535	0.0477
Mercury	422-07-12 08:52 J	1875385.74	1875385.87	1875385.99	0.0534	0.0127
Mercury	428-05-28 05:45 J	1877532.70	1877532.74	1877532.78	0.0492	0.0478
Mercury	428-08-26 11:31 J	1877622.82	1877622.98	1877623.15	0.0494	0.0198
Venus	429-06-23 05:45 J	1877923.56	1877923.74	1877923.92	0.0500	0.0229
Mercury	434-04-30 12:57 J	1879695.91	1879696.04	1879696.17	0.0534	0.0016
Venus	435-05-03 03:21 J	1880063.45	1880063.64	1880063.82	0.0524	0.0188
Mercury	440-06-14 09:50 J	1881932.73	1881932.91	1881933.09	0.0493	0.0030
Earth	442-06-08 12:14 J	1882656.89	1882657.01	1882657.15	0.0513	0.0420
Moon	442-06-08 13:12 J	1882656.95	1882657.05	1882657.17	0.0513	0.0447 *
Mercury	446-02-16 16:47 J	1884006.08	1884006.20	1884006.32	0.0534	0.0165
Mercury	446-05-16 23:45 J	1884095.42	1884095.49	1884095.57	0.0532	0.0424
Venus	447-01-05 19:55 J	1884329.14	1884329.33	1884329.52	0.0526	0.0171
Mars	451-03-16 12:57 J	1885859.74	1885860.04	1885860.33	0.0490	0.0054
Mercury	452-04-02 08:24 J	1886242.67	1886242.85	1886243.02	0.0493	0.0133
Venus	453-06-25 19:55 J	1886692.17	1886692.33	1886692.51	0.0503	0.0277
Earth	454-06-13 12:00 J	1887044.77	1887045.00	1887045.23	0.0515	0.0144
Moon	454-06-13 12:57 J	1887044.81	1887045.04	1887045.28	0.0515	0.0164 *
Mercury	457-12-05 19:55 J	1888316.23	1888316.33	1888316.44	0.0534	0.0324
Mercury	458-03-05 03:21 J	1888405.53	1888405.64	1888405.75	0.0533	0.0271
Moon	459-12-09 22:19 J	1889050.24	1889050.43	1889050.63	0.0514	0.0293
Earth	459-12-09 23:16 J	1889050.29	1889050.47	1889050.66	0.0514	0.0311 *
Mercury	464-01-20 06:43 J	1890552.64	1890552.78	1890552.92	0.0493	0.0298
Mercury	464-04-19 13:12 J	1890642.94	1890643.05	1890643.16	0.0494	0.0388
Venus	465-02-28 19:40 J	1890958.11	1890958.32	1890958.52	0.0501	0.0038
Moon	466-06-18 07:40 J	1891432.60	1891432.82	1891433.04	0.0516	0.0158
Earth	466-06-18 10:33 J	1891432.71	1891432.94	1891433.17	0.0516	0.0134 *
Mars	468-12-31 03:35 J	1892359.40	1892359.65	1892359.91	0.0537	0.0049
Mercury	469-09-23 23:45 J	1892626.43	1892626.49	1892626.54	0.0535	0.0475
Mercury	469-12-22 07:26 J	1892715.68	1892715.81	1892715.93	0.0533	0.0128

Venus	471-01-08 17:02 J	1893098.08	1893098.21	1893098.34	0.0523	0.0392
Moon	471-12-14 13:26 J	1893437.84	1893438.06	1893438.28	0.0512	0.0020
Earth	471-12-14 14:09 J	1893437.86	1893438.09	1893438.32	0.0512	0.0047 *
Mercury	475-11-08 04:04 J	1894862.63	1894862.67	1894862.72	0.0492	0.0474
Mercury	476-02-06 09:50 J	1894952.75	1894952.91	1894953.08	0.0493	0.0202
Venus	476-11-03 17:16 J	1895224.08	1895224.22	1895224.37	0.0499	0.0356
Earth	478-06-23 06:00 J	1895820.62	1895820.75	1895820.91	0.0518	0.0407
Moon	478-06-23 10:04 J	1895820.79	1895820.92	1895821.06	0.0518	0.0423 *
Mercury	481-10-10 11:31 J	1897025.85	1897025.98	1897026.11	0.0534	0.0018
Venus	482-09-13 12:28 J	1897363.81	1897364.02	1897364.22	0.0525	0.0044
Earth	483-12-19 05:31 J	1897825.53	1897825.73	1897825.94	0.0510	0.0218
Moon	483-12-19 08:24 J	1897825.63	1897825.85	1897826.06	0.0510	0.0203 *
Mars	486-12-20 22:19 J	1898923.34	1898923.43	1898923.54	0.0490	0.0461
Mercury	487-11-25 08:09 J	1899262.66	1899262.84	1899263.02	0.0493	0.0035
Venus	489-03-03 06:28 J	1899726.69	1899726.77	1899726.86	0.0504	0.0455
Mercury	493-07-29 15:50 J	1901336.03	1901336.16	1901336.28	0.0534	0.0158
Mercury	493-10-26 22:47 J	1901425.38	1901425.45	1901425.53	0.0532	0.0433
Venus	494-05-19 05:31 J	1901629.57	1901629.73	1901629.90	0.0527	0.0316
Moon	495-12-23 13:26 J	1902212.95	1902213.06	1902213.18	0.0508	0.0441
Earth	495-12-23 17:16 J	1902213.14	1902213.22	1902213.30	0.0508	0.0470 *
Mercury	499-09-13 06:28 J	1903572.60	1903572.77	1903572.95	0.0493	0.0131
Venus	500-11-06 06:43 J	1903992.59	1903992.78	1903992.98	0.0503	0.0145
Mercury	505-05-17 19:26 J	1905646.21	1905646.31	1905646.42	0.0534	0.0306
Mercury	505-08-15 02:52 J	1905735.52	1905735.62	1905735.73	0.0533	0.0290
Mercury	511-07-02 05:16 J	1907882.57	1907882.72	1907882.86	0.0493	0.0291
Mercury	511-09-30 11:45 J	1907972.88	1907972.99	1907973.10	0.0494	0.0396
Venus	512-07-12 07:40 J	1908258.63	1908258.82	1908259.02	0.0501	0.0162
Mercury	517-03-05 22:47 J	1909956.39	1909956.45	1909956.51	0.0535	0.0464
Mercury	517-06-03 06:28 J	1910045.65	1910045.77	1910045.89	0.0533	0.0137
Venus	518-05-22 02:52 J	1910398.44	1910398.62	1910398.80	0.0524	0.0251

Mercury	523-04-20 03:35 J	1912192.59	1912192.65	1912192.73	0.0492	0.0453
Mercury	523-07-19 09:50 J	1912282.74	1912282.91	1912283.07	0.0494	0.0225
Venus	524-03-17 08:24 J	1912524.79	1912524.85	1912524.93	0.0499	0.0467
Earth	525-06-07 19:12 J	1912972.19	1912972.30	1912972.40	0.0512	0.0455
Moon	525-06-07 19:40 J	1912972.24	1912972.32	1912972.40	0.0512	0.0481 *
Mercury	529-03-22 10:19 J	1914355.81	1914355.93	1914356.06	0.0534	0.0019
Venus	530-01-24 20:24 J	1914664.16	1914664.35	1914664.55	0.0526	0.0106
Mercury	535-05-07 06:43 J	1916592.60	1916592.78	1916592.97	0.0493	0.0045
Venus	536-07-14 17:45 J	1917027.09	1917027.24	1917027.40	0.0503	0.0327
Moon	537-06-12 10:04 J	1917359.71	1917359.92	1917360.13	0.0514	0.0209
Earth	537-06-12 12:28 J	1917359.80	1917360.02	1917360.24	0.0514	0.0193 *
Mercury	541-01-08 14:24 J	1918665.98	1918666.10	1918666.23	0.0535	0.0154
Mercury	541-04-07 21:35 J	1918755.33	1918755.40	1918755.47	0.0533	0.0438
Venus	541-09-29 14:09 J	1918930.01	1918930.09	1918930.19	0.0528	0.0466
Moon	542-12-09 12:14 J	1919365.84	1919366.01	1919366.19	0.0514	0.0311
Earth	542-12-09 12:57 J	1919365.87	1919366.04	1919366.22	0.0514	0.0332 *
Mercury	547-02-23 05:16 J	1920902.54	1920902.72	1920902.89	0.0493	0.0122
Venus	548-03-19 18:14 J	1921293.05	1921293.26	1921293.46	0.0501	0.0017
Earth	549-06-17 13:26 J	1921747.82	1921748.06	1921748.29	0.0516	0.0089
Moon	549-06-17 17:16 J	1921747.99	1921748.22	1921748.45	0.0516	0.0120 *
Mercury	552-10-27 18:28 J	1922976.17	1922976.27	1922976.38	0.0535	0.0297
Mercury	553-01-25 01:55 J	1923065.48	1923065.58	1923065.69	0.0533	0.0300
Venus	554-01-27 21:07 J	1923433.30	1923433.38	1923433.47	0.0523	0.0472
Earth	554-12-14 02:52 J	1923753.40	1923753.62	1923753.85	0.0512	0.0070
Moon	554-12-14 05:31 J	1923753.50	1923753.73	1923753.97	0.0512	0.0051 *
Mercury	558-12-12 03:35 J	1925212.51	1925212.65	1925212.80	0.0493	0.0285
Mercury	559-03-12 10:04 J	1925302.82	1925302.92	1925303.03	0.0494	0.0400
Venus	559-11-23 19:12 J	1925559.14	1925559.30	1925559.47	0.0500	0.0290
Moon	561-06-22 12:43 J	1926135.87	1926136.03	1926136.18	0.0518	0.0391
Earth	561-06-22 16:33 J	1926136.03	1926136.19	1926136.35	0.0518	0.0378 *

Mercury	564-08-15 22:19 J	1927286.36	1927286.43	1927286.50	0.0535	0.0445
Mercury	564-11-13 06:00 J	1927375.63	1927375.75	1927375.88	0.0533	0.0157
Venus	565-10-02 15:07 J	1927698.93	1927699.13	1927699.32	0.0525	0.0118
Moon	566-12-18 12:00 J	1928140.78	1928141.00	1928141.21	0.0510	0.0164
Earth	566-12-18 15:35 J	1928140.94	1928141.15	1928141.36	0.0510	0.0187 *
Mars	569-09-03 11:02 J	1929130.81	1929130.96	1929131.11	0.0490	0.0420
Mercury	570-09-30 02:24 J	1929522.53	1929522.60	1929522.68	0.0492	0.0444
Mercury	570-12-29 08:24 J	1929612.69	1929612.85	1929613.01	0.0494	0.0234
Mercury	576-09-01 09:35 J	1931685.77	1931685.90	1931686.03	0.0534	0.0004
Venus	577-06-07 06:14 J	1931964.58	1931964.76	1931964.94	0.0527	0.0250
Earth	578-12-23 01:40 J	1932528.46	1932528.57	1932528.70	0.0508	0.0434
Moon	578-12-23 05:45 J	1932528.61	1932528.74	1932528.87	0.0508	0.0408 *
Mercury	582-10-17 06:43 J	1933922.60	1933922.78	1933922.96	0.0493	0.0067
Venus	583-11-26 08:38 J	1934327.68	1934327.86	1934328.05	0.0503	0.0213
Mars	587-06-22 11:16 J	1935631.84	1935631.97	1935632.12	0.0537	0.0445
Mercury	588-06-20 13:26 J	1935995.94	1935996.06	1935996.18	0.0534	0.0144
Mercury	588-09-17 20:24 J	1936085.29	1936085.35	1936085.42	0.0532	0.0446
Mercury	594-08-05 04:04 J	1938232.49	1938232.67	1938232.85	0.0492	0.0111
Venus	595-08-01 06:14 J	1938593.57	1938593.76	1938593.97	0.0500	0.0111
Mercury	600-04-08 17:16 J	1940306.11	1940306.22	1940306.33	0.0535	0.0293
Mercury	600-07-07 00:43 J	1940395.43	1940395.53	1940395.64	0.0534	0.0305
Venus	601-06-10 07:12 J	1940733.64	1940733.80	1940733.95	0.0524	0.0332
Mars	605-06-10 03:50 J	1942194.37	1942194.66	1942194.95	0.0489	0.0114
Mercury	606-05-24 02:38 J	1942542.46	1942542.61	1942542.76	0.0492	0.0273
Mercury	606-08-22 08:52 J	1942632.77	1942632.87	1942632.97	0.0494	0.0411
Venus	607-04-06 07:40 J	1942859.71	1942859.82	1942859.94	0.0499	0.0413
Earth	608-06-06 22:33 J	1943287.39	1943287.44	1943287.51	0.0512	0.0494
Mercury	612-01-26 21:21 J	1944616.32	1944616.39	1944616.46	0.0535	0.0436
Mercury	612-04-25 05:02 J	1944705.59	1944705.71	1944705.83	0.0534	0.0167
Venus	613-02-13 01:12 J	1944999.35	1944999.55	1944999.76	0.0526	0.0024

Mercury	618-03-12 00:57 J	1946852.47	1946852.54	1946852.63	0.0492	0.0435
Mercury	618-06-10 06:57 J	1946942.64	1946942.79	1946942.95	0.0493	0.0242
Venus	619-08-03 20:24 J	1947362.23	1947362.35	1947362.48	0.0504	0.0399
Earth	620-06-11 23:16 J	1947675.26	1947675.47	1947675.69	0.0514	0.0218
Moon	620-06-12 03:07 J	1947675.42	1947675.63	1947675.85	0.0514	0.0220 *
Mars	623-03-28 03:21 J	1948694.39	1948694.64	1948694.88	0.0537	0.0150
Mercury	624-02-12 09:07 J	1949015.75	1949015.88	1949016.01	0.0534	0.0026
Venus	624-10-18 18:00 J	1949265.12	1949265.25	1949265.39	0.0528	0.0386
Earth	625-12-08 23:45 J	1949681.33	1949681.49	1949681.66	0.0514	0.0360
Moon	625-12-09 02:24 J	1949681.42	1949681.60	1949681.78	0.0514	0.0331 *
Mercury	630-03-29 05:31 J	1951252.55	1951252.73	1951252.91	0.0493	0.0077
Venus	631-04-08 21:21 J	1951628.18	1951628.39	1951628.59	0.0502	0.0089
Moon	632-06-16 20:38 J	1952063.12	1952063.36	1952063.59	0.0516	0.0094
Earth	632-06-17 00:28 J	1952063.29	1952063.52	1952063.76	0.0516	0.0062 *
Mercury	635-12-01 12:43 J	1953325.90	1953326.03	1953326.16	0.0534	0.0131
Mercury	636-02-28 19:40 J	1953415.26	1953415.32	1953415.39	0.0532	0.0458
Moon	637-12-13 08:09 J	1954068.62	1954068.84	1954069.06	0.0512	0.0092
Earth	637-12-13 11:45 J	1954068.77	1954068.99	1954069.22	0.0512	0.0105 *
Mercury	642-01-15 03:50 J	1955562.48	1955562.66	1955562.84	0.0493	0.0089
Venus	642-12-12 21:35 J	1955894.22	1955894.40	1955894.59	0.0500	0.0222
Earth	644-06-22 00:14 J	1956451.33	1956451.51	1956451.69	0.0518	0.0342
Moon	644-06-22 03:07 J	1956451.46	1956451.63	1956451.80	0.0518	0.0352 *
Mercury	647-09-19 16:33 J	1957636.08	1957636.19	1957636.30	0.0535	0.0281
Mercury	647-12-17 23:45 J	1957725.39	1957725.49	1957725.60	0.0533	0.0316
Venus	648-10-21 16:33 J	1958034.00	1958034.19	1958034.38	0.0525	0.0188
Earth	649-12-18 02:09 J	1958456.38	1958456.59	1958456.81	0.0511	0.0157
Moon	649-12-18 06:00 J	1958456.53	1958456.75	1958456.97	0.0511	0.0130 *
Mercury	653-11-03 01:26 J	1959872.42	1959872.56	1959872.72	0.0492	0.0261
Mercury	654-02-01 07:55 J	1959962.74	1959962.83	1959962.92	0.0493	0.0423
Mercury	659-07-08 20:09 J	1961946.26	1961946.34	1961946.41	0.0536	0.0433

Mercury	659-10-06 03:50 J	1962035.54	1962035.66	1962035.78	0.0534	0.0171
Venus	660-06-26 10:19 J	1962299.73	1962299.93	1962300.12	0.0527	0.0171
Moon	661-12-22 13:40 J	1962843.93	1962844.07	1962844.22	0.0509	0.0390
Earth	661-12-22 17:02 J	1962844.08	1962844.21	1962844.35	0.0509	0.0415 *
Mercury	665-08-22 00:14 J	1964182.42	1964182.51	1964182.60	0.0492	0.0421
Mercury	665-11-20 06:00 J	1964272.60	1964272.75	1964272.91	0.0493	0.0254
Venus	666-12-15 08:09 J	1964662.67	1964662.84	1964663.01	0.0502	0.0270
Mercury	671-07-25 08:09 J	1966345.71	1966345.84	1966345.97	0.0534	0.0031
Mercury	677-09-08 04:04 J	1968582.49	1968582.67	1968582.85	0.0493	0.0086
Venus	678-08-20 08:52 J	1968928.67	1968928.87	1968929.08	0.0501	0.0041
Mercury	683-05-13 12:14 J	1970655.88	1970656.01	1970656.13	0.0534	0.0113
Mercury	683-08-10 19:12 J	1970745.25	1970745.30	1970745.36	0.0533	0.0476
Venus	684-06-29 10:19 J	1971068.81	1971068.93	1971069.06	0.0524	0.0410
Mercury	689-06-27 02:38 J	1972892.43	1972892.61	1972892.79	0.0493	0.0078
Venus	690-04-25 10:19 J	1973194.79	1973194.93	1973195.08	0.0499	0.0345
Mercury	695-03-01 15:35 J	1974966.04	1974966.15	1974966.26	0.0535	0.0268
Mercury	695-05-29 23:02 J	1975055.36	1975055.46	1975055.56	0.0533	0.0327
Venus	696-03-04 02:38 J	1975334.41	1975334.61	1975334.81	0.0526	0.0046
Mercury	701-04-15 01:12 J	1977202.39	1977202.55	1977202.70	0.0492	0.0241
Mercury	701-07-14 07:26 J	1977292.74	1977292.81	1977292.89	0.0494	0.0445
Venus	702-08-22 23:02 J	1977697.39	1977697.46	1977697.53	0.0504	0.0469
Moon	703-06-12 04:04 J	1977990.47	1977990.67	1977990.88	0.0513	0.0248
Earth	703-06-12 08:09 J	1977990.63	1977990.84	1977991.05	0.0513	0.0248 *
Mercury	706-12-18 19:12 J	1979276.23	1979276.30	1979276.38	0.0535	0.0420
Mercury	707-03-18 02:52 J	1979365.50	1979365.62	1979365.74	0.0534	0.0183
Venus	707-11-07 19:12 J	1979600.14	1979600.30	1979600.46	0.0528	0.0319
Moon	708-12-08 05:45 J	1979996.58	1979996.74	1979996.90	0.0515	0.0362
Earth	708-12-08 09:21 J	1979996.74	1979996.89	1979997.04	0.0515	0.0392 *
Mercury	713-01-31 23:02 J	1981512.37	1981512.46	1981512.57	0.0492	0.0409
Mercury	713-05-02 04:47 J	1981602.55	1981602.70	1981602.86	0.0493	0.0267

Venus	714-04-27 20:38 J	1981963.16	1981963.36	1981963.55	0.0501	0.0145
Earth	715-06-17 01:55 J	1982378.35	1982378.58	1982378.82	0.0515	0.0016
Moon	715-06-17 05:16 J	1982378.49	1982378.72	1982378.95	0.0515	0.0048 *
Mercury	719-01-04 06:43 J	1983675.65	1983675.78	1983675.91	0.0535	0.0034
Earth	720-12-13 01:26 J	1984384.34	1984384.56	1984384.78	0.0513	0.0125
Moon	720-12-13 05:16 J	1984384.50	1984384.72	1984384.94	0.0513	0.0119 *
Mars	723-11-29 08:52 J	1985465.61	1985465.87	1985466.13	0.0489	0.0233
Mercury	725-02-18 03:07 J	1985912.45	1985912.63	1985912.81	0.0493	0.0099
Venus	725-12-31 21:07 J	1986229.19	1986229.38	1986229.58	0.0499	0.0166
Moon	727-06-22 00:43 J	1986766.34	1986766.53	1986766.73	0.0517	0.0301
Earth	727-06-22 02:24 J	1986766.41	1986766.60	1986766.80	0.0517	0.0296 *
Mercury	730-10-23 10:47 J	1987985.83	1987985.95	1987986.08	0.0535	0.0110
Mercury	731-01-20 18:14 J	1988075.20	1988075.26	1988075.31	0.0533	0.0482
Venus	731-11-10 20:09 J	1988369.17	1988369.34	1988369.52	0.0525	0.0269
Moon	732-12-17 12:00 J	1988771.77	1988772.00	1988772.23	0.0511	0.0103
Earth	732-12-17 15:21 J	1988771.92	1988772.14	1988772.36	0.0511	0.0133 *
Mercury	736-12-07 01:12 J	1990222.37	1990222.55	1990222.73	0.0492	0.0070
Venus	737-09-05 22:33 J	1990495.38	1990495.44	1990495.51	0.0498	0.0468
Mars	741-09-16 07:40 J	1991966.60	1991966.82	1991967.05	0.0538	0.0254
Mercury	742-08-11 14:52 J	1992296.01	1992296.12	1992296.24	0.0535	0.0254
Mercury	742-11-08 22:19 J	1992385.34	1992385.43	1992385.53	0.0533	0.0343
Venus	743-07-16 13:40 J	1992634.87	1992635.07	1992635.27	0.0527	0.0093
Earth	744-12-22 03:21 J	1993159.50	1993159.64	1993159.79	0.0509	0.0385
Moon	744-12-22 05:16 J	1993159.57	1993159.72	1993159.87	0.0509	0.0370 *
Mercury	748-09-24 23:45 J	1994532.33	1994532.49	1994532.65	0.0492	0.0232
Mercury	748-12-24 06:14 J	1994622.69	1994622.76	1994622.83	0.0494	0.0454
Venus	750-01-03 10:47 J	1994997.80	1994997.95	1994998.10	0.0503	0.0342
Mercury	754-05-30 18:28 J	1996606.18	1996606.27	1996606.35	0.0535	0.0409
Mercury	754-08-28 02:09 J	1996695.47	1996695.59	1996695.71	0.0534	0.0193
Venus	755-03-21 04:19 J	1996900.60	1996900.68	1996900.78	0.0529	0.0467

Mars	759-09-04 20:38 J	1998529.13	1998529.36	1998529.60	0.0490	0.0296
Mercury	760-07-13 22:19 J	1998842.33	1998842.43	1998842.54	0.0492	0.0394
Mercury	760-10-12 04:04 J	1998932.53	1998932.67	1998932.83	0.0493	0.0285
Venus	761-09-08 11:02 J	1999263.75	1999263.96	1999264.16	0.0501	0.0029
Mercury	766-06-16 06:00 J	2001005.62	2001005.75	2001005.87	0.0534	0.0048
Venus	767-07-19 11:02 J	2001403.88	2001403.96	2001404.04	0.0524	0.0476
Mercury	772-07-31 01:55 J	2003242.41	2003242.58	2003242.76	0.0492	0.0110
Venus	773-05-14 10:04 J	2003529.75	2003529.92	2003530.08	0.0499	0.0288
Mars	777-06-21 08:52 J	2005028.66	2005028.87	2005029.08	0.0538	0.0308
Mercury	778-04-04 09:21 J	2005315.77	2005315.89	2005316.02	0.0535	0.0110
Mercury	778-07-02 16:33 J	2005405.14	2005405.19	2005405.25	0.0533	0.0483
Venus	779-03-24 04:33 J	2005669.49	2005669.69	2005669.89	0.0526	0.0119
Mercury	784-05-19 00:14 J	2007552.33	2007552.51	2007552.69	0.0492	0.0057
Earth	786-06-11 09:50 J	2008305.72	2008305.91	2008306.11	0.0513	0.0293
Moon	786-06-11 13:26 J	2008305.87	2008306.06	2008306.26	0.0513	0.0288 *
Mercury	790-01-21 13:26 J	2009625.95	2009626.06	2009626.18	0.0535	0.0253
Mercury	790-04-20 20:52 J	2009715.28	2009715.37	2009715.47	0.0534	0.0345
Venus	790-11-26 21:35 J	2009935.23	2009935.40	2009935.59	0.0528	0.0245
Earth	791-12-08 20:09 J	2010312.22	2010312.34	2010312.48	0.0515	0.0421
Moon	791-12-09 00:00 J	2010312.35	2010312.50	2010312.65	0.0515	0.0387 *
Mercury	796-03-06 22:19 J	2011862.27	2011862.43	2011862.59	0.0492	0.0225
Mercury	796-06-05 04:33 J	2011952.63	2011952.69	2011952.76	0.0493	0.0459
Venus	797-05-16 21:35 J	2012298.22	2012298.40	2012298.59	0.0502	0.0211
Moon	798-06-16 08:09 J	2012693.60	2012693.84	2012694.09	0.0515	0.0016
Earth	798-06-16 10:19 J	2012693.70	2012693.93	2012694.17	0.0515	0.0020 *
Mercury	801-11-09 17:31 J	2013936.14	2013936.23	2013936.31	0.0536	0.0400
Mercury	802-02-07 01:12 J	2014025.43	2014025.55	2014025.67	0.0534	0.0204
Moon	803-12-13 07:26 J	2014699.59	2014699.81	2014700.04	0.0513	0.0154
Earth	803-12-13 10:47 J	2014699.73	2014699.95	2014700.17	0.0513	0.0158 *
Mercury	807-12-24 20:52 J	2016172.26	2016172.37	2016172.48	0.0492	0.0386

Mercury	808-03-24 02:38 J	2016262.47	2016262.61	2016262.76	0.0493	0.0290
Venus	809-01-19 22:33 J	2016564.24	2016564.44	2016564.64	0.0500	0.0100
Moon	810-06-21 11:02 J	2017081.76	2017081.96	2017082.16	0.0517	0.0258
Earth	810-06-21 11:31 J	2017081.78	2017081.98	2017082.18	0.0517	0.0262 *
Mercury	813-11-26 04:47 J	2018335.57	2018335.70	2018335.83	0.0534	0.0052
Venus	814-11-29 20:24 J	2018704.19	2018704.35	2018704.50	0.0524	0.0333
Earth	815-12-17 22:04 J	2019087.19	2019087.42	2019087.64	0.0511	0.0094
Moon	815-12-18 00:00 J	2019087.28	2019087.50	2019087.72	0.0511	0.0066 *
Mercury	820-01-11 00:57 J	2020572.36	2020572.54	2020572.71	0.0493	0.0122
Venus	820-09-24 23:45 J	2020830.38	2020830.49	2020830.61	0.0498	0.0406
Moon	822-06-26 14:38 J	2021470.07	2021470.11	2021470.15	0.0519	0.0511
Mercury	825-09-14 08:24 J	2022645.73	2022645.85	2022645.98	0.0535	0.0100
Mercury	825-12-12 15:35 J	2022735.11	2022735.15	2022735.20	0.0533	0.0491
Venus	826-08-04 13:12 J	2022969.84	2022970.05	2022970.25	0.0527	0.0032
Earth	827-12-22 11:02 J	2023474.80	2023474.96	2023475.13	0.0510	0.0349
Moon	827-12-22 11:16 J	2023474.80	2023474.97	2023475.15	0.0510	0.0340 *
Mercury	831-10-29 22:47 J	2024882.27	2024882.45	2024882.63	0.0492	0.0048
Venus	833-01-22 09:21 J	2025332.77	2025332.89	2025333.02	0.0502	0.0398
Mercury	837-07-03 11:45 J	2026955.88	2026955.99	2026956.10	0.0536	0.0258
Mercury	837-09-30 19:12 J	2027045.21	2027045.30	2027045.40	0.0534	0.0342
Venus	838-04-09 04:19 J	2027235.55	2027235.68	2027235.81	0.0529	0.0404
Mercury	843-08-17 21:07 J	2029192.22	2029192.38	2029192.55	0.0492	0.0213
Mercury	843-11-16 03:21 J	2029282.59	2029282.64	2029282.69	0.0493	0.0469
Venus	844-09-27 09:21 J	2029598.69	2029598.89	2029599.10	0.0500	0.0082
Mercury	849-04-21 15:35 J	2031266.07	2031266.15	2031266.24	0.0536	0.0405
Mercury	849-07-19 23:31 J	2031355.36	2031355.48	2031355.60	0.0534	0.0201
Mercury	855-06-05 19:12 J	2033502.19	2033502.30	2033502.41	0.0492	0.0382
Mercury	855-09-04 00:43 J	2033592.39	2033592.53	2033592.68	0.0493	0.0294
Venus	856-06-02 09:35 J	2033864.72	2033864.90	2033865.09	0.0499	0.0229
Mercury	861-05-08 03:35 J	2035665.52	2035665.65	2035665.78	0.0535	0.0058

Venus	862-04-12 06:00 J	2036004.56	2036004.75	2036004.94	0.0526	0.0190
Mercury	867-06-22 23:02 J	2037902.28	2037902.46	2037902.63	0.0493	0.0125
Moon	869-06-10 14:38 J	2038620.92	2038621.11	2038621.30	0.0512	0.0321
Earth	869-06-10 17:16 J	2038621.04	2038621.22	2038621.40	0.0512	0.0328 *
Mercury	873-02-24 07:12 J	2039975.67	2039975.80	2039975.93	0.0535	0.0095
Mercury	873-05-24 14:24 J	2040065.06	2040065.10	2040065.15	0.0533	0.0495
Venus	873-12-15 21:07 J	2040270.19	2040270.38	2040270.57	0.0527	0.0183
Moon	874-12-07 21:35 J	2040627.28	2040627.40	2040627.53	0.0516	0.0430
Earth	874-12-08 00:57 J	2040627.44	2040627.54	2040627.64	0.0516	0.0463 *
Mars	878-02-22 13:12 J	2041799.76	2041800.05	2041800.34	0.0490	0.0073
Mercury	879-04-10 21:07 J	2042212.20	2042212.38	2042212.57	0.0492	0.0045
Venus	880-06-04 22:04 J	2042633.25	2042633.42	2042633.59	0.0502	0.0273
Earth	881-06-15 15:21 J	2043008.91	2043009.14	2043009.38	0.0514	0.0058
Moon	881-06-15 15:35 J	2043008.92	2043009.15	2043009.38	0.0514	0.0031 *
Mercury	884-12-13 10:47 J	2044285.83	2044285.95	2044286.06	0.0535	0.0249
Mercury	885-03-12 18:14 J	2044375.16	2044375.26	2044375.36	0.0533	0.0348
Earth	886-12-12 15:07 J	2045014.93	2045015.13	2045015.35	0.0514	0.0202
Moon	886-12-12 17:16 J	2045015.02	2045015.22	2045015.42	0.0514	0.0202 *
Mercury	891-01-27 19:26 J	2046522.15	2046522.31	2046522.48	0.0492	0.0208
Mercury	891-04-28 01:40 J	2046612.52	2046612.57	2046612.62	0.0493	0.0474
Venus	892-02-08 21:07 J	2046899.18	2046899.38	2046899.59	0.0499	0.0045
Earth	893-06-20 09:50 J	2047396.70	2047396.91	2047397.14	0.0516	0.0207
Moon	893-06-20 12:28 J	2047396.79	2047397.02	2047397.24	0.0516	0.0193 *
Mars	895-12-11 00:28 J	2048300.27	2048300.52	2048300.77	0.0538	0.0125
Mercury	896-10-01 13:40 J	2048595.99	2048596.07	2048596.16	0.0536	0.0412
Mercury	896-12-29 21:35 J	2048685.28	2048685.40	2048685.52	0.0534	0.0194
Venus	897-12-18 18:43 J	2049039.16	2049039.28	2049039.42	0.0525	0.0393
Moon	898-12-17 05:16 J	2049402.48	2049402.72	2049402.96	0.0512	0.0028
Earth	898-12-17 05:02 J	2049402.49	2049402.71	2049402.94	0.0512	0.0057 *
Mercury	902-11-15 17:45 J	2050832.13	2050832.24	2050832.36	0.0491	0.0373

Mercury	903-02-13 23:31 J	2050922.34	2050922.48	2050922.62	0.0493	0.0302
Venus	903-10-14 21:50 J	2051165.27	2051165.41	2051165.55	0.0498	0.0354
Moon	905-06-25 05:31 J	2051784.62	2051784.73	2051784.85	0.0518	0.0450
Earth	905-06-25 09:07 J	2051784.81	2051784.88	2051784.97	0.0518	0.0483 *
Mercury	908-10-18 01:40 J	2052995.44	2052995.57	2052995.70	0.0535	0.0050
Venus	909-08-23 12:28 J	2053304.81	2053305.02	2053305.22	0.0527	0.0034
Moon	910-12-21 15:50 J	2053789.99	2053790.16	2053790.34	0.0510	0.0309
Earth	910-12-21 18:00 J	2053790.07	2053790.25	2053790.44	0.0510	0.0307 *
Mars	913-11-28 23:02 J	2054863.36	2054863.46	2054863.58	0.0489	0.0454
Mercury	914-12-02 20:52 J	2055232.20	2055232.37	2055232.55	0.0492	0.0125
Venus	916-02-11 08:09 J	2055667.76	2055667.84	2055667.93	0.0503	0.0455
Mercury	920-08-06 05:45 J	2057305.61	2057305.74	2057305.87	0.0535	0.0094
Mercury	920-11-03 12:57 J	2057395.00	2057395.04	2057395.09	0.0533	0.0497
Venus	921-04-28 05:02 J	2057570.56	2057570.71	2057570.87	0.0529	0.0336
Mercury	926-09-20 18:57 J	2059542.11	2059542.29	2059542.47	0.0492	0.0045
Venus	927-10-17 08:24 J	2059933.65	2059933.85	2059934.04	0.0501	0.0140
Mars	931-09-15 16:19 J	2061363.08	2061363.18	2061363.31	0.0537	0.0478
Mercury	932-05-25 09:21 J	2061615.77	2061615.89	2061616.00	0.0535	0.0248
Mercury	932-08-22 16:47 J	2061705.10	2061705.20	2061705.29	0.0533	0.0349
Mercury	938-07-09 17:16 J	2063852.06	2063852.22	2063852.39	0.0492	0.0210
Mercury	938-10-07 23:31 J	2063942.44	2063942.48	2063942.53	0.0493	0.0475
Venus	939-06-22 08:52 J	2064199.68	2064199.87	2064200.06	0.0499	0.0173
Mercury	944-03-13 12:43 J	2065925.94	2065926.03	2065926.11	0.0535	0.0405
Mercury	944-06-10 20:24 J	2066015.23	2066015.35	2066015.47	0.0534	0.0199
Venus	945-05-01 02:52 J	2066339.44	2066339.62	2066339.80	0.0526	0.0242
Mercury	950-04-27 15:50 J	2068162.05	2068162.16	2068162.28	0.0491	0.0371
Mercury	950-07-26 21:21 J	2068252.25	2068252.39	2068252.54	0.0493	0.0303
Venus	951-02-25 09:35 J	2068465.85	2068465.90	2068465.95	0.0497	0.0479
Earth	952-06-09 16:04 J	2068936.01	2068936.17	2068936.33	0.0511	0.0380
Moon	952-06-09 17:02 J	2068936.06	2068936.21	2068936.37	0.0511	0.0370 *

Mercury	956-03-29 23:31 J	2070325.36	2070325.48	2070325.61	0.0535	0.0043
Venus	957-01-03 17:31 J	2070605.04	2070605.23	2070605.43	0.0528	0.0133
Earth	957-12-07 03:35 J	2070942.63	2070942.65	2070942.69	0.0517	0.0512
Moon	957-12-07 06:00 J	2070942.67	2070942.75	2070942.83	0.0517	0.0482 *
Mercury	962-05-14 19:26 J	2072562.13	2072562.31	2072562.48	0.0492	0.0132
Venus	963-06-24 18:57 J	2072968.13	2072968.29	2072968.45	0.0501	0.0322
Earth	964-06-14 12:28 J	2073323.79	2073324.02	2073324.26	0.0513	0.0116
Moon	964-06-14 14:09 J	2073323.85	2073324.09	2073324.34	0.0513	0.0091 *
Mercury	968-01-17 03:35 J	2074635.52	2074635.65	2074635.77	0.0535	0.0108
Mercury	968-04-15 10:47 J	2074724.90	2074724.95	2074725.00	0.0534	0.0486
Venus	968-09-08 09:35 J	2074870.84	2074870.90	2074870.97	0.0530	0.0503
Moon	969-12-11 18:43 J	2075330.08	2075330.28	2075330.49	0.0515	0.0257
Earth	969-12-11 18:57 J	2075330.09	2075330.29	2075330.49	0.0515	0.0251 *
Mercury	974-03-02 16:47 J	2076872.02	2076872.20	2076872.38	0.0492	0.0048
Venus	975-02-27 18:14 J	2077234.05	2077234.26	2077234.46	0.0500	0.0011
Moon	976-06-19 07:26 J	2077711.59	2077711.81	2077712.04	0.0515	0.0139
Earth	976-06-19 11:02 J	2077711.73	2077711.96	2077712.18	0.0516	0.0154 *
Mercury	979-11-05 07:26 J	2078945.70	2078945.81	2078945.93	0.0536	0.0253
Mercury	980-02-02 15:07 J	2079035.03	2079035.13	2079035.23	0.0534	0.0347
Venus	981-01-06 18:14 J	2079374.16	2079374.26	2079374.36	0.0525	0.0456
Moon	981-12-16 07:26 J	2079717.59	2079717.81	2079718.03	0.0513	0.0019
Earth	981-12-16 09:21 J	2079717.66	2079717.89	2079718.12	0.0513	0.0010 *
Mercury	985-12-19 14:52 J	2081181.96	2081182.12	2081182.28	0.0492	0.0214
Mercury	986-03-19 21:07 J	2081272.33	2081272.38	2081272.43	0.0493	0.0469
Venus	986-11-02 18:57 J	2081500.13	2081500.29	2081500.45	0.0498	0.0305
Earth	988-06-24 11:45 J	2082099.86	2082099.99	2082100.12	0.0518	0.0433
Moon	988-06-24 15:50 J	2082100.01	2082100.16	2082100.31	0.0518	0.0402 *
Mercury	991-08-24 11:02 J	2083255.88	2083255.96	2083256.04	0.0536	0.0407
Mercury	991-11-21 18:57 J	2083345.17	2083345.29	2083345.40	0.0534	0.0198
Venus	992-09-11 10:04 J	2083639.72	2083639.92	2083640.12	0.0526	0.0087

Earth	993-12-20 19:55 J	2084105.14	2084105.33	2084105.53	0.0511	0.0257
Moon	993-12-20 23:16 J	2084105.27	2084105.47	2084105.67	0.0511	0.0264 *
Mars	996-08-11 15:21 J	2085070.07	2085070.14	2085070.22	0.0490	0.0474
Mercury	997-10-07 13:12 J	2085491.94	2085492.05	2085492.17	0.0492	0.0378
Mercury	998-01-05 18:57 J	2085582.15	2085582.29	2085582.44	0.0493	0.0298

2ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 2nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	1003-09-09 22:19 J		2087655.31	2087655.43	2087655.56	0.0534	0.0047	
Venus	1004-05-17 00:57 J		2087905.38	2087905.54	2087905.71	0.0529	0.0289	
Earth	1005-12-25 07:40 J		2088492.79	2088492.82	2088492.85	0.0509	0.0503	
Mercury	1009-10-24 17:02 J		2089892.04	2089892.21	2089892.39	0.0492	0.0130	
Venus	1010-11-05 05:31 J		2090268.55	2090268.73	2090268.92	0.0501	0.0191	
Mercury	1015-06-29 01:26 J		2091965.43	2091965.56	2091965.69	0.0535	0.0119	
Mercury	1015-09-26 08:52 J		2092054.81	2092054.87	2092054.92	0.0534	0.0475	
Mercury	1021-08-12 15:07 J		2094201.95	2094202.13	2094202.31	0.0492	0.0041	
Venus	1022-07-11 05:31 J		2094534.53	2094534.73	2094534.92	0.0499	0.0125	
Mercury	1027-04-17 05:02 J		2096275.60	2096275.71	2096275.83	0.0536	0.0269	
Mercury	1027-07-15 12:43 J		2096364.93	2096365.03	2096365.13	0.0534	0.0332	
Venus	1028-05-19 23:02 J		2096674.30	2096674.46	2096674.63	0.0526	0.0295	
Mars	1032-05-18 00:43 J		2098133.24	2098133.53	2098133.83	0.0489	0.0055	
Mercury	1033-05-31 12:14 J		2098511.86	2098512.01	2098512.18	0.0492	0.0220	

Mercury	1033-08-29 18:14 J	2098602.21	2098602.26	2098602.33	0.0493	0.0462
Venus	1034-03-16 04:48 J	2098800.61	2098800.70	2098800.80	0.0497	0.0438
Earth	1035-06-09 14:52 J	2099251.00	2099251.12	2099251.25	0.0511	0.0434
Moon	1035-06-09 15:50 J	2099251.02	2099251.16	2099251.30	0.0511	0.0415 *
Mercury	1039-02-03 09:07 J	2100585.80	2100585.88	2100585.96	0.0536	0.0415
Mercury	1039-05-03 17:02 J	2100675.09	2100675.21	2100675.33	0.0534	0.0192
Venus	1040-01-23 16:19 J	2100939.98	2100940.18	2100940.39	0.0528	0.0072
Mercury	1045-03-19 10:33 J	2102821.84	2102821.94	2102822.06	0.0491	0.0385
Mercury	1045-06-17 16:04 J	2102912.03	2102912.17	2102912.32	0.0493	0.0290
Venus	1046-07-13 15:07 J	2103303.00	2103303.13	2103303.28	0.0502	0.0372
Moon	1047-06-14 10:19 J	2103638.71	2103638.93	2103639.15	0.0513	0.0143
Earth	1047-06-14 13:11 J	2103638.83	2103639.05	2103639.28	0.0513	0.0167 *
Mars	1050-03-05 21:21 J	2104634.14	2104634.39	2104634.65	0.0537	0.0015
Mercury	1051-02-19 20:38 J	2104985.23	2104985.36	2104985.49	0.0535	0.0042
Venus	1051-09-28 07:11 J	2105205.70	2105205.80	2105205.91	0.0529	0.0449
Moon	1052-12-10 18:14 J	2105645.09	2105645.26	2105645.44	0.0515	0.0319
Earth	1052-12-10 19:55 J	2105645.15	2105645.33	2105645.52	0.0515	0.0303 *
Mercury	1057-04-05 14:09 J	2107221.92	2107222.09	2107222.27	0.0493	0.0120
Venus	1058-03-18 15:35 J	2107568.95	2107569.15	2107569.36	0.0500	0.0056
Earth	1059-06-19 11:45 J	2108026.76	2108026.99	2108027.22	0.0515	0.0104
Moon	1059-06-19 15:50 J	2108026.92	2108027.16	2108027.39	0.0515	0.0086 *
Mercury	1062-12-09 00:14 J	2109295.38	2109295.51	2109295.63	0.0535	0.0115
Mercury	1063-03-08 07:26 J	2109384.76	2109384.81	2109384.87	0.0533	0.0478
Venus	1064-01-26 13:11 J	2109709.00	2109709.05	2109709.12	0.0524	0.0501
Earth	1064-12-15 08:38 J	2110032.64	2110032.86	2110033.09	0.0513	0.0048
Moon	1064-12-15 12:00 J	2110032.77	2110033.00	2110033.23	0.0513	0.0075 *
Mercury	1069-01-22 12:43 J	2111531.85	2111532.03	2111532.21	0.0492	0.0047
Venus	1069-11-21 16:04 J	2111835.00	2111835.17	2111835.35	0.0498	0.0255
Moon	1071-06-24 04:04 J	2112414.50	2112414.67	2112414.86	0.0516	0.0338
Earth	1071-06-24 08:09 J	2112414.68	2112414.84	2112415.01	0.0516	0.0369 *

Mercury	1074-09-27 02:52 J	2113605.51	2113605.62	2113605.74	0.0536	0.0281
Mercury	1074-12-25 10:33 J	2113694.84	2113694.94	2113695.05	0.0534	0.0321
Venus	1075-10-01 04:04 J	2113974.48	2113974.67	2113974.87	0.0527	0.0130
Moon	1076-12-19 16:33 J	2114419.99	2114420.19	2114420.40	0.0512	0.0205
Earth	1076-12-19 20:24 J	2114420.14	2114420.35	2114420.56	0.0512	0.0201 *
Mercury	1080-11-10 10:33 J	2115841.79	2115841.94	2115842.11	0.0492	0.0215
Mercury	1081-02-08 16:33 J	2115932.14	2115932.19	2115932.25	0.0493	0.0467
Mercury	1086-07-16 06:28 J	2117915.70	2117915.77	2117915.85	0.0536	0.0433
Mercury	1086-10-13 14:38 J	2118004.99	2118005.11	2118005.23	0.0535	0.0175
Venus	1087-06-05 20:09 J	2118240.16	2118240.34	2118240.52	0.0529	0.0242
Earth	1088-12-24 08:52 J	2118807.76	2118807.87	2118807.97	0.0510	0.0447
Moon	1088-12-24 12:28 J	2118807.95	2118808.02	2118808.10	0.0510	0.0480 *
Mercury	1092-08-29 08:09 J	2120151.73	2120151.84	2120151.94	0.0491	0.0392
Mercury	1092-11-27 13:26 J	2120241.91	2120242.06	2120242.21	0.0493	0.0281
Venus	1093-11-24 00:14 J	2120603.33	2120603.51	2120603.69	0.0501	0.0232
Mercury	1098-08-01 18:43 J	2122315.15	2122315.28	2122315.41	0.0535	0.0033
Mercury	1104-09-15 11:31 J	2124551.80	2124551.98	2124552.15	0.0492	0.0110
Venus	1105-07-30 00:43 J	2124869.33	2124869.53	2124869.73	0.0499	0.0082
Mercury	1110-05-20 22:19 J	2126625.31	2126625.43	2126625.56	0.0535	0.0119
Mercury	1110-08-18 05:45 J	2126714.68	2126714.74	2126714.80	0.0533	0.0474
Venus	1111-06-08 20:24 J	2127009.20	2127009.35	2127009.50	0.0525	0.0347
Mercury	1116-07-04 09:35 J	2128861.72	2128861.90	2128862.08	0.0492	0.0058
Venus	1117-04-04 01:55 J	2129135.46	2129135.58	2129135.71	0.0498	0.0391
Moon	1118-06-08 13:40 J	2129565.97	2129566.07	2129566.17	0.0511	0.0458
Earth	1118-06-08 16:04 J	2129566.10	2129566.17	2129566.26	0.0511	0.0480 *
Mercury	1122-03-09 01:40 J	2130935.46	2130935.57	2130935.69	0.0535	0.0276
Mercury	1122-06-06 09:21 J	2131024.79	2131024.89	2131024.99	0.0534	0.0325
Venus	1123-02-11 11:45 J	2131274.79	2131274.99	2131275.20	0.0527	0.0028
Mercury	1128-04-22 08:09 J	2133171.68	2133171.84	2133172.00	0.0492	0.0220
Mercury	1128-07-21 14:09 J	2133262.03	2133262.09	2133262.15	0.0493	0.0461

Venus	1129-08-01 12:14 J	2133637.91	2133638.01	2133638.13	0.0502	0.0424
Earth	1130-06-13 11:45 J	2133953.78	2133953.99	2133954.20	0.0512	0.0223
Moon	1130-06-13 15:35 J	2133953.93	2133954.15	2133954.37	0.0512	0.0197 *
Mercury	1133-12-26 04:33 J	2135245.62	2135245.69	2135245.76	0.0536	0.0443
Mercury	1134-03-25 12:28 J	2135334.90	2135335.02	2135335.15	0.0534	0.0165
Venus	1134-10-17 00:57 J	2135540.41	2135540.54	2135540.67	0.0530	0.0411
Earth	1135-12-10 18:00 J	2135960.09	2135960.25	2135960.42	0.0516	0.0364
Moon	1135-12-10 20:52 J	2135960.22	2135960.37	2135960.54	0.0516	0.0384 *
Mercury	1140-02-09 06:28 J	2137481.66	2137481.77	2137481.88	0.0491	0.0386
Mercury	1140-05-09 11:45 J	2137571.85	2137571.99	2137572.14	0.0493	0.0287
Venus	1141-04-06 12:00 J	2137903.80	2137904.00	2137904.20	0.0500	0.0104
Moon	1142-06-18 03:50 J	2138341.43	2138341.66	2138341.90	0.0514	0.0026
Earth	1142-06-18 07:55 J	2138341.60	2138341.83	2138342.07	0.0514	0.0042 *
Mercury	1146-01-11 16:19 J	2139645.05	2139645.18	2139645.31	0.0535	0.0016
Moon	1147-12-15 05:16 J	2140347.50	2140347.72	2140347.94	0.0514	0.0137
Earth	1147-12-15 08:52 J	2140347.65	2140347.87	2140348.10	0.0514	0.0106 *
Mars	1150-11-04 17:16 J	2141403.03	2141403.22	2141403.41	0.0490	0.0371
Mercury	1152-02-26 08:38 J	2141881.68	2141881.86	2141882.04	0.0492	0.0101
Venus	1152-12-10 10:19 J	2142169.75	2142169.93	2142170.11	0.0498	0.0219
Earth	1154-06-23 03:50 J	2142729.48	2142729.66	2142729.86	0.0516	0.0306
Moon	1154-06-23 06:57 J	2142729.60	2142729.79	2142729.99	0.0516	0.0281 *
Mercury	1157-10-30 20:24 J	2143955.23	2143955.35	2143955.48	0.0535	0.0128
Mercury	1158-01-28 03:50 J	2144044.60	2144044.66	2144044.72	0.0534	0.0467
Venus	1158-10-20 02:52 J	2144309.43	2144309.62	2144309.81	0.0527	0.0190
Earth	1159-12-19 23:45 J	2144735.27	2144735.49	2144735.71	0.0512	0.0152
Moon	1159-12-20 03:35 J	2144735.43	2144735.65	2144735.87	0.0512	0.0162 *
Mercury	1163-12-15 06:57 J	2146191.61	2146191.79	2146191.96	0.0492	0.0068
Mars	1168-08-24 04:04 J	2147905.54	2147905.67	2147905.82	0.0537	0.0450
Mercury	1169-08-19 00:00 J	2148265.40	2148265.50	2148265.62	0.0535	0.0280
Mercury	1169-11-16 07:40 J	2148354.72	2148354.82	2148354.93	0.0534	0.0322

Venus	1170-06-24 18:28 J	2148575.08	2148575.27	2148575.46	0.0528	0.0185
Moon	1171-12-24 07:40 J	2149122.69	2149122.82	2149122.95	0.0510	0.0425
Earth	1171-12-24 10:48 J	2149122.81	2149122.95	2149123.09	0.0510	0.0397 *
Mercury	1175-10-03 05:02 J	2150501.56	2150501.71	2150501.87	0.0492	0.0233
Mercury	1176-01-01 11:02 J	2150591.89	2150591.96	2150592.04	0.0493	0.0449
Venus	1176-12-12 21:50 J	2150938.24	2150938.41	2150938.58	0.0501	0.0284
Mercury	1181-06-07 03:21 J	2152575.57	2152575.64	2152575.72	0.0536	0.0436
Mercury	1181-09-04 11:31 J	2152664.85	2152664.98	2152665.10	0.0534	0.0172
Mars	1186-08-11 06:43 J	2154466.50	2154466.78	2154467.05	0.0490	0.0172
Mercury	1187-07-22 03:50 J	2154811.56	2154811.66	2154811.77	0.0491	0.0392
Mercury	1187-10-20 09:21 J	2154901.74	2154901.89	2154902.04	0.0493	0.0281
Venus	1188-08-17 22:33 J	2155204.23	2155204.44	2155204.64	0.0499	0.0032
Mercury	1193-06-23 14:24 J	2156974.97	2156975.10	2156975.23	0.0535	0.0013
Venus	1194-06-27 14:24 J	2157343.97	2157344.10	2157344.24	0.0526	0.0391
Mercury	1199-08-08 07:11 J	2159211.62	2159211.80	2159211.98	0.0492	0.0109
Venus	1200-04-22 23:02 J	2159470.31	2159470.46	2159470.60	0.0497	0.0343
Moon	1201-06-07 18:14 J	2159881.23	2159881.26	2159881.30	0.0509	0.0503
Mars	1204-05-28 22:19 J	2160967.18	2160967.43	2160967.69	0.0537	0.0106
Mercury	1205-04-11 18:14 J	2161285.13	2161285.26	2161285.38	0.0535	0.0143
Mercury	1205-07-10 01:40 J	2161374.50	2161374.57	2161374.63	0.0534	0.0454
Venus	1206-03-02 07:26 J	2161609.60	2161609.81	2161610.01	0.0528	0.0023
Mercury	1211-05-27 04:04 J	2163521.50	2163521.67	2163521.85	0.0492	0.0075
Venus	1212-08-20 06:43 J	2163972.71	2163972.78	2163972.86	0.0502	0.0462
Moon	1213-06-12 03:35 J	2164268.45	2164268.65	2164268.85	0.0512	0.0258
Earth	1213-06-12 07:40 J	2164268.62	2164268.82	2164269.02	0.0512	0.0283 *
Mercury	1217-01-28 22:04 J	2165595.31	2165595.42	2165595.53	0.0536	0.0288
Mercury	1217-04-28 06:00 J	2165684.64	2165684.75	2165684.85	0.0534	0.0316
Venus	1217-11-05 00:28 J	2165875.37	2165875.52	2165875.67	0.0530	0.0349
Moon	1218-12-09 19:11 J	2166275.18	2166275.30	2166275.42	0.0516	0.0431
Earth	1218-12-09 22:48 J	2166275.32	2166275.45	2166275.60	0.0516	0.0408 *

Mercury	1223-03-15 02:38 J	2167831.45	2167831.61	2167831.76	0.0492	0.0239
Mercury	1223-06-13 08:24 J	2167921.77	2167921.85	2167921.93	0.0493	0.0440
Venus	1224-04-25 06:57 J	2168238.60	2168238.79	2168238.99	0.0500	0.0145
Earth	1225-06-17 06:28 J	2168656.53	2168656.77	2168657.01	0.0514	0.0014
Moon	1225-06-17 09:50 J	2168656.68	2168656.91	2168657.15	0.0514	0.0036 *
Mercury	1228-11-17 01:55 J	2169905.50	2169905.58	2169905.65	0.0536	0.0438
Mercury	1229-02-14 09:50 J	2169994.79	2169994.91	2169995.03	0.0534	0.0170
Earth	1230-12-14 12:14 J	2170662.80	2170663.01	2170663.24	0.0514	0.0152
Moon	1230-12-14 16:19 J	2170662.96	2170663.18	2170663.39	0.0514	0.0178 *
Mercury	1235-01-01 01:11 J	2172141.45	2172141.55	2172141.65	0.0491	0.0402
Mercury	1235-04-01 06:14 J	2172231.62	2172231.76	2172231.92	0.0493	0.0271
Venus	1235-12-30 08:09 J	2172504.65	2172504.84	2172505.03	0.0499	0.0168
Moon	1237-06-22 04:48 J	2173044.48	2173044.70	2173044.92	0.0516	0.0237
Earth	1237-06-22 06:28 J	2173044.57	2173044.77	2173044.98	0.0516	0.0259 *
Mercury	1240-12-03 13:26 J	2174304.93	2174305.06	2174305.19	0.0535	0.0021
Venus	1241-11-07 23:45 J	2174644.31	2174644.49	2174644.67	0.0526	0.0242
Moon	1242-12-18 21:50 J	2175050.18	2175050.41	2175050.64	0.0512	0.0112
Earth	1242-12-19 00:57 J	2175050.32	2175050.54	2175050.77	0.0512	0.0101 *
Mercury	1247-01-18 04:48 J	2176541.53	2176541.70	2176541.88	0.0492	0.0106
Venus	1247-09-04 10:04 J	2176770.87	2176770.92	2176770.99	0.0497	0.0472
Mercury	1252-09-21 16:33 J	2178615.06	2178615.19	2178615.31	0.0535	0.0145
Mercury	1252-12-20 00:00 J	2178704.43	2178704.50	2178704.57	0.0533	0.0450
Venus	1253-07-13 13:26 J	2178909.87	2178910.06	2178910.26	0.0528	0.0141
Earth	1254-12-23 11:31 J	2179437.81	2179437.98	2179438.15	0.0511	0.0342
Moon	1254-12-23 13:11 J	2179437.90	2179438.05	2179438.20	0.0511	0.0370 *
Mercury	1258-11-06 02:52 J	2180851.45	2180851.62	2180851.80	0.0492	0.0065
Venus	1260-01-01 19:11 J	2181273.16	2181273.30	2181273.46	0.0501	0.0337
Mercury	1264-07-10 20:09 J	2182925.23	2182925.34	2182925.45	0.0536	0.0297
Mercury	1264-10-08 03:50 J	2183014.56	2183014.66	2183014.77	0.0534	0.0305
Venus	1265-03-18 05:02 J	2183175.67	2183175.71	2183175.75	0.0530	0.0519

Mercury	1270-08-25 00:14 J	2185161.36	2185161.51	2185161.67	0.0491	0.0243
Mercury	1270-11-23 06:00 J	2185251.66	2185251.75	2185251.83	0.0493	0.0435
Venus	1271-09-06 17:02 J	2185539.01	2185539.21	2185539.42	0.0499	0.0014
Mercury	1276-04-29 00:00 J	2187235.43	2187235.50	2187235.57	0.0536	0.0445
Mercury	1276-07-27 08:09 J	2187324.72	2187324.84	2187324.96	0.0535	0.0165
Venus	1277-07-16 14:52 J	2187679.03	2187679.12	2187679.23	0.0525	0.0458
Mercury	1282-06-12 22:48 J	2189471.35	2189471.45	2189471.55	0.0491	0.0405
Mercury	1282-09-11 04:04 J	2189561.52	2189561.67	2189561.82	0.0492	0.0265
Venus	1283-05-12 18:28 J	2189805.11	2189805.27	2189805.43	0.0498	0.0302
Mercury	1288-05-15 12:00 J	2191634.88	2191635.00	2191635.13	0.0535	0.0027
Venus	1289-03-21 07:55 J	2191944.63	2191944.83	2191945.03	0.0527	0.0089
Mercury	1294-06-30 02:09 J	2193871.42	2193871.59	2193871.77	0.0492	0.0098
Earth	1296-06-11 12:00 J	2194583.82	2194584.00	2194584.19	0.0511	0.0321
Moon	1296-06-11 15:50 J	2194583.97	2194584.16	2194584.35	0.0511	0.0301 *
Mercury	1300-03-03 15:50 J	2195945.03	2195945.16	2195945.28	0.0535	0.0134
Mercury	1300-05-31 23:02 J	2196034.40	2196034.46	2196034.53	0.0533	0.0463
Venus	1300-11-23 23:02 J	2196210.29	2196210.46	2196210.63	0.0529	0.0291
Earth	1301-12-09 01:40 J	2196590.47	2196590.57	2196590.68	0.0517	0.0453
Moon	1301-12-09 05:45 J	2196590.65	2196590.74	2196590.82	0.0517	0.0477 *
Mars	1305-01-28 05:02 J	2197736.45	2197736.71	2197736.97	0.0490	0.0243
Mercury	1306-04-18 00:57 J	2198181.36	2198181.54	2198181.72	0.0492	0.0065
Venus	1307-05-15 06:28 J	2198573.59	2198573.77	2198573.96	0.0500	0.0205
Moon	1308-06-16 08:09 J	2198971.60	2198971.84	2198972.08	0.0513	0.0083
Earth	1308-06-16 10:19 J	2198971.70	2198971.93	2198972.17	0.0513	0.0059 *
Mercury	1311-12-21 18:43 J	2200255.17	2200255.28	2200255.39	0.0535	0.0295
Mercury	1312-03-20 02:24 J	2200344.50	2200344.60	2200344.71	0.0534	0.0307
Moon	1313-12-13 10:33 J	2200977.73	2200977.94	2200978.15	0.0515	0.0229
Earth	1313-12-13 13:55 J	2200977.87	2200978.08	2200978.29	0.0515	0.0203 *
Mercury	1318-02-03 23:16 J	2202491.31	2202491.47	2202491.63	0.0492	0.0230
Mercury	1318-05-05 05:02 J	2202581.64	2202581.71	2202581.78	0.0493	0.0450

Venus	1319-01-18 06:57 J	2202839.59	2202839.79	2202839.99	0.0499	0.0113
Earth	1320-06-21 07:40 J	2203359.60	2203359.82	2203360.03	0.0515	0.0207
Moon	1320-06-21 07:40 J	2203359.61	2203359.82	2203360.03	0.0515	0.0191 *
Mars	1322-11-17 15:50 J	2204238.96	2204239.16	2204239.35	0.0537	0.0337
Mercury	1323-10-09 22:04 J	2204565.36	2204565.42	2204565.50	0.0536	0.0450
Mercury	1324-01-07 06:14 J	2204654.64	2204654.76	2204654.89	0.0535	0.0160
Venus	1324-11-26 21:07 J	2204979.22	2204979.38	2204979.55	0.0526	0.0298
Earth	1325-12-18 05:02 J	2205365.49	2205365.71	2205365.94	0.0513	0.0053
Moon	1325-12-18 06:57 J	2205365.57	2205365.79	2205366.01	0.0513	0.0073 *
Mercury	1329-11-22 20:52 J	2206801.27	2206801.37	2206801.47	0.0491	0.0406
Mercury	1330-02-21 01:55 J	2206891.43	2206891.58	2206891.73	0.0492	0.0264
Venus	1330-09-23 05:31 J	2207105.64	2207105.73	2207105.84	0.0497	0.0433
Earth	1332-06-26 02:38 J	2207747.52	2207747.61	2207747.71	0.0517	0.0467
Moon	1332-06-26 04:19 J	2207747.61	2207747.68	2207747.76	0.0517	0.0492 *
Mercury	1335-10-26 10:33 J	2208964.81	2208964.94	2208965.06	0.0535	0.0025
Venus	1336-08-01 15:07 J	2209244.93	2209245.13	2209245.33	0.0528	0.0070
Earth	1337-12-22 20:38 J	2209753.19	2209753.36	2209753.55	0.0511	0.0309
Moon	1337-12-22 20:38 J	2209753.19	2209753.36	2209753.55	0.0511	0.0332 *
Mars	1340-11-03 17:45 J	2210800.01	2210800.24	2210800.49	0.0489	0.0292
Mercury	1341-12-10 00:14 J	2211201.33	2211201.51	2211201.69	0.0492	0.0097
Venus	1343-01-20 15:50 J	2211608.03	2211608.16	2211608.29	0.0501	0.0383
Mercury	1347-08-14 14:24 J	2213274.98	2213275.10	2213275.23	0.0535	0.0129
Mercury	1347-11-11 21:50 J	2213364.35	2213364.41	2213364.47	0.0534	0.0467
Venus	1348-04-06 07:11 J	2213510.69	2213510.80	2213510.91	0.0530	0.0447
Mercury	1353-09-27 22:33 J	2215511.26	2215511.44	2215511.62	0.0492	0.0068
Venus	1354-09-25 17:02 J	2215874.01	2215874.21	2215874.41	0.0500	0.0069
Mars	1358-08-23 05:16 J	2217301.50	2217301.72	2217301.94	0.0538	0.0266
Mercury	1359-06-02 18:00 J	2217585.14	2217585.25	2217585.36	0.0536	0.0280
Mercury	1359-08-31 01:55 J	2217674.48	2217674.58	2217674.68	0.0534	0.0322
Venus	1360-08-04 14:38 J	2218014.10	2218014.11	2218014.14	0.0525	0.0521

Mercury	1365-07-16 21:21 J	2219821.23	2219821.39	2219821.55	0.0492	0.0228
Mercury	1365-10-15 03:07 J	2219911.56	2219911.63	2219911.70	0.0493	0.0453
Venus	1366-05-31 18:43 J	2220140.11	2220140.28	2220140.46	0.0498	0.0241
Mercury	1371-03-21 21:07 J	2221895.31	2221895.38	2221895.45	0.0536	0.0443
Mercury	1371-06-19 05:16 J	2221984.59	2221984.72	2221984.84	0.0534	0.0166
Venus	1372-04-09 05:45 J	2222279.54	2222279.74	2222279.93	0.0527	0.0145
Mercury	1377-05-04 19:55 J	2224131.23	2224131.33	2224131.44	0.0491	0.0390
Mercury	1377-08-03 01:11 J	2224221.40	2224221.55	2224221.70	0.0493	0.0282
Moon	1379-06-11 13:40 J	2224898.89	2224899.07	2224899.25	0.0511	0.0347
Earth	1379-06-11 16:19 J	2224899.02	2224899.18	2224899.35	0.0511	0.0361 *
Mercury	1383-04-07 08:52 J	2226294.74	2226294.87	2226295.00	0.0535	0.0021
Venus	1383-12-13 21:50 J	2226545.22	2226545.41	2226545.59	0.0529	0.0231
Earth	1384-12-08 06:43 J	2226905.73	2226905.78	2226905.85	0.0517	0.0496
Mercury	1389-05-21 22:33 J	2228531.26	2228531.44	2228531.61	0.0492	0.0101
Venus	1390-06-03 02:52 J	2228908.45	2228908.62	2228908.80	0.0500	0.0251
Earth	1391-06-16 08:52 J	2229286.64	2229286.87	2229287.10	0.0513	0.0111
Moon	1391-06-16 09:35 J	2229286.68	2229286.90	2229287.12	0.0513	0.0139 *
Mercury	1395-01-24 12:57 J	2230604.91	2230605.04	2230605.17	0.0536	0.0129
Mercury	1395-04-23 20:24 J	2230694.30	2230694.35	2230694.41	0.0534	0.0469
Earth	1396-12-13 00:57 J	2231293.34	2231293.54	2231293.75	0.0515	0.0231
Moon	1396-12-13 02:38 J	2231293.42	2231293.61	2231293.81	0.0515	0.0246 *
Mercury	1401-03-09 20:52 J	2232841.20	2232841.37	2232841.55	0.0492	0.0064
Venus	1402-02-06 04:19 J	2233174.47	2233174.68	2233174.88	0.0499	0.0064
Earth	1403-06-21 08:38 J	2233674.64	2233674.86	2233675.09	0.0515	0.0160
Moon	1403-06-21 10:04 J	2233674.68	2233674.92	2233675.15	0.0515	0.0145 *
Mercury	1406-11-12 16:48 J	2234915.09	2234915.20	2234915.32	0.0536	0.0275
Mercury	1407-02-10 00:43 J	2235004.43	2235004.53	2235004.63	0.0534	0.0329
Venus	1407-12-17 00:14 J	2235314.37	2235314.51	2235314.66	0.0526	0.0376
Moon	1408-12-17 15:35 J	2235680.91	2235681.15	2235681.38	0.0513	0.0051
Earth	1408-12-17 15:35 J	2235680.92	2235681.15	2235681.38	0.0513	0.0025 *

Mercury	1412-12-26 19:26 J	2237151.16	2237151.31	2237151.47	0.0492	0.0226
Mercury	1413-03-27 01:11 J	2237241.48	2237241.55	2237241.62	0.0493	0.0453
Venus	1413-10-12 06:14 J	2237440.63	2237440.76	2237440.90	0.0497	0.0372
Moon	1415-06-26 07:40 J	2238062.73	2238062.82	2238062.93	0.0517	0.0462
Earth	1415-06-26 10:33 J	2238062.82	2238062.94	2238063.08	0.0517	0.0434 *
Mercury	1418-08-31 20:38 J	2239225.28	2239225.36	2239225.44	0.0536	0.0426
Mercury	1418-11-29 04:33 J	2239314.57	2239314.69	2239314.81	0.0535	0.0184
Venus	1419-08-21 16:48 J	2239580.00	2239580.20	2239580.40	0.0528	0.0003
Moon	1420-12-22 03:07 J	2240068.45	2240068.63	2240068.81	0.0511	0.0295
Earth	1420-12-22 04:19 J	2240068.49	2240068.68	2240068.88	0.0511	0.0273 *
Mercury	1424-10-14 18:28 J	2241461.16	2241461.27	2241461.38	0.0491	0.0383
Mercury	1425-01-12 23:31 J	2241551.34	2241551.48	2241551.63	0.0493	0.0289
Venus	1426-02-08 17:16 J	2241943.15	2241943.22	2241943.32	0.0502	0.0454
Mercury	1430-09-17 07:55 J	2243624.70	2243624.83	2243624.96	0.0535	0.0030
Venus	1431-04-26 06:28 J	2243845.63	2243845.77	2243845.91	0.0530	0.0385
Moon	1432-12-26 17:31 J	2244456.18	2244456.23	2244456.30	0.0510	0.0491
Mercury	1436-10-31 21:50 J	2245861.24	2245861.41	2245861.59	0.0492	0.0122
Venus	1437-10-14 17:45 J	2246209.05	2246209.24	2246209.44	0.0500	0.0133
Mercury	1442-07-06 11:45 J	2247934.86	2247934.99	2247935.11	0.0535	0.0124
Mercury	1442-10-03 19:11 J	2248024.24	2248024.30	2248024.36	0.0534	0.0472
Mercury	1448-08-19 19:26 J	2250171.13	2250171.31	2250171.49	0.0491	0.0057
Venus	1449-06-19 16:19 J	2250475.00	2250475.18	2250475.37	0.0498	0.0192
Mercury	1454-04-24 15:35 J	2252245.03	2252245.15	2252245.26	0.0536	0.0274
Mercury	1454-07-22 23:16 J	2252334.37	2252334.47	2252334.57	0.0535	0.0332
Venus	1455-04-29 09:07 J	2252614.70	2252614.88	2252615.06	0.0527	0.0225
Mars	1459-04-24 10:48 J	2254070.66	2254070.95	2254071.24	0.0489	0.0085
Mercury	1460-06-07 18:14 J	2254481.10	2254481.26	2254481.42	0.0491	0.0217
Mercury	1460-09-05 23:31 J	2254571.43	2254571.48	2254571.55	0.0493	0.0461
Earth	1462-06-10 18:28 J	2255214.14	2255214.27	2255214.42	0.0510	0.0403
Moon	1462-06-10 19:40 J	2255214.18	2255214.32	2255214.46	0.0510	0.0398 *

Mercury	1466-02-10 19:26 J	2256555.23	2256555.31	2256555.39	0.0536	0.0419
Mercury	1466-05-11 03:35 J	2256644.53	2256644.65	2256644.77	0.0535	0.0191
Venus	1467-01-02 01:55 J	2256880.39	2256880.58	2256880.78	0.0529	0.0148
Mercury	1472-03-26 16:48 J	2258791.09	2258791.20	2258791.32	0.0491	0.0378
Mercury	1472-06-24 21:50 J	2258881.27	2258881.41	2258881.56	0.0492	0.0294
Venus	1473-06-22 04:33 J	2259243.54	2259243.69	2259243.85	0.0501	0.0320
Earth	1474-06-15 18:28 J	2259602.04	2259602.27	2259602.50	0.0513	0.0138
Moon	1474-06-15 19:26 J	2259602.08	2259602.31	2259602.54	0.0513	0.0169 *
Mars	1477-02-11 08:24 J	2260573.60	2260573.85	2260574.09	0.0538	0.0153
Mercury	1478-02-27 07:26 J	2260954.68	2260954.81	2260954.94	0.0535	0.0048
Venus	1478-09-06 17:31 J	2261146.22	2261146.23	2261146.23	0.0531	0.0530
Earth	1479-12-13 10:19 J	2261608.73	2261608.93	2261609.13	0.0516	0.0262
Moon	1479-12-13 10:19 J	2261608.73	2261608.93	2261609.13	0.0516	0.0268 *
Mercury	1484-04-12 20:38 J	2263191.18	2263191.36	2263191.53	0.0492	0.0130
Venus	1485-02-25 06:28 J	2263509.56	2263509.77	2263509.97	0.0499	0.0007
Moon	1486-06-20 16:04 J	2263989.95	2263990.17	2263990.40	0.0514	0.0119
Earth	1486-06-20 18:43 J	2263990.05	2263990.28	2263990.51	0.0514	0.0130 *
Mercury	1489-12-16 10:48 J	2265264.83	2265264.95	2265265.08	0.0535	0.0112
Mercury	1490-03-15 18:14 J	2265354.21	2265354.26	2265354.32	0.0534	0.0484
Venus	1491-01-05 00:28 J	2265649.41	2265649.52	2265649.63	0.0526	0.0442
Moon	1491-12-17 21:07 J	2265996.16	2265996.38	2265996.61	0.0514	0.0017
Earth	1491-12-17 22:33 J	2265996.21	2265996.44	2265996.67	0.0514	0.0014 *
Mars	1495-01-29 03:21 J	2267134.56	2267134.64	2267134.74	0.0489	0.0465
Mercury	1496-01-30 19:11 J	2267501.12	2267501.30	2267501.48	0.0492	0.0036
Venus	1496-10-31 07:55 J	2267775.67	2267775.83	2267775.99	0.0497	0.0306
Earth	1498-06-25 17:16 J	2268378.08	2268378.22	2268378.38	0.0516	0.0397
Moon	1498-06-25 21:07 J	2268378.25	2268378.38	2268378.51	0.0516	0.0428 *
Mercury	1501-10-04 14:24 J	2269574.99	2269575.10	2269575.22	0.0536	0.0264
Mercury	1502-01-01 22:19 J	2269664.33	2269664.43	2269664.53	0.0534	0.0339
Venus	1502-09-09 17:31 J	2269915.03	2269915.23	2269915.43	0.0528	0.0071

Earth	1503-12-22 13:40 J	2270383.87	2270384.07	2270384.27	0.0512	0.0240
Moon	1503-12-22 16:19 J	2270383.98	2270384.18	2270384.39	0.0512	0.0256 *
Mercury	1507-11-18 17:02 J	2271811.05	2271811.21	2271811.37	0.0491	0.0207
Mercury	1508-02-16 22:19 J	2271901.39	2271901.43	2271901.49	0.0492	0.0471
Mars	1512-11-16 09:35 J	2273635.75	2273635.90	2273636.06	0.0538	0.0426
Mercury	1513-07-23 18:14 J	2273885.18	2273885.26	2273885.34	0.0537	0.0417
Mercury	1513-10-21 02:24 J	2273974.48	2273974.60	2273974.72	0.0535	0.0195
Venus	1514-05-15 09:50 J	2274180.75	2274180.91	2274181.08	0.0530	0.0307
Moon	1515-12-27 01:55 J	2274771.49	2274771.58	2274771.67	0.0510	0.0465
Earth	1515-12-27 05:16 J	2274771.67	2274771.72	2274771.78	0.0510	0.0491 *
Mercury	1519-09-06 15:50 J	2276121.05	2276121.16	2276121.28	0.0491	0.0365
Mercury	1519-12-05 20:52 J	2276211.23	2276211.37	2276211.51	0.0492	0.0303
Venus	1520-11-02 16:48 J	2276544.01	2276544.20	2276544.39	0.0500	0.0189
Mercury	1525-08-09 06:28 J	2278284.64	2278284.77	2278284.90	0.0536	0.0054
Mercury	1531-09-23 19:11 J	2280521.13	2280521.30	2280521.47	0.0492	0.0137
Venus	1532-07-08 18:14 J	2280810.07	2280810.26	2280810.46	0.0498	0.0124
Mercury	1537-05-28 10:19 J	2282594.81	2282594.93	2282595.06	0.0536	0.0094
Mercury	1537-08-25 18:00 J	2282684.21	2282684.25	2282684.29	0.0534	0.0503
Venus	1538-05-18 12:28 J	2282949.85	2282950.02	2282950.18	0.0527	0.0305
Mercury	1543-07-12 18:00 J	2284831.07	2284831.25	2284831.43	0.0492	0.0026
Venus	1544-03-13 20:52 J	2285076.28	2285076.37	2285076.48	0.0497	0.0430
Earth	1545-06-10 06:00 J	2285529.62	2285529.75	2285529.88	0.0510	0.0426
Moon	1545-06-10 06:28 J	2285529.65	2285529.77	2285529.91	0.0510	0.0426 *
Mercury	1549-03-16 13:40 J	2286904.96	2286905.07	2286905.19	0.0536	0.0250
Mercury	1549-06-13 21:35 J	2286994.30	2286994.40	2286994.49	0.0534	0.0352
Venus	1550-01-21 03:07 J	2287215.43	2287215.63	2287215.83	0.0529	0.0079
Mercury	1555-04-30 16:33 J	2289141.03	2289141.19	2289141.36	0.0491	0.0187
Venus	1556-07-11 06:43 J	2289578.66	2289578.78	2289578.91	0.0501	0.0390
Moon	1557-06-15 00:57 J	2289917.33	2289917.54	2289917.75	0.0512	0.0200
Earth	1557-06-15 03:07 J	2289917.41	2289917.63	2289917.86	0.0512	0.0167 *

Mercury	1561-01-02 17:16 J	2291215.14	2291215.22	2291215.30	0.0536	0.0404
Mercury	1561-04-02 01:26 J	2291304.44	2291304.56	2291304.68	0.0535	0.0206
Venus	1561-09-25 18:14 J	2291481.17	2291481.26	2291481.37	0.0531	0.0462
Moon	1562-12-12 17:45 J	2291924.06	2291924.24	2291924.42	0.0516	0.0298
Earth	1562-12-12 19:11 J	2291924.12	2291924.30	2291924.49	0.0516	0.0294 *
Mercury	1567-02-16 14:38 J	2293451.00	2293451.11	2293451.24	0.0491	0.0354
Mercury	1567-05-17 19:40 J	2293541.18	2293541.32	2293541.46	0.0492	0.0316
Venus	1568-03-16 05:31 J	2293844.53	2293844.73	2293844.94	0.0499	0.0063
Earth	1569-06-19 20:09 J	2294305.11	2294305.34	2294305.58	0.0514	0.0084
Moon	1569-06-19 23:45 J	2294305.25	2294305.49	2294305.73	0.0514	0.0081 *
Mercury	1573-01-19 05:02 J	2295614.59	2295614.71	2295614.84	0.0536	0.0060
Venus	1574-01-24 04:19 J	2295984.67	2295984.68	2295984.69	0.0526	0.0524
Earth	1574-12-17 12:28 J	2296311.79	2296312.02	2296312.25	0.0515	0.0034
Moon	1574-12-17 15:21 J	2296311.91	2296312.14	2296312.38	0.0515	0.0005 *
Mars	1577-10-12 09:21 J	2297341.78	2297341.89	2297342.01	0.0489	0.0450
Mercury	1579-03-05 18:14 J	2297851.09	2297851.26	2297851.43	0.0492	0.0150
Venus	1579-11-20 07:11 J	2298110.63	2298110.80	2298110.98	0.0497	0.0249
Moon	1581-06-24 16:33 J	2298693.03	2298693.19	2298693.35	0.0516	0.0384
Earth	1581-06-24 20:09 J	2298693.17	2298693.34	2298693.52	0.0516	0.0354 *
Mercury	1584-11-17 09:21 G	2299924.76	2299924.89	2299925.01	0.0536	0.0087
Mercury	1585-02-14 16:48 G	2300014.17	2300014.20	2300014.24	0.0534	0.0511
Venus	1585-10-08 21:50 G	2300250.22	2300250.41	2300250.61	0.0528	0.0157
Moon	1586-12-31 23:45 G	2300699.29	2300699.49	2300699.70	0.0512	0.0226
Earth	1587-01-01 03:21 G	2300699.43	2300699.64	2300699.85	0.0512	0.0218 *
Mercury	1591-01-01 16:33 G	2302161.01	2302161.19	2302161.37	0.0491	0.0016
Mercury	1596-09-05 13:11 G	2304234.93	2304235.05	2304235.17	0.0536	0.0233
Mercury	1596-12-03 20:52 G	2304324.28	2304324.37	2304324.47	0.0535	0.0371
Venus	1597-06-13 13:55 G	2304515.90	2304516.08	2304516.27	0.0530	0.0223
Earth	1599-01-05 16:04 G	2305087.09	2305087.17	2305087.27	0.0510	0.0463
Moon	1599-01-05 19:40 G	2305087.21	2305087.32	2305087.44	0.0510	0.0433 *

Mercury	1602-10-20 15:21 G	2306470.98	2306471.14	2306471.31	0.0491	0.0176
Venus	1603-12-02 19:26 G	2306879.14	2306879.31	2306879.48	0.0500	0.0263
Mercury	1608-06-24 16:33 G	2308545.10	2308545.19	2308545.28	0.0536	0.0391
Mercury	1608-09-22 00:28 G	2308634.41	2308634.52	2308634.64	0.0535	0.0219
Mars	1613-07-29 03:07 G	2310405.35	2310405.63	2310405.93	0.0489	0.0104
Mercury	1614-08-08 14:09 G	2310780.96	2310781.09	2310781.22	0.0491	0.0336
Mercury	1614-11-06 19:11 G	2310871.17	2310871.30	2310871.44	0.0492	0.0336
Venus	1615-08-07 20:38 G	2311145.15	2311145.36	2311145.56	0.0498	0.0055
Mercury	1620-07-11 04:19 G	2312944.55	2312944.68	2312944.81	0.0535	0.0070
Venus	1621-06-16 13:26 G	2313284.92	2313285.06	2313285.20	0.0527	0.0376
Mercury	1626-08-25 17:02 G	2315181.05	2315181.21	2315181.39	0.0491	0.0164
Venus	1627-04-12 20:38 G	2315411.23	2315411.36	2315411.50	0.0496	0.0371
Moon	1628-06-19 06:57 G	2315844.71	2315844.79	2315844.88	0.0509	0.0469
Earth	1628-06-19 08:52 G	2315844.78	2315844.87	2315844.97	0.0509	0.0464 *
Mars	1631-05-18 14:52 G	2316907.86	2316908.12	2316908.37	0.0538	0.0013
Mercury	1632-04-29 07:55 G	2317254.70	2317254.83	2317254.96	0.0536	0.0084
Mercury	1632-07-27 15:35 G	2317344.12	2317344.15	2317344.18	0.0535	0.0514
Venus	1633-02-19 05:45 G	2317550.54	2317550.74	2317550.95	0.0529	0.0013
Mercury	1638-06-13 15:50 G	2319490.98	2319491.16	2319491.34	0.0491	0.0009
Venus	1639-08-10 06:14 G	2319913.67	2319913.76	2319913.85	0.0501	0.0449
Earth	1640-06-24 06:14 G	2320232.54	2320232.76	2320232.98	0.0511	0.0207
Moon	1640-06-24 09:35 G	2320232.69	2320232.90	2320233.11	0.0511	0.0237 *
Mercury	1644-02-16 11:45 G	2321564.88	2321564.99	2321565.11	0.0537	0.0230
Mercury	1644-05-15 19:40 G	2321654.24	2321654.32	2321654.42	0.0535	0.0376
Venus	1644-10-24 22:19 G	2321816.29	2321816.43	2321816.57	0.0531	0.0379
Earth	1645-12-22 07:55 G	2322239.65	2322239.83	2322240.01	0.0517	0.0318
Moon	1645-12-22 10:48 G	2322239.77	2322239.95	2322240.14	0.0517	0.0312 *
Mercury	1650-04-01 14:09 G	2323800.92	2323801.09	2323801.26	0.0491	0.0166
Venus	1651-04-15 07:26 G	2324179.61	2324179.81	2324180.00	0.0499	0.0133
Moon	1652-06-29 02:24 G	2324620.36	2324620.60	2324620.84	0.0514	0.0060

Earth	1652-06-29 06:14 G	2324620.52	2324620.76	2324620.99	0.0514	0.0056 *
Mercury	1655-12-05 15:50 G	2325875.07	2325875.16	2325875.25	0.0537	0.0376
Mercury	1656-03-04 00:00 G	2325964.38	2325964.50	2325964.61	0.0535	0.0234
Moon	1657-12-26 19:40 G	2326627.10	2326627.32	2326627.55	0.0515	0.0032
Earth	1657-12-26 23:16 G	2326627.24	2326627.47	2326627.70	0.0515	0.0063 *
Mercury	1662-01-18 12:57 G	2328110.91	2328111.04	2328111.18	0.0491	0.0325
Mercury	1662-04-18 18:00 G	2328201.12	2328201.25	2328201.38	0.0492	0.0346
Venus	1662-12-19 09:21 G	2328445.70	2328445.89	2328446.08	0.0497	0.0179
Earth	1664-07-04 06:43 G	2329008.60	2329008.78	2329008.97	0.0515	0.0325
Moon	1664-07-04 09:35 G	2329008.74	2329008.90	2329009.07	0.0515	0.0358 *
Mercury	1667-09-23 18:57 G	2330185.29	2330185.29	2330185.30	0.0537	0.0535
Mercury	1667-12-22 03:35 G	2330274.52	2330274.65	2330274.77	0.0535	0.0083
Venus	1668-10-27 23:02 G	2330585.28	2330585.46	2330585.65	0.0527	0.0228
Earth	1669-12-31 11:16 G	2331014.76	2331014.97	2331015.19	0.0513	0.0183
Moon	1669-12-31 14:38 G	2331014.91	2331015.11	2331015.33	0.0513	0.0182 *
Mercury	1673-11-06 12:00 G	2332420.97	2332421.00	2332421.03	0.0491	0.0483
Mercury	1674-02-04 16:19 G	2332511.02	2332511.18	2332511.35	0.0492	0.0180
Venus	1674-08-24 11:31 G	2332711.95	2332711.98	2332712.02	0.0496	0.0488
Mercury	1679-10-10 07:11 G	2334584.67	2334584.80	2334584.92	0.0536	0.0073
Mercury	1680-01-07 14:38 G	2334674.09	2334674.11	2334674.13	0.0534	0.0525
Venus	1680-07-02 14:38 G	2334850.92	2334851.11	2334851.30	0.0530	0.0154
Moon	1682-01-04 22:33 G	2335402.30	2335402.44	2335402.60	0.0511	0.0397
Earth	1682-01-05 01:26 G	2335402.44	2335402.56	2335402.68	0.0511	0.0431 *
Mercury	1685-11-23 14:38 G	2336820.93	2336821.11	2336821.29	0.0491	0.0012
Venus	1686-12-21 18:43 G	2337214.13	2337214.28	2337214.44	0.0500	0.0323
Mercury	1691-07-29 10:19 G	2338894.82	2338894.93	2338895.05	0.0537	0.0230
Mercury	1691-10-26 18:14 G	2338984.17	2338984.26	2338984.35	0.0535	0.0377
Mercury	1697-09-11 13:11 G	2341130.88	2341131.05	2341131.22	0.0491	0.0151
Venus	1698-08-26 20:09 G	2341480.13	2341480.34	2341480.54	0.0498	0.0010
Mercury	1703-05-18 14:09 G	2343205.00	2343205.09	2343205.19	0.0537	0.0377

Mercury	1703-08-15 22:33 G	2343294.32	2343294.44	2343294.55	0.0536	0.0236
Venus	1704-07-06 16:04 G	2343620.08	2343620.17	2343620.28	0.0527	0.0456
Mercury	1709-07-01 11:31 G	2345440.85	2345440.98	2345441.12	0.0491	0.0316
Mercury	1709-09-29 16:19 G	2345531.06	2345531.18	2345531.31	0.0492	0.0354
Venus	1710-05-02 21:35 G	2345746.24	2345746.40	2345746.56	0.0496	0.0307
Earth	1711-06-20 17:45 G	2346160.18	2346160.24	2346160.30	0.0509	0.0492
Moon	1711-06-20 20:52 G	2346160.33	2346160.37	2346160.41	0.0509	0.0501
Mercury	1715-03-06 18:00 G	2347515.23	2347515.25	2347515.28	0.0537	0.0525
Mercury	1715-06-04 02:38 G	2347604.48	2347604.61	2347604.73	0.0536	0.0093
Venus	1716-03-11 09:07 G	2347885.68	2347885.88	2347886.08	0.0529	0.0081
Mercury	1721-04-19 10:33 G	2349750.90	2349750.94	2349750.98	0.0490	0.0474
Mercury	1721-07-18 14:52 G	2349840.96	2349841.12	2349841.29	0.0492	0.0188
Moon	1723-06-25 12:00 G	2350547.81	2350548.00	2350548.21	0.0511	0.0266
Earth	1723-06-25 15:50 G	2350547.96	2350548.16	2350548.38	0.0511	0.0236 *
Mercury	1727-03-23 06:00 G	2351914.62	2351914.75	2351914.88	0.0536	0.0063
Mercury	1727-06-20 13:40 G	2352004.07	2352004.07	2352004.07	0.0534	0.0534
Venus	1727-11-14 23:16 G	2352151.31	2352151.47	2352151.63	0.0530	0.0309
Moon	1728-12-22 11:02 G	2352554.80	2352554.96	2352555.13	0.0517	0.0347
Earth	1728-12-22 14:24 G	2352554.94	2352555.10	2352555.28	0.0517	0.0355 *
Mars	1732-01-17 20:38 G	2353676.12	2353676.36	2353676.61	0.0489	0.0269
Mercury	1733-05-06 13:26 G	2354150.88	2354151.06	2354151.24	0.0491	0.0024
Venus	1734-05-05 08:52 G	2354514.68	2354514.87	2354515.05	0.0499	0.0201
Earth	1735-06-30 13:40 G	2354935.83	2354936.07	2354936.31	0.0513	0.0024
Moon	1735-06-30 16:48 G	2354935.97	2354936.20	2354936.43	0.0513	0.0038 *
Mercury	1739-01-09 09:35 G	2356224.78	2356224.90	2356225.02	0.0536	0.0216
Mercury	1739-04-08 17:16 G	2356314.14	2356314.22	2356314.31	0.0535	0.0388
Earth	1740-12-27 06:00 G	2356942.53	2356942.75	2356942.98	0.0515	0.0099
Moon	1740-12-27 09:21 G	2356942.67	2356942.89	2356943.12	0.0515	0.0071 *
Mercury	1745-02-22 12:00 G	2358460.83	2358461.00	2358461.17	0.0491	0.0142
Venus	1746-01-08 08:52 G	2358780.67	2358780.87	2358781.07	0.0497	0.0120

Moon	1747-07-05 05:31 G	2359323.54	2359323.73	2359323.93	0.0514	0.0305
Earth	1747-07-05 07:40 G	2359323.62	2359323.82	2359324.02	0.0514	0.0275 *
Mars	1749-11-07 16:19 G	2360180.02	2360180.18	2360180.34	0.0538	0.0410
Mercury	1750-10-28 12:28 G	2360534.93	2360535.02	2360535.12	0.0537	0.0380
Mercury	1751-01-25 20:52 G	2360624.25	2360624.37	2360624.48	0.0536	0.0233
Venus	1751-11-17 23:31 G	2360920.31	2360920.48	2360920.64	0.0528	0.0298
Moon	1752-12-31 18:43 G	2361330.05	2361330.28	2361330.50	0.0514	0.0144
Earth	1752-12-31 21:21 G	2361330.17	2361330.39	2361330.61	0.0514	0.0153 *
Mercury	1756-12-11 10:33 G	2362770.81	2362770.94	2362771.08	0.0490	0.0303
Mercury	1757-03-11 15:35 G	2362861.03	2362861.15	2362861.27	0.0492	0.0366
Venus	1757-09-13 10:48 G	2363046.86	2363046.95	2363047.06	0.0495	0.0430
Mercury	1762-08-16 16:19 G	2364845.16	2364845.18	2364845.20	0.0538	0.0530
Mercury	1762-11-14 00:57 G	2364934.41	2364934.54	2364934.66	0.0536	0.0090
Venus	1763-07-23 15:50 G	2365185.96	2365186.16	2365186.36	0.0530	0.0081
Earth	1765-01-05 11:16 G	2365717.83	2365717.97	2365718.11	0.0511	0.0398
Moon	1765-01-05 12:28 G	2365717.87	2365718.02	2365718.18	0.0511	0.0368 *
Mars	1767-10-24 15:07 G	2366739.90	2366740.13	2366740.38	0.0489	0.0290
Mercury	1768-09-29 08:52 G	2367080.83	2367080.87	2367080.93	0.0490	0.0468
Mercury	1768-12-28 13:11 G	2367170.89	2367171.05	2367171.22	0.0491	0.0194
Venus	1770-01-10 18:57 G	2367549.16	2367549.29	2367549.42	0.0500	0.0386
Mercury	1774-09-02 05:02 G	2369244.58	2369244.71	2369244.83	0.0536	0.0058
Venus	1775-03-28 07:26 G	2369451.72	2369451.81	2369451.92	0.0532	0.0466
Mercury	1780-10-16 11:45 G	2371480.81	2371480.99	2371481.17	0.0491	0.0028
Venus	1781-09-15 20:24 G	2371815.15	2371815.35	2371815.55	0.0498	0.0069
Mars	1785-08-13 06:14 G	2373242.53	2373242.76	2373243.00	0.0538	0.0204
Mercury	1786-06-21 08:24 G	2373554.73	2373554.85	2373554.97	0.0536	0.0210
Mercury	1786-09-18 16:19 G	2373644.09	2373644.18	2373644.26	0.0535	0.0393
Venus	1787-07-26 16:04 G	2373955.14	2373955.17	2373955.19	0.0526	0.0521
Mercury	1792-08-04 10:19 G	2375790.76	2375790.93	2375791.10	0.0491	0.0136
Venus	1793-05-21 22:04 G	2376081.24	2376081.42	2376081.60	0.0497	0.0245

Mercury	1798-04-09 11:45 G	2377864.89	2377864.99	2377865.08	0.0537	0.0368
Mercury	1798-07-07 19:55 G	2377954.21	2377954.33	2377954.44	0.0535	0.0243
Venus	1799-03-31 07:40 G	2378220.63	2378220.82	2378221.02	0.0529	0.0142
Mercury	1804-05-24 09:07 G	2380100.74	2380100.88	2380101.02	0.0490	0.0296
Mercury	1804-08-22 13:55 G	2380190.96	2380191.08	2380191.20	0.0492	0.0372
Earth	1806-06-25 17:02 G	2380863.02	2380863.21	2380863.42	0.0510	0.0282
Moon	1806-06-25 20:38 G	2380863.18	2380863.36	2380863.55	0.0510	0.0307 *
Mercury	1810-01-27 14:24 G	2382175.10	2382175.10	2382175.11	0.0537	0.0536
Mercury	1810-04-26 23:02 G	2382264.33	2382264.46	2382264.59	0.0536	0.0084
Venus	1810-12-04 21:21 G	2382486.22	2382486.39	2382486.57	0.0531	0.0250
Earth	1811-12-23 20:24 G	2382870.21	2382870.35	2382870.50	0.0518	0.0396
Moon	1811-12-24 00:00 G	2382870.35	2382870.50	2382870.66	0.0518	0.0377 *
Mercury	1816-03-12 07:40 G	2384410.77	2384410.82	2384410.89	0.0490	0.0456
Mercury	1816-06-10 12:00 G	2384500.84	2384501.00	2384501.17	0.0491	0.0204
Venus	1817-05-25 06:57 G	2384849.62	2384849.79	2384849.97	0.0499	0.0256
Moon	1818-06-30 11:16 G	2385250.73	2385250.97	2385251.22	0.0512	0.0013
Earth	1818-06-30 13:40 G	2385250.83	2385251.07	2385251.31	0.0512	0.0027 *
Mercury	1822-02-13 02:52 G	2386574.49	2386574.62	2386574.75	0.0537	0.0064
Moon	1823-12-28 10:04 G	2387257.69	2387257.92	2387258.15	0.0516	0.0113
Earth	1823-12-28 12:57 G	2387257.82	2387258.04	2387258.26	0.0516	0.0140 *
Mercury	1828-03-29 09:50 G	2388810.73	2388810.91	2388811.09	0.0491	0.0031
Venus	1829-01-28 07:26 G	2389115.61	2389115.81	2389116.02	0.0497	0.0064
Earth	1830-07-05 11:45 G	2389638.78	2389638.99	2389639.20	0.0514	0.0232
Moon	1830-07-05 12:14 G	2389638.82	2389639.01	2389639.21	0.0514	0.0262 *
Mercury	1833-12-02 06:57 G	2390884.67	2390884.79	2390884.91	0.0537	0.0210
Mercury	1834-03-01 14:52 G	2390974.03	2390974.12	2390974.20	0.0535	0.0396
Venus	1834-12-08 00:28 G	2391255.37	2391255.52	2391255.66	0.0528	0.0370
Earth	1836-01-02 04:04 G	2391645.44	2391645.67	2391645.89	0.0514	0.0113
Moon	1836-01-02 05:16 G	2391645.51	2391645.72	2391645.94	0.0514	0.0102 *
Mercury	1840-01-16 08:24 G	2393120.68	2393120.85	2393121.02	0.0491	0.0134

Venus	1840-10-03 09:35 G	2393381.77	2393381.90	2393382.04	0.0496	0.0375
Earth	1842-07-10 12:28 G	2394026.96	2394027.02	2394027.07	0.0516	0.0500
Moon	1842-07-10 14:09 G	2394027.02	2394027.09	2394027.18	0.0516	0.0484 *
Mercury	1845-09-20 10:19 G	2395194.83	2395194.93	2395195.02	0.0537	0.0366
Mercury	1845-12-18 18:28 G	2395284.16	2395284.27	2395284.38	0.0535	0.0245
Venus	1846-08-12 15:07 G	2395520.93	2395521.13	2395521.33	0.0529	0.0018
Moon	1848-01-06 15:21 G	2396032.97	2396033.14	2396033.33	0.0512	0.0324
Earth	1848-01-06 15:21 G	2396032.98	2396033.14	2396033.31	0.0512	0.0354 *
Mercury	1851-11-04 06:57 G	2397430.65	2397430.79	2397430.94	0.0491	0.0296
Mercury	1852-02-02 11:45 G	2397520.88	2397520.99	2397521.11	0.0492	0.0374
Venus	1853-01-30 18:28 G	2397884.19	2397884.27	2397884.36	0.0500	0.0448
Mercury	1857-07-09 13:26 G	2399505.04	2399505.06	2399505.09	0.0537	0.0526
Mercury	1857-10-06 22:04 G	2399594.29	2399594.42	2399594.55	0.0536	0.0092
Venus	1858-04-17 05:16 G	2399786.59	2399786.72	2399786.85	0.0531	0.0410
Mercury	1863-08-23 06:00 G	2401740.69	2401740.75	2401740.82	0.0490	0.0453
Mercury	1863-11-21 10:04 G	2401830.76	2401830.92	2401831.09	0.0491	0.0208
Venus	1864-10-05 18:57 G	2402150.09	2402150.29	2402150.48	0.0498	0.0127
Mercury	1869-07-26 00:57 G	2403904.41	2403904.54	2403904.67	0.0537	0.0072
Mercury	1869-10-23 08:38 G	2403993.85	2403993.86	2403993.88	0.0535	0.0528
Mercury	1875-09-09 08:24 G	2406140.68	2406140.85	2406141.03	0.0491	0.0041
Venus	1876-06-10 19:55 G	2406416.15	2406416.33	2406416.52	0.0496	0.0191
Mercury	1881-05-14 04:33 G	2408214.58	2408214.69	2408214.81	0.0537	0.0223
Mercury	1881-08-11 12:43 G	2408303.94	2408304.03	2408304.12	0.0535	0.0385
Venus	1882-04-20 05:45 G	2408555.55	2408555.74	2408555.92	0.0529	0.0203
Mars	1886-04-13 19:11 G	2410010.02	2410010.30	2410010.60	0.0489	0.0112
Mercury	1887-06-28 06:14 G	2410450.59	2410450.76	2410450.93	0.0491	0.0135
Moon	1889-06-24 16:33 G	2411178.01	2411178.19	2411178.37	0.0510	0.0352
Earth	1889-06-24 19:11 G	2411178.12	2411178.30	2411178.48	0.0510	0.0327 *
Mercury	1893-03-02 08:38 G	2412524.76	2412524.86	2412524.95	0.0537	0.0370
Mercury	1893-05-30 16:48 G	2412614.09	2412614.20	2412614.32	0.0536	0.0244

Venus	1893-12-23 21:50 G	2412821.22	2412821.41	2412821.60	0.0531	0.0181
Moon	1894-12-22 22:33 G	2413185.31	2413185.44	2413185.59	0.0519	0.0415
Earth	1894-12-23 01:26 G	2413185.45	2413185.56	2413185.69	0.0519	0.0438 *
Mercury	1899-04-16 04:48 G	2414760.56	2414760.70	2414760.84	0.0490	0.0298
Mercury	1899-07-15 09:35 G	2414850.78	2414850.90	2414851.02	0.0492	0.0371
Venus	1900-06-14 04:48 G	2415184.54	2415184.70	2415184.86	0.0499	0.0311
Earth	1901-06-30 17:02 G	2415565.97	2415566.21	2415566.44	0.0512	0.0072
Moon	1901-06-30 18:00 G	2415566.02	2415566.25	2415566.48	0.0512	0.0054 *
Mars	1904-02-03 20:09 G	2416514.12	2416514.34	2416514.57	0.0538	0.0250
Mercury	1904-12-20 11:45 G	2416834.98	2416834.99	2416835.02	0.0537	0.0527
Mercury	1905-03-19 20:24 G	2416924.23	2416924.35	2416924.48	0.0536	0.0092
Earth	1906-12-28 15:07 G	2417572.92	2417573.13	2417573.35	0.0516	0.0187
Moon	1906-12-28 16:33 G	2417572.99	2417573.19	2417573.41	0.0516	0.0163 *
Mercury	1911-02-03 03:35 G	2419070.59	2419070.65	2419070.71	0.0490	0.0458
Mercury	1911-05-04 07:55 G	2419160.66	2419160.83	2419160.99	0.0492	0.0203
Venus	1912-02-18 06:14 G	2419450.55	2419450.76	2419450.96	0.0497	0.0013
Earth	1913-07-05 14:38 G	2419953.90	2419954.11	2419954.34	0.0514	0.0189
Moon	1913-07-05 15:50 G	2419953.94	2419954.16	2419954.39	0.0514	0.0213 *
Mercury	1917-01-06 00:00 G	2421234.37	2421234.50	2421234.62	0.0536	0.0067
Mercury	1917-04-05 07:26 G	2421323.81	2421323.81	2421323.82	0.0534	0.0534
Venus	1917-12-27 20:52 G	2421590.25	2421590.37	2421590.49	0.0527	0.0421
Moon	1919-01-02 05:02 G	2421960.47	2421960.71	2421960.95	0.0515	0.0048
Earth	1919-01-02 05:02 G	2421960.49	2421960.71	2421960.94	0.0515	0.0063 *
Mars	1922-01-19 10:48 G	2423073.84	2423073.95	2423074.08	0.0489	0.0444
Mercury	1923-02-20 06:28 G	2423470.59	2423470.77	2423470.95	0.0491	0.0040
Venus	1923-10-24 07:40 G	2423716.67	2423716.82	2423716.98	0.0495	0.0321
Moon	1925-07-10 06:57 G	2424341.66	2424341.79	2424341.92	0.0515	0.0420
Earth	1925-07-10 10:04 G	2424341.80	2424341.92	2424342.05	0.0515	0.0440 *
Mercury	1928-10-25 02:38 G	2425544.49	2425544.61	2425544.73	0.0537	0.0232
Mercury	1929-01-22 10:33 G	2425633.85	2425633.94	2425634.04	0.0535	0.0375

Venus	1929-09-01 10:19 G	2425855.73	2425855.93	2425856.14	0.0530	0.0032
Moon	1931-01-06 15:50 G	2426347.98	2426348.16	2426348.35	0.0513	0.0279
Earth	1931-01-06 17:45 G	2426348.05	2426348.24	2426348.42	0.0513	0.0304 *
Mercury	1934-12-09 04:48 G	2427780.52	2427780.70	2427780.87	0.0490	0.0128
Venus	1936-02-20 15:21 G	2428219.14	2428219.14	2428219.15	0.0500	0.0500
Mars	1939-11-08 11:45 G	2429575.80	2429575.99	2429576.20	0.0538	0.0319
Mercury	1940-08-13 06:14 G	2429854.67	2429854.76	2429854.85	0.0537	0.0386
Mercury	1940-11-10 14:38 G	2429943.99	2429944.11	2429944.22	0.0536	0.0229
Venus	1941-05-07 01:26 G	2430121.41	2430121.56	2430121.71	0.0532	0.0359
Mercury	1946-09-27 02:24 G	2432090.46	2432090.60	2432090.74	0.0490	0.0302
Mercury	1946-12-26 06:57 G	2432180.68	2432180.79	2432180.92	0.0492	0.0366
Venus	1947-10-26 14:52 G	2432484.93	2432485.12	2432485.31	0.0498	0.0173
Mercury	1952-06-01 09:50 G	2434164.91	2434164.91	2434164.92	0.0538	0.0535
Mercury	1952-08-29 18:28 G	2434254.15	2434254.27	2434254.40	0.0536	0.0087
Mercury	1958-07-16 00:57 G	2436400.49	2436400.54	2436400.60	0.0490	0.0463
Mercury	1958-10-14 05:16 G	2436490.55	2436490.72	2436490.88	0.0491	0.0196
Venus	1959-07-01 16:19 G	2436750.98	2436751.18	2436751.37	0.0497	0.0145
Mercury	1964-06-17 22:04 G	2438564.30	2438564.42	2438564.55	0.0536	0.0070
Mercury	1964-09-15 05:45 G	2438653.73	2438653.74	2438653.76	0.0535	0.0531
Venus	1965-05-10 03:21 G	2438890.47	2438890.64	2438890.82	0.0528	0.0260
Mercury	1970-08-02 03:35 G	2440800.47	2440800.65	2440800.83	0.0491	0.0030
Venus	1971-03-06 18:28 G	2441017.20	2441017.27	2441017.35	0.0495	0.0455
Earth	1972-06-24 21:21 G	2441493.24	2441493.39	2441493.56	0.0509	0.0369
Moon	1972-06-24 23:02 G	2441493.31	2441493.46	2441493.60	0.0509	0.0392 *
Mercury	1976-04-06 01:26 G	2442874.44	2442874.56	2442874.68	0.0536	0.0226
Mercury	1976-07-04 09:21 G	2442963.81	2442963.89	2442963.98	0.0535	0.0381
Venus	1977-01-12 17:45 G	2443156.04	2443156.24	2443156.43	0.0530	0.0132
Earth	1977-12-23 00:14 G	2443500.45	2443500.51	2443500.59	0.0519	0.0493
Moon	1977-12-23 02:09 G	2443500.50	2443500.59	2443500.69	0.0519	0.0467 *
Mercury	1982-05-21 02:24 G	2445110.43	2445110.60	2445110.77	0.0491	0.0132

Venus	1983-07-04 02:09 G	2445519.46	2445519.59	2445519.73	0.0499	0.0365
Earth	1984-06-29 16:04 G	2445880.94	2445881.17	2445881.40	0.0510	0.0125
Moon	1984-06-29 16:33 G	2445880.95	2445881.19	2445881.43	0.0510	0.0105 *
Mercury	1988-01-24 04:04 G	2447184.58	2447184.67	2447184.76	0.0537	0.0397
Mercury	1988-04-22 12:28 G	2447273.90	2447274.02	2447274.14	0.0536	0.0218
Moon	1989-12-27 13:26 G	2447887.85	2447888.06	2447888.28	0.0518	0.0222
Earth	1989-12-27 13:55 G	2447887.89	2447888.08	2447888.29	0.0518	0.0247 *
Mercury	1994-03-09 00:43 G	2449420.39	2449420.53	2449420.68	0.0490	0.0296
Mercury	1994-06-07 05:16 G	2449510.61	2449510.72	2449510.85	0.0491	0.0372
Venus	1995-03-09 02:52 G	2449785.41	2449785.62	2449785.82	0.0497	0.0043
Moon	1996-07-04 08:52 G	2450268.65	2450268.87	2450269.09	0.0512	0.0148
Earth	1996-07-04 11:31 G	2450268.75	2450268.98	2450269.21	0.0512	0.0128 *
Mercury	2000-02-09 16:04 G	2451584.05	2451584.17	2451584.30	0.0536	0.0070

3RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 3rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	2001-01-15 16:19 G		2451925.09	2451925.18	2451925.27	0.0528	0.0472	
Moon	2002-01-01 04:19 G		2452275.46	2452275.68	2452275.90	0.0516	0.0013	
Earth	2002-01-01 05:45 G		2452275.51	2452275.74	2452275.97	0.0516	0.0007	*
Mercury	2005-12-25 22:33 G		2453730.39	2453730.44	2453730.49	0.0490	0.0469	
Mercury	2006-03-26 02:38 G		2453820.44	2453820.61	2453820.78	0.0491	0.0189	
Venus	2006-11-12 02:24 G		2454051.44	2454051.60	2454051.77	0.0496	0.0281	

Earth	2008-07-09 07:26 G	2454656.65	2454656.81	2454656.97	0.0515	0.0382
Moon	2008-07-09 11:31 G	2454656.81	2454656.98	2454657.15	0.0515	0.0357 *
Mercury	2011-11-28 20:09 G	2455894.21	2455894.34	2455894.47	0.0537	0.0077
Mercury	2012-02-26 03:50 G	2455983.64	2455983.66	2455983.69	0.0535	0.0524
Venus	2012-09-20 09:21 G	2456190.69	2456190.89	2456191.09	0.0530	0.0094
Earth	2014-01-05 20:52 G	2456663.18	2456663.37	2456663.57	0.0513	0.0256
Moon	2014-01-06 00:14 G	2456663.30	2456663.51	2456663.72	0.0513	0.0235 *
Mercury	2018-01-12 00:57 G	2458130.36	2458130.54	2458130.72	0.0491	0.0022
Mercury	2023-09-16 23:45 G	2460204.37	2460204.49	2460204.61	0.0537	0.0230
Mercury	2023-12-15 07:40 G	2460293.73	2460293.82	2460293.91	0.0535	0.0377
Venus	2024-05-25 23:31 G	2460456.32	2460456.48	2460456.65	0.0531	0.0300
Moon	2026-01-10 04:33 G	2461050.68	2461050.69	2461050.70	0.0511	0.0510
Earth	2026-01-10 08:24 G	2461050.80	2461050.85	2461050.91	0.0511	0.0493
Mercury	2029-10-30 23:31 G	2462440.31	2462440.48	2462440.65	0.0491	0.0143
Venus	2030-11-14 12:14 G	2462819.83	2462820.01	2462820.19	0.0498	0.0225
Mercury	2035-07-06 02:52 G	2464514.53	2464514.62	2464514.71	0.0537	0.0390
Mercury	2035-10-03 11:16 G	2464603.85	2464603.97	2464604.09	0.0535	0.0224
Mars	2040-07-08 02:38 G	2466343.32	2466343.61	2466343.91	0.0489	0.0017
Mercury	2041-08-18 22:19 G	2466750.29	2466750.43	2466750.57	0.0490	0.0301
Mercury	2041-11-17 02:52 G	2466840.50	2466840.62	2466840.74	0.0492	0.0366
Venus	2042-07-20 13:40 G	2467085.87	2467086.07	2467086.27	0.0496	0.0092
Mercury	2047-07-22 14:09 G	2468913.96	2468914.09	2468914.22	0.0536	0.0059
Venus	2048-05-28 21:07 G	2469225.22	2469225.38	2469225.55	0.0529	0.0302
Mercury	2053-06-06 20:52 G	2471060.32	2471060.37	2471060.43	0.0490	0.0463
Mercury	2053-09-05 00:57 G	2471150.38	2471150.54	2471150.71	0.0491	0.0195
Venus	2054-03-25 15:07 G	2471352.02	2471352.13	2471352.25	0.0495	0.0407
Moon	2055-06-24 19:26 G	2471808.19	2471808.31	2471808.43	0.0508	0.0440
Earth	2055-06-24 19:26 G	2471808.19	2471808.31	2471808.45	0.0508	0.0422 *
Mars	2058-04-28 20:24 G	2472847.11	2472847.35	2472847.59	0.0538	0.0160
Mercury	2059-05-10 17:45 G	2473224.11	2473224.24	2473224.37	0.0537	0.0094

Mercury	2059-08-08 01:26 G	2473313.53	2473313.56	2473313.60	0.0535	0.0508
Venus	2060-02-01 12:28 G	2473490.82	2473491.02	2473491.22	0.0531	0.0086
Mercury	2065-06-23 22:19 G	2475460.25	2475460.43	2475460.61	0.0491	0.0015
Venus	2066-07-22 20:24 G	2475854.24	2475854.35	2475854.47	0.0499	0.0405
Moon	2067-06-29 10:04 G	2476195.71	2476195.92	2476196.14	0.0510	0.0160
Earth	2067-06-29 12:14 G	2476195.79	2476196.01	2476196.23	0.0510	0.0182 *
Mercury	2071-02-26 21:35 G	2477534.29	2477534.40	2477534.52	0.0537	0.0241
Mercury	2071-05-27 05:45 G	2477623.65	2477623.74	2477623.83	0.0536	0.0368
Venus	2071-10-07 04:19 G	2477756.60	2477756.68	2477756.78	0.0532	0.0475
Moon	2072-12-26 16:19 G	2478203.00	2478203.18	2478203.37	0.0518	0.0274
Earth	2072-12-26 17:31 G	2478203.04	2478203.23	2478203.42	0.0518	0.0292 *
Mercury	2077-04-11 20:38 G	2479770.19	2479770.36	2479770.53	0.0490	0.0151
Venus	2078-03-27 21:50 G	2480120.20	2480120.41	2480120.61	0.0497	0.0084
Earth	2079-07-04 09:50 G	2480583.68	2480583.91	2480584.15	0.0512	0.0074
Moon	2079-07-04 13:40 G	2480583.84	2480584.07	2480584.31	0.0512	0.0091 *
Mercury	2082-12-16 01:11 G	2481844.46	2481844.55	2481844.64	0.0537	0.0395
Mercury	2083-03-15 09:35 G	2481933.78	2481933.90	2481934.02	0.0536	0.0220
Earth	2084-12-31 07:26 G	2482590.58	2482590.81	2482591.04	0.0516	0.0042
Moon	2084-12-31 10:33 G	2482590.70	2482590.94	2482591.17	0.0516	0.0067 *
Mercury	2089-01-28 19:11 G	2484080.17	2484080.30	2484080.44	0.0490	0.0314
Mercury	2089-04-29 00:00 G	2484170.37	2484170.50	2484170.62	0.0492	0.0354
Venus	2089-11-30 23:31 G	2484386.30	2484386.48	2484386.66	0.0496	0.0232
Moon	2091-07-09 04:33 G	2484971.51	2484971.69	2484971.89	0.0514	0.0309
Earth	2091-07-09 08:52 G	2484971.69	2484971.87	2484972.05	0.0514	0.0335 *
Mars	2094-02-01 03:50 G	2485909.54	2485909.66	2485909.81	0.0538	0.0449
Mercury	2095-01-01 12:57 G	2486243.91	2486244.04	2486244.17	0.0536	0.0067
Venus	2095-10-10 05:16 G	2486525.53	2486525.72	2486525.92	0.0529	0.0144
Moon	2097-01-04 16:48 G	2486977.99	2486978.20	2486978.42	0.0514	0.0180
Earth	2097-01-04 20:38 G	2486978.15	2486978.36	2486978.57	0.0514	0.0203 *
Mercury	2100-11-17 18:28 G	2488390.22	2488390.27	2488390.32	0.0490	0.0469

Mercury	2101-02-15 22:33 G	2488480.27	2488480.44	2488480.60	0.0491	0.0190
Mercury	2106-10-21 15:50 G	2490554.03	2490554.16	2490554.29	0.0536	0.0101
Mercury	2107-01-18 23:31 G	2490643.44	2490643.48	2490643.53	0.0535	0.0501
Venus	2107-06-15 17:31 G	2490791.05	2490791.23	2490791.40	0.0531	0.0260
Earth	2109-01-10 07:26 G	2491365.70	2491365.81	2491365.93	0.0512	0.0436
Moon	2109-01-10 11:16 G	2491365.88	2491365.97	2491366.08	0.0512	0.0457 *
Mercury	2112-12-04 20:38 G	2492790.18	2492790.36	2492790.54	0.0491	0.0024
Venus	2113-12-04 08:52 G	2493154.70	2493154.87	2493155.04	0.0498	0.0275
Mercury	2118-08-09 19:11 G	2494864.19	2494864.30	2494864.42	0.0537	0.0257
Mercury	2118-11-07 03:21 G	2494953.55	2494953.64	2494953.74	0.0535	0.0354
Mercury	2124-09-22 18:14 G	2497100.09	2497100.26	2497100.43	0.0490	0.0158
Venus	2125-08-09 07:40 G	2497420.62	2497420.82	2497421.03	0.0496	0.0056
Mercury	2130-05-28 23:02 G	2499174.38	2499174.46	2499174.55	0.0537	0.0405
Mercury	2130-08-26 07:40 G	2499263.70	2499263.82	2499263.94	0.0536	0.0212
Venus	2131-06-18 20:24 G	2499560.21	2499560.35	2499560.50	0.0529	0.0367
Mercury	2136-07-11 16:48 G	2501410.07	2501410.20	2501410.34	0.0490	0.0319
Mercury	2136-10-09 21:07 G	2501500.26	2501500.38	2501500.51	0.0491	0.0347
Venus	2137-04-14 09:50 G	2501686.78	2501686.91	2501687.05	0.0495	0.0369
Moon	2138-06-24 16:19 G	2502123.13	2502123.18	2502123.25	0.0508	0.0488
Earth	2138-06-24 17:45 G	2502123.16	2502123.24	2502123.33	0.0508	0.0472 *
Mercury	2142-06-14 11:31 G	2503573.85	2503573.98	2503574.10	0.0536	0.0065
Venus	2143-02-21 11:45 G	2503825.79	2503825.99	2503826.20	0.0530	0.0025
Mercury	2148-04-29 15:35 G	2505720.12	2505720.15	2505720.19	0.0490	0.0479
Mercury	2148-07-28 19:40 G	2505810.15	2505810.32	2505810.49	0.0491	0.0179
Venus	2149-08-11 18:14 G	2506189.19	2506189.26	2506189.34	0.0500	0.0459
Earth	2150-06-29 14:38 G	2506510.90	2506511.11	2506511.33	0.0510	0.0224
Moon	2150-06-29 18:14 G	2506511.04	2506511.26	2506511.49	0.0510	0.0193 *
Mercury	2154-04-02 14:52 G	2507883.99	2507884.12	2507884.25	0.0536	0.0092
Mercury	2154-06-30 22:33 G	2507973.41	2507973.44	2507973.48	0.0535	0.0510
Venus	2154-10-27 01:40 G	2508091.45	2508091.57	2508091.70	0.0532	0.0420

Earth	2155-12-27 17:45 G	2508518.07	2508518.24	2508518.41	0.0518	0.0342
Moon	2155-12-27 20:24 G	2508518.17	2508518.35	2508518.54	0.0518	0.0330 *
Mars	2158-12-26 14:52 G	2509612.99	2509613.12	2509613.27	0.0490	0.0429
Mercury	2160-05-16 18:28 G	2510120.09	2510120.27	2510120.44	0.0491	0.0021
Venus	2161-04-16 19:55 G	2510455.14	2510455.33	2510455.53	0.0498	0.0140
Moon	2162-07-04 07:26 G	2510898.57	2510898.81	2510899.05	0.0511	0.0042
Earth	2162-07-04 11:31 G	2510898.75	2510898.98	2510899.22	0.0511	0.0027 *
Mercury	2166-01-19 17:31 G	2512194.12	2512194.23	2512194.35	0.0537	0.0260
Mercury	2166-04-19 01:40 G	2512283.48	2512283.57	2512283.67	0.0535	0.0350
Moon	2168-01-01 02:38 G	2512905.39	2512905.61	2512905.83	0.0517	0.0129
Earth	2168-01-01 06:14 G	2512905.54	2512905.76	2512905.99	0.0517	0.0100 *
Mercury	2172-03-04 16:48 G	2514430.03	2514430.20	2514430.37	0.0491	0.0149
Venus	2172-12-20 20:52 G	2514721.19	2514721.37	2514721.57	0.0496	0.0181
Earth	2174-07-09 07:26 G	2515286.62	2515286.81	2515287.01	0.0513	0.0279
Moon	2174-07-09 11:16 G	2515286.77	2515286.97	2515287.17	0.0513	0.0255 *
Mercury	2177-11-07 20:52 G	2516504.29	2516504.37	2516504.46	0.0537	0.0417
Mercury	2178-02-05 05:31 G	2516593.61	2516593.73	2516593.85	0.0536	0.0200
Venus	2178-10-30 01:11 G	2516860.36	2516860.55	2516860.74	0.0529	0.0194
Earth	2180-01-05 21:50 G	2517293.19	2517293.41	2517293.63	0.0515	0.0149
Moon	2180-01-06 01:40 G	2517293.35	2517293.57	2517293.79	0.0515	0.0130 *
Mercury	2183-12-22 14:24 G	2518739.97	2518740.10	2518740.24	0.0490	0.0324
Mercury	2184-03-21 18:43 G	2518830.16	2518830.28	2518830.41	0.0491	0.0341
Moon	2186-07-13 23:45 G	2519674.45	2519674.49	2519674.54	0.0516	0.0506
Mercury	2189-11-24 09:35 G	2520903.77	2520903.90	2520904.03	0.0537	0.0057
Venus	2190-07-04 17:31 G	2521126.04	2521126.23	2521126.42	0.0532	0.0193
Moon	2192-01-10 10:33 G	2521680.81	2521680.94	2521681.08	0.0512	0.0415
Earth	2192-01-10 13:55 G	2521680.94	2521681.08	2521681.23	0.0512	0.0397 *
Mars	2194-10-02 06:28 G	2522676.49	2522676.77	2522677.06	0.0489	0.0126
Mercury	2195-10-10 13:26 G	2523050.03	2523050.06	2523050.09	0.0490	0.0482
Mercury	2196-01-08 17:16 G	2523140.05	2523140.22	2523140.39	0.0491	0.0174

Venus	2196-12-23 04:04 G	2523489.52	2523489.67	2523489.83	0.0498	0.0318
Mercury	2201-09-13 13:26 G	2525213.93	2525214.06	2525214.18	0.0537	0.0093
Mercury	2201-12-11 21:07 G	2525303.35	2525303.38	2525303.42	0.0535	0.0510
Mercury	2207-10-28 15:35 G	2527449.98	2527450.15	2527450.33	0.0491	0.0016
Venus	2208-08-29 06:00 G	2527755.55	2527755.75	2527755.96	0.0497	0.0005
Mars	2212-07-24 19:40 G	2529181.07	2529181.32	2529181.57	0.0538	0.0016
Mercury	2213-07-02 16:48 G	2529524.08	2529524.20	2529524.32	0.0537	0.0247
Mercury	2213-09-30 00:57 G	2529613.45	2529613.54	2529613.63	0.0535	0.0362
Venus	2214-07-08 18:43 G	2529895.16	2529895.28	2529895.40	0.0528	0.0425
Mercury	2219-08-16 14:38 G	2531759.94	2531760.11	2531760.28	0.0491	0.0150
Venus	2220-05-04 08:52 G	2532021.71	2532021.87	2532022.02	0.0495	0.0313
Mercury	2225-04-20 19:26 G	2533834.23	2533834.31	2533834.40	0.0537	0.0415
Mercury	2225-07-19 04:04 G	2533923.55	2533923.67	2533923.79	0.0536	0.0201
Venus	2226-03-13 07:55 G	2534160.62	2534160.83	2534161.03	0.0530	0.0029
Mercury	2231-06-04 13:26 G	2536069.92	2536070.06	2536070.19	0.0490	0.0313
Mercury	2231-09-02 17:45 G	2536160.12	2536160.24	2536160.36	0.0492	0.0354
Moon	2233-06-29 12:43 G	2536825.82	2536826.03	2536826.24	0.0509	0.0237
Earth	2233-06-29 16:48 G	2536826.00	2536826.20	2536826.40	0.0509	0.0268 *
Mercury	2237-05-07 07:40 G	2538233.69	2538233.82	2538233.95	0.0536	0.0050
Venus	2237-11-15 22:19 G	2538426.29	2538426.43	2538426.58	0.0532	0.0369
Moon	2238-12-27 15:50 G	2538833.02	2538833.16	2538833.32	0.0519	0.0387
Earth	2238-12-27 19:40 G	2538833.17	2538833.32	2538833.47	0.0519	0.0392 *
Mercury	2243-03-23 11:16 G	2540379.95	2540379.97	2540380.00	0.0490	0.0483
Mercury	2243-06-21 15:07 G	2540469.96	2540470.13	2540470.30	0.0491	0.0172
Venus	2244-05-06 15:07 G	2540789.94	2540790.13	2540790.32	0.0497	0.0181
Earth	2245-07-04 08:24 G	2541213.62	2541213.85	2541214.09	0.0511	0.0029
Moon	2245-07-04 12:28 G	2541213.78	2541214.02	2541214.25	0.0511	0.0012 *
Mercury	2249-02-23 11:31 G	2542543.85	2542543.98	2542544.11	0.0537	0.0098
Mercury	2249-05-23 19:26 G	2542633.28	2542633.31	2542633.35	0.0535	0.0507
Earth	2251-01-01 14:24 G	2543220.88	2543221.10	2543221.32	0.0517	0.0133

Moon	2251-01-01 18:14 G	2543221.05	2543221.26	2543221.48	0.0517	0.0164 *
Mercury	2255-04-09 13:40 G	2544779.89	2544780.07	2544780.25	0.0491	0.0008
Venus	2256-01-10 17:02 G	2545056.01	2545056.21	2545056.41	0.0496	0.0137
Moon	2257-07-09 04:04 G	2545601.45	2545601.67	2545601.90	0.0513	0.0204
Earth	2257-07-09 06:57 G	2545601.58	2545601.79	2545602.00	0.0513	0.0229 *
Mercury	2260-12-12 15:21 G	2546854.03	2546854.14	2546854.26	0.0537	0.0246
Mercury	2261-03-11 23:31 G	2546943.39	2546943.48	2546943.58	0.0536	0.0365
Venus	2261-11-19 02:52 G	2547195.44	2547195.62	2547195.79	0.0529	0.0268
Moon	2263-01-06 02:09 G	2547608.36	2547608.59	2547608.82	0.0515	0.0096
Earth	2263-01-06 05:31 G	2547608.50	2547608.73	2547608.95	0.0515	0.0115 *
Mercury	2267-01-26 12:14 G	2549089.85	2549090.01	2549090.18	0.0491	0.0155
Venus	2267-09-15 19:55 G	2549322.25	2549322.33	2549322.41	0.0495	0.0448
Earth	2269-07-14 07:26 G	2549989.75	2549989.81	2549989.89	0.0515	0.0491
Moon	2269-07-14 07:40 G	2549989.75	2549989.82	2549989.91	0.0515	0.0481 *
Mercury	2272-09-30 18:57 G	2551164.20	2551164.29	2551164.37	0.0537	0.0400
Mercury	2272-12-29 03:21 G	2551253.52	2551253.64	2551253.76	0.0536	0.0216
Venus	2273-07-24 17:31 G	2551461.03	2551461.23	2551461.43	0.0531	0.0126
Earth	2275-01-10 18:28 G	2551996.12	2551996.27	2551996.44	0.0513	0.0356
Moon	2275-01-10 20:24 G	2551996.21	2551996.35	2551996.50	0.0513	0.0380 *
Mercury	2278-11-14 11:16 G	2553399.84	2553399.97	2553400.11	0.0490	0.0311
Mercury	2279-02-12 15:50 G	2553490.04	2553490.16	2553490.28	0.0492	0.0355
Venus	2280-01-13 04:19 G	2553824.55	2553824.68	2553824.81	0.0499	0.0382
Mercury	2284-10-17 06:28 G	2555563.64	2555563.77	2555563.90	0.0536	0.0055
Mercury	2290-09-02 10:19 G	2557709.89	2557709.93	2557709.98	0.0490	0.0470
Mercury	2290-12-01 14:09 G	2557799.93	2557800.09	2557800.26	0.0491	0.0188
Venus	2291-09-18 05:31 G	2558090.52	2558090.73	2558090.93	0.0497	0.0059
Mercury	2296-08-05 10:04 G	2559873.79	2559873.92	2559874.05	0.0537	0.0098
Mercury	2296-11-02 17:45 G	2559963.21	2559963.24	2559963.29	0.0535	0.0505
Venus	2297-07-27 16:33 G	2560230.12	2560230.19	2560230.28	0.0528	0.0485
Mercury	2302-09-20 11:45 G	2562109.81	2562109.99	2562110.17	0.0490	0.0013

Venus	2303-05-25 05:02 G	2562356.54	2562356.71	2562356.88	0.0495	0.0268
Mercury	2308-05-25 13:40 G	2564183.96	2564184.07	2564184.19	0.0537	0.0249
Mercury	2308-08-22 22:04 G	2564273.32	2564273.42	2564273.51	0.0536	0.0363
Venus	2309-04-02 09:50 G	2564495.71	2564495.91	2564496.11	0.0530	0.0103
Mars	2313-03-23 10:48 G	2565946.71	2565946.95	2565947.19	0.0489	0.0285
Mercury	2314-07-09 10:33 G	2566419.77	2566419.94	2566420.11	0.0490	0.0150
Earth	2316-06-29 17:16 G	2567141.04	2567141.22	2567141.42	0.0509	0.0312
Moon	2316-06-29 21:21 G	2567141.20	2567141.39	2567141.59	0.0509	0.0279 *
Mercury	2320-03-13 17:31 G	2568494.14	2568494.23	2568494.32	0.0538	0.0397
Mercury	2320-06-11 02:09 G	2568583.47	2568583.59	2568583.71	0.0536	0.0221
Venus	2320-12-06 01:26 G	2568761.39	2568761.56	2568761.73	0.0532	0.0289
Earth	2321-12-28 05:02 G	2569148.59	2569148.71	2569148.85	0.0519	0.0420
Moon	2321-12-28 09:07 G	2569148.75	2569148.88	2569149.02	0.0519	0.0419 *
Mercury	2326-04-27 09:21 G	2570729.76	2570729.89	2570730.03	0.0490	0.0310
Mercury	2326-07-26 13:40 G	2570819.95	2570820.07	2570820.20	0.0491	0.0355
Venus	2327-05-27 15:21 G	2571124.96	2571125.14	2571125.32	0.0498	0.0245
Moon	2328-07-04 12:57 G	2571528.80	2571529.04	2571529.28	0.0511	0.0047
Earth	2328-07-04 16:04 G	2571528.94	2571529.17	2571529.41	0.0511	0.0060 *
Mars	2331-01-14 20:38 G	2572453.24	2572453.36	2572453.50	0.0538	0.0455
Mercury	2332-03-30 05:45 G	2572893.62	2572893.74	2572893.87	0.0536	0.0074
Moon	2334-01-01 17:31 G	2573536.02	2573536.23	2573536.45	0.0517	0.0201
Earth	2334-01-01 21:07 G	2573536.16	2573536.38	2573536.60	0.0517	0.0168 *
Mercury	2338-02-13 08:38 G	2575039.81	2575039.86	2575039.92	0.0490	0.0464
Mercury	2338-05-14 12:28 G	2575129.86	2575130.02	2575130.19	0.0491	0.0193
Venus	2339-01-30 17:45 G	2575391.04	2575391.24	2575391.45	0.0496	0.0072
Earth	2340-07-09 14:38 G	2575916.90	2575917.11	2575917.34	0.0513	0.0196
Moon	2340-07-09 15:35 G	2575916.93	2575917.15	2575917.36	0.0513	0.0168 *
Mercury	2344-01-17 09:07 G	2577203.75	2577203.88	2577204.00	0.0536	0.0091
Mercury	2344-04-15 16:48 G	2577293.17	2577293.20	2577293.24	0.0535	0.0513
Venus	2344-12-09 01:26 G	2577530.40	2577530.56	2577530.72	0.0529	0.0329

Earth	2346-01-06 09:50 G	2577923.68	2577923.91	2577924.14	0.0515	0.0072
Moon	2346-01-06 11:45 G	2577923.77	2577923.99	2577924.21	0.0515	0.0062 *
Mars	2348-12-28 06:43 G	2579010.55	2579010.78	2579011.03	0.0489	0.0285
Mercury	2350-03-02 11:02 G	2579439.79	2579439.96	2579440.14	0.0491	0.0030
Venus	2350-10-05 20:09 G	2579657.22	2579657.34	2579657.47	0.0495	0.0387
Earth	2352-07-14 12:14 G	2580304.91	2580305.01	2580305.13	0.0515	0.0450
Moon	2352-07-14 13:55 G	2580304.97	2580305.08	2580305.21	0.0515	0.0445 *
Mercury	2355-11-05 12:28 G	2581513.90	2581514.02	2581514.14	0.0537	0.0244
Mercury	2356-02-02 20:38 G	2581603.27	2581603.36	2581603.46	0.0535	0.0367
Venus	2356-08-13 16:48 G	2581796.00	2581796.20	2581796.40	0.0531	0.0063
Earth	2358-01-11 01:11 G	2582311.38	2582311.55	2582311.74	0.0514	0.0318
Moon	2358-01-11 01:26 G	2582311.39	2582311.56	2582311.74	0.0514	0.0344 *
Mercury	2361-12-19 09:07 G	2583749.71	2583749.88	2583750.05	0.0490	0.0144
Venus	2363-02-02 01:26 G	2584159.46	2584159.56	2584159.66	0.0499	0.0432
Mars	2366-10-19 17:16 G	2585514.98	2585515.22	2585515.47	0.0539	0.0128
Mercury	2367-08-24 16:04 G	2585824.08	2585824.17	2585824.25	0.0538	0.0398
Mercury	2367-11-22 00:43 G	2585913.41	2585913.53	2585913.64	0.0537	0.0222
Venus	2368-04-18 08:09 G	2586061.74	2586061.84	2586061.95	0.0533	0.0458
Mercury	2373-10-07 08:09 G	2588059.70	2588059.84	2588059.98	0.0490	0.0301
Mercury	2374-01-05 12:14 G	2588149.89	2588150.01	2588150.14	0.0491	0.0362
Venus	2374-10-08 03:21 G	2588425.44	2588425.64	2588425.84	0.0497	0.0112
Mercury	2379-09-10 04:48 G	2590223.57	2590223.70	2590223.82	0.0537	0.0080
Mercury	2385-07-26 07:11 G	2592369.74	2592369.80	2592369.86	0.0490	0.0459
Mercury	2385-10-24 10:48 G	2592459.79	2592459.95	2592460.12	0.0491	0.0197
Venus	2386-06-13 06:00 G	2592691.56	2592691.75	2592691.94	0.0495	0.0204
Mercury	2391-06-29 08:24 G	2594533.73	2594533.85	2594533.98	0.0537	0.0073
Mercury	2391-09-26 16:19 G	2594623.17	2594623.18	2594623.19	0.0535	0.0532
Venus	2392-04-21 12:28 G	2594830.83	2594831.02	2594831.21	0.0530	0.0182
Mercury	2397-08-12 09:50 G	2596769.73	2596769.91	2596770.08	0.0491	0.0038
Moon	2399-06-30 00:00 G	2597456.31	2597456.50	2597456.70	0.0508	0.0306

Earth	2399-06-30 03:21 G	2597456.47	2597456.64	2597456.82	0.0508	0.0337 *
Mercury	2403-04-17 11:45 G	2598843.87	2598843.99	2598844.10	0.0537	0.0232
Mercury	2403-07-15 19:55 G	2598933.24	2598933.33	2598933.42	0.0535	0.0378
Venus	2403-12-26 01:26 G	2599096.38	2599096.56	2599096.75	0.0532	0.0222
Moon	2404-12-27 06:57 G	2599463.69	2599463.79	2599463.91	0.0520	0.0458
Earth	2404-12-27 10:33 G	2599463.84	2599463.94	2599464.05	0.0520	0.0459 *
Mercury	2409-05-31 08:38 G	2601079.68	2601079.86	2601080.03	0.0491	0.0125
Venus	2410-06-15 16:33 G	2601460.03	2601460.19	2601460.35	0.0498	0.0313
Earth	2411-07-04 23:31 G	2601844.24	2601844.48	2601844.71	0.0510	0.0091
Moon	2411-07-05 00:43 G	2601844.30	2601844.53	2601844.75	0.0510	0.0089 *
Mercury	2415-02-03 15:07 G	2603154.04	2603154.13	2603154.22	0.0537	0.0388
Mercury	2415-05-03 23:31 G	2603243.37	2603243.48	2603243.60	0.0536	0.0229
Earth	2417-01-01 04:04 G	2603851.46	2603851.67	2603851.89	0.0518	0.0204
Moon	2417-01-01 06:14 G	2603851.56	2603851.76	2603851.96	0.0518	0.0234 *
Mercury	2421-03-19 06:57 G	2605389.65	2605389.79	2605389.93	0.0490	0.0292
Mercury	2421-06-17 11:02 G	2605479.84	2605479.96	2605480.08	0.0491	0.0371
Venus	2422-02-18 16:19 G	2605725.98	2605726.18	2605726.39	0.0496	0.0017
Earth	2423-07-09 15:21 G	2606231.92	2606232.14	2606232.37	0.0512	0.0150
Moon	2423-07-09 16:33 G	2606231.95	2606232.19	2606232.43	0.0512	0.0119 *
Mercury	2427-02-20 03:21 G	2607553.51	2607553.64	2607553.77	0.0537	0.0080
Venus	2427-12-29 04:33 G	2607865.57	2607865.69	2607865.82	0.0529	0.0411
Earth	2429-01-05 22:48 G	2608239.22	2608239.45	2608239.68	0.0516	0.0050
Moon	2429-01-05 22:48 G	2608239.22	2608239.45	2608239.69	0.0516	0.0052 *
Mercury	2433-01-05 06:00 G	2609699.69	2609699.75	2609699.82	0.0489	0.0447
Mercury	2433-04-05 09:35 G	2609789.74	2609789.90	2609790.07	0.0491	0.0208
Venus	2433-10-24 19:11 G	2609992.15	2609992.30	2609992.45	0.0494	0.0331
Moon	2435-07-14 12:00 G	2610619.86	2610620.00	2610620.14	0.0514	0.0403
Earth	2435-07-14 14:38 G	2610619.97	2610620.11	2610620.26	0.0514	0.0407 *
Mercury	2438-12-09 07:11 G	2611863.68	2611863.80	2611863.93	0.0537	0.0067
Venus	2439-09-02 21:07 G	2612131.18	2612131.38	2612131.58	0.0531	0.0025

Moon	2441-01-10 12:14 G	2612626.84	2612627.01	2612627.18	0.0514	0.0326
Earth	2441-01-10 14:09 G	2612626.91	2612627.09	2612627.28	0.0514	0.0294 *
Mercury	2445-01-22 08:24 G	2614099.67	2614099.85	2614100.02	0.0490	0.0045
Mercury	2450-09-27 11:02 G	2616173.84	2616173.96	2616174.08	0.0537	0.0214
Mercury	2450-12-25 19:11 G	2616263.22	2616263.30	2616263.39	0.0536	0.0397
Venus	2451-05-08 12:00 G	2616396.86	2616397.00	2616397.15	0.0533	0.0373
Mercury	2456-11-10 07:11 G	2618409.63	2618409.80	2618409.98	0.0490	0.0115
Venus	2457-10-27 05:31 G	2618760.54	2618760.73	2618760.92	0.0497	0.0184
Mercury	2462-07-16 14:09 G	2620484.00	2620484.09	2620484.19	0.0537	0.0374
Mercury	2462-10-13 22:48 G	2620573.33	2620573.45	2620573.56	0.0536	0.0242
Mars	2467-06-17 23:16 G	2622281.17	2622281.47	2622281.76	0.0489	0.0100
Mercury	2468-08-29 06:14 G	2622719.62	2622719.76	2622719.91	0.0490	0.0274
Mercury	2468-11-27 10:33 G	2622809.83	2622809.94	2622810.05	0.0491	0.0392
Venus	2469-07-02 07:40 G	2623026.62	2623026.82	2623027.02	0.0496	0.0135
Mercury	2474-05-04 17:31 G	2624794.22	2624794.23	2624794.24	0.0538	0.0532
Mercury	2474-08-02 02:24 G	2624883.47	2624883.60	2624883.73	0.0536	0.0091
Venus	2475-05-11 13:11 G	2625165.87	2625166.05	2625166.23	0.0530	0.0253
Mercury	2480-06-17 04:48 G	2627029.63	2627029.70	2627029.79	0.0489	0.0436
Mercury	2480-09-15 08:24 G	2627119.70	2627119.85	2627120.02	0.0491	0.0220
Venus	2481-03-07 08:52 G	2627292.80	2627292.87	2627292.95	0.0494	0.0454
Earth	2482-06-29 06:00 G	2627771.60	2627771.75	2627771.91	0.0508	0.0376
Moon	2482-06-29 07:55 G	2627771.67	2627771.83	2627772.00	0.0508	0.0347 *
Mars	2485-04-10 01:11 G	2628787.35	2628787.55	2628787.77	0.0538	0.0295
Mercury	2486-05-21 06:00 G	2629193.62	2629193.75	2629193.88	0.0538	0.0064
Venus	2487-01-14 04:19 G	2629431.49	2629431.68	2629431.88	0.0532	0.0142
Earth	2487-12-27 22:48 G	2629779.37	2629779.45	2629779.54	0.0521	0.0481
Moon	2487-12-28 00:43 G	2629779.47	2629779.53	2629779.62	0.0521	0.0489 *
Mercury	2492-07-04 07:26 G	2631429.63	2631429.81	2631429.99	0.0490	0.0058
Venus	2493-07-04 15:50 G	2631795.03	2631795.16	2631795.30	0.0498	0.0372
Earth	2494-07-04 02:38 G	2632159.38	2632159.61	2632159.84	0.0510	0.0130

Moon	2494-07-04 03:21 G	2632159.40	2632159.64	2632159.88	0.0510	0.0136 *
Mercury	2498-03-09 09:50 G	2633503.79	2633503.91	2633504.03	0.0538	0.0208
Mercury	2498-06-06 18:14 G	2633593.17	2633593.26	2633593.34	0.0536	0.0404
Earth	2500-01-01 17:16 G	2634167.01	2634167.22	2634167.43	0.0518	0.0227
Moon	2500-01-01 17:16 G	2634167.01	2634167.22	2634167.43	0.0518	0.0253 *
Mars	2503-03-25 22:19 G	2635345.40	2635345.43	2635345.50	0.0488	0.0481
Mercury	2504-04-23 06:00 G	2635739.58	2635739.75	2635739.93	0.0490	0.0105
Venus	2505-03-10 18:00 G	2636061.05	2636061.25	2636061.46	0.0496	0.0054
Moon	2506-07-09 23:16 G	2636547.24	2636547.47	2636547.70	0.0512	0.0091
Earth	2506-07-10 01:40 G	2636547.35	2636547.57	2636547.81	0.0512	0.0124 *
Mercury	2509-12-27 13:40 G	2637813.97	2637814.07	2637814.16	0.0538	0.0358
Mercury	2510-03-26 22:19 G	2637903.31	2637903.43	2637903.54	0.0536	0.0261
Venus	2511-01-18 08:24 G	2638200.79	2638200.85	2638200.92	0.0529	0.0496
Moon	2512-01-07 07:26 G	2638554.59	2638554.81	2638555.03	0.0516	0.0033
Earth	2512-01-07 09:21 G	2638554.67	2638554.89	2638555.13	0.0516	0.0025 *
Mercury	2516-02-10 05:02 G	2640049.57	2640049.71	2640049.87	0.0490	0.0262
Mercury	2516-05-10 09:21 G	2640139.79	2640139.89	2640139.99	0.0491	0.0403
Venus	2516-11-13 21:07 G	2640327.21	2640327.38	2640327.55	0.0495	0.0261
Earth	2518-07-15 01:55 G	2640935.42	2640935.58	2640935.74	0.0514	0.0379
Moon	2518-07-15 05:31 G	2640935.58	2640935.73	2640935.89	0.0514	0.0382 *
Mars	2521-01-14 14:09 G	2641849.90	2641850.09	2641850.29	0.0538	0.0337
Mercury	2521-10-15 16:48 G	2642124.17	2642124.20	2642124.23	0.0538	0.0518
Mercury	2522-01-13 01:40 G	2642213.44	2642213.57	2642213.70	0.0536	0.0105
Venus	2522-09-22 22:33 G	2642466.24	2642466.44	2642466.64	0.0531	0.0099
Earth	2524-01-11 22:04 G	2642942.23	2642942.42	2642942.62	0.0514	0.0261
Moon	2524-01-12 01:26 G	2642942.37	2642942.56	2642942.76	0.0514	0.0294 *
Mercury	2527-11-29 04:19 G	2644359.59	2644359.68	2644359.77	0.0490	0.0418
Mercury	2528-02-27 07:55 G	2644449.68	2644449.83	2644449.99	0.0491	0.0239
Mercury	2533-11-01 05:16 G	2646523.59	2646523.72	2646523.85	0.0537	0.0050
Venus	2534-05-28 12:57 G	2646731.88	2646732.04	2646732.21	0.0533	0.0302

Moon	2536-01-16 09:21 G	2647329.86	2647329.89	2647329.93	0.0512	0.0504
Earth	2536-01-16 13:11 G	2647330.01	2647330.05	2647330.10	0.0512	0.0500
Mercury	2539-12-16 06:14 G	2648759.59	2648759.76	2648759.94	0.0490	0.0071
Venus	2540-11-16 05:16 G	2649095.54	2649095.72	2649095.89	0.0497	0.0245
Mercury	2545-08-20 08:24 G	2650833.73	2650833.85	2650833.97	0.0538	0.0207
Mercury	2545-11-17 16:48 G	2650923.12	2650923.20	2650923.28	0.0536	0.0406
Mercury	2551-10-04 05:16 G	2653069.54	2653069.72	2653069.89	0.0490	0.0089
Venus	2552-07-22 07:26 G	2653361.61	2653361.81	2653362.01	0.0495	0.0074
Mercury	2557-06-08 12:14 G	2655143.91	2655144.01	2655144.11	0.0538	0.0355
Mercury	2557-09-05 20:52 G	2655233.26	2655233.37	2655233.48	0.0537	0.0265
Venus	2558-05-31 17:02 G	2655501.05	2655501.21	2655501.36	0.0530	0.0340
Mercury	2563-07-23 03:50 G	2657379.51	2657379.66	2657379.82	0.0490	0.0252
Mercury	2563-10-21 07:55 G	2657469.74	2657469.83	2657469.93	0.0491	0.0413
Venus	2564-03-27 10:04 G	2657627.80	2657627.92	2657628.05	0.0494	0.0388
Moon	2565-06-29 16:19 G	2658087.02	2658087.18	2658087.35	0.0507	0.0374
Earth	2565-06-29 16:04 G	2658087.03	2658087.17	2658087.31	0.0507	0.0401 *
Mercury	2569-03-27 15:50 G	2659454.12	2659454.16	2659454.21	0.0538	0.0506
Mercury	2569-06-25 00:57 G	2659543.41	2659543.54	2659543.66	0.0537	0.0120
Venus	2570-02-03 08:38 G	2659766.66	2659766.86	2659767.06	0.0532	0.0053
Earth	2570-12-28 09:21 G	2660094.85	2660094.89	2660094.95	0.0521	0.0508
Mercury	2575-05-11 03:07 G	2661689.53	2661689.63	2661689.73	0.0490	0.0407
Mercury	2575-08-09 06:43 G	2661779.63	2661779.78	2661779.94	0.0491	0.0249
Venus	2576-07-24 18:00 G	2662130.16	2662130.25	2662130.34	0.0498	0.0446
Moon	2577-07-04 11:16 G	2662474.76	2662474.97	2662475.19	0.0509	0.0168
Earth	2577-07-04 13:40 G	2662474.85	2662475.07	2662475.30	0.0509	0.0154 *
Mercury	2581-04-13 04:19 G	2663853.55	2663853.68	2663853.81	0.0537	0.0036
Venus	2581-10-08 21:35 G	2664032.31	2664032.40	2664032.51	0.0533	0.0462
Moon	2583-01-01 22:33 G	2664482.26	2664482.44	2664482.63	0.0519	0.0288
Earth	2583-01-02 00:43 G	2664482.33	2664482.53	2664482.73	0.0519	0.0261 *
Mars	2585-12-06 15:50 G	2665552.13	2665552.16	2665552.22	0.0489	0.0484

Mercury	2587-05-28 05:31 G	2666089.55	2666089.73	2666089.91	0.0491	0.0086
Venus	2588-03-29 19:55 G	2666396.14	2666396.33	2666396.53	0.0497	0.0124
Earth	2589-07-09 10:33 G	2666862.71	2666862.94	2666863.17	0.0511	0.0094
Moon	2589-07-09 14:09 G	2666862.85	2666863.09	2666863.33	0.0511	0.0063 *
Mercury	2593-01-30 07:40 G	2668163.70	2668163.82	2668163.94	0.0537	0.0192
Mercury	2593-04-29 16:04 G	2668253.09	2668253.17	2668253.25	0.0536	0.0419
Earth	2595-01-06 17:02 G	2668869.98	2668870.21	2668870.44	0.0517	0.0015
Moon	2595-01-06 20:38 G	2668870.12	2668870.36	2668870.59	0.0517	0.0010 *
Mercury	2599-03-16 04:04 G	2670399.49	2670399.67	2670399.85	0.0490	0.0077
Venus	2599-12-03 21:07 G	2670662.20	2670662.38	2670662.57	0.0494	0.0198
Moon	2601-07-14 23:45 G	2671250.32	2671250.49	2671250.67	0.0513	0.0338
Earth	2601-07-15 03:35 G	2671250.48	2671250.65	2671250.83	0.0513	0.0334 *
Mercury	2604-11-19 10:48 G	2672473.85	2672473.95	2672474.05	0.0538	0.0355
Mercury	2605-02-16 19:26 G	2672563.20	2672563.31	2672563.42	0.0537	0.0265
Venus	2605-10-13 00:00 G	2672801.31	2672801.50	2672801.70	0.0531	0.0176
Moon	2607-01-12 06:00 G	2673257.56	2673257.75	2673257.95	0.0515	0.0266
Earth	2607-01-12 09:50 G	2673257.71	2673257.91	2673258.12	0.0515	0.0234 *
Mercury	2611-01-03 03:07 G	2674709.48	2674709.63	2674709.79	0.0489	0.0235
Mercury	2611-04-03 06:57 G	2674799.71	2674799.79	2674799.89	0.0491	0.0428
Mercury	2616-09-07 14:24 G	2676784.06	2676784.10	2676784.14	0.0539	0.0505
Mercury	2616-12-05 23:31 G	2676873.35	2676873.48	2676873.60	0.0537	0.0122
Venus	2617-06-17 15:35 G	2677066.97	2677067.15	2677067.34	0.0533	0.0220
Earth	2619-01-17 00:57 G	2677645.46	2677645.54	2677645.63	0.0513	0.0473
Moon	2619-01-17 04:19 G	2677645.60	2677645.68	2677645.78	0.0513	0.0468 *
Mars	2621-09-13 18:14 G	2678615.97	2678616.26	2678616.56	0.0488	0.0106
Mercury	2622-10-22 01:40 G	2679019.48	2679019.57	2679019.68	0.0489	0.0397
Mercury	2623-01-20 05:16 G	2679109.57	2679109.72	2679109.88	0.0490	0.0259
Venus	2623-12-07 06:14 G	2679430.60	2679430.76	2679430.92	0.0497	0.0314
Mercury	2628-09-24 03:21 G	2681183.51	2681183.64	2681183.77	0.0537	0.0025
Mercury	2634-11-08 04:04 G	2683419.50	2683419.67	2683419.85	0.0490	0.0096

Venus	2635-08-12 08:38 G	2683696.66	2683696.86	2683697.06	0.0496	0.0005
Mars	2639-07-07 22:33 G	2685122.19	2685122.44	2685122.69	0.0538	0.0086
Mercury	2640-07-13 06:43 G	2685493.66	2685493.78	2685493.91	0.0537	0.0181
Mercury	2640-10-10 15:07 G	2685583.05	2685583.13	2685583.20	0.0536	0.0429
Venus	2641-06-20 18:00 G	2685836.13	2685836.25	2685836.38	0.0529	0.0413
Mercury	2646-08-27 02:52 G	2687729.45	2687729.62	2687729.80	0.0490	0.0067
Venus	2647-04-17 11:31 G	2687962.83	2687962.98	2687963.14	0.0494	0.0321
Moon	2648-06-29 22:48 G	2688402.32	2688402.45	2688402.59	0.0507	0.0404
Earth	2648-06-30 00:57 G	2688402.42	2688402.54	2688402.67	0.0507	0.0426 *
Mercury	2652-05-01 10:04 G	2689803.82	2689803.92	2689804.02	0.0538	0.0339
Mercury	2652-07-29 18:43 G	2689893.17	2689893.28	2689893.39	0.0536	0.0278
Venus	2653-02-23 08:38 G	2690101.66	2690101.86	2690102.06	0.0532	0.0015
Mercury	2658-06-15 01:55 G	2692039.42	2692039.58	2692039.74	0.0489	0.0225
Mercury	2658-09-13 06:00 G	2692129.67	2692129.75	2692129.83	0.0491	0.0438
Earth	2660-07-04 16:33 G	2692789.97	2692790.19	2692790.41	0.0508	0.0195
Moon	2660-07-04 19:55 G	2692790.12	2692790.33	2692790.56	0.0508	0.0211 *
Mercury	2664-02-18 12:43 G	2694113.99	2694114.03	2694114.07	0.0539	0.0508
Mercury	2664-05-17 21:50 G	2694203.28	2694203.41	2694203.54	0.0537	0.0120
Venus	2664-10-28 21:21 G	2694367.26	2694367.39	2694367.53	0.0534	0.0394
Earth	2666-01-02 08:52 G	2694797.69	2694797.87	2694798.06	0.0520	0.0295
Moon	2666-01-02 12:14 G	2694797.83	2694798.01	2694798.20	0.0520	0.0317 *
Mercury	2670-04-03 00:57 G	2696349.43	2696349.54	2696349.65	0.0489	0.0382
Mercury	2670-07-02 04:33 G	2696439.54	2696439.69	2696439.83	0.0490	0.0273
Venus	2671-04-19 19:26 G	2696731.12	2696731.31	2696731.50	0.0496	0.0185
Moon	2672-07-09 08:38 G	2697177.63	2697177.86	2697178.10	0.0510	0.0021
Earth	2672-07-09 12:43 G	2697177.79	2697178.03	2697178.26	0.0510	0.0050 *
Mars	2675-04-11 18:43 G	2698184.20	2698184.28	2698184.36	0.0539	0.0511
Mercury	2676-03-06 01:40 G	2698513.44	2698513.57	2698513.70	0.0538	0.0028
Moon	2678-01-06 22:48 G	2699185.22	2699185.45	2699185.68	0.0518	0.0029
Earth	2678-01-07 02:38 G	2699185.38	2699185.61	2699185.84	0.0518	0.0045 *

Mercury	2682-04-20 02:38 G	2700749.43	2700749.61	2700749.79	0.0490	0.0103
Venus	2682-12-23 21:07 G	2700997.18	2700997.38	2700997.58	0.0495	0.0135
Earth	2684-07-14 10:33 G	2701565.75	2701565.94	2701566.13	0.0513	0.0299
Moon	2684-07-14 13:40 G	2701565.89	2701566.07	2701566.26	0.0513	0.0315 *
Mercury	2687-12-24 05:31 G	2702823.61	2702823.73	2702823.86	0.0538	0.0175
Mercury	2688-03-22 13:55 G	2702913.01	2702913.08	2702913.15	0.0536	0.0437
Venus	2688-11-01 02:52 G	2703136.44	2703136.62	2703136.80	0.0531	0.0258
Earth	2690-01-11 18:43 G	2703573.07	2703573.28	2703573.49	0.0515	0.0201
Moon	2690-01-11 22:19 G	2703573.23	2703573.43	2703573.63	0.0515	0.0229 *
Mercury	2694-02-06 01:26 G	2705059.38	2705059.56	2705059.74	0.0490	0.0059
Venus	2694-08-29 00:14 G	2705263.43	2705263.51	2705263.59	0.0493	0.0449
Mercury	2699-10-12 08:52 G	2707133.77	2707133.87	2707133.97	0.0538	0.0332
Mercury	2700-01-09 17:31 G	2707223.12	2707223.23	2707223.34	0.0536	0.0286
Venus	2700-07-07 16:19 G	2707401.99	2707402.18	2707402.38	0.0532	0.0149
Moon	2702-01-17 04:33 G	2707960.57	2707960.69	2707960.83	0.0513	0.0420
Earth	2702-01-17 06:57 G	2707960.68	2707960.79	2707960.92	0.0513	0.0436 *
Mercury	2705-11-26 00:14 G	2709369.36	2709369.51	2709369.67	0.0490	0.0219
Mercury	2706-02-24 04:19 G	2709459.61	2709459.68	2709459.76	0.0491	0.0446
Venus	2706-12-27 06:57 G	2709765.66	2709765.79	2709765.92	0.0497	0.0381
Mercury	2711-08-01 12:00 G	2711443.95	2711444.00	2711444.05	0.0538	0.0493
Mercury	2711-10-29 20:52 G	2711533.25	2711533.37	2711533.50	0.0537	0.0133
Mercury	2717-09-13 23:16 G	2713679.37	2713679.47	2713679.59	0.0489	0.0375
Mercury	2717-12-13 02:52 G	2713769.48	2713769.62	2713769.77	0.0490	0.0280
Venus	2718-09-01 08:09 G	2714031.64	2714031.84	2714032.04	0.0495	0.0057
Mercury	2723-08-18 00:00 G	2715843.37	2715843.50	2715843.63	0.0538	0.0035
Venus	2724-07-10 16:33 G	2716171.11	2716171.19	2716171.28	0.0530	0.0479
Mercury	2729-10-01 01:26 G	2718079.39	2718079.56	2718079.74	0.0490	0.0116
Venus	2730-05-07 10:33 G	2718297.77	2718297.94	2718298.12	0.0494	0.0261
Earth	2731-07-01 03:07 G	2718717.55	2718717.63	2718717.72	0.0506	0.0467
Moon	2731-07-01 06:14 G	2718717.66	2718717.76	2718717.89	0.0506	0.0443 *

Mercury	2735-06-06 03:35 G	2720153.53	2720153.65	2720153.77	0.0538	0.0183
Mercury	2735-09-03 12:00 G	2720242.93	2720243.00	2720243.08	0.0537	0.0431
Venus	2736-03-15 08:24 G	2720436.65	2720436.85	2720437.05	0.0532	0.0086
Mars	2740-03-04 02:24 G	2721886.37	2721886.60	2721886.85	0.0489	0.0296
Mercury	2741-07-19 23:45 G	2722389.31	2722389.49	2722389.66	0.0490	0.0055
Moon	2743-07-05 17:45 G	2723105.04	2723105.24	2723105.45	0.0508	0.0251
Earth	2743-07-05 21:35 G	2723105.19	2723105.40	2723105.61	0.0508	0.0232 *
Mercury	2747-03-25 07:26 G	2724463.71	2724463.81	2724463.91	0.0538	0.0331
Mercury	2747-06-22 16:04 G	2724553.06	2724553.17	2724553.28	0.0537	0.0289
Venus	2747-11-18 23:31 G	2724702.32	2724702.48	2724702.65	0.0534	0.0315
Moon	2749-01-02 12:28 G	2725112.86	2725113.02	2725113.19	0.0520	0.0355
Earth	2749-01-02 16:19 G	2725113.01	2725113.18	2725113.36	0.0520	0.0331 *
Mercury	2753-05-07 22:33 G	2726699.28	2726699.44	2726699.60	0.0489	0.0215
Mercury	2753-08-06 02:24 G	2726789.54	2726789.60	2726789.68	0.0491	0.0449
Venus	2754-05-09 18:28 G	2727066.09	2727066.27	2727066.45	0.0496	0.0246
Earth	2755-07-10 18:57 G	2727493.05	2727493.29	2727493.52	0.0510	0.0016
Moon	2755-07-10 22:19 G	2727493.20	2727493.43	2727493.66	0.0510	0.0009 *
Mars	2757-12-27 23:02 G	2728394.42	2728394.46	2728394.50	0.0538	0.0529
Mercury	2759-01-11 10:33 G	2728773.89	2728773.94	2728774.00	0.0538	0.0490
Mercury	2759-04-10 19:40 G	2728863.19	2728863.32	2728863.45	0.0537	0.0136
Earth	2761-01-07 06:57 G	2729500.56	2729500.79	2729501.01	0.0518	0.0087
Moon	2761-01-07 10:33 G	2729500.72	2729500.94	2729501.17	0.0518	0.0065 *
Mercury	2765-02-23 21:35 G	2731009.29	2731009.40	2731009.51	0.0489	0.0374
Mercury	2765-05-25 00:57 G	2731099.40	2731099.54	2731099.69	0.0491	0.0283
Venus	2766-01-12 20:38 G	2731332.16	2731332.36	2731332.57	0.0495	0.0075
Moon	2767-07-15 13:55 G	2731880.88	2731881.08	2731881.29	0.0512	0.0281
Earth	2767-07-15 16:04 G	2731880.97	2731881.17	2731881.37	0.0512	0.0262 *
Mercury	2771-01-27 23:02 G	2733173.33	2733173.46	2733173.59	0.0537	0.0021
Venus	2771-11-22 00:57 G	2733471.38	2733471.54	2733471.70	0.0531	0.0318
Moon	2773-01-11 19:26 G	2733888.09	2733888.31	2733888.54	0.0516	0.0180

Earth	2773-01-11 22:04 G	2733888.20	2733888.42	2733888.64	0.0516	0.0157 *
Mars	2775-12-10 00:28 G	2734950.28	2734950.52	2734950.77	0.0489	0.0287
Mercury	2777-03-12 23:45 G	2735409.32	2735409.49	2735409.66	0.0490	0.0120
Venus	2777-09-17 23:16 G	2735598.35	2735598.47	2735598.60	0.0493	0.0389
Earth	2779-07-20 10:19 G	2736268.88	2736268.93	2736268.98	0.0514	0.0500
Mercury	2782-11-16 01:40 G	2737483.45	2737483.57	2737483.69	0.0538	0.0190
Mercury	2783-02-13 10:04 G	2737572.85	2737572.92	2737573.00	0.0537	0.0425
Venus	2783-07-27 13:11 G	2737736.85	2737737.05	2737737.25	0.0533	0.0092
Earth	2785-01-16 11:45 G	2738275.85	2738275.99	2738276.14	0.0515	0.0393
Moon	2785-01-16 12:43 G	2738275.88	2738276.03	2738276.18	0.0515	0.0373 *
Mercury	2788-12-29 22:33 G	2739719.26	2739719.44	2739719.61	0.0489	0.0045
Venus	2790-01-15 04:48 G	2740100.61	2740100.70	2740100.80	0.0497	0.0438
Mars	2793-10-01 13:26 G	2741455.81	2741456.06	2741456.31	0.0539	0.0049
Mercury	2794-09-04 05:16 G	2741793.62	2741793.72	2741793.82	0.0538	0.0344
Mercury	2794-12-02 13:55 G	2741882.97	2741883.08	2741883.19	0.0537	0.0278
Venus	2795-04-01 03:21 G	2742002.57	2742002.64	2742002.72	0.0535	0.0498
Mercury	2800-10-17 20:38 G	2744029.20	2744029.36	2744029.52	0.0489	0.0214
Mercury	2801-01-16 00:28 G	2744119.45	2744119.52	2744119.59	0.0490	0.0448
Venus	2801-09-20 05:45 G	2744366.54	2744366.74	2744366.94	0.0495	0.0110
Mercury	2806-06-23 08:52 G	2746103.82	2746103.87	2746103.92	0.0539	0.0494
Mercury	2806-09-20 18:00 G	2746193.13	2746193.25	2746193.38	0.0537	0.0134
Mercury	2812-08-05 19:26 G	2748339.20	2748339.31	2748339.43	0.0489	0.0373
Mercury	2812-11-03 22:48 G	2748429.31	2748429.45	2748429.60	0.0490	0.0282
Venus	2813-05-26 08:09 G	2748632.66	2748632.84	2748633.03	0.0494	0.0209
Moon	2814-06-30 03:21 G	2749032.59	2749032.64	2749032.72	0.0506	0.0484
Earth	2814-06-30 07:26 G	2749032.80	2749032.81	2749032.82	0.0506	0.0505
Mercury	2818-07-09 21:35 G	2750503.27	2750503.40	2750503.53	0.0537	0.0027
Venus	2819-04-04 07:40 G	2750771.62	2750771.82	2750772.01	0.0531	0.0151
Mercury	2824-08-22 21:21 G	2752739.22	2752739.39	2752739.57	0.0490	0.0117
Earth	2826-07-05 01:55 G	2753420.39	2753420.58	2753420.79	0.0508	0.0269

Moon	2826-07-05 05:45 G	2753420.55	2753420.74	2753420.94	0.0508	0.0291	*
Mercury	2830-04-28 00:43 G	2754813.41	2754813.53	2754813.65	0.0538	0.0180	
Mercury	2830-07-26 09:07 G	2754902.80	2754902.88	2754902.95	0.0536	0.0432	
Venus	2830-12-07 20:52 G	2755037.19	2755037.37	2755037.54	0.0533	0.0259	
Earth	2832-01-02 16:48 G	2755428.05	2755428.20	2755428.36	0.0521	0.0380	
Moon	2832-01-02 20:38 G	2755428.22	2755428.36	2755428.51	0.0521	0.0398	*
Mercury	2836-06-10 20:24 G	2757049.17	2757049.35	2757049.53	0.0490	0.0043	
Venus	2837-05-28 16:48 G	2757401.04	2757401.20	2757401.36	0.0496	0.0305	
Moon	2838-07-09 17:02 G	2757807.97	2757808.21	2757808.45	0.0509	0.0056	
Earth	2838-07-09 19:40 G	2757808.08	2757808.32	2757808.55	0.0509	0.0036	*
Mercury	2842-02-14 03:07 G	2759123.54	2759123.63	2759123.73	0.0538	0.0353	
Mercury	2842-05-14 12:00 G	2759212.89	2759213.00	2759213.11	0.0537	0.0269	
Moon	2844-01-07 04:48 G	2759815.47	2759815.70	2759815.93	0.0519	0.0116	
Earth	2844-01-07 07:40 G	2759815.60	2759815.82	2759816.04	0.0519	0.0139	*
Mercury	2848-03-29 19:11 G	2761359.14	2761359.30	2761359.46	0.0489	0.0206	
Mercury	2848-06-27 23:02 G	2761449.40	2761449.46	2761449.52	0.0490	0.0456	
Venus	2849-01-31 18:28 G	2761667.07	2761667.27	2761667.48	0.0494	0.0020	
Earth	2850-07-14 14:24 G	2762195.88	2762196.10	2762196.32	0.0511	0.0206	
Moon	2850-07-14 15:07 G	2762195.93	2762196.13	2762196.33	0.0511	0.0231	*
Mercury	2853-12-03 06:28 G	2763433.73	2763433.77	2763433.81	0.0539	0.0510	
Mercury	2854-03-02 15:35 G	2763523.03	2763523.15	2763523.28	0.0538	0.0120	
Venus	2854-12-10 21:35 G	2763806.26	2763806.40	2763806.54	0.0531	0.0375	
Earth	2856-01-12 00:28 G	2764203.30	2764203.52	2764203.75	0.0517	0.0106	
Moon	2856-01-12 01:26 G	2764203.35	2764203.56	2764203.78	0.0517	0.0124	*
Mercury	2860-01-16 17:16 G	2765669.11	2765669.22	2765669.33	0.0489	0.0375	
Mercury	2860-04-15 20:38 G	2765759.21	2765759.36	2765759.51	0.0490	0.0278	
Venus	2860-10-06 19:40 G	2765933.17	2765933.32	2765933.46	0.0493	0.0343	
Earth	2862-07-19 10:19 G	2766583.82	2766583.93	2766584.05	0.0513	0.0450	
Moon	2862-07-19 11:31 G	2766583.88	2766583.98	2766584.07	0.0513	0.0473	*
Mercury	2865-12-19 19:40 G	2767833.19	2767833.32	2767833.45	0.0538	0.0031	

Venus	2866-08-15 13:11 G	2768071.85	2768072.05	2768072.25	0.0533	0.0023
Earth	2868-01-16 16:19 G	2768591.02	2768591.18	2768591.35	0.0515	0.0349
Moon	2868-01-16 17:02 G	2768591.03	2768591.21	2768591.39	0.0515	0.0324 *
Mercury	2872-02-02 19:11 G	2770069.12	2770069.30	2770069.47	0.0490	0.0113
Venus	2873-02-03 01:26 G	2770435.54	2770435.56	2770435.61	0.0497	0.0490
Mercury	2877-10-07 23:02 G	2772143.34	2772143.46	2772143.58	0.0538	0.0183
Mercury	2878-01-05 07:26 G	2772232.74	2772232.81	2772232.89	0.0536	0.0431
Venus	2878-04-20 02:24 G	2772337.49	2772337.60	2772337.72	0.0534	0.0434
Mercury	2883-11-21 17:45 G	2774379.06	2774379.24	2774379.42	0.0490	0.0051
Venus	2884-10-09 03:35 G	2774701.46	2774701.65	2774701.85	0.0496	0.0166
Mercury	2889-07-27 02:09 G	2776453.49	2776453.59	2776453.69	0.0538	0.0344
Mercury	2889-10-24 11:02 G	2776542.85	2776542.96	2776543.07	0.0537	0.0277
Mars	2894-05-28 17:16 G	2778219.93	2778220.22	2778220.51	0.0489	0.0149
Mercury	2895-09-09 16:48 G	2778689.04	2778689.20	2778689.36	0.0489	0.0209
Mercury	2895-12-08 20:38 G	2778779.30	2778779.36	2778779.43	0.0491	0.0454
Venus	2896-06-14 06:14 G	2778967.56	2778967.76	2778967.95	0.0494	0.0153
Mercury	2901-05-16 04:33 G	2780763.66	2780763.69	2780763.72	0.0538	0.0519
Mercury	2901-08-13 13:40 G	2780852.94	2780853.07	2780853.20	0.0537	0.0110
Venus	2902-04-24 01:55 G	2781106.39	2781106.58	2781106.77	0.0532	0.0196
Mercury	2907-06-29 15:35 G	2782999.04	2782999.15	2782999.27	0.0489	0.0369
Mercury	2907-09-27 18:57 G	2783089.15	2783089.29	2783089.44	0.0490	0.0285
Venus	2908-02-19 08:38 G	2783233.81	2783233.86	2783233.92	0.0492	0.0470
Moon	2909-07-04 22:19 G	2783735.26	2783735.43	2783735.61	0.0506	0.0344
Earth	2909-07-05 01:26 G	2783735.37	2783735.56	2783735.74	0.0506	0.0318 *
Mars	2912-03-23 03:21 G	2784727.49	2784727.64	2784727.79	0.0538	0.0428
Mercury	2913-06-01 17:16 G	2785163.09	2785163.22	2785163.35	0.0538	0.0048
Venus	2913-12-27 15:50 G	2785371.98	2785372.16	2785372.35	0.0534	0.0211
Moon	2915-01-02 12:57 G	2785742.94	2785743.04	2785743.17	0.0522	0.0452
Earth	2915-01-02 16:19 G	2785743.06	2785743.18	2785743.31	0.0522	0.0437 *
Mercury	2919-07-16 16:33 G	2787399.02	2787399.19	2787399.37	0.0490	0.0107

Venus	2920-06-17 11:45 G	2787735.85	2787735.99	2787736.14	0.0496	0.0349
Earth	2921-07-09 17:31 G	2788123.00	2788123.23	2788123.47	0.0509	0.0088
Moon	2921-07-09 18:43 G	2788123.06	2788123.28	2788123.51	0.0509	0.0105 *
Mercury	2925-03-20 20:52 G	2789473.25	2789473.37	2789473.50	0.0538	0.0194
Mercury	2925-06-18 05:31 G	2789562.65	2789562.73	2789562.81	0.0537	0.0423
Earth	2927-01-07 11:16 G	2790130.75	2790130.97	2790131.18	0.0519	0.0184
Moon	2927-01-07 12:28 G	2790130.81	2790131.02	2790131.23	0.0519	0.0155 *
Mars	2930-03-05 07:11 G	2791283.64	2791283.80	2791283.96	0.0488	0.0414
Mercury	2931-05-04 15:07 G	2791708.96	2791709.13	2791709.31	0.0490	0.0059
Venus	2932-02-21 14:09 G	2792001.88	2792002.09	2792002.29	0.0495	0.0027
Earth	2933-07-14 14:24 G	2792510.87	2792511.10	2792511.33	0.0511	0.0157
Moon	2933-07-14 14:52 G	2792510.89	2792511.12	2792511.35	0.0511	0.0181 *
Mercury	2937-01-07 00:14 G	2793783.42	2793783.51	2793783.62	0.0538	0.0349
Mercury	2937-04-06 09:07 G	2793872.77	2793872.88	2793872.99	0.0537	0.0273
Venus	2937-12-30 19:40 G	2794141.21	2794141.32	2794141.44	0.0530	0.0436
Earth	2939-01-12 02:09 G	2794518.36	2794518.59	2794518.81	0.0517	0.0060
Moon	2939-01-12 02:24 G	2794518.36	2794518.60	2794518.83	0.0517	0.0074 *
Mercury	2943-02-20 13:55 G	2796018.93	2796019.08	2796019.24	0.0489	0.0219
Mercury	2943-05-21 17:45 G	2796109.17	2796109.24	2796109.32	0.0491	0.0444
Venus	2943-10-27 16:48 G	2796268.04	2796268.20	2796268.37	0.0493	0.0294
Moon	2945-07-19 09:50 G	2796898.79	2796898.91	2796899.04	0.0513	0.0426
Earth	2945-07-19 12:14 G	2796898.87	2796899.01	2796899.16	0.0513	0.0405 *
Mars	2947-12-27 07:26 G	2797789.58	2797789.81	2797790.05	0.0538	0.0189
Mercury	2948-10-26 03:21 G	2798093.60	2798093.64	2798093.68	0.0538	0.0511
Mercury	2949-01-23 12:28 G	2798182.90	2798183.02	2798183.15	0.0537	0.0117
Venus	2949-09-04 09:21 G	2798406.69	2798406.89	2798407.10	0.0532	0.0030
Moon	2951-01-16 14:09 G	2798905.91	2798906.09	2798906.28	0.0515	0.0273
Earth	2951-01-16 15:50 G	2798905.98	2798906.16	2798906.35	0.0515	0.0297 *
Mercury	2954-12-09 13:11 G	2800328.94	2800329.05	2800329.17	0.0489	0.0374
Mercury	2955-03-09 16:33 G	2800419.04	2800419.19	2800419.34	0.0490	0.0280

Mercury	2960-11-11 15:07 G	2802493.00	2802493.13	2802493.26	0.0538	0.0053
Venus	2961-05-09 19:55 G	2802672.20	2802672.33	2802672.47	0.0534	0.0394
Moon	2963-01-21 06:43 G	2803293.74	2803293.78	2803293.83	0.0514	0.0503
Mercury	2966-12-26 14:52 G	2804728.95	2804729.12	2804729.30	0.0490	0.0113
Venus	2967-10-30 00:28 G	2805036.34	2805036.52	2805036.71	0.0495	0.0217
Mercury	2972-08-30 18:28 G	2806803.15	2806803.27	2806803.39	0.0538	0.0210
Mercury	2972-11-28 03:07 G	2806892.55	2806892.63	2806892.71	0.0537	0.0406
Mercury	2978-10-14 12:43 G	2809038.85	2809039.03	2809039.20	0.0489	0.0064
Venus	2979-07-05 00:43 G	2809302.33	2809302.53	2809302.72	0.0494	0.0115
Mercury	2984-06-18 22:04 G	2811113.33	2811113.42	2811113.52	0.0539	0.0361
Mercury	2984-09-16 07:11 G	2811202.68	2811202.80	2811202.91	0.0537	0.0263
Venus	2985-05-13 00:57 G	2811441.36	2811441.54	2811441.71	0.0532	0.0261
Mercury	2990-08-02 11:31 G	2813348.82	2813348.98	2813349.14	0.0489	0.0225
Mercury	2990-10-31 15:07 G	2813439.05	2813439.13	2813439.21	0.0490	0.0436
Venus	2991-03-10 03:21 G	2813568.55	2813568.64	2813568.75	0.0493	0.0432
Earth	2992-07-04 00:14 G	2814050.34	2814050.51	2814050.67	0.0506	0.0366
Moon	2992-07-04 01:40 G	2814050.43	2814050.57	2814050.72	0.0506	0.0396 *
Mercury	2996-04-07 01:40 G	2815423.53	2815423.57	2815423.60	0.0538	0.0517
Mercury	2996-07-05 10:48 G	2815512.82	2815512.95	2815513.08	0.0537	0.0112
Venus	2997-01-15 14:52 G	2815706.92	2815707.12	2815707.31	0.0533	0.0147
Earth	2998-01-01 18:00 G	2816058.17	2816058.25	2816058.34	0.0522	0.0482
Moon	2998-01-01 19:40 G	2816058.25	2816058.32	2816058.40	0.0522	0.0488 *

4TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 4th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	3002-05-22 10:33	G	2817658.83	2817658.94	2817659.04	0.0489	0.0385	
Mercury	3002-08-20 13:40	G	2817748.92	2817749.07	2817749.22	0.0490	0.0269	
Venus	3003-07-08 09:07	G	2818070.77	2818070.88	2818071.00	0.0497	0.0401	
Moon	3004-07-09 19:55	G	2818438.09	2818438.33	2818438.56	0.0508	0.0143	
Earth	3004-07-09 19:40	G	2818438.10	2818438.32	2818438.56	0.0508	0.0129	*
Mercury	3008-04-24 14:09	G	2819822.96	2819823.09	2819823.22	0.0537	0.0047	
Moon	3010-01-07 10:04	G	2820445.71	2820445.92	2820446.14	0.0520	0.0205	
Earth	3010-01-07 10:04	G	2820445.72	2820445.92	2820446.13	0.0520	0.0237	*
Mercury	3014-06-08 12:28	G	2822058.85	2822059.02	2822059.20	0.0490	0.0108	
Venus	3015-03-13 11:45	G	2822336.79	2822336.99	2822337.19	0.0495	0.0080	
Moon	3016-07-14 13:11	G	2822825.83	2822826.05	2822826.28	0.0510	0.0134	
Earth	3016-07-14 15:07	G	2822825.90	2822826.13	2822826.36	0.0510	0.0108	*
Mercury	3020-02-11 16:33	G	2824133.07	2824133.19	2824133.31	0.0538	0.0217	
Mercury	3020-05-11 01:11	G	2824222.47	2824222.55	2824222.63	0.0536	0.0399	
Venus	3021-01-19 13:26	G	2824475.98	2824476.06	2824476.15	0.0531	0.0478	
Moon	3022-01-11 22:04	G	2824833.20	2824833.42	2824833.64	0.0518	0.0015	
Earth	3022-01-11 23:16	G	2824833.24	2824833.47	2824833.70	0.0518	0.0008	*
Mercury	3026-03-27 11:02	G	2826368.79	2826368.96	2826369.14	0.0490	0.0058	
Venus	3026-11-16 13:40	G	2826602.90	2826603.07	2826603.25	0.0493	0.0244	
Earth	3028-07-19 10:04	G	2827213.74	2827213.92	2827214.09	0.0512	0.0348	
Moon	3028-07-19 13:26	G	2827213.89	2827214.06	2827214.23	0.0512	0.0362	*
Mercury	3031-11-30 19:55	G	2828443.24	2828443.33	2828443.42	0.0538	0.0376	
Mercury	3032-02-28 04:48	G	2828532.59	2828532.70	2828532.81	0.0537	0.0248	
Venus	3032-09-24 04:04	G	2828741.47	2828741.67	2828741.87	0.0533	0.0075	
Earth	3034-01-16 15:21	G	2829220.94	2829221.14	2829221.35	0.0516	0.0241	
Moon	3034-01-16 18:14	G	2829221.05	2829221.26	2829221.48	0.0516	0.0214	*
Mercury	3038-01-13 08:52	G	2830678.72	2830678.87	2830679.03	0.0489	0.0232	

Mercury	3038-04-13 12:28 G	2830768.94	2830769.02	2830769.11	0.0490	0.0428
Mercury	3043-09-18 23:16 G	2832753.46	2832753.47	2832753.50	0.0539	0.0530
Mercury	3043-12-17 08:38 G	2832842.74	2832842.86	2832842.99	0.0538	0.0103
Venus	3044-05-29 19:11 G	2833007.14	2833007.30	2833007.46	0.0534	0.0330
Moon	3046-01-21 04:19 G	2833608.59	2833608.68	2833608.78	0.0514	0.0465
Earth	3046-01-21 08:09 G	2833608.76	2833608.84	2833608.92	0.0514	0.0480 *
Mars	3048-08-22 18:43 G	2834552.98	2834553.28	2834553.58	0.0489	0.0037
Mercury	3049-11-01 07:55 G	2834988.73	2834988.83	2834988.94	0.0489	0.0390
Mercury	3050-01-30 11:02 G	2835078.81	2835078.96	2835079.11	0.0490	0.0261
Venus	3050-11-18 19:11 G	2835371.13	2835371.30	2835371.48	0.0496	0.0258
Mercury	3055-10-05 12:28 G	2837152.89	2837153.02	2837153.15	0.0538	0.0052
Mercury	3061-11-18 09:35 G	2839388.73	2839388.90	2839389.08	0.0490	0.0097
Venus	3062-07-24 21:50 G	2839637.21	2839637.41	2839637.61	0.0494	0.0064
Mars	3066-06-17 22:19 G	2841061.22	2841061.43	2841061.64	0.0538	0.0292
Mercury	3067-07-24 15:35 G	2841463.03	2841463.15	2841463.27	0.0538	0.0207
Mercury	3067-10-22 00:14 G	2841552.43	2841552.51	2841552.59	0.0536	0.0408
Venus	3068-06-01 21:50 G	2841776.25	2841776.41	2841776.58	0.0531	0.0317
Mercury	3073-09-06 08:38 G	2843698.68	2843698.86	2843699.04	0.0490	0.0062
Venus	3074-03-30 01:11 G	2843903.43	2843903.55	2843903.69	0.0493	0.0379
Earth	3075-07-05 02:52 G	2844365.48	2844365.62	2844365.76	0.0506	0.0406
Moon	3075-07-05 02:38 G	2844365.49	2844365.61	2844365.73	0.0506	0.0436 *
Mercury	3079-05-12 18:14 G	2845773.16	2845773.26	2845773.35	0.0538	0.0379
Mercury	3079-08-10 03:07 G	2845862.51	2845862.63	2845862.74	0.0537	0.0244
Venus	3080-02-05 09:21 G	2846041.69	2846041.89	2846042.09	0.0533	0.0104
Mercury	3085-06-25 07:26 G	2848008.66	2848008.81	2848008.97	0.0489	0.0224
Mercury	3085-09-23 11:02 G	2848098.88	2848098.96	2848099.04	0.0490	0.0437
Venus	3086-07-27 06:28 G	2848405.69	2848405.77	2848405.85	0.0497	0.0454
Moon	3087-07-09 18:43 G	2848753.07	2848753.28	2848753.49	0.0507	0.0189
Earth	3087-07-09 19:55 G	2848753.11	2848753.33	2848753.55	0.0507	0.0176 *
Mercury	3091-05-29 06:28 G	2850172.64	2850172.77	2850172.90	0.0537	0.0091

Venus	3091-10-10 22:19 G	2850307.39	2850307.43	2850307.49	0.0535	0.0518
Moon	3093-01-06 08:09 G	2850760.65	2850760.84	2850761.04	0.0521	0.0261
Earth	3093-01-06 09:21 G	2850760.70	2850760.89	2850761.08	0.0521	0.0291 *
Mercury	3097-04-13 05:31 G	2852318.63	2852318.73	2852318.84	0.0489	0.0395
Mercury	3097-07-12 08:38 G	2852408.70	2852408.86	2852409.01	0.0490	0.0256
Venus	3098-04-01 06:14 G	2852671.56	2852671.76	2852671.95	0.0495	0.0118
Earth	3099-07-14 10:48 G	2853140.72	2853140.95	2853141.19	0.0509	0.0053
Moon	3099-07-14 13:55 G	2853140.84	2853141.08	2853141.32	0.0509	0.0081 *
Mars	3102-03-23 14:09 G	2854122.88	2854123.09	2854123.30	0.0539	0.0294
Mercury	3103-03-18 10:19 G	2854482.80	2854482.93	2854483.06	0.0538	0.0058
Earth	3105-01-12 04:48 G	2855148.47	2855148.70	2855148.93	0.0519	0.0040
Moon	3105-01-12 07:26 G	2855148.58	2855148.81	2855149.05	0.0519	0.0031 *
Mercury	3109-05-01 07:11 G	2856718.63	2856718.80	2856718.98	0.0490	0.0092
Venus	3109-12-06 08:38 G	2856937.68	2856937.86	2856938.05	0.0493	0.0204
Moon	3111-07-20 04:04 G	2857528.49	2857528.67	2857528.87	0.0512	0.0308
Earth	3111-07-20 08:09 G	2857528.65	2857528.84	2857529.03	0.0512	0.0297 *
Mercury	3115-01-04 13:55 G	2858792.96	2858793.08	2858793.20	0.0538	0.0210
Mercury	3115-04-03 22:33 G	2858882.36	2858882.44	2858882.52	0.0537	0.0407
Venus	3115-10-15 04:19 G	2859076.49	2859076.68	2859076.88	0.0532	0.0147
Moon	3117-01-16 16:48 G	2859535.98	2859536.20	2859536.41	0.0516	0.0171
Earth	3117-01-16 20:24 G	2859536.14	2859536.35	2859536.56	0.0516	0.0202 *
Mercury	3121-02-17 06:00 G	2861028.58	2861028.75	2861028.93	0.0490	0.0070
Mercury	3126-10-23 17:16 G	2863103.12	2863103.22	2863103.31	0.0538	0.0368
Mercury	3127-01-21 02:09 G	2863192.48	2863192.59	2863192.70	0.0537	0.0256
Venus	3127-06-19 17:45 G	2863342.07	2863342.24	2863342.42	0.0534	0.0268
Earth	3129-01-21 10:04 G	2863923.80	2863923.92	2863924.04	0.0514	0.0435
Moon	3129-01-21 13:40 G	2863923.94	2863924.07	2863924.19	0.0514	0.0428 *
Mercury	3132-12-06 05:16 G	2865338.56	2865338.72	2865338.88	0.0489	0.0227
Mercury	3133-03-06 08:52 G	2865428.79	2865428.87	2865428.95	0.0491	0.0434
Venus	3133-12-08 18:00 G	2865706.09	2865706.25	2865706.41	0.0496	0.0317

Mercury	3138-11-09 05:02 G	2867502.58	2867502.71	2867502.84	0.0537	0.0091
Mercury	3144-09-24 04:19 G	2869648.57	2869648.68	2869648.79	0.0489	0.0385
Mercury	3144-12-23 07:11 G	2869738.66	2869738.80	2869738.96	0.0490	0.0267
Venus	3145-08-13 19:55 G	2869972.12	2869972.33	2869972.53	0.0494	0.0010
Mercury	3150-08-28 08:24 G	2871812.72	2871812.85	2871812.98	0.0538	0.0066
Venus	3151-06-22 18:14 G	2872111.11	2872111.26	2872111.40	0.0531	0.0370
Mercury	3156-10-11 05:02 G	2874048.54	2874048.71	2874048.89	0.0490	0.0090
Venus	3157-04-18 20:24 G	2874238.21	2874238.35	2874238.50	0.0493	0.0338
Earth	3158-07-05 00:00 G	2874680.41	2874680.50	2874680.61	0.0505	0.0454
Moon	3158-07-04 23:16 G	2874680.42	2874680.47	2874680.53	0.0505	0.0486 *
Mercury	3162-06-16 12:00 G	2876122.88	2876123.00	2876123.12	0.0539	0.0218
Mercury	3162-09-13 20:38 G	2876212.28	2876212.36	2876212.45	0.0537	0.0402
Venus	3163-02-25 09:50 G	2876376.70	2876376.91	2876377.11	0.0533	0.0034
Mars	3167-02-10 10:04 G	2877822.89	2877822.92	2877822.98	0.0489	0.0483
Mercury	3168-07-30 04:04 G	2878358.49	2878358.67	2878358.84	0.0489	0.0071
Earth	3170-07-09 18:57 G	2879068.08	2879068.29	2879068.50	0.0507	0.0221
Moon	3170-07-09 21:35 G	2879068.19	2879068.40	2879068.62	0.0507	0.0226 *
Mercury	3174-04-04 15:50 G	2880433.06	2880433.16	2880433.25	0.0539	0.0369
Mercury	3174-07-03 00:43 G	2880522.42	2880522.53	2880522.64	0.0537	0.0256
Venus	3174-10-31 00:00 G	2880642.40	2880642.50	2880642.62	0.0535	0.0443
Earth	3176-01-07 16:04 G	2881075.99	2881076.17	2881076.35	0.0521	0.0325
Moon	3176-01-07 18:28 G	2881076.08	2881076.27	2881076.47	0.0521	0.0292 *
Mercury	3180-05-18 02:52 G	2882668.47	2882668.62	2882668.78	0.0489	0.0231
Mercury	3180-08-16 06:28 G	2882758.69	2882758.77	2882758.85	0.0490	0.0429
Venus	3181-04-21 04:48 G	2883006.51	2883006.70	2883006.89	0.0495	0.0176
Moon	3182-07-14 12:14 G	2883455.78	2883456.01	2883456.25	0.0509	0.0048
Earth	3182-07-14 16:04 G	2883455.93	2883456.17	2883456.41	0.0509	0.0018 *
Mercury	3186-01-21 18:57 G	2884743.27	2884743.29	2884743.32	0.0539	0.0527
Mercury	3186-04-21 04:19 G	2884832.55	2884832.68	2884832.81	0.0537	0.0104
Moon	3188-01-12 05:02 G	2885463.49	2885463.71	2885463.94	0.0519	0.0080

Earth	3188-01-12 08:38 G	2885463.63	2885463.86	2885464.09	0.0519	0.0080 *
Mercury	3192-03-06 02:24 G	2886978.49	2886978.60	2886978.70	0.0489	0.0385
Mercury	3192-06-04 05:16 G	2887068.57	2887068.72	2887068.87	0.0490	0.0268
Venus	3192-12-25 07:55 G	2887272.64	2887272.83	2887273.03	0.0494	0.0143
Earth	3194-07-19 13:26 G	2887843.86	2887844.06	2887844.27	0.0511	0.0259
Moon	3194-07-19 17:16 G	2887844.02	2887844.22	2887844.42	0.0511	0.0265 *
Mercury	3198-02-07 07:11 G	2889142.67	2889142.80	2889142.93	0.0538	0.0060
Venus	3198-11-03 01:26 G	2889411.37	2889411.56	2889411.74	0.0532	0.0201
Earth	3200-01-16 21:35 G	2889851.18	2889851.40	2889851.62	0.0517	0.0153
Moon	3200-01-17 01:11 G	2889851.33	2889851.55	2889851.77	0.0517	0.0121 *
Mars	3202-11-17 08:09 G	2890886.55	2890886.84	2890887.14	0.0489	0.0106
Mercury	3204-03-23 04:04 G	2891378.49	2891378.67	2891378.84	0.0490	0.0103
Venus	3204-08-30 11:02 G	2891538.89	2891538.96	2891539.03	0.0492	0.0461
Moon	3206-07-24 06:43 G	2892231.69	2892231.78	2892231.89	0.0513	0.0469
Earth	3206-07-24 09:35 G	2892231.86	2892231.90	2892231.96	0.0513	0.0501 *
Mercury	3209-11-26 10:33 G	2893452.82	2893452.94	2893453.06	0.0538	0.0219
Mercury	3210-02-23 19:11 G	2893542.21	2893542.30	2893542.38	0.0537	0.0399
Venus	3210-07-08 15:07 G	2893676.94	2893677.13	2893677.32	0.0534	0.0211
Moon	3212-01-21 10:33 G	2894238.79	2894238.94	2894239.10	0.0515	0.0381
Earth	3212-01-21 13:26 G	2894238.92	2894239.06	2894239.22	0.0515	0.0392 *
Mercury	3216-01-10 02:09 G	2895688.41	2895688.59	2895688.76	0.0489	0.0070
Venus	3216-12-27 13:40 G	2896040.94	2896041.07	2896041.22	0.0496	0.0363
Mars	3220-09-11 12:00 G	2897394.76	2897395.00	2897395.24	0.0538	0.0170
Mercury	3221-09-14 13:55 G	2897762.99	2897763.08	2897763.17	0.0539	0.0374
Mercury	3221-12-12 23:02 G	2897852.34	2897852.46	2897852.57	0.0538	0.0253
Mercury	3227-10-29 01:11 G	2899998.39	2899998.55	2899998.71	0.0489	0.0227
Mercury	3228-01-27 04:33 G	2900088.61	2900088.69	2900088.78	0.0490	0.0431
Venus	3228-09-01 16:33 G	2900306.98	2900307.19	2900307.39	0.0494	0.0039
Mercury	3233-07-03 17:31 G	2902073.20	2902073.23	2902073.26	0.0539	0.0525
Mercury	3233-10-01 02:52 G	2902162.49	2902162.62	2902162.75	0.0538	0.0107

Venus	3234-07-11 20:38 G	2902446.26	2902446.36	2902446.47	0.0531	0.0450
Mercury	3239-08-17 00:14 G	2904308.41	2904308.51	2904308.62	0.0489	0.0384
Mercury	3239-11-15 03:07 G	2904398.49	2904398.63	2904398.79	0.0490	0.0267
Venus	3240-05-07 19:40 G	2904573.16	2904573.32	2904573.50	0.0493	0.0279
Earth	3241-07-04 07:11 G	2904995.74	2904995.80	2904995.87	0.0505	0.0482
Mercury	3245-07-20 06:28 G	2906472.64	2906472.77	2906472.90	0.0538	0.0045
Venus	3246-03-16 11:02 G	2906711.76	2906711.96	2906712.16	0.0533	0.0043
Mercury	3251-09-03 02:09 G	2908708.42	2908708.59	2908708.77	0.0490	0.0108
Moon	3253-07-08 23:16 G	2909383.27	2909383.47	2909383.67	0.0507	0.0250
Earth	3253-07-09 02:52 G	2909383.42	2909383.62	2909383.83	0.0507	0.0251 *
Mars	3256-06-16 17:31 G	2910457.10	2910457.23	2910457.36	0.0538	0.0460
Mercury	3257-05-08 09:21 G	2910782.77	2910782.89	2910783.01	0.0538	0.0210
Mercury	3257-08-05 18:00 G	2910872.17	2910872.25	2910872.34	0.0537	0.0408
Venus	3257-11-18 22:48 G	2910977.31	2910977.45	2910977.59	0.0534	0.0380
Moon	3259-01-06 15:21 G	2911390.97	2911391.14	2911391.31	0.0522	0.0339
Earth	3259-01-06 18:43 G	2911391.12	2911391.28	2911391.44	0.0522	0.0369 *
Mercury	3263-06-22 01:11 G	2913018.37	2913018.55	2913018.73	0.0490	0.0054
Venus	3264-05-10 04:33 G	2913341.52	2913341.69	2913341.87	0.0495	0.0240
Earth	3265-07-13 21:35 G	2913771.16	2913771.40	2913771.63	0.0508	0.0019
Moon	3265-07-14 01:26 G	2913771.32	2913771.56	2913771.79	0.0508	0.0018 *
Mercury	3269-02-24 12:43 G	2915092.93	2915093.03	2915093.12	0.0538	0.0369
Mercury	3269-05-24 21:35 G	2915182.29	2915182.40	2915182.52	0.0537	0.0256
Earth	3271-01-11 12:57 G	2915778.81	2915779.04	2915779.26	0.0520	0.0121
Moon	3271-01-11 16:33 G	2915778.97	2915779.19	2915779.41	0.0520	0.0129 *
Mercury	3275-04-09 23:31 G	2917328.33	2917328.48	2917328.64	0.0489	0.0222
Mercury	3275-07-09 02:52 G	2917418.54	2917418.62	2917418.70	0.0490	0.0436
Venus	3276-01-14 05:16 G	2917607.52	2917607.72	2917607.92	0.0493	0.0093
Moon	3277-07-18 09:21 G	2918158.67	2918158.89	2918159.11	0.0510	0.0217
Earth	3277-07-18 12:43 G	2918158.81	2918159.03	2918159.24	0.0510	0.0211 *
Mercury	3280-12-13 15:50 G	2919403.14	2919403.16	2919403.19	0.0539	0.0528

Mercury	3281-03-13 01:26 G	2919492.43	2919492.56	2919492.68	0.0538	0.0107
Venus	3281-11-22 03:21 G	2919746.47	2919746.64	2919746.82	0.0532	0.0280
Moon	3283-01-16 05:16 G	2920166.49	2920166.72	2920166.95	0.0518	0.0094
Earth	3283-01-16 08:24 G	2920166.63	2920166.85	2920167.07	0.0518	0.0128 *
Mercury	3287-01-26 23:02 G	2921638.35	2921638.46	2921638.57	0.0489	0.0375
Mercury	3287-04-27 01:40 G	2921728.43	2921728.57	2921728.72	0.0490	0.0274
Venus	3287-09-19 08:52 G	2921873.76	2921873.87	2921873.98	0.0492	0.0409
Earth	3289-07-23 10:33 G	2922546.84	2922546.94	2922547.05	0.0513	0.0457
Moon	3289-07-23 12:00 G	2922546.88	2922547.00	2922547.13	0.0513	0.0429 *
Mercury	3292-12-30 05:16 G	2923802.59	2923802.72	2923802.85	0.0538	0.0042
Venus	3293-07-27 18:28 G	2924012.08	2924012.27	2924012.47	0.0534	0.0126
Earth	3295-01-21 00:28 G	2924554.37	2924554.52	2924554.69	0.0515	0.0364
Moon	3295-01-21 02:09 G	2924554.44	2924554.59	2924554.75	0.0515	0.0364 *
Mercury	3299-02-13 00:28 G	2926038.35	2926038.52	2926038.70	0.0490	0.0111
Venus	3300-01-16 14:24 G	2926376.00	2926376.10	2926376.20	0.0496	0.0429
Mercury	3304-10-19 08:52 G	2928112.75	2928112.87	2928112.99	0.0538	0.0193
Mercury	3305-01-16 17:31 G	2928202.15	2928202.23	2928202.31	0.0537	0.0425
Mercury	3310-12-02 23:45 G	2930348.31	2930348.49	2930348.67	0.0489	0.0047
Venus	3311-09-22 17:31 G	2930642.03	2930642.23	2930642.43	0.0495	0.0108
Mercury	3316-08-07 11:45 G	2932422.89	2932422.99	2932423.09	0.0538	0.0357
Mercury	3316-11-04 20:38 G	2932512.25	2932512.36	2932512.48	0.0537	0.0268
Venus	3317-07-31 20:09 G	2932781.30	2932781.34	2932781.39	0.0531	0.0518
Mars	3321-05-07 12:57 G	2934156.82	2934157.04	2934157.28	0.0490	0.0311
Mercury	3322-09-20 22:48 G	2934658.29	2934658.45	2934658.61	0.0489	0.0205
Mercury	3322-12-20 02:09 G	2934748.53	2934748.59	2934748.66	0.0490	0.0455
Venus	3323-05-28 20:38 G	2934908.17	2934908.36	2934908.54	0.0493	0.0214
Mercury	3328-05-26 14:52 G	2936733.09	2936733.12	2936733.15	0.0539	0.0518
Mercury	3328-08-24 00:14 G	2936822.38	2936822.51	2936822.64	0.0538	0.0114
Venus	3329-04-05 10:48 G	2937046.75	2937046.95	2937047.15	0.0533	0.0111
Mercury	3334-07-09 21:35 G	2938968.29	2938968.40	2938968.51	0.0489	0.0367

Mercury	3334-10-08 00:14 G	2939058.37	2939058.51	2939058.66	0.0490	0.0283
Earth	3336-07-09 04:19 G	2939698.49	2939698.68	2939698.88	0.0506	0.0291
Moon	3336-07-09 08:24 G	2939698.66	2939698.85	2939699.05	0.0506	0.0281 *
Mercury	3340-06-12 03:35 G	2941132.52	2941132.65	2941132.78	0.0539	0.0044
Venus	3340-12-09 00:57 G	2941312.37	2941312.54	2941312.71	0.0535	0.0302
Earth	3342-01-07 05:31 G	2941706.58	2941706.73	2941706.88	0.0523	0.0394
Moon	3342-01-07 09:07 G	2941706.72	2941706.88	2941707.05	0.0523	0.0366 *
Mercury	3346-07-26 23:16 G	2943368.30	2943368.47	2943368.65	0.0489	0.0123
Venus	3347-05-31 03:07 G	2943676.47	2943676.63	2943676.80	0.0495	0.0297
Moon	3348-07-13 20:52 G	2944086.12	2944086.37	2944086.61	0.0508	0.0025
Earth	3348-07-14 00:14 G	2944086.27	2944086.51	2944086.74	0.0508	0.0056 *
Mercury	3352-03-31 07:26 G	2945442.69	2945442.81	2945442.94	0.0539	0.0189
Mercury	3352-06-28 16:19 G	2945532.10	2945532.18	2945532.25	0.0537	0.0431
Moon	3354-01-11 21:50 G	2946094.19	2946094.41	2946094.64	0.0520	0.0158
Earth	3354-01-12 00:57 G	2946094.32	2946094.54	2946094.76	0.0520	0.0145 *
Mars	3357-02-11 16:48 G	2947220.96	2947221.20	2947221.44	0.0488	0.0295
Mercury	3358-05-14 22:19 G	2947678.25	2947678.43	2947678.61	0.0489	0.0039
Venus	3359-02-03 06:14 G	2947942.55	2947942.76	2947942.96	0.0494	0.0025
Earth	3360-07-18 21:50 G	2948474.19	2948474.41	2948474.64	0.0510	0.0185
Moon	3360-07-18 23:45 G	2948474.27	2948474.49	2948474.70	0.0510	0.0185 *
Mercury	3364-01-18 11:02 G	2949752.86	2949752.96	2949753.06	0.0539	0.0341
Mercury	3364-04-16 20:09 G	2949842.23	2949842.34	2949842.45	0.0537	0.0285
Venus	3364-12-12 06:57 G	2950081.64	2950081.79	2950081.93	0.0532	0.0366
Earth	3366-01-16 18:00 G	2950482.02	2950482.25	2950482.48	0.0518	0.0098
Moon	3366-01-16 19:40 G	2950482.10	2950482.32	2950482.54	0.0518	0.0068 *
Mercury	3370-03-02 21:35 G	2951988.24	2951988.40	2951988.56	0.0489	0.0195
Mercury	3370-06-01 00:57 G	2952078.49	2952078.54	2952078.60	0.0490	0.0465
Venus	3370-10-09 10:04 G	2952208.78	2952208.92	2952209.07	0.0493	0.0342
Earth	3372-07-23 21:07 G	2952862.25	2952862.38	2952862.51	0.0512	0.0429
Moon	3372-07-23 21:50 G	2952862.26	2952862.41	2952862.57	0.0512	0.0400 *

Mars	3374-12-08 02:38 G	2953729.36	2953729.61	2953729.87	0.0538	0.0031
Mercury	3375-11-06 13:55 G	2954063.04	2954063.08	2954063.13	0.0539	0.0505
Mercury	3376-02-03 23:31 G	2954152.35	2954152.48	2954152.60	0.0538	0.0128
Venus	3376-08-16 19:26 G	2954347.11	2954347.31	2954347.52	0.0534	0.0054
Earth	3378-01-21 07:11 G	2954869.63	2954869.80	2954869.98	0.0516	0.0329
Moon	3378-01-21 07:26 G	2954869.63	2954869.81	2954869.99	0.0516	0.0332 *
Mercury	3381-12-19 20:52 G	2956298.25	2956298.37	2956298.49	0.0489	0.0351
Mercury	3382-03-19 23:45 G	2956388.35	2956388.49	2956388.63	0.0490	0.0301
Mercury	3387-11-23 02:52 G	2958462.49	2958462.62	2958462.75	0.0538	0.0029
Venus	3388-04-21 08:38 G	2958612.77	2958612.86	2958612.96	0.0535	0.0471
Mercury	3394-01-05 22:19 G	2960698.25	2960698.43	2960698.60	0.0489	0.0134
Venus	3394-10-11 16:48 G	2960977.01	2960977.20	2960977.39	0.0494	0.0168
Mercury	3399-09-11 06:00 G	2962772.63	2962772.75	2962772.88	0.0539	0.0188
Mercury	3399-12-09 14:52 G	2962862.05	2962862.12	2962862.19	0.0538	0.0433
Mercury	3405-10-25 21:21 G	2965008.21	2965008.39	2965008.57	0.0489	0.0025
Venus	3406-06-17 20:09 G	2965243.14	2965243.34	2965243.53	0.0493	0.0153
Mercury	3411-07-01 09:50 G	2967082.81	2967082.91	2967083.01	0.0539	0.0337
Mercury	3411-09-28 18:57 G	2967172.18	2967172.29	2967172.40	0.0538	0.0291
Venus	3412-04-25 14:52 G	2967381.93	2967382.12	2967382.31	0.0533	0.0201
Mercury	3417-08-13 20:24 G	2969318.18	2969318.35	2969318.51	0.0489	0.0185
Mercury	3417-11-11 23:31 G	2969408.44	2969408.48	2969408.53	0.0490	0.0474
Venus	3418-02-20 23:45 G	2969509.43	2969509.49	2969509.55	0.0492	0.0469
Moon	3419-07-10 11:16 G	2970013.78	2970013.97	2970014.16	0.0506	0.0303
Earth	3419-07-10 14:38 G	2970013.93	2970014.11	2970014.30	0.0506	0.0315 *
Mercury	3423-04-19 13:26 G	2971393.00	2971393.06	2971393.11	0.0539	0.0489
Mercury	3423-07-17 22:48 G	2971482.32	2971482.45	2971482.58	0.0538	0.0144
Venus	3423-12-30 05:16 G	2971647.53	2971647.72	2971647.91	0.0535	0.0211
Moon	3425-01-07 12:57 G	2972021.89	2972022.04	2972022.20	0.0523	0.0394
Earth	3425-01-07 16:04 G	2972022.04	2972022.17	2972022.31	0.0523	0.0420 *
Mercury	3429-06-01 19:40 G	2973628.20	2973628.32	2973628.45	0.0489	0.0339

Mercury	3429-08-30 22:33 G	2973718.30	2973718.44	2973718.58	0.0490	0.0312
Venus	3430-06-20 05:02 G	2974011.58	2974011.71	2974011.85	0.0496	0.0370
Earth	3431-07-15 11:16 G	2974401.74	2974401.97	2974402.21	0.0508	0.0081
Moon	3431-07-15 13:26 G	2974401.83	2974402.06	2974402.28	0.0508	0.0051 *
Mercury	3435-05-06 02:09 G	2975792.46	2975792.59	2975792.72	0.0538	0.0020
Earth	3437-01-12 07:55 G	2976409.62	2976409.83	2976410.05	0.0521	0.0178
Moon	3437-01-12 09:50 G	2976409.70	2976409.91	2976410.12	0.0521	0.0195 *
Mercury	3441-06-18 21:35 G	2978028.23	2978028.40	2978028.57	0.0490	0.0151
Venus	3442-02-23 08:09 G	2978277.63	2978277.84	2978278.04	0.0494	0.0047
Earth	3443-07-20 07:11 G	2978789.58	2978789.80	2978790.03	0.0510	0.0157
Moon	3443-07-20 07:26 G	2978789.58	2978789.81	2978790.05	0.0510	0.0149 *
Mercury	3447-02-22 05:16 G	2980102.60	2980102.72	2980102.85	0.0538	0.0173
Mercury	3447-05-22 14:09 G	2980192.02	2980192.09	2980192.16	0.0537	0.0446
Venus	3448-01-02 07:26 G	2980416.70	2980416.81	2980416.93	0.0532	0.0439
Moon	3449-01-17 01:26 G	2980797.33	2980797.56	2980797.80	0.0519	0.0040
Earth	3449-01-17 01:40 G	2980797.34	2980797.57	2980797.80	0.0519	0.0065 *
Mercury	3453-04-06 20:09 G	2982338.17	2982338.34	2982338.52	0.0489	0.0016
Venus	3453-10-29 10:19 G	2982543.76	2982543.93	2982544.10	0.0492	0.0278
Moon	3455-07-24 20:52 G	2983177.21	2983177.37	2983177.53	0.0511	0.0357
Earth	3455-07-24 23:16 G	2983177.32	2983177.47	2983177.63	0.0511	0.0386 *
Mercury	3458-12-11 08:24 G	2984412.74	2984412.85	2984412.95	0.0539	0.0336
Mercury	3459-03-10 17:31 G	2984502.12	2984502.23	2984502.34	0.0538	0.0292
Venus	3459-09-06 21:35 G	2984682.19	2984682.40	2984682.60	0.0534	0.0030
Moon	3461-01-21 17:16 G	2985185.05	2985185.22	2985185.40	0.0517	0.0321
Earth	3461-01-21 19:26 G	2985185.13	2985185.31	2985185.50	0.0517	0.0305 *
Mercury	3465-01-23 19:26 G	2986648.15	2986648.31	2986648.48	0.0488	0.0169
Mercury	3465-04-23 22:48 G	2986738.44	2986738.45	2986738.46	0.0490	0.0488
Mercury	3470-09-29 12:00 G	2988722.94	2988723.00	2988723.05	0.0540	0.0487
Mercury	3470-12-27 21:21 G	2988812.27	2988812.39	2988812.52	0.0538	0.0148
Venus	3471-05-12 12:00 G	2988947.87	2988948.00	2988948.15	0.0536	0.0385

Mars	3475-08-03 08:38 G	2990491.56	2990491.86	2990492.16	0.0489	0.0095
Mercury	3476-11-11 18:28 G	2990958.15	2990958.27	2990958.40	0.0488	0.0328
Mercury	3477-02-09 21:21 G	2991048.26	2991048.39	2991048.52	0.0489	0.0322
Venus	3477-10-31 18:00 G	2991312.08	2991312.25	2991312.43	0.0495	0.0239
Mercury	3482-10-16 01:11 G	2993122.42	2993122.55	2993122.68	0.0539	0.0014
Mercury	3488-08-30 18:14 G	2995268.23	2995268.26	2995268.28	0.0488	0.0480
Mercury	3488-11-28 20:24 G	2995358.18	2995358.35	2995358.52	0.0489	0.0162
Venus	3489-07-06 21:35 G	2995578.20	2995578.40	2995578.60	0.0493	0.0083
Mars	3493-05-30 15:07 G	2997001.97	2997002.13	2997002.31	0.0538	0.0393
Mercury	3494-08-04 04:33 G	2997432.56	2997432.69	2997432.81	0.0538	0.0158
Mercury	3494-11-01 13:11 G	2997521.99	2997522.05	2997522.12	0.0537	0.0459
Venus	3495-05-15 16:33 G	2997717.02	2997717.19	2997717.36	0.0533	0.0279
Mercury	3500-09-17 19:26 G	2999668.13	2999668.31	2999668.49	0.0489	0.0004
Venus	3501-03-13 01:26 G	2999844.44	2999844.56	2999844.68	0.0492	0.0400
Earth	3502-07-11 00:43 G	3000329.35	3000329.53	3000329.70	0.0505	0.0337
Moon	3502-07-11 02:52 G	3000329.44	3000329.62	3000329.79	0.0505	0.0322 *
Mercury	3506-05-24 07:40 G	3001742.72	3001742.82	3001742.93	0.0539	0.0318
Mercury	3506-08-21 16:48 G	3001832.09	3001832.20	3001832.31	0.0538	0.0307
Venus	3507-01-19 06:00 G	3001982.55	3001982.75	3001982.95	0.0534	0.0138
Earth	3508-01-08 22:19 G	3002337.33	3002337.43	3002337.55	0.0523	0.0454
Moon	3508-01-09 00:28 G	3002337.40	3002337.52	3002337.64	0.0523	0.0432 *
Mercury	3512-07-06 18:28 G	3003978.10	3003978.27	3003978.44	0.0489	0.0156
Venus	3513-07-10 05:02 G	3004346.62	3004346.71	3004346.81	0.0495	0.0435
Moon	3514-07-15 15:07 G	3004716.89	3004717.13	3004717.37	0.0507	0.0092
Earth	3514-07-15 15:21 G	3004716.91	3004717.14	3004717.37	0.0507	0.0118 *
Mercury	3518-03-12 10:19 G	3006052.88	3006052.93	3006052.99	0.0540	0.0487
Mercury	3518-06-09 19:55 G	3006142.21	3006142.33	3006142.46	0.0539	0.0149
Moon	3520-01-13 17:31 G	3006725.02	3006725.23	3006725.44	0.0522	0.0228
Earth	3520-01-13 17:45 G	3006725.03	3006725.24	3006725.45	0.0522	0.0208 *
Mercury	3524-04-24 17:45 G	3008288.11	3008288.24	3008288.38	0.0488	0.0311

Mercury	3524-07-23 20:38 G	3008378.23	3008378.36	3008378.48	0.0489	0.0339
Venus	3525-03-15 08:09 G	3008612.64	3008612.84	3008613.04	0.0493	0.0111
Moon	3526-07-20 08:38 G	3009104.63	3009104.86	3009105.08	0.0509	0.0100
Earth	3526-07-20 10:48 G	3009104.72	3009104.95	3009105.18	0.0509	0.0117 *
Mars	3529-03-05 09:21 G	3010063.66	3010063.89	3010064.12	0.0539	0.0214
Mercury	3530-03-28 23:45 G	3010452.36	3010452.49	3010452.62	0.0539	0.0008
Venus	3531-01-22 10:19 G	3010751.91	3010751.93	3010751.96	0.0532	0.0526
Moon	3532-01-18 11:02 G	3011112.74	3011112.96	3011113.18	0.0519	0.0018
Earth	3532-01-18 12:57 G	3011112.81	3011113.04	3011113.27	0.0519	0.0037 *
Mercury	3536-02-11 17:02 G	3012598.16	3012598.21	3012598.25	0.0488	0.0469
Mercury	3536-05-11 18:57 G	3012688.13	3012688.29	3012688.46	0.0489	0.0173
Venus	3536-11-18 11:02 G	3012878.78	3012878.96	3012879.15	0.0492	0.0211
Earth	3538-07-25 08:09 G	3013492.67	3013492.84	3013493.01	0.0511	0.0356
Moon	3538-07-25 12:00 G	3013492.82	3013493.00	3013493.19	0.0511	0.0328 *
Mercury	3542-01-15 03:35 G	3014762.52	3014762.65	3014762.78	0.0539	0.0148
Mercury	3542-04-14 12:14 G	3014851.96	3014852.01	3014852.08	0.0538	0.0472
Venus	3542-09-27 01:40 G	3015017.37	3015017.57	3015017.77	0.0534	0.0119
Earth	3544-01-23 06:00 G	3015500.56	3015500.75	3015500.95	0.0517	0.0276
Moon	3544-01-23 09:35 G	3015500.71	3015500.90	3015501.09	0.0517	0.0301 *
Mercury	3548-02-28 18:14 G	3016998.08	3016998.26	3016998.43	0.0489	0.0015
Mercury	3553-11-03 06:43 G	3019072.68	3019072.78	3019072.89	0.0539	0.0307
Mercury	3554-01-31 15:50 G	3019162.06	3019162.16	3019162.27	0.0538	0.0319
Venus	3554-06-01 14:09 G	3019282.93	3019283.09	3019283.26	0.0535	0.0305
Earth	3556-01-27 19:26 G	3019888.26	3019888.31	3019888.36	0.0515	0.0502
Mercury	3559-12-17 17:16 G	3021308.05	3021308.22	3021308.39	0.0489	0.0145
Venus	3560-11-20 19:40 G	3021647.16	3021647.32	3021647.48	0.0495	0.0309
Mercury	3565-08-22 09:50 G	3023382.85	3023382.91	3023382.97	0.0539	0.0469
Mercury	3565-11-19 19:11 G	3023472.18	3023472.30	3023472.43	0.0538	0.0165
Mercury	3571-10-05 16:33 G	3025618.06	3025618.19	3025618.33	0.0488	0.0300
Mercury	3572-01-03 19:11 G	3025708.18	3025708.30	3025708.43	0.0489	0.0350

Venus	3572-07-26 21:50 G	3025913.21	3025913.41	3025913.61	0.0493	0.0016
Mercury	3577-09-07 22:04 G	3027782.29	3027782.42	3027782.56	0.0539	0.0016
Venus	3578-06-04 16:33 G	3028052.04	3028052.19	3028052.34	0.0533	0.0353
Mercury	3583-07-24 16:04 G	3029928.11	3029928.17	3029928.24	0.0488	0.0453
Mercury	3583-10-22 18:14 G	3030018.10	3030018.26	3030018.42	0.0489	0.0188
Venus	3584-04-01 01:26 G	3030179.42	3030179.56	3030179.71	0.0491	0.0335
Moon	3585-07-10 04:19 G	3030644.50	3030644.68	3030644.85	0.0504	0.0354
Earth	3585-07-10 04:48 G	3030644.54	3030644.70	3030644.86	0.0504	0.0374 *
Mercury	3589-06-27 01:55 G	3032092.45	3032092.58	3032092.70	0.0539	0.0151
Mercury	3589-09-24 10:48 G	3032181.89	3032181.95	3032182.01	0.0538	0.0470
Venus	3590-02-07 07:26 G	3032317.60	3032317.81	3032318.01	0.0535	0.0059
Moon	3591-01-08 06:28 G	3032652.67	3032652.77	3032652.88	0.0524	0.0470
Earth	3591-01-08 06:57 G	3032652.72	3032652.79	3032652.88	0.0524	0.0489 *
Mercury	3595-08-10 16:48 G	3034328.02	3034328.20	3034328.38	0.0489	0.0022
Moon	3597-07-14 21:07 G	3035032.16	3035032.38	3035032.60	0.0506	0.0130
Earth	3597-07-14 22:48 G	3035032.23	3035032.45	3035032.68	0.0506	0.0149 *
Mercury	3601-04-15 05:31 G	3036402.62	3036402.73	3036402.84	0.0539	0.0301
Mercury	3601-07-13 14:38 G	3036492.01	3036492.11	3036492.22	0.0538	0.0327
Venus	3601-10-12 21:35 G	3036583.31	3036583.40	3036583.50	0.0536	0.0476
Moon	3603-01-13 01:26 G	3037040.37	3037040.56	3037040.75	0.0522	0.0266
Earth	3603-01-13 03:07 G	3037040.43	3037040.63	3037040.84	0.0522	0.0239 *
Mercury	3607-05-29 15:50 G	3038637.99	3038638.16	3038638.33	0.0489	0.0137
Venus	3608-04-03 08:24 G	3038947.66	3038947.85	3038948.04	0.0494	0.0177
Earth	3609-07-19 19:26 G	3039420.08	3039420.31	3039420.55	0.0509	0.0088
Moon	3609-07-19 23:16 G	3039420.23	3039420.47	3039420.71	0.0509	0.0064 *
Mercury	3613-02-01 08:38 G	3040712.80	3040712.86	3040712.93	0.0539	0.0461
Mercury	3613-05-01 18:14 G	3040802.13	3040802.26	3040802.38	0.0538	0.0173
Earth	3615-01-17 18:57 G	3041428.06	3041428.29	3041428.52	0.0520	0.0005
Moon	3615-01-17 22:19 G	3041428.20	3041428.43	3041428.67	0.0520	0.0015 *
Mercury	3619-03-17 15:07 G	3042947.99	3042948.13	3042948.27	0.0489	0.0293

Mercury	3619-06-15 17:45 G	3043038.13	3043038.24	3043038.37	0.0490	0.0358
Venus	3619-12-08 11:45 G	3043213.79	3043213.99	3043214.18	0.0493	0.0145
Moon	3621-07-24 11:45 G	3043807.81	3043807.99	3043808.19	0.0510	0.0296
Earth	3621-07-24 16:04 G	3043807.99	3043808.17	3043808.35	0.0510	0.0325 *
Mercury	3625-02-17 21:21 G	3045112.26	3045112.39	3045112.53	0.0538	0.0024
Venus	3625-10-16 01:11 G	3045352.36	3045352.55	3045352.74	0.0534	0.0187
Moon	3627-01-22 07:11 G	3045815.61	3045815.80	3045816.00	0.0518	0.0264
Earth	3627-01-22 11:16 G	3045815.77	3045815.97	3045816.18	0.0518	0.0238 *
Mars	3629-10-28 21:50 G	3046826.12	3046826.41	3046826.71	0.0489	0.0110
Mercury	3631-01-03 14:38 G	3047258.04	3047258.11	3047258.18	0.0488	0.0444
Mercury	3631-04-03 16:48 G	3047348.04	3047348.20	3047348.36	0.0489	0.0197
Venus	3631-08-13 15:07 G	3047480.07	3047480.13	3047480.20	0.0491	0.0461
Mercury	3636-12-07 00:14 G	3049422.38	3049422.51	3049422.63	0.0539	0.0155
Mercury	3637-03-06 09:07 G	3049511.81	3049511.88	3049511.94	0.0538	0.0467
Venus	3637-06-20 12:28 G	3049617.84	3049618.02	3049618.20	0.0536	0.0241
Earth	3639-01-27 02:38 G	3050203.52	3050203.61	3050203.71	0.0516	0.0467
Moon	3639-01-27 06:14 G	3050203.70	3050203.76	3050203.83	0.0516	0.0493 *
Mercury	3643-01-20 15:50 G	3051657.98	3051658.16	3051658.34	0.0489	0.0036
Venus	3643-12-10 18:57 G	3051982.15	3051982.29	3051982.42	0.0494	0.0373
Mars	3647-08-25 12:57 G	3053335.81	3053336.04	3053336.26	0.0538	0.0238
Mercury	3648-09-25 03:35 G	3053732.54	3053732.65	3053732.76	0.0540	0.0308
Mercury	3648-12-23 12:57 G	3053821.93	3053822.04	3053822.14	0.0538	0.0321
Mercury	3654-11-08 14:24 G	3055967.93	3055968.10	3055968.27	0.0488	0.0130
Venus	3655-08-15 20:52 G	3056248.16	3056248.37	3056248.57	0.0493	0.0045
Mercury	3660-07-14 07:11 G	3058042.74	3058042.80	3058042.87	0.0540	0.0460
Mercury	3660-10-11 16:48 G	3058132.08	3058132.20	3058132.32	0.0539	0.0176
Venus	3661-06-23 18:57 G	3058387.18	3058387.29	3058387.41	0.0533	0.0436
Mercury	3666-08-27 13:26 G	3060277.92	3060278.06	3060278.21	0.0488	0.0287
Mercury	3666-11-25 16:04 G	3060368.06	3060368.17	3060368.29	0.0489	0.0363
Venus	3667-04-21 00:28 G	3060514.35	3060514.52	3060514.69	0.0492	0.0276

Moon	3668-07-09 10:04 G	3060959.78	3060959.92	3060960.08	0.0504	0.0382
Earth	3668-07-09 11:45 G	3060959.85	3060959.99	3060960.13	0.0504	0.0405 *
Mercury	3672-07-30 20:09 G	3062442.21	3062442.34	3062442.47	0.0539	0.0023
Venus	3673-02-26 08:09 G	3062652.64	3062652.84	3062653.04	0.0534	0.0016
Moon	3674-01-07 10:19 G	3062967.91	3062967.93	3062967.97	0.0524	0.0518
Mercury	3678-06-15 12:43 G	3064587.97	3064588.03	3064588.11	0.0488	0.0443
Mercury	3678-09-13 14:52 G	3064677.96	3064678.12	3064678.29	0.0489	0.0201
Earth	3680-07-14 05:45 G	3065347.52	3065347.74	3065347.97	0.0506	0.0179
Moon	3680-07-14 09:21 G	3065347.66	3065347.89	3065348.12	0.0506	0.0163 *
Mars	3683-05-30 18:00 G	3066398.09	3066398.25	3066398.42	0.0539	0.0400
Mercury	3684-05-18 23:16 G	3066752.35	3066752.47	3066752.60	0.0539	0.0141
Mercury	3684-08-16 08:09 G	3066841.79	3066841.84	3066841.90	0.0537	0.0479
Venus	3684-10-31 20:24 G	3066918.23	3066918.35	3066918.48	0.0536	0.0411
Earth	3686-01-12 06:00 G	3067355.55	3067355.75	3067355.94	0.0522	0.0282
Moon	3686-01-12 09:07 G	3067355.70	3067355.88	3067356.07	0.0522	0.0312 *
Mercury	3690-07-02 14:09 G	3068987.91	3068988.09	3068988.27	0.0489	0.0042
Venus	3691-04-23 07:40 G	3069282.65	3069282.82	3069283.00	0.0494	0.0242
Moon	3692-07-18 18:00 G	3069735.02	3069735.25	3069735.49	0.0507	0.0019
Earth	3692-07-18 22:04 G	3069735.19	3069735.42	3069735.66	0.0507	0.0044 *
Mercury	3696-03-07 01:40 G	3071062.47	3071062.57	3071062.68	0.0539	0.0314
Mercury	3696-06-04 11:02 G	3071151.85	3071151.96	3071152.06	0.0538	0.0315
Moon	3698-01-16 18:14 G	3071743.04	3071743.26	3071743.49	0.0521	0.0060
Earth	3698-01-16 22:19 G	3071743.20	3071743.43	3071743.66	0.0521	0.0046 *
Mercury	3702-04-21 13:11 G	3073297.88	3073298.05	3073298.22	0.0488	0.0118
Venus	3702-12-28 10:33 G	3073548.74	3073548.94	3073549.14	0.0492	0.0084
Earth	3704-07-24 16:33 G	3074122.99	3074123.19	3074123.39	0.0509	0.0276
Moon	3704-07-24 20:24 G	3074123.15	3074123.35	3074123.55	0.0509	0.0252 *
Mercury	3707-12-26 05:02 G	3075372.65	3075372.71	3075372.77	0.0540	0.0471
Mercury	3708-03-24 14:38 G	3075461.99	3075462.11	3075462.24	0.0539	0.0165
Venus	3708-11-04 23:16 G	3075687.30	3075687.47	3075687.65	0.0534	0.0254

Earth	3710-01-22 16:19 G	3076130.97	3076131.18	3076131.39	0.0519	0.0193
Moon	3710-01-22 19:55 G	3076131.13	3076131.33	3076131.54	0.0519	0.0223 *
Mercury	3714-02-07 11:45 G	3077607.85	3077607.99	3077608.13	0.0488	0.0284
Mercury	3714-05-08 14:09 G	3077697.98	3077698.09	3077698.21	0.0489	0.0365
Venus	3714-09-02 12:43 G	3077814.93	3077815.03	3077815.15	0.0491	0.0409
Earth	3716-07-29 12:28 G	3078511.00	3078511.02	3078511.05	0.0512	0.0508
Mercury	3720-01-11 18:28 G	3079772.14	3079772.27	3079772.40	0.0539	0.0020
Venus	3720-07-10 13:55 G	3079952.89	3079953.08	3079953.28	0.0536	0.0162
Moon	3722-01-27 06:43 G	3080518.67	3080518.78	3080518.90	0.0516	0.0447
Earth	3722-01-27 09:21 G	3080518.77	3080518.89	3080519.02	0.0516	0.0429 *
Mercury	3725-11-26 11:02 G	3081917.89	3081917.96	3081918.03	0.0488	0.0439
Mercury	3726-02-24 12:57 G	3082007.88	3082008.04	3082008.21	0.0489	0.0201
Venus	3726-12-30 16:48 G	3082317.11	3082317.20	3082317.30	0.0495	0.0430
Mercury	3731-10-30 21:50 G	3084082.28	3084082.41	3084082.54	0.0539	0.0139
Mercury	3732-01-28 06:43 G	3084171.73	3084171.78	3084171.84	0.0538	0.0481
Mercury	3737-12-13 12:00 G	3086317.82	3086318.00	3086318.18	0.0489	0.0040
Venus	3738-09-04 19:40 G	3086583.13	3086583.32	3086583.53	0.0493	0.0105
Mercury	3743-08-19 00:57 G	3088392.43	3088392.54	3088392.65	0.0539	0.0301
Mercury	3743-11-16 10:04 G	3088481.82	3088481.92	3088482.02	0.0538	0.0326
Venus	3744-07-13 16:33 G	3088722.12	3088722.19	3088722.26	0.0532	0.0496
Mars	3748-04-17 18:14 G	3090096.04	3090096.26	3090096.49	0.0490	0.0328
Mercury	3749-10-01 11:16 G	3090627.80	3090627.97	3090628.14	0.0488	0.0116
Venus	3750-05-10 23:16 G	3090849.29	3090849.47	3090849.66	0.0492	0.0216
Earth	3751-07-10 15:07 G	3091275.03	3091275.13	3091275.24	0.0503	0.0443
Moon	3751-07-10 18:28 G	3091275.13	3091275.27	3091275.41	0.0503	0.0412 *
Mercury	3755-06-07 03:07 G	3092702.57	3092702.63	3092702.69	0.0540	0.0478
Mercury	3755-09-04 12:43 G	3092791.91	3092792.03	3092792.16	0.0539	0.0158
Venus	3756-03-18 03:35 G	3092987.45	3092987.65	3092987.85	0.0535	0.0068
Mercury	3761-07-20 10:19 G	3094937.79	3094937.93	3094938.08	0.0488	0.0275
Mercury	3761-10-18 12:43 G	3095027.93	3095028.03	3095028.15	0.0489	0.0375

Moon	3763-07-15 02:52 G	3095662.41	3095662.62	3095662.84	0.0505	0.0209
Earth	3763-07-15 06:57 G	3095662.58	3095662.79	3095663.01	0.0505	0.0224 *
Mercury	3767-06-23 16:19 G	3097102.04	3097102.18	3097102.31	0.0539	0.0016
Venus	3767-11-21 16:48 G	3097253.06	3097253.20	3097253.36	0.0536	0.0356
Moon	3769-01-12 03:21 G	3097670.49	3097670.64	3097670.81	0.0524	0.0368
Earth	3769-01-12 07:26 G	3097670.64	3097670.81	3097670.99	0.0524	0.0333 *
Mercury	3773-05-08 08:52 G	3099247.80	3099247.87	3099247.95	0.0488	0.0440
Mercury	3773-08-06 10:48 G	3099337.79	3099337.95	3099338.12	0.0489	0.0201
Venus	3774-05-13 04:19 G	3099617.52	3099617.68	3099617.84	0.0494	0.0292
Earth	3775-07-19 23:02 G	3100050.22	3100050.46	3100050.70	0.0507	0.0003
Moon	3775-07-20 03:07 G	3100050.39	3100050.63	3100050.86	0.0507	0.0027 *
Mercury	3779-04-11 19:55 G	3101412.21	3101412.33	3101412.46	0.0539	0.0146
Mercury	3779-07-10 04:48 G	3101501.65	3101501.70	3101501.76	0.0538	0.0477
Earth	3781-01-17 03:21 G	3102058.41	3102058.64	3102058.86	0.0521	0.0086
Moon	3781-01-17 07:11 G	3102058.57	3102058.80	3102059.02	0.0521	0.0096 *
Mars	3784-01-23 14:24 G	3103159.86	3103160.10	3103160.36	0.0489	0.0265
Mercury	3785-05-25 09:50 G	3103647.73	3103647.91	3103648.09	0.0489	0.0038
Venus	3786-01-16 07:11 G	3103883.60	3103883.80	3103884.01	0.0492	0.0035
Moon	3787-07-24 16:19 G	3104437.96	3104438.18	3104438.40	0.0509	0.0213
Earth	3787-07-24 18:57 G	3104438.09	3104438.29	3104438.51	0.0509	0.0233 *
Mercury	3791-01-28 23:16 G	3105722.36	3105722.47	3105722.58	0.0539	0.0303
Mercury	3791-04-28 08:24 G	3105811.75	3105811.85	3105811.96	0.0538	0.0326
Venus	3791-11-24 22:48 G	3106022.29	3106022.45	3106022.61	0.0533	0.0322
Moon	3793-01-21 16:04 G	3106445.95	3106446.17	3106446.39	0.0519	0.0176
Earth	3793-01-21 18:57 G	3106446.07	3106446.29	3106446.51	0.0519	0.0150 *
Mercury	3797-03-13 08:38 G	3107957.69	3107957.86	3107958.04	0.0489	0.0123
Venus	3797-09-21 11:02 G	3108149.82	3108149.96	3108150.10	0.0491	0.0355
Earth	3799-07-29 16:04 G	3108826.07	3108826.17	3108826.26	0.0511	0.0468
Moon	3799-07-29 16:19 G	3108826.14	3108826.18	3108826.24	0.0511	0.0495 *
Mars	3801-11-20 12:14 G	3109669.76	3109670.01	3109670.26	0.0538	0.0079

Mercury	3802-11-18 02:09 G	3110032.53	3110032.59	3110032.66	0.0539	0.0468
Mercury	3803-02-15 11:45 G	3110121.87	3110121.99	3110122.11	0.0538	0.0168
Venus	3803-07-31 11:16 G	3110287.77	3110287.97	3110288.16	0.0535	0.0106
Earth	3805-01-27 09:50 G	3110833.76	3110833.91	3110834.07	0.0517	0.0381
Moon	3805-01-27 10:48 G	3110833.81	3110833.95	3110834.09	0.0517	0.0393 *
Mercury	3808-12-31 08:09 G	3112267.70	3112267.84	3112267.99	0.0488	0.0276
Mercury	3809-03-31 10:48 G	3112357.83	3112357.95	3112358.06	0.0489	0.0373
Venus	3810-01-19 15:07 G	3112652.11	3112652.13	3112652.16	0.0495	0.0490
Mercury	3814-12-04 14:09 G	3114431.96	3114432.09	3114432.23	0.0539	0.0016
Mercury	3820-10-19 07:26 G	3116577.73	3116577.81	3116577.89	0.0488	0.0433
Mercury	3821-01-17 09:21 G	3116667.73	3116667.89	3116668.05	0.0489	0.0208
Venus	3821-09-24 17:31 G	3116918.03	3116918.23	3116918.42	0.0493	0.0160
Mercury	3826-09-22 17:31 G	3118742.11	3118742.23	3118742.36	0.0539	0.0162
Mercury	3826-12-21 02:24 G	3118831.54	3118831.60	3118831.67	0.0538	0.0461
Mercury	3832-11-05 07:26 G	3120977.63	3120977.81	3120977.99	0.0488	0.0034
Venus	3833-05-30 18:43 G	3121184.09	3121184.28	3121184.48	0.0492	0.0172
Moon	3834-07-10 10:33 G	3121589.86	3121589.94	3121590.05	0.0503	0.0457
Earth	3834-07-10 14:38 G	3121590.06	3121590.11	3121590.17	0.0503	0.0487
Mars	3837-08-25 04:19 G	3122731.63	3122731.68	3122731.74	0.0539	0.0524
Mercury	3838-07-11 21:07 G	3123052.27	3123052.38	3123052.49	0.0540	0.0314
Mercury	3838-10-09 06:28 G	3123141.67	3123141.77	3123141.87	0.0538	0.0316
Venus	3839-04-08 03:21 G	3123322.44	3123322.64	3123322.84	0.0535	0.0138
Mercury	3844-08-24 06:28 G	3125287.60	3125287.77	3125287.94	0.0488	0.0127
Earth	3846-07-15 07:40 G	3125977.62	3125977.82	3125978.02	0.0505	0.0266
Moon	3846-07-15 11:45 G	3125977.79	3125977.99	3125978.19	0.0505	0.0252 *
Mercury	3850-04-30 00:14 G	3127362.45	3127362.51	3127362.58	0.0539	0.0473
Mercury	3850-07-28 10:04 G	3127451.79	3127451.92	3127452.04	0.0538	0.0164
Venus	3850-12-11 16:19 G	3127588.01	3127588.18	3127588.35	0.0536	0.0288
Earth	3852-01-13 09:07 G	3127985.73	3127985.88	3127986.04	0.0524	0.0377
Moon	3852-01-13 13:11 G	3127985.91	3127986.05	3127986.19	0.0524	0.0411 *

Mercury	3856-06-12 05:31 G	3129597.59	3129597.73	3129597.87	0.0488	0.0285
Mercury	3856-09-10 07:55 G	3129687.72	3129687.83	3129687.95	0.0489	0.0364
Venus	3857-06-02 01:55 G	3129952.43	3129952.58	3129952.72	0.0494	0.0346
Moon	3858-07-19 23:02 G	3130365.22	3130365.46	3130365.70	0.0507	0.0066
Earth	3858-07-20 02:24 G	3130365.36	3130365.60	3130365.83	0.0507	0.0039 *
Mercury	3862-05-16 13:11 G	3131761.92	3131762.05	3131762.18	0.0539	0.0005
Moon	3864-01-17 23:02 G	3132373.24	3132373.46	3132373.69	0.0522	0.0147
Earth	3864-01-18 02:24 G	3132373.38	3132373.60	3132373.82	0.0522	0.0137 *
Mercury	3868-03-31 05:02 G	3133907.64	3133907.71	3133907.79	0.0488	0.0437
Mercury	3868-06-29 06:57 G	3133997.63	3133997.79	3133997.95	0.0489	0.0204
Venus	3869-02-05 05:02 G	3134218.51	3134218.71	3134218.92	0.0492	0.0025
Earth	3870-07-24 19:55 G	3134753.12	3134753.33	3134753.56	0.0508	0.0186
Moon	3870-07-24 21:21 G	3134753.17	3134753.39	3134753.60	0.0508	0.0174 *
Mercury	3874-03-04 15:35 G	3136072.02	3136072.15	3136072.27	0.0539	0.0170
Mercury	3874-06-02 00:28 G	3136161.46	3136161.52	3136161.59	0.0538	0.0453
Venus	3874-12-14 16:19 G	3136357.04	3136357.18	3136357.34	0.0534	0.0366
Earth	3876-01-22 16:19 G	3136760.96	3136761.18	3136761.41	0.0520	0.0092
Moon	3876-01-22 17:45 G	3136761.03	3136761.24	3136761.46	0.0520	0.0121 *
Mercury	3880-04-17 05:45 G	3138307.57	3138307.74	3138307.92	0.0489	0.0041
Venus	3880-10-11 08:09 G	3138484.68	3138484.84	3138485.00	0.0491	0.0302
Earth	3882-07-29 14:09 G	3139140.95	3139141.09	3139141.23	0.0510	0.0413
Moon	3882-07-29 14:52 G	3139141.01	3139141.12	3139141.25	0.0510	0.0441 *
Mercury	3885-12-21 18:43 G	3140382.18	3140382.28	3140382.38	0.0539	0.0331
Mercury	3886-03-21 04:04 G	3140471.56	3140471.67	3140471.78	0.0538	0.0300
Venus	3886-08-19 05:45 G	3140622.54	3140622.74	3140622.94	0.0535	0.0058
Earth	3888-01-27 09:21 G	3141148.72	3141148.89	3141149.07	0.0518	0.0326
Moon	3888-01-27 10:04 G	3141148.74	3141148.92	3141149.11	0.0518	0.0331 *
Mercury	3892-02-04 03:50 G	3142617.50	3142617.66	3142617.83	0.0488	0.0133
Mercury	3897-10-09 22:04 G	3144692.37	3144692.42	3144692.48	0.0540	0.0486
Mercury	3898-01-07 07:55 G	3144781.70	3144781.83	3144781.96	0.0539	0.0153

Venus	3898-04-23 19:55 G	3144888.24	3144888.33	3144888.42	0.0537	0.0480
Mars	3902-07-13 23:16 G	3146429.20	3146429.47	3146429.75	0.0489	0.0203
Mercury	3903-11-24 03:07 G	3146927.49	3146927.63	3146927.77	0.0488	0.0290
Mercury	3904-02-22 05:16 G	3147017.61	3147017.72	3147017.85	0.0489	0.0358
Venus	3904-10-14 12:28 G	3147252.84	3147253.02	3147253.21	0.0493	0.0203
Mercury	3909-10-27 11:31 G	3149091.85	3149091.98	3149092.11	0.0539	0.0012
Mercury	3915-09-12 02:24 G	3151237.53	3151237.60	3151237.67	0.0488	0.0446
Mercury	3915-12-11 04:04 G	3151327.51	3151327.67	3151327.84	0.0489	0.0194
Venus	3916-06-19 15:50 G	3151518.96	3151519.16	3151519.36	0.0492	0.0122
Moon	3917-07-10 21:35 G	3151905.36	3151905.40	3151905.46	0.0502	0.0490
Mercury	3921-08-15 14:38 G	3153401.98	3153402.11	3153402.23	0.0539	0.0162
Mercury	3921-11-12 23:31 G	3153491.42	3153491.48	3153491.54	0.0538	0.0461
Venus	3922-04-28 00:14 G	3153657.32	3153657.51	3153657.70	0.0534	0.0194
Mercury	3927-09-29 03:21 G	3155637.46	3155637.64	3155637.82	0.0489	0.0036
Venus	3928-02-23 19:55 G	3155785.25	3155785.33	3155785.42	0.0491	0.0439
Moon	3929-07-15 06:43 G	3156292.59	3156292.78	3156292.97	0.0504	0.0296
Earth	3929-07-15 10:04 G	3156292.74	3156292.92	3156293.12	0.0504	0.0307 *
Mercury	3933-06-03 16:48 G	3157712.10	3157712.20	3157712.31	0.0539	0.0337
Mercury	3933-09-01 02:09 G	3157801.48	3157801.59	3157801.70	0.0538	0.0294
Venus	3933-12-31 10:04 G	3157922.74	3157922.92	3157923.10	0.0536	0.0247
Moon	3935-01-13 00:57 G	3158300.45	3158300.54	3158300.65	0.0525	0.0471
Earth	3935-01-13 04:33 G	3158300.58	3158300.69	3158300.83	0.0525	0.0438 *
Mars	3938-04-19 20:24 G	3159493.18	3159493.35	3159493.52	0.0489	0.0397
Mercury	3939-07-18 02:24 G	3159947.43	3159947.60	3159947.77	0.0488	0.0126
Venus	3940-06-21 22:48 G	3160287.34	3160287.45	3160287.57	0.0494	0.0399
Earth	3941-07-20 02:09 G	3160680.36	3160680.59	3160680.82	0.0505	0.0086
Moon	3941-07-20 03:50 G	3160680.44	3160680.66	3160680.88	0.0506	0.0115 *
Mercury	3945-03-22 19:40 G	3162022.28	3162022.32	3162022.37	0.0539	0.0501
Mercury	3945-06-20 05:31 G	3162111.61	3162111.73	3162111.86	0.0539	0.0138
Earth	3947-01-18 00:00 G	3162688.29	3162688.50	3162688.72	0.0523	0.0194

Moon	3947-01-18 01:55 G	3162688.38	3162688.58	3162688.79	0.0523	0.0197 *
Mercury	3951-05-06 00:28 G	3164257.39	3164257.52	3164257.67	0.0488	0.0296
Mercury	3951-08-04 02:52 G	3164347.50	3164347.62	3164347.74	0.0489	0.0351
Venus	3952-02-25 23:31 G	3164553.28	3164553.48	3164553.68	0.0492	0.0061
Earth	3953-07-24 16:19 G	3165067.96	3165068.18	3165068.41	0.0508	0.0133
Moon	3953-07-24 16:33 G	3165067.96	3165068.19	3165068.43	0.0508	0.0124 *
Mars	3956-02-14 16:48 G	3166002.95	3166003.20	3166003.45	0.0538	0.0023
Mercury	3957-04-08 09:21 G	3166421.75	3166421.89	3166422.02	0.0539	0.0023
Venus	3958-01-03 15:35 G	3166692.04	3166692.15	3166692.27	0.0534	0.0432
Earth	3959-01-22 20:24 G	3167076.12	3167076.35	3167076.58	0.0520	0.0051
Moon	3959-01-22 20:52 G	3167076.13	3167076.37	3167076.60	0.0520	0.0081 *
Mercury	3963-02-22 00:00 G	3168567.44	3168567.50	3168567.56	0.0488	0.0451
Mercury	3963-05-23 01:40 G	3168657.41	3168657.57	3168657.73	0.0489	0.0187
Venus	3963-11-01 03:07 G	3168819.46	3168819.63	3168819.80	0.0491	0.0263
Moon	3965-07-29 10:33 G	3169455.80	3169455.94	3169456.09	0.0510	0.0395
Earth	3965-07-29 12:28 G	3169455.86	3169456.02	3169456.19	0.0510	0.0364 *
Mercury	3969-01-25 12:43 G	3170731.91	3170732.03	3170732.16	0.0539	0.0166
Mercury	3969-04-24 21:50 G	3170821.34	3170821.41	3170821.47	0.0538	0.0458
Venus	3969-09-08 05:31 G	3170957.53	3170957.73	3170957.93	0.0535	0.0012
Moon	3971-01-27 10:33 G	3171463.75	3171463.94	3171464.12	0.0518	0.0288
Earth	3971-01-27 12:28 G	3171463.83	3171464.02	3171464.21	0.0518	0.0284 *
Mercury	3975-03-11 00:28 G	3172967.35	3172967.52	3172967.70	0.0489	0.0028
Mercury	3980-11-13 15:50 G	3175042.05	3175042.16	3175042.26	0.0539	0.0327
Mercury	3981-02-11 01:11 G	3175131.44	3175131.55	3175131.66	0.0538	0.0303
Venus	3981-05-13 17:31 G	3175223.11	3175223.23	3175223.36	0.0536	0.0421
Earth	3983-02-01 02:52 G	3175851.59	3175851.62	3175851.66	0.0516	0.0510
Moon	3983-02-01 06:14 G	3175851.67	3175851.76	3175851.85	0.0516	0.0477
Mercury	3986-12-28 00:00 G	3177277.33	3177277.50	3177277.67	0.0489	0.0131
Venus	3987-11-03 10:19 G	3177587.76	3177587.93	3177588.11	0.0493	0.0260
Mercury	3992-09-01 18:00 G	3179352.21	3179352.25	3179352.30	0.0539	0.0504

Mercury	3992-11-30 03:50 G	3179441.53	3179441.66	3179441.79	0.0538	0.0135
Mercury	3998-10-15 23:02 G	3181587.32	3181587.46	3181587.60	0.0488	0.0290
Mercury	3999-01-14 01:26 G	3181677.44	3181677.56	3181677.68	0.0489	0.0358
Venus	3999-07-09 13:11 G	3181853.84	3181854.05	3181854.25	0.0492	0.0070

5TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 5th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	4004-09-18 06:57 G		3183751.66	3183751.79	3183751.93	0.0539	0.0028	
Venus	4005-05-16 18:57 G		3183992.11	3183992.29	3183992.47	0.0534	0.0241	
Mercury	4010-08-03 21:35 G		3185897.34	3185897.40	3185897.46	0.0488	0.0455	
Mercury	4010-11-01 23:16 G		3185987.30	3185987.47	3185987.63	0.0489	0.0182	
Venus	4011-03-14 14:38 G		3186119.99	3186120.11	3186120.23	0.0490	0.0401	
Earth	4012-07-14 06:43 G		3186607.62	3186607.78	3186607.95	0.0503	0.0354	
Moon	4012-07-14 09:07 G		3186607.72	3186607.88	3186608.04	0.0503	0.0351	*
Mercury	4016-07-07 10:33 G		3188061.82	3188061.94	3188062.07	0.0540	0.0178	
Mercury	4016-10-04 19:40 G		3188151.25	3188151.32	3188151.39	0.0538	0.0448	
Venus	4017-01-19 09:21 G		3188257.70	3188257.89	3188258.08	0.0536	0.0180	
Earth	4018-01-12 08:52 G		3188615.78	3188615.87	3188615.97	0.0525	0.0475	
Moon	4018-01-12 11:16 G		3188615.92	3188615.97	3188616.03	0.0525	0.0505	*
Mercury	4022-08-20 22:19 G		3190297.25	3190297.43	3190297.61	0.0488	0.0022	
Venus	4023-07-11 17:45 G		3190622.16	3190622.24	3190622.33	0.0494	0.0441	
Moon	4024-07-19 00:14 G		3190995.28	3190995.51	3190995.74	0.0505	0.0162	

Earth	4024-07-19 00:28 G	3190995.29	3190995.52	3190995.75	0.0505	0.0132	*
Mercury	4028-04-25 14:09 G	3192371.98	3192372.09	3192372.19	0.0540	0.0332	
Mercury	4028-07-23 23:31 G	3192461.37	3192461.48	3192461.59	0.0538	0.0301	
Moon	4030-01-17 04:19 G	3193003.47	3193003.68	3193003.90	0.0523	0.0225	
Earth	4030-01-17 04:33 G	3193003.48	3193003.69	3193003.89	0.0523	0.0232	*
Mercury	4034-06-08 21:21 G	3194607.22	3194607.39	3194607.56	0.0488	0.0138	
Venus	4035-03-16 21:07 G	3194888.18	3194888.38	3194888.58	0.0493	0.0115	
Moon	4036-07-23 18:28 G	3195383.04	3195383.27	3195383.49	0.0507	0.0089	
Earth	4036-07-23 19:55 G	3195383.10	3195383.33	3195383.57	0.0507	0.0095	*
Mercury	4040-02-12 17:02 G	3196682.16	3196682.21	3196682.27	0.0540	0.0493	
Mercury	4040-05-12 02:52 G	3196771.50	3196771.62	3196771.75	0.0539	0.0145	
Venus	4041-01-22 13:55 G	3197027.01	3197027.08	3197027.15	0.0533	0.0494	
Moon	4042-01-21 19:55 G	3197391.11	3197391.33	3197391.55	0.0521	0.0038	
Earth	4042-01-21 21:35 G	3197391.17	3197391.40	3197391.63	0.0521	0.0006	*
Mercury	4046-03-27 20:52 G	3198917.23	3198917.37	3198917.51	0.0488	0.0292	
Mercury	4046-06-25 23:02 G	3199007.34	3199007.46	3199007.58	0.0489	0.0355	
Venus	4046-11-20 00:57 G	3199154.36	3199154.54	3199154.73	0.0491	0.0208	
Earth	4048-07-28 15:50 G	3199770.98	3199771.16	3199771.35	0.0509	0.0322	
Moon	4048-07-28 18:43 G	3199771.12	3199771.28	3199771.47	0.0509	0.0354	*
Mercury	4052-02-29 05:31 G	3201081.60	3201081.73	3201081.86	0.0539	0.0025	
Venus	4052-09-27 00:43 G	3201292.33	3201292.53	3201292.73	0.0535	0.0061	
Earth	4054-01-26 11:02 G	3201778.75	3201778.96	3201779.16	0.0519	0.0231	
Moon	4054-01-26 13:55 G	3201778.87	3201779.08	3201779.29	0.0519	0.0232	*
Mars	4056-10-06 05:02 G	3202762.42	3202762.71	3202763.02	0.0490	0.0072	
Mercury	4058-01-13 20:09 G	3203227.28	3203227.34	3203227.41	0.0488	0.0448	
Mercury	4058-04-13 21:50 G	3203317.25	3203317.41	3203317.58	0.0489	0.0191	
Mercury	4063-12-18 08:38 G	3205391.74	3205391.86	3205391.99	0.0539	0.0185	
Mercury	4064-03-16 17:45 G	3205481.17	3205481.24	3205481.31	0.0538	0.0440	
Venus	4064-06-01 13:11 G	3205557.90	3205558.05	3205558.19	0.0537	0.0372	
Moon	4066-01-31 00:00 G	3206166.38	3206166.50	3206166.63	0.0517	0.0430	

Earth	4066-01-31 03:50 G	3206166.56	3206166.66	3206166.76	0.0517	0.0461 *
Mercury	4070-01-30 19:55 G	3207627.16	3207627.33	3207627.51	0.0488	0.0021
Venus	4070-11-22 05:16 G	3207922.56	3207922.72	3207922.88	0.0493	0.0301
Mars	4074-08-05 12:14 G	3209274.89	3209275.01	3209275.14	0.0538	0.0462
Mercury	4075-10-06 12:00 G	3209701.90	3209702.00	3209702.10	0.0540	0.0341
Mercury	4076-01-03 21:35 G	3209791.29	3209791.40	3209791.51	0.0539	0.0293
Mercury	4081-11-18 19:11 G	3211937.13	3211937.30	3211937.47	0.0488	0.0139
Venus	4082-07-28 08:38 G	3212188.66	3212188.86	3212189.07	0.0492	0.0026
Mercury	4087-07-25 15:21 G	3214012.09	3214012.14	3214012.19	0.0540	0.0496
Mercury	4087-10-23 01:11 G	3214101.43	3214101.55	3214101.68	0.0539	0.0145
Venus	4088-06-04 20:09 G	3214327.18	3214327.34	3214327.51	0.0534	0.0319
Mercury	4093-09-06 18:28 G	3216247.13	3216247.27	3216247.41	0.0488	0.0296
Mercury	4093-12-05 20:38 G	3216337.24	3216337.36	3216337.48	0.0489	0.0350
Venus	4094-04-02 12:28 G	3216454.88	3216455.02	3216455.17	0.0491	0.0347
Moon	4095-07-14 11:02 G	3216922.82	3216922.96	3216923.12	0.0503	0.0390
Earth	4095-07-14 11:45 G	3216922.84	3216922.99	3216923.14	0.0503	0.0386 *
Mercury	4099-08-11 04:48 G	3218411.56	3218411.70	3218411.83	0.0539	0.0022
Venus	4100-02-08 09:07 G	3218592.68	3218592.88	3218593.08	0.0536	0.0110
Earth	4101-01-12 11:45 G	3218930.95	3218930.99	3218931.04	0.0525	0.0515
Mercury	4105-06-26 18:00 G	3220557.19	3220557.25	3220557.32	0.0488	0.0448
Mercury	4105-09-24 19:40 G	3220647.16	3220647.32	3220647.49	0.0489	0.0191
Moon	4107-07-20 04:48 G	3221310.49	3221310.70	3221310.91	0.0505	0.0198
Earth	4107-07-20 06:00 G	3221310.53	3221310.75	3221310.98	0.0505	0.0166 *
Mars	4110-05-11 12:43 G	3222336.79	3222337.03	3222337.27	0.0538	0.0170
Mercury	4111-05-31 07:26 G	3222721.68	3222721.81	3222721.93	0.0539	0.0181
Mercury	4111-08-28 16:33 G	3222811.12	3222811.19	3222811.26	0.0538	0.0444
Moon	4113-01-17 02:24 G	3223318.41	3223318.60	3223318.79	0.0524	0.0272
Earth	4113-01-17 03:50 G	3223318.47	3223318.66	3223318.85	0.0524	0.0282 *
Mercury	4117-07-13 18:43 G	3224957.11	3224957.28	3224957.46	0.0489	0.0031
Venus	4118-04-05 19:40 G	3225223.13	3225223.32	3225223.51	0.0493	0.0173

Earth	4119-07-24 23:16 G	3225698.23	3225698.47	3225698.70	0.0507	0.0057
Moon	4119-07-25 01:55 G	3225698.34	3225698.58	3225698.83	0.0507	0.0055 *
Mercury	4123-03-19 10:19 G	3227031.83	3227031.93	3227032.03	0.0539	0.0343
Mercury	4123-06-16 19:55 G	3227121.22	3227121.33	3227121.44	0.0538	0.0290
Earth	4125-01-21 22:33 G	3227706.21	3227706.44	3227706.67	0.0522	0.0041
Moon	4125-01-22 01:26 G	3227706.33	3227706.56	3227706.80	0.0522	0.0011 *
Mercury	4129-05-01 17:16 G	3229267.05	3229267.22	3229267.39	0.0488	0.0138
Venus	4129-12-09 21:07 G	3229489.19	3229489.38	3229489.57	0.0491	0.0161
Moon	4131-07-29 09:35 G	3230085.72	3230085.90	3230086.09	0.0509	0.0303
Earth	4131-07-29 13:11 G	3230085.86	3230086.05	3230086.26	0.0509	0.0273 *
Mercury	4135-01-05 13:26 G	3231342.02	3231342.06	3231342.11	0.0540	0.0504
Mercury	4135-04-04 23:31 G	3231431.35	3231431.48	3231431.60	0.0539	0.0139
Venus	4135-10-18 01:26 G	3231627.36	3231627.56	3231627.76	0.0535	0.0134
Moon	4137-01-26 15:21 G	3232093.93	3232094.14	3232094.35	0.0520	0.0198
Earth	4137-01-26 18:57 G	3232094.08	3232094.29	3232094.50	0.0520	0.0200 *
Mercury	4141-02-17 16:48 G	3233577.06	3233577.20	3233577.34	0.0488	0.0293
Mercury	4141-05-18 18:43 G	3233667.16	3233667.28	3233667.41	0.0489	0.0352
Venus	4141-08-15 01:11 G	3233755.52	3233755.55	3233755.59	0.0490	0.0481
Earth	4143-08-03 10:04 G	3234473.89	3234473.92	3234473.95	0.0511	0.0505
Moon	4143-08-03 13:40 G	3234474.05	3234474.07	3234474.10	0.0511	0.0507
Mercury	4147-01-22 03:07 G	3235741.50	3235741.63	3235741.76	0.0539	0.0016
Venus	4147-06-22 15:07 G	3235892.97	3235893.13	3235893.31	0.0537	0.0291
Earth	4149-01-31 12:00 G	3236481.88	3236482.00	3236482.13	0.0517	0.0430
Moon	4149-01-31 15:21 G	3236482.00	3236482.14	3236482.29	0.0517	0.0401 *
Mercury	4152-12-06 16:04 G	3237887.11	3237887.17	3237887.24	0.0488	0.0447
Mercury	4153-03-06 17:45 G	3237977.07	3237977.24	3237977.40	0.0489	0.0190
Venus	4153-12-12 04:19 G	3238257.54	3238257.68	3238257.82	0.0494	0.0362
Mercury	4158-11-10 06:28 G	3240051.65	3240051.77	3240051.90	0.0539	0.0167
Mercury	4159-02-07 15:35 G	3240141.09	3240141.15	3240141.22	0.0538	0.0459
Mercury	4164-12-23 17:02 G	3242287.03	3242287.21	3242287.39	0.0489	0.0033

Venus	4165-08-17 08:09 G	3242523.64	3242523.84	3242524.05	0.0492	0.0038
Mercury	4170-08-29 09:21 G	3244361.79	3244361.89	3244361.99	0.0539	0.0335
Mercury	4170-11-26 18:43 G	3244451.17	3244451.28	3244451.39	0.0538	0.0298
Venus	4171-06-25 18:14 G	3244662.12	3244662.26	3244662.40	0.0534	0.0380
Mercury	4176-10-11 16:19 G	3246597.01	3246597.18	3246597.35	0.0488	0.0126
Venus	4177-04-22 12:00 G	3246789.83	3246790.00	3246790.16	0.0491	0.0287
Moon	4178-07-14 16:48 G	3247238.08	3247238.20	3247238.32	0.0502	0.0427
Earth	4178-07-14 17:45 G	3247238.12	3247238.24	3247238.38	0.0502	0.0415 *
Mercury	4182-06-17 12:14 G	3248671.96	3248672.01	3248672.06	0.0540	0.0499
Mercury	4182-09-14 22:04 G	3248761.29	3248761.42	3248761.55	0.0539	0.0141
Venus	4183-02-28 07:11 G	3248927.60	3248927.80	3248928.00	0.0536	0.0049
Mercury	4188-07-30 14:52 G	3250906.99	3250907.12	3250907.27	0.0488	0.0289
Mercury	4188-10-28 17:02 G	3250997.09	3250997.21	3250997.33	0.0489	0.0356
Earth	4190-07-19 05:45 G	3251625.53	3251625.74	3251625.96	0.0504	0.0208
Moon	4190-07-19 08:09 G	3251625.63	3251625.84	3251626.06	0.0504	0.0238 *
Mercury	4194-07-04 01:26 G	3253071.43	3253071.56	3253071.69	0.0540	0.0015
Venus	4194-11-02 20:09 G	3253193.26	3253193.34	3253193.44	0.0538	0.0479
Earth	4196-01-17 12:14 G	3253633.83	3253634.01	3253634.20	0.0524	0.0311
Moon	4196-01-17 15:07 G	3253633.93	3253634.13	3253634.32	0.0524	0.0293 *
Mercury	4200-05-19 14:38 G	3255217.04	3255217.11	3255217.19	0.0487	0.0440
Mercury	4200-08-17 16:19 G	3255307.01	3255307.18	3255307.34	0.0488	0.0197
Venus	4201-04-25 17:02 G	3255558.03	3255558.21	3255558.39	0.0492	0.0226
Moon	4202-07-24 20:52 G	3256013.13	3256013.37	3256013.60	0.0506	0.0017
Earth	4202-07-25 00:14 G	3256013.28	3256013.51	3256013.75	0.0506	0.0016 *
Mercury	4206-04-23 05:02 G	3257381.59	3257381.71	3257381.84	0.0540	0.0165
Mercury	4206-07-21 14:24 G	3257471.03	3257471.10	3257471.16	0.0539	0.0462
Moon	4208-01-23 05:02 G	3258021.48	3258021.71	3258021.94	0.0522	0.0038
Earth	4208-01-23 08:38 G	3258021.63	3258021.86	3258022.09	0.0522	0.0069 *
Mars	4211-01-02 05:16 G	3259096.43	3259096.72	3259097.02	0.0489	0.0105
Mercury	4212-06-05 15:07 G	3259616.96	3259617.13	3259617.31	0.0488	0.0038

Venus	4212-12-29 20:38 G	3259824.16	3259824.36	3259824.56	0.0491	0.0098
Earth	4214-07-29 20:38 G	3260401.16	3260401.36	3260401.57	0.0508	0.0244
Moon	4214-07-30 00:28 G	3260401.32	3260401.52	3260401.71	0.0508	0.0275 *
Mercury	4218-02-09 08:24 G	3261691.75	3261691.85	3261691.96	0.0540	0.0321
Mercury	4218-05-09 18:00 G	3261781.15	3261781.25	3261781.36	0.0539	0.0314
Venus	4218-11-07 03:50 G	3261962.47	3261962.66	3261962.84	0.0535	0.0218
Earth	4220-01-28 02:24 G	3262409.38	3262409.60	3262409.82	0.0520	0.0167
Moon	4220-01-28 06:00 G	3262409.53	3262409.75	3262409.96	0.0520	0.0156 *
Mercury	4224-03-24 14:38 G	3263926.94	3263927.11	3263927.28	0.0488	0.0119
Venus	4224-09-04 01:11 G	3264090.45	3264090.55	3264090.66	0.0490	0.0418
Moon	4226-08-03 15:35 G	3264789.07	3264789.15	3264789.25	0.0510	0.0470
Earth	4226-08-03 18:28 G	3264789.19	3264789.27	3264789.36	0.0510	0.0475 *
Mars	4228-10-31 20:52 G	3265609.15	3265609.37	3265609.58	0.0537	0.0277
Mercury	4229-11-28 11:16 G	3266001.92	3266001.97	3266002.02	0.0539	0.0487
Mercury	4230-02-25 21:07 G	3266091.25	3266091.38	3266091.51	0.0539	0.0152
Venus	4230-07-12 14:52 G	3266227.94	3266228.12	3266228.31	0.0536	0.0221
Moon	4232-02-01 13:26 G	3266796.90	3266797.06	3266797.23	0.0518	0.0360
Earth	4232-02-01 16:19 G	3266797.03	3266797.18	3266797.33	0.0518	0.0391 *
Mercury	4236-01-11 14:09 G	3268236.95	3268237.09	3268237.23	0.0488	0.0275
Mercury	4236-04-10 16:04 G	3268327.06	3268327.17	3268327.29	0.0489	0.0372
Venus	4237-01-01 04:33 G	3268592.60	3268592.69	3268592.79	0.0494	0.0429
Mercury	4241-12-15 00:28 G	3270401.38	3270401.52	3270401.65	0.0539	0.0020
Mercury	4247-10-30 13:11 G	3272546.98	3272547.05	3272547.13	0.0488	0.0432
Mercury	4248-01-28 14:38 G	3272636.95	3272637.11	3272637.27	0.0488	0.0204
Venus	4248-09-06 06:14 G	3272858.56	3272858.76	3272858.96	0.0492	0.0094
Mercury	4253-10-03 03:35 G	3274711.52	3274711.65	3274711.77	0.0540	0.0167
Mercury	4253-12-31 12:43 G	3274800.97	3274801.03	3274801.10	0.0539	0.0462
Venus	4254-07-15 19:55 G	3274997.23	3274997.33	3274997.43	0.0534	0.0462
Mercury	4259-11-16 14:09 G	3276946.91	3276947.09	3276947.26	0.0488	0.0048
Venus	4260-05-12 10:33 G	3277124.76	3277124.94	3277125.12	0.0490	0.0229

Earth	4261-07-14 20:52 G	3277553.27	3277553.37	3277553.48	0.0502	0.0449
Moon	4261-07-14 23:02 G	3277553.38	3277553.46	3277553.57	0.0502	0.0461 *
Mars	4264-08-05 17:16 G	3278671.03	3278671.22	3278671.41	0.0539	0.0349
Mercury	4265-07-22 07:11 G	3279021.69	3279021.80	3279021.90	0.0540	0.0318
Mercury	4265-10-19 16:48 G	3279111.09	3279111.20	3279111.30	0.0539	0.0318
Venus	4266-03-20 10:33 G	3279262.74	3279262.94	3279263.15	0.0536	0.0042
Mercury	4271-09-04 13:11 G	3281256.88	3281257.05	3281257.22	0.0488	0.0112
Moon	4273-07-19 11:16 G	3281940.78	3281940.97	3281941.18	0.0504	0.0264
Earth	4273-07-19 14:52 G	3281940.91	3281941.12	3281941.33	0.0504	0.0233 *
Mercury	4277-05-10 10:33 G	3283331.88	3283331.94	3283332.00	0.0540	0.0473
Mercury	4277-08-07 20:24 G	3283421.23	3283421.35	3283421.48	0.0539	0.0169
Venus	4277-11-23 00:00 G	3283528.36	3283528.50	3283528.64	0.0537	0.0389
Moon	4279-01-17 17:45 G	3283949.06	3283949.24	3283949.42	0.0525	0.0322
Earth	4279-01-17 21:07 G	3283949.21	3283949.38	3283949.56	0.0525	0.0340 *
Mercury	4283-06-23 12:43 G	3285566.89	3285567.03	3285567.18	0.0488	0.0265
Mercury	4283-09-21 14:52 G	3285657.01	3285657.12	3285657.23	0.0489	0.0381
Venus	4284-05-14 18:00 G	3285893.09	3285893.25	3285893.41	0.0493	0.0297
Earth	4285-07-24 10:19 G	3286328.69	3286328.93	3286329.17	0.0506	0.0010
Moon	4285-07-24 14:09 G	3286328.85	3286329.09	3286329.32	0.0506	0.0008 *
Mercury	4289-05-26 23:31 G	3287731.35	3287731.48	3287731.61	0.0539	0.0009
Earth	4291-01-22 13:40 G	3288336.85	3288337.07	3288337.30	0.0522	0.0105
Moon	4291-01-22 17:16 G	3288337.00	3288337.22	3288337.45	0.0522	0.0079 *
Mercury	4295-04-11 12:28 G	3289876.93	3289877.02	3289877.11	0.0488	0.0418
Mercury	4295-07-10 13:55 G	3289966.92	3289967.08	3289967.24	0.0489	0.0220
Venus	4296-01-18 21:35 G	3290159.20	3290159.40	3290159.61	0.0492	0.0031
Moon	4297-07-29 01:55 G	3290716.37	3290716.58	3290716.80	0.0508	0.0244
Earth	4297-07-29 05:02 G	3290716.49	3290716.71	3290716.92	0.0508	0.0215 *
Mercury	4301-03-16 02:38 G	3292041.49	3292041.61	3292041.74	0.0539	0.0153
Mercury	4301-06-13 12:00 G	3292130.94	3292131.00	3292131.06	0.0538	0.0473
Venus	4301-11-27 03:35 G	3292297.49	3292297.65	3292297.83	0.0535	0.0290

Moon	4303-01-28 05:31 G	3292724.50	3292724.73	3292724.96	0.0521	0.0113
Earth	4303-01-28 08:24 G	3292724.62	3292724.85	3292725.07	0.0521	0.0133 *
Mercury	4307-04-29 12:43 G	3294276.86	3294277.03	3294277.21	0.0488	0.0057
Venus	4307-09-25 00:28 G	3294425.39	3294425.52	3294425.67	0.0490	0.0357
Earth	4309-08-03 19:40 G	3295104.20	3295104.32	3295104.45	0.0509	0.0432
Moon	4309-08-03 21:21 G	3295104.28	3295104.39	3295104.52	0.0509	0.0427 *
Mercury	4313-01-02 05:31 G	3296351.63	3296351.73	3296351.84	0.0540	0.0318
Mercury	4313-04-01 15:07 G	3296441.03	3296441.13	3296441.24	0.0539	0.0319
Venus	4313-08-01 16:33 G	3296562.99	3296563.19	3296563.38	0.0537	0.0142
Earth	4315-02-02 03:21 G	3297112.48	3297112.64	3297112.81	0.0519	0.0366
Moon	4315-02-02 04:33 G	3297112.53	3297112.69	3297112.86	0.0519	0.0341 *
Mercury	4319-02-15 12:14 G	3298586.84	3298587.01	3298587.18	0.0488	0.0098
Venus	4320-01-22 03:35 G	3298927.64	3298927.65	3298927.67	0.0493	0.0491
Mercury	4324-10-21 09:07 G	3300661.82	3300661.88	3300661.94	0.0541	0.0471
Mercury	4325-01-18 18:57 G	3300751.17	3300751.29	3300751.42	0.0540	0.0174
Mars	4329-06-22 14:52 G	3302366.89	3302367.12	3302367.36	0.0490	0.0310
Mercury	4330-12-04 11:31 G	3302896.83	3302896.98	3302897.13	0.0488	0.0255
Mercury	4331-03-04 13:26 G	3302986.96	3302987.06	3302987.17	0.0489	0.0390
Venus	4331-09-27 07:11 G	3303193.61	3303193.80	3303193.99	0.0492	0.0163
Mercury	4336-11-06 22:48 G	3305061.32	3305061.45	3305061.58	0.0540	0.0023
Mercury	4342-09-22 11:16 G	3307206.88	3307206.97	3307207.06	0.0488	0.0406
Mercury	4342-12-21 12:43 G	3307296.87	3307297.03	3307297.19	0.0488	0.0231
Venus	4343-06-02 11:31 G	3307459.79	3307459.98	3307460.18	0.0491	0.0160
Moon	4344-07-15 04:33 G	3307868.65	3307868.69	3307868.75	0.0502	0.0488
Earth	4344-07-15 07:55 G	3307868.76	3307868.83	3307868.92	0.0502	0.0470
Mercury	4348-08-26 01:55 G	3309371.45	3309371.58	3309371.71	0.0539	0.0139
Mercury	4348-11-23 11:02 G	3309460.91	3309460.96	3309461.01	0.0538	0.0486
Venus	4349-04-09 12:14 G	3309597.82	3309598.01	3309598.21	0.0535	0.0121
Mercury	4354-10-09 12:00 G	3311606.82	3311607.00	3311607.17	0.0488	0.0073
Venus	4355-02-05 16:04 G	3311726.13	3311726.17	3311726.21	0.0490	0.0480

Earth	4356-07-20 00:28 G	3312256.32	3312256.52	3312256.73	0.0503	0.0255
Moon	4356-07-20 04:19 G	3312256.49	3312256.68	3312256.88	0.0503	0.0279 *
Mercury	4360-06-14 04:48 G	3313681.60	3313681.70	3313681.81	0.0540	0.0302
Mercury	4360-09-11 14:24 G	3313771.00	3313771.10	3313771.21	0.0539	0.0333
Venus	4360-12-13 00:28 G	3313863.36	3313863.52	3313863.69	0.0537	0.0316
Earth	4362-01-18 02:52 G	3314264.46	3314264.62	3314264.78	0.0525	0.0374
Moon	4362-01-18 06:28 G	3314264.61	3314264.77	3314264.95	0.0525	0.0350 *
Mars	4365-03-29 20:38 G	3315431.14	3315431.36	3315431.59	0.0489	0.0319
Mercury	4366-07-28 11:02 G	3315916.79	3315916.96	3315917.14	0.0488	0.0086
Venus	4367-06-04 17:45 G	3316228.10	3316228.24	3316228.38	0.0493	0.0362
Moon	4368-07-24 11:02 G	3316643.72	3316643.96	3316644.20	0.0505	0.0030
Earth	4368-07-24 14:09 G	3316643.86	3316644.09	3316644.33	0.0505	0.0047 *
Mercury	4372-04-02 07:26 G	3317991.75	3317991.81	3317991.88	0.0541	0.0471
Mercury	4372-06-30 17:31 G	3318081.11	3318081.23	3318081.36	0.0540	0.0174
Moon	4374-01-22 20:52 G	3318652.14	3318652.37	3318652.60	0.0524	0.0114
Earth	4374-01-22 23:45 G	3318652.26	3318652.49	3318652.71	0.0524	0.0134 *
Mercury	4378-05-16 10:48 G	3320226.80	3320226.95	3320227.10	0.0487	0.0238
Mercury	4378-08-14 12:43 G	3320316.93	3320317.03	3320317.13	0.0488	0.0406
Venus	4379-02-07 21:35 G	3320494.20	3320494.40	3320494.60	0.0491	0.0035
Earth	4380-07-29 08:38 G	3321031.64	3321031.86	3321032.08	0.0507	0.0177
Moon	4380-07-29 10:33 G	3321031.73	3321031.94	3321032.15	0.0507	0.0206 *
Mars	4383-01-27 02:38 G	3321943.37	3321943.61	3321943.86	0.0538	0.0096
Mercury	4384-04-18 21:21 G	3322391.26	3322391.39	3322391.52	0.0540	0.0025
Venus	4384-12-16 06:57 G	3322632.65	3322632.79	3322632.94	0.0535	0.0380
Earth	4386-01-27 20:09 G	3323040.11	3323040.34	3323040.56	0.0521	0.0106
Moon	4386-01-27 21:21 G	3323040.17	3323040.39	3323040.61	0.0521	0.0081 *
Mercury	4390-03-04 10:04 G	3324536.82	3324536.92	3324537.02	0.0487	0.0394
Mercury	4390-06-02 11:31 G	3324626.83	3324626.98	3324627.13	0.0488	0.0242
Venus	4390-10-14 01:26 G	3324760.40	3324760.56	3324760.73	0.0490	0.0289
Moon	4392-08-03 05:16 G	3325419.57	3325419.72	3325419.88	0.0509	0.0392

Earth	4392-08-03 05:16 G	3325419.58	3325419.72	3325419.87	0.0509	0.0404 *
Mercury	4396-02-06 00:57 G	3326701.42	3326701.54	3326701.67	0.0540	0.0126
Mercury	4396-05-05 10:19 G	3326790.88	3326790.93	3326790.97	0.0539	0.0501
Venus	4396-08-20 21:07 G	3326898.18	3326898.38	3326898.58	0.0537	0.0046
Earth	4398-02-01 14:09 G	3327427.92	3327428.09	3327428.27	0.0519	0.0339
Moon	4398-02-01 14:38 G	3327427.92	3327428.11	3327428.30	0.0519	0.0314 *
Mercury	4402-03-21 10:48 G	3328936.78	3328936.95	3328937.13	0.0488	0.0085
Mercury	4407-11-25 04:04 G	3331011.56	3331011.67	3331011.78	0.0540	0.0287
Mercury	4408-02-22 13:40 G	3331100.97	3331101.07	3331101.17	0.0539	0.0346
Venus	4408-04-25 08:38 G	3331163.78	3331163.86	3331163.95	0.0538	0.0487
Mercury	4414-01-07 10:04 G	3333246.75	3333246.92	3333247.10	0.0488	0.0073
Venus	4414-10-16 08:38 G	3333528.69	3333528.86	3333529.05	0.0492	0.0237
Mercury	4419-09-13 06:57 G	3335321.72	3335321.79	3335321.87	0.0540	0.0451
Mercury	4419-12-11 17:02 G	3335411.09	3335411.21	3335411.33	0.0539	0.0190
Mercury	4425-10-26 09:35 G	3337556.75	3337556.90	3337557.06	0.0487	0.0227
Mercury	4426-01-24 11:31 G	3337646.89	3337646.98	3337647.07	0.0488	0.0418
Venus	4426-06-21 12:00 G	3337794.80	3337795.00	3337795.20	0.0491	0.0092
Earth	4427-07-15 13:55 G	3338184.07	3338184.08	3338184.09	0.0500	0.0500
Mercury	4431-09-29 19:55 G	3339721.20	3339721.33	3339721.46	0.0540	0.0028
Venus	4432-04-28 12:57 G	3339932.86	3339933.04	3339933.23	0.0536	0.0200
Mercury	4437-08-14 09:21 G	3341866.78	3341866.89	3341867.00	0.0487	0.0377
Mercury	4437-11-12 10:48 G	3341956.80	3341956.95	3341957.10	0.0488	0.0259
Venus	4438-02-24 16:33 G	3342061.08	3342061.19	3342061.30	0.0489	0.0412
Moon	4439-07-20 02:24 G	3342571.42	3342571.60	3342571.80	0.0502	0.0309
Earth	4439-07-20 05:45 G	3342571.55	3342571.74	3342571.94	0.0502	0.0289 *
Mercury	4443-07-18 23:31 G	3344031.35	3344031.48	3344031.61	0.0540	0.0126
Mercury	4443-10-16 08:38 G	3344120.82	3344120.86	3344120.91	0.0539	0.0503
Venus	4444-01-02 02:52 G	3344198.44	3344198.62	3344198.80	0.0538	0.0230
Moon	4445-01-17 09:50 G	3344579.75	3344579.91	3344580.08	0.0526	0.0376
Earth	4445-01-17 12:57 G	3344579.90	3344580.04	3344580.19	0.0526	0.0405 *

Mercury	4449-08-31 09:35 G	3346266.73	3346266.90	3346267.07	0.0488	0.0096
Venus	4450-06-23 18:28 G	3346563.17	3346563.27	3346563.37	0.0493	0.0432
Earth	4451-07-24 23:16 G	3346959.23	3346959.47	3346959.70	0.0505	0.0074
Moon	4451-07-25 01:11 G	3346959.32	3346959.55	3346959.78	0.0505	0.0051 *
Mercury	4455-05-07 03:07 G	3348341.51	3348341.63	3348341.74	0.0540	0.0278
Mercury	4455-08-04 12:43 G	3348430.93	3348431.03	3348431.13	0.0539	0.0358
Earth	4457-01-22 10:04 G	3348967.70	3348967.92	3348968.14	0.0524	0.0160
Moon	4457-01-22 11:31 G	3348967.76	3348967.98	3348968.19	0.0524	0.0148 *
Mercury	4461-06-19 09:07 G	3350576.70	3350576.88	3350577.05	0.0488	0.0062
Venus	4462-02-26 22:33 G	3350829.24	3350829.44	3350829.64	0.0492	0.0105
Moon	4463-07-29 18:43 G	3351347.05	3351347.28	3351347.51	0.0507	0.0176
Earth	4463-07-29 18:57 G	3351347.07	3351347.29	3351347.52	0.0507	0.0151 *
Mercury	4467-02-23 06:14 G	3352651.68	3352651.76	3352651.83	0.0540	0.0440
Mercury	4467-05-23 16:04 G	3352741.05	3352741.17	3352741.29	0.0539	0.0202
Venus	4468-01-05 08:52 G	3352967.78	3352967.87	3352967.98	0.0535	0.0462
Earth	4469-01-27 03:07 G	3353355.40	3353355.63	3353355.85	0.0521	0.0073
Moon	4469-01-27 03:07 G	3353355.40	3353355.63	3353355.87	0.0521	0.0046 *
Mercury	4473-04-07 08:24 G	3354886.70	3354886.85	3354887.01	0.0488	0.0216
Mercury	4473-07-06 10:19 G	3354976.85	3354976.93	3354977.02	0.0489	0.0431
Venus	4473-11-02 02:38 G	3355095.43	3355095.61	3355095.80	0.0490	0.0220
Moon	4475-08-03 12:43 G	3355734.88	3355735.03	3355735.20	0.0509	0.0360
Earth	4475-08-03 14:38 G	3355734.96	3355735.11	3355735.27	0.0509	0.0377 *
Mercury	4479-03-11 19:11 G	3357051.17	3357051.30	3357051.43	0.0539	0.0045
Venus	4479-09-09 21:35 G	3357233.20	3357233.40	3357233.61	0.0536	0.0029
Moon	4481-01-31 18:43 G	3357743.10	3357743.28	3357743.47	0.0520	0.0286
Earth	4481-01-31 20:38 G	3357743.17	3357743.36	3357743.54	0.0520	0.0305 *
Mars	4483-09-17 08:38 G	3358701.56	3358701.86	3358702.16	0.0490	0.0090
Mercury	4485-01-24 08:09 G	3359196.73	3359196.84	3359196.95	0.0487	0.0366
Mercury	4485-04-24 09:35 G	3359286.75	3359286.90	3359287.04	0.0488	0.0270
Mercury	4490-12-28 21:50 G	3361361.28	3361361.41	3361361.54	0.0540	0.0126

Mercury	4491-03-28 07:11 G	3361450.76	3361450.80	3361450.85	0.0539	0.0502
Venus	4491-05-15 07:55 G	3361498.71	3361498.83	3361498.97	0.0538	0.0418
Mercury	4497-02-10 08:52 G	3363596.70	3363596.87	3363597.04	0.0488	0.0112
Venus	4497-11-04 08:52 G	3363863.71	3363863.87	3363864.03	0.0492	0.0304
Mercury	4502-10-18 01:11 G	3365671.44	3365671.55	3365671.67	0.0541	0.0281
Mercury	4503-01-15 11:02 G	3365760.86	3365760.96	3365761.06	0.0540	0.0356
Mercury	4508-11-30 07:40 G	3367906.65	3367906.82	3367907.00	0.0488	0.0051
Venus	4509-07-11 12:00 G	3368129.80	3368130.00	3368130.21	0.0491	0.0027
Mercury	4514-08-06 04:48 G	3369981.63	3369981.70	3369981.78	0.0541	0.0434
Mercury	4514-11-03 14:52 G	3370071.00	3370071.12	3370071.24	0.0540	0.0210
Venus	4515-05-19 16:48 G	3370268.03	3370268.20	3370268.37	0.0536	0.0291
Mercury	4520-09-18 07:11 G	3372216.64	3372216.80	3372216.96	0.0487	0.0205
Mercury	4520-12-17 09:07 G	3372306.80	3372306.88	3372306.95	0.0488	0.0440
Venus	4521-03-16 16:33 G	3372396.05	3372396.19	3372396.34	0.0490	0.0348
Earth	4522-07-20 14:52 G	3372886.94	3372887.12	3372887.31	0.0502	0.0314
Moon	4522-07-20 16:48 G	3372887.04	3372887.20	3372887.38	0.0502	0.0331 *
Mercury	4526-08-22 18:14 G	3374381.13	3374381.26	3374381.39	0.0540	0.0053
Venus	4527-01-22 05:02 G	3374533.51	3374533.71	3374533.90	0.0537	0.0147
Earth	4528-01-18 18:57 G	3374895.16	3374895.29	3374895.41	0.0526	0.0438
Moon	4528-01-18 20:38 G	3374895.22	3374895.36	3374895.50	0.0526	0.0407 *
Mercury	4532-07-07 06:43 G	3376526.67	3376526.78	3376526.90	0.0487	0.0359
Mercury	4532-10-05 08:09 G	3376616.69	3376616.84	3376616.98	0.0488	0.0279
Moon	4534-07-25 07:40 G	3377274.58	3377274.82	3377275.07	0.0504	0.0075
Earth	4534-07-25 08:24 G	3377274.61	3377274.85	3377275.08	0.0504	0.0099 *
Mars	4537-04-23 17:31 G	3378277.98	3378278.23	3378278.47	0.0538	0.0109
Mercury	4538-06-10 21:21 G	3378691.26	3378691.39	3378691.52	0.0540	0.0109
Mercury	4538-09-08 06:28 G	3378780.74	3378780.77	3378780.81	0.0539	0.0518
Moon	4540-01-23 14:24 G	3379282.88	3379283.10	3379283.32	0.0524	0.0188
Earth	4540-01-23 14:24 G	3379282.89	3379283.10	3379283.32	0.0524	0.0199 *
Mercury	4544-07-24 07:26 G	3380926.64	3380926.81	3380926.98	0.0488	0.0122

Venus	4545-03-18 22:48 G	3381164.26	3381164.45	3381164.64	0.0491	0.0174
Moon	4546-07-29 21:50 G	3381662.19	3381662.41	3381662.63	0.0506	0.0131
Earth	4546-07-29 23:16 G	3381662.24	3381662.47	3381662.70	0.0506	0.0112 *
Mercury	4550-03-29 23:31 G	3383001.37	3383001.48	3383001.60	0.0540	0.0284
Mercury	4550-06-27 09:21 G	3383090.79	3383090.89	3383090.99	0.0540	0.0354
Venus	4551-01-25 07:26 G	3383302.79	3383302.81	3383302.84	0.0535	0.0531
Moon	4552-01-28 06:57 G	3383670.57	3383670.79	3383671.01	0.0523	0.0004
Earth	4552-01-28 08:24 G	3383670.63	3383670.85	3383671.08	0.0523	0.0035 *
Mercury	4556-05-12 06:43 G	3385236.61	3385236.78	3385236.96	0.0487	0.0037
Venus	4556-11-22 02:52 G	3385430.42	3385430.62	3385430.81	0.0490	0.0152
Earth	4558-08-03 17:02 G	3386050.04	3386050.21	3386050.40	0.0508	0.0334
Moon	4558-08-03 20:38 G	3386050.17	3386050.36	3386050.55	0.0508	0.0308 *
Mercury	4562-01-16 02:52 G	3387311.55	3387311.62	3387311.70	0.0541	0.0441
Mercury	4562-04-15 12:57 G	3387400.92	3387401.04	3387401.16	0.0540	0.0204
Venus	4562-09-29 21:35 G	3387568.20	3387568.40	3387568.60	0.0537	0.0104
Earth	4564-02-02 04:04 G	3388058.47	3388058.67	3388058.86	0.0521	0.0267
Moon	4564-02-02 07:11 G	3388058.60	3388058.80	3388059.01	0.0521	0.0259 *
Mercury	4568-02-29 05:45 G	3389546.58	3389546.74	3389546.90	0.0487	0.0198
Mercury	4568-05-29 07:26 G	3389636.75	3389636.81	3389636.88	0.0488	0.0447
Venus	4568-07-28 06:14 G	3389696.72	3389696.76	3389696.80	0.0489	0.0478
Mercury	4574-02-01 16:48 G	3391711.07	3391711.20	3391711.33	0.0540	0.0055
Venus	4574-06-04 11:16 G	3391833.81	3391833.97	3391834.13	0.0538	0.0329
Earth	4576-02-06 22:19 G	3392446.36	3392446.43	3392446.50	0.0518	0.0494
Mercury	4579-12-18 05:16 G	3393856.60	3393856.72	3393856.84	0.0487	0.0351
Mercury	4580-03-17 06:28 G	3393946.63	3393946.77	3393946.92	0.0488	0.0285
Venus	4580-11-24 08:09 G	3394198.71	3394198.84	3394198.98	0.0492	0.0367
Mercury	4585-11-20 20:09 G	3396021.21	3396021.34	3396021.47	0.0540	0.0104
Mercury	4586-02-18 05:16 G	3396110.70	3396110.72	3396110.75	0.0539	0.0524
Mercury	4592-01-04 05:45 G	3398256.57	3398256.74	3398256.91	0.0488	0.0125
Venus	4592-07-30 12:00 G	3398464.80	3398465.00	3398465.21	0.0491	0.0040

Mercury	4597-09-08 23:02 G	3400331.34	3400331.46	3400331.57	0.0540	0.0267
Mercury	4597-12-07 08:38 G	3400420.77	3400420.86	3400420.95	0.0539	0.0368
Venus	4598-06-07 15:50 G	3400603.02	3400603.16	3400603.31	0.0535	0.0360
Mercury	4603-10-24 05:16 G	3402566.54	3402566.72	3402566.89	0.0488	0.0030
Venus	4604-04-05 16:33 G	3402731.02	3402731.19	3402731.35	0.0489	0.0283
Moon	4605-07-20 19:11 G	3403202.14	3403202.30	3403202.48	0.0501	0.0362
Earth	4605-07-20 20:09 G	3403202.17	3403202.34	3403202.51	0.0501	0.0349 *
Mercury	4609-06-29 01:11 G	3404641.47	3404641.55	3404641.62	0.0541	0.0445
Mercury	4609-09-26 11:16 G	3404730.85	3404730.97	3404731.09	0.0540	0.0200
Venus	4610-02-11 01:55 G	3404868.38	3404868.58	3404868.78	0.0538	0.0088
Moon	4611-01-18 19:40 G	3405210.21	3405210.32	3405210.45	0.0528	0.0452
Earth	4611-01-18 20:09 G	3405210.26	3405210.34	3405210.43	0.0528	0.0487 *
Mercury	4615-08-12 04:33 G	3406876.53	3406876.69	3406876.86	0.0487	0.0185
Mercury	4615-11-10 06:14 G	3406966.71	3406966.76	3406966.83	0.0488	0.0460
Moon	4617-07-25 10:33 G	3407589.71	3407589.94	3407590.16	0.0503	0.0114
Earth	4617-07-25 11:31 G	3407589.75	3407589.98	3407590.21	0.0503	0.0139 *
Mercury	4621-07-15 14:38 G	3409040.98	3409041.11	3409041.24	0.0540	0.0046
Venus	4621-10-16 14:24 G	3409134.06	3409134.10	3409134.14	0.0539	0.0526
Moon	4623-01-23 17:02 G	3409598.01	3409598.21	3409598.41	0.0525	0.0239
Earth	4623-01-23 18:14 G	3409598.06	3409598.26	3409598.47	0.0525	0.0244 *
Mercury	4627-05-31 03:35 G	3411186.53	3411186.65	3411186.77	0.0487	0.0347
Mercury	4627-08-29 04:48 G	3411276.56	3411276.70	3411276.84	0.0488	0.0289
Venus	4628-04-07 20:52 G	3411499.19	3411499.37	3411499.55	0.0491	0.0231
Earth	4629-07-30 03:07 G	3411977.40	3411977.63	3411977.87	0.0505	0.0076
Moon	4629-07-30 06:28 G	3411977.53	3411977.77	3411978.01	0.0505	0.0086 *
Mercury	4633-05-03 18:14 G	3413351.13	3413351.26	3413351.39	0.0540	0.0107
Mercury	4633-08-01 03:35 G	3413440.63	3413440.65	3413440.68	0.0539	0.0524
Earth	4635-01-28 15:21 G	3413985.91	3413986.14	3413986.37	0.0523	0.0008
Moon	4635-01-28 18:28 G	3413986.04	3413986.27	3413986.51	0.0523	0.0033 *
Mars	4637-12-13 13:26 G	3415035.77	3415036.06	3415036.36	0.0489	0.0096

Mercury	4639-06-17 03:50 G	3415586.49	3415586.66	3415586.83	0.0488	0.0130
Venus	4639-12-13 00:43 G	3415765.33	3415765.53	3415765.73	0.0490	0.0097
Moon	4641-08-03 18:28 G	3416365.08	3416365.27	3416365.47	0.0508	0.0268
Earth	4641-08-03 22:33 G	3416365.25	3416365.44	3416365.63	0.0508	0.0298 *
Mercury	4645-02-19 21:35 G	3417661.28	3417661.40	3417661.51	0.0540	0.0264
Mercury	4645-05-20 07:11 G	3417750.71	3417750.80	3417750.90	0.0539	0.0371
Venus	4645-10-19 22:19 G	3417903.24	3417903.43	3417903.62	0.0536	0.0180
Moon	4647-02-02 04:33 G	3418373.48	3418373.69	3418373.89	0.0521	0.0223
Earth	4647-02-02 08:09 G	3418373.64	3418373.84	3418374.05	0.0521	0.0228 *
Mercury	4651-04-05 03:07 G	3419896.46	3419896.63	3419896.81	0.0488	0.0031
Venus	4651-08-18 05:02 G	3420031.61	3420031.71	3420031.82	0.0489	0.0419
Moon	4653-08-08 22:19 G	3420753.40	3420753.43	3420753.46	0.0510	0.0504
Mars	4655-10-14 20:24 G	3421550.17	3421550.35	3421550.54	0.0537	0.0360
Mercury	4656-12-09 00:14 G	3421971.44	3421971.51	3421971.60	0.0540	0.0431
Mercury	4657-03-08 10:19 G	3422060.81	3422060.93	3422061.06	0.0539	0.0214
Venus	4657-06-24 09:35 G	3422168.73	3422168.90	3422169.08	0.0538	0.0264
Earth	4659-02-07 00:14 G	3422761.41	3422761.51	3422761.63	0.0519	0.0452
Moon	4659-02-07 04:04 G	3422761.59	3422761.67	3422761.74	0.0519	0.0486 *
Mercury	4663-01-22 02:52 G	3424206.46	3424206.62	3424206.78	0.0487	0.0182
Mercury	4663-04-22 04:33 G	3424296.64	3424296.69	3424296.75	0.0488	0.0463
Venus	4663-12-15 07:26 G	3424533.71	3424533.81	3424533.91	0.0492	0.0431
Mercury	4668-12-25 12:43 G	3426370.90	3426371.03	3426371.17	0.0540	0.0044
Mercury	4674-11-10 02:24 G	3428516.48	3428516.60	3428516.72	0.0487	0.0336
Mercury	4675-02-08 03:35 G	3428606.51	3428606.65	3428606.79	0.0488	0.0300
Venus	4675-08-20 10:48 G	3428799.75	3428799.95	3428800.15	0.0491	0.0101
Mercury	4680-10-13 16:04 G	3430681.04	3430681.17	3430681.30	0.0540	0.0118
Mercury	4681-01-11 01:26 G	3430770.53	3430770.56	3430770.60	0.0539	0.0512
Venus	4681-06-27 12:43 G	3430937.91	3430938.03	3430938.16	0.0536	0.0421
Mercury	4686-11-27 01:55 G	3432916.41	3432916.58	3432916.75	0.0488	0.0130
Venus	4687-04-25 13:26 G	3433065.88	3433066.06	3433066.24	0.0489	0.0232

Moon	4688-07-19 21:35 G	3433517.27	3433517.40	3433517.54	0.0501	0.0396
Earth	4688-07-19 22:04 G	3433517.28	3433517.42	3433517.58	0.0501	0.0387 *
Mars	4691-07-19 10:48 G	3434611.73	3434611.95	3434612.18	0.0539	0.0254
Mercury	4692-08-01 19:40 G	3434991.20	3434991.32	3434991.43	0.0541	0.0272
Mercury	4692-10-30 05:16 G	3435080.63	3435080.72	3435080.82	0.0540	0.0367
Venus	4693-03-02 02:52 G	3435203.41	3435203.62	3435203.82	0.0537	0.0011
Moon	4694-01-18 00:28 G	3435525.45	3435525.52	3435525.60	0.0528	0.0492
Earth	4694-01-18 01:26 G	3435525.54	3435525.56	3435525.59	0.0528	0.0523 *
Mercury	4698-09-15 01:11 G	3437226.37	3437226.55	3437226.72	0.0487	0.0029
Earth	4700-07-25 14:38 G	3437904.89	3437905.11	3437905.33	0.0503	0.0175
Moon	4700-07-25 17:31 G	3437905.00	3437905.23	3437905.46	0.0503	0.0146 *
Mercury	4704-05-21 22:48 G	3439301.37	3439301.45	3439301.53	0.0540	0.0431
Mercury	4704-08-19 08:52 G	3439390.75	3439390.87	3439390.99	0.0540	0.0213
Venus	4704-11-05 14:52 G	3439469.02	3439469.12	3439469.23	0.0538	0.0452
Earth	4706-01-23 21:21 G	3439913.20	3439913.39	3439913.58	0.0525	0.0284
Moon	4706-01-24 00:00 G	3439913.31	3439913.50	3439913.70	0.0525	0.0285 *
Mercury	4710-07-05 00:28 G	3441536.36	3441536.52	3441536.68	0.0487	0.0187
Mercury	4710-10-03 02:09 G	3441626.53	3441626.59	3441626.65	0.0488	0.0458
Venus	4711-04-28 19:11 G	3441834.14	3441834.30	3441834.47	0.0492	0.0290
Moon	4712-07-30 04:19 G	3442292.45	3442292.68	3442292.92	0.0505	0.0047
Earth	4712-07-30 08:24 G	3442292.61	3442292.85	3442293.08	0.0505	0.0041 *
Mercury	4716-06-07 12:00 G	3443700.86	3443701.00	3443701.13	0.0540	0.0054
Moon	4718-01-28 12:00 G	3444300.78	3444301.00	3444301.23	0.0524	0.0082
Earth	4718-01-28 15:50 G	3444300.93	3444301.16	3444301.39	0.0524	0.0049 *
Mercury	4722-04-23 00:14 G	3445846.39	3445846.51	3445846.64	0.0487	0.0337
Mercury	4722-07-22 01:26 G	3445936.42	3445936.56	3445936.70	0.0488	0.0300
Venus	4723-01-01 23:16 G	3446100.27	3446100.47	3446100.68	0.0490	0.0036
Earth	4724-08-04 00:57 G	3446680.33	3446680.54	3446680.74	0.0506	0.0254
Moon	4724-08-04 04:48 G	3446680.49	3446680.70	3446680.91	0.0506	0.0224 *
Mercury	4728-03-26 14:09 G	3448010.96	3448011.09	3448011.22	0.0540	0.0125

Mercury	4728-06-23 23:31 G	3448100.44	3448100.48	3448100.53	0.0539	0.0505
Venus	4728-11-08 16:48 G	3448238.02	3448238.20	3448238.39	0.0536	0.0229
Earth	4730-02-02 06:57 G	3448688.57	3448688.79	3448689.01	0.0522	0.0173
Moon	4730-02-02 10:33 G	3448688.73	3448688.94	3448689.16	0.0522	0.0175 *
Mercury	4734-05-10 00:28 G	3450246.35	3450246.52	3450246.69	0.0488	0.0138
Venus	4734-09-07 03:07 G	3450366.50	3450366.63	3450366.77	0.0489	0.0362
Moon	4736-08-08 14:38 G	3451068.01	3451068.11	3451068.23	0.0508	0.0451
Earth	4736-08-08 18:00 G	3451068.17	3451068.25	3451068.34	0.0508	0.0471 *
Mercury	4740-01-13 17:16 G	3452321.10	3452321.22	3452321.33	0.0540	0.0287
Mercury	4740-04-12 03:07 G	3452410.53	3452410.63	3452410.72	0.0540	0.0352
Venus	4740-07-14 05:02 G	3452503.53	3452503.71	3452503.90	0.0538	0.0212
Moon	4742-02-06 22:19 G	3453076.30	3453076.43	3453076.56	0.0520	0.0432
Earth	4742-02-07 01:11 G	3453076.41	3453076.55	3453076.70	0.0520	0.0401 *
Mercury	4746-02-25 23:02 G	3454556.28	3454556.46	3454556.63	0.0487	0.0033
Venus	4747-01-04 03:07 G	3454868.59	3454868.63	3454868.68	0.0492	0.0479
Mercury	4751-11-01 20:38 G	3456631.28	3456631.36	3456631.43	0.0541	0.0443
Mercury	4752-01-30 06:43 G	3456720.66	3456720.78	3456720.90	0.0540	0.0204
Mars	4756-06-02 00:43 G	3458305.34	3458305.53	3458305.72	0.0490	0.0378
Mercury	4757-12-14 22:19 G	3458866.27	3458866.43	3458866.59	0.0487	0.0188
Mercury	4758-03-14 23:45 G	3458956.44	3458956.49	3458956.56	0.0488	0.0455
Venus	4758-09-09 06:43 G	3459134.58	3459134.78	3459134.97	0.0491	0.0148
Mercury	4763-11-18 10:04 G	3461030.79	3461030.92	3461031.06	0.0540	0.0052
Venus	4764-07-17 12:14 G	3461272.94	3461273.01	3461273.09	0.0535	0.0492
Mercury	4769-10-02 21:35 G	3463176.28	3463176.40	3463176.53	0.0487	0.0345
Mercury	4769-12-31 22:48 G	3463266.31	3463266.45	3463266.59	0.0488	0.0292
Venus	4770-05-15 10:48 G	3463400.76	3463400.95	3463401.14	0.0490	0.0179
Earth	4771-07-21 02:38 G	3463832.48	3463832.61	3463832.74	0.0501	0.0419
Moon	4771-07-21 05:02 G	3463832.58	3463832.71	3463832.85	0.0501	0.0417 *
Mercury	4775-09-06 13:11 G	3465340.92	3465341.05	3465341.18	0.0540	0.0114
Mercury	4775-12-04 22:33 G	3465430.41	3465430.44	3465430.48	0.0539	0.0514

Venus	4776-03-22 00:14 G	3465538.31	3465538.51	3465538.71	0.0537	0.0051
Mercury	4781-10-19 22:19 G	3467576.26	3467576.43	3467576.60	0.0488	0.0135
Moon	4783-07-25 14:09 G	3468219.87	3468220.09	3468220.31	0.0502	0.0184
Earth	4783-07-25 18:00 G	3468220.03	3468220.25	3468220.46	0.0502	0.0214 *
Mercury	4787-06-25 15:21 G	3469651.03	3469651.14	3469651.25	0.0540	0.0293
Mercury	4787-09-23 01:11 G	3469740.45	3469740.55	3469740.65	0.0539	0.0345
Venus	4787-11-25 08:52 G	3469803.74	3469803.87	3469804.00	0.0538	0.0408
Moon	4789-01-22 13:26 G	3470227.90	3470228.06	3470228.23	0.0527	0.0350
Earth	4789-01-22 17:02 G	3470228.04	3470228.21	3470228.39	0.0527	0.0343 *
Mars	4792-03-09 00:43 G	3471369.27	3471369.53	3471369.80	0.0490	0.0246
Mercury	4793-08-07 21:21 G	3471886.22	3471886.39	3471886.57	0.0488	0.0026
Venus	4794-05-17 16:33 G	3472169.05	3472169.19	3472169.34	0.0491	0.0346
Earth	4795-07-30 08:52 G	3472607.63	3472607.87	3472608.10	0.0504	0.0007
Moon	4795-07-30 12:57 G	3472607.80	3472608.04	3472608.27	0.0504	0.0005 *
Mercury	4799-04-13 18:14 G	3473961.19	3473961.26	3473961.33	0.0541	0.0459
Mercury	4799-07-12 04:19 G	3474050.56	3474050.68	3474050.81	0.0540	0.0188
Earth	4801-01-27 13:26 G	3474615.84	3474616.06	3474616.29	0.0525	0.0105
Moon	4801-01-27 17:16 G	3474616.00	3474616.22	3474616.44	0.0525	0.0137 *
Mercury	4805-05-26 19:55 G	3476196.17	3476196.33	3476196.49	0.0487	0.0193
Mercury	4805-08-24 21:21 G	3476286.33	3476286.39	3476286.46	0.0488	0.0450
Venus	4806-01-20 18:14 G	3476435.06	3476435.26	3476435.47	0.0490	0.0011
Moon	4807-08-03 19:11 G	3476995.07	3476995.30	3476995.53	0.0506	0.0176
Earth	4807-08-03 22:48 G	3476995.23	3476995.45	3476995.66	0.0506	0.0206 *
Mars	4810-01-08 03:21 G	3477883.42	3477883.64	3477883.86	0.0537	0.0250
Mercury	4811-04-30 07:55 G	3478360.70	3478360.83	3478360.97	0.0540	0.0040
Venus	4811-11-28 16:04 G	3478573.01	3478573.17	3478573.35	0.0537	0.0300
Moon	4813-02-01 07:40 G	3479003.59	3479003.82	3479004.05	0.0522	0.0133
Earth	4813-02-01 10:48 G	3479003.73	3479003.95	3479004.18	0.0522	0.0134 *
Mercury	4817-03-14 19:26 G	3480506.19	3480506.31	3480506.43	0.0487	0.0347
Mercury	4817-06-12 20:24 G	3480596.21	3480596.35	3480596.49	0.0488	0.0287

Venus	4817-09-25 22:33 G	3480701.28	3480701.44	3480701.59	0.0489	0.0320
Earth	4819-08-08 17:31 G	3481383.11	3481383.23	3481383.36	0.0508	0.0426
Moon	4819-08-08 19:11 G	3481383.18	3481383.30	3481383.44	0.0508	0.0416 *
Mercury	4823-02-16 11:16 G	3482670.84	3482670.97	3482671.10	0.0540	0.0120
Mercury	4823-05-16 20:52 G	3482760.33	3482760.37	3482760.41	0.0539	0.0511
Venus	4823-08-03 04:48 G	3482838.51	3482838.70	3482838.90	0.0538	0.0141
Earth	4825-02-06 03:35 G	3483391.49	3483391.65	3483391.82	0.0520	0.0359
Moon	4825-02-06 05:16 G	3483391.58	3483391.72	3483391.87	0.0520	0.0390 *
Mercury	4829-03-31 19:26 G	3484906.14	3484906.31	3484906.48	0.0488	0.0126
Mercury	4834-12-05 14:09 G	3486980.98	3486981.09	3486981.21	0.0540	0.0284
Mercury	4835-03-05 00:00 G	3487070.41	3487070.50	3487070.60	0.0539	0.0354
Mercury	4841-01-17 18:57 G	3489216.12	3489216.29	3489216.47	0.0488	0.0030
Venus	4841-09-28 04:19 G	3489469.50	3489469.68	3489469.87	0.0491	0.0205
Mars	4845-10-12 20:24 G	3490945.17	3490945.35	3490945.53	0.0538	0.0375
Mercury	4846-09-23 16:19 G	3491291.11	3491291.18	3491291.25	0.0540	0.0464
Mercury	4846-12-22 02:38 G	3491380.48	3491380.61	3491380.73	0.0539	0.0183
Mercury	4852-11-05 18:14 G	3493526.10	3493526.26	3493526.42	0.0487	0.0188
Mercury	4853-02-03 19:55 G	3493616.27	3493616.33	3493616.39	0.0488	0.0456
Venus	4853-06-03 07:55 G	3493735.64	3493735.83	3493736.03	0.0490	0.0126
Moon	4854-07-20 00:43 G	3494147.45	3494147.53	3494147.64	0.0500	0.0451
Earth	4854-07-20 04:33 G	3494147.60	3494147.69	3494147.79	0.0500	0.0456 *
Mercury	4858-10-10 05:45 G	3495690.60	3495690.74	3495690.87	0.0540	0.0029
Venus	4859-04-10 18:28 G	3495873.07	3495873.27	3495873.47	0.0537	0.0097
Mercury	4864-08-24 17:02 G	3497836.09	3497836.21	3497836.33	0.0487	0.0352
Mercury	4864-11-22 18:00 G	3497926.11	3497926.25	3497926.39	0.0488	0.0282
Venus	4865-02-06 10:19 G	3498001.87	3498001.93	3498002.00	0.0489	0.0460
Earth	4866-07-24 15:07 G	3498534.93	3498535.13	3498535.34	0.0501	0.0259
Moon	4866-07-24 19:26 G	3498535.10	3498535.31	3498535.52	0.0501	0.0226 *
Mercury	4870-07-29 09:07 G	3500000.75	3500000.88	3500001.01	0.0541	0.0133
Mercury	4870-10-26 18:43 G	3500090.23	3500090.28	3500090.32	0.0539	0.0499

Venus	4870-12-14 07:40 G	3500138.67	3500138.82	3500138.99	0.0539	0.0343
Earth	4872-01-22 20:09 G	3500543.19	3500543.34	3500543.50	0.0527	0.0381
Moon	4872-01-23 00:00 G	3500543.36	3500543.50	3500543.66	0.0527	0.0396 *
Mercury	4876-09-10 17:02 G	3502236.04	3502236.21	3502236.38	0.0487	0.0121
Venus	4877-06-05 11:31 G	3502503.86	3502503.98	3502504.10	0.0492	0.0388
Moon	4878-07-29 03:50 G	3502922.42	3502922.66	3502922.90	0.0504	0.0042
Earth	4878-07-29 07:40 G	3502922.59	3502922.82	3502923.06	0.0504	0.0048 *
Mercury	4882-05-17 12:28 G	3504310.91	3504311.02	3504311.13	0.0540	0.0290
Mercury	4882-08-14 22:19 G	3504400.33	3504400.43	3504400.53	0.0540	0.0350
Moon	4884-01-27 13:11 G	3504930.83	3504931.05	3504931.27	0.0525	0.0178
Earth	4884-01-27 16:33 G	3504930.97	3504931.19	3504931.41	0.0525	0.0144 *
Mercury	4888-06-29 16:19 G	3506546.00	3506546.18	3506546.35	0.0488	0.0039
Venus	4889-02-08 15:07 G	3506769.93	3506770.13	3506770.34	0.0490	0.0059
Earth	4890-08-03 01:40 G	3507310.35	3507310.57	3507310.79	0.0506	0.0168
Moon	4890-08-03 03:50 G	3507310.44	3507310.66	3507310.88	0.0506	0.0140 *
Mercury	4894-03-05 15:21 G	3508621.07	3508621.14	3508621.21	0.0540	0.0454
Mercury	4894-06-03 01:26 G	3508710.44	3508710.56	3508710.69	0.0540	0.0193
Venus	4894-12-17 13:55 G	3508907.93	3508908.08	3508908.23	0.0536	0.0361
Earth	4896-02-01 10:33 G	3509318.71	3509318.94	3509319.17	0.0523	0.0086
Moon	4896-02-01 12:28 G	3509318.80	3509319.02	3509319.24	0.0523	0.0090 *
Mercury	4900-04-18 15:50 G	3510856.00	3510856.16	3510856.32	0.0487	0.0192
Mercury	4900-07-17 17:16 G	3510946.16	3510946.22	3510946.29	0.0488	0.0453
Venus	4900-10-15 19:55 G	3511036.16	3511036.33	3511036.50	0.0489	0.0266
Earth	4902-08-08 20:09 G	3511698.19	3511698.34	3511698.50	0.0507	0.0383
Moon	4902-08-08 20:24 G	3511698.19	3511698.35	3511698.52	0.0507	0.0379 *
Mercury	4906-03-23 03:50 G	3513020.53	3513020.66	3513020.80	0.0540	0.0027
Venus	4906-08-22 23:02 G	3513173.26	3513173.46	3513173.66	0.0537	0.0097
Earth	4908-02-07 00:28 G	3513706.34	3513706.52	3513706.71	0.0521	0.0304
Moon	4908-02-07 00:28 G	3513706.34	3513706.52	3513706.71	0.0521	0.0332 *
Mars	4910-08-27 03:35 G	3514638.39	3514638.65	3514638.91	0.0491	0.0249

Mercury	4912-02-05 15:21 G	3515166.02	3515166.14	3515166.26	0.0487	0.0348
Mercury	4912-05-05 16:19 G	3515256.04	3515256.18	3515256.33	0.0488	0.0288
Mercury	4918-01-09 06:57 G	3517330.66	3517330.79	3517330.92	0.0540	0.0145
Mercury	4918-04-08 16:33 G	3517420.13	3517420.19	3517420.24	0.0539	0.0487
Mercury	4924-02-22 14:38 G	3519565.94	3519566.11	3519566.28	0.0487	0.0116
Venus	4924-10-17 22:48 G	3519804.28	3519804.45	3519804.63	0.0491	0.0246
Mercury	4929-10-28 10:04 G	3521640.82	3521640.92	3521641.03	0.0541	0.0303
Mercury	4930-01-25 20:09 G	3521730.24	3521730.34	3521730.44	0.0540	0.0339
Mercury	4935-12-11 14:09 G	3523875.91	3523876.09	3523876.26	0.0487	0.0044
Venus	4936-06-23 03:07 G	3524070.42	3524070.63	3524070.83	0.0490	0.0084
Earth	4937-07-20 03:21 G	3524462.62	3524462.64	3524462.67	0.0499	0.0496
Moon	4937-07-20 07:26 G	3524462.76	3524462.81	3524462.87	0.0499	0.0483
Mercury	4941-08-16 13:26 G	3525950.99	3525951.06	3525951.13	0.0541	0.0460
Mercury	4941-11-13 23:45 G	3526040.37	3526040.49	3526040.61	0.0540	0.0188
Venus	4942-04-30 18:57 G	3526208.10	3526208.29	3526208.48	0.0537	0.0172
Mars	4946-06-03 03:21 G	3527702.46	3527702.64	3527702.84	0.0489	0.0379
Mercury	4947-09-29 13:26 G	3528185.90	3528186.06	3528186.22	0.0487	0.0199
Mercury	4947-12-28 14:52 G	3528276.05	3528276.12	3528276.19	0.0488	0.0443
Venus	4948-02-27 07:26 G	3528336.70	3528336.81	3528336.92	0.0489	0.0409
Moon	4949-07-24 15:07 G	3528849.93	3528850.13	3528850.34	0.0501	0.0260
Earth	4949-07-24 19:11 G	3528850.11	3528850.30	3528850.49	0.0501	0.0292 *
Mercury	4953-09-02 02:52 G	3530350.49	3530350.62	3530350.76	0.0540	0.0032
Venus	4954-01-03 06:43 G	3530473.60	3530473.78	3530473.95	0.0538	0.0275
Moon	4955-01-22 17:16 G	3530858.10	3530858.22	3530858.35	0.0527	0.0439
Earth	4955-01-22 20:52 G	3530858.24	3530858.37	3530858.51	0.0527	0.0425 *
Mercury	4959-07-18 13:11 G	3532495.93	3532496.05	3532496.17	0.0487	0.0350
Mercury	4959-10-16 13:55 G	3532585.94	3532586.08	3532586.23	0.0488	0.0285
Venus	4960-06-25 09:21 G	3532838.81	3532838.89	3532838.98	0.0492	0.0447
Earth	4961-07-29 12:00 G	3533237.77	3533238.00	3533238.24	0.0503	0.0083
Moon	4961-07-29 14:38 G	3533237.88	3533238.11	3533238.34	0.0503	0.0082 *

Mars	4964-04-03 18:00 G	3534217.01	3534217.25	3534217.50	0.0537	0.0115
Mercury	4965-06-21 05:16 G	3534660.60	3534660.72	3534660.85	0.0540	0.0145
Mercury	4965-09-18 14:52 G	3534750.07	3534750.12	3534750.18	0.0539	0.0487
Earth	4967-01-27 13:11 G	3535245.84	3535246.05	3535246.26	0.0526	0.0198
Moon	4967-01-27 15:35 G	3535245.95	3535246.15	3535246.35	0.0526	0.0229 *
Mercury	4971-08-04 13:11 G	3536895.88	3536896.05	3536896.22	0.0488	0.0123
Venus	4972-02-29 12:57 G	3537104.84	3537105.04	3537105.24	0.0491	0.0113
Moon	4973-08-03 03:07 G	3537625.39	3537625.63	3537625.88	0.0505	0.0100
Earth	4973-08-03 03:35 G	3537625.42	3537625.65	3537625.88	0.0505	0.0128 *
Mercury	4977-04-09 08:09 G	3538970.73	3538970.84	3538970.95	0.0540	0.0310
Mercury	4977-07-07 18:14 G	3539060.15	3539060.26	3539060.36	0.0539	0.0330
Venus	4978-01-06 09:07 G	3539242.75	3539242.88	3539243.01	0.0536	0.0411
Moon	4979-02-01 08:38 G	3539633.62	3539633.86	3539634.09	0.0524	0.0044
Earth	4979-02-01 08:52 G	3539633.65	3539633.87	3539634.10	0.0524	0.0037 *
Mercury	4983-05-23 11:45 G	3541205.82	3541205.99	3541206.16	0.0487	0.0045
Venus	4983-11-04 15:07 G	3541370.95	3541371.13	3541371.32	0.0489	0.0224
Moon	4985-08-07 15:07 G	3542012.96	3542013.13	3542013.30	0.0507	0.0335
Earth	4985-08-07 16:48 G	3542013.02	3542013.20	3542013.38	0.0507	0.0334 *
Mercury	4989-01-26 11:16 G	3543280.91	3543280.97	3543281.03	0.0541	0.0472
Mercury	4989-04-25 21:35 G	3543370.28	3543370.40	3543370.53	0.0540	0.0178
Venus	4989-09-10 22:33 G	3543508.24	3543508.44	3543508.65	0.0538	0.0027
Moon	4991-02-06 04:04 G	3544021.49	3544021.67	3544021.86	0.0522	0.0298
Earth	4991-02-06 06:14 G	3544021.56	3544021.76	3544021.95	0.0522	0.0270 *
Mercury	4995-03-11 11:16 G	3545515.81	3545515.97	3545516.13	0.0487	0.0199
Mercury	4995-06-09 12:28 G	3545605.96	3545606.02	3545606.10	0.0488	0.0442
Mars	5000-01-07 12:57 G	3547279.00	3547279.04	3547279.10	0.0539	0.0526

6TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 6th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	5001-02-13 01:11	G	3547680.42	3547680.55	3547680.68	0.0540	0.0027	
Venus	5001-05-17 11:31	G	3547773.88	3547773.98	3547774.08	0.0539	0.0468	
Earth	5003-02-12 00:00	G	3548409.43	3548409.50	3548409.57	0.0519	0.0492	
Moon	5003-02-12 03:35	G	3548409.56	3548409.65	3548409.73	0.0519	0.0479	*
Mercury	5006-12-29 10:48	G	3549825.84	3549825.95	3549826.07	0.0487	0.0354	
Mercury	5007-03-29 11:31	G	3549915.84	3549915.98	3549916.13	0.0488	0.0280	
Venus	5007-11-07 20:52	G	3550139.21	3550139.37	3550139.53	0.0491	0.0302	
Mercury	5012-12-02 04:19	G	3551990.56	3551990.68	3551990.81	0.0540	0.0134	
Mercury	5013-03-01 13:55	G	3552080.04	3552080.08	3552080.13	0.0539	0.0500	
Mercury	5019-01-15 11:02	G	3554225.79	3554225.96	3554226.13	0.0488	0.0123	
Venus	5019-07-14 01:26	G	3554405.35	3554405.56	3554405.76	0.0490	0.0028	
Mercury	5024-09-20 06:57	G	3556300.68	3556300.79	3556300.90	0.0540	0.0306	
Mercury	5024-12-18 16:48	G	3556390.10	3556390.20	3556390.30	0.0539	0.0334	
Venus	5025-05-20 15:21	G	3556542.96	3556543.14	3556543.32	0.0537	0.0227	
Mercury	5030-11-03 10:19	G	3558535.76	3558535.93	3558536.11	0.0488	0.0038	
Venus	5031-03-19 05:31	G	3558671.60	3558671.73	3558671.87	0.0489	0.0354	
Earth	5032-07-24 23:31	G	3559165.30	3559165.48	3559165.66	0.0501	0.0324	
Moon	5032-07-25 02:09	G	3559165.41	3559165.59	3559165.78	0.0501	0.0295	*
Mercury	5036-07-09 09:35	G	3560610.84	3560610.90	3560610.96	0.0540	0.0473	
Mercury	5036-10-06 19:55	G	3560700.21	3560700.33	3560700.46	0.0540	0.0175	
Venus	5037-01-23 02:52	G	3560808.44	3560808.62	3560808.81	0.0538	0.0222	
Earth	5038-01-22 19:26	G	3561173.21	3561173.31	3561173.41	0.0528	0.0473	

Moon	5038-01-22 22:04 G	3561173.35	3561173.42	3561173.51	0.0528	0.0489	*
Mercury	5042-08-22 09:21 G	3562845.73	3562845.89	3562846.05	0.0487	0.0199	
Mercury	5042-11-20 10:33 G	3562935.87	3562935.94	3562936.01	0.0488	0.0441	
Moon	5044-07-29 09:21 G	3563552.65	3563552.89	3563553.13	0.0502	0.0131	
Earth	5044-07-29 10:33 G	3563552.71	3563552.94	3563553.16	0.0502	0.0127	*
Mercury	5048-07-25 23:16 G	3565010.34	3565010.47	3565010.60	0.0541	0.0019	
Moon	5050-01-27 18:14 G	3565561.06	3565561.26	3565561.47	0.0526	0.0257	
Earth	5050-01-27 19:11 G	3565561.09	3565561.30	3565561.51	0.0526	0.0231	*
Mercury	5054-06-10 09:07 G	3567155.76	3567155.88	3567156.00	0.0487	0.0350	
Mercury	5054-09-08 09:50 G	3567245.77	3567245.91	3567246.05	0.0487	0.0282	
Venus	5055-03-21 09:21 G	3567439.69	3567439.89	3567440.08	0.0490	0.0163	
Moon	5056-08-03 01:55 G	3567940.36	3567940.58	3567940.81	0.0504	0.0059	
Earth	5056-08-03 03:21 G	3567940.41	3567940.64	3567940.87	0.0504	0.0086	*
Mercury	5060-05-14 02:52 G	3569320.49	3569320.62	3569320.75	0.0541	0.0135	
Mercury	5060-08-11 12:28 G	3569409.97	3569410.02	3569410.07	0.0540	0.0499	
Venus	5061-01-26 10:48 G	3569577.88	3569577.95	3569578.03	0.0536	0.0494	
Moon	5062-02-01 14:52 G	3569948.90	3569949.12	3569949.34	0.0524	0.0021	
Earth	5062-02-01 16:33 G	3569948.96	3569949.19	3569949.42	0.0524	0.0008	*
Mars	5064-11-20 18:28 G	3570971.97	3570972.27	3570972.57	0.0490	0.0086	
Mercury	5066-06-27 08:52 G	3571555.70	3571555.87	3571556.04	0.0487	0.0122	
Venus	5066-11-24 13:26 G	3571705.87	3571706.06	3571706.26	0.0489	0.0167	
Earth	5068-08-07 22:19 G	3572328.24	3572328.43	3572328.62	0.0507	0.0301	
Moon	5068-08-08 01:26 G	3572328.37	3572328.56	3572328.75	0.0507	0.0307	*
Mercury	5072-03-02 06:00 G	3573630.64	3573630.75	3573630.86	0.0541	0.0293	
Mercury	5072-05-30 16:04 G	3573720.07	3573720.17	3573720.27	0.0540	0.0348	
Venus	5072-09-30 23:45 G	3573843.29	3573843.49	3573843.69	0.0537	0.0053	
Earth	5074-02-06 10:48 G	3574336.75	3574336.95	3574337.16	0.0522	0.0233	
Moon	5074-02-06 14:09 G	3574336.89	3574337.09	3574337.30	0.0522	0.0260	*
Mercury	5078-04-15 08:38 G	3575865.68	3575865.86	3575866.03	0.0487	0.0034	
Venus	5078-07-30 18:43 G	3575972.28	3575972.28	3575972.28	0.0489	0.0489	

Mercury	5083-12-20 08:24 G	3577940.79	3577940.85	3577940.92	0.0540	0.0466
Mercury	5084-03-18 18:43 G	3578030.16	3578030.28	3578030.41	0.0540	0.0183
Venus	5084-06-05 09:35 G	3578108.77	3578108.90	3578109.03	0.0538	0.0405
Moon	5086-02-10 21:21 G	3578724.27	3578724.39	3578724.52	0.0520	0.0437
Earth	5086-02-11 01:11 G	3578724.44	3578724.55	3578724.67	0.0520	0.0448 *
Mercury	5090-02-01 08:09 G	3580175.68	3580175.84	3580176.00	0.0487	0.0189
Mercury	5090-05-02 09:21 G	3580265.83	3580265.89	3580265.96	0.0488	0.0453
Venus	5090-11-26 19:55 G	3580474.20	3580474.33	3580474.47	0.0491	0.0364
Mercury	5096-01-05 21:50 G	3582340.28	3582340.41	3582340.54	0.0540	0.0021
Mercury	5101-11-21 07:11 G	3584485.69	3584485.80	3584485.93	0.0487	0.0348
Mercury	5102-02-19 07:55 G	3584575.69	3584575.83	3584575.98	0.0487	0.0285
Venus	5102-08-02 22:19 G	3584740.22	3584740.43	3584740.63	0.0490	0.0027
Mercury	5107-10-26 00:57 G	3586650.41	3586650.54	3586650.67	0.0541	0.0140
Mercury	5108-01-23 10:33 G	3586739.90	3586739.94	3586739.99	0.0540	0.0495
Venus	5108-06-09 15:50 G	3586877.99	3586878.16	3586878.33	0.0537	0.0304
Mercury	5113-12-08 07:26 G	3588885.64	3588885.81	3588885.98	0.0487	0.0128
Venus	5114-04-08 03:07 G	3589006.47	3589006.63	3589006.79	0.0489	0.0300
Moon	5115-07-25 23:45 G	3589480.31	3589480.49	3589480.67	0.0500	0.0333
Earth	5115-07-26 00:57 G	3589480.38	3589480.54	3589480.71	0.0500	0.0360 *
Mars	5118-06-30 15:07 G	3590550.89	3590551.13	3590551.38	0.0538	0.0049
Mercury	5119-08-14 04:19 G	3590960.57	3590960.68	3590960.80	0.0541	0.0294
Mercury	5119-11-11 14:24 G	3591050.00	3591050.10	3591050.20	0.0540	0.0349
Venus	5120-02-13 05:16 G	3591143.52	3591143.72	3591143.92	0.0539	0.0135
Moon	5121-01-23 02:38 G	3591488.57	3591488.61	3591488.65	0.0529	0.0519
Earth	5121-01-23 04:04 G	3591488.60	3591488.67	3591488.74	0.0529	0.0502 *
Mercury	5125-09-26 06:43 G	3593195.61	3593195.78	3593195.96	0.0487	0.0031
Moon	5127-07-30 16:33 G	3593867.98	3593868.19	3593868.40	0.0502	0.0169
Earth	5127-07-30 17:31 G	3593868.01	3593868.23	3593868.46	0.0502	0.0154 *
Mercury	5131-06-02 07:26 G	3595270.75	3595270.81	3595270.89	0.0541	0.0453
Mercury	5131-08-30 18:00 G	3595360.13	3595360.25	3595360.37	0.0540	0.0197

Moon	5133-01-28 00:28 G	3595876.34	3595876.52	3595876.71	0.0526	0.0285
Earth	5133-01-28 01:40 G	3595876.38	3595876.57	3595876.77	0.0526	0.0264 *
Mercury	5137-07-15 06:28 G	3597505.61	3597505.77	3597505.93	0.0487	0.0183
Mercury	5137-10-13 07:40 G	3597595.77	3597595.82	3597595.88	0.0488	0.0459
Venus	5138-04-10 09:07 G	3597774.70	3597774.88	3597775.06	0.0491	0.0228
Earth	5139-08-04 11:45 G	3598255.76	3598255.99	3598256.23	0.0504	0.0059
Moon	5139-08-04 14:38 G	3598255.87	3598256.11	3598256.36	0.0504	0.0031 *
Mercury	5143-06-18 20:52 G	3599670.24	3599670.37	3599670.50	0.0540	0.0032
Earth	5145-02-01 18:57 G	3600264.06	3600264.29	3600264.52	0.0524	0.0037
Moon	5145-02-01 22:04 G	3600264.18	3600264.42	3600264.65	0.0524	0.0012 *
Mercury	5149-05-03 06:14 G	3601815.64	3601815.76	3601815.88	0.0487	0.0336
Mercury	5149-08-01 06:57 G	3601905.65	3601905.79	3601905.93	0.0488	0.0298
Venus	5149-12-14 13:26 G	3602040.86	3602041.06	3602041.26	0.0490	0.0102
Moon	5151-08-09 01:26 G	3602643.37	3602643.56	3602643.75	0.0506	0.0277
Earth	5151-08-09 05:02 G	3602643.51	3602643.71	3602643.91	0.0506	0.0271 *
Mercury	5155-04-07 00:00 G	3603980.37	3603980.50	3603980.62	0.0540	0.0133
Mercury	5155-07-05 09:35 G	3604069.85	3604069.90	3604069.94	0.0539	0.0501
Venus	5155-10-21 22:19 G	3604178.24	3604178.43	3604178.63	0.0537	0.0120
Moon	5157-02-06 10:33 G	3604651.73	3604651.94	3604652.14	0.0523	0.0221
Earth	5157-02-06 14:24 G	3604651.89	3604652.10	3604652.31	0.0523	0.0193 *
Mercury	5161-05-20 05:45 G	3606215.58	3606215.74	3606215.91	0.0487	0.0135
Venus	5161-08-19 16:48 G	3606307.11	3606307.20	3606307.29	0.0488	0.0431
Earth	5163-08-13 18:28 G	3607031.20	3607031.27	3607031.36	0.0508	0.0476
Moon	5163-08-13 22:19 G	3607031.43	3607031.43	3607031.45	0.0508	0.0507
Mercury	5167-01-24 02:38 G	3608290.50	3608290.61	3608290.72	0.0541	0.0297
Mercury	5167-04-23 12:43 G	3608379.94	3608380.03	3608380.14	0.0540	0.0348
Venus	5167-06-26 10:04 G	3608443.76	3608443.92	3608444.08	0.0539	0.0329
Earth	5169-02-11 10:48 G	3609039.82	3609039.95	3609040.08	0.0521	0.0421
Moon	5169-02-11 14:24 G	3609039.96	3609040.10	3609040.25	0.0521	0.0406 *
Mercury	5173-03-08 05:31 G	3610525.56	3610525.73	3610525.91	0.0487	0.0020

Venus	5173-12-16 18:00 G	3610809.15	3610809.25	3610809.36	0.0491	0.0423
Mercury	5178-11-12 06:00 G	3612600.68	3612600.75	3612600.82	0.0541	0.0453
Mercury	5179-02-09 16:33 G	3612690.07	3612690.19	3612690.31	0.0541	0.0199
Mercury	5184-12-25 05:02 G	3614835.55	3614835.71	3614835.87	0.0487	0.0176
Mercury	5185-03-25 06:14 G	3614925.71	3614925.76	3614925.81	0.0488	0.0465
Venus	5185-08-21 22:04 G	3615075.22	3615075.42	3615075.62	0.0490	0.0092
Mercury	5190-11-28 20:09 G	3617000.21	3617000.34	3617000.47	0.0540	0.0047
Venus	5191-06-29 18:57 G	3617213.16	3617213.29	3617213.43	0.0537	0.0395
Mercury	5196-10-13 04:48 G	3619145.58	3619145.70	3619145.83	0.0487	0.0326
Mercury	5197-01-11 05:31 G	3619235.60	3619235.73	3619235.87	0.0488	0.0307
Venus	5197-04-27 03:07 G	3619341.46	3619341.63	3619341.82	0.0489	0.0234
Moon	5198-07-25 09:50 G	3619795.76	3619795.91	3619796.07	0.0500	0.0364
Earth	5198-07-25 11:02 G	3619795.81	3619795.96	3619796.11	0.0500	0.0382 *
Mercury	5202-09-16 23:02 G	3621310.33	3621310.46	3621310.59	0.0540	0.0119
Mercury	5202-12-15 08:38 G	3621399.83	3621399.86	3621399.90	0.0539	0.0514
Venus	5203-03-04 06:00 G	3621478.55	3621478.75	3621478.96	0.0538	0.0059
Mercury	5208-08-01 04:48 G	3623455.67	3623455.70	3623455.73	0.0487	0.0477
Mercury	5208-10-30 05:02 G	3623545.54	3623545.71	3623545.87	0.0488	0.0149
Earth	5210-07-30 02:09 G	3624183.37	3624183.59	3624183.82	0.0502	0.0178
Moon	5210-07-30 05:02 G	3624183.49	3624183.71	3624183.94	0.0502	0.0198 *
Mercury	5214-07-06 01:55 G	3625620.46	3625620.58	3625620.69	0.0541	0.0283
Mercury	5214-10-03 11:45 G	3625709.90	3625709.99	3625710.09	0.0540	0.0359
Venus	5214-11-06 17:16 G	3625744.17	3625744.22	3625744.29	0.0539	0.0511
Earth	5216-01-28 05:31 G	3626191.55	3626191.73	3626191.92	0.0527	0.0301
Moon	5216-01-28 08:24 G	3626191.67	3626191.85	3626192.04	0.0527	0.0315 *
Mars	5219-02-16 01:11 G	3627306.25	3627306.55	3627306.84	0.0490	0.0117
Mercury	5220-08-18 04:04 G	3627855.50	3627855.67	3627855.85	0.0487	0.0017
Venus	5221-04-29 07:55 G	3628109.67	3628109.83	3628110.00	0.0490	0.0291
Moon	5222-08-03 11:02 G	3628570.73	3628570.96	3628571.19	0.0503	0.0009
Earth	5222-08-03 14:38 G	3628570.87	3628571.11	3628571.34	0.0503	0.0022 *

Mercury	5226-04-24 04:19 G	3629930.61	3629930.68	3629930.76	0.0541	0.0454
Mercury	5226-07-22 14:52 G	3630020.00	3630020.12	3630020.25	0.0541	0.0199
Moon	5228-02-02 00:00 G	3630579.27	3630579.50	3630579.73	0.0526	0.0040
Earth	5228-02-02 03:50 G	3630579.43	3630579.66	3630579.89	0.0526	0.0066 *
Mercury	5232-06-06 04:04 G	3632165.50	3632165.67	3632165.83	0.0487	0.0162
Mercury	5232-09-04 05:16 G	3632255.68	3632255.72	3632255.75	0.0487	0.0478
Venus	5233-01-02 12:43 G	3632375.82	3632376.03	3632376.23	0.0489	0.0038
Earth	5234-08-08 07:55 G	3632958.62	3632958.83	3632959.04	0.0505	0.0233
Moon	5234-08-08 11:45 G	3632958.79	3632958.99	3632959.20	0.0505	0.0246 *
Mars	5236-12-19 23:31 G	3633823.32	3633823.48	3633823.64	0.0537	0.0409
Mercury	5238-05-10 18:43 G	3634330.14	3634330.28	3634330.41	0.0541	0.0051
Venus	5238-11-10 01:26 G	3634513.37	3634513.56	3634513.75	0.0538	0.0211
Earth	5240-02-07 01:26 G	3634967.34	3634967.56	3634967.78	0.0523	0.0166
Moon	5240-02-07 05:16 G	3634967.51	3634967.72	3634967.93	0.0523	0.0191 *
Mercury	5244-03-25 03:35 G	3636475.52	3636475.65	3636475.78	0.0487	0.0316
Mercury	5244-06-23 04:04 G	3636565.54	3636565.67	3636565.81	0.0487	0.0316
Venus	5244-09-07 17:02 G	3636642.08	3636642.21	3636642.35	0.0488	0.0365
Moon	5246-08-13 00:43 G	3637346.44	3637346.53	3637346.61	0.0507	0.0474
Earth	5246-08-13 03:35 G	3637346.55	3637346.65	3637346.76	0.0507	0.0448 *
Mercury	5250-02-26 22:04 G	3638640.29	3638640.42	3638640.55	0.0541	0.0105
Mercury	5250-05-27 07:55 G	3638729.81	3638729.83	3638729.85	0.0540	0.0529
Venus	5250-07-15 14:24 G	3638778.92	3638779.10	3638779.28	0.0539	0.0233
Moon	5252-02-11 18:00 G	3639355.08	3639355.25	3639355.41	0.0521	0.0371
Earth	5252-02-11 20:38 G	3639355.21	3639355.36	3639355.51	0.0521	0.0393 *
Mercury	5256-01-12 03:35 G	3640785.61	3640785.65	3640785.70	0.0487	0.0465
Mercury	5256-04-11 03:35 G	3640875.49	3640875.65	3640875.82	0.0487	0.0161
Mercury	5261-12-16 00:57 G	3642950.43	3642950.54	3642950.66	0.0541	0.0269
Mercury	5262-03-15 11:02 G	3643039.87	3643039.96	3643040.06	0.0540	0.0372
Mercury	5268-01-29 03:21 G	3645185.46	3645185.64	3645185.81	0.0487	0.0010
Venus	5268-09-09 23:16 G	3645410.27	3645410.47	3645410.66	0.0490	0.0163

Mars	5272-09-24 02:52 G	3646885.40	3646885.62	3646885.84	0.0538	0.0251
Mercury	5273-10-04 03:50 G	3647260.58	3647260.66	3647260.74	0.0541	0.0435
Mercury	5274-01-01 14:24 G	3647349.98	3647350.10	3647350.22	0.0540	0.0214
Venus	5274-07-18 19:26 G	3647548.21	3647548.31	3647548.40	0.0537	0.0470
Mercury	5279-11-17 02:52 G	3649495.45	3649495.62	3649495.78	0.0487	0.0151
Venus	5280-05-16 03:07 G	3649676.44	3649676.63	3649676.83	0.0489	0.0167
Earth	5281-07-24 16:04 G	3650111.05	3650111.17	3650111.31	0.0499	0.0413
Moon	5281-07-24 18:57 G	3650111.14	3650111.29	3650111.44	0.0499	0.0395 *
Mercury	5285-10-20 17:02 G	3651660.08	3651660.21	3651660.34	0.0541	0.0050
Venus	5286-03-23 06:43 G	3651813.58	3651813.78	3651813.99	0.0539	0.0022
Mercury	5291-09-05 02:52 G	3653805.48	3653805.62	3653805.75	0.0486	0.0300
Mercury	5291-12-04 03:21 G	3653895.51	3653895.64	3653895.77	0.0487	0.0332
Moon	5293-07-29 03:50 G	3654498.46	3654498.66	3654498.87	0.0501	0.0233
Earth	5293-07-29 07:26 G	3654498.60	3654498.81	3654499.02	0.0501	0.0210 *
Mercury	5297-08-08 20:38 G	3655970.23	3655970.36	3655970.49	0.0541	0.0104
Mercury	5297-11-06 06:28 G	3656059.75	3656059.77	3656059.79	0.0540	0.0532
Venus	5297-11-25 19:55 G	3656079.21	3656079.33	3656079.45	0.0540	0.0423
Moon	5299-01-27 12:14 G	3656506.84	3656507.01	3656507.18	0.0528	0.0345
Earth	5299-01-27 15:50 G	3656506.99	3656507.16	3656507.35	0.0528	0.0330 *
Mercury	5303-06-25 02:24 G	3658115.55	3658115.60	3658115.67	0.0486	0.0453
Mercury	5303-09-23 02:38 G	3658205.44	3658205.61	3658205.77	0.0487	0.0171
Venus	5304-05-19 08:38 G	3658444.73	3658444.86	3658445.00	0.0490	0.0361
Earth	5305-08-03 23:45 G	3658886.26	3658886.49	3658886.73	0.0503	0.0011
Moon	5305-08-04 03:50 G	3658886.42	3658886.66	3658886.89	0.0503	0.0029 *
Mercury	5309-05-29 00:00 G	3660280.39	3660280.50	3660280.62	0.0541	0.0258
Mercury	5309-08-26 10:19 G	3660369.84	3660369.93	3660370.02	0.0540	0.0386
Earth	5311-02-02 14:09 G	3660894.87	3660895.09	3660895.32	0.0526	0.0093
Moon	5311-02-02 18:00 G	3660895.03	3660895.25	3660895.48	0.0526	0.0063 *
Mercury	5315-07-12 02:09 G	3662515.42	3662515.59	3662515.76	0.0487	0.0016
Venus	5316-01-23 13:26 G	3662710.85	3662711.06	3662711.26	0.0489	0.0032

Moon	5317-08-08 15:21 G	3663273.93	3663274.14	3663274.36	0.0505	0.0227
Earth	5317-08-08 18:43 G	3663274.07	3663274.28	3663274.50	0.0505	0.0209 *
Mercury	5321-03-17 02:52 G	3664590.54	3664590.62	3664590.71	0.0541	0.0422
Mercury	5321-06-14 13:26 G	3664679.94	3664680.06	3664680.18	0.0540	0.0228
Venus	5321-11-30 03:35 G	3664848.49	3664848.65	3664848.82	0.0537	0.0297
Moon	5323-02-07 05:02 G	3665282.49	3665282.71	3665282.94	0.0523	0.0151
Earth	5323-02-07 08:09 G	3665282.62	3665282.84	3665283.06	0.0523	0.0134 *
Mercury	5327-04-30 01:55 G	3666825.41	3666825.58	3666825.74	0.0487	0.0138
Venus	5327-09-28 18:14 G	3666977.10	3666977.26	3666977.43	0.0489	0.0295
Earth	5329-08-13 13:11 G	3667661.92	3667662.05	3667662.18	0.0507	0.0422
Moon	5329-08-13 14:24 G	3667662.01	3667662.10	3667662.22	0.0507	0.0447 *
Mercury	5333-04-02 16:33 G	3668990.06	3668990.19	3668990.32	0.0540	0.0067
Venus	5333-08-04 15:07 G	3669113.94	3669114.13	3669114.33	0.0539	0.0156
Earth	5335-02-12 02:52 G	3669670.45	3669670.62	3669670.78	0.0521	0.0360
Moon	5335-02-12 03:35 G	3669670.49	3669670.65	3669670.83	0.0521	0.0334 *
Mars	5337-08-06 09:50 G	3670576.68	3670576.91	3670577.15	0.0491	0.0309
Mercury	5339-02-16 01:40 G	3671135.43	3671135.57	3671135.71	0.0487	0.0288
Mercury	5339-05-17 02:09 G	3671225.47	3671225.59	3671225.72	0.0487	0.0344
Mercury	5345-01-19 18:57 G	3673300.16	3673300.29	3673300.43	0.0541	0.0105
Mercury	5345-04-19 04:48 G	3673389.69	3673389.70	3673389.72	0.0540	0.0533
Mercury	5350-12-05 01:40 G	3675445.50	3675445.57	3675445.65	0.0486	0.0436
Mercury	5351-03-05 01:40 G	3675535.41	3675535.57	3675535.74	0.0487	0.0188
Venus	5351-09-30 23:31 G	3675745.30	3675745.48	3675745.66	0.0490	0.0233
Mercury	5356-11-07 22:19 G	3677610.32	3677610.43	3677610.55	0.0541	0.0259
Mercury	5357-02-05 08:38 G	3677699.77	3677699.86	3677699.95	0.0541	0.0386
Mercury	5362-12-22 00:57 G	3679845.37	3679845.54	3679845.72	0.0487	0.0028
Venus	5363-06-06 03:35 G	3680011.45	3680011.65	3680011.85	0.0489	0.0099
Moon	5364-07-24 22:04 G	3680426.31	3680426.42	3680426.55	0.0499	0.0422
Earth	5364-07-25 01:40 G	3680426.47	3680426.57	3680426.69	0.0499	0.0436 *
Mercury	5368-08-27 01:55 G	3681920.49	3681920.58	3681920.66	0.0541	0.0413

Mercury	5368-11-24 12:28 G	3682009.90	3682010.02	3682010.13	0.0541	0.0238
Venus	5369-04-12 11:16 G	3682148.78	3682148.97	3682149.17	0.0538	0.0120
Mars	5373-05-13 19:11 G	3683641.08	3683641.30	3683641.51	0.0489	0.0345
Mercury	5374-10-10 00:43 G	3684155.36	3684155.53	3684155.70	0.0487	0.0125
Venus	5375-02-09 08:52 G	3684277.77	3684277.87	3684277.97	0.0488	0.0423
Earth	5376-07-29 17:45 G	3684814.03	3684814.24	3684814.45	0.0501	0.0233
Moon	5376-07-29 21:50 G	3684814.20	3684814.41	3684814.61	0.0501	0.0258 *
Mercury	5380-09-12 15:35 G	3686320.02	3686320.15	3686320.28	0.0540	0.0080
Venus	5380-12-15 22:48 G	3686414.29	3686414.45	3686414.61	0.0539	0.0335
Earth	5382-01-27 22:33 G	3686822.27	3686822.44	3686822.61	0.0528	0.0361
Moon	5382-01-28 02:24 G	3686822.44	3686822.60	3686822.77	0.0528	0.0371 *
Mercury	5386-07-29 00:28 G	3688465.38	3688465.52	3688465.66	0.0487	0.0278
Mercury	5386-10-27 01:11 G	3688555.43	3688555.55	3688555.67	0.0487	0.0356
Venus	5387-06-08 09:50 G	3688779.82	3688779.91	3688780.01	0.0491	0.0434
Moon	5388-08-03 06:57 G	3689201.55	3689201.79	3689202.03	0.0502	0.0046
Earth	5388-08-03 10:19 G	3689201.69	3689201.93	3689202.16	0.0502	0.0027 *
Mars	5391-03-17 15:21 G	3690157.90	3690158.14	3690158.37	0.0537	0.0196
Mercury	5392-07-01 18:43 G	3690630.14	3690630.28	3690630.41	0.0541	0.0085
Moon	5394-02-01 16:04 G	3691209.94	3691210.17	3691210.41	0.0526	0.0100
Earth	5394-02-01 19:26 G	3691210.09	3691210.31	3691210.53	0.0526	0.0128 *
Mercury	5398-05-17 00:28 G	3692775.44	3692775.52	3692775.61	0.0486	0.0425
Mercury	5398-08-15 00:28 G	3692865.36	3692865.52	3692865.68	0.0487	0.0200
Venus	5399-02-11 13:55 G	3693045.88	3693046.08	3693046.28	0.0489	0.0103
Earth	5400-08-09 00:00 G	3693589.27	3693589.50	3693589.72	0.0504	0.0172
Moon	5400-08-09 01:40 G	3693589.36	3693589.57	3693589.78	0.0504	0.0198 *
Mercury	5404-04-20 20:52 G	3694940.25	3694940.37	3694940.49	0.0541	0.0258
Mercury	5404-07-19 07:11 G	3695029.71	3695029.80	3695029.89	0.0541	0.0387
Venus	5404-12-20 03:07 G	3695183.49	3695183.63	3695183.78	0.0538	0.0372
Earth	5406-02-07 15:07 G	3695597.90	3695598.13	3695598.36	0.0525	0.0099
Moon	5406-02-07 16:19 G	3695597.96	3695598.18	3695598.40	0.0525	0.0106 *

Mercury	5410-06-04 00:14 G	3697175.34	3697175.51	3697175.68	0.0487	0.0045
Venus	5410-10-18 18:57 G	3697312.11	3697312.29	3697312.48	0.0488	0.0224
Earth	5412-08-13 17:16 G	3697977.07	3697977.22	3697977.38	0.0506	0.0383
Moon	5412-08-13 17:02 G	3697977.07	3697977.21	3697977.37	0.0506	0.0403 *
Mercury	5416-02-08 00:14 G	3699250.42	3699250.51	3699250.59	0.0542	0.0417
Mercury	5416-05-07 10:48 G	3699339.83	3699339.95	3699340.07	0.0541	0.0236
Venus	5416-08-24 16:04 G	3699448.97	3699449.17	3699449.37	0.0539	0.0074
Earth	5418-02-12 12:00 G	3699985.83	3699986.00	3699986.19	0.0522	0.0327
Moon	5418-02-12 12:57 G	3699985.84	3699986.04	3699986.24	0.0522	0.0295 *
Mercury	5422-03-22 23:31 G	3701485.31	3701485.48	3701485.65	0.0487	0.0114
Mars	5426-12-21 09:50 G	3703219.78	3703219.91	3703220.05	0.0539	0.0448
Mercury	5428-02-24 14:24 G	3703649.97	3703650.10	3703650.23	0.0541	0.0086
Venus	5428-04-29 05:16 G	3703714.67	3703714.72	3703714.77	0.0540	0.0522
Mercury	5434-01-08 23:16 G	3705795.33	3705795.47	3705795.62	0.0487	0.0266
Mercury	5434-04-08 23:45 G	3705885.38	3705885.49	3705885.61	0.0487	0.0366
Venus	5434-10-20 23:45 G	3706080.33	3706080.49	3706080.65	0.0490	0.0301
Mercury	5439-12-13 17:31 G	3707960.10	3707960.23	3707960.36	0.0541	0.0073
Mercury	5445-10-27 23:02 G	3710105.38	3710105.46	3710105.55	0.0487	0.0418
Mercury	5446-01-25 23:16 G	3710195.31	3710195.47	3710195.63	0.0487	0.0208
Venus	5446-06-26 04:19 G	3710346.48	3710346.68	3710346.89	0.0489	0.0030
Earth	5447-07-26 11:45 G	3710741.91	3710741.99	3710742.09	0.0498	0.0456
Moon	5447-07-26 15:50 G	3710742.06	3710742.16	3710742.27	0.0498	0.0446 *
Mercury	5451-10-01 20:24 G	3712270.23	3712270.35	3712270.47	0.0541	0.0238
Mercury	5451-12-30 06:28 G	3712359.69	3712359.77	3712359.86	0.0540	0.0404
Venus	5452-05-02 11:45 G	3712483.80	3712483.99	3712484.18	0.0538	0.0196
Mercury	5457-11-13 22:48 G	3714505.28	3714505.45	3714505.63	0.0487	0.0056
Venus	5458-03-01 09:21 G	3714612.76	3714612.89	3714613.04	0.0488	0.0354
Moon	5459-07-30 20:52 G	3715129.19	3715129.37	3715129.57	0.0499	0.0292
Earth	5459-07-31 00:43 G	3715129.33	3715129.53	3715129.73	0.0499	0.0264 *
Mercury	5463-07-20 22:33 G	3716580.35	3716580.44	3716580.52	0.0541	0.0418

Mercury	5463-10-18 09:07 G	3716669.76	3716669.88	3716670.00	0.0541	0.0235
Venus	5464-01-05 20:52 G	3716749.19	3716749.37	3716749.55	0.0540	0.0269
Moon	5465-01-27 22:19 G	3717137.29	3717137.43	3717137.58	0.0530	0.0413
Earth	5465-01-28 01:55 G	3717137.44	3717137.58	3717137.73	0.0529	0.0405 *
Mercury	5469-09-01 22:33 G	3718815.27	3718815.44	3718815.61	0.0486	0.0099
Earth	5471-08-04 15:21 G	3719516.90	3719517.14	3719517.37	0.0501	0.0062
Moon	5471-08-04 17:16 G	3719516.99	3719517.22	3719517.45	0.0501	0.0072 *
Mercury	5475-08-06 12:28 G	3720979.89	3720980.02	3720980.15	0.0541	0.0081
Earth	5477-02-02 01:26 G	3721525.35	3721525.56	3721525.78	0.0527	0.0167
Moon	5477-02-02 03:07 G	3721525.42	3721525.63	3721525.85	0.0527	0.0137 *
Mercury	5481-06-20 21:50 G	3723125.27	3723125.41	3723125.56	0.0486	0.0258
Mercury	5481-09-18 22:19 G	3723215.32	3723215.43	3723215.55	0.0487	0.0375
Venus	5482-03-03 13:26 G	3723380.87	3723381.06	3723381.25	0.0489	0.0167
Moon	5483-08-09 06:14 G	3723904.53	3723904.76	3723904.99	0.0504	0.0169
Earth	5483-08-09 06:28 G	3723904.55	3723904.77	3723905.00	0.0504	0.0142 *
Mercury	5487-05-25 16:04 G	3725290.04	3725290.17	3725290.30	0.0541	0.0071
Venus	5488-01-09 06:28 G	3725518.67	3725518.77	3725518.87	0.0538	0.0463
Earth	5489-02-07 00:00 G	3725913.28	3725913.50	3725913.73	0.0525	0.0069
Moon	5489-02-07 00:43 G	3725913.29	3725913.53	3725913.76	0.0525	0.0068 *
Mars	5491-11-01 23:16 G	3726911.17	3726911.47	3726911.77	0.0490	0.0095
Mercury	5493-04-08 21:50 G	3727435.32	3727435.41	3727435.50	0.0486	0.0408
Mercury	5493-07-07 21:50 G	3727525.25	3727525.41	3727525.57	0.0487	0.0216
Venus	5493-11-06 18:14 G	3727647.07	3727647.26	3727647.46	0.0488	0.0162
Moon	5495-08-13 23:45 G	3728292.34	3728292.49	3728292.65	0.0506	0.0372
Earth	5495-08-14 01:11 G	3728292.38	3728292.55	3728292.72	0.0506	0.0353 *
Mercury	5499-03-13 19:11 G	3729600.18	3729600.30	3729600.42	0.0541	0.0231
Mercury	5499-06-11 05:16 G	3729689.64	3729689.72	3729689.81	0.0540	0.0412
Venus	5499-09-13 18:28 G	3729784.07	3729784.27	3729784.47	0.0539	0.0013
Moon	5501-02-12 16:04 G	3730300.98	3730301.17	3730301.36	0.0523	0.0260
Earth	5501-02-12 18:00 G	3730301.06	3730301.25	3730301.44	0.0523	0.0292 *

Mercury	5505-04-26 21:21 G	3731835.21	3731835.39	3731835.56	0.0487	0.0060
Mercury	5510-12-31 21:50 G	3733910.32	3733910.41	3733910.50	0.0541	0.0399
Mercury	5511-03-31 08:24 G	3733999.74	3733999.85	3733999.97	0.0540	0.0253
Venus	5511-05-20 05:02 G	3734049.61	3734049.71	3734049.83	0.0540	0.0448
Earth	5513-02-17 11:31 G	3734688.94	3734688.98	3734689.03	0.0521	0.0510
Moon	5513-02-17 14:52 G	3734689.06	3734689.12	3734689.18	0.0521	0.0503
Mercury	5517-02-12 21:07 G	3736145.21	3736145.38	3736145.55	0.0487	0.0092
Venus	5517-11-09 23:45 G	3736415.36	3736415.49	3736415.63	0.0490	0.0370
Mercury	5523-01-17 10:48 G	3738309.82	3738309.95	3738310.08	0.0541	0.0078
Mercury	5528-12-01 20:52 G	3740455.23	3740455.37	3740455.52	0.0486	0.0244
Mercury	5529-03-01 21:21 G	3740545.29	3740545.39	3740545.50	0.0487	0.0389
Venus	5529-07-16 04:19 G	3740681.47	3740681.68	3740681.88	0.0489	0.0038
Moon	5530-07-26 14:09 G	3741057.04	3741057.09	3741057.15	0.0497	0.0482
Earth	5530-07-26 17:45 G	3741057.20	3741057.24	3741057.29	0.0497	0.0486
Mercury	5534-11-05 13:55 G	3742619.95	3742620.08	3742620.22	0.0541	0.0082
Venus	5535-05-23 10:04 G	3742818.75	3742818.92	3742819.10	0.0539	0.0266
Mercury	5540-09-19 20:24 G	3744765.25	3744765.35	3744765.44	0.0486	0.0402
Mercury	5540-12-18 20:09 G	3744855.19	3744855.34	3744855.50	0.0487	0.0222
Venus	5541-03-21 07:55 G	3744947.67	3744947.83	3744947.99	0.0488	0.0296
Earth	5542-07-31 05:45 G	3745444.55	3745444.74	3745444.93	0.0499	0.0294
Moon	5542-07-31 07:40 G	3745444.65	3745444.82	3745445.00	0.0499	0.0325 *
Mars	5545-06-12 14:09 G	3746491.84	3746492.09	3746492.34	0.0537	0.0032
Mercury	5546-08-24 17:31 G	3746930.11	3746930.23	3746930.35	0.0542	0.0234
Mercury	5546-11-22 03:50 G	3747019.57	3747019.66	3747019.74	0.0541	0.0411
Venus	5547-01-25 23:16 G	3747084.28	3747084.47	3747084.66	0.0540	0.0182
Earth	5548-01-29 09:07 G	3747452.75	3747452.88	3747453.01	0.0530	0.0436
Moon	5548-01-29 11:02 G	3747452.84	3747452.96	3747453.09	0.0530	0.0433 *
Mercury	5552-10-06 19:40 G	3749165.15	3749165.32	3749165.49	0.0487	0.0065
Moon	5554-08-04 20:52 G	3749832.13	3749832.37	3749832.61	0.0501	0.0098
Earth	5554-08-04 21:21 G	3749832.16	3749832.39	3749832.62	0.0501	0.0093 *

Mercury	5558-06-12 20:38 G	3751240.27	3751240.36	3751240.45	0.0541	0.0396
Mercury	5558-09-10 07:11 G	3751329.68	3751329.80	3751329.91	0.0541	0.0256
Moon	5560-02-03 06:14 G	3751840.54	3751840.76	3751840.99	0.0527	0.0171
Earth	5560-02-03 06:14 G	3751840.55	3751840.76	3751840.97	0.0527	0.0203 *
Mercury	5564-07-25 19:11 G	3753475.13	3753475.30	3753475.47	0.0487	0.0091
Venus	5565-03-23 12:43 G	3753715.85	3753716.03	3753716.21	0.0490	0.0231
Moon	5566-08-09 12:43 G	3754219.82	3754220.03	3754220.25	0.0503	0.0142
Earth	5566-08-09 13:55 G	3754219.85	3754220.08	3754220.31	0.0503	0.0112 *
Mercury	5570-06-29 10:04 G	3755639.79	3755639.92	3755640.05	0.0541	0.0094
Venus	5571-01-29 05:16 G	3755853.70	3755853.72	3755853.75	0.0537	0.0533
Moon	5572-02-08 00:14 G	3756228.29	3756228.51	3756228.74	0.0525	0.0025
Earth	5572-02-08 02:09 G	3756228.36	3756228.59	3756228.82	0.0525	0.0029 *
Mercury	5576-05-13 19:11 G	3757785.15	3757785.30	3757785.45	0.0487	0.0240
Mercury	5576-08-11 19:40 G	3757875.22	3757875.32	3757875.42	0.0487	0.0393
Venus	5576-11-26 17:45 G	3757982.04	3757982.24	3757982.44	0.0488	0.0097
Earth	5578-08-14 05:31 G	3758607.54	3758607.73	3758607.91	0.0505	0.0313
Moon	5578-08-14 08:09 G	3758607.66	3758607.84	3758608.03	0.0505	0.0324 *
Mercury	5582-04-17 12:14 G	3759949.88	3759950.01	3759950.14	0.0541	0.0084
Venus	5582-10-03 14:24 G	3760118.89	3760119.10	3760119.30	0.0539	0.0069
Earth	5584-02-12 18:43 G	3760616.08	3760616.28	3760616.48	0.0524	0.0244
Moon	5584-02-12 21:35 G	3760616.19	3760616.40	3760616.62	0.0524	0.0212 *
Mercury	5588-03-01 19:11 G	3762095.20	3762095.30	3762095.40	0.0486	0.0391
Mercury	5588-05-30 18:57 G	3762185.14	3762185.29	3762185.45	0.0487	0.0234
Venus	5588-08-01 22:33 G	3762248.35	3762248.44	3762248.54	0.0487	0.0425
Moon	5590-08-18 18:14 G	3762995.21	3762995.26	3762995.32	0.0506	0.0491
Mercury	5594-02-03 15:07 G	3764260.02	3764260.13	3764260.25	0.0541	0.0247
Mercury	5594-05-04 01:26 G	3764349.48	3764349.56	3764349.65	0.0541	0.0400
Venus	5594-06-08 01:40 G	3764384.44	3764384.57	3764384.72	0.0540	0.0390
Moon	5596-02-17 10:48 G	3765003.85	3765003.95	3765004.06	0.0522	0.0464
Earth	5596-02-17 14:24 G	3765004.01	3765004.10	3765004.21	0.0522	0.0466 *

Mercury	5600-03-18 17:45 G	3766495.07	3766495.24	3766495.41	0.0487	0.0068
Venus	5600-11-28 21:07 G	3766750.28	3766750.38	3766750.48	0.0490	0.0424
Mercury	5605-11-22 18:28 G	3768570.18	3768570.27	3768570.36	0.0542	0.0403
Mercury	5606-02-20 05:16 G	3768659.60	3768659.72	3768659.83	0.0541	0.0251
Mercury	5612-01-05 17:16 G	3770805.05	3770805.22	3770805.39	0.0486	0.0089
Venus	5612-08-04 01:26 G	3771016.36	3771016.56	3771016.76	0.0489	0.0092
Mercury	5617-12-09 08:38 G	3772969.73	3772969.86	3772969.99	0.0541	0.0096
Venus	5618-06-11 10:48 G	3773153.80	3773153.95	3773154.11	0.0538	0.0345
Mercury	5623-10-24 16:48 G	3775115.06	3775115.20	3775115.36	0.0487	0.0244
Mercury	5624-01-22 17:16 G	3775205.12	3775205.22	3775205.33	0.0487	0.0390
Venus	5624-04-09 06:14 G	3775282.58	3775282.76	3775282.94	0.0488	0.0238
Moon	5625-07-30 11:31 G	3775759.81	3775759.98	3775760.15	0.0499	0.0352
Earth	5625-07-30 12:00 G	3775759.82	3775760.00	3775760.18	0.0499	0.0323 *
Mercury	5629-09-27 11:31 G	3777279.84	3777279.98	3777280.11	0.0541	0.0072
Venus	5630-02-13 21:50 G	3777419.21	3777419.41	3777419.61	0.0539	0.0115
Moon	5631-01-28 08:38 G	3777767.75	3777767.86	3777767.97	0.0530	0.0468
Earth	5631-01-28 09:07 G	3777767.79	3777767.88	3777767.98	0.0530	0.0480 *
Mercury	5635-08-12 17:02 G	3779425.11	3779425.21	3779425.31	0.0486	0.0390
Mercury	5635-11-10 17:02 G	3779515.06	3779515.21	3779515.36	0.0487	0.0235
Moon	5637-08-04 01:11 G	3780147.33	3780147.55	3780147.78	0.0500	0.0132
Earth	5637-08-04 02:09 G	3780147.36	3780147.59	3780147.82	0.0500	0.0129 *
Mercury	5641-07-16 13:26 G	3781589.94	3781590.06	3781590.18	0.0541	0.0251
Mercury	5641-10-13 23:45 G	3781679.40	3781679.49	3781679.58	0.0540	0.0394
Moon	5643-02-02 02:09 G	3782155.39	3782155.59	3782155.79	0.0529	0.0227
Earth	5643-02-02 03:21 G	3782155.44	3782155.64	3782155.84	0.0529	0.0258 *
Mars	5646-01-26 18:28 G	3783244.97	3783245.27	3783245.57	0.0491	0.0079
Mercury	5647-08-29 16:19 G	3783825.01	3783825.18	3783825.36	0.0487	0.0078
Venus	5648-04-11 11:16 G	3784050.81	3784050.97	3784051.13	0.0489	0.0292
Earth	5649-08-08 16:19 G	3784534.94	3784535.18	3784535.41	0.0502	0.0072
Moon	5649-08-08 18:43 G	3784535.04	3784535.28	3784535.52	0.0502	0.0102 *

Mercury	5653-05-04 16:04 G	3785900.09	3785900.17	3785900.26	0.0541	0.0418
Mercury	5653-08-02 02:52 G	3785989.50	3785989.62	3785989.74	0.0541	0.0237
Earth	5655-02-07 01:11 G	3786543.32	3786543.55	3786543.78	0.0527	0.0026
Moon	5655-02-07 04:04 G	3786543.43	3786543.67	3786543.91	0.0527	0.0029 *
Mercury	5659-06-17 15:21 G	3788134.97	3788135.14	3788135.31	0.0486	0.0089
Venus	5659-12-16 14:09 G	3788316.88	3788317.09	3788317.29	0.0488	0.0049
Moon	5661-08-13 02:09 G	3788922.40	3788922.59	3788922.79	0.0504	0.0277
Earth	5661-08-13 06:00 G	3788922.55	3788922.75	3788922.95	0.0504	0.0272 *
Mars	5663-12-02 12:00 G	3789763.97	3789764.00	3789764.04	0.0536	0.0529
Mercury	5665-05-21 06:28 G	3790299.64	3790299.77	3790299.90	0.0541	0.0085
Venus	5665-10-22 14:38 G	3790453.92	3790454.11	3790454.31	0.0539	0.0144
Moon	5667-02-11 20:09 G	3790931.12	3790931.34	3790931.55	0.0524	0.0176
Earth	5667-02-11 23:45 G	3790931.28	3790931.49	3790931.70	0.0524	0.0208 *
Mercury	5671-04-05 14:52 G	3792444.98	3792445.12	3792445.27	0.0486	0.0243
Mercury	5671-07-04 15:07 G	3792535.03	3792535.13	3792535.24	0.0487	0.0389
Venus	5671-08-21 18:43 G	3792583.16	3792583.28	3792583.41	0.0487	0.0377
Earth	5673-08-17 23:45 G	3793310.42	3793310.49	3793310.57	0.0506	0.0481
Moon	5673-08-18 03:35 G	3793310.55	3793310.65	3793310.76	0.0506	0.0450 *
Mercury	5677-03-09 09:35 G	3794609.77	3794609.90	3794610.04	0.0541	0.0075
Venus	5677-06-27 02:24 G	3794719.44	3794719.60	3794719.77	0.0540	0.0312
Earth	5679-02-16 17:31 G	3795319.11	3795319.23	3795319.37	0.0522	0.0426
Moon	5679-02-16 21:07 G	3795319.26	3795319.38	3795319.50	0.0522	0.0435 *
Mercury	5683-01-22 14:38 G	3796755.02	3796755.11	3796755.21	0.0486	0.0396
Mercury	5683-04-22 14:24 G	3796844.95	3796845.10	3796845.26	0.0487	0.0229
Venus	5683-12-18 18:43 G	3797085.26	3797085.28	3797085.32	0.0490	0.0483
Mercury	5688-12-26 12:28 G	3798919.90	3798920.02	3798920.14	0.0541	0.0239
Mercury	5689-03-25 22:48 G	3799009.36	3799009.45	3799009.54	0.0540	0.0405
Mercury	5695-02-08 14:09 G	3801154.92	3801155.09	3801155.26	0.0487	0.0075
Venus	5695-08-23 23:31 G	3801351.29	3801351.48	3801351.68	0.0489	0.0152
Mars	5699-09-06 03:07 G	3802825.39	3802825.63	3802825.88	0.0537	0.0104

Mercury	5700-10-15 14:24 G	3803230.02	3803230.10	3803230.18	0.0541	0.0422
Mercury	5701-01-13 00:57 G	3803319.43	3803319.54	3803319.66	0.0541	0.0232
Venus	5701-07-01 05:02 G	3803488.58	3803488.71	3803488.85	0.0538	0.0392
Mercury	5706-11-28 13:40 G	3805464.90	3805465.07	3805465.24	0.0487	0.0083
Venus	5707-04-30 04:04 G	3805617.48	3805617.67	3805617.86	0.0488	0.0182
Moon	5708-07-30 14:09 G	3806074.96	3806075.09	3806075.24	0.0498	0.0390
Earth	5708-07-30 14:52 G	3806074.96	3806075.12	3806075.29	0.0498	0.0358 *
Mercury	5712-11-01 04:04 G	3807629.54	3807629.67	3807629.80	0.0541	0.0070
Venus	5713-03-05 16:33 G	3807753.98	3807754.19	3807754.39	0.0539	0.0067
Moon	5714-01-28 04:33 G	3808082.66	3808082.69	3808082.73	0.0531	0.0523
Mercury	5718-09-16 12:43 G	3809774.88	3809775.03	3809775.18	0.0486	0.0246
Mercury	5718-12-15 12:57 G	3809864.94	3809865.04	3809865.15	0.0487	0.0385
Earth	5720-08-04 01:26 G	3810462.34	3810462.56	3810462.78	0.0500	0.0169
Moon	5720-08-04 03:35 G	3810462.42	3810462.65	3810462.88	0.0500	0.0167 *
Mercury	5724-08-20 07:26 G	3811939.68	3811939.81	3811939.94	0.0541	0.0086
Venus	5724-11-08 05:02 G	3812019.66	3812019.71	3812019.76	0.0541	0.0521
Earth	5726-02-02 06:43 G	3812470.59	3812470.78	3812470.97	0.0529	0.0295
Moon	5726-02-02 09:07 G	3812470.68	3812470.88	3812471.09	0.0529	0.0263 *
Mercury	5730-07-05 12:28 G	3814084.93	3814085.02	3814085.12	0.0486	0.0398
Mercury	5730-10-03 12:14 G	3814174.86	3814175.01	3814175.17	0.0487	0.0225
Venus	5731-05-02 06:43 G	3814385.64	3814385.78	3814385.93	0.0489	0.0338
Moon	5732-08-08 13:11 G	3814849.82	3814850.05	3814850.28	0.0502	0.0061
Earth	5732-08-08 16:33 G	3814849.96	3814850.19	3814850.43	0.0502	0.0033 *
Mercury	5736-06-08 10:33 G	3816249.82	3816249.94	3816250.06	0.0541	0.0245
Mercury	5736-09-05 20:52 G	3816339.29	3816339.37	3816339.46	0.0541	0.0402
Moon	5738-02-07 00:28 G	3816858.30	3816858.52	3816858.75	0.0527	0.0074
Earth	5738-02-07 04:04 G	3816858.44	3816858.67	3816858.90	0.0527	0.0064 *
Mercury	5742-07-22 11:31 G	3818484.81	3818484.98	3818485.16	0.0487	0.0067
Venus	5743-01-05 11:02 G	3818651.76	3818651.96	3818652.16	0.0489	0.0005
Earth	5744-08-13 09:21 G	3819237.68	3819237.89	3819238.10	0.0504	0.0237

Moon	5744-08-13 13:11 G	3819237.85	3819238.05	3819238.26	0.0504	0.0235 *
Mercury	5748-03-27 13:11 G	3820559.97	3820560.05	3820560.14	0.0541	0.0412
Mercury	5748-06-25 00:00 G	3820649.39	3820649.50	3820649.62	0.0541	0.0242
Venus	5748-11-11 12:28 G	3820788.83	3820789.02	3820789.21	0.0539	0.0208
Earth	5750-02-11 23:02 G	3821246.24	3821246.46	3821246.68	0.0525	0.0161
Moon	5750-02-12 02:24 G	3821246.39	3821246.60	3821246.83	0.0525	0.0133 *
Mercury	5754-05-10 11:31 G	3822794.81	3822794.98	3822795.15	0.0487	0.0087
Venus	5754-09-10 16:19 G	3822918.03	3822918.18	3822918.33	0.0488	0.0323
Moon	5756-08-17 23:16 G	3823625.33	3823625.47	3823625.61	0.0505	0.0406
Earth	5756-08-18 02:38 G	3823625.50	3823625.61	3823625.73	0.0505	0.0440 *
Mercury	5760-04-13 02:09 G	3824959.46	3824959.59	3824959.73	0.0541	0.0068
Venus	5760-07-16 20:24 G	3825054.18	3825054.35	3825054.53	0.0540	0.0268
Moon	5762-02-16 11:02 G	3825633.80	3825633.96	3825634.12	0.0523	0.0379
Earth	5762-02-16 13:55 G	3825633.92	3825634.08	3825634.24	0.0523	0.0371 *
Mars	5764-07-15 20:24 G	3826514.22	3826514.35	3826514.50	0.0492	0.0431
Mercury	5766-02-26 11:02 G	3827104.81	3827104.96	3827105.11	0.0487	0.0241
Mercury	5766-05-27 11:16 G	3827194.87	3827194.97	3827195.08	0.0487	0.0391
Mercury	5772-01-31 05:02 G	3829269.58	3829269.71	3829269.85	0.0541	0.0101
Mercury	5772-04-29 15:07 G	3829359.13	3829359.13	3829359.14	0.0540	0.0539
Mercury	5777-12-15 10:19 G	3831414.83	3831414.93	3831415.02	0.0486	0.0401
Mercury	5778-03-15 09:50 G	3831504.76	3831504.91	3831505.07	0.0487	0.0221
Venus	5778-09-12 18:28 G	3831686.08	3831686.27	3831686.46	0.0489	0.0194
Mercury	5783-11-19 08:24 G	3833579.73	3833579.85	3833579.96	0.0542	0.0259
Mercury	5784-02-16 18:43 G	3833669.19	3833669.28	3833669.37	0.0541	0.0389
Venus	5784-07-20 04:04 G	3833823.57	3833823.67	3833823.78	0.0538	0.0462
Mercury	5790-01-01 09:21 G	3835814.72	3835814.89	3835815.06	0.0486	0.0063
Venus	5790-05-18 23:16 G	3835952.27	3835952.47	3835952.66	0.0488	0.0138
Earth	5791-07-30 14:38 G	3836389.97	3836390.11	3836390.25	0.0498	0.0395
Moon	5791-07-30 16:33 G	3836390.06	3836390.19	3836390.32	0.0498	0.0423 *
Mercury	5795-09-07 11:31 G	3837889.89	3837889.98	3837890.06	0.0541	0.0419

Mercury	5795-12-05 22:19 G	3837979.31	3837979.43	3837979.55	0.0541	0.0237
Venus	5796-03-24 16:33 G	3838088.99	3838089.19	3838089.40	0.0539	0.0011
Mars	5800-04-22 21:50 G	3839578.14	3839578.41	3839578.69	0.0490	0.0219
Mercury	5801-10-21 08:52 G	3840124.70	3840124.87	3840125.04	0.0487	0.0094
Venus	5802-01-23 03:50 G	3840218.61	3840218.66	3840218.72	0.0487	0.0467
Moon	5803-08-05 01:40 G	3840777.36	3840777.57	3840777.79	0.0500	0.0196
Earth	5803-08-05 05:02 G	3840777.49	3840777.71	3840777.93	0.0500	0.0201 *
Mercury	5807-09-25 01:11 G	3842289.42	3842289.55	3842289.68	0.0541	0.0076
Venus	5807-11-29 03:21 G	3842354.54	3842354.64	3842354.75	0.0540	0.0454
Moon	5809-02-02 02:52 G	3842785.44	3842785.62	3842785.80	0.0529	0.0311
Earth	5809-02-02 06:00 G	3842785.58	3842785.75	3842785.93	0.0529	0.0340 *
Mercury	5813-08-09 08:38 G	3844434.72	3844434.86	3844435.01	0.0487	0.0245
Mercury	5813-11-07 08:52 G	3844524.77	3844524.87	3844524.98	0.0487	0.0387
Venus	5814-05-22 04:04 G	3844720.56	3844720.67	3844720.80	0.0490	0.0396
Earth	5815-08-09 20:24 G	3845165.12	3845165.35	3845165.59	0.0501	0.0010
Moon	5815-08-10 00:28 G	3845165.28	3845165.52	3845165.75	0.0501	0.0028 *
Mars	5818-02-27 01:11 G	3846097.39	3846097.55	3846097.72	0.0535	0.0395
Mercury	5819-07-14 03:21 G	3846599.51	3846599.64	3846599.77	0.0541	0.0103
Mercury	5819-10-11 13:26 G	3846689.05	3846689.06	3846689.07	0.0540	0.0536
Earth	5821-02-06 23:02 G	3847173.23	3847173.46	3847173.68	0.0528	0.0120
Moon	5821-02-07 02:38 G	3847173.39	3847173.61	3847173.83	0.0528	0.0136 *
Mercury	5825-05-28 08:38 G	3848744.76	3848744.86	3848744.95	0.0487	0.0398
Mercury	5825-08-26 08:09 G	3848834.69	3848834.84	3848835.00	0.0487	0.0226
Venus	5826-01-25 08:24 G	3848986.64	3848986.85	3848987.05	0.0489	0.0060
Moon	5827-08-14 07:11 G	3849552.58	3849552.80	3849553.03	0.0503	0.0193
Earth	5827-08-14 10:48 G	3849552.74	3849552.95	3849553.17	0.0503	0.0197 *
Mercury	5831-05-02 06:00 G	3850909.64	3850909.75	3850909.87	0.0541	0.0271
Mercury	5831-07-30 16:33 G	3850999.10	3850999.19	3850999.28	0.0540	0.0377
Venus	5831-12-02 06:43 G	3851123.61	3851123.78	3851123.96	0.0539	0.0255
Moon	5833-02-11 16:48 G	3851560.97	3851561.20	3851561.43	0.0526	0.0078

Earth	5833-02-11 19:55 G	3851561.10	3851561.33	3851561.55	0.0526	0.0108 *
Mercury	5837-06-14 06:57 G	3853144.62	3853144.79	3853144.96	0.0487	0.0059
Venus	5837-09-30 11:16 G	3853252.80	3853252.97	3853253.14	0.0487	0.0281
Earth	5839-08-18 23:02 G	3853940.32	3853940.46	3853940.61	0.0505	0.0392
Moon	5839-08-19 01:26 G	3853940.41	3853940.56	3853940.72	0.0505	0.0363 *
Mercury	5843-02-18 09:07 G	3855219.80	3855219.88	3855219.96	0.0542	0.0433
Mercury	5843-05-18 19:55 G	3855309.21	3855309.33	3855309.45	0.0541	0.0224
Venus	5843-08-06 19:11 G	3855389.11	3855389.30	3855389.49	0.0540	0.0200
Earth	5845-02-16 18:00 G	3855949.07	3855949.25	3855949.42	0.0524	0.0335
Moon	5845-02-16 19:26 G	3855949.15	3855949.31	3855949.48	0.0524	0.0349 *
Mercury	5849-04-02 06:43 G	3857454.61	3857454.78	3857454.95	0.0486	0.0097
Mars	5853-12-01 18:14 G	3859159.04	3859159.26	3859159.48	0.0537	0.0251
Mercury	5855-03-06 23:16 G	3859619.34	3859619.47	3859619.61	0.0541	0.0072
Mercury	5861-01-19 06:14 G	3861764.61	3861764.76	3861764.91	0.0486	0.0251
Mercury	5861-04-19 06:14 G	3861854.66	3861854.76	3861854.87	0.0487	0.0379
Venus	5861-10-02 15:21 G	3862020.97	3862021.14	3862021.32	0.0489	0.0248
Mercury	5866-12-24 02:24 G	3863929.47	3863929.60	3863929.73	0.0541	0.0092
Venus	5867-08-10 02:52 G	3864158.59	3864158.62	3864158.65	0.0538	0.0530
Mercury	5872-11-07 06:14 G	3866074.67	3866074.76	3866074.86	0.0487	0.0400
Mercury	5873-02-05 06:00 G	3866164.59	3866164.75	3866164.90	0.0487	0.0223
Venus	5873-06-07 20:38 G	3866287.16	3866287.36	3866287.56	0.0488	0.0083
Moon	5874-07-30 16:33 G	3866705.10	3866705.19	3866705.29	0.0497	0.0452
Earth	5874-07-30 19:26 G	3866705.20	3866705.31	3866705.44	0.0497	0.0426 *
Mercury	5878-10-12 04:33 G	3868239.57	3868239.69	3868239.81	0.0541	0.0270
Mercury	5879-01-09 15:07 G	3868329.03	3868329.13	3868329.22	0.0540	0.0378
Venus	5879-04-14 11:45 G	3868423.79	3868423.99	3868424.19	0.0539	0.0059
Mercury	5884-11-24 05:16 G	3870474.55	3870474.72	3870474.90	0.0487	0.0065
Venus	5885-02-11 01:11 G	3870553.45	3870553.55	3870553.66	0.0487	0.0415
Earth	5886-08-04 08:09 G	3871092.63	3871092.84	3871093.05	0.0499	0.0235
Moon	5886-08-04 12:00 G	3871092.79	3871093.00	3871093.21	0.0499	0.0218 *

Mercury	5890-07-31 07:11 G	3872549.72	3872549.80	3872549.87	0.0541	0.0440
Mercury	5890-10-28 18:00 G	3872639.13	3872639.25	3872639.37	0.0541	0.0216
Venus	5890-12-17 22:19 G	3872689.30	3872689.43	3872689.56	0.0540	0.0407
Earth	5892-02-02 01:55 G	3873100.43	3873100.58	3873100.74	0.0530	0.0392
Moon	5892-02-02 05:45 G	3873100.58	3873100.74	3873100.91	0.0530	0.0366 *
Mercury	5896-09-12 04:19 G	3874784.51	3874784.68	3874784.85	0.0486	0.0100
Venus	5897-06-09 23:02 G	3875055.38	3875055.46	3875055.56	0.0489	0.0440
Moon	5898-08-08 14:24 G	3875479.86	3875480.10	3875480.34	0.0500	0.0018
Earth	5898-08-08 18:14 G	3875480.02	3875480.26	3875480.49	0.0500	0.0047 *
Mercury	5902-08-17 21:07 G	3876949.25	3876949.38	3876949.52	0.0541	0.0060
Moon	5904-02-07 23:31 G	3877488.26	3877488.48	3877488.70	0.0528	0.0177
Earth	5904-02-08 02:52 G	3877488.40	3877488.62	3877488.84	0.0528	0.0156 *
Mercury	5908-07-02 04:19 G	3879094.53	3879094.68	3879094.83	0.0486	0.0251
Mercury	5908-09-30 04:19 G	3879184.57	3879184.68	3879184.79	0.0487	0.0378
Venus	5909-02-14 03:50 G	3879321.46	3879321.66	3879321.86	0.0488	0.0105
Earth	5910-08-14 09:35 G	3879867.68	3879867.90	3879868.13	0.0502	0.0154
Moon	5910-08-14 12:14 G	3879867.80	3879868.01	3879868.23	0.0502	0.0151 *
Mercury	5914-06-06 00:28 G	3881259.39	3881259.52	3881259.66	0.0541	0.0099
Venus	5914-12-22 07:26 G	3881458.66	3881458.81	3881458.98	0.0539	0.0336
Earth	5916-02-13 00:57 G	3881876.32	3881876.54	3881876.77	0.0526	0.0074
Moon	5916-02-13 03:07 G	3881876.40	3881876.63	3881876.85	0.0526	0.0047 *
Mars	5918-10-11 05:02 G	3882847.46	3882847.71	3882847.96	0.0492	0.0278
Mercury	5920-04-20 04:04 G	3883404.58	3883404.67	3883404.76	0.0486	0.0404
Mercury	5920-07-19 03:35 G	3883494.49	3883494.65	3883494.80	0.0487	0.0218
Venus	5920-10-20 08:24 G	3883587.68	3883587.85	3883588.04	0.0488	0.0228
Moon	5922-08-19 02:09 G	3884255.41	3884255.59	3884255.78	0.0505	0.0329
Earth	5922-08-19 03:07 G	3884255.47	3884255.63	3884255.80	0.0505	0.0359 *
Mercury	5926-03-25 03:35 G	3885569.53	3885569.65	3885569.77	0.0541	0.0260
Mercury	5926-06-22 14:09 G	3885659.00	3885659.09	3885659.18	0.0541	0.0389
Venus	5926-08-26 19:11 G	3885724.10	3885724.30	3885724.49	0.0540	0.0126

Moon	5928-02-17 19:40 G	3886264.13	3886264.32	3886264.52	0.0524	0.0308
Earth	5928-02-17 20:09 G	3886264.15	3886264.34	3886264.53	0.0524	0.0294 *
Mercury	5932-05-07 03:07 G	3887804.46	3887804.63	3887804.81	0.0487	0.0065
Mercury	5938-01-11 05:45 G	3889879.66	3889879.74	3889879.82	0.0541	0.0436
Mercury	5938-04-10 16:33 G	3889969.07	3889969.19	3889969.31	0.0540	0.0219
Earth	5940-02-22 10:48 G	3890651.90	3890651.95	3890652.02	0.0522	0.0502
Mercury	5944-02-24 02:52 G	3892114.45	3892114.62	3892114.79	0.0487	0.0093
Venus	5944-10-22 13:26 G	3892355.90	3892356.06	3892356.22	0.0489	0.0305
Mercury	5950-01-27 19:26 G	3894279.18	3894279.31	3894279.44	0.0541	0.0056
Mars	5954-07-18 07:11 G	3895911.62	3895911.80	3895912.01	0.0490	0.0375
Mercury	5955-12-13 02:09 G	3896424.44	3896424.59	3896424.74	0.0486	0.0252
Mercury	5956-03-12 02:09 G	3896514.48	3896514.59	3896514.70	0.0487	0.0377
Venus	5956-06-27 16:33 G	3896621.98	3896622.19	3896622.39	0.0488	0.0036
Earth	5957-07-30 19:11 G	3897020.22	3897020.30	3897020.39	0.0496	0.0461
Moon	5957-07-30 23:02 G	3897020.41	3897020.46	3897020.51	0.0496	0.0483
Mercury	5961-11-15 22:33 G	3898589.31	3898589.44	3898589.57	0.0542	0.0108
Mercury	5962-02-13 08:38 G	3898678.85	3898678.86	3898678.88	0.0541	0.0535
Venus	5962-05-04 11:02 G	3898758.77	3898758.96	3898759.16	0.0540	0.0132
Mercury	5967-10-01 02:24 G	3900734.50	3900734.60	3900734.69	0.0486	0.0400
Mercury	5967-12-30 01:40 G	3900824.41	3900824.57	3900824.73	0.0486	0.0220
Venus	5968-03-02 21:35 G	3900888.27	3900888.40	3900888.54	0.0487	0.0365
Moon	5969-08-04 04:48 G	3901407.50	3901407.70	3901407.91	0.0498	0.0253
Earth	5969-08-04 08:38 G	3901407.66	3901407.86	3901408.05	0.0498	0.0271 *
Mars	5972-05-23 17:16 G	3902431.00	3902431.22	3902431.44	0.0536	0.0247
Mercury	5973-09-04 01:40 G	3902899.46	3902899.57	3902899.69	0.0542	0.0264
Mercury	5973-12-02 12:14 G	3902988.92	3902989.01	3902989.10	0.0541	0.0387
Venus	5974-01-06 23:31 G	3903024.32	3903024.48	3903024.65	0.0541	0.0325
Moon	5975-02-02 04:48 G	3903415.55	3903415.70	3903415.85	0.0531	0.0403
Earth	5975-02-02 08:09 G	3903415.71	3903415.84	3903415.99	0.0531	0.0425 *
Mercury	5979-10-18 01:11 G	3905134.37	3905134.55	3905134.72	0.0487	0.0063

Earth	5981-08-08 23:31 G	3905795.25	3905795.48	3905795.72	0.0500	0.0077
Moon	5981-08-09 02:24 G	3905795.37	3905795.60	3905795.83	0.0500	0.0048 *
Mercury	5985-06-23 04:48 G	3907209.62	3907209.70	3907209.78	0.0542	0.0426
Mercury	5985-09-20 15:35 G	3907299.03	3907299.15	3907299.27	0.0541	0.0231
Earth	5987-02-07 06:43 G	3907803.57	3907803.78	3907804.00	0.0528	0.0192
Moon	5987-02-07 08:52 G	3907803.67	3907803.87	3907804.08	0.0528	0.0218 *
Mercury	5991-08-06 00:57 G	3909444.37	3909444.54	3909444.71	0.0487	0.0091
Venus	5992-03-05 02:24 G	3909656.41	3909656.60	3909656.79	0.0489	0.0166
Moon	5993-08-13 15:07 G	3910182.89	3910183.13	3910183.37	0.0502	0.0116
Earth	5993-08-13 16:19 G	3910182.95	3910183.18	3910183.41	0.0502	0.0125 *
Mercury	5997-07-09 18:14 G	3911609.13	3911609.26	3911609.39	0.0541	0.0062
Venus	5998-01-10 05:16 G	3911793.58	3911793.72	3911793.86	0.0538	0.0398
Moon	5999-02-11 23:31 G	3912191.24	3912191.48	3912191.72	0.0526	0.0005
Earth	5999-02-12 00:28 G	3912191.29	3912191.52	3912191.75	0.0526	0.0028 *

7TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 7th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	6003-05-25 00:43 G		3913754.39	3913754.53	3913754.68	0.0487	0.0244	
Mercury	6003-08-23 00:43 G		3913844.43	3913844.53	3913844.64	0.0487	0.0387	
Venus	6003-11-09 07:11 G		3913922.61	3913922.80	3913922.99	0.0488	0.0168	
Moon	6005-08-18 06:57 G		3914570.61	3914570.79	3914570.98	0.0504	0.0301	
Earth	6005-08-18 08:09 G		3914570.66	3914570.84	3914571.02	0.0504	0.0326 *	

Mars	6008-02-26 12:28 G	3915492.86	3915493.02	3915493.18	0.0537	0.0404
Mercury	6009-04-27 21:07 G	3915919.25	3915919.38	3915919.51	0.0541	0.0105
Mercury	6009-07-26 07:11 G	3916008.79	3916008.80	3916008.81	0.0540	0.0536
Venus	6009-09-14 16:04 G	3916058.97	3916059.17	3916059.38	0.0540	0.0067
Moon	6011-02-16 19:11 G	3916579.12	3916579.30	3916579.50	0.0525	0.0271
Earth	6011-02-16 20:38 G	3916579.16	3916579.36	3916579.56	0.0525	0.0251 *
Mercury	6015-03-13 00:28 G	3918064.42	3918064.52	3918064.61	0.0486	0.0398
Mercury	6015-06-10 23:45 G	3918154.34	3918154.49	3918154.65	0.0487	0.0222
Mercury	6021-02-13 23:45 G	3920229.38	3920229.49	3920229.61	0.0542	0.0271
Mercury	6021-05-14 10:19 G	3920318.84	3920318.93	3920319.03	0.0541	0.0381
Venus	6021-05-20 03:07 G	3920324.60	3920324.63	3920324.67	0.0541	0.0531
Earth	6023-02-21 18:14 G	3920967.16	3920967.26	3920967.36	0.0523	0.0471
Moon	6023-02-21 21:21 G	3920967.32	3920967.39	3920967.48	0.0523	0.0492 *
Mercury	6027-03-29 23:31 G	3922464.31	3922464.48	3922464.65	0.0486	0.0069
Venus	6027-11-11 10:33 G	3922690.81	3922690.94	3922691.08	0.0489	0.0360
Mercury	6032-12-03 02:52 G	3924539.55	3924539.62	3924539.71	0.0542	0.0429
Mercury	6033-03-02 13:55 G	3924628.97	3924629.08	3924629.20	0.0541	0.0231
Mercury	6039-01-15 23:16 G	3926774.30	3926774.47	3926774.64	0.0486	0.0088
Venus	6039-07-17 15:07 G	3926956.93	3926957.13	3926957.34	0.0488	0.0027
Earth	6040-07-30 01:55 G	3927335.55	3927335.58	3927335.64	0.0496	0.0488
Mercury	6044-12-19 17:16 G	3928939.09	3928939.22	3928939.36	0.0541	0.0076
Venus	6045-05-23 13:11 G	3929093.87	3929094.05	3929094.24	0.0539	0.0219
Mercury	6050-11-03 23:02 G	3931084.32	3931084.46	3931084.62	0.0486	0.0239
Mercury	6051-02-01 23:02 G	3931174.36	3931174.46	3931174.57	0.0487	0.0392
Venus	6051-03-22 20:38 G	3931223.21	3931223.36	3931223.52	0.0487	0.0304
Earth	6052-08-03 16:33 G	3931723.01	3931723.19	3931723.39	0.0498	0.0296
Moon	6052-08-03 19:40 G	3931723.13	3931723.32	3931723.51	0.0498	0.0275 *
Mercury	6056-10-07 19:55 G	3933249.20	3933249.33	3933249.47	0.0541	0.0096
Venus	6057-01-25 22:48 G	3933359.28	3933359.45	3933359.64	0.0540	0.0254
Earth	6058-02-01 09:21 G	3933730.78	3933730.89	3933731.00	0.0531	0.0464

Moon	6058-02-01 11:45 G	3933730.88	3933730.99	3933731.12	0.0531	0.0447 *
Mercury	6062-08-22 23:16 G	3935394.37	3935394.47	3935394.57	0.0486	0.0389
Mercury	6062-11-20 22:33 G	3935484.29	3935484.44	3935484.60	0.0487	0.0233
Moon	6064-08-08 05:16 G	3936110.48	3936110.72	3936110.96	0.0500	0.0077
Earth	6064-08-08 06:43 G	3936110.55	3936110.78	3936111.02	0.0500	0.0103 *
Mercury	6068-07-26 22:48 G	3937559.33	3937559.45	3937559.56	0.0541	0.0262
Mercury	6068-10-24 09:21 G	3937648.80	3937648.89	3937648.98	0.0541	0.0387
Moon	6070-02-06 06:28 G	3938118.56	3938118.77	3938118.98	0.0529	0.0257
Earth	6070-02-06 07:40 G	3938118.62	3938118.82	3938119.03	0.0529	0.0233 *
Mars	6073-01-04 02:52 G	3939181.32	3939181.62	3939181.92	0.0492	0.0091
Mercury	6074-09-08 21:50 G	3939794.24	3939794.41	3939794.58	0.0486	0.0074
Venus	6075-03-25 00:00 G	3939991.33	3939991.50	3939991.69	0.0488	0.0224
Moon	6076-08-12 17:02 G	3940497.98	3940498.21	3940498.43	0.0501	0.0072
Earth	6076-08-12 17:31 G	3940498.00	3940498.23	3940498.47	0.0501	0.0086 *
Mercury	6080-05-15 01:11 G	3941869.47	3941869.55	3941869.63	0.0542	0.0433
Mercury	6080-08-12 12:14 G	3941958.89	3941959.01	3941959.13	0.0542	0.0227
Venus	6081-01-29 05:16 G	3942128.63	3942128.72	3942128.82	0.0539	0.0476
Moon	6082-02-11 06:28 G	3942506.55	3942506.77	3942506.99	0.0528	0.0023
Earth	6082-02-11 07:26 G	3942506.58	3942506.81	3942507.04	0.0528	0.0004 *
Mercury	6086-06-27 21:50 G	3944104.24	3944104.41	3944104.58	0.0486	0.0078
Venus	6086-11-28 05:31 G	3944257.53	3944257.73	3944257.93	0.0487	0.0108
Earth	6088-08-17 09:50 G	3944885.72	3944885.91	3944886.11	0.0503	0.0287
Moon	6088-08-17 12:43 G	3944885.83	3944886.03	3944886.24	0.0503	0.0262 *
Mercury	6092-05-31 15:50 G	3946269.02	3946269.16	3946269.29	0.0542	0.0076
Venus	6092-10-03 18:28 G	3946394.07	3946394.27	3946394.47	0.0540	0.0024
Earth	6094-02-16 06:00 G	3946894.55	3946894.75	3946894.96	0.0525	0.0222
Moon	6094-02-16 09:07 G	3946894.68	3946894.88	3946895.09	0.0525	0.0251 *
Mercury	6098-04-15 21:35 G	3948414.25	3948414.40	3948414.55	0.0486	0.0231
Mercury	6098-07-14 21:35 G	3948504.30	3948504.40	3948504.50	0.0487	0.0397
Venus	6098-08-03 10:33 G	3948523.85	3948523.94	3948524.02	0.0487	0.0438

Moon	6100-08-23 00:14 G	3949273.50	3949273.51	3949273.53	0.0506	0.0504
Earth	6100-08-23 04:04 G	3949273.62	3949273.67	3949273.73	0.0506	0.0490
Mercury	6104-03-20 19:11 G	3950579.16	3950579.30	3950579.43	0.0542	0.0084
Venus	6104-06-09 06:28 G	3950659.65	3950659.77	3950659.89	0.0541	0.0438
Moon	6106-02-21 22:19 G	3951282.33	3951282.43	3951282.54	0.0523	0.0460
Earth	6106-02-22 02:09 G	3951282.48	3951282.59	3951282.72	0.0523	0.0441 *
Mercury	6110-02-02 21:50 G	3952724.30	3952724.41	3952724.51	0.0486	0.0379
Mercury	6110-05-03 21:07 G	3952814.23	3952814.38	3952814.53	0.0487	0.0242
Venus	6110-12-01 10:33 G	3953025.84	3953025.94	3953026.04	0.0489	0.0428
Mercury	6116-01-07 21:50 G	3954889.29	3954889.41	3954889.53	0.0541	0.0250
Mercury	6116-04-06 08:24 G	3954978.76	3954978.85	3954978.94	0.0541	0.0399
Mercury	6122-02-19 20:52 G	3957124.20	3957124.37	3957124.54	0.0487	0.0086
Venus	6122-08-06 15:21 G	3957291.94	3957292.14	3957292.34	0.0488	0.0093
Mars	6126-08-18 23:45 G	3958765.24	3958765.49	3958765.74	0.0536	0.0057
Mercury	6127-10-27 00:14 G	3959199.43	3959199.51	3959199.60	0.0541	0.0419
Mercury	6128-01-24 11:16 G	3959288.85	3959288.97	3959289.09	0.0541	0.0239
Venus	6128-06-12 12:28 G	3959428.85	3959429.02	3959429.19	0.0539	0.0290
Mercury	6133-12-08 20:24 G	3961434.18	3961434.35	3961434.52	0.0486	0.0070
Venus	6134-04-11 19:40 G	3961558.15	3961558.32	3961558.50	0.0487	0.0240
Moon	6135-08-04 18:57 G	3962038.11	3962038.29	3962038.49	0.0497	0.0306
Earth	6135-08-04 20:52 G	3962038.20	3962038.37	3962038.55	0.0497	0.0328 *
Mercury	6139-11-12 14:09 G	3963598.96	3963599.09	3963599.22	0.0542	0.0074
Venus	6140-02-15 22:48 G	3963694.26	3963694.45	3963694.65	0.0541	0.0177
Moon	6141-02-01 13:26 G	3964045.96	3964046.06	3964046.16	0.0532	0.0481
Earth	6141-02-01 15:07 G	3964046.06	3964046.13	3964046.21	0.0532	0.0499 *
Mercury	6145-09-26 20:38 G	3965744.21	3965744.36	3965744.51	0.0486	0.0218
Mercury	6145-12-25 20:24 G	3965834.26	3965834.35	3965834.44	0.0486	0.0410
Moon	6147-08-09 10:33 G	3966425.72	3966425.94	3966426.16	0.0499	0.0117
Earth	6147-08-09 10:48 G	3966425.73	3966425.95	3966426.18	0.0499	0.0136 *
Mercury	6151-08-31 17:31 G	3967909.10	3967909.23	3967909.36	0.0542	0.0081

Moon	6153-02-06 16:33 G	3968434.01	3968434.19	3968434.38	0.0530	0.0291
Earth	6153-02-06 17:02 G	3968434.02	3968434.21	3968434.42	0.0530	0.0263 *
Mercury	6157-07-15 20:24 G	3970054.25	3970054.35	3970054.47	0.0486	0.0370
Mercury	6157-10-13 19:40 G	3970144.18	3970144.32	3970144.47	0.0486	0.0251
Venus	6158-04-14 00:14 G	3970326.35	3970326.51	3970326.68	0.0488	0.0292
Earth	6159-08-14 02:09 G	3970813.36	3970813.59	3970813.83	0.0501	0.0061
Moon	6159-08-14 04:48 G	3970813.46	3970813.70	3970813.95	0.0501	0.0038 *
Mercury	6163-06-19 20:52 G	3972219.25	3972219.37	3972219.49	0.0542	0.0238
Mercury	6163-09-17 07:26 G	3972308.73	3972308.81	3972308.90	0.0541	0.0413
Earth	6165-02-11 16:33 G	3972821.96	3972822.19	3972822.42	0.0528	0.0031
Moon	6165-02-11 19:26 G	3972822.07	3972822.31	3972822.55	0.0528	0.0039 *
Mercury	6169-08-01 19:40 G	3974454.15	3974454.32	3974454.49	0.0486	0.0097
Venus	6169-12-18 05:45 G	3974592.53	3974592.74	3974592.94	0.0488	0.0041
Moon	6171-08-18 16:04 G	3975200.97	3975201.17	3975201.38	0.0503	0.0238
Earth	6171-08-18 19:55 G	3975201.13	3975201.33	3975201.53	0.0503	0.0263 *
Mercury	6175-04-07 23:31 G	3976529.39	3976529.48	3976529.57	0.0541	0.0405
Mercury	6175-07-06 10:33 G	3976618.82	3976618.94	3976619.06	0.0541	0.0252
Venus	6175-10-24 20:09 G	3976729.14	3976729.34	3976729.54	0.0539	0.0109
Moon	6177-02-16 07:26 G	3977209.60	3977209.81	3977210.02	0.0525	0.0219
Earth	6177-02-16 11:16 G	3977209.76	3977209.97	3977210.18	0.0525	0.0188 *
Mercury	6181-05-20 19:26 G	3978764.14	3978764.31	3978764.48	0.0486	0.0057
Venus	6181-08-23 10:48 G	3978858.82	3978858.95	3978859.09	0.0487	0.0371
Earth	6183-08-23 12:57 G	3979588.96	3979589.04	3979589.14	0.0505	0.0464
Moon	6183-08-23 17:02 G	3979589.15	3979589.21	3979589.28	0.0505	0.0483
Mercury	6187-04-24 13:26 G	3980928.93	3980929.06	3980929.19	0.0541	0.0089
Venus	6187-06-29 06:43 G	3980994.63	3980994.78	3980994.93	0.0541	0.0361
Earth	6189-02-21 06:43 G	3981597.65	3981597.78	3981597.93	0.0523	0.0407
Moon	6189-02-21 10:48 G	3981597.82	3981597.95	3981598.08	0.0523	0.0424 *
Mercury	6193-03-08 19:26 G	3983074.15	3983074.31	3983074.46	0.0486	0.0208
Mercury	6193-06-06 19:11 G	3983164.21	3983164.30	3983164.38	0.0486	0.0420

Mercury	6199-02-10 15:50 G	3985239.03	3985239.16	3985239.30	0.0542	0.0082
Mercury	6204-12-26 19:40 G	3987384.21	3987384.32	3987384.44	0.0486	0.0354
Mercury	6205-03-26 18:57 G	3987474.14	3987474.29	3987474.43	0.0486	0.0266
Venus	6205-08-26 15:07 G	3987626.94	3987627.13	3987627.33	0.0488	0.0163
Mercury	6210-11-30 19:11 G	3989549.18	3989549.30	3989549.42	0.0542	0.0238
Mercury	6211-02-28 05:45 G	3989638.66	3989638.74	3989638.83	0.0542	0.0415
Venus	6211-07-03 14:52 G	3989763.98	3989764.12	3989764.26	0.0540	0.0382
Mercury	6217-01-12 18:28 G	3991784.10	3991784.27	3991784.44	0.0486	0.0108
Venus	6217-05-01 20:09 G	3991893.15	3991893.34	3991893.53	0.0487	0.0172
Moon	6218-08-05 05:45 G	3992353.58	3992353.74	3992353.92	0.0497	0.0327
Earth	6218-08-05 06:00 G	3992353.59	3992353.75	3992353.93	0.0497	0.0351 *
Mercury	6222-09-18 22:19 G	3993859.34	3993859.43	3993859.53	0.0542	0.0396
Mercury	6222-12-17 09:35 G	3993948.78	3993948.90	3993949.01	0.0542	0.0264
Venus	6223-03-08 03:35 G	3994029.45	3994029.65	3994029.85	0.0541	0.0077
Moon	6224-02-03 00:57 G	3994361.49	3994361.54	3994361.59	0.0532	0.0515
Earth	6224-02-03 00:57 G	3994361.50	3994361.54	3994361.58	0.0532	0.0523 *
Mars	6227-04-02 19:40 G	3995516.03	3995516.32	3995516.61	0.0491	0.0140
Mercury	6228-10-31 18:14 G	3996094.09	3996094.26	3996094.44	0.0486	0.0045
Earth	6230-08-09 21:21 G	3996741.16	3996741.39	3996741.61	0.0499	0.0157
Moon	6230-08-09 23:45 G	3996741.26	3996741.49	3996741.73	0.0499	0.0147 *
Mercury	6234-10-05 12:28 G	3998258.89	3998259.02	3998259.15	0.0541	0.0104
Earth	6236-02-07 22:48 G	3998749.27	3998749.45	3998749.65	0.0530	0.0295
Moon	6236-02-08 01:26 G	3998749.37	3998749.56	3998749.75	0.0530	0.0324 *
Mercury	6240-08-19 18:14 G	4000404.10	4000404.26	4000404.42	0.0486	0.0196
Mercury	6240-11-17 18:00 G	4000494.18	4000494.25	4000494.33	0.0487	0.0434
Venus	6241-05-04 01:11 G	4000661.42	4000661.55	4000661.69	0.0489	0.0365
Moon	6242-08-14 08:52 G	4001128.63	4001128.87	4001129.10	0.0501	0.0013
Earth	6242-08-14 12:28 G	4001128.79	4001129.02	4001129.26	0.0501	0.0039 *
Mars	6245-02-08 13:55 G	4002038.01	4002038.08	4002038.16	0.0535	0.0509
Mercury	6246-07-24 15:21 G	4002569.01	4002569.14	4002569.27	0.0541	0.0062

Moon	6248-02-12 17:16 G	4003137.00	4003137.22	4003137.45	0.0528	0.0072
Earth	6248-02-12 21:07 G	4003137.15	4003137.38	4003137.61	0.0528	0.0067 *
Mercury	6252-06-07 18:28 G	4004714.15	4004714.27	4004714.39	0.0486	0.0343
Mercury	6252-09-05 17:45 G	4004804.10	4004804.24	4004804.38	0.0486	0.0278
Venus	6253-01-07 06:00 G	4004927.55	4004927.75	4004927.95	0.0487	0.0031
Earth	6254-08-19 00:57 G	4005516.33	4005516.54	4005516.75	0.0502	0.0227
Moon	6254-08-19 05:02 G	4005516.50	4005516.71	4005516.93	0.0502	0.0206 *
Mercury	6258-05-12 17:31 G	4006879.11	4006879.23	4006879.36	0.0542	0.0238
Mercury	6258-08-10 04:19 G	4006968.60	4006968.68	4006968.77	0.0542	0.0415
Venus	6258-11-13 19:55 G	4007064.14	4007064.33	4007064.52	0.0540	0.0186
Earth	6260-02-17 18:28 G	4007525.05	4007525.27	4007525.49	0.0527	0.0154
Moon	6260-02-17 22:19 G	4007525.22	4007525.43	4007525.65	0.0527	0.0188 *
Mercury	6264-06-24 17:31 G	4009114.07	4009114.23	4009114.40	0.0486	0.0126
Venus	6264-09-12 11:31 G	4009193.83	4009193.98	4009194.15	0.0487	0.0299
Moon	6266-08-23 13:55 G	4009903.97	4009904.08	4009904.19	0.0504	0.0444
Earth	6266-08-23 17:31 G	4009904.11	4009904.23	4009904.36	0.0504	0.0426 *
Mercury	6270-02-28 20:38 G	4011189.27	4011189.36	4011189.46	0.0542	0.0398
Mercury	6270-05-29 07:55 G	4011278.71	4011278.83	4011278.95	0.0542	0.0264
Venus	6270-07-19 08:09 G	4011329.67	4011329.84	4011330.01	0.0541	0.0276
Moon	6272-02-22 13:40 G	4011912.92	4011913.07	4011913.23	0.0524	0.0390
Earth	6272-02-22 16:48 G	4011913.05	4011913.20	4011913.37	0.0524	0.0377 *
Mercury	6276-04-12 17:16 G	4013424.04	4013424.22	4013424.39	0.0486	0.0034
Mars	6280-11-13 08:24 G	4015099.61	4015099.85	4015100.09	0.0537	0.0143
Mercury	6282-03-17 11:31 G	4015588.85	4015588.98	4015589.11	0.0542	0.0113
Mercury	6288-01-30 17:16 G	4017734.06	4017734.22	4017734.38	0.0486	0.0183
Mercury	6288-04-29 17:02 G	4017824.14	4017824.21	4017824.28	0.0486	0.0446
Venus	6288-09-14 15:35 G	4017961.97	4017962.15	4017962.33	0.0488	0.0232
Mercury	6294-01-03 14:24 G	4019898.97	4019899.10	4019899.24	0.0542	0.0053
Venus	6294-07-22 17:31 G	4020099.14	4020099.23	4020099.33	0.0539	0.0472
Mercury	6299-11-18 17:16 G	4022044.10	4022044.22	4022044.34	0.0486	0.0333

Mercury	6300-02-16 16:33 G	4022134.05	4022134.19	4022134.33	0.0487	0.0289
Venus	6300-05-21 20:52 G	4022228.17	4022228.37	4022228.57	0.0487	0.0101
Earth	6301-08-05 16:48 G	4022669.05	4022669.20	4022669.37	0.0497	0.0370
Moon	6301-08-05 19:26 G	4022669.14	4022669.31	4022669.49	0.0497	0.0339 *
Mercury	6305-10-23 17:16 G	4024209.10	4024209.22	4024209.34	0.0542	0.0216
Mercury	6306-01-21 03:50 G	4024298.59	4024298.66	4024298.74	0.0541	0.0434
Venus	6306-03-28 04:33 G	4024364.48	4024364.69	4024364.89	0.0540	0.0012
Mercury	6311-09-07 17:31 G	4026354.21	4026354.23	4026354.27	0.0486	0.0477
Mercury	6311-12-06 16:19 G	4026444.02	4026444.18	4026444.35	0.0486	0.0137
Venus	6312-01-26 02:24 G	4026494.51	4026494.60	4026494.70	0.0486	0.0428
Moon	6313-08-10 00:57 G	4027056.32	4027056.54	4027056.75	0.0498	0.0181
Earth	6313-08-10 04:33 G	4027056.47	4027056.69	4027056.91	0.0498	0.0187 *
Mercury	6317-08-11 19:11 G	4028519.21	4028519.30	4028519.39	0.0542	0.0396
Mercury	6317-11-09 06:14 G	4028608.65	4028608.76	4028608.88	0.0542	0.0266
Venus	6317-11-30 12:43 G	4028629.94	4028630.03	4028630.13	0.0542	0.0476
Moon	6319-02-07 23:45 G	4029064.34	4029064.49	4029064.66	0.0531	0.0369
Earth	6319-02-08 03:21 G	4029064.47	4029064.64	4029064.83	0.0531	0.0335 *
Mercury	6323-09-24 16:33 G	4030754.01	4030754.19	4030754.36	0.0486	0.0018
Venus	6324-05-24 01:40 G	4030996.49	4030996.57	4030996.67	0.0488	0.0438
Earth	6325-08-14 18:28 G	4031444.03	4031444.27	4031444.51	0.0499	0.0006
Moon	6325-08-14 22:33 G	4031444.21	4031444.44	4031444.68	0.0499	0.0024 *
Mercury	6329-08-28 09:50 G	4032918.78	4032918.91	4032919.04	0.0542	0.0111
Earth	6331-02-13 04:33 G	4033452.47	4033452.69	4033452.92	0.0529	0.0102
Moon	6331-02-13 08:38 G	4033452.64	4033452.86	4033453.09	0.0529	0.0101 *
Mercury	6335-07-13 16:04 G	4035064.01	4035064.17	4035064.33	0.0486	0.0171
Mercury	6335-10-11 15:50 G	4035154.10	4035154.16	4035154.22	0.0486	0.0457
Venus	6336-01-28 06:00 G	4035262.55	4035262.75	4035262.95	0.0487	0.0100
Moon	6337-08-19 05:31 G	4035831.51	4035831.73	4035831.96	0.0502	0.0181
Earth	6337-08-19 09:07 G	4035831.67	4035831.88	4035832.10	0.0502	0.0201 *
Mercury	6341-06-16 13:11 G	4037228.92	4037229.05	4037229.18	0.0542	0.0043

Venus	6341-12-04 00:14 G	4037399.34	4037399.51	4037399.68	0.0540	0.0285
Moon	6343-02-18 01:11 G	4037840.33	4037840.55	4037840.78	0.0527	0.0159
Earth	6343-02-18 04:33 G	4037840.47	4037840.69	4037840.92	0.0527	0.0128 *
Mars	6345-09-21 02:24 G	4038786.37	4038786.60	4038786.85	0.0492	0.0308
Mercury	6347-05-01 16:04 G	4039374.05	4039374.17	4039374.30	0.0486	0.0321
Mercury	6347-07-30 15:21 G	4039464.01	4039464.14	4039464.28	0.0486	0.0300
Venus	6347-10-03 11:31 G	4039528.80	4039528.98	4039529.16	0.0487	0.0233
Earth	6349-08-24 02:52 G	4040219.48	4040219.62	4040219.76	0.0504	0.0401
Moon	6349-08-24 04:48 G	4040219.58	4040219.70	4040219.82	0.0504	0.0427 *
Mercury	6353-04-04 16:04 G	4041539.05	4041539.17	4041539.30	0.0542	0.0206
Mercury	6353-07-03 02:52 G	4041628.55	4041628.62	4041628.69	0.0541	0.0445
Venus	6353-08-08 11:16 G	4041664.78	4041664.97	4041665.17	0.0541	0.0183
Earth	6355-02-22 23:31 G	4042228.31	4042228.48	4042228.66	0.0525	0.0345
Moon	6355-02-23 00:57 G	4042228.38	4042228.54	4042228.71	0.0525	0.0350 *
Mercury	6359-02-17 16:19 G	4043684.14	4043684.18	4043684.22	0.0486	0.0469
Mercury	6359-05-18 15:07 G	4043773.96	4043774.13	4043774.29	0.0486	0.0145
Mercury	6365-01-21 18:43 G	4045849.19	4045849.28	4045849.38	0.0542	0.0374
Mercury	6365-04-21 05:45 G	4045938.63	4045938.74	4045938.86	0.0541	0.0285
Mercury	6371-03-06 15:07 G	4048083.96	4048084.13	4048084.30	0.0486	0.0005
Venus	6371-10-05 16:04 G	4048297.02	4048297.17	4048297.33	0.0488	0.0305
Mercury	6377-02-07 08:09 G	4050248.71	4050248.84	4050248.97	0.0542	0.0110
Mars	6381-06-28 12:57 G	4051850.85	4051851.04	4051851.25	0.0491	0.0374
Mercury	6382-12-23 15:07 G	4052393.97	4052394.13	4052394.30	0.0486	0.0156
Mercury	6383-03-23 14:52 G	4052484.09	4052484.12	4052484.16	0.0486	0.0474
Venus	6383-06-10 21:35 G	4052563.20	4052563.40	4052563.61	0.0487	0.0029
Moon	6384-08-04 20:52 G	4052984.22	4052984.37	4052984.53	0.0495	0.0366
Earth	6384-08-05 00:28 G	4052984.38	4052984.52	4052984.66	0.0495	0.0396 *
Mercury	6388-11-26 11:16 G	4054558.84	4054558.97	4054559.10	0.0542	0.0049
Venus	6389-04-16 04:04 G	4054699.47	4054699.67	4054699.87	0.0541	0.0082
Mercury	6394-10-11 14:52 G	4056703.99	4056704.12	4056704.25	0.0486	0.0310

Mercury	6395-01-09 14:09 G	4056793.95	4056794.09	4056794.22	0.0486	0.0310
Venus	6395-02-14 02:09 G	4056829.45	4056829.59	4056829.72	0.0486	0.0365
Earth	6396-08-09 12:00 G	4057371.78	4057372.00	4057372.21	0.0497	0.0213
Moon	6396-08-09 16:04 G	4057371.95	4057372.17	4057372.38	0.0497	0.0209 *
Mars	6399-05-06 18:00 G	4058372.06	4058372.25	4058372.45	0.0535	0.0330
Mercury	6400-09-14 14:38 G	4058868.99	4058869.11	4058869.24	0.0542	0.0204
Mercury	6400-12-13 01:26 G	4058958.49	4058958.56	4058958.63	0.0542	0.0449
Venus	6400-12-19 16:48 G	4058965.05	4058965.20	4058965.34	0.0542	0.0381
Earth	6402-02-07 12:14 G	4059379.85	4059380.01	4059380.18	0.0532	0.0361
Moon	6402-02-07 16:19 G	4059380.03	4059380.18	4059380.34	0.0532	0.0394 *
Mercury	6406-07-30 15:07 G	4061014.08	4061014.13	4061014.19	0.0486	0.0458
Mercury	6406-10-28 13:40 G	4061103.91	4061104.07	4061104.24	0.0486	0.0155
Moon	6408-08-13 23:02 G	4061759.22	4061759.46	4061759.70	0.0499	0.0049
Earth	6408-08-14 02:52 G	4061759.38	4061759.62	4061759.85	0.0499	0.0020 *
Mercury	6412-07-03 17:31 G	4063179.14	4063179.23	4063179.33	0.0542	0.0367
Mercury	6412-10-01 04:48 G	4063268.59	4063268.70	4063268.81	0.0541	0.0293
Moon	6414-02-12 07:11 G	4063767.57	4063767.80	4063768.03	0.0529	0.0134
Earth	6414-02-12 10:48 G	4063767.73	4063767.95	4063768.17	0.0529	0.0134 *
Mercury	6418-08-16 13:40 G	4065413.89	4065414.07	4065414.24	0.0486	0.0013
Venus	6419-02-16 06:14 G	4065597.57	4065597.76	4065597.95	0.0488	0.0168
Earth	6420-08-18 18:14 G	4066147.04	4066147.26	4066147.49	0.0501	0.0176
Moon	6420-08-18 20:24 G	4066147.14	4066147.35	4066147.57	0.0501	0.0168 *
Mercury	6424-04-21 20:09 G	4067489.33	4067489.34	4067489.35	0.0542	0.0537
Mercury	6424-07-20 07:40 G	4067578.69	4067578.82	4067578.95	0.0542	0.0130
Venus	6424-12-23 00:28 G	4067734.37	4067734.52	4067734.67	0.0540	0.0363
Earth	6426-02-17 07:55 G	4068155.61	4068155.83	4068156.06	0.0527	0.0090
Moon	6426-02-17 09:50 G	4068155.69	4068155.91	4068156.13	0.0527	0.0120 *
Mercury	6430-06-04 13:40 G	4069723.91	4069724.07	4069724.24	0.0486	0.0148
Mercury	6430-09-02 13:26 G	4069814.04	4069814.06	4069814.08	0.0486	0.0482
Venus	6430-10-22 11:45 G	4069863.80	4069863.99	4069864.19	0.0487	0.0163

Earth	6432-08-23 08:38 G	4070534.70	4070534.86	4070535.03	0.0503	0.0364
Moon	6432-08-23 08:38 G	4070534.71	4070534.86	4070535.01	0.0503	0.0392 *
Mars	6435-02-08 07:26 G	4071433.62	4071433.81	4071434.02	0.0537	0.0315
Mercury	6436-05-08 09:35 G	4071888.77	4071888.90	4071889.04	0.0542	0.0051
Venus	6436-08-27 08:24 G	4071999.65	4071999.85	4072000.05	0.0541	0.0121
Earth	6438-02-22 02:24 G	4072543.41	4072543.60	4072543.79	0.0526	0.0301
Moon	6438-02-22 02:38 G	4072543.42	4072543.61	4072543.82	0.0526	0.0296 *
Mercury	6442-03-23 13:55 G	4074033.95	4074034.08	4074034.22	0.0486	0.0296
Mercury	6442-06-21 13:11 G	4074123.92	4074124.05	4074124.18	0.0486	0.0325
Mercury	6448-02-25 12:43 G	4076198.90	4076199.03	4076199.15	0.0542	0.0213
Mercury	6448-05-24 23:31 G	4076288.40	4076288.48	4076288.55	0.0542	0.0441
Moon	6450-02-26 21:21 G	4076931.32	4076931.39	4076931.48	0.0524	0.0486
Earth	6450-02-26 23:45 G	4076931.46	4076931.49	4076931.53	0.0524	0.0518 *
Mercury	6454-01-09 13:40 G	4078344.01	4078344.07	4078344.13	0.0486	0.0450
Mercury	6454-04-09 12:14 G	4078433.85	4078434.01	4078434.18	0.0486	0.0162
Venus	6454-10-24 14:52 G	4078631.99	4078632.12	4078632.26	0.0488	0.0366
Mercury	6459-12-14 15:50 G	4080509.06	4080509.16	4080509.26	0.0542	0.0370
Mercury	6460-03-13 03:07 G	4080598.52	4080598.63	4080598.74	0.0542	0.0292
Mercury	6466-01-26 12:00 G	4082743.83	4082744.00	4082744.18	0.0486	0.0015
Venus	6466-06-29 20:09 G	4082898.13	4082898.34	4082898.54	0.0487	0.0032
Earth	6467-08-05 07:11 G	4083299.68	4083299.80	4083299.92	0.0495	0.0422
Moon	6467-08-05 11:16 G	4083299.83	4083299.97	4083300.12	0.0495	0.0389 *
Mercury	6471-10-02 18:43 G	4084819.26	4084819.28	4084819.30	0.0542	0.0533
Mercury	6471-12-31 06:14 G	4084908.63	4084908.76	4084908.89	0.0542	0.0134
Venus	6472-05-05 06:28 G	4085034.58	4085034.77	4085034.96	0.0540	0.0170
Mercury	6477-11-14 12:00 G	4087053.83	4087054.00	4087054.16	0.0486	0.0146
Mercury	6478-02-12 11:31 G	4087143.97	4087143.98	4087144.00	0.0486	0.0484
Venus	6478-03-05 01:11 G	4087164.40	4087164.55	4087164.72	0.0487	0.0302
Moon	6479-08-09 16:33 G	4087686.98	4087687.19	4087687.40	0.0497	0.0235
Earth	6479-08-09 20:24 G	4087687.14	4087687.35	4087687.56	0.0497	0.0236 *

Mercury	6483-10-19 09:07 G	4089218.74	4089218.88	4089219.01	0.0542	0.0032
Venus	6484-01-08 16:33 G	4089300.03	4089300.19	4089300.36	0.0541	0.0305
Moon	6485-02-06 10:19 G	4089694.80	4089694.93	4089695.07	0.0532	0.0435
Earth	6485-02-06 14:09 G	4089694.94	4089695.09	4089695.24	0.0532	0.0400 *
Mercury	6489-09-02 12:14 G	4091363.88	4091364.01	4091364.15	0.0486	0.0292
Mercury	6489-12-01 11:16 G	4091453.85	4091453.97	4091454.10	0.0486	0.0331
Earth	6491-08-14 09:21 G	4092074.66	4092074.89	4092075.13	0.0498	0.0052
Moon	6491-08-14 11:45 G	4092074.77	4092074.99	4092075.22	0.0498	0.0080 *
Mercury	6495-08-07 10:48 G	4093528.83	4093528.95	4093529.08	0.0542	0.0215
Mercury	6495-11-04 21:50 G	4093618.33	4093618.41	4093618.48	0.0541	0.0439
Earth	6497-02-11 09:35 G	4094082.69	4094082.90	4094083.12	0.0531	0.0184
Moon	6497-02-11 12:14 G	4094082.80	4094083.01	4094083.22	0.0531	0.0179 *
Mars	6499-12-16 07:40 G	4095120.53	4095120.82	4095121.12	0.0493	0.0108
Mercury	6501-06-22 12:28 G	4095673.96	4095674.02	4095674.09	0.0486	0.0439
Mercury	6501-09-20 11:16 G	4095763.80	4095763.97	4095764.13	0.0486	0.0174
Venus	6502-03-08 05:45 G	4095932.56	4095932.74	4095932.92	0.0487	0.0235
Moon	6503-08-19 22:19 G	4096462.20	4096462.43	4096462.67	0.0500	0.0138
Earth	6503-08-19 22:48 G	4096462.22	4096462.45	4096462.68	0.0500	0.0139 *
Mercury	6507-05-27 13:40 G	4097838.97	4097839.07	4097839.16	0.0542	0.0381
Mercury	6507-08-25 00:57 G	4097928.42	4097928.54	4097928.65	0.0542	0.0281
Venus	6508-01-12 21:21 G	4098069.28	4098069.39	4098069.52	0.0540	0.0427
Moon	6509-02-17 09:21 G	4098470.65	4098470.89	4098471.13	0.0529	0.0072
Earth	6509-02-17 09:21 G	4098470.67	4098470.89	4098471.12	0.0529	0.0045 *
Mercury	6513-07-09 10:19 G	4100073.76	4100073.93	4100074.11	0.0486	0.0015
Venus	6513-11-11 09:35 G	4100198.71	4100198.90	4100199.10	0.0487	0.0107
Moon	6515-08-24 10:48 G	4100849.79	4100849.95	4100850.11	0.0502	0.0361
Earth	6515-08-24 12:00 G	4100849.83	4100850.00	4100850.18	0.0502	0.0330 *
Mercury	6519-03-15 16:48 G	4102149.19	4102149.20	4102149.20	0.0542	0.0541
Mercury	6519-06-13 04:19 G	4102238.55	4102238.68	4102238.81	0.0542	0.0129
Venus	6519-09-17 10:19 G	4102334.72	4102334.93	4102335.13	0.0541	0.0036

Moon	6521-02-22 06:57 G	4102858.60	4102858.79	4102858.98	0.0526	0.0258
Earth	6521-02-22 09:07 G	4102858.68	4102858.88	4102859.07	0.0526	0.0270 *
Mercury	6525-04-27 10:19 G	4104383.77	4104383.93	4104384.09	0.0486	0.0141
Venus	6525-07-17 14:52 G	4104465.04	4104465.12	4104465.21	0.0486	0.0439
Mercury	6531-04-01 07:40 G	4106548.68	4106548.82	4106548.95	0.0542	0.0036
Venus	6531-05-22 21:21 G	4106600.33	4106600.39	4106600.47	0.0542	0.0506
Earth	6533-02-27 04:04 G	4107246.60	4107246.67	4107246.77	0.0524	0.0482
Moon	6533-02-27 07:40 G	4107246.71	4107246.82	4107246.95	0.0524	0.0448 *
Mercury	6537-02-13 10:19 G	4108693.79	4108693.93	4108694.06	0.0486	0.0293
Mercury	6537-05-14 09:21 G	4108783.76	4108783.89	4108784.02	0.0486	0.0328
Venus	6537-11-13 13:26 G	4108966.97	4108967.06	4108967.16	0.0488	0.0429
Mercury	6543-01-18 10:19 G	4110858.80	4110858.93	4110859.05	0.0542	0.0199
Mercury	6543-04-17 20:52 G	4110948.31	4110948.37	4110948.45	0.0541	0.0454
Mercury	6548-12-02 10:33 G	4113003.88	4113003.94	4113004.02	0.0486	0.0438
Mercury	6549-03-02 09:21 G	4113093.73	4113093.89	4113094.05	0.0486	0.0176
Venus	6549-07-19 19:11 G	4113233.10	4113233.30	4113233.50	0.0487	0.0096
Moon	6550-08-05 10:19 G	4113614.81	4113614.93	4113615.06	0.0495	0.0419
Earth	6550-08-05 14:09 G	4113615.00	4113615.09	4113615.19	0.0495	0.0449 *
Mars	6553-07-31 13:11 G	4114705.82	4114706.05	4114706.29	0.0535	0.0175
Mercury	6554-11-06 12:00 G	4115168.90	4115169.00	4115169.09	0.0542	0.0384
Mercury	6555-02-03 23:02 G	4115258.35	4115258.46	4115258.58	0.0542	0.0278
Venus	6555-05-26 01:26 G	4115369.38	4115369.56	4115369.75	0.0540	0.0223
Mercury	6560-12-19 09:07 G	4117403.71	4117403.88	4117404.05	0.0486	0.0021
Venus	6561-03-25 00:14 G	4117499.34	4117499.51	4117499.69	0.0486	0.0239
Earth	6562-08-10 01:11 G	4118002.36	4118002.55	4118002.76	0.0496	0.0268
Moon	6562-08-10 03:50 G	4118002.47	4118002.66	4118002.85	0.0496	0.0273 *
Mercury	6566-11-23 02:09 G	4119568.46	4119568.59	4119568.72	0.0542	0.0115
Venus	6567-01-28 12:14 G	4119634.83	4119635.01	4119635.19	0.0541	0.0251
Earth	6568-02-07 11:45 G	4120009.87	4120009.99	4120010.11	0.0533	0.0451
Moon	6568-02-07 14:52 G	4120010.02	4120010.12	4120010.21	0.0533	0.0482 *

Mercury	6572-10-07 08:24 G	4121713.68	4121713.85	4121714.01	0.0486	0.0140
Moon	6574-08-14 10:33 G	4122389.71	4122389.94	4122390.19	0.0498	0.0114
Earth	6574-08-14 11:31 G	4122389.75	4122389.98	4122390.21	0.0498	0.0086 *
Mercury	6578-09-11 05:31 G	4123878.59	4123878.73	4123878.86	0.0542	0.0043
Moon	6580-02-12 13:40 G	4124397.85	4124398.07	4124398.29	0.0531	0.0204
Earth	6580-02-12 14:24 G	4124397.89	4124398.10	4124398.31	0.0531	0.0217 *
Mercury	6584-07-26 08:24 G	4126023.71	4126023.85	4126023.99	0.0486	0.0291
Mercury	6584-10-24 07:26 G	4126113.68	4126113.81	4126113.94	0.0486	0.0329
Venus	6585-03-27 02:24 G	4126267.44	4126267.60	4126267.77	0.0487	0.0287
Moon	6586-08-19 00:28 G	4126777.30	4126777.52	4126777.74	0.0500	0.0110
Earth	6586-08-19 01:40 G	4126777.34	4126777.57	4126777.80	0.0500	0.0105 *
Mars	6589-05-05 11:02 G	4127767.87	4127767.96	4127768.05	0.0537	0.0499
Mercury	6590-06-30 08:24 G	4128188.73	4128188.85	4128188.98	0.0542	0.0201
Mercury	6590-09-27 19:11 G	4128278.24	4128278.30	4128278.38	0.0541	0.0453
Venus	6591-01-31 22:19 G	4128404.37	4128404.43	4128404.50	0.0540	0.0508
Moon	6592-02-17 11:31 G	4128785.76	4128785.98	4128786.20	0.0529	0.0034
Earth	6592-02-17 13:11 G	4128785.82	4128786.05	4128786.28	0.0529	0.0011 *
Mercury	6596-05-14 08:24 G	4130333.78	4130333.85	4130333.92	0.0486	0.0441
Mercury	6596-08-12 06:57 G	4130423.63	4130423.79	4130423.95	0.0486	0.0171
Venus	6596-11-30 07:26 G	4130533.61	4130533.81	4130534.01	0.0487	0.0050
Earth	6598-08-23 17:16 G	4131165.04	4131165.22	4131165.42	0.0502	0.0298
Moon	6598-08-23 19:55 G	4131165.15	4131165.33	4131165.52	0.0502	0.0330 *
Mercury	6602-04-19 11:02 G	4132498.86	4132498.96	4132499.06	0.0542	0.0370
Mercury	6602-07-17 22:19 G	4132588.32	4132588.43	4132588.54	0.0542	0.0291
Venus	6602-10-07 09:07 G	4132669.67	4132669.88	4132670.08	0.0541	0.0036
Earth	6604-02-23 09:07 G	4133173.68	4133173.88	4133174.09	0.0527	0.0226
Moon	6604-02-23 12:28 G	4133173.80	4133174.02	4133174.23	0.0527	0.0211 *
Mercury	6608-06-01 06:57 G	4134733.62	4134733.79	4134733.96	0.0486	0.0020
Venus	6608-08-06 13:11 G	4134799.93	4134800.05	4134800.18	0.0486	0.0380
Moon	6610-08-29 05:31 G	4135552.71	4135552.73	4135552.78	0.0504	0.0496

Earth	6610-08-29 09:21 G	4135552.84	4135552.89	4135552.94	0.0504	0.0490
Mercury	6614-05-06 00:14 G	4136898.38	4136898.51	4136898.64	0.0542	0.0112
Venus	6614-06-11 16:04 G	4136935.07	4136935.17	4136935.28	0.0541	0.0458
Moon	6616-02-27 21:35 G	4137561.26	4137561.40	4137561.55	0.0525	0.0397
Earth	6616-02-28 01:26 G	4137561.43	4137561.56	4137561.69	0.0525	0.0430 *
Mercury	6620-03-20 06:43 G	4139043.62	4139043.78	4139043.95	0.0486	0.0134
Mercury	6626-02-22 03:07 G	4141208.49	4141208.63	4141208.76	0.0542	0.0055
Mercury	6632-01-07 06:14 G	4143353.63	4143353.76	4143353.90	0.0486	0.0293
Mercury	6632-04-06 05:16 G	4143443.59	4143443.72	4143443.85	0.0486	0.0327
Venus	6632-08-08 14:52 G	4143567.93	4143568.12	4143568.32	0.0487	0.0144
Earth	6633-08-05 14:52 G	4143930.08	4143930.12	4143930.18	0.0494	0.0482
Moon	6633-08-05 17:31 G	4143930.16	4143930.23	4143930.33	0.0494	0.0457 *
Mercury	6637-12-11 06:14 G	4145518.64	4145518.76	4145518.88	0.0542	0.0214
Mercury	6638-03-10 17:02 G	4145608.14	4145608.21	4145608.29	0.0542	0.0442
Venus	6638-06-15 01:26 G	4145704.39	4145704.56	4145704.73	0.0541	0.0298
Mercury	6643-10-26 06:14 G	4147663.70	4147663.76	4147663.84	0.0486	0.0442
Mercury	6644-01-24 04:48 G	4147753.54	4147753.70	4147753.86	0.0486	0.0171
Venus	6644-04-13 20:09 G	4147834.16	4147834.34	4147834.53	0.0486	0.0192
Moon	6645-08-10 01:40 G	4148317.38	4148317.57	4148317.76	0.0496	0.0312
Earth	6645-08-10 02:38 G	4148317.43	4148317.61	4148317.80	0.0496	0.0301 *
Mercury	6649-09-29 09:07 G	4149828.79	4149828.88	4149828.98	0.0542	0.0376
Mercury	6649-12-27 20:24 G	4149918.24	4149918.35	4149918.47	0.0542	0.0287
Venus	6650-02-17 12:57 G	4149969.84	4149970.04	4149970.23	0.0541	0.0172
Moon	6651-02-07 13:11 G	4150324.99	4150325.05	4150325.12	0.0533	0.0512
Earth	6651-02-07 14:52 G	4150325.03	4150325.12	4150325.21	0.0533	0.0486 *
Mars	6654-03-12 17:16 G	4151453.92	4151454.22	4151454.52	0.0492	0.0051
Mercury	6655-11-12 04:33 G	4152063.51	4152063.69	4152063.86	0.0486	0.0016
Moon	6657-08-14 15:07 G	4152704.91	4152705.13	4152705.35	0.0498	0.0144
Earth	6657-08-14 16:04 G	4152704.94	4152705.17	4152705.40	0.0498	0.0116 *
Mercury	6661-10-15 23:16 G	4154228.35	4154228.47	4154228.60	0.0542	0.0125

Moon	6663-02-12 12:43 G	4154712.83	4154713.03	4154713.23	0.0531	0.0243
Earth	6663-02-12 13:40 G	4154712.87	4154713.07	4154713.27	0.0531	0.0261 *
Mercury	6667-08-31 04:33 G	4156373.53	4156373.69	4156373.86	0.0486	0.0136
Venus	6668-04-16 00:14 G	4156602.37	4156602.51	4156602.66	0.0488	0.0346
Earth	6669-08-19 06:14 G	4157092.53	4157092.76	4157093.00	0.0499	0.0071
Moon	6669-08-19 08:52 G	4157092.63	4157092.87	4157093.11	0.0499	0.0080 *
Mercury	6673-08-04 01:26 G	4158538.42	4158538.56	4158538.69	0.0542	0.0059
Earth	6675-02-17 07:40 G	4159100.59	4159100.82	4159101.05	0.0530	0.0048
Moon	6675-02-17 10:19 G	4159100.70	4159100.93	4159101.17	0.0530	0.0022 *
Mercury	6679-06-19 04:33 G	4160683.56	4160683.69	4160683.83	0.0486	0.0288
Mercury	6679-09-17 03:35 G	4160773.53	4160773.65	4160773.78	0.0486	0.0333
Venus	6679-12-21 05:02 G	4160868.51	4160868.71	4160868.92	0.0487	0.0009
Moon	6681-08-23 16:19 G	4161480.00	4161480.18	4161480.37	0.0501	0.0291
Earth	6681-08-23 19:40 G	4161480.12	4161480.32	4161480.52	0.0501	0.0260 *
Mercury	6685-05-23 03:50 G	4162848.54	4162848.66	4162848.79	0.0542	0.0228
Mercury	6685-08-20 14:52 G	4162938.04	4162938.12	4162938.20	0.0541	0.0427
Venus	6685-10-26 03:21 G	4163004.44	4163004.64	4163004.84	0.0541	0.0082
Moon	6687-02-22 02:09 G	4163488.38	4163488.59	4163488.81	0.0528	0.0161
Earth	6687-02-22 05:45 G	4163488.52	4163488.74	4163488.96	0.0528	0.0174 *
Mercury	6691-04-07 04:04 G	4164993.61	4164993.67	4164993.74	0.0486	0.0445
Mercury	6691-07-06 02:38 G	4165083.44	4165083.61	4165083.77	0.0486	0.0167
Venus	6691-08-26 08:38 G	4165134.71	4165134.86	4165135.01	0.0486	0.0336
Earth	6693-08-28 06:57 G	4165867.70	4165867.79	4165867.91	0.0503	0.0447
Moon	6693-08-28 11:02 G	4165867.85	4165867.96	4165868.07	0.0503	0.0444 *
Mercury	6697-03-11 06:43 G	4167158.69	4167158.78	4167158.88	0.0542	0.0391
Mercury	6697-06-08 18:14 G	4167248.15	4167248.26	4167248.37	0.0542	0.0274
Venus	6697-06-30 14:52 G	4167269.98	4167270.12	4167270.26	0.0542	0.0389
Earth	6699-02-27 05:02 G	4167876.56	4167876.71	4167876.86	0.0526	0.0395
Moon	6699-02-27 08:38 G	4167876.70	4167876.86	4167877.02	0.0525	0.0367 *
Mercury	6703-04-25 02:24 G	4169393.43	4169393.60	4169393.77	0.0486	0.0013

Mars	6707-10-27 06:57 G	4171039.54	4171039.79	4171040.04	0.0536	0.0020
Mercury	6709-03-28 21:35 G	4171558.27	4171558.40	4171558.53	0.0542	0.0119
Mercury	6715-02-11 02:09 G	4173703.42	4173703.59	4173703.75	0.0486	0.0143
Mercury	6715-05-12 01:26 G	4173793.56	4173793.56	4173793.57	0.0486	0.0485
Venus	6715-08-29 11:45 G	4173902.80	4173902.99	4173903.18	0.0487	0.0197
Moon	6716-08-05 18:00 G	4174245.21	4174245.25	4174245.29	0.0494	0.0487
Mercury	6721-01-15 00:14 G	4175868.38	4175868.51	4175868.65	0.0542	0.0049
Venus	6721-07-04 23:45 G	4176039.34	4176039.49	4176039.64	0.0540	0.0367
Mercury	6726-11-30 02:24 G	4178013.46	4178013.60	4178013.73	0.0486	0.0291
Mercury	6727-02-28 01:11 G	4178103.43	4178103.55	4178103.68	0.0486	0.0329
Venus	6727-05-04 17:31 G	4178169.03	4178169.23	4178169.43	0.0487	0.0137
Moon	6728-08-10 06:57 G	4178632.63	4178632.79	4178632.95	0.0496	0.0351
Earth	6728-08-10 07:40 G	4178632.65	4178632.82	4178633.00	0.0496	0.0330 *
Mercury	6732-11-03 02:09 G	4180178.47	4180178.59	4180178.72	0.0542	0.0229
Mercury	6733-01-31 13:11 G	4180267.97	4180268.05	4180268.13	0.0541	0.0425
Venus	6733-03-09 07:26 G	4180304.61	4180304.81	4180305.01	0.0541	0.0123
Mercury	6738-09-18 02:24 G	4182323.54	4182323.60	4182323.67	0.0486	0.0441
Mercury	6738-12-17 00:57 G	4182413.37	4182413.54	4182413.70	0.0486	0.0172
Venus	6739-01-07 22:33 G	4182435.40	4182435.44	4182435.49	0.0486	0.0473
Earth	6740-08-14 19:11 G	4183020.08	4183020.30	4183020.53	0.0497	0.0148
Moon	6740-08-14 21:21 G	4183020.17	4183020.39	4183020.63	0.0497	0.0175 *
Mercury	6744-08-22 04:33 G	4184488.60	4184488.69	4184488.78	0.0542	0.0401
Mercury	6744-11-19 16:04 G	4184578.05	4184578.17	4184578.28	0.0542	0.0262
Earth	6746-02-12 08:24 G	4185027.66	4185027.85	4185028.03	0.0532	0.0314
Moon	6746-02-12 10:33 G	4185027.75	4185027.94	4185028.14	0.0532	0.0290 *
Mercury	6750-10-05 00:00 G	4186723.33	4186723.50	4186723.67	0.0486	0.0008
Venus	6751-05-06 19:26 G	4186937.18	4186937.31	4186937.43	0.0488	0.0390
Moon	6752-08-19 01:11 G	4187407.32	4187407.55	4187407.78	0.0499	0.0038
Earth	6752-08-19 04:19 G	4187407.45	4187407.68	4187407.92	0.0499	0.0030 *
Mercury	6756-09-07 19:11 G	4188888.17	4188888.30	4188888.43	0.0542	0.0104

Moon	6758-02-17 06:57 G	4189415.57	4189415.79	4189416.02	0.0530	0.0056
Earth	6758-02-17 10:19 G	4189415.71	4189415.93	4189416.16	0.0530	0.0085 *
Mercury	6762-07-24 00:00 G	4191033.34	4191033.50	4191033.66	0.0486	0.0144
Mercury	6762-10-21 23:16 G	4191123.46	4191123.47	4191123.49	0.0486	0.0482
Venus	6763-01-10 00:14 G	4191203.31	4191203.51	4191203.72	0.0487	0.0053
Earth	6764-08-23 18:28 G	4191795.06	4191795.27	4191795.49	0.0501	0.0221
Moon	6764-08-23 22:19 G	4191795.23	4191795.43	4191795.64	0.0501	0.0250 *
Mercury	6768-06-26 22:19 G	4193198.30	4193198.43	4193198.57	0.0542	0.0054
Venus	6768-11-15 03:35 G	4193339.46	4193339.65	4193339.85	0.0541	0.0161
Earth	6770-02-22 09:21 G	4193803.67	4193803.89	4193804.12	0.0528	0.0138
Moon	6770-02-22 13:11 G	4193803.83	4193804.05	4193804.27	0.0528	0.0120 *
Mars	6772-08-29 21:07 G	4194723.29	4194723.38	4194723.47	0.0494	0.0469
Mercury	6774-05-12 00:00 G	4195343.36	4195343.50	4195343.63	0.0486	0.0297
Mercury	6774-08-09 22:48 G	4195433.32	4195433.45	4195433.58	0.0486	0.0322
Venus	6774-09-15 05:16 G	4195469.55	4195469.72	4195469.88	0.0486	0.0284
Moon	6776-08-28 07:26 G	4196182.67	4196182.81	4196182.96	0.0503	0.0404
Earth	6776-08-28 10:48 G	4196182.82	4196182.95	4196183.09	0.0503	0.0413 *
Mercury	6780-04-15 01:11 G	4197508.43	4197508.55	4197508.67	0.0542	0.0219
Mercury	6780-07-13 12:00 G	4197597.93	4197598.00	4197598.08	0.0541	0.0437
Venus	6780-07-20 14:09 G	4197604.93	4197605.09	4197605.26	0.0541	0.0316
Moon	6782-02-27 02:38 G	4198191.43	4198191.61	4198191.80	0.0526	0.0326
Earth	6782-02-27 05:31 G	4198191.57	4198191.73	4198191.91	0.0526	0.0353 *
Mercury	6786-02-28 00:14 G	4199653.45	4199653.51	4199653.58	0.0486	0.0444
Mercury	6786-05-28 22:33 G	4199743.28	4199743.44	4199743.60	0.0486	0.0169
Mercury	6792-02-02 03:07 G	4201818.54	4201818.63	4201818.72	0.0542	0.0400
Mercury	6792-05-01 14:23 G	4201907.99	4201908.10	4201908.22	0.0541	0.0263
Mercury	6798-03-16 22:19 G	4204053.26	4204053.43	4204053.60	0.0486	0.0013
Venus	6798-09-17 09:07 G	4204237.71	4204237.88	4204238.06	0.0488	0.0253
Mercury	6804-02-18 17:16 G	4206218.08	4206218.22	4206218.35	0.0542	0.0097
Venus	6804-07-23 18:28 G	4206374.14	4206374.27	4206374.40	0.0540	0.0416

Mars	6808-06-05 22:33 G	4207787.17	4207787.44	4207787.72	0.0492	0.0202
Mercury	6810-01-02 21:50 G	4208363.24	4208363.41	4208363.57	0.0486	0.0147
Mercury	6810-04-02 20:52 G	4208453.35	4208453.37	4208453.40	0.0486	0.0479
Venus	6810-05-23 12:43 G	4208503.83	4208504.03	4208504.24	0.0486	0.0092
Earth	6811-08-10 06:43 G	4208947.63	4208947.78	4208947.94	0.0495	0.0366
Moon	6811-08-10 08:52 G	4208947.72	4208947.87	4208948.02	0.0495	0.0387 *
Mercury	6815-12-07 20:09 G	4210528.20	4210528.34	4210528.47	0.0542	0.0068
Venus	6816-03-28 06:00 G	4210639.54	4210639.75	4210639.95	0.0541	0.0056
Mercury	6821-10-21 21:50 G	4212673.28	4212673.41	4212673.55	0.0486	0.0297
Mercury	6822-01-19 20:38 G	4212763.23	4212763.36	4212763.49	0.0486	0.0322
Venus	6822-01-26 18:14 G	4212770.17	4212770.26	4212770.36	0.0486	0.0425
Moon	6823-08-14 15:50 G	4213334.95	4213335.16	4213335.37	0.0497	0.0213
Earth	6823-08-14 18:57 G	4213335.07	4213335.29	4213335.51	0.0497	0.0185 *
Mars	6826-04-17 03:07 G	4214311.62	4214311.63	4214311.65	0.0534	0.0532
Mercury	6827-09-25 23:16 G	4214838.35	4214838.47	4214838.59	0.0542	0.0226
Venus	6827-12-01 17:45 G	4214905.19	4214905.24	4214905.28	0.0542	0.0525
Mercury	6827-12-24 10:19 G	4214927.85	4214927.93	4214928.01	0.0542	0.0431
Moon	6829-02-11 09:36 G	4215342.72	4215342.90	4215343.08	0.0533	0.0326
Earth	6829-02-11 12:43 G	4215342.86	4215343.03	4215343.21	0.0533	0.0349 *
Mercury	6833-08-09 21:50 G	4216983.35	4216983.41	4216983.48	0.0486	0.0447
Mercury	6833-11-07 20:09 G	4217073.18	4217073.34	4217073.50	0.0486	0.0164
Venus	6834-05-25 16:19 G	4217272.10	4217272.18	4217272.26	0.0488	0.0446
Earth	6835-08-19 08:23 G	4217722.62	4217722.85	4217723.09	0.0498	0.0007
Moon	6835-08-19 12:14 G	4217722.77	4217723.01	4217723.25	0.0499	0.0015 *
Mercury	6839-07-15 01:55 G	4219148.49	4219148.58	4219148.67	0.0542	0.0392
Mercury	6839-10-12 13:26 G	4219237.95	4219238.06	4219238.17	0.0542	0.0273
Earth	6841-02-16 12:00 G	4219730.77	4219731.00	4219731.22	0.0530	0.0124
Moon	6841-02-16 15:36 G	4219730.93	4219731.15	4219731.38	0.0530	0.0100 *
Mercury	6845-08-26 20:09 G	4221383.17	4221383.34	4221383.51	0.0486	0.0013
Venus	6846-01-28 21:50 G	4221538.21	4221538.41	4221538.61	0.0487	0.0110

Moon	6847-08-23 20:38 G	4222110.14	4222110.36	4222110.57	0.0500	0.0216
Earth	6847-08-24 00:00 G	4222110.28	4222110.50	4222110.72	0.0500	0.0189 *
Mercury	6851-07-31 15:50 G	4223548.03	4223548.16	4223548.29	0.0541	0.0100
Venus	6851-12-04 23:45 G	4223674.31	4223674.49	4223674.68	0.0540	0.0219
Moon	6853-02-21 02:52 G	4224118.39	4224118.62	4224118.85	0.0528	0.0067
Earth	6853-02-21 06:14 G	4224118.53	4224118.76	4224118.99	0.0528	0.0089 *
Mercury	6857-06-14 20:09 G	4225693.18	4225693.34	4225693.50	0.0486	0.0142
Mercury	6857-09-12 19:26 G	4225783.30	4225783.31	4225783.32	0.0486	0.0485
Venus	6857-10-04 02:52 G	4225804.44	4225804.62	4225804.80	0.0487	0.0229
Earth	6859-08-28 14:09 G	4226497.94	4226498.09	4226498.25	0.0502	0.0379
Moon	6859-08-28 16:33 G	4226498.04	4226498.19	4226498.35	0.0502	0.0367 *
Mars	6862-01-19 18:57 G	4227373.05	4227373.29	4227373.54	0.0535	0.0122
Mercury	6863-05-19 18:14 G	4227858.13	4227858.26	4227858.40	0.0542	0.0072
Venus	6863-08-09 09:50 G	4227939.73	4227939.91	4227940.08	0.0541	0.0263
Earth	6865-02-26 03:07 G	4228506.45	4228506.63	4228506.82	0.0527	0.0306
Moon	6865-02-26 04:48 G	4228506.52	4228506.70	4228506.89	0.0527	0.0285 *
Mercury	6869-04-02 19:40 G	4230003.19	4230003.32	4230003.46	0.0486	0.0298
Mercury	6869-07-01 18:28 G	4230093.14	4230093.27	4230093.40	0.0486	0.0320
Mercury	6875-03-07 21:07 G	4232168.25	4232168.38	4232168.50	0.0542	0.0238
Mercury	6875-06-05 08:09 G	4232257.76	4232257.84	4232257.92	0.0542	0.0421
Earth	6877-03-03 01:55 G	4232894.56	4232894.58	4232894.62	0.0525	0.0518
Mercury	6881-01-19 20:09 G	4234313.28	4234313.34	4234313.41	0.0485	0.0443
Mercury	6881-04-19 18:14 G	4234403.10	4234403.26	4234403.43	0.0486	0.0167
Venus	6881-10-06 05:16 G	4234572.56	4234572.72	4234572.88	0.0487	0.0303
Mercury	6886-12-25 00:00 G	4236478.41	4236478.50	4236478.59	0.0542	0.0398
Mercury	6887-03-24 11:31 G	4236567.87	4236567.98	4236568.10	0.0542	0.0269
Venus	6887-08-12 19:26 G	4236709.24	4236709.31	4236709.38	0.0540	0.0501
Mercury	6893-02-05 18:00 G	4238713.08	4238713.25	4238713.43	0.0486	0.0015
Venus	6893-06-11 10:19 G	4238838.73	4238838.93	4238839.14	0.0487	0.0035
Moon	6894-08-09 09:07 G	4239262.76	4239262.88	4239263.01	0.0495	0.0418

Earth	6894-08-09 12:14 G	4239262.87	4239263.01	4239263.15	0.0495	0.0393	*
Mercury	6899-01-10 14:38 G	4240877.98	4240878.11	4240878.24	0.0542	0.0111	
Venus	6899-04-17 06:57 G	4240974.58	4240974.79	4240974.99	0.0541	0.0030	
Mercury	6904-11-25 18:14 G	4243023.10	4243023.26	4243023.42	0.0486	0.0140	
Venus	6905-02-15 15:50 G	4243105.04	4243105.16	4243105.30	0.0486	0.0369	
Earth	6906-08-15 01:26 G	4243650.35	4243650.56	4243650.77	0.0496	0.0212	
Moon	6906-08-15 05:02 G	4243650.51	4243650.71	4243650.93	0.0496	0.0233	*
Mercury	6910-10-30 17:02 G	4245188.08	4245188.21	4245188.35	0.0542	0.0065	
Venus	6910-12-21 15:36 G	4245240.05	4245240.15	4245240.26	0.0541	0.0460	
Earth	6912-02-12 10:33 G	4245657.79	4245657.94	4245658.10	0.0533	0.0393	
Moon	6912-02-12 14:23 G	4245657.93	4245658.10	4245658.27	0.0533	0.0366	*
Mercury	6916-09-13 18:14 G	4247333.13	4247333.26	4247333.40	0.0486	0.0292	
Mercury	6916-12-12 17:02 G	4247423.08	4247423.21	4247423.34	0.0486	0.0328	
Moon	6918-08-19 10:33 G	4248037.70	4248037.94	4248038.18	0.0498	0.0010	
Earth	6918-08-19 14:09 G	4248037.86	4248038.09	4248038.33	0.0498	0.0029	*
Mercury	6922-08-18 19:40 G	4249498.20	4249498.32	4249498.44	0.0542	0.0234	
Mercury	6922-11-16 06:43 G	4249587.70	4249587.78	4249587.86	0.0541	0.0422	
Moon	6924-02-17 06:28 G	4250045.55	4250045.77	4250045.99	0.0531	0.0149	
Earth	6924-02-17 10:04 G	4250045.70	4250045.92	4250046.14	0.0531	0.0169	*
Mars	6926-11-24 08:38 G	4251056.63	4251056.86	4251057.11	0.0494	0.0300	
Mercury	6928-07-02 18:14 G	4251643.20	4251643.26	4251643.33	0.0486	0.0442	
Mercury	6928-09-30 16:19 G	4251733.02	4251733.18	4251733.35	0.0486	0.0168	
Venus	6929-02-17 18:28 G	4251873.08	4251873.27	4251873.46	0.0487	0.0163	
Earth	6930-08-23 23:31 G	4252425.26	4252425.48	4252425.71	0.0499	0.0149	
Moon	6930-08-24 02:09 G	4252425.38	4252425.59	4252425.81	0.0499	0.0175	*
Mercury	6934-06-06 22:04 G	4253808.33	4253808.42	4253808.51	0.0543	0.0406	
Mercury	6934-09-04 09:36 G	4253897.78	4253897.90	4253898.02	0.0542	0.0261	
Venus	6934-12-24 22:48 G	4254009.28	4254009.45	4254009.62	0.0541	0.0292	
Earth	6936-02-22 10:48 G	4254433.73	4254433.95	4254434.18	0.0530	0.0056	
Moon	6936-02-22 12:57 G	4254433.82	4254434.04	4254434.26	0.0530	0.0028	*

Mercury	6940-07-19 16:33 G	4256043.02	4256043.19	4256043.36	0.0486	0.0017
Venus	6940-10-24 00:14 G	4256139.32	4256139.51	4256139.70	0.0486	0.0173
Moon	6942-08-28 13:11 G	4256812.87	4256813.05	4256813.24	0.0501	0.0325
Earth	6942-08-28 14:38 G	4256812.94	4256813.11	4256813.29	0.0501	0.0339 *
Mercury	6946-06-23 12:57 G	4258207.91	4258208.04	4258208.17	0.0542	0.0107
Venus	6946-08-29 10:48 G	4258274.76	4258274.95	4258275.15	0.0542	0.0179
Moon	6948-02-27 10:19 G	4258821.72	4258821.93	4258822.14	0.0527	0.0254
Earth	6948-02-27 10:33 G	4258821.75	4258821.94	4258822.14	0.0527	0.0274 *
Mercury	6952-05-07 16:19 G	4260353.02	4260353.18	4260353.35	0.0486	0.0138
Mercury	6958-04-11 16:04 G	4262518.04	4262518.17	4262518.30	0.0542	0.0053
Moon	6960-03-03 06:14 G	4263209.71	4263209.76	4263209.81	0.0525	0.0510
Earth	6960-03-03 07:26 G	4263209.73	4263209.81	4263209.90	0.0525	0.0485 *
Mars	6962-08-31 18:28 G	4264121.10	4264121.27	4264121.46	0.0492	0.0394
Mercury	6964-02-24 16:48 G	4264663.06	4264663.20	4264663.33	0.0486	0.0286
Mercury	6964-05-24 15:21 G	4264753.01	4264753.14	4264753.26	0.0486	0.0332
Venus	6964-10-26 03:50 G	4264907.53	4264907.66	4264907.80	0.0487	0.0367
Mercury	6970-01-28 18:28 G	4266828.15	4266828.27	4266828.39	0.0542	0.0224
Mercury	6970-04-28 05:31 G	4266917.65	4266917.73	4266917.81	0.0541	0.0432
Mercury	6975-12-13 16:48 G	4268973.13	4268973.20	4268973.28	0.0486	0.0435
Mercury	6976-03-12 15:07 G	4269062.97	4269063.13	4269063.29	0.0486	0.0176
Venus	6976-07-01 09:07 G	4269173.68	4269173.88	4269174.09	0.0487	0.0030
Earth	6977-08-09 19:40 G	4269578.20	4269578.32	4269578.45	0.0494	0.0415
Moon	6977-08-09 23:16 G	4269578.37	4269578.47	4269578.58	0.0494	0.0441 *
Mars	6980-07-12 01:55 G	4270645.40	4270645.58	4270645.77	0.0534	0.0359
Mercury	6981-11-16 20:52 G	4271138.28	4271138.37	4271138.46	0.0542	0.0397
Mercury	6982-02-14 08:23 G	4271227.74	4271227.85	4271227.97	0.0542	0.0268
Venus	6982-05-07 04:48 G	4271309.50	4271309.70	4271309.90	0.0541	0.0094
Mercury	6987-12-30 14:38 G	4273372.94	4273373.11	4273373.29	0.0486	0.0025
Venus	6988-03-06 13:55 G	4273439.93	4273440.08	4273440.24	0.0486	0.0310
Moon	6989-08-14 00:14 G	4273965.32	4273965.51	4273965.72	0.0495	0.0263

Earth	6989-08-14 04:04 G	4273965.47	4273965.67	4273965.88	0.0495	0.0245	*
Mercury	6993-12-03 11:02 G	4275537.83	4275537.96	4275538.09	0.0542	0.0102	
Venus	6994-01-09 14:23 G	4275574.96	4275575.10	4275575.24	0.0542	0.0389	
Moon	6995-02-11 10:48 G	4275972.81	4275972.95	4275973.11	0.0534	0.0403	
Earth	6995-02-11 14:38 G	4275972.98	4275973.11	4275973.25	0.0534	0.0430	*
Mercury	6999-10-18 15:07 G	4277682.96	4277683.13	4277683.29	0.0485	0.0128	

8TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 8th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	7001-08-19 16:48 G		4278352.97	4278353.20	4278353.44	0.0497	0.0064	
Moon	7001-08-19 19:26 G		4278353.08	4278353.31	4278353.54	0.0497	0.0038	*
Mercury	7005-09-22 14:23 G		4279847.96	4279848.10	4279848.23	0.0543	0.0057	
Earth	7007-02-17 17:45 G		4280361.02	4280361.24	4280361.45	0.0532	0.0200	
Moon	7007-02-17 20:09 G		4280361.13	4280361.34	4280361.55	0.0532	0.0189	*
Mercury	7011-08-07 15:07 G		4281992.99	4281993.13	4281993.27	0.0485	0.0280	
Mercury	7011-11-05 13:40 G		4282082.95	4282083.07	4282083.19	0.0486	0.0338	
Venus	7012-03-09 17:31 G		4282208.05	4282208.23	4282208.41	0.0487	0.0227	
Moon	7013-08-24 05:31 G		4282740.50	4282740.73	4282740.96	0.0499	0.0145	
Earth	7013-08-24 06:57 G		4282740.56	4282740.79	4282741.02	0.0499	0.0122	*
Mars	7016-04-16 20:38 G		4283707.16	4283707.36	4283707.56	0.0536	0.0310	
Mercury	7017-07-11 17:31 G		4284158.10	4284158.23	4284158.35	0.0542	0.0215	
Mercury	7017-10-09 04:33 G		4284247.62	4284247.69	4284247.77	0.0542	0.0444	

Venus	7018-01-14 01:40 G	4284344.44	4284344.57	4284344.72	0.0541	0.0386
Moon	7019-02-22 17:16 G	4284748.99	4284749.22	4284749.46	0.0530	0.0012
Earth	7019-02-22 18:14 G	4284749.03	4284749.26	4284749.49	0.0530	0.0027 *
Mercury	7023-05-26 15:36 G	4286303.07	4286303.15	4286303.23	0.0486	0.0426
Mercury	7023-08-24 13:40 G	4286392.91	4286393.07	4286393.23	0.0486	0.0184
Venus	7023-11-13 23:16 G	4286474.27	4286474.47	4286474.67	0.0486	0.0109
Moon	7025-08-28 23:02 G	4287128.28	4287128.46	4287128.64	0.0501	0.0297
Earth	7025-08-28 23:16 G	4287128.29	4287128.47	4287128.66	0.0501	0.0314 *
Mercury	7029-04-29 19:55 G	4288468.24	4288468.33	4288468.42	0.0542	0.0385
Mercury	7029-07-28 07:26 G	4288557.70	4288557.81	4288557.92	0.0542	0.0280
Venus	7029-09-18 11:45 G	4288609.79	4288609.99	4288610.19	0.0541	0.0098
Moon	7031-02-27 12:14 G	4289136.82	4289137.01	4289137.22	0.0527	0.0222
Earth	7031-02-27 13:11 G	4289136.85	4289137.05	4289137.26	0.0527	0.0238 *
Mercury	7035-06-12 13:26 G	4290702.89	4290703.06	4290703.24	0.0486	0.0033
Venus	7035-07-20 04:48 G	4290740.62	4290740.70	4290740.78	0.0486	0.0444
Moon	7037-09-02 17:31 G	4291516.17	4291516.23	4291516.30	0.0503	0.0482
Mercury	7041-05-16 10:04 G	4292867.79	4292867.92	4292868.06	0.0542	0.0116
Earth	7043-03-04 10:04 G	4293524.80	4293524.92	4293525.04	0.0526	0.0448
Moon	7043-03-04 12:43 G	4293524.94	4293525.03	4293525.14	0.0526	0.0476 *
Mercury	7047-03-31 13:40 G	4295012.90	4295013.07	4295013.23	0.0485	0.0122
Venus	7047-11-16 02:38 G	4295242.52	4295242.61	4295242.71	0.0487	0.0430
Mercury	7053-03-04 12:28 G	4297177.89	4297178.02	4297178.16	0.0543	0.0061
Mercury	7059-01-17 13:55 G	4299322.94	4299323.08	4299323.23	0.0485	0.0267
Mercury	7059-04-17 12:28 G	4299412.91	4299413.02	4299413.14	0.0486	0.0350
Venus	7059-07-22 08:23 G	4299508.65	4299508.85	4299509.05	0.0486	0.0094
Moon	7060-08-09 21:36 G	4299893.33	4299893.40	4299893.47	0.0493	0.0472
Earth	7060-08-10 00:57 G	4299893.45	4299893.54	4299893.65	0.0493	0.0444 *
Mercury	7064-12-21 15:36 G	4301488.03	4301488.15	4301488.28	0.0543	0.0217
Mercury	7065-03-21 02:52 G	4301577.55	4301577.62	4301577.70	0.0542	0.0444
Venus	7065-05-27 06:28 G	4301644.58	4301644.77	4301644.96	0.0542	0.0184

Mercury	7070-11-05 14:09 G	4303633.01	4303633.09	4303633.18	0.0485	0.0416
Mercury	7071-02-03 12:14 G	4303722.85	4303723.01	4303723.17	0.0486	0.0193
Venus	7071-03-27 13:40 G	4303774.89	4303775.07	4303775.25	0.0486	0.0244
Earth	7072-08-14 12:28 G	4304280.83	4304281.02	4304281.22	0.0495	0.0268
Moon	7072-08-14 15:07 G	4304280.94	4304281.13	4304281.32	0.0495	0.0277 *
Mercury	7076-10-09 18:43 G	4305798.19	4305798.28	4305798.38	0.0543	0.0376
Mercury	7077-01-07 06:28 G	4305887.66	4305887.77	4305887.88	0.0542	0.0291
Venus	7077-01-29 18:28 G	4305910.10	4305910.27	4305910.44	0.0542	0.0291
Earth	7078-02-11 23:02 G	4306288.34	4306288.46	4306288.58	0.0534	0.0456
Moon	7078-02-12 01:40 G	4306288.44	4306288.57	4306288.71	0.0534	0.0425 *
Mars	7081-02-18 18:43 G	4307390.98	4307391.28	4307391.58	0.0493	0.0076
Mercury	7082-11-22 12:14 G	4308032.84	4308033.01	4308033.18	0.0486	0.0042
Moon	7084-08-19 01:11 G	4308668.31	4308668.55	4308668.79	0.0497	0.0058
Earth	7084-08-19 02:38 G	4308668.38	4308668.61	4308668.84	0.0497	0.0085 *
Mercury	7088-10-26 09:21 G	4310197.76	4310197.89	4310198.02	0.0542	0.0128
Moon	7090-02-16 20:38 G	4310676.15	4310676.36	4310676.58	0.0532	0.0226
Earth	7090-02-16 21:50 G	4310676.21	4310676.41	4310676.62	0.0532	0.0234 *
Mercury	7094-09-10 12:28 G	4312342.85	4312343.02	4312343.18	0.0486	0.0111
Venus	7095-03-29 17:45 G	4312543.08	4312543.24	4312543.40	0.0487	0.0297
Moon	7096-08-23 16:04 G	4313055.95	4313056.17	4313056.40	0.0499	0.0119
Earth	7096-08-23 16:19 G	4313055.95	4313056.18	4313056.42	0.0499	0.0101 *
Mercury	7100-08-15 12:00 G	4314507.86	4314508.00	4314508.13	0.0542	0.0041
Venus	7101-02-03 01:40 G	4314679.47	4314679.57	4314679.68	0.0540	0.0462
Moon	7102-02-22 20:23 G	4315064.13	4315064.35	4315064.58	0.0530	0.0045
Earth	7102-02-22 21:07 G	4315064.15	4315064.38	4315064.61	0.0530	0.0013 *
Mercury	7106-06-30 12:43 G	4316652.89	4316653.03	4316653.17	0.0485	0.0258
Mercury	7106-09-28 11:02 G	4316742.85	4316742.96	4316743.08	0.0486	0.0360
Venus	7106-12-03 23:02 G	4316809.26	4316809.46	4316809.66	0.0486	0.0040
Earth	7108-08-29 03:36 G	4317443.46	4317443.65	4317443.85	0.0500	0.0278
Moon	7108-08-29 06:00 G	4317443.54	4317443.75	4317443.96	0.0500	0.0254 *

Mercury	7112-06-03 13:55 G	4318817.96	4318818.08	4318818.21	0.0543	0.0218
Mercury	7112-09-01 01:26 G	4318907.48	4318907.56	4318907.63	0.0542	0.0444
Venus	7112-10-08 11:02 G	4318944.75	4318944.96	4318945.16	0.0542	0.0023
Earth	7114-02-27 19:55 G	4319452.12	4319452.33	4319452.54	0.0529	0.0203
Moon	7114-02-27 22:19 G	4319452.21	4319452.43	4319452.65	0.0529	0.0195 *
Mercury	7118-04-18 13:11 G	4320962.96	4320963.05	4320963.15	0.0485	0.0401
Mercury	7118-07-17 11:16 G	4321052.82	4321052.97	4321053.13	0.0485	0.0208
Venus	7118-08-09 05:02 G	4321075.59	4321075.71	4321075.85	0.0485	0.0374
Moon	7120-09-02 15:07 G	4321831.04	4321831.13	4321831.25	0.0502	0.0450
Earth	7120-09-02 18:57 G	4321831.21	4321831.29	4321831.38	0.0502	0.0467 *
Mercury	7124-03-22 17:02 G	4323128.11	4323128.21	4323128.31	0.0543	0.0378
Venus	7124-06-12 22:48 G	4323210.37	4323210.45	4323210.53	0.0543	0.0497
Mercury	7124-06-20 04:48 G	4323217.59	4323217.70	4323217.81	0.0543	0.0291
Moon	7126-03-04 16:04 G	4323840.06	4323840.17	4323840.29	0.0526	0.0450
Earth	7126-03-04 19:55 G	4323840.19	4323840.33	4323840.47	0.0526	0.0418 *
Mercury	7130-05-05 11:02 G	4325362.79	4325362.96	4325363.13	0.0485	0.0052
Mars	7134-10-08 07:11 G	4326979.56	4326979.80	4326980.04	0.0535	0.0165
Mercury	7136-01-09 19:55 G	4327438.32	4327438.33	4327438.35	0.0543	0.0539
Mercury	7136-04-08 08:09 G	4327527.71	4327527.84	4327527.97	0.0543	0.0137
Mercury	7142-02-21 11:16 G	4329672.80	4329672.97	4329673.14	0.0485	0.0098
Venus	7142-08-11 08:23 G	4329843.66	4329843.85	4329844.05	0.0487	0.0163
Earth	7143-08-11 11:16 G	4330208.89	4330208.97	4330209.05	0.0493	0.0462
Moon	7143-08-11 13:55 G	4330209.08	4330209.08	4330209.08	0.0493	0.0493
Mercury	7148-01-26 11:02 G	4331837.83	4331837.96	4331838.10	0.0542	0.0027
Venus	7148-06-16 09:07 G	4331979.71	4331979.88	4331980.06	0.0541	0.0275
Mercury	7153-12-10 11:31 G	4333982.84	4333982.98	4333983.13	0.0486	0.0247
Mercury	7154-03-10 10:04 G	4334072.81	4334072.92	4334073.03	0.0486	0.0371
Venus	7154-04-16 14:09 G	4334109.90	4334110.09	4334110.28	0.0486	0.0173
Moon	7155-08-15 21:50 G	4334596.22	4334596.41	4334596.61	0.0495	0.0291
Earth	7155-08-15 23:16 G	4334596.28	4334596.47	4334596.66	0.0495	0.0287 *

Mercury	7159-11-14 13:40 G	4336147.94	4336148.07	4336148.19	0.0542	0.0196
Mercury	7160-02-12 00:43 G	4336237.47	4336237.53	4336237.60	0.0542	0.0462
Venus	7160-02-19 19:11 G	4336245.11	4336245.30	4336245.49	0.0542	0.0209
Moon	7161-02-12 00:28 G	4336603.41	4336603.52	4336603.65	0.0534	0.0456
Earth	7161-02-12 02:23 G	4336603.51	4336603.60	4336603.69	0.0534	0.0491 *
Mercury	7165-09-28 12:00 G	4338292.91	4338293.00	4338293.10	0.0485	0.0391
Mercury	7165-12-27 10:04 G	4338382.77	4338382.92	4338383.07	0.0485	0.0219
Earth	7167-08-20 09:36 G	4338983.67	4338983.90	4338984.13	0.0496	0.0115
Moon	7167-08-20 09:21 G	4338983.67	4338983.89	4338984.12	0.0496	0.0088 *
Mars	7170-07-12 19:26 G	4340041.22	4340041.31	4340041.41	0.0536	0.0490
Mercury	7171-09-02 15:36 G	4340458.05	4340458.15	4340458.24	0.0543	0.0377
Mercury	7171-12-01 03:07 G	4340547.52	4340547.63	4340547.75	0.0543	0.0293
Earth	7173-02-17 02:09 G	4340991.40	4340991.59	4340991.79	0.0533	0.0273
Moon	7173-02-17 02:09 G	4340991.40	4340991.59	4340991.78	0.0533	0.0269 *
Mercury	7177-10-15 10:19 G	4342692.76	4342692.93	4342693.10	0.0485	0.0069
Venus	7178-04-18 18:14 G	4342878.13	4342878.26	4342878.39	0.0487	0.0370
Earth	7179-08-24 22:33 G	4343371.21	4343371.44	4343371.67	0.0498	0.0068
Moon	7179-08-25 00:43 G	4343371.29	4343371.53	4343371.77	0.0498	0.0078 *
Mercury	7183-06-21 18:14 G	4344768.26	4344768.26	4344768.27	0.0543	0.0541
Mercury	7183-09-19 06:28 G	4344857.64	4344857.77	4344857.90	0.0543	0.0136
Earth	7185-02-22 05:02 G	4345379.48	4345379.71	4345379.94	0.0531	0.0045
Moon	7185-02-22 07:11 G	4345379.57	4345379.80	4345380.04	0.0531	0.0076 *
Mercury	7189-08-03 10:04 G	4347002.76	4347002.92	4347003.09	0.0485	0.0087
Venus	7189-12-22 23:16 G	4347144.27	4347144.47	4347144.68	0.0486	0.0030
Moon	7191-08-29 09:07 G	4347758.67	4347758.88	4347759.09	0.0500	0.0224
Earth	7191-08-29 12:43 G	4347758.82	4347759.03	4347759.23	0.0500	0.0253 *
Mercury	7195-07-08 09:50 G	4349167.78	4349167.91	4349168.05	0.0543	0.0019
Venus	7195-10-28 15:36 G	4349279.95	4349280.15	4349280.35	0.0542	0.0081
Moon	7197-02-27 02:23 G	4349767.39	4349767.60	4349767.82	0.0529	0.0178
Earth	7197-02-27 06:00 G	4349767.54	4349767.75	4349767.97	0.0529	0.0178 *

Mercury	7201-05-22 10:33 G	4351312.79	4351312.94	4351313.09	0.0485	0.0234
Mercury	7201-08-20 08:52 G	4351402.77	4351402.87	4351402.98	0.0486	0.0384
Venus	7201-08-28 05:16 G	4351410.56	4351410.72	4351410.88	0.0486	0.0306
Earth	7203-09-03 05:02 G	4352146.61	4352146.71	4352146.82	0.0502	0.0444
Moon	7203-09-03 09:07 G	4352146.77	4352146.88	4352147.01	0.0502	0.0431 *
Mercury	7207-04-26 12:43 G	4353477.90	4353478.03	4353478.16	0.0542	0.0183
Venus	7207-07-03 02:09 G	4353545.46	4353545.59	4353545.73	0.0542	0.0401
Mercury	7207-07-25 00:00 G	4353567.44	4353567.50	4353567.56	0.0542	0.0475
Earth	7209-03-04 02:23 G	4354155.44	4354155.60	4354155.75	0.0527	0.0387
Moon	7209-03-04 06:00 G	4354155.62	4354155.75	4354155.89	0.0527	0.0422 *
Mercury	7213-03-10 10:48 G	4355622.85	4355622.95	4355623.05	0.0486	0.0381
Mercury	7213-06-08 08:52 G	4355712.72	4355712.87	4355713.02	0.0486	0.0229
Mercury	7219-02-12 15:07 G	4357788.03	4357788.13	4357788.23	0.0542	0.0354
Mercury	7219-05-13 02:52 G	4357877.51	4357877.62	4357877.72	0.0542	0.0313
Mercury	7225-03-27 09:07 G	4360022.71	4360022.88	4360023.05	0.0485	0.0080
Venus	7225-08-30 08:52 G	4360178.70	4360178.87	4360179.06	0.0486	0.0238
Earth	7226-08-10 20:09 G	4360524.31	4360524.34	4360524.38	0.0493	0.0486
Mercury	7230-12-01 16:48 G	4362098.19	4362098.20	4362098.21	0.0543	0.0540
Mercury	7231-03-01 05:02 G	4362187.58	4362187.71	4362187.84	0.0543	0.0138
Venus	7231-07-06 07:55 G	4362314.68	4362314.83	4362314.98	0.0542	0.0350
Mars	7235-05-17 11:31 G	4363725.70	4363725.98	4363726.27	0.0493	0.0166
Mercury	7237-01-13 09:21 G	4364332.72	4364332.89	4364333.06	0.0485	0.0069
Venus	7237-05-05 15:07 G	4364444.93	4364445.13	4364445.33	0.0486	0.0099
Moon	7238-08-15 07:11 G	4364911.62	4364911.80	4364911.97	0.0494	0.0314
Earth	7238-08-15 07:11 G	4364911.62	4364911.80	4364911.99	0.0494	0.0313 *
Mercury	7242-12-18 08:09 G	4366497.70	4366497.84	4366497.97	0.0543	0.0029
Venus	7243-03-10 19:26 G	4366580.11	4366580.31	4366580.51	0.0542	0.0127
Moon	7244-02-12 07:55 G	4366918.75	4366918.83	4366918.91	0.0536	0.0495
Earth	7244-02-12 07:26 G	4366918.79	4366918.81	4366918.86	0.0536	0.0528 *
Mercury	7248-11-01 09:21 G	4368642.74	4368642.89	4368643.04	0.0485	0.0222

Venus	7249-01-08 20:23 G	4368711.26	4368711.35	4368711.43	0.0485	0.0438
Mercury	7249-01-30 07:40 G	4368732.73	4368732.82	4368732.92	0.0485	0.0396
Earth	7250-08-19 18:14 G	4369299.03	4369299.26	4369299.49	0.0496	0.0138
Moon	7250-08-19 20:09 G	4369299.11	4369299.34	4369299.58	0.0496	0.0109 *
Mercury	7254-10-06 11:16 G	4370807.84	4370807.97	4370808.10	0.0543	0.0179
Mercury	7255-01-03 22:33 G	4370897.38	4370897.44	4370897.50	0.0542	0.0482
Earth	7256-02-17 12:00 G	4371306.81	4371307.00	4371307.19	0.0534	0.0297
Moon	7256-02-17 13:40 G	4371306.88	4371307.07	4371307.27	0.0534	0.0299 *
Mercury	7260-08-20 09:50 G	4372952.80	4372952.91	4372953.02	0.0485	0.0368
Mercury	7260-11-18 07:40 G	4373042.68	4373042.82	4373042.97	0.0485	0.0242
Venus	7261-05-07 18:14 G	4373213.18	4373213.26	4373213.35	0.0487	0.0439
Moon	7262-08-24 04:48 G	4373686.47	4373686.70	4373686.93	0.0498	0.0047
Earth	7262-08-24 08:09 G	4373686.61	4373686.84	4373687.08	0.0498	0.0047 *
Mercury	7266-07-25 14:09 G	4375117.98	4375118.09	4375118.19	0.0543	0.0343
Mercury	7266-10-23 01:40 G	4375207.47	4375207.57	4375207.68	0.0542	0.0324
Moon	7268-02-22 08:23 G	4375694.63	4375694.85	4375695.07	0.0531	0.0107
Earth	7268-02-22 11:45 G	4375694.76	4375694.99	4375695.22	0.0531	0.0075 *
Mercury	7272-09-06 07:40 G	4377352.65	4377352.82	4377352.99	0.0486	0.0089
Venus	7273-01-10 23:45 G	4377479.29	4377479.49	4377479.69	0.0486	0.0101
Earth	7274-08-28 22:48 G	4378074.24	4378074.45	4378074.66	0.0500	0.0231
Moon	7274-08-29 02:52 G	4378074.40	4378074.62	4378074.84	0.0500	0.0200 *
Mercury	7278-05-13 16:33 G	4379428.15	4379428.19	4379428.23	0.0542	0.0515
Mercury	7278-08-11 04:33 G	4379517.56	4379517.69	4379517.82	0.0542	0.0159
Venus	7278-11-16 16:33 G	4379615.00	4379615.19	4379615.39	0.0541	0.0166
Earth	7280-02-27 10:04 G	4380082.70	4380082.92	4380083.15	0.0529	0.0142
Moon	7280-02-27 13:55 G	4380082.86	4380083.08	4380083.30	0.0529	0.0152 *
Mercury	7284-06-25 08:09 G	4381662.67	4381662.84	4381663.01	0.0485	0.0059
Venus	7284-09-16 05:45 G	4381745.56	4381745.74	4381745.92	0.0486	0.0233
Moon	7286-09-02 07:55 G	4382461.70	4382461.83	4382461.99	0.0501	0.0395
Earth	7286-09-02 11:45 G	4382461.87	4382461.99	4382462.14	0.0501	0.0410 *

Mars	7289-01-01 07:26 G	4383313.56	4383313.81	4383314.07	0.0534	0.0019
Mercury	7290-05-30 06:28 G	4383827.64	4383827.77	4383827.91	0.0543	0.0022
Venus	7290-07-22 00:00 G	4383880.34	4383880.50	4383880.66	0.0543	0.0334
Moon	7292-03-03 03:07 G	4384470.47	4384470.63	4384470.79	0.0528	0.0381
Earth	7292-03-03 06:28 G	4384470.60	4384470.77	4384470.94	0.0528	0.0348 *
Mercury	7296-04-13 08:38 G	4385972.71	4385972.86	4385973.01	0.0485	0.0205
Mercury	7296-07-12 06:57 G	4386062.71	4386062.79	4386062.88	0.0485	0.0413
Mercury	7302-03-19 09:21 G	4388137.77	4388137.89	4388138.02	0.0543	0.0184
Mercury	7302-06-16 20:38 G	4388227.31	4388227.36	4388227.43	0.0543	0.0478
Mercury	7308-02-01 08:38 G	4390282.75	4390282.86	4390282.97	0.0485	0.0357
Mercury	7308-05-01 06:28 G	4390372.63	4390372.77	4390372.92	0.0485	0.0252
Venus	7308-09-19 08:38 G	4390513.70	4390513.86	4390514.02	0.0486	0.0304
Mercury	7314-01-05 12:28 G	4392447.92	4392448.02	4392448.13	0.0543	0.0343
Mercury	7314-04-05 00:14 G	4392537.41	4392537.51	4392537.62	0.0543	0.0327
Venus	7314-07-26 11:45 G	4392649.88	4392649.99	4392650.10	0.0542	0.0448
Mercury	7320-02-18 06:28 G	4394682.61	4394682.77	4394682.94	0.0485	0.0100
Venus	7320-05-25 14:38 G	4394779.90	4394780.11	4394780.31	0.0486	0.0035
Earth	7321-08-15 16:04 G	4395226.99	4395227.17	4395227.34	0.0494	0.0334
Moon	7321-08-15 17:45 G	4395227.07	4395227.24	4395227.43	0.0494	0.0326 *
Mercury	7325-10-24 15:21 G	4396758.09	4396758.14	4396758.18	0.0543	0.0508
Mercury	7326-01-22 03:21 G	4396847.52	4396847.64	4396847.77	0.0542	0.0168
Venus	7326-03-30 22:48 G	4396915.25	4396915.45	4396915.65	0.0542	0.0031
Moon	7327-02-12 15:07 G	4397234.09	4397234.13	4397234.19	0.0535	0.0522
Mercury	7331-12-07 06:28 G	4398992.61	4398992.77	4398992.94	0.0485	0.0055
Venus	7332-01-29 20:09 G	4399046.21	4399046.34	4399046.47	0.0486	0.0371
Moon	7333-08-20 00:57 G	4399614.32	4399614.54	4399614.76	0.0496	0.0130
Earth	7333-08-20 04:19 G	4399614.46	4399614.68	4399614.90	0.0496	0.0158 *
Mercury	7337-11-10 06:00 G	4401157.62	4401157.75	4401157.89	0.0542	0.0018
Venus	7337-12-03 08:38 G	4401180.81	4401180.86	4401180.92	0.0542	0.0519
Moon	7339-02-17 12:00 G	4401621.83	4401622.00	4401622.18	0.0534	0.0343

Earth	7339-02-17 15:07 G	4401621.95	4401622.13	4401622.31	0.0534	0.0332 *
Mercury	7343-09-25 07:11 G	4403302.64	4403302.80	4403302.95	0.0485	0.0198
Mercury	7343-12-24 05:31 G	4403392.65	4403392.73	4403392.82	0.0486	0.0421
Earth	7345-08-24 16:04 G	4404001.94	4404002.17	4404002.41	0.0497	0.0018
Moon	7345-08-24 20:09 G	4404002.11	4404002.34	4404002.58	0.0497	0.0012 *
Mercury	7349-08-29 07:55 G	4405467.70	4405467.83	4405467.95	0.0543	0.0184
Mercury	7349-11-26 19:11 G	4405557.24	4405557.30	4405557.36	0.0542	0.0477
Earth	7351-02-22 12:14 G	4406009.79	4406010.01	4406010.23	0.0533	0.0120
Moon	7351-02-22 16:04 G	4406009.95	4406010.17	4406010.39	0.0533	0.0150 *
Mars	7353-11-04 10:33 G	4406995.72	4406995.94	4406996.18	0.0495	0.0319
Mercury	7355-07-14 07:40 G	4407612.70	4407612.82	4407612.94	0.0485	0.0343
Mercury	7355-10-12 05:31 G	4407702.59	4407702.73	4407702.88	0.0485	0.0268
Venus	7356-02-01 00:14 G	4407814.32	4407814.51	4407814.70	0.0486	0.0173
Moon	7357-08-29 01:11 G	4408389.32	4408389.55	4408389.78	0.0498	0.0166
Earth	7357-08-29 05:02 G	4408389.49	4408389.71	4408389.93	0.0498	0.0199 *
Mercury	7361-06-17 10:33 G	4409777.83	4409777.94	4409778.04	0.0543	0.0351
Mercury	7361-09-14 22:19 G	4409867.32	4409867.43	4409867.54	0.0543	0.0319
Venus	7361-12-06 14:52 G	4409949.94	4409950.12	4409950.30	0.0542	0.0236
Moon	7363-02-27 10:19 G	4410397.70	4410397.93	4410398.16	0.0531	0.0110
Earth	7363-02-27 13:40 G	4410397.85	4410398.07	4410398.30	0.0531	0.0102 *
Mercury	7367-07-31 05:02 G	4412012.55	4412012.71	4412012.88	0.0485	0.0109
Venus	7367-10-07 04:48 G	4412080.51	4412080.70	4412080.89	0.0485	0.0170
Earth	7369-09-02 17:45 G	4412777.09	4412777.24	4412777.39	0.0500	0.0380
Moon	7369-09-02 20:09 G	4412777.20	4412777.34	4412777.50	0.0500	0.0373 *
Mercury	7373-04-05 13:26 G	4414088.02	4414088.06	4414088.11	0.0543	0.0512
Mercury	7373-07-04 01:40 G	4414177.44	4414177.57	4414177.70	0.0543	0.0166
Venus	7373-08-11 03:07 G	4414215.45	4414215.63	4414215.81	0.0543	0.0241
Earth	7375-03-04 14:38 G	4414785.93	4414786.11	4414786.29	0.0528	0.0320
Moon	7375-03-04 16:33 G	4414786.03	4414786.19	4414786.36	0.0528	0.0353 *
Mercury	7379-05-19 05:16 G	4416322.55	4416322.72	4416322.89	0.0485	0.0044

Mercury	7385-04-22 04:48 G	4418487.56	4418487.70	4418487.83	0.0543	0.0008
Moon	7387-03-09 11:31 G	4419173.95	4419173.98	4419174.03	0.0526	0.0516
Earth	7387-03-09 11:31 G	4419173.97	4419173.98	4419173.98	0.0526	0.0525 *
Mars	7389-08-11 15:36 G	4420059.96	4420060.15	4420060.35	0.0493	0.0376
Mercury	7391-03-07 05:16 G	4420632.57	4420632.72	4420632.88	0.0485	0.0195
Mercury	7391-06-05 03:50 G	4420722.58	4420722.66	4420722.74	0.0486	0.0424
Venus	7391-10-09 08:09 G	4420848.71	4420848.84	4420848.97	0.0487	0.0371
Mercury	7397-02-08 07:26 G	4422797.68	4422797.81	4422797.94	0.0542	0.0164
Mercury	7397-05-08 18:43 G	4422887.23	4422887.28	4422887.33	0.0542	0.0496
Venus	7397-08-14 12:00 G	4422984.96	4422985.00	4422985.04	0.0541	0.0528
Mercury	7402-12-25 06:00 G	4424942.63	4424942.75	4424942.87	0.0485	0.0338
Mercury	7403-03-25 03:50 G	4425032.53	4425032.66	4425032.81	0.0485	0.0274
Venus	7403-06-15 14:23 G	4425114.89	4425115.10	4425115.30	0.0486	0.0036
Moon	7404-08-15 21:07 G	4425542.22	4425542.38	4425542.55	0.0493	0.0344
Earth	7404-08-16 00:28 G	4425542.37	4425542.52	4425542.69	0.0493	0.0359 *
Mars	7407-06-25 17:16 G	4426586.11	4426586.22	4426586.35	0.0532	0.0464
Mercury	7408-11-28 08:52 G	4427107.77	4427107.87	4427107.97	0.0543	0.0351
Mercury	7409-02-25 20:38 G	4427197.26	4427197.36	4427197.47	0.0542	0.0318
Venus	7409-04-19 19:11 G	4427250.09	4427250.30	4427250.50	0.0542	0.0030
Mercury	7414-10-13 06:43 G	4429252.77	4429252.78	4429252.80	0.0485	0.0482
Mercury	7415-01-11 04:04 G	4429342.50	4429342.67	4429342.84	0.0485	0.0121
Venus	7415-02-18 20:09 G	4429381.18	4429381.34	4429381.50	0.0485	0.0302
Earth	7416-08-20 11:02 G	4429929.74	4429929.96	4429930.18	0.0495	0.0186
Moon	7416-08-20 15:07 G	4429929.91	4429930.13	4429930.35	0.0495	0.0158 *
Mercury	7420-09-16 11:16 G	4431417.94	4431417.97	4431418.01	0.0543	0.0522
Mercury	7420-12-14 23:31 G	4431507.35	4431507.48	4431507.61	0.0543	0.0157
Venus	7420-12-23 05:31 G	4431515.62	4431515.73	4431515.84	0.0543	0.0459
Earth	7422-02-17 14:38 G	4431936.95	4431937.11	4431937.28	0.0535	0.0378
Moon	7422-02-17 18:28 G	4431937.12	4431937.27	4431937.43	0.0535	0.0395 *
Mercury	7426-10-30 03:36 G	4433652.48	4433652.65	4433652.82	0.0485	0.0040

Moon	7428-08-24 17:02 G	4434316.97	4434317.21	4434317.45	0.0496	0.0018
Earth	7428-08-24 20:52 G	4434317.14	4434317.37	4434317.61	0.0496	0.0012 *
Mercury	7432-10-03 02:52 G	4435817.48	4435817.62	4435817.75	0.0543	0.0001
Moon	7434-02-22 15:07 G	4436324.91	4436325.13	4436325.35	0.0533	0.0181
Earth	7434-02-22 18:43 G	4436325.06	4436325.28	4436325.50	0.0533	0.0150 *
Mercury	7438-08-18 03:50 G	4437962.51	4437962.66	4437962.82	0.0485	0.0188
Mercury	7438-11-16 02:23 G	4438052.52	4438052.60	4438052.67	0.0485	0.0430
Venus	7439-02-20 22:04 G	4438149.24	4438149.42	4438149.60	0.0486	0.0231
Earth	7440-08-29 10:19 G	4438704.71	4438704.93	4438705.15	0.0498	0.0170
Moon	7440-08-29 12:57 G	4438704.82	4438705.04	4438705.26	0.0498	0.0141 *
Mars	7443-03-30 16:04 G	4439647.94	4439648.17	4439648.40	0.0535	0.0222
Mercury	7444-07-22 05:45 G	4440127.61	4440127.74	4440127.87	0.0543	0.0162
Mercury	7444-10-19 17:16 G	4440217.17	4440217.22	4440217.27	0.0542	0.0498
Venus	7444-12-26 17:02 G	4440285.05	4440285.21	4440285.38	0.0542	0.0327
Earth	7446-02-27 18:43 G	4440713.05	4440713.28	4440713.51	0.0531	0.0068
Moon	7446-02-27 21:07 G	4440713.16	4440713.38	4440713.60	0.0531	0.0082 *
Mercury	7450-06-06 04:04 G	4442272.55	4442272.67	4442272.79	0.0485	0.0338
Mercury	7450-09-04 01:55 G	4442362.44	4442362.58	4442362.72	0.0485	0.0273
Venus	7450-10-27 03:21 G	4442415.45	4442415.64	4442415.84	0.0486	0.0109
Moon	7452-09-03 00:14 G	4443092.34	4443092.51	4443092.69	0.0500	0.0352
Earth	7452-09-03 00:57 G	4443092.38	4443092.54	4443092.71	0.0500	0.0353 *
Mercury	7456-05-10 08:09 G	4444437.74	4444437.84	4444437.95	0.0542	0.0333
Mercury	7456-08-07 19:55 G	4444527.23	4444527.33	4444527.44	0.0542	0.0336
Venus	7456-08-31 02:52 G	4444550.43	4444550.62	4444550.82	0.0542	0.0163
Moon	7458-03-04 15:50 G	4445100.97	4445101.16	4445101.36	0.0529	0.0307
Earth	7458-03-04 16:19 G	4445100.99	4445101.18	4445101.38	0.0529	0.0280 *
Mercury	7462-03-25 04:48 G	4446582.68	4446582.70	4446582.73	0.0485	0.0480
Mercury	7462-06-23 02:09 G	4446672.43	4446672.59	4446672.76	0.0485	0.0124
Venus	7462-07-02 09:50 G	4446681.83	4446681.91	4446681.99	0.0485	0.0442
Mercury	7468-02-27 09:36 G	4448747.87	4448747.90	4448747.94	0.0542	0.0523

Mercury	7468-05-26 21:50 G	4448837.28	4448837.41	4448837.54	0.0542	0.0155
Moon	7470-03-09 07:55 G	4449488.73	4449488.83	4449488.94	0.0527	0.0465
Earth	7470-03-09 09:50 G	4449488.82	4449488.91	4449489.01	0.0527	0.0479 *
Mercury	7474-04-11 02:23 G	4450982.43	4450982.60	4450982.77	0.0485	0.0028
Venus	7474-10-29 07:26 G	4451183.72	4451183.81	4451183.90	0.0486	0.0437
Mercury	7480-03-15 00:43 G	4453147.39	4453147.53	4453147.66	0.0543	0.0022
Mercury	7486-01-28 02:09 G	4455292.43	4455292.59	4455292.74	0.0485	0.0186
Mercury	7486-04-28 00:28 G	4455382.44	4455382.52	4455382.59	0.0485	0.0432
Venus	7486-07-04 11:31 G	4455449.78	4455449.98	4455450.18	0.0486	0.0090
Earth	7487-08-16 03:50 G	4455857.53	4455857.66	4455857.82	0.0493	0.0387
Moon	7487-08-16 08:09 G	4455857.68	4455857.84	4455858.00	0.0493	0.0363 *
Mercury	7492-01-02 03:36 G	4457457.52	4457457.65	4457457.78	0.0543	0.0172
Mercury	7492-03-31 15:07 G	4457547.08	4457547.13	4457547.18	0.0543	0.0490
Venus	7492-05-08 20:09 G	4457585.14	4457585.34	4457585.54	0.0542	0.0111
Mercury	7497-11-16 02:23 G	4459602.48	4459602.60	4459602.72	0.0485	0.0334
Mercury	7498-02-14 00:14 G	4459692.37	4459692.51	4459692.65	0.0485	0.0276
Venus	7498-03-09 17:02 G	4459716.04	4459716.21	4459716.39	0.0485	0.0250
Moon	7499-08-20 11:02 G	4460244.74	4460244.96	4460245.19	0.0494	0.0186
Earth	7499-08-20 14:52 G	4460244.91	4460245.12	4460245.34	0.0494	0.0215 *
Mercury	7503-10-22 06:28 G	4461767.67	4461767.77	4461767.88	0.0543	0.0335
Venus	7504-01-13 07:11 G	4461850.66	4461850.80	4461850.95	0.0543	0.0372
Mercury	7504-01-19 18:14 G	4461857.16	4461857.26	4461857.37	0.0543	0.0335
Moon	7505-02-17 14:52 G	4462251.99	4462252.12	4462252.26	0.0535	0.0432
Earth	7505-02-17 18:57 G	4462252.14	4462252.29	4462252.44	0.0535	0.0410 *
Mars	7508-01-31 04:19 G	4463329.39	4463329.68	4463329.97	0.0494	0.0134
Mercury	7509-09-05 02:38 G	4463912.60	4463912.61	4463912.63	0.0485	0.0482
Mercury	7509-12-04 00:00 G	4464002.34	4464002.50	4464002.67	0.0485	0.0120
Earth	7511-08-26 03:21 G	4464632.40	4464632.64	4464632.87	0.0496	0.0039
Moon	7511-08-26 06:00 G	4464632.53	4464632.75	4464632.98	0.0496	0.0049 *
Mercury	7515-08-10 08:52 G	4466077.83	4466077.87	4466077.92	0.0542	0.0507

Mercury	7515-11-07 21:07 G	4466167.25	4466167.38	4466167.51	0.0542	0.0170
Earth	7517-02-22 18:57 G	4466640.08	4466640.29	4466640.51	0.0533	0.0190
Moon	7517-02-22 21:50 G	4466640.21	4466640.41	4466640.62	0.0533	0.0219 *
Mercury	7521-09-22 00:28 G	4468312.35	4468312.52	4468312.69	0.0485	0.0030
Venus	7522-03-12 20:23 G	4468484.19	4468484.35	4468484.52	0.0486	0.0294
Moon	7523-08-30 15:21 G	4469019.90	4469020.14	4469020.38	0.0498	0.0112
Earth	7523-08-30 16:19 G	4469019.96	4469020.18	4469020.41	0.0498	0.0140 *
Mercury	7527-08-26 22:48 G	4470477.32	4470477.45	4470477.59	0.0542	0.0021
Venus	7528-01-16 12:00 G	4470619.86	4470620.00	4470620.14	0.0541	0.0378
Moon	7529-02-27 12:57 G	4471027.80	4471028.04	4471028.28	0.0532	0.0030
Earth	7529-02-27 14:09 G	4471027.86	4471028.09	4471028.33	0.0532	0.0020 *
Mercury	7533-07-11 00:28 G	4472622.37	4472622.52	4472622.68	0.0485	0.0180
Mercury	7533-10-08 23:02 G	4472712.39	4472712.46	4472712.53	0.0486	0.0440
Venus	7533-11-16 02:09 G	4472750.38	4472750.59	4472750.79	0.0486	0.0048
Moon	7535-09-04 03:36 G	4473407.49	4473407.65	4473407.83	0.0499	0.0329
Earth	7535-09-04 04:48 G	4473407.53	4473407.70	4473407.89	0.0499	0.0319 *
Mercury	7539-06-15 01:26 G	4474787.43	4474787.56	4474787.69	0.0543	0.0185
Mercury	7539-09-12 12:57 G	4474876.98	4474877.04	4474877.10	0.0542	0.0477
Venus	7539-09-20 21:50 G	4474885.22	4474885.41	4474885.61	0.0542	0.0113
Moon	7541-03-04 12:28 G	4475415.83	4475416.02	4475416.21	0.0530	0.0257
Earth	7541-03-04 13:40 G	4475415.87	4475416.07	4475416.28	0.0530	0.0233 *
Mercury	7545-04-29 00:28 G	4476932.40	4476932.52	4476932.64	0.0485	0.0334
Venus	7545-07-22 06:14 G	4477016.64	4477016.76	4477016.88	0.0485	0.0393
Mercury	7545-07-27 22:04 G	4477022.28	4477022.42	4477022.57	0.0485	0.0276
Earth	7547-09-08 16:04 G	4477795.13	4477795.17	4477795.20	0.0501	0.0495
Mercury	7551-04-03 04:19 G	4479097.57	4479097.68	4479097.78	0.0543	0.0348
Mercury	7551-07-01 16:04 G	4479187.07	4479187.17	4479187.28	0.0543	0.0323
Earth	7553-03-09 14:09 G	4479803.98	4479804.09	4479804.22	0.0528	0.0447
Moon	7553-03-09 17:45 G	4479804.10	4479804.24	4479804.38	0.0528	0.0424 *
Mercury	7557-02-15 00:57 G	4481242.52	4481242.54	4481242.56	0.0485	0.0480

Mercury	7557-05-15 22:04 G	4481332.26	4481332.42	4481332.59	0.0485	0.0121
Mars	7561-09-19 15:36 G	4482919.94	4482920.15	4482920.36	0.0533	0.0292
Mercury	7563-01-20 06:57 G	4483407.75	4483407.79	4483407.83	0.0543	0.0513
Mercury	7563-04-19 19:11 G	4483497.18	4483497.30	4483497.43	0.0543	0.0167
Mercury	7569-03-03 22:04 G	4485642.25	4485642.42	4485642.59	0.0485	0.0033
Venus	7569-07-24 08:38 G	4485784.67	4485784.86	4485785.06	0.0486	0.0146
Moon	7570-08-16 05:45 G	4486172.60	4486172.74	4486172.89	0.0493	0.0389
Earth	7570-08-16 09:50 G	4486172.78	4486172.91	4486173.03	0.0493	0.0412 *
Mercury	7575-02-05 22:04 G	4487807.28	4487807.42	4487807.55	0.0542	0.0012
Venus	7575-05-29 19:11 G	4487920.11	4487920.30	4487920.49	0.0542	0.0184
Mercury	7580-12-20 22:33 G	4489952.28	4489952.44	4489952.59	0.0485	0.0181
Mercury	7581-03-20 20:38 G	4490042.29	4490042.36	4490042.44	0.0486	0.0438
Venus	7581-03-29 14:52 G	4490050.93	4490051.12	4490051.31	0.0486	0.0192
Earth	7582-08-20 21:07 G	4490560.17	4490560.38	4490560.58	0.0494	0.0241
Moon	7582-08-21 00:00 G	4490560.29	4490560.50	4490560.71	0.0494	0.0216 *
Mercury	7586-11-24 23:45 G	4492117.36	4492117.49	4492117.62	0.0542	0.0186
Venus	7587-02-01 01:55 G	4492185.42	4492185.58	4492185.75	0.0542	0.0323
Mercury	7587-02-22 11:02 G	4492206.90	4492206.96	4492207.03	0.0542	0.0475
Earth	7588-02-17 12:14 G	4492566.90	4492567.01	4492567.13	0.0536	0.0463
Moon	7588-02-17 15:36 G	4492567.06	4492567.15	4492567.25	0.0536	0.0484 *
Mercury	7592-10-08 22:48 G	4494262.33	4494262.45	4494262.57	0.0486	0.0330
Mercury	7593-01-06 20:23 G	4494352.22	4494352.35	4494352.50	0.0486	0.0282
Moon	7594-08-25 06:14 G	4494947.52	4494947.76	4494948.00	0.0495	0.0081
Earth	7594-08-25 07:40 G	4494947.59	4494947.82	4494948.05	0.0495	0.0068 *
Mars	7597-06-24 01:55 G	4495981.40	4495981.58	4495981.77	0.0534	0.0356
Mercury	7598-09-13 01:55 G	4496427.48	4496427.58	4496427.68	0.0542	0.0360
Mercury	7598-12-11 13:55 G	4496516.97	4496517.08	4496517.19	0.0542	0.0310
Moon	7600-02-22 11:31 G	4496954.78	4496954.98	4496955.19	0.0534	0.0269
Earth	7600-02-22 13:40 G	4496954.87	4496955.07	4496955.28	0.0534	0.0241 *
Mercury	7604-07-27 22:48 G	4498572.44	4498572.45	4498572.46	0.0485	0.0482

Mercury	7604-10-25 19:55 G	4498662.16	4498662.33	4498662.50	0.0485	0.0119
Venus	7605-03-31 16:04 G	4498819.03	4498819.17	4498819.32	0.0486	0.0342
Moon	7606-08-29 15:07 G	4499334.91	4499335.13	4499335.36	0.0497	0.0079
Earth	7606-08-29 16:04 G	4499334.94	4499335.17	4499335.40	0.0497	0.0103 *
Mercury	7610-07-02 04:33 G	4500737.66	4500737.69	4500737.72	0.0543	0.0528
Mercury	7610-09-29 17:02 G	4500827.08	4500827.21	4500827.34	0.0543	0.0152
Venus	7611-02-04 11:02 G	4500954.85	4500954.96	4500955.07	0.0542	0.0451
Moon	7612-02-27 16:19 G	4501342.96	4501343.18	4501343.40	0.0532	0.0005
Earth	7612-02-27 17:02 G	4501342.98	4501343.21	4501343.44	0.0532	0.0019 *
Mercury	7616-08-13 19:55 G	4502972.17	4502972.33	4502972.50	0.0485	0.0036
Venus	7616-12-04 21:50 G	4503085.20	4503085.41	4503085.61	0.0486	0.0006
Earth	7618-09-03 05:16 G	4503722.53	4503722.72	4503722.92	0.0499	0.0282
Moon	7618-09-03 07:55 G	4503722.64	4503722.83	4503723.03	0.0499	0.0296 *
Mercury	7622-07-18 19:55 G	4505137.20	4505137.33	4505137.47	0.0543	0.0020
Venus	7622-10-09 22:33 G	4505220.24	4505220.44	4505220.64	0.0542	0.0030
Earth	7624-03-03 17:02 G	4505731.00	4505731.21	4505731.43	0.0530	0.0197
Moon	7624-03-03 20:09 G	4505731.13	4505731.34	4505731.56	0.0530	0.0217 *
Mercury	7628-06-01 19:55 G	4507282.18	4507282.33	4507282.49	0.0485	0.0187
Venus	7628-08-10 02:52 G	4507351.48	4507351.62	4507351.77	0.0485	0.0341
Mercury	7628-08-30 18:14 G	4507372.18	4507372.26	4507372.34	0.0485	0.0431
Moon	7630-09-07 16:33 G	4508110.17	4508110.19	4508110.23	0.0501	0.0495
Earth	7630-09-07 20:09 G	4508110.26	4508110.34	4508110.43	0.0501	0.0463
Mercury	7634-05-06 22:33 G	4509447.32	4509447.44	4509447.57	0.0543	0.0176
Venus	7634-06-14 08:23 G	4509485.81	4509485.85	4509485.91	0.0542	0.0521
Mercury	7634-08-04 10:04 G	4509536.87	4509536.92	4509536.98	0.0542	0.0487
Moon	7636-03-08 10:48 G	4510118.79	4510118.95	4510119.10	0.0528	0.0382
Earth	7636-03-08 14:38 G	4510118.96	4510119.11	4510119.25	0.0528	0.0404 *
Mercury	7640-03-20 20:38 G	4511592.24	4511592.36	4511592.48	0.0485	0.0332
Mercury	7640-06-18 18:14 G	4511682.12	4511682.26	4511682.40	0.0486	0.0278
Mercury	7646-02-23 00:14 G	4513757.41	4513757.51	4513757.61	0.0542	0.0361

Mercury	7646-05-23 12:14 G	4513846.90	4513847.01	4513847.12	0.0542	0.0309
Mercury	7652-01-07 21:07 G	4515902.36	4515902.38	4515902.40	0.0486	0.0480
Mercury	7652-04-06 18:14 G	4515992.09	4515992.26	4515992.42	0.0486	0.0123
Venus	7652-08-12 06:14 G	4516119.57	4516119.76	4516119.94	0.0486	0.0202
Earth	7653-08-15 14:23 G	4516487.99	4516488.10	4516488.21	0.0492	0.0437
Moon	7653-08-15 17:16 G	4516488.10	4516488.22	4516488.35	0.0492	0.0413 *
Mercury	7657-12-12 02:23 G	4518067.59	4518067.60	4518067.62	0.0542	0.0537
Mercury	7658-03-11 14:52 G	4518156.99	4518157.12	4518157.25	0.0542	0.0141
Venus	7658-06-17 13:26 G	4518254.88	4518255.06	4518255.24	0.0542	0.0231
Mars	7662-04-25 10:48 G	4519662.65	4519662.95	4519663.26	0.0495	0.0024
Mercury	7664-01-24 17:45 G	4520302.07	4520302.24	4520302.41	0.0485	0.0037
Venus	7664-04-17 10:19 G	4520385.74	4520385.93	4520386.13	0.0485	0.0145
Moon	7665-08-19 19:11 G	4520875.09	4520875.30	4520875.51	0.0493	0.0253
Earth	7665-08-19 20:52 G	4520875.17	4520875.37	4520875.56	0.0493	0.0275 *
Mercury	7669-12-28 17:45 G	4522467.10	4522467.24	4522467.37	0.0543	0.0025
Venus	7670-02-20 00:14 G	4522520.33	4522520.51	4522520.69	0.0543	0.0254
Moon	7671-02-16 10:48 G	4522881.89	4522881.95	4522882.01	0.0536	0.0519
Earth	7671-02-16 13:11 G	4522881.98	4522882.05	4522882.14	0.0536	0.0500 *
Mercury	7675-11-12 18:00 G	4524612.10	4524612.25	4524612.41	0.0485	0.0186
Venus	7675-12-22 16:04 G	4524652.16	4524652.17	4524652.18	0.0485	0.0484
Mercury	7676-02-10 16:04 G	4524702.10	4524702.17	4524702.25	0.0485	0.0430
Moon	7677-08-24 07:11 G	4525262.58	4525262.80	4525263.02	0.0495	0.0123
Earth	7677-08-24 07:40 G	4525262.59	4525262.82	4525263.06	0.0495	0.0103 *
Mercury	7681-10-16 20:38 G	4526777.23	4526777.36	4526777.49	0.0543	0.0183
Mercury	7682-01-14 08:09 G	4526866.78	4526866.84	4526866.90	0.0543	0.0481
Earth	7683-02-21 17:02 G	4527270.01	4527270.21	4527270.40	0.0534	0.0277
Moon	7683-02-21 17:02 G	4527270.03	4527270.21	4527270.40	0.0534	0.0298 *
Mercury	7687-08-31 18:14 G	4528922.14	4528922.26	4528922.38	0.0485	0.0337
Mercury	7687-11-29 15:50 G	4529012.02	4529012.16	4529012.30	0.0485	0.0272
Venus	7688-04-19 12:57 G	4529153.92	4529154.04	4529154.16	0.0486	0.0396

Earth	7689-08-28 20:09 G	4529650.10	4529650.34	4529650.57	0.0497	0.0073
Moon	7689-08-28 22:33 G	4529650.20	4529650.44	4529650.68	0.0497	0.0050 *
Mercury	7693-08-04 23:16 G	4531087.36	4531087.47	4531087.57	0.0543	0.0352
Mercury	7693-11-02 11:16 G	4531176.86	4531176.97	4531177.07	0.0542	0.0320
Venus	7694-02-23 10:19 G	4531289.88	4531289.93	4531289.97	0.0541	0.0526
Earth	7695-02-26 17:16 G	4531657.99	4531658.22	4531658.45	0.0532	0.0059
Moon	7695-02-26 19:40 G	4531658.08	4531658.32	4531658.56	0.0532	0.0032 *
Mercury	7699-06-19 18:57 G	4533232.27	4533232.29	4533232.30	0.0485	0.0482
Mercury	7699-09-17 16:04 G	4533322.00	4533322.17	4533322.33	0.0485	0.0121
Venus	7699-12-24 18:57 G	4533420.08	4533420.29	4533420.49	0.0486	0.0057
Moon	7701-09-03 06:43 G	4534037.59	4534037.78	4534037.98	0.0498	0.0266
Earth	7701-09-03 10:19 G	4534037.73	4534037.93	4534038.13	0.0498	0.0251 *
Mercury	7705-05-25 00:57 G	4535397.52	4535397.54	4535397.55	0.0542	0.0536
Mercury	7705-08-22 13:11 G	4535486.92	4535487.05	4535487.18	0.0542	0.0143
Venus	7705-10-29 18:00 G	4535555.05	4535555.25	4535555.46	0.0542	0.0026
Moon	7707-03-04 08:23 G	4536045.64	4536045.85	4536046.06	0.0531	0.0170
Earth	7707-03-04 12:00 G	4536045.78	4536046.00	4536046.22	0.0531	0.0147 *
Mercury	7711-07-07 16:04 G	4537632.00	4537632.17	4537632.34	0.0486	0.0035
Venus	7711-08-31 00:00 G	4537686.34	4537686.50	4537686.67	0.0486	0.0287
Earth	7713-09-07 23:16 G	4538425.35	4538425.47	4538425.59	0.0500	0.0429
Moon	7713-09-08 03:07 G	4538425.54	4538425.63	4538425.72	0.0500	0.0459 *
Mars	7715-12-15 01:55 G	4539253.34	4539253.58	4539253.82	0.0532	0.0154
Mercury	7717-06-10 15:36 G	4539797.02	4539797.15	4539797.29	0.0542	0.0032
Venus	7717-07-04 03:21 G	4539820.54	4539820.64	4539820.73	0.0542	0.0472
Earth	7719-03-09 10:04 G	4540433.75	4540433.92	4540434.09	0.0529	0.0356
Moon	7719-03-09 13:55 G	4540433.91	4540434.08	4540434.27	0.0529	0.0335 *
Mercury	7723-04-25 15:50 G	4541942.00	4541942.16	4541942.31	0.0485	0.0189
Mercury	7723-07-24 13:55 G	4542032.00	4542032.08	4542032.16	0.0485	0.0427
Mercury	7729-03-29 18:14 G	4544107.13	4544107.26	4544107.39	0.0543	0.0197
Mercury	7729-06-27 06:00 G	4544196.68	4544196.75	4544196.81	0.0543	0.0468

Mercury	7735-02-11 16:19 G	4546252.06	4546252.18	4546252.30	0.0485	0.0336
Mercury	7735-05-12 13:40 G	4546341.93	4546342.07	4546342.22	0.0485	0.0272
Venus	7735-09-02 01:40 G	4546454.40	4546454.57	4546454.75	0.0486	0.0252
Moon	7736-08-15 13:11 G	4546802.95	4546803.05	4546803.16	0.0491	0.0443
Earth	7736-08-15 14:52 G	4546803.06	4546803.12	4546803.20	0.0491	0.0469 *
Mercury	7741-01-15 21:07 G	4548417.28	4548417.38	4548417.48	0.0543	0.0360
Mercury	7741-04-15 09:07 G	4548506.77	4548506.88	4548506.99	0.0543	0.0313
Venus	7741-07-07 13:40 G	4548589.91	4548590.07	4548590.24	0.0542	0.0314
Mercury	7746-11-30 16:33 G	4550562.19	4550562.19	4550562.20	0.0485	0.0484
Mercury	7747-02-28 13:40 G	4550651.90	4550652.07	4550652.23	0.0485	0.0116
Venus	7747-05-08 07:11 G	4550720.60	4550720.80	4550721.00	0.0486	0.0091
Moon	7748-08-20 00:57 G	4551190.35	4551190.54	4551190.72	0.0493	0.0291
Earth	7748-08-20 01:11 G	4551190.37	4551190.55	4551190.74	0.0493	0.0303 *
Mars	7751-09-18 21:21 G	4552315.36	4552315.39	4552315.43	0.0535	0.0528
Mercury	7752-11-03 23:45 G	4552727.46	4552727.49	4552727.51	0.0543	0.0529
Mercury	7753-02-01 12:00 G	4552816.88	4552817.00	4552817.13	0.0543	0.0153
Venus	7753-03-12 00:14 G	4552855.32	4552855.51	4552855.70	0.0542	0.0175
Earth	7754-02-16 14:23 G	4553197.10	4553197.10	4553197.11	0.0536	0.0536
Mercury	7758-12-17 13:55 G	4554961.91	4554962.08	4554962.25	0.0485	0.0034
Venus	7759-01-11 12:57 G	4554986.95	4554987.04	4554987.14	0.0485	0.0430
Earth	7760-08-24 13:26 G	4555577.83	4555578.06	4555578.28	0.0495	0.0130
Moon	7760-08-24 15:36 G	4555577.93	4555578.15	4555578.39	0.0495	0.0156 *
Mercury	7764-11-20 14:09 G	4557126.96	4557127.09	4557127.23	0.0542	0.0029
Earth	7766-02-21 12:00 G	4557584.83	4557585.00	4557585.19	0.0535	0.0325
Moon	7766-02-21 13:40 G	4557584.89	4557585.07	4557585.26	0.0535	0.0339 *
Mercury	7770-10-05 13:55 G	4559271.93	4559272.08	4559272.24	0.0486	0.0187
Mercury	7771-01-03 12:00 G	4559361.93	4559362.00	4559362.09	0.0486	0.0432
Venus	7771-05-10 10:33 G	4559488.87	4559488.94	4559489.01	0.0487	0.0454
Moon	7772-08-28 21:21 G	4559965.16	4559965.39	4559965.62	0.0496	0.0020
Earth	7772-08-29 00:43 G	4559965.29	4559965.53	4559965.77	0.0496	0.0044 *

Mercury	7776-09-08 16:33 G	4561437.06	4561437.19	4561437.32	0.0542	0.0199
Mercury	7776-12-07 04:04 G	4561526.61	4561526.67	4561526.74	0.0542	0.0464
Moon	7778-02-26 09:21 G	4561972.67	4561972.89	4561973.11	0.0533	0.0079
Earth	7778-02-26 12:43 G	4561972.80	4561973.03	4561973.25	0.0533	0.0107 *
Mercury	7782-07-24 14:09 G	4563581.97	4563582.09	4563582.21	0.0485	0.0338
Mercury	7782-10-22 11:31 G	4563671.84	4563671.98	4563672.13	0.0485	0.0271
Venus	7783-01-13 14:38 G	4563754.91	4563755.11	4563755.31	0.0486	0.0107
Earth	7784-09-02 09:07 G	4564352.66	4564352.88	4564353.09	0.0498	0.0212
Moon	7784-09-02 12:57 G	4564352.83	4564353.04	4564353.25	0.0498	0.0229 *
Mercury	7788-06-27 18:43 G	4565747.19	4565747.28	4565747.38	0.0543	0.0373
Mercury	7788-09-25 06:57 G	4565836.68	4565836.79	4565836.90	0.0543	0.0302
Venus	7788-11-17 16:04 G	4565889.97	4565890.17	4565890.37	0.0543	0.0093
Earth	7790-03-03 14:38 G	4566360.89	4566361.11	4566361.34	0.0532	0.0110
Moon	7790-03-03 18:43 G	4566361.06	4566361.28	4566361.50	0.0532	0.0132 *
Mercury	7794-05-12 14:52 G	4567892.10	4567892.12	4567892.14	0.0485	0.0481
Mercury	7794-08-10 11:45 G	4567981.83	4567981.99	4567982.16	0.0485	0.0119
Venus	7794-09-18 20:38 G	4568021.18	4568021.36	4568021.54	0.0485	0.0233
Moon	7796-09-06 18:57 G	4568740.17	4568740.29	4568740.43	0.0499	0.0417
Earth	7796-09-06 22:33 G	4568740.30	4568740.44	4568740.60	0.0499	0.0391 *
Mercury	7800-04-16 21:36 G	4570057.39	4570057.40	4570057.42	0.0543	0.0537
Mercury	7800-07-15 10:04 G	4570146.79	4570146.92	4570147.05	0.0543	0.0146
Venus	7800-07-24 03:21 G	4570155.51	4570155.64	4570155.78	0.0543	0.0391
Moon	7802-03-09 12:00 G	4570748.81	4570749.00	4570749.20	0.0529	0.0299
Earth	7802-03-09 15:21 G	4570748.97	4570749.14	4570749.33	0.0529	0.0324 *
Mercury	7806-05-30 11:45 G	4572291.82	4572291.99	4572292.16	0.0485	0.0036
Mercury	7812-05-03 13:11 G	4574456.91	4574457.05	4574457.18	0.0543	0.0021
Earth	7814-03-14 13:11 G	4575137.05	4575137.05	4575137.06	0.0527	0.0526
Moon	7814-03-14 14:52 G	4575137.07	4575137.12	4575137.17	0.0527	0.0511
Mars	7816-07-21 00:43 G	4575996.26	4575996.53	4575996.81	0.0494	0.0204
Mercury	7818-03-18 12:14 G	4576601.85	4576602.01	4576602.16	0.0485	0.0184

Mercury	7818-06-16 10:04 G	4576691.85	4576691.92	4576692.00	0.0486	0.0433
Venus	7818-09-21 23:31 G	4576789.32	4576789.48	4576789.63	0.0486	0.0310
Moon	7819-08-16 21:21 G	4577118.32	4577118.39	4577118.46	0.0491	0.0467
Mercury	7824-02-20 15:21 G	4578767.01	4578767.14	4578767.26	0.0542	0.0194
Mercury	7824-05-20 02:52 G	4578856.56	4578856.62	4578856.68	0.0542	0.0470
Venus	7824-07-27 11:16 G	4578924.83	4578924.97	4578925.11	0.0541	0.0379
Mercury	7830-01-04 12:28 G	4580911.90	4580912.02	4580912.14	0.0486	0.0333
Mercury	7830-04-04 10:04 G	4581001.78	4581001.92	4581002.06	0.0486	0.0276
Venus	7830-05-28 05:02 G	4581055.50	4581055.71	4581055.91	0.0486	0.0034
Earth	7831-08-21 07:11 G	4581505.63	4581505.80	4581505.98	0.0493	0.0327
Moon	7831-08-21 09:21 G	4581505.71	4581505.89	4581506.08	0.0493	0.0320 *
Mercury	7835-12-09 17:31 G	4583077.13	4583077.23	4583077.33	0.0542	0.0368
Mercury	7836-03-08 05:31 G	4583166.62	4583166.73	4583166.84	0.0542	0.0304
Venus	7836-03-31 20:38 G	4583190.17	4583190.36	4583190.56	0.0542	0.0116
Mercury	7841-10-23 12:57 G	4585222.02	4585222.04	4585222.06	0.0485	0.0481
Mercury	7842-01-21 09:50 G	4585311.74	4585311.91	4585312.07	0.0485	0.0119
Venus	7842-01-31 09:50 G	4585321.78	4585321.91	4585322.04	0.0485	0.0376
Moon	7843-08-25 11:02 G	4585892.75	4585892.96	4585893.18	0.0494	0.0193
Earth	7843-08-25 14:23 G	4585892.88	4585893.10	4585893.32	0.0494	0.0164 *
Mercury	7847-12-26 08:09 G	4587476.71	4587476.84	4587476.97	0.0543	0.0137
Moon	7849-02-21 11:16 G	4587899.82	4587899.97	4587900.13	0.0536	0.0377
Earth	7849-02-21 14:09 G	4587899.93	4587900.09	4587900.26	0.0536	0.0363 *
Mercury	7853-11-09 10:04 G	4589621.75	4589621.92	4589622.09	0.0485	0.0032
Earth	7855-08-30 01:55 G	4590280.34	4590280.58	4590280.82	0.0495	0.0009
Moon	7855-08-30 05:45 G	4590280.50	4590280.74	4590280.98	0.0495	0.0013 *
Mercury	7859-10-14 11:16 G	4591786.83	4591786.97	4591787.10	0.0543	0.0029
Earth	7861-02-26 18:14 G	4592288.03	4592288.26	4592288.48	0.0534	0.0141
Moon	7861-02-26 22:04 G	4592288.19	4592288.42	4592288.65	0.0534	0.0108 *
Mercury	7865-08-28 10:19 G	4593931.77	4593931.93	4593932.09	0.0485	0.0182
Mercury	7865-11-26 08:09 G	4594021.77	4594021.84	4594021.92	0.0485	0.0433

Venus	7866-02-02 12:28 G	4594089.83	4594090.02	4594090.22	0.0486	0.0167
Moon	7867-09-03 11:02 G	4594667.75	4594667.96	4594668.18	0.0497	0.0203
Earth	7867-09-03 14:52 G	4594667.90	4594668.12	4594668.34	0.0497	0.0183 *
Mars	7870-03-10 22:33 G	4595587.19	4595587.44	4595587.69	0.0533	0.0021
Mercury	7871-08-02 13:55 G	4596096.96	4596097.08	4596097.21	0.0543	0.0186
Mercury	7871-10-31 01:40 G	4596186.51	4596186.57	4596186.63	0.0543	0.0480
Venus	7871-12-08 17:45 G	4596225.05	4596225.24	4596225.44	0.0542	0.0183
Moon	7873-03-03 15:50 G	4596675.93	4596676.16	4596676.39	0.0532	0.0095
Earth	7873-03-03 19:26 G	4596676.09	4596676.31	4596676.54	0.0532	0.0077 *
Mercury	7877-06-16 10:48 G	4598241.83	4598241.95	4598242.08	0.0485	0.0328
Mercury	7877-09-14 08:09 G	4598331.71	4598331.84	4598331.99	0.0485	0.0281
Venus	7877-10-08 18:28 G	4598356.08	4598356.27	4598356.46	0.0485	0.0174
Earth	7879-09-08 05:45 G	4599055.58	4599055.74	4599055.90	0.0499	0.0363
Moon	7879-09-08 08:09 G	4599055.70	4599055.84	4599055.99	0.0499	0.0385 *
Mercury	7883-05-21 16:19 G	4600407.08	4600407.18	4600407.28	0.0542	0.0360
Venus	7883-08-13 02:38 G	4600490.45	4600490.61	4600490.78	0.0542	0.0317
Mercury	7883-08-19 04:19 G	4600496.57	4600496.68	4600496.79	0.0542	0.0312
Earth	7885-03-08 15:07 G	4601063.94	4601064.13	4601064.33	0.0530	0.0283
Moon	7885-03-08 17:31 G	4601064.03	4601064.23	4601064.42	0.0529	0.0256 *
Mercury	7889-04-04 11:16 G	4602551.94	4602551.97	4602552.01	0.0486	0.0475
Mercury	7889-07-03 08:23 G	4602641.68	4602641.85	4602642.01	0.0486	0.0126
Mercury	7895-03-09 18:28 G	4604717.25	4604717.27	4604717.28	0.0542	0.0537
Mercury	7895-06-07 06:57 G	4604806.66	4604806.79	4604806.92	0.0542	0.0144
Moon	7897-03-13 12:43 G	4605451.93	4605452.03	4605452.14	0.0528	0.0471
Earth	7897-03-13 12:57 G	4605451.95	4605452.04	4605452.13	0.0528	0.0486 *
Mercury	7901-04-22 08:23 G	4606951.68	4606951.85	4606952.02	0.0485	0.0027
Venus	7901-10-11 20:52 G	4607124.24	4607124.37	4607124.50	0.0486	0.0370
Moon	7902-08-17 03:36 G	4607433.64	4607433.65	4607433.65	0.0491	0.0490
Mercury	7907-03-27 09:07 G	4609116.75	4609116.88	4609117.02	0.0543	0.0032
Venus	7907-08-17 09:50 G	4609259.80	4609259.91	4609260.02	0.0542	0.0454

Mercury	7913-02-08 08:52 G	4611261.72	4611261.87	4611262.03	0.0485	0.0173
Mercury	7913-05-09 06:43 G	4611351.72	4611351.78	4611351.85	0.0485	0.0442
Venus	7913-06-17 03:07 G	4611390.43	4611390.63	4611390.83	0.0485	0.0030
Moon	7914-08-21 07:40 G	4611820.67	4611820.82	4611820.99	0.0492	0.0352
Earth	7914-08-21 11:02 G	4611820.81	4611820.96	4611821.13	0.0492	0.0356 *
Mercury	7919-01-13 12:14 G	4613426.88	4613427.01	4613427.14	0.0543	0.0190
Mercury	7919-04-13 00:00 G	4613516.44	4613516.50	4613516.56	0.0543	0.0478
Venus	7919-04-21 21:36 G	4613525.19	4613525.40	4613525.60	0.0543	0.0031
Mercury	7924-11-27 09:21 G	4615571.76	4615571.89	4615572.01	0.0485	0.0322
Venus	7925-02-20 08:23 G	4615656.70	4615656.85	4615657.01	0.0485	0.0313
Mercury	7925-02-25 06:28 G	4615661.64	4615661.77	4615661.92	0.0485	0.0286
Earth	7926-08-25 21:21 G	4616208.18	4616208.39	4616208.61	0.0494	0.0189
Moon	7926-08-26 01:11 G	4616208.34	4616208.55	4616208.77	0.0494	0.0218 *
Mercury	7930-11-01 15:07 G	4617737.03	4617737.13	4617737.23	0.0543	0.0352
Venus	7930-12-25 08:52 G	4617790.81	4617790.87	4617790.93	0.0543	0.0517
Mercury	7931-01-30 03:21 G	4617826.53	4617826.64	4617826.74	0.0543	0.0323
Earth	7932-02-22 20:23 G	4618215.20	4618215.35	4618215.51	0.0536	0.0391
Moon	7932-02-23 00:14 G	4618215.36	4618215.51	4618215.67	0.0536	0.0400 *
Mars	7935-01-08 18:28 G	4619266.04	4619266.27	4619266.52	0.0496	0.0298
Mercury	7936-09-15 09:50 G	4619881.88	4619881.91	4619881.96	0.0485	0.0467
Mercury	7936-12-14 06:43 G	4619971.62	4619971.78	4619971.95	0.0485	0.0135
Moon	7938-08-30 06:28 G	4620595.53	4620595.77	4620596.01	0.0495	0.0032
Earth	7938-08-30 10:19 G	4620595.69	4620595.93	4620596.16	0.0495	0.0015 *
Mercury	7942-08-20 17:16 G	4622047.19	4622047.22	4622047.25	0.0542	0.0526
Mercury	7942-11-18 05:45 G	4622136.62	4622136.74	4622136.87	0.0542	0.0156
Moon	7944-02-27 15:50 G	4622602.94	4622603.16	4622603.39	0.0534	0.0148
Earth	7944-02-27 19:40 G	4622603.11	4622603.32	4622603.54	0.0534	0.0178 *
Mercury	7948-10-02 06:57 G	4624281.62	4624281.79	4624281.96	0.0485	0.0020
Venus	7949-02-22 11:31 G	4624424.81	4624424.98	4624425.17	0.0486	0.0233
Earth	7950-09-03 22:33 G	4624983.22	4624983.44	4624983.67	0.0497	0.0160

Moon	7950-09-04 01:11 G	4624983.34	4624983.55	4624983.76	0.0497	0.0186 *
Mercury	7954-09-06 08:23 G	4626446.71	4626446.85	4626446.98	0.0542	0.0017
Venus	7954-12-28 16:33 G	4626560.01	4626560.19	4626560.37	0.0542	0.0255
Earth	7956-03-03 19:55 G	4626991.10	4626991.33	4626991.56	0.0532	0.0038
Moon	7956-03-03 22:33 G	4626991.22	4626991.44	4626991.66	0.0532	0.0048 *
Mercury	7960-07-21 07:26 G	4628591.65	4628591.81	4628591.97	0.0485	0.0167
Mercury	7960-10-19 05:02 G	4628681.65	4628681.71	4628681.78	0.0485	0.0449
Venus	7960-10-28 17:16 G	4628691.02	4628691.22	4628691.42	0.0485	0.0110
Moon	7962-09-08 07:26 G	4629370.64	4629370.81	4629370.99	0.0498	0.0343
Earth	7962-09-08 08:38 G	4629370.68	4629370.86	4629371.04	0.0498	0.0327 *
Mercury	7966-06-25 10:19 G	4630756.81	4630756.93	4630757.06	0.0543	0.0193
Venus	7966-09-02 01:11 G	4630825.37	4630825.55	4630825.73	0.0543	0.0245
Mercury	7966-09-22 22:04 G	4630846.36	4630846.42	4630846.49	0.0543	0.0475
Moon	7968-03-08 19:40 G	4631379.10	4631379.32	4631379.54	0.0531	0.0215
Earth	7968-03-08 20:09 G	4631379.14	4631379.34	4631379.55	0.0531	0.0247 *
Mars	7970-10-16 05:02 G	4632330.56	4632330.71	4632330.86	0.0494	0.0423
Mercury	7972-05-09 08:09 G	4632901.71	4632901.84	4632901.97	0.0485	0.0310
Venus	7972-07-03 23:31 G	4632957.41	4632957.48	4632957.57	0.0485	0.0447
Mercury	7972-08-07 05:16 G	4632991.59	4632991.72	4632991.86	0.0485	0.0297
Moon	7974-09-12 22:19 G	4633758.39	4633758.43	4633758.49	0.0500	0.0485
Mercury	7978-04-13 13:11 G	4635066.95	4635067.05	4635067.15	0.0543	0.0356
Mercury	7978-07-12 01:26 G	4635156.45	4635156.56	4635156.67	0.0543	0.0320
Moon	7980-03-13 19:55 G	4635767.22	4635767.33	4635767.45	0.0529	0.0448
Earth	7980-03-13 21:21 G	4635767.28	4635767.39	4635767.51	0.0529	0.0456 *
Mercury	7984-02-26 08:38 G	4637211.81	4637211.86	4637211.91	0.0485	0.0457
Mercury	7984-05-26 05:31 G	4637301.56	4637301.73	4637301.89	0.0485	0.0142
Venus	7984-10-30 20:09 G	4637459.26	4637459.34	4637459.43	0.0486	0.0436
Mars	7988-08-31 06:28 G	4638859.66	4638859.77	4638859.90	0.0532	0.0468
Mercury	7990-01-30 16:04 G	4639377.13	4639377.17	4639377.21	0.0543	0.0519
Mercury	7990-04-30 04:48 G	4639466.57	4639466.70	4639466.82	0.0543	0.0165

Mercury	7996-03-14 05:45 G	4641611.57	4641611.74	4641611.91	0.0485	0.0008
Venus	7996-07-06 02:23 G	4641725.40	4641725.60	4641725.80	0.0485	0.0096
Earth	7997-08-20 20:09 G	4642136.20	4642136.34	4642136.50	0.0492	0.0376
Moon	7997-08-21 00:14 G	4642136.36	4642136.51	4642136.67	0.0492	0.0374 *

9TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 9th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	8002-02-16 07:26 G		4643776.67	4643776.81	4643776.94	0.0543	0.0010	
Venus	8002-05-10 23:31 G		4643860.28	4643860.48	4643860.68	0.0542	0.0060	
Mercury	8008-01-01 06:00 G		4645921.59	4645921.75	4645921.91	0.0485	0.0158	
Venus	8008-03-11 07:55 G		4645991.66	4645991.83	4645992.01	0.0485	0.0247	
Mercury	8008-03-31 03:50 G		4646011.61	4646011.66	4646011.72	0.0485	0.0459	
Moon	8009-08-25 03:21 G		4646523.43	4646523.64	4646523.85	0.0493	0.0238	
Earth	8009-08-25 07:11 G		4646523.58	4646523.80	4646524.01	0.0493	0.0208 *	
Mercury	8013-12-05 09:50 G		4648086.78	4648086.91	4648087.04	0.0543	0.0175	
Venus	8014-01-13 08:52 G		4648125.76	4648125.87	4648125.99	0.0543	0.0438	
Mercury	8014-03-04 21:36 G		4648176.34	4648176.40	4648176.45	0.0542	0.0491	
Moon	8015-02-21 17:45 G		4648530.12	4648530.24	4648530.38	0.0536	0.0440	
Earth	8015-02-21 21:50 G		4648530.28	4648530.41	4648530.55	0.0536	0.0428 *	
Mercury	8019-10-20 06:43 G		4650231.65	4650231.78	4650231.91	0.0485	0.0302	
Mercury	8020-01-18 04:04 G		4650321.54	4650321.67	4650321.80	0.0485	0.0305	
Earth	8021-08-29 16:04 G		4650910.93	4650911.17	4650911.40	0.0494	0.0045	

Moon	8021-08-29 18:43 G	4650911.05	4650911.28	4650911.51	0.0494	0.0051 *
Mars	8024-06-04 18:14 G	4651921.03	4651921.26	4651921.50	0.0533	0.0193
Mercury	8025-09-23 11:31 G	4652396.88	4652396.98	4652397.08	0.0543	0.0357
Mercury	8025-12-21 23:45 G	4652486.39	4652486.49	4652486.60	0.0543	0.0320
Earth	8027-02-26 23:02 G	4652918.26	4652918.46	4652918.68	0.0535	0.0217
Moon	8027-02-27 02:09 G	4652918.39	4652918.59	4652918.81	0.0535	0.0186 *
Mercury	8031-08-08 07:40 G	4654541.76	4654541.82	4654541.89	0.0485	0.0443
Mercury	8031-11-06 04:19 G	4654631.53	4654631.68	4654631.85	0.0485	0.0157
Venus	8032-03-13 11:31 G	4654759.83	4654759.98	4654760.14	0.0485	0.0304
Moon	8033-09-03 02:52 G	4655298.39	4655298.62	4655298.85	0.0496	0.0156
Earth	8033-09-03 04:04 G	4655298.44	4655298.67	4655298.90	0.0496	0.0127 *
Mercury	8037-07-12 14:09 G	4656707.06	4656707.09	4656707.13	0.0543	0.0523
Mercury	8037-10-10 02:52 G	4656796.50	4656796.62	4656796.75	0.0543	0.0163
Venus	8038-01-16 17:31 G	4656895.08	4656895.23	4656895.39	0.0543	0.0344
Moon	8039-03-04 02:23 G	4657306.36	4657306.60	4657306.84	0.0533	0.0009
Earth	8039-03-04 03:21 G	4657306.41	4657306.64	4657306.87	0.0533	0.0006 *
Mercury	8043-08-25 04:33 G	4658941.52	4658941.69	4658941.86	0.0485	0.0003
Venus	8043-11-17 17:02 G	4659026.01	4659026.21	4659026.42	0.0485	0.0042
Moon	8045-09-07 16:33 G	4659686.02	4659686.19	4659686.37	0.0498	0.0318
Earth	8045-09-07 17:02 G	4659686.02	4659686.21	4659686.40	0.0498	0.0302 *
Mercury	8049-07-29 06:14 G	4661106.62	4661106.76	4661106.89	0.0543	0.0008
Venus	8049-09-21 05:31 G	4661160.53	4661160.73	4661160.92	0.0543	0.0142
Moon	8051-03-09 04:19 G	4661694.48	4661694.68	4661694.89	0.0531	0.0189
Earth	8051-03-09 05:16 G	4661694.52	4661694.72	4661694.94	0.0531	0.0222 *
Mercury	8055-06-13 05:02 G	4663251.55	4663251.71	4663251.87	0.0485	0.0145
Venus	8055-07-23 23:16 G	4663292.35	4663292.47	4663292.60	0.0485	0.0381
Mercury	8055-09-11 02:52 G	4663341.58	4663341.62	4663341.66	0.0485	0.0470
Earth	8057-09-12 08:23 G	4664073.80	4664073.85	4664073.92	0.0500	0.0483
Moon	8057-09-12 10:33 G	4664073.85	4664073.94	4664074.04	0.0500	0.0456 *
Mercury	8061-05-17 08:52 G	4665416.74	4665416.87	4665417.00	0.0543	0.0161

Mercury	8061-08-14 20:38 G	4665506.31	4665506.36	4665506.41	0.0543	0.0504
Earth	8063-03-14 02:38 G	4666082.48	4666082.61	4666082.75	0.0529	0.0424
Moon	8063-03-14 05:16 G	4666082.58	4666082.72	4666082.87	0.0529	0.0419 *
Mercury	8067-04-01 05:31 G	4667561.60	4667561.73	4667561.86	0.0485	0.0293
Mercury	8067-06-30 02:38 G	4667651.49	4667651.61	4667651.75	0.0485	0.0317
Mercury	8073-03-05 11:16 G	4669726.86	4669726.97	4669727.07	0.0543	0.0335
Mercury	8073-06-02 23:16 G	4669816.37	4669816.47	4669816.58	0.0543	0.0339
Mercury	8079-01-18 06:14 G	4671871.69	4671871.76	4671871.84	0.0485	0.0434
Mercury	8079-04-18 03:07 G	4671961.47	4671961.63	4671961.79	0.0485	0.0166
Venus	8079-07-26 02:23 G	4672060.41	4672060.60	4672060.79	0.0485	0.0168
Moon	8080-08-20 00:57 G	4672451.41	4672451.54	4672451.68	0.0491	0.0402
Earth	8080-08-20 04:48 G	4672451.57	4672451.70	4672451.84	0.0491	0.0400 *
Mercury	8084-12-22 12:28 G	4674036.99	4674037.02	4674037.06	0.0543	0.0522
Mercury	8085-03-22 01:26 G	4674126.43	4674126.56	4674126.69	0.0543	0.0163
Venus	8085-05-29 22:04 G	4674195.22	4674195.42	4674195.62	0.0543	0.0134
Mars	8089-04-04 08:38 G	4675600.56	4675600.86	4675601.16	0.0496	0.0058
Mercury	8091-02-04 03:36 G	4676271.49	4676271.65	4676271.82	0.0485	0.0024
Venus	8091-03-31 08:52 G	4676326.68	4676326.87	4676327.07	0.0485	0.0172
Earth	8092-08-24 14:52 G	4676838.91	4676839.12	4676839.33	0.0492	0.0234
Moon	8092-08-24 17:31 G	4676839.04	4676839.23	4676839.42	0.0492	0.0262 *
Mercury	8097-01-08 04:19 G	4678436.55	4678436.68	4678436.82	0.0543	0.0011
Venus	8097-02-01 09:07 G	4678460.73	4678460.88	4678461.04	0.0543	0.0357
Earth	8098-02-21 03:07 G	4678845.52	4678845.63	4678845.75	0.0537	0.0464
Moon	8098-02-21 06:43 G	4678845.67	4678845.78	4678845.90	0.0537	0.0466 *
Mercury	8102-11-24 03:50 G	4680581.50	4680581.66	4680581.83	0.0485	0.0133
Mercury	8103-02-22 01:26 G	4680671.55	4680671.56	4680671.59	0.0485	0.0482
Moon	8104-08-30 00:14 G	4681226.26	4681226.51	4681226.75	0.0494	0.0066
Earth	8104-08-30 01:11 G	4681226.32	4681226.55	4681226.79	0.0494	0.0067 *
Mercury	8108-10-28 07:26 G	4682746.68	4682746.81	4682746.94	0.0543	0.0156
Mercury	8109-01-25 19:26 G	4682836.27	4682836.31	4682836.35	0.0543	0.0512

Moon	8110-02-27 07:11 G	4683233.58	4683233.80	4683234.02	0.0535	0.0208
Earth	8110-02-27 08:52 G	4683233.66	4683233.87	4683234.08	0.0535	0.0239 *
Mercury	8114-09-12 04:33 G	4684891.55	4684891.69	4684891.83	0.0485	0.0279
Mercury	8114-12-11 01:40 G	4684981.45	4684981.57	4684981.70	0.0485	0.0329
Venus	8115-04-03 11:31 G	4685094.86	4685094.98	4685095.11	0.0486	0.0373
Moon	8116-09-03 13:40 G	4685613.85	4685614.07	4685614.29	0.0496	0.0138
Earth	8116-09-03 14:09 G	4685613.86	4685614.09	4685614.32	0.0496	0.0107 *
Mercury	8120-08-16 10:04 G	4687056.81	4687056.92	4687057.03	0.0543	0.0323
Mercury	8120-11-13 22:19 G	4687146.33	4687146.43	4687146.53	0.0543	0.0352
Venus	8121-02-05 20:52 G	4687230.26	4687230.37	4687230.49	0.0542	0.0442
Moon	8122-03-04 09:07 G	4687621.65	4687621.88	4687622.10	0.0533	0.0031
Earth	8122-03-04 09:36 G	4687621.67	4687621.90	4687622.13	0.0533	0.0025 *
Mercury	8126-07-01 05:02 G	4689201.64	4689201.71	4689201.79	0.0485	0.0425
Mercury	8126-09-29 01:55 G	4689291.42	4689291.58	4689291.74	0.0485	0.0176
Venus	8126-12-07 17:31 G	4689361.03	4689361.23	4689361.43	0.0485	0.0031
Earth	8128-09-08 03:36 G	4690001.46	4690001.65	4690001.85	0.0498	0.0282
Moon	8128-09-08 05:45 G	4690001.54	4690001.74	4690001.93	0.0498	0.0289 *
Mercury	8132-06-04 12:28 G	4691366.96	4691367.02	4691367.07	0.0543	0.0497
Mercury	8132-09-02 00:57 G	4691456.42	4691456.54	4691456.67	0.0543	0.0186
Venus	8132-10-11 06:43 G	4691495.58	4691495.78	4691495.99	0.0543	0.0056
Earth	8134-03-09 09:21 G	4692009.67	4692009.89	4692010.10	0.0531	0.0187
Moon	8134-03-09 11:31 G	4692009.76	4692009.98	4692010.21	0.0531	0.0154 *
Mercury	8138-07-18 02:23 G	4693601.43	4693601.60	4693601.77	0.0485	0.0030
Venus	8138-08-12 23:45 G	4693627.34	4693627.49	4693627.65	0.0485	0.0307
Moon	8140-09-12 12:00 G	4694388.89	4694389.00	4694389.13	0.0499	0.0422
Earth	8140-09-12 15:07 G	4694389.04	4694389.13	4694389.24	0.0499	0.0450 *
Mars	8142-11-26 07:55 G	4695193.62	4695193.83	4695194.04	0.0531	0.0282
Mercury	8144-06-21 02:52 G	4695766.48	4695766.62	4695766.76	0.0543	0.0005
Moon	8146-03-14 03:36 G	4696397.51	4696397.65	4696397.81	0.0530	0.0387
Earth	8146-03-14 07:11 G	4696397.65	4696397.80	4696397.96	0.0530	0.0387 *

Mercury	8150-05-06 03:07 G	4697911.47	4697911.63	4697911.80	0.0485	0.0116
Mercury	8156-04-09 05:45 G	4700076.61	4700076.74	4700076.87	0.0543	0.0160
Mercury	8156-07-07 17:31 G	4700166.19	4700166.23	4700166.28	0.0543	0.0509
Mercury	8162-02-22 03:21 G	4702221.51	4702221.64	4702221.78	0.0485	0.0267
Mercury	8162-05-23 00:43 G	4702311.41	4702311.53	4702311.65	0.0485	0.0341
Venus	8162-08-15 02:38 G	4702395.43	4702395.61	4702395.79	0.0485	0.0238
Earth	8163-08-21 14:09 G	4702766.97	4702767.09	4702767.21	0.0491	0.0418
Moon	8163-08-21 16:33 G	4702767.09	4702767.19	4702767.31	0.0491	0.0431 *
Mercury	8168-01-27 08:38 G	4704386.75	4704386.86	4704386.97	0.0543	0.0320
Mercury	8168-04-25 21:07 G	4704476.28	4704476.38	4704476.48	0.0543	0.0357
Venus	8168-06-19 02:23 G	4704530.43	4704530.60	4704530.79	0.0543	0.0239
Mercury	8173-12-11 04:19 G	4706531.59	4706531.68	4706531.76	0.0485	0.0410
Mercury	8174-03-11 00:57 G	4706621.38	4706621.54	4706621.70	0.0485	0.0190
Venus	8174-04-20 08:52 G	4706661.67	4706661.87	4706662.07	0.0485	0.0103
Moon	8175-08-25 23:31 G	4707154.29	4707154.48	4707154.69	0.0492	0.0280
Earth	8175-08-26 00:43 G	4707154.33	4707154.53	4707154.73	0.0492	0.0253 *
Mars	8178-08-31 12:43 G	4708255.89	4708256.03	4708256.18	0.0534	0.0433
Mercury	8179-11-15 11:16 G	4708696.91	4708696.97	4708697.03	0.0543	0.0486
Mercury	8180-02-13 00:00 G	4708786.38	4708786.50	4708786.63	0.0543	0.0197
Venus	8180-02-22 13:11 G	4708795.87	4708796.05	4708796.23	0.0543	0.0255
Moon	8181-02-21 07:55 G	4709160.73	4709160.83	4709160.93	0.0537	0.0483
Earth	8181-02-21 09:50 G	4709160.83	4709160.91	4709161.01	0.0537	0.0491 *
Venus	8185-12-24 14:38 G	4710928.03	4710928.11	4710928.19	0.0485	0.0445
Mercury	8185-12-28 01:11 G	4710931.38	4710931.55	4710931.72	0.0485	0.0039
Moon	8187-08-30 11:31 G	4711541.76	4711541.98	4711542.21	0.0494	0.0080
Earth	8187-08-30 12:00 G	4711541.77	4711542.00	4711542.24	0.0494	0.0087 *
Mercury	8191-12-02 02:38 G	4713096.47	4713096.61	4713096.74	0.0543	0.0029
Earth	8193-02-26 12:14 G	4713548.81	4713549.01	4713549.21	0.0536	0.0273
Moon	8193-02-26 12:14 G	4713548.81	4713549.01	4713549.21	0.0536	0.0243 *
Mercury	8197-10-16 01:55 G	4715241.41	4715241.58	4715241.74	0.0485	0.0107

Venus	8198-04-22 12:14 G	4715429.94	4715430.01	4715430.09	0.0486	0.0449
Earth	8199-09-03 22:48 G	4715929.22	4715929.45	4715929.68	0.0495	0.0079
Moon	8199-09-04 00:43 G	4715929.29	4715929.53	4715929.77	0.0495	0.0110 *
Mercury	8203-09-21 04:04 G	4717406.54	4717406.67	4717406.81	0.0543	0.0158
Mercury	8203-12-19 16:04 G	4717496.13	4717496.17	4717496.21	0.0543	0.0511
Venus	8204-02-26 18:43 G	4717565.23	4717565.28	4717565.35	0.0543	0.0513
Earth	8205-03-04 11:16 G	4717936.74	4717936.97	4717937.20	0.0535	0.0067
Moon	8205-03-04 12:57 G	4717936.81	4717937.04	4717937.28	0.0535	0.0074 *
Mercury	8209-08-05 02:38 G	4719551.47	4719551.61	4719551.75	0.0485	0.0250
Mercury	8209-11-02 23:45 G	4719641.38	4719641.49	4719641.61	0.0485	0.0358
Venus	8209-12-27 18:28 G	4719696.08	4719696.27	4719696.48	0.0485	0.0108
Moon	8211-09-09 07:40 G	4720316.63	4720316.82	4720317.02	0.0497	0.0253
Earth	8211-09-09 11:02 G	4720316.75	4720316.96	4720317.16	0.0497	0.0252 *
Mercury	8215-07-10 06:43 G	4721716.67	4721716.78	4721716.89	0.0543	0.0325
Mercury	8215-10-07 19:11 G	4721806.20	4721806.30	4721806.40	0.0543	0.0353
Venus	8215-11-01 06:00 G	4721830.54	4721830.75	4721830.95	0.0543	0.0022
Moon	8217-03-09 11:02 G	4722324.74	4722324.96	4722325.18	0.0533	0.0118
Earth	8217-03-09 14:23 G	4722324.87	4722325.10	4722325.32	0.0533	0.0151 *
Mercury	8221-05-24 03:07 G	4723861.54	4723861.63	4723861.72	0.0485	0.0399
Mercury	8221-08-21 23:45 G	4723951.33	4723951.49	4723951.64	0.0485	0.0201
Venus	8221-09-01 23:45 G	4723962.32	4723962.49	4723962.67	0.0485	0.0239
Earth	8223-09-13 22:48 G	4724704.34	4724704.45	4724704.58	0.0499	0.0425
Moon	8223-09-14 02:52 G	4724704.48	4724704.62	4724704.76	0.0499	0.0394 *
Mercury	8227-04-28 09:36 G	4726026.85	4726026.90	4726026.96	0.0543	0.0487
Venus	8227-07-06 17:45 G	4726096.14	4726096.24	4726096.34	0.0543	0.0468
Mercury	8227-07-26 22:33 G	4726116.31	4726116.44	4726116.56	0.0543	0.0199
Earth	8229-03-14 16:33 G	4726713.03	4726713.19	4726713.36	0.0530	0.0362
Moon	8229-03-14 20:09 G	4726713.19	4726713.34	4726713.51	0.0530	0.0375 *
Mercury	8233-06-10 00:00 G	4728261.33	4728261.50	4728261.67	0.0485	0.0051
Mercury	8239-05-15 01:26 G	4730426.42	4730426.56	4730426.69	0.0543	0.0037

Mars	8243-07-01 19:11 G	4731935.02	4731935.30	4731935.58	0.0495	0.0172
Mercury	8245-03-29 00:28 G	4732571.35	4732571.52	4732571.68	0.0485	0.0100
Venus	8245-09-04 02:38 G	4732730.45	4732730.61	4732730.77	0.0485	0.0309
Moon	8246-08-21 23:31 G	4733082.40	4733082.48	4733082.58	0.0491	0.0454
Earth	8246-08-22 00:43 G	4733082.43	4733082.53	4733082.64	0.0491	0.0435 *
Mercury	8251-03-03 03:50 G	4734736.53	4734736.66	4734736.79	0.0543	0.0133
Mercury	8251-05-31 15:50 G	4734826.13	4734826.16	4734826.18	0.0543	0.0533
Venus	8251-07-10 03:50 G	4734865.50	4734865.66	4734865.82	0.0543	0.0324
Mercury	8257-01-15 01:11 G	4736881.41	4736881.55	4736881.70	0.0485	0.0242
Mercury	8257-04-14 22:19 G	4736971.33	4736971.43	4736971.55	0.0485	0.0367
Venus	8257-05-10 09:21 G	4736996.68	4736996.89	4736997.09	0.0485	0.0032
Moon	8258-08-26 09:50 G	4737469.73	4737469.91	4737470.09	0.0492	0.0302
Earth	8258-08-26 10:19 G	4737469.74	4737469.93	4737470.13	0.0492	0.0276 *
Mercury	8262-12-20 05:16 G	4739046.61	4739046.72	4739046.83	0.0543	0.0322
Venus	8263-03-14 10:19 G	4739130.74	4739130.93	4739131.12	0.0543	0.0191
Mercury	8263-03-19 17:31 G	4739136.13	4739136.23	4739136.34	0.0543	0.0355
Earth	8264-02-22 08:23 G	4739475.84	4739475.85	4739475.89	0.0538	0.0535
Moon	8264-02-22 09:21 G	4739475.84	4739475.89	4739475.94	0.0538	0.0523 *
Mercury	8268-11-03 02:09 G	4741191.49	4741191.59	4741191.69	0.0485	0.0385
Venus	8269-01-13 15:36 G	4741263.02	4741263.15	4741263.28	0.0485	0.0372
Mercury	8269-01-31 22:48 G	4741281.30	4741281.45	4741281.60	0.0485	0.0216
Earth	8270-08-30 20:23 G	4741857.12	4741857.35	4741857.58	0.0493	0.0110
Moon	8270-08-30 22:19 G	4741857.20	4741857.43	4741857.67	0.0493	0.0099 *
Mercury	8274-10-08 07:40 G	4743356.77	4743356.82	4743356.88	0.0543	0.0494
Mercury	8275-01-05 20:23 G	4743446.23	4743446.35	4743446.48	0.0543	0.0193
Earth	8276-02-27 13:40 G	4743863.89	4743864.07	4743864.26	0.0537	0.0314
Moon	8276-02-27 14:52 G	4743863.93	4743864.12	4743864.33	0.0537	0.0282 *
Mercury	8280-11-19 22:48 G	4745591.28	4745591.45	4745591.62	0.0485	0.0060
Moon	8282-09-04 02:38 G	4746244.39	4746244.61	4746244.84	0.0495	0.0084
Earth	8282-09-04 05:45 G	4746244.51	4746244.74	4746244.98	0.0495	0.0055 *

Mercury	8286-10-24 23:45 G	4747756.35	4747756.49	4747756.62	0.0543	0.0037
Moon	8288-03-03 16:19 G	4748251.96	4748252.18	4748252.40	0.0535	0.0103
Earth	8288-03-03 19:11 G	4748252.07	4748252.30	4748252.53	0.0535	0.0091 *
Mercury	8292-09-07 23:16 G	4749901.30	4749901.47	4749901.63	0.0485	0.0089
Venus	8293-01-15 17:31 G	4750031.04	4750031.23	4750031.42	0.0485	0.0171
Earth	8294-09-08 18:28 G	4750632.06	4750632.27	4750632.48	0.0497	0.0228
Moon	8294-09-08 22:19 G	4750632.22	4750632.43	4750632.64	0.0497	0.0219 *
Mars	8297-02-20 21:36 G	4751528.15	4751528.40	4751528.65	0.0532	0.0059
Mercury	8298-08-13 02:38 G	4752066.47	4752066.61	4752066.74	0.0543	0.0128
Mercury	8298-11-10 14:23 G	4752156.09	4752156.10	4752156.11	0.0543	0.0539
Venus	8298-11-20 09:21 G	4752165.69	4752165.89	4752166.09	0.0543	0.0120
Earth	8300-03-09 20:23 G	4752640.13	4752640.35	4752640.58	0.0533	0.0121
Moon	8300-03-10 00:14 G	4752640.28	4752640.51	4752640.74	0.0533	0.0093 *
Mercury	8304-06-27 23:31 G	4754211.34	4754211.48	4754211.63	0.0485	0.0238
Venus	8304-09-21 23:02 G	4754297.27	4754297.46	4754297.65	0.0485	0.0173
Mercury	8304-09-25 20:38 G	4754301.26	4754301.36	4754301.48	0.0485	0.0371
Moon	8306-09-14 04:48 G	4755019.54	4755019.70	4755019.86	0.0498	0.0368
Earth	8306-09-14 08:09 G	4755019.71	4755019.84	4755019.99	0.0498	0.0401 *
Mercury	8310-06-02 05:02 G	4756376.59	4756376.71	4756376.82	0.0543	0.0300
Venus	8310-07-26 18:57 G	4756431.15	4756431.29	4756431.43	0.0543	0.0381
Mercury	8310-08-30 17:16 G	4756466.12	4756466.22	4756466.31	0.0543	0.0376
Moon	8312-03-14 16:19 G	4757028.01	4757028.18	4757028.37	0.0531	0.0342
Earth	8312-03-14 19:40 G	4757028.14	4757028.32	4757028.50	0.0531	0.0326 *
Mercury	8316-04-16 00:28 G	4758521.42	4758521.52	4758521.63	0.0485	0.0379
Mercury	8316-07-14 21:07 G	4758611.24	4758611.38	4758611.54	0.0485	0.0223
Mercury	8322-03-21 06:14 G	4760686.70	4760686.76	4760686.81	0.0543	0.0492
Mercury	8322-06-18 18:57 G	4760776.16	4760776.29	4760776.42	0.0543	0.0193
Earth	8324-03-19 14:38 G	4761416.07	4761416.11	4761416.16	0.0529	0.0518
Mercury	8328-05-02 21:36 G	4762921.24	4762921.40	4762921.57	0.0485	0.0074
Venus	8328-09-24 02:52 G	4763065.50	4763065.62	4763065.75	0.0485	0.0381

Earth	8329-08-22 09:36 G	4763397.82	4763397.90	4763397.99	0.0490	0.0455
Moon	8329-08-22 08:38 G	4763397.83	4763397.86	4763397.91	0.0490	0.0481 *
Mercury	8334-04-06 21:36 G	4765086.26	4765086.40	4765086.54	0.0543	0.0026
Venus	8334-07-30 00:43 G	4765200.40	4765200.53	4765200.68	0.0543	0.0390
Mercury	8340-02-19 21:36 G	4767231.24	4767231.40	4767231.57	0.0485	0.0083
Venus	8340-05-30 07:55 G	4767331.62	4767331.83	4767332.03	0.0485	0.0033
Earth	8341-08-26 16:33 G	4767785.00	4767785.19	4767785.37	0.0491	0.0298
Moon	8341-08-26 18:14 G	4767785.09	4767785.26	4767785.45	0.0491	0.0322 *
Mercury	8346-01-24 00:28 G	4769396.39	4769396.52	4769396.66	0.0543	0.0136
Venus	8346-04-03 12:28 G	4769465.82	4769466.02	4769466.22	0.0543	0.0101
Mercury	8346-04-23 12:28 G	4769486.01	4769486.02	4769486.04	0.0543	0.0535
Mercury	8351-12-08 22:19 G	4771541.28	4771541.43	4771541.57	0.0485	0.0230
Venus	8352-02-03 13:40 G	4771597.92	4771598.07	4771598.23	0.0485	0.0312
Mercury	8352-03-07 19:26 G	4771631.20	4771631.31	4771631.41	0.0485	0.0378
Moon	8353-08-30 23:31 G	4772172.26	4772172.48	4772172.71	0.0493	0.0120
Earth	8353-08-31 02:38 G	4772172.39	4772172.61	4772172.84	0.0493	0.0134 *
Mercury	8357-11-12 03:21 G	4773706.53	4773706.64	4773706.75	0.0543	0.0298
Mercury	8358-02-09 15:36 G	4773796.06	4773796.15	4773796.25	0.0543	0.0379
Moon	8359-02-27 16:48 G	4774179.02	4774179.20	4774179.38	0.0537	0.0315
Earth	8359-02-27 19:11 G	4774179.13	4774179.30	4774179.48	0.0537	0.0344 *
Mars	8361-12-19 15:21 G	4775204.93	4775205.14	4775205.37	0.0497	0.0339
Mercury	8363-09-26 22:48 G	4775851.35	4775851.45	4775851.55	0.0485	0.0377
Mercury	8363-12-25 19:26 G	4775941.16	4775941.31	4775941.46	0.0485	0.0224
Earth	8365-09-04 13:55 G	4776559.85	4776560.08	4776560.32	0.0494	0.0033
Moon	8365-09-04 17:45 G	4776560.01	4776560.24	4776560.48	0.0494	0.0057 *
Mercury	8369-08-31 05:31 G	4778016.67	4778016.73	4778016.80	0.0543	0.0472
Mercury	8369-11-28 18:14 G	4778106.14	4778106.26	4778106.39	0.0543	0.0213
Earth	8371-03-04 20:38 G	4778567.14	4778567.36	4778567.59	0.0535	0.0129
Moon	8371-03-05 00:28 G	4778567.30	4778567.52	4778567.74	0.0535	0.0146 *
Mercury	8375-10-13 19:55 G	4780251.16	4780251.33	4780251.50	0.0485	0.0076

Venus	8376-02-05 16:48 G	4780366.02	4780366.20	4780366.38	0.0485	0.0239
Moon	8377-09-08 22:33 G	4780947.22	4780947.44	4780947.66	0.0496	0.0186
Earth	8377-09-09 02:09 G	4780947.38	4780947.59	4780947.81	0.0496	0.0200 *
Mercury	8381-09-16 19:55 G	4782416.20	4782416.33	4782416.47	0.0543	0.0029
Venus	8381-12-10 05:16 G	4782500.52	4782500.72	4782500.91	0.0543	0.0177
Moon	8383-03-09 13:55 G	4782954.85	4782955.08	4782955.31	0.0534	0.0045
Earth	8383-03-09 17:31 G	4782955.00	4782955.23	4782955.46	0.0534	0.0073 *
Mercury	8387-08-01 20:23 G	4784561.19	4784561.35	4784561.52	0.0485	0.0073
Venus	8387-10-11 22:48 G	4784632.25	4784632.45	4784632.65	0.0485	0.0106
Earth	8389-09-13 13:40 G	4785334.92	4785335.07	4785335.24	0.0497	0.0371
Moon	8389-09-13 16:33 G	4785335.03	4785335.19	4785335.36	0.0497	0.0341 *
Mercury	8393-07-05 22:19 G	4786726.30	4786726.43	4786726.57	0.0543	0.0145
Venus	8393-08-14 14:52 G	4786765.96	4786766.12	4786766.28	0.0543	0.0325
Mercury	8393-10-03 10:19 G	4786815.90	4786815.93	4786815.97	0.0543	0.0525
Earth	8395-03-14 18:28 G	4787343.08	4787343.27	4787343.47	0.0532	0.0283
Moon	8395-03-14 20:52 G	4787343.19	4787343.37	4787343.55	0.0532	0.0303 *
Mars	8397-09-25 21:50 G	4788269.23	4788269.41	4788269.61	0.0495	0.0381
Mercury	8399-05-20 20:38 G	4788871.21	4788871.36	4788871.50	0.0485	0.0226
Venus	8399-06-17 03:36 G	4788898.59	4788898.65	4788898.72	0.0485	0.0454
Mercury	8399-08-18 17:31 G	4788961.13	4788961.23	4788961.34	0.0485	0.0382
Mercury	8405-04-24 01:11 G	4791036.44	4791036.55	4791036.66	0.0543	0.0308
Mercury	8405-07-22 13:40 G	4791125.97	4791126.07	4791126.17	0.0543	0.0370
Earth	8407-03-19 20:38 G	4791731.28	4791731.36	4791731.45	0.0530	0.0489
Moon	8407-03-19 20:09 G	4791731.29	4791731.34	4791731.40	0.0530	0.0515 *
Mercury	8411-03-08 21:07 G	4793181.28	4793181.38	4793181.49	0.0485	0.0372
Mercury	8411-06-06 17:45 G	4793271.09	4793271.24	4793271.39	0.0485	0.0229
Venus	8411-10-14 00:00 G	4793400.42	4793400.50	4793400.59	0.0485	0.0437
Earth	8412-08-21 14:23 G	4793713.06	4793713.10	4793713.16	0.0490	0.0478
Mercury	8417-02-10 03:50 G	4795346.60	4795346.66	4795346.73	0.0543	0.0474
Mercury	8417-05-10 16:48 G	4795436.07	4795436.20	4795436.32	0.0543	0.0212

Venus	8417-08-18 02:52 G	4795535.53	4795535.62	4795535.71	0.0543	0.0482
Mercury	8423-03-25 18:00 G	4797581.08	4797581.25	4797581.41	0.0485	0.0076
Venus	8423-06-19 05:45 G	4797666.54	4797666.74	4797666.94	0.0485	0.0092
Moon	8424-08-25 20:38 G	4798100.20	4798100.36	4798100.53	0.0491	0.0341
Earth	8424-08-25 23:45 G	4798100.31	4798100.49	4798100.67	0.0491	0.0321 *
Mercury	8429-02-26 19:26 G	4799746.17	4799746.31	4799746.44	0.0543	0.0047
Venus	8429-04-22 12:43 G	4799800.83	4799801.03	4799801.23	0.0543	0.0020
Mercury	8435-01-11 18:28 G	4801891.11	4801891.27	4801891.44	0.0485	0.0072
Venus	8435-02-22 12:00 G	4801932.83	4801933.00	4801933.18	0.0485	0.0250
Earth	8436-08-30 10:04 G	4802487.70	4802487.92	4802488.15	0.0492	0.0159
Moon	8436-08-30 13:55 G	4802487.86	4802488.08	4802488.31	0.0492	0.0135 *
Mercury	8440-12-15 20:52 G	4804056.24	4804056.37	4804056.50	0.0543	0.0145
Venus	8440-12-25 19:11 G	4804066.28	4804066.30	4804066.32	0.0543	0.0538
Mercury	8441-03-15 08:52 G	4804145.84	4804145.87	4804145.90	0.0543	0.0524
Earth	8442-02-26 13:26 G	4804493.91	4804494.06	4804494.22	0.0537	0.0392
Moon	8442-02-26 16:48 G	4804494.04	4804494.20	4804494.38	0.0537	0.0365 *
Mercury	8446-10-30 19:11 G	4806201.15	4806201.30	4806201.45	0.0485	0.0219
Mercury	8447-01-28 16:04 G	4806291.08	4806291.17	4806291.28	0.0485	0.0390
Moon	8448-09-03 16:33 G	4806874.95	4806875.19	4806875.43	0.0494	0.0029
Earth	8448-09-03 20:09 G	4806875.10	4806875.34	4806875.57	0.0494	0.0006 *
Mars	8451-05-18 12:43 G	4807861.78	4807862.03	4807862.28	0.0531	0.0093
Mercury	8452-10-03 23:02 G	4808366.35	4808366.46	4808366.57	0.0543	0.0319
Mercury	8453-01-01 11:31 G	4808455.88	4808455.98	4808456.08	0.0543	0.0359
Moon	8454-03-03 12:43 G	4808881.82	4808882.03	4808882.25	0.0536	0.0199
Earth	8454-03-03 16:33 G	4808881.97	4808882.19	4808882.41	0.0536	0.0176 *
Mercury	8458-08-18 19:11 G	4810511.20	4810511.30	4810511.41	0.0485	0.0371
Mercury	8458-11-16 15:50 G	4810601.01	4810601.16	4810601.31	0.0485	0.0229
Venus	8459-02-24 13:26 G	4810700.90	4810701.06	4810701.22	0.0485	0.0293
Earth	8460-09-08 03:50 G	4811262.44	4811262.66	4811262.89	0.0495	0.0169
Moon	8460-09-08 06:43 G	4811262.57	4811262.78	4811263.00	0.0495	0.0154 *

Mercury	8464-07-23 01:26 G	4812676.51	4812676.56	4812676.62	0.0543	0.0488
Mercury	8464-10-20 14:23 G	4812765.98	4812766.10	4812766.23	0.0543	0.0200
Venus	8464-12-29 05:16 G	4812835.54	4812835.72	4812835.90	0.0543	0.0257
Earth	8466-03-08 21:07 G	4813270.15	4813270.38	4813270.62	0.0534	0.0043
Moon	8466-03-08 23:45 G	4813270.27	4813270.49	4813270.72	0.0534	0.0021 *
Mercury	8470-09-04 16:04 G	4814911.00	4814911.17	4814911.34	0.0485	0.0078
Venus	8470-10-30 19:26 G	4814967.10	4814967.31	4814967.51	0.0485	0.0053
Moon	8472-09-12 14:52 G	4815649.93	4815650.12	4815650.31	0.0497	0.0309
Earth	8472-09-12 16:19 G	4815650.01	4815650.18	4815650.36	0.0497	0.0339 *
Mercury	8476-08-08 17:31 G	4817076.09	4817076.23	4817076.36	0.0543	0.0041
Venus	8476-09-02 16:19 G	4817101.00	4817101.18	4817101.36	0.0543	0.0237
Moon	8478-03-13 21:36 G	4817658.19	4817658.40	4817658.61	0.0532	0.0268
Earth	8478-03-13 22:33 G	4817658.24	4817658.44	4817658.65	0.0532	0.0249 *
Mercury	8482-06-23 16:19 G	4819221.01	4819221.18	4819221.35	0.0485	0.0074
Venus	8482-07-06 00:57 G	4819233.42	4819233.54	4819233.65	0.0485	0.0398
Mercury	8488-05-27 19:55 G	4821386.20	4821386.33	4821386.46	0.0543	0.0131
Mercury	8488-08-25 07:55 G	4821475.82	4821475.83	4821475.85	0.0543	0.0538
Moon	8490-03-18 20:09 G	4822046.25	4822046.34	4822046.44	0.0530	0.0474
Earth	8490-03-18 21:21 G	4822046.27	4822046.39	4822046.51	0.0530	0.0449 *
Mercury	8494-04-11 17:02 G	4823531.06	4823531.21	4823531.36	0.0485	0.0220
Mercury	8494-07-10 14:09 G	4823620.99	4823621.09	4823621.19	0.0485	0.0389
Mercury	8500-03-16 21:21 G	4825696.28	4825696.39	4825696.50	0.0543	0.0319
Mercury	8500-06-14 09:50 G	4825785.81	4825785.91	4825786.01	0.0543	0.0358
Venus	8500-09-06 21:50 G	4825870.38	4825870.41	4825870.45	0.0542	0.0533
Mercury	8506-01-29 17:31 G	4827841.13	4827841.23	4827841.34	0.0485	0.0367
Mercury	8506-04-29 14:09 G	4827930.94	4827931.09	4827931.24	0.0485	0.0235
Venus	8506-07-09 03:50 G	4828001.46	4828001.66	4828001.85	0.0485	0.0152
Earth	8507-08-27 05:45 G	4828415.57	4828415.74	4828415.91	0.0491	0.0343
Moon	8507-08-27 09:21 G	4828415.74	4828415.89	4828416.06	0.0491	0.0354 *
Mercury	8512-01-03 23:16 G	4830006.42	4830006.47	4830006.53	0.0543	0.0497

Mercury	8512-04-02 12:14 G	4830095.89	4830096.01	4830096.14	0.0543	0.0189
Venus	8512-05-12 07:26 G	4830135.60	4830135.81	4830136.01	0.0543	0.0032
Mars	8516-03-15 03:50 G	4831538.38	4831538.66	4831538.95	0.0497	0.0163
Mercury	8518-02-15 13:55 G	4832240.92	4832241.08	4832241.25	0.0485	0.0077
Venus	8518-03-14 08:09 G	4832267.66	4832267.84	4832268.03	0.0485	0.0200
Moon	8519-08-31 07:55 G	4832802.61	4832802.83	4832803.06	0.0492	0.0163
Earth	8519-08-31 11:31 G	4832802.77	4832802.98	4832803.20	0.0492	0.0190 *
Venus	8524-01-15 18:00 G	4834401.15	4834401.25	4834401.35	0.0543	0.0467
Mercury	8524-01-20 15:07 G	4834405.99	4834406.13	4834406.26	0.0543	0.0026
Moon	8525-02-26 11:31 G	4834808.83	4834808.98	4834809.13	0.0538	0.0404
Earth	8525-02-26 15:21 G	4834809.00	4834809.14	4834809.28	0.0538	0.0426 *
Mercury	8529-12-04 14:23 G	4836550.94	4836551.10	4836551.27	0.0485	0.0073
Earth	8531-09-04 21:36 G	4837190.17	4837190.40	4837190.64	0.0493	0.0026
Moon	8531-09-05 00:28 G	4837190.29	4837190.52	4837190.75	0.0493	0.0004 *
Mercury	8535-11-08 18:00 G	4838716.12	4838716.25	4838716.38	0.0543	0.0138
Mercury	8536-02-06 06:00 G	4838805.73	4838805.75	4838805.77	0.0543	0.0533
Earth	8537-03-03 19:40 G	4839197.12	4839197.32	4839197.54	0.0536	0.0211
Moon	8537-03-03 23:02 G	4839197.25	4839197.46	4839197.66	0.0536	0.0238 *
Mercury	8541-09-22 14:38 G	4840860.97	4840861.11	4840861.26	0.0485	0.0224
Mercury	8541-12-21 11:45 G	4840950.89	4840950.99	4840951.09	0.0485	0.0384
Venus	8542-03-16 10:19 G	4841035.79	4841035.93	4841036.07	0.0485	0.0348
Moon	8543-09-09 07:11 G	4841577.57	4841577.80	4841578.04	0.0495	0.0124
Earth	8543-09-09 08:52 G	4841577.65	4841577.87	4841578.10	0.0495	0.0141 *
Mercury	8547-08-27 20:23 G	4843026.24	4843026.35	4843026.46	0.0543	0.0308
Mercury	8547-11-25 08:52 G	4843115.77	4843115.87	4843115.97	0.0543	0.0370
Venus	8548-01-19 04:33 G	4843170.54	4843170.69	4843170.86	0.0543	0.0335
Moon	8549-03-08 19:26 G	4843585.08	4843585.31	4843585.55	0.0534	0.0025
Earth	8549-03-08 21:21 G	4843585.16	4843585.39	4843585.62	0.0534	0.0002 *
Mercury	8553-07-11 15:36 G	4845171.04	4845171.15	4845171.26	0.0485	0.0368
Mercury	8553-10-09 12:00 G	4845260.85	4845261.00	4845261.15	0.0485	0.0233

Venus	8553-11-19 16:33 G	4845301.99	4845302.19	4845302.40	0.0485	0.0009
Moon	8555-09-13 21:21 G	4845965.21	4845965.39	4845965.58	0.0497	0.0288
Earth	8555-09-13 21:50 G	4845965.23	4845965.41	4845965.60	0.0497	0.0310 *
Mercury	8559-06-15 21:50 G	4847336.35	4847336.41	4847336.46	0.0542	0.0496
Mercury	8559-09-13 10:33 G	4847425.82	4847425.94	4847426.07	0.0543	0.0190
Venus	8559-09-23 11:31 G	4847435.79	4847435.98	4847436.18	0.0543	0.0184
Moon	8561-03-13 16:33 G	4847972.99	4847973.19	4847973.40	0.0533	0.0221
Earth	8561-03-13 16:48 G	4847972.99	4847973.20	4847973.42	0.0533	0.0200 *
Venus	8565-07-25 22:04 G	4849568.28	4849568.42	4849568.57	0.0485	0.0343
Mercury	8565-07-28 12:14 G	4849570.84	4849571.01	4849571.18	0.0485	0.0080
Earth	8567-09-18 09:36 G	4850352.84	4850352.90	4850352.97	0.0498	0.0477
Moon	8567-09-18 12:14 G	4850352.99	4850353.01	4850353.04	0.0498	0.0495
Mars	8569-11-07 13:55 G	4851133.93	4851134.08	4851134.23	0.0529	0.0419
Mercury	8571-07-02 12:57 G	4851735.91	4851736.04	4851736.18	0.0543	0.0017
Earth	8573-03-18 16:04 G	4852361.03	4852361.17	4852361.33	0.0531	0.0403
Moon	8573-03-18 18:57 G	4852361.15	4852361.29	4852361.43	0.0531	0.0420 *
Mercury	8577-05-16 12:14 G	4853880.84	4853881.01	4853881.17	0.0485	0.0076
Mercury	8583-04-20 15:36 G	4856046.01	4856046.15	4856046.28	0.0543	0.0153
Mercury	8583-07-19 03:36 G	4856135.62	4856135.65	4856135.69	0.0543	0.0519
Mercury	8589-03-04 12:43 G	4858190.89	4858191.03	4858191.18	0.0485	0.0223
Mercury	8589-06-02 09:36 G	4858280.80	4858280.90	4858281.01	0.0485	0.0384
Venus	8589-07-27 23:31 G	4858336.30	4858336.48	4858336.67	0.0485	0.0202
Moon	8590-08-26 03:36 G	4858730.51	4858730.65	4858730.81	0.0490	0.0380
Earth	8590-08-26 07:11 G	4858730.66	4858730.80	4858730.96	0.0490	0.0373 *
Mercury	8595-02-06 18:14 G	4860356.15	4860356.26	4860356.37	0.0543	0.0317
Mercury	8595-05-07 06:43 G	4860445.68	4860445.78	4860445.88	0.0543	0.0363
Venus	8595-06-01 07:40 G	4860470.62	4860470.82	4860471.02	0.0543	0.0114
Mercury	8600-12-22 13:11 G	4862500.95	4862501.05	4862501.16	0.0485	0.0372
Mercury	8601-03-22 09:36 G	4862590.75	4862590.90	4862591.05	0.0485	0.0228
Venus	8601-04-03 05:02 G	4862602.51	4862602.71	4862602.90	0.0485	0.0146

Earth	8602-08-31 16:04 G	4863117.96	4863118.17	4863118.39	0.0492	0.0216
Moon	8602-08-31 18:57 G	4863118.08	4863118.29	4863118.50	0.0492	0.0187 *
Mars	8605-08-13 08:23 G	4864195.64	4864195.85	4864196.07	0.0532	0.0270
Mercury	8606-11-26 20:23 G	4864666.30	4864666.35	4864666.42	0.0543	0.0489
Venus	8607-02-04 17:45 G	4864736.10	4864736.24	4864736.38	0.0543	0.0388
Mercury	8607-02-24 09:36 G	4864755.77	4864755.90	4864756.02	0.0543	0.0199
Earth	8608-02-27 15:07 G	4865124.02	4865124.13	4865124.25	0.0538	0.0464
Moon	8608-02-27 18:43 G	4865124.16	4865124.28	4865124.41	0.0538	0.0446 *
Mercury	8613-01-08 10:04 G	4866900.75	4866900.92	4866901.09	0.0485	0.0078
Moon	8614-09-05 01:40 G	4867505.33	4867505.57	4867505.81	0.0493	0.0033
Earth	8614-09-05 03:21 G	4867505.41	4867505.64	4867505.88	0.0493	0.0052 *
Mercury	8618-12-13 11:31 G	4869065.84	4869065.98	4869066.11	0.0543	0.0025
Moon	8620-03-03 11:02 G	4869511.76	4869511.96	4869512.16	0.0536	0.0284
Earth	8620-03-03 13:40 G	4869511.87	4869512.07	4869512.27	0.0536	0.0258 *
Mercury	8624-10-27 10:19 G	4871210.77	4871210.93	4871211.10	0.0485	0.0074
Venus	8625-04-05 07:40 G	4871370.71	4871370.82	4871370.93	0.0485	0.0405
Moon	8626-09-09 13:11 G	4871892.83	4871893.05	4871893.27	0.0494	0.0093
Earth	8626-09-09 13:26 G	4871892.83	4871893.06	4871893.29	0.0494	0.0113 *
Mercury	8630-10-01 13:26 G	4873375.93	4873376.06	4873376.20	0.0543	0.0159
Mercury	8630-12-30 01:40 G	4873465.53	4873465.57	4873465.61	0.0543	0.0512
Venus	8631-02-07 23:02 G	4873505.33	4873505.46	4873505.61	0.0543	0.0385
Earth	8632-03-08 15:07 G	4873899.90	4873900.13	4873900.36	0.0535	0.0047
Moon	8632-03-08 15:36 G	4873899.93	4873900.15	4873900.37	0.0535	0.0069 *
Mercury	8636-08-15 10:33 G	4875520.79	4875520.94	4875521.09	0.0485	0.0226
Mercury	8636-11-13 07:26 G	4875610.71	4875610.81	4875610.91	0.0485	0.0381
Venus	8636-12-09 12:14 G	4875636.81	4875637.01	4875637.22	0.0485	0.0055
Earth	8638-09-13 21:07 G	4876280.18	4876280.38	4876280.57	0.0496	0.0272
Moon	8638-09-13 23:02 G	4876280.26	4876280.46	4876280.68	0.0496	0.0254 *
Mercury	8642-07-20 15:50 G	4877686.05	4877686.16	4877686.27	0.0543	0.0332
Venus	8642-10-13 09:21 G	4877770.69	4877770.89	4877771.09	0.0543	0.0116

Mercury	8642-10-18 04:33 G	4877775.58	4877775.69	4877775.79	0.0543	0.0350
Earth	8644-03-13 18:28 G	4878288.05	4878288.27	4878288.49	0.0533	0.0163
Moon	8644-03-13 20:23 G	4878288.13	4878288.35	4878288.58	0.0533	0.0190 *
Mercury	8648-06-03 11:16 G	4879830.87	4879830.97	4879831.08	0.0485	0.0371
Venus	8648-08-14 18:14 G	4879903.10	4879903.26	4879903.43	0.0485	0.0292
Mercury	8648-09-01 07:40 G	4879920.67	4879920.82	4879920.97	0.0485	0.0228
Moon	8650-09-18 05:45 G	4880667.66	4880667.74	4880667.83	0.0498	0.0461
Earth	8650-09-18 09:21 G	4880667.78	4880667.89	4880668.00	0.0498	0.0440 *
Mercury	8654-05-08 18:28 G	4881996.21	4881996.27	4881996.32	0.0543	0.0498
Mercury	8654-08-06 07:26 G	4882085.69	4882085.81	4882085.94	0.0543	0.0191
Moon	8656-03-18 16:48 G	4882676.05	4882676.20	4882676.36	0.0531	0.0383
Earth	8656-03-18 20:23 G	4882676.19	4882676.35	4882676.52	0.0531	0.0368 *
Mercury	8660-06-20 07:40 G	4884230.66	4884230.82	4884230.99	0.0485	0.0076
Mercury	8666-05-25 10:19 G	4886395.79	4886395.93	4886396.06	0.0543	0.0030
Mars	8670-06-09 14:23 G	4887871.80	4887872.10	4887872.40	0.0497	0.0015
Mercury	8672-04-08 08:23 G	4888540.68	4888540.85	4888541.01	0.0485	0.0074
Venus	8672-08-16 20:23 G	4888671.18	4888671.35	4888671.53	0.0485	0.0259
Earth	8673-08-26 12:57 G	4889045.91	4889046.04	4889046.18	0.0490	0.0397
Moon	8673-08-26 15:50 G	4889046.03	4889046.16	4889046.29	0.0490	0.0400 *
Mercury	8678-03-13 12:00 G	4890705.87	4890706.00	4890706.14	0.0543	0.0156
Mercury	8678-06-11 00:14 G	4890795.47	4890795.51	4890795.55	0.0543	0.0515
Venus	8678-06-21 04:19 G	4890805.49	4890805.68	4890805.87	0.0543	0.0175
Mercury	8684-01-26 08:38 G	4892850.72	4892850.86	4892851.01	0.0485	0.0225
Venus	8684-04-22 02:09 G	4892937.39	4892937.59	4892937.79	0.0485	0.0090
Mercury	8684-04-25 05:31 G	4892940.63	4892940.73	4892940.84	0.0485	0.0384
Moon	8685-08-30 19:55 G	4893433.11	4893433.33	4893433.55	0.0491	0.0211
Earth	8685-08-30 21:36 G	4893433.20	4893433.40	4893433.61	0.0491	0.0239 *
Mercury	8689-12-30 14:09 G	4895015.98	4895016.09	4895016.20	0.0542	0.0333
Venus	8690-02-23 12:57 G	4895070.89	4895071.04	4895071.21	0.0543	0.0335
Mercury	8690-03-30 02:38 G	4895105.51	4895105.61	4895105.72	0.0543	0.0347

Moon	8691-02-26 05:45 G	4895438.65	4895438.74	4895438.84	0.0538	0.0490
Earth	8691-02-26 08:52 G	4895438.80	4895438.87	4895438.95	0.0538	0.0510 *
Mercury	8695-11-14 09:07 G	4897160.78	4897160.88	4897160.99	0.0485	0.0373
Venus	8695-12-27 06:57 G	4897203.72	4897203.79	4897203.89	0.0485	0.0439
Mercury	8696-02-12 05:31 G	4897250.58	4897250.73	4897250.88	0.0485	0.0226
Earth	8697-09-04 03:50 G	4897820.42	4897820.66	4897820.89	0.0492	0.0086
Moon	8697-09-04 03:50 G	4897820.44	4897820.66	4897820.88	0.0492	0.0073 *
Mercury	8701-10-19 16:04 G	4899326.12	4899326.17	4899326.21	0.0543	0.0511
Mercury	8702-01-17 05:16 G	4899415.59	4899415.72	4899415.84	0.0543	0.0179
Earth	8703-03-04 13:40 G	4899826.89	4899827.07	4899827.27	0.0537	0.0298
Moon	8703-03-04 15:07 G	4899826.96	4899827.13	4899827.31	0.0537	0.0325 *
Mercury	8707-12-02 06:00 G	4901560.58	4901560.75	4901560.92	0.0485	0.0077
Venus	8708-04-25 03:50 G	4901705.60	4901705.66	4901705.73	0.0485	0.0459
Earth	8709-09-09 13:55 G	4902207.85	4902208.08	4902208.32	0.0494	0.0079
Moon	8709-09-09 16:04 G	4902207.93	4902208.17	4902208.41	0.0494	0.0053 *
Mercury	8713-11-05 08:09 G	4903725.70	4903725.84	4903725.97	0.0543	0.0018
Venus	8714-02-27 23:16 G	4903840.37	4903840.47	4903840.57	0.0543	0.0468
Earth	8715-03-09 18:57 G	4904215.06	4904215.29	4904215.52	0.0536	0.0082
Moon	8715-03-09 20:09 G	4904215.11	4904215.34	4904215.58	0.0536	0.0096 *
Mercury	8719-09-20 06:14 G	4905870.59	4905870.76	4905870.93	0.0485	0.0075
Venus	8719-12-30 09:21 G	4905971.69	4905971.89	4905972.09	0.0485	0.0111
Moon	8721-09-13 22:04 G	4906595.22	4906595.42	4906595.63	0.0496	0.0227
Earth	8721-09-14 01:40 G	4906595.37	4906595.57	4906595.78	0.0496	0.0243 *
Mars	8724-02-03 06:00 G	4907467.53	4907467.75	4907467.97	0.0530	0.0252
Mercury	8725-08-24 10:48 G	4908035.82	4908035.95	4908036.08	0.0543	0.0148
Venus	8725-11-02 10:04 G	4908105.72	4908105.92	4908106.13	0.0543	0.0032
Mercury	8725-11-21 23:02 G	4908125.43	4908125.46	4908125.49	0.0543	0.0524
Moon	8727-03-14 17:45 G	4908603.03	4908603.24	4908603.46	0.0534	0.0158
Earth	8727-03-14 21:07 G	4908603.15	4908603.38	4908603.60	0.0534	0.0128 *
Mercury	8731-07-09 06:57 G	4910180.64	4910180.79	4910180.94	0.0485	0.0222

Venus	8731-09-04 15:21 G	4910237.97	4910238.14	4910238.32	0.0485	0.0236
Mercury	8731-10-07 03:36 G	4910270.55	4910270.65	4910270.76	0.0485	0.0385
Earth	8733-09-18 15:21 G	4910983.01	4910983.14	4910983.27	0.0498	0.0413
Moon	8733-09-18 19:11 G	4910983.20	4910983.30	4910983.42	0.0498	0.0437 *
Mercury	8737-06-12 12:43 G	4912345.92	4912346.03	4912346.14	0.0542	0.0327
Venus	8737-07-07 18:28 G	4912371.26	4912371.27	4912371.28	0.0543	0.0542
Mercury	8737-09-10 01:26 G	4912435.46	4912435.56	4912435.66	0.0543	0.0352
Earth	8739-03-19 17:31 G	4912991.05	4912991.23	4912991.41	0.0532	0.0325
Moon	8739-03-19 21:21 G	4912991.22	4912991.39	4912991.58	0.0532	0.0340 *
Mercury	8743-04-27 07:26 G	4914490.71	4914490.81	4914490.92	0.0485	0.0370
Mercury	8743-07-26 03:50 G	4914580.51	4914580.66	4914580.81	0.0485	0.0230
Mercury	8749-03-31 14:38 G	4916656.06	4916656.11	4916656.16	0.0542	0.0507
Mercury	8749-06-29 03:36 G	4916745.53	4916745.65	4916745.78	0.0543	0.0182
Moon	8751-03-24 12:14 G	4917378.93	4917379.01	4917379.10	0.0530	0.0494
Earth	8751-03-24 16:04 G	4917379.13	4917379.17	4917379.20	0.0530	0.0522
Mercury	8755-05-14 03:50 G	4918890.50	4918890.66	4918890.83	0.0485	0.0077
Venus	8755-09-06 17:02 G	4919006.06	4919006.21	4919006.37	0.0485	0.0314
Moon	8756-08-26 13:26 G	4919360.95	4919361.06	4919361.19	0.0489	0.0427
Earth	8756-08-26 15:21 G	4919361.03	4919361.14	4919361.26	0.0489	0.0426 *
Mars	8759-11-07 14:52 G	4920528.97	4920529.12	4920529.29	0.0532	0.0408
Mercury	8761-04-17 06:00 G	4921055.61	4921055.75	4921055.88	0.0543	0.0013
Venus	8761-07-11 01:40 G	4921140.39	4921140.57	4921140.75	0.0543	0.0244
Mercury	8767-03-02 04:33 G	4923200.53	4923200.69	4923200.86	0.0485	0.0070
Venus	8767-05-12 23:16 G	4923272.27	4923272.47	4923272.68	0.0485	0.0034
Earth	8768-08-31 00:00 G	4923748.31	4923748.50	4923748.70	0.0490	0.0270
Moon	8768-08-31 00:14 G	4923748.32	4923748.51	4923748.71	0.0491	0.0244 *
Mercury	8773-02-03 08:38 G	4925365.73	4925365.86	4925366.00	0.0543	0.0157
Venus	8773-03-15 12:43 G	4925405.86	4925406.03	4925406.22	0.0544	0.0254
Mercury	8773-05-03 21:07 G	4925455.34	4925455.38	4925455.42	0.0544	0.0518
Moon	8774-02-26 14:09 G	4925754.06	4925754.09	4925754.14	0.0539	0.0531

Mercury	8778-12-19 05:02 G	4927510.56	4927510.71	4927510.86	0.0485	0.0220
Venus	8779-01-16 04:48 G	4927538.58	4927538.70	4927538.83	0.0485	0.0380
Mercury	8779-03-19 01:40 G	4927600.47	4927600.57	4927600.67	0.0485	0.0386
Earth	8780-09-04 09:21 G	4928135.66	4928135.89	4928136.12	0.0492	0.0111
Moon	8780-09-04 11:16 G	4928135.74	4928135.97	4928136.21	0.0492	0.0107 *
Mercury	8784-11-22 11:16 G	4929675.87	4929675.97	4929676.09	0.0543	0.0322
Mercury	8785-02-20 00:14 G	4929765.41	4929765.51	4929765.61	0.0543	0.0360
Earth	8786-03-03 17:45 G	4930142.06	4930142.24	4930142.42	0.0538	0.0329
Moon	8786-03-03 18:14 G	4930142.08	4930142.26	4930142.44	0.0538	0.0356 *
Mercury	8790-10-07 05:45 G	4931820.64	4931820.74	4931820.85	0.0485	0.0365
Mercury	8791-01-05 01:55 G	4931910.44	4931910.58	4931910.74	0.0485	0.0235
Moon	8792-09-08 17:45 G	4932523.01	4932523.24	4932523.47	0.0494	0.0026
Earth	8792-09-08 21:07 G	4932523.14	4932523.38	4932523.61	0.0494	0.0055 *
Mercury	8796-09-10 13:26 G	4933986.01	4933986.06	4933986.11	0.0542	0.0499
Mercury	8796-12-09 02:23 G	4934075.48	4934075.60	4934075.73	0.0543	0.0190
Venus	8797-03-18 22:04 G	4934175.42	4934175.42	4934175.43	0.0542	0.0542
Moon	8798-03-08 14:52 G	4934529.91	4934530.12	4934530.34	0.0536	0.0131
Earth	8798-03-08 17:45 G	4934530.01	4934530.24	4934530.46	0.0536	0.0122 *
Mercury	8802-10-24 02:23 G	4936220.43	4936220.60	4936220.76	0.0485	0.0082
Venus	8803-01-18 07:11 G	4936306.62	4936306.80	4936307.00	0.0485	0.0173
Earth	8804-09-13 08:09 G	4936910.63	4936910.84	4936911.05	0.0495	0.0218
Moon	8804-09-13 12:14 G	4936910.79	4936911.01	4936911.22	0.0495	0.0204 *
Mercury	8808-09-27 04:48 G	4938385.56	4938385.70	4938385.84	0.0543	0.0016
Venus	8808-11-21 07:26 G	4938440.61	4938440.81	4938441.02	0.0543	0.0036
Earth	8810-03-13 18:28 G	4938918.04	4938918.27	4938918.50	0.0534	0.0085
Moon	8810-03-13 22:33 G	4938918.21	4938918.44	4938918.67	0.0534	0.0120 *
Mercury	8814-08-12 02:38 G	4940530.45	4940530.61	4940530.78	0.0485	0.0069
Venus	8814-09-23 12:43 G	4940572.84	4940573.03	4940573.22	0.0485	0.0176
Moon	8816-09-17 12:43 G	4941297.89	4941298.03	4941298.18	0.0497	0.0397
Earth	8816-09-17 16:33 G	4941298.05	4941298.19	4941298.35	0.0497	0.0376 *

Mercury	8820-07-16 06:43 G	4942695.65	4942695.78	4942695.91	0.0543	0.0163
Venus	8820-07-26 15:36 G	4942706.06	4942706.15	4942706.25	0.0543	0.0476
Mercury	8820-10-13 19:11 G	4942785.25	4942785.30	4942785.34	0.0543	0.0512
Moon	8822-03-18 16:33 G	4943306.00	4943306.19	4943306.38	0.0533	0.0303
Earth	8822-03-18 20:23 G	4943306.16	4943306.35	4943306.55	0.0533	0.0288 *
Mars	8824-09-03 08:52 G	4944205.61	4944205.87	4944206.15	0.0497	0.0218
Mercury	8826-05-31 03:36 G	4944840.50	4944840.65	4944840.80	0.0485	0.0212
Mercury	8826-08-29 00:14 G	4944930.41	4944930.51	4944930.61	0.0485	0.0393
Mercury	8832-05-04 09:21 G	4947005.78	4947005.89	4947006.00	0.0543	0.0328
Mercury	8832-08-01 22:04 G	4947095.33	4947095.42	4947095.53	0.0544	0.0356
Earth	8834-03-23 22:33 G	4947694.36	4947694.44	4947694.53	0.0531	0.0490
Moon	8834-03-24 00:57 G	4947694.44	4947694.54	4947694.65	0.0531	0.0463 *
Mercury	8838-03-19 04:04 G	4949150.57	4949150.67	4949150.79	0.0485	0.0360
Mercury	8838-06-17 00:14 G	4949240.37	4949240.51	4949240.66	0.0485	0.0239
Venus	8838-09-25 15:21 G	4949341.01	4949341.14	4949341.27	0.0485	0.0377
Earth	8839-08-26 22:19 G	4949676.34	4949676.43	4949676.53	0.0489	0.0447
Moon	8839-08-26 22:19 G	4949676.35	4949676.43	4949676.53	0.0489	0.0445 *
Mercury	8844-02-21 12:00 G	4951315.95	4951316.00	4951316.06	0.0543	0.0494
Mercury	8844-05-21 01:11 G	4951405.43	4951405.55	4951405.68	0.0543	0.0197
Venus	8844-07-30 04:04 G	4951475.52	4951475.67	4951475.84	0.0543	0.0339
Mercury	8850-04-05 00:43 G	4953550.37	4953550.53	4953550.70	0.0485	0.0090
Venus	8850-05-31 21:36 G	4953607.20	4953607.40	4953607.61	0.0485	0.0032
Earth	8851-08-31 07:55 G	4954063.65	4954063.83	4954064.02	0.0491	0.0291
Moon	8851-08-31 09:50 G	4954063.71	4954063.91	4954064.12	0.0491	0.0263 *
Mercury	8856-03-09 03:36 G	4955715.52	4955715.65	4955715.79	0.0543	0.0029
Venus	8856-04-03 13:26 G	4955740.87	4955741.06	4955741.26	0.0543	0.0169
Mercury	8862-01-22 01:11 G	4957860.39	4957860.55	4957860.72	0.0485	0.0062
Venus	8862-02-04 03:21 G	4957873.48	4957873.64	4957873.79	0.0485	0.0317
Moon	8863-09-04 14:09 G	4958450.87	4958451.09	4958451.31	0.0492	0.0135
Earth	8863-09-04 17:31 G	4958451.01	4958451.23	4958451.46	0.0492	0.0132 *

Mercury	8867-12-27 05:45 G	4960025.61	4960025.74	4960025.88	0.0543	0.0149
Mercury	8868-03-25 18:14 G	4960115.22	4960115.26	4960115.29	0.0543	0.0523
Moon	8869-03-02 14:23 G	4960456.96	4960457.10	4960457.25	0.0538	0.0401
Earth	8869-03-02 16:33 G	4960457.02	4960457.19	4960457.36	0.0538	0.0369 *
Mercury	8873-11-10 01:55 G	4962170.43	4962170.58	4962170.73	0.0485	0.0207
Mercury	8874-02-07 22:33 G	4962260.35	4962260.44	4962260.54	0.0485	0.0399
Earth	8875-09-09 01:11 G	4962838.31	4962838.55	4962838.78	0.0493	0.0022
Moon	8875-09-09 05:16 G	4962838.48	4962838.72	4962838.95	0.0493	0.0012 *
Mars	8878-04-28 19:26 G	4963801.06	4963801.31	4963801.56	0.0530	0.0094
Mercury	8879-10-15 07:26 G	4964335.70	4964335.81	4964335.92	0.0543	0.0332
Mercury	8880-01-12 20:23 G	4964425.25	4964425.35	4964425.45	0.0544	0.0351
Earth	8881-03-07 19:26 G	4964845.09	4964845.31	4964845.53	0.0537	0.0162
Moon	8881-03-07 23:02 G	4964845.24	4964845.46	4964845.69	0.0537	0.0164 *
Mercury	8885-08-29 03:07 G	4966480.51	4966480.63	4966480.74	0.0485	0.0348
Mercury	8885-11-26 23:02 G	4966570.32	4966570.46	4966570.61	0.0485	0.0250
Venus	8886-02-06 06:14 G	4966641.59	4966641.76	4966641.94	0.0485	0.0240
Moon	8887-09-13 08:09 G	4967225.62	4967225.84	4967226.06	0.0494	0.0171
Earth	8887-09-13 12:00 G	4967225.79	4967226.00	4967226.23	0.0494	0.0187 *
Mercury	8891-08-03 10:04 G	4968645.87	4968645.92	4968645.97	0.0543	0.0500
Mercury	8891-10-31 23:16 G	4968735.35	4968735.47	4968735.60	0.0544	0.0193
Venus	8891-12-11 07:40 G	4968775.62	4968775.82	4968776.02	0.0544	0.0120
Moon	8893-03-12 20:38 G	4969233.13	4969233.36	4969233.59	0.0535	0.0085
Earth	8893-03-13 00:43 G	4969233.30	4969233.53	4969233.76	0.0535	0.0051 *
Mercury	8897-09-14 23:16 G	4970880.31	4970880.47	4970880.64	0.0485	0.0097
Venus	8897-10-12 12:00 G	4970907.80	4970908.00	4970908.20	0.0485	0.0110
Earth	8899-09-17 23:45 G	4971613.33	4971613.49	4971613.66	0.0496	0.0350
Moon	8899-09-18 02:38 G	4971613.47	4971613.61	4971613.77	0.0496	0.0377 *
Venus	8903-08-16 18:57 G	4973041.15	4973041.29	4973041.44	0.0544	0.0378
Mercury	8903-08-21 02:23 G	4973045.46	4973045.60	4973045.74	0.0544	0.0033
Earth	8905-03-19 03:36 G	4973621.45	4973621.65	4973621.86	0.0533	0.0261

Moon	8905-03-19 06:28 G	4973621.58	4973621.77	4973621.97	0.0533	0.0270 *
Venus	8909-06-18 18:14 G	4975174.20	4975174.26	4975174.33	0.0485	0.0455
Mercury	8909-07-05 00:00 G	4975190.33	4975190.50	4975190.67	0.0485	0.0051
Mercury	8915-06-09 04:48 G	4977355.57	4977355.70	4977355.83	0.0543	0.0137
Mercury	8915-09-06 17:02 G	4977445.20	4977445.21	4977445.23	0.0543	0.0535
Moon	8917-03-24 00:57 G	4978009.40	4978009.54	4978009.69	0.0531	0.0425
Earth	8917-03-24 01:40 G	4978009.46	4978009.57	4978009.69	0.0531	0.0456 *
Mercury	8921-04-23 00:28 G	4979500.37	4979500.52	4979500.68	0.0485	0.0200
Mercury	8921-07-21 21:07 G	4979590.30	4979590.38	4979590.48	0.0485	0.0408
Venus	8921-10-15 14:38 G	4979676.03	4979676.11	4979676.19	0.0485	0.0445
Earth	8922-08-27 07:55 G	4979991.76	4979991.83	4979991.90	0.0489	0.0465
Moon	8922-08-27 09:50 G	4979991.82	4979991.91	4979992.01	0.0489	0.0450 *
Mercury	8927-03-28 06:57 G	4981665.68	4981665.79	4981665.90	0.0543	0.0313
Mercury	8927-06-25 19:40 G	4981755.22	4981755.32	4981755.42	0.0543	0.0368
Venus	8927-08-20 03:50 G	4981810.53	4981810.66	4981810.79	0.0543	0.0418
Mercury	8933-02-09 01:26 G	4983810.45	4983810.56	4983810.68	0.0485	0.0342
Mercury	8933-05-09 21:36 G	4983900.26	4983900.40	4983900.54	0.0485	0.0257
Venus	8933-06-20 20:38 G	4983942.17	4983942.36	4983942.57	0.0485	0.0101
Moon	8934-08-31 11:31 G	4984378.80	4984378.98	4984379.17	0.0490	0.0291
Earth	8934-08-31 15:07 G	4984378.95	4984379.13	4984379.31	0.0490	0.0317 *
Mercury	8939-01-14 08:23 G	4985975.80	4985975.85	4985975.90	0.0543	0.0501
Mercury	8939-04-13 21:36 G	4986065.28	4986065.40	4986065.53	0.0544	0.0191
Venus	8939-04-24 11:31 G	4986075.78	4986075.98	4986076.18	0.0544	0.0098
Mars	8943-02-22 07:26 G	4987475.58	4987475.81	4987476.06	0.0499	0.0293
Mercury	8944-11-28 02:38 G	4988120.60	4988120.61	4988120.64	0.0485	0.0480
Venus	8945-02-24 03:21 G	4988208.47	4988208.64	4988208.82	0.0485	0.0245
Mercury	8945-02-25 22:19 G	4988210.27	4988210.43	4988210.60	0.0485	0.0111
Earth	8946-09-05 00:14 G	4988766.29	4988766.51	4988766.73	0.0491	0.0159
Moon	8946-09-05 04:04 G	4988766.46	4988766.67	4988766.90	0.0491	0.0166 *
Mercury	8951-01-31 00:28 G	4990375.39	4990375.52	4990375.66	0.0544	0.0030

Earth	8952-03-02 21:21 G	4990772.24	4990772.39	4990772.54	0.0539	0.0403
Moon	8952-03-03 00:43 G	4990772.40	4990772.53	4990772.67	0.0539	0.0436 *
Mercury	8956-12-14 22:48 G	4992520.28	4992520.45	4992520.61	0.0485	0.0041
Moon	8958-09-09 05:45 G	4993153.50	4993153.74	4993153.98	0.0493	0.0032
Earth	8958-09-09 09:36 G	4993153.67	4993153.90	4993154.14	0.0493	0.0009 *
Mercury	8962-11-19 03:36 G	4994685.51	4994685.65	4994685.78	0.0544	0.0133
Mercury	8963-02-16 15:50 G	4994775.16	4994775.16	4994775.17	0.0544	0.0543
Moon	8964-03-07 23:45 G	4995160.27	4995160.49	4995160.70	0.0537	0.0189
Earth	8964-03-08 03:50 G	4995160.44	4995160.66	4995160.88	0.0537	0.0186 *
Mercury	8968-10-02 23:31 G	4996830.33	4996830.48	4996830.63	0.0485	0.0186
Mercury	8968-12-31 20:09 G	4996920.26	4996920.34	4996920.42	0.0485	0.0419
Venus	8969-02-26 05:45 G	4996976.58	4996976.74	4996976.90	0.0485	0.0308
Earth	8970-09-13 21:21 G	4997541.18	4997541.39	4997541.62	0.0494	0.0166
Moon	8970-09-14 00:28 G	4997541.30	4997541.52	4997541.74	0.0494	0.0160 *
Mercury	8974-09-07 06:00 G	4998995.63	4998995.75	4998995.86	0.0543	0.0301
Mercury	8974-12-05 18:43 G	4999085.19	4999085.28	4999085.38	0.0543	0.0381
Venus	8974-12-31 10:33 G	4999110.75	4999110.94	4999111.13	0.0543	0.0218
Earth	8976-03-13 05:31 G	4999548.50	4999548.73	4999548.96	0.0535	0.0022
Moon	8976-03-13 08:38 G	4999548.64	4999548.86	4999549.09	0.0535	0.0055 *
Mars	8978-11-29 11:45 G	5000539.85	5000539.99	5000540.13	0.0496	0.0440
Mercury	8980-07-22 00:14 G	5001140.39	5001140.51	5001140.63	0.0485	0.0333
Mercury	8980-10-19 20:09 G	5001230.21	5001230.34	5001230.49	0.0485	0.0267
Venus	8980-11-01 11:31 G	5001242.78	5001242.98	5001243.19	0.0485	0.0041
Moon	8982-09-18 08:23 G	5001928.69	5001928.85	5001929.03	0.0496	0.0356
Earth	8982-09-18 09:36 G	5001928.73	5001928.90	5001929.09	0.0496	0.0329 *
Mercury	8986-06-26 07:55 G	5003305.77	5003305.83	5003305.90	0.0543	0.0478
Venus	8986-09-04 19:55 G	5003376.16	5003376.33	5003376.50	0.0543	0.0292
Mercury	8986-09-23 21:07 G	5003395.26	5003395.38	5003395.51	0.0543	0.0212
Moon	8988-03-18 04:48 G	5003936.49	5003936.70	5003936.92	0.0533	0.0225
Earth	8988-03-18 06:14 G	5003936.55	5003936.76	5003936.97	0.0533	0.0225 *

Mercury	8992-05-10 01:11 G	5005450.52	5005450.55	5005450.59	0.0485	0.0472
Venus	8992-07-07 18:00 G	5005509.13	5005509.25	5005509.38	0.0485	0.0384
Mercury	8992-08-07 20:52 G	5005540.21	5005540.37	5005540.54	0.0485	0.0119
Earth	8994-09-22 20:09 G	5006316.30	5006316.34	5006316.39	0.0497	0.0487
Moon	8994-09-22 19:40 G	5006316.31	5006316.32	5006316.33	0.0497	0.0496 *
Mercury	8998-07-12 22:48 G	5007705.32	5007705.45	5007705.59	0.0544	0.0035
Moon	9000-03-24 04:33 G	5008324.55	5008324.69	5008324.85	0.0532	0.0390
Earth	9000-03-24 05:45 G	5008324.60	5008324.74	5008324.88	0.0532	0.0420 *

10TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 10th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	9004-05-27 21:50 G	5009850.24	5009850.41	5009850.58	0.0485	0.0025		
Moon	9005-08-27 13:55 G	5010307.01	5010307.08	5010307.15	0.0488	0.0465		
Earth	9005-08-27 17:16 G	5010307.20	5010307.22	5010307.24	0.0488	0.0485		
Mercury	9010-05-02 01:40 G	5012015.43	5012015.57	5012015.70	0.0544	0.0136		
Mercury	9010-07-30 14:09 G	5012105.08	5012105.09	5012105.10	0.0544	0.0540		
Venus	9010-09-09 03:50 G	5012145.59	5012145.66	5012145.74	0.0544	0.0504		
Mercury	9016-03-15 22:19 G	5014160.28	5014160.43	5014160.59	0.0485	0.0175		
Mercury	9016-06-13 18:57 G	5014250.21	5014250.29	5014250.36	0.0484	0.0430		
Venus	9016-07-10 20:52 G	5014277.18	5014277.37	5014277.56	0.0484	0.0171		
Earth	9017-09-01 00:28 G	5014694.35	5014694.52	5014694.69	0.0489	0.0335		
Moon	9017-09-01 04:33 G	5014694.51	5014694.69	5014694.87	0.0489	0.0308 *		

Mercury	9022-02-18 04:33 G	5016325.57	5016325.69	5016325.80	0.0544	0.0297
Venus	9022-05-14 15:50 G	5016410.96	5016411.16	5016411.36	0.0544	0.0007
Mercury	9022-05-18 17:16 G	5016415.13	5016415.22	5016415.32	0.0544	0.0387
Mercury	9028-01-02 23:16 G	5018470.35	5018470.47	5018470.59	0.0485	0.0318
Venus	9028-03-16 03:07 G	5018543.44	5018543.63	5018543.82	0.0485	0.0176
Mercury	9028-04-01 19:26 G	5018560.17	5018560.31	5018560.44	0.0485	0.0280
Moon	9029-09-05 06:14 G	5019081.54	5019081.76	5019081.98	0.0491	0.0185
Earth	9029-09-05 10:04 G	5019081.71	5019081.92	5019082.14	0.0491	0.0177 *
Mars	9032-07-25 10:33 G	5020135.70	5020135.94	5020136.19	0.0531	0.0144
Mercury	9033-12-07 06:57 G	5020635.72	5020635.79	5020635.86	0.0543	0.0466
Venus	9034-01-17 02:23 G	5020676.52	5020676.60	5020676.68	0.0543	0.0495
Mercury	9034-03-06 20:09 G	5020725.22	5020725.34	5020725.47	0.0543	0.0225
Moon	9035-03-03 23:16 G	5021087.37	5021087.47	5021087.59	0.0539	0.0467
Earth	9035-03-04 03:36 G	5021087.51	5021087.65	5021087.79	0.0539	0.0430 *
Mercury	9039-10-22 00:00 G	5022780.46	5022780.50	5022780.55	0.0485	0.0463
Mercury	9040-01-19 19:40 G	5022870.16	5022870.32	5022870.48	0.0485	0.0129
Earth	9041-09-09 20:23 G	5023469.12	5023469.35	5023469.59	0.0492	0.0019
Moon	9041-09-09 23:16 G	5023469.24	5023469.47	5023469.70	0.0492	0.0047 *
Mercury	9045-12-23 22:33 G	5025035.31	5025035.44	5025035.58	0.0543	0.0055
Earth	9047-03-09 06:43 G	5025475.57	5025475.78	5025475.99	0.0537	0.0220
Moon	9047-03-09 10:19 G	5025475.72	5025475.93	5025476.14	0.0537	0.0219 *
Mercury	9051-11-07 20:38 G	5027180.19	5027180.36	5027180.52	0.0485	0.0018
Venus	9052-03-18 06:00 G	5027311.63	5027311.75	5027311.88	0.0485	0.0383
Moon	9053-09-14 04:48 G	5027856.46	5027856.70	5027856.93	0.0493	0.0141
Earth	9053-09-14 06:00 G	5027856.52	5027856.75	5027856.98	0.0493	0.0137 *
Mercury	9057-10-12 00:00 G	5029345.37	5029345.50	5029345.64	0.0543	0.0134
Mercury	9058-01-09 12:28 G	5029435.02	5029435.02	5029435.03	0.0544	0.0543
Venus	9058-01-20 08:38 G	5029445.69	5029445.86	5029446.03	0.0544	0.0290
Moon	9059-03-14 05:02 G	5029863.47	5029863.71	5029863.95	0.0536	0.0014
Earth	9059-03-14 07:11 G	5029863.57	5029863.80	5029864.03	0.0536	0.0021 *

Mercury	9063-08-26 21:36 G	5031490.24	5031490.40	5031490.56	0.0485	0.0159
Venus	9063-11-22 12:43 G	5031577.83	5031578.03	5031578.24	0.0484	0.0039
Mercury	9063-11-24 18:00 G	5031580.19	5031580.25	5031580.32	0.0484	0.0448
Moon	9065-09-18 16:33 G	5032244.03	5032244.19	5032244.36	0.0495	0.0331
Earth	9065-09-18 17:16 G	5032244.04	5032244.22	5032244.41	0.0495	0.0300 *
Mercury	9069-07-31 02:38 G	5033655.50	5033655.61	5033655.72	0.0544	0.0301
Venus	9069-09-24 19:11 G	5033711.11	5033711.30	5033711.49	0.0544	0.0215
Mercury	9069-10-28 15:36 G	5033745.06	5033745.15	5033745.24	0.0544	0.0383
Moon	9071-03-19 11:16 G	5034251.76	5034251.97	5034252.18	0.0535	0.0183
Earth	9071-03-19 11:45 G	5034251.78	5034251.99	5034252.21	0.0535	0.0191 *
Mercury	9075-06-14 22:04 G	5035800.30	5035800.42	5035800.55	0.0485	0.0307
Venus	9075-07-28 18:14 G	5035844.11	5035844.26	5035844.42	0.0484	0.0314
Mercury	9075-09-12 18:14 G	5035890.12	5035890.26	5035890.39	0.0484	0.0292
Earth	9077-09-23 04:33 G	5036631.61	5036631.69	5036631.78	0.0497	0.0463
Moon	9077-09-23 06:43 G	5036631.70	5036631.78	5036631.87	0.0497	0.0466 *
Mercury	9081-05-19 05:16 G	5037965.66	5037965.72	5037965.80	0.0543	0.0465
Mercury	9081-08-16 18:43 G	5038055.16	5038055.28	5038055.41	0.0544	0.0228
Earth	9083-03-24 15:21 G	5038640.00	5038640.14	5038640.30	0.0532	0.0397
Moon	9083-03-24 18:14 G	5038640.09	5038640.26	5038640.43	0.0532	0.0364 *
Mercury	9087-04-02 23:16 G	5040110.41	5040110.47	5040110.53	0.0485	0.0448
Mercury	9087-07-01 18:43 G	5040200.12	5040200.28	5040200.44	0.0484	0.0143
Moon	9088-08-27 07:11 G	5040622.75	5040622.80	5040622.86	0.0488	0.0474
Mercury	9093-06-04 21:36 G	5042365.26	5042365.40	5042365.53	0.0543	0.0065
Mars	9097-05-19 17:45 G	5043809.95	5043810.24	5043810.54	0.0498	0.0055
Mercury	9099-04-19 19:11 G	5044510.13	5044510.30	5044510.47	0.0485	0.0008
Venus	9099-07-30 20:52 G	5044612.20	5044612.37	5044612.55	0.0485	0.0243
Moon	9100-09-01 07:40 G	5045009.65	5045009.82	5045010.00	0.0489	0.0326
Earth	9100-09-01 11:45 G	5045009.83	5045009.99	5045010.15	0.0489	0.0351 *
Mercury	9105-03-25 00:00 G	5046675.36	5046675.50	5046675.63	0.0543	0.0108
Venus	9105-06-03 17:31 G	5046746.03	5046746.23	5046746.43	0.0543	0.0098

Mercury	9111-02-06 20:09 G	5048820.18	5048820.34	5048820.50	0.0485	0.0150
Venus	9111-04-06 03:36 G	5048878.45	5048878.65	5048878.85	0.0485	0.0102
Mercury	9111-05-07 16:33 G	5048910.15	5048910.19	5048910.25	0.0485	0.0458
Earth	9112-09-05 20:09 G	5049397.13	5049397.34	5049397.56	0.0490	0.0199
Moon	9112-09-05 23:02 G	5049397.26	5049397.46	5049397.67	0.0490	0.0212 *
Mercury	9117-01-11 01:11 G	5050985.43	5050985.55	5050985.66	0.0543	0.0298
Venus	9117-02-06 00:00 G	5051011.38	5051011.50	5051011.62	0.0543	0.0429
Mercury	9117-04-10 14:09 G	5051074.99	5051075.09	5051075.18	0.0544	0.0386
Earth	9118-03-04 02:38 G	5051402.51	5051402.61	5051402.73	0.0540	0.0472
Moon	9118-03-04 06:28 G	5051402.71	5051402.77	5051402.86	0.0540	0.0507 *
Mercury	9122-11-25 21:21 G	5053130.26	5053130.39	5053130.52	0.0485	0.0291
Venus	9122-12-10 10:19 G	5053144.86	5053144.93	5053145.01	0.0485	0.0447
Mercury	9123-02-23 17:16 G	5053220.10	5053220.22	5053220.36	0.0484	0.0309
Moon	9124-09-10 04:33 G	5053784.45	5053784.69	5053784.94	0.0491	0.0066
Earth	9124-09-10 05:45 G	5053784.51	5053784.74	5053784.98	0.0491	0.0041 *
Mercury	9128-10-30 03:21 G	5055295.58	5055295.64	5055295.71	0.0543	0.0470
Mercury	9129-01-27 16:48 G	5055385.08	5055385.20	5055385.33	0.0544	0.0224
Moon	9130-03-09 06:28 G	5055790.57	5055790.77	5055790.99	0.0539	0.0253
Earth	9130-03-09 09:21 G	5055790.69	5055790.89	5055791.09	0.0538	0.0257 *
Mercury	9134-09-13 22:04 G	5057440.35	5057440.42	5057440.49	0.0485	0.0437
Mercury	9134-12-12 17:31 G	5057530.07	5057530.23	5057530.39	0.0484	0.0155
Venus	9135-04-08 06:00 G	5057646.68	5057646.75	5057646.82	0.0484	0.0452
Moon	9136-09-14 13:40 G	5058171.85	5058172.07	5058172.29	0.0493	0.0129
Earth	9136-09-14 14:23 G	5058171.87	5058172.10	5058172.33	0.0493	0.0116 *
Mercury	9140-11-15 19:55 G	5059695.20	5059695.33	5059695.47	0.0544	0.0066
Venus	9141-02-09 12:28 G	5059780.89	5059781.02	5059781.17	0.0544	0.0393
Earth	9142-03-14 16:19 G	5060178.95	5060179.18	5060179.41	0.0537	0.0043
Moon	9142-03-14 16:19 G	5060178.95	5060179.18	5060179.40	0.0537	0.0017 *
Mercury	9146-09-30 18:14 G	5061840.09	5061840.26	5061840.43	0.0484	0.0007
Venus	9146-12-12 12:28 G	5061912.82	5061913.02	5061913.22	0.0484	0.0105

Earth	9148-09-19 02:23 G	5062559.41	5062559.60	5062559.80	0.0495	0.0279
Moon	9148-09-19 04:33 G	5062559.50	5062559.69	5062559.88	0.0495	0.0309 *
Mars	9151-01-15 20:23 G	5063408.16	5063408.35	5063408.54	0.0529	0.0345
Mercury	9152-09-03 22:48 G	5064005.31	5064005.45	5064005.58	0.0543	0.0099
Venus	9152-10-14 23:31 G	5064046.28	5064046.48	5064046.68	0.0544	0.0110
Earth	9154-03-19 18:43 G	5064567.07	5064567.28	5064567.50	0.0534	0.0164
Moon	9154-03-19 21:07 G	5064567.15	5064567.38	5064567.61	0.0534	0.0147 *
Mercury	9158-07-19 18:43 G	5066150.13	5066150.28	5066150.44	0.0485	0.0143
Venus	9158-08-17 18:14 G	5066179.08	5066179.26	5066179.44	0.0485	0.0244
Mercury	9158-10-17 15:21 G	5066240.10	5066240.14	5066240.19	0.0485	0.0465
Moon	9160-09-23 12:00 G	5066946.90	5066947.00	5066947.11	0.0497	0.0443
Earth	9160-09-23 15:07 G	5066947.03	5066947.13	5066947.24	0.0497	0.0442 *
Mercury	9164-06-23 00:57 G	5068315.42	5068315.54	5068315.66	0.0543	0.0272
Mercury	9164-09-20 13:40 G	5068404.99	5068405.07	5068405.16	0.0543	0.0411
Moon	9166-03-24 16:04 G	5068954.99	5068955.17	5068955.35	0.0533	0.0331
Earth	9166-03-24 19:26 G	5068955.14	5068955.31	5068955.48	0.0533	0.0363 *
Mercury	9170-05-07 19:55 G	5070460.20	5070460.33	5070460.47	0.0485	0.0283
Mercury	9170-08-05 16:04 G	5070550.04	5070550.17	5070550.30	0.0485	0.0317
Mercury	9176-04-11 01:55 G	5072625.52	5072625.58	5072625.65	0.0543	0.0466
Mercury	9176-07-09 15:21 G	5072715.02	5072715.14	5072715.27	0.0544	0.0227
Mercury	9182-02-23 21:07 G	5074770.31	5074770.38	5074770.46	0.0485	0.0423
Mercury	9182-05-24 16:48 G	5074860.04	5074860.20	5074860.36	0.0485	0.0170
Venus	9182-08-19 21:50 G	5074947.26	5074947.41	5074947.57	0.0485	0.0319
Earth	9183-09-01 21:50 G	5075325.26	5075325.41	5075325.57	0.0489	0.0369
Moon	9183-09-02 00:43 G	5075325.38	5075325.53	5075325.69	0.0489	0.0350 *
Mars	9186-10-20 08:38 G	5076469.67	5076469.86	5076470.06	0.0531	0.0324
Mercury	9188-04-27 18:00 G	5077025.12	5077025.25	5077025.39	0.0544	0.0060
Venus	9188-06-22 15:36 G	5077080.96	5077081.15	5077081.35	0.0544	0.0169
Mercury	9194-03-12 17:02 G	5079170.04	5079170.21	5079170.38	0.0484	0.0017
Venus	9194-04-25 03:21 G	5079213.44	5079213.64	5079213.84	0.0484	0.0034

Moon	9195-09-06 03:07 G	5079712.42	5079712.63	5079712.85	0.0490	0.0237
Earth	9195-09-06 04:33 G	5079712.48	5079712.69	5079712.90	0.0490	0.0218 *
Mercury	9200-02-14 20:52 G	5081335.24	5081335.37	5081335.51	0.0544	0.0102
Venus	9200-02-26 03:07 G	5081346.47	5081346.63	5081346.79	0.0544	0.0332
Moon	9201-03-03 06:57 G	5081717.75	5081717.79	5081717.85	0.0540	0.0526
Earth	9201-03-03 10:19 G	5081717.84	5081717.93	5081718.02	0.0540	0.0494 *
Venus	9205-12-29 09:36 G	5083479.78	5083479.90	5083480.03	0.0485	0.0382
Mercury	9205-12-29 17:45 G	5083480.08	5083480.24	5083480.40	0.0485	0.0130
Mercury	9206-03-29 14:09 G	5083570.07	5083570.09	5083570.12	0.0484	0.0476
Moon	9207-09-10 13:11 G	5084099.83	5084100.05	5084100.28	0.0491	0.0083
Earth	9207-09-10 14:09 G	5084099.85	5084100.09	5084100.32	0.0491	0.0061 *
Mercury	9211-12-03 23:31 G	5085645.36	5085645.48	5085645.60	0.0543	0.0267
Mercury	9212-03-02 12:28 G	5085734.94	5085735.02	5085735.11	0.0544	0.0417
Earth	9213-03-08 16:04 G	5086105.98	5086106.17	5086106.37	0.0538	0.0284
Moon	9213-03-08 17:02 G	5086106.02	5086106.21	5086106.40	0.0538	0.0269 *
Mercury	9217-10-17 18:28 G	5087790.13	5087790.27	5087790.40	0.0485	0.0277
Mercury	9218-01-15 14:23 G	5087879.98	5087880.10	5087880.23	0.0485	0.0323
Earth	9219-09-15 00:28 G	5088487.29	5088487.52	5088487.75	0.0493	0.0097
Moon	9219-09-15 02:38 G	5088487.38	5088487.61	5088487.85	0.0493	0.0114 *
Mercury	9223-09-22 01:40 G	5089955.49	5089955.57	5089955.65	0.0543	0.0442
Mercury	9223-12-20 15:07 G	5090045.01	5090045.13	5090045.25	0.0543	0.0250
Venus	9224-02-29 13:55 G	5090115.99	5090116.08	5090116.18	0.0543	0.0482
Earth	9225-03-13 19:11 G	5090494.07	5090494.30	5090494.53	0.0537	0.0076
Moon	9225-03-13 20:52 G	5090494.13	5090494.37	5090494.61	0.0537	0.0049 *
Mercury	9229-08-05 19:40 G	5092100.24	5092100.32	5092100.40	0.0485	0.0417
Mercury	9229-11-03 15:07 G	5092189.98	5092190.13	5092190.29	0.0485	0.0177
Venus	9229-12-31 12:28 G	5092247.83	5092248.02	5092248.21	0.0485	0.0177
Moon	9231-09-19 08:23 G	5092874.67	5092874.85	5092875.04	0.0494	0.0284
Earth	9231-09-19 11:31 G	5092874.78	5092874.98	5092875.19	0.0494	0.0254 *
Mercury	9235-10-08 16:33 G	5094355.05	5094355.19	5094355.32	0.0543	0.0063

Venus	9235-11-03 20:23 G	5094381.15	5094381.35	5094381.55	0.0543	0.0047
Moon	9237-03-18 14:09 G	5094881.87	5094882.09	5094882.31	0.0536	0.0105
Earth	9237-03-18 17:16 G	5094881.99	5094882.22	5094882.44	0.0536	0.0121 *
Mercury	9241-08-22 16:04 G	5096500.00	5096500.17	5096500.33	0.0485	0.0032
Venus	9241-09-05 18:43 G	5096514.09	5096514.28	5096514.48	0.0485	0.0171
Earth	9243-09-23 22:33 G	5097262.32	5097262.44	5097262.57	0.0496	0.0415
Moon	9243-09-24 02:09 G	5097262.47	5097262.59	5097262.74	0.0496	0.0407 *
Mercury	9247-07-27 18:57 G	5098665.15	5098665.29	5098665.42	0.0543	0.0110
Earth	9249-03-23 19:55 G	5099270.16	5099270.33	5099270.52	0.0534	0.0325
Moon	9249-03-24 00:00 G	5099270.31	5099270.50	5099270.69	0.0534	0.0295 *
Mars	9251-08-15 04:04 G	5100144.40	5100144.67	5100144.96	0.0498	0.0182
Mercury	9253-06-10 16:19 G	5100810.02	5100810.18	5100810.34	0.0485	0.0122
Mercury	9253-09-08 12:43 G	5100900.03	5100900.03	5100900.04	0.0484	0.0484
Mercury	9259-05-15 21:36 G	5102975.28	5102975.40	5102975.52	0.0544	0.0273
Mercury	9259-08-13 10:33 G	5103064.86	5103064.94	5103065.03	0.0544	0.0412
Earth	9261-03-28 23:31 G	5103658.45	5103658.48	5103658.53	0.0532	0.0524
Mercury	9265-03-29 17:02 G	5105120.08	5105120.21	5105120.36	0.0485	0.0268
Mercury	9265-06-27 13:11 G	5105209.93	5105210.05	5105210.17	0.0484	0.0332
Venus	9265-09-07 20:23 G	5105282.23	5105282.35	5105282.48	0.0484	0.0381
Moon	9266-09-01 03:50 G	5105640.52	5105640.66	5105640.83	0.0488	0.0376
Earth	9266-09-01 05:02 G	5105640.58	5105640.71	5105640.86	0.0488	0.0388 *
Mercury	9271-03-04 00:00 G	5107285.43	5107285.50	5107285.59	0.0543	0.0441
Mercury	9271-06-01 13:40 G	5107374.95	5107375.07	5107375.19	0.0544	0.0253
Venus	9271-07-12 18:57 G	5107416.12	5107416.29	5107416.47	0.0544	0.0269
Mercury	9277-01-15 18:00 G	5109430.17	5109430.25	5109430.33	0.0485	0.0413
Mercury	9277-04-15 13:26 G	5109519.90	5109520.06	5109520.22	0.0485	0.0179
Venus	9277-05-14 02:09 G	5109548.39	5109548.59	5109548.80	0.0485	0.0032
Moon	9278-09-05 12:43 G	5110027.84	5110028.03	5110028.22	0.0490	0.0264
Earth	9278-09-05 13:26 G	5110027.86	5110028.06	5110028.27	0.0490	0.0237 *
Venus	9283-03-17 04:33 G	5111681.51	5111681.69	5111681.87	0.0543	0.0243

Mercury	9283-03-20 16:04 G	5111685.03	5111685.17	5111685.30	0.0543	0.0083
Earth	9284-03-02 12:14 G	5112032.97	5112033.01	5112033.06	0.0540	0.0526
Venus	9289-01-17 08:38 G	5113814.71	5113814.86	5113815.02	0.0485	0.0316
Mercury	9289-02-01 14:23 G	5113829.93	5113830.10	5113830.26	0.0485	0.0035
Earth	9290-09-09 23:16 G	5114415.24	5114415.47	5114415.70	0.0491	0.0083
Moon	9290-09-10 01:40 G	5114415.33	5114415.57	5114415.81	0.0491	0.0101 *
Mercury	9295-01-06 17:16 G	5115995.09	5115995.22	5115995.36	0.0543	0.0108
Earth	9296-03-07 11:45 G	5116420.81	5116420.99	5116421.17	0.0539	0.0329
Moon	9296-03-07 12:28 G	5116420.83	5116421.02	5116421.22	0.0539	0.0307 *
Mercury	9300-11-21 15:07 G	5118139.97	5118140.13	5118140.29	0.0485	0.0112
Moon	9302-09-15 05:16 G	5118802.50	5118802.72	5118802.95	0.0492	0.0092
Earth	9302-09-15 08:38 G	5118802.62	5118802.86	5118803.09	0.0492	0.0074 *
Mars	9305-04-11 15:50 G	5119741.93	5119742.16	5119742.41	0.0528	0.0174
Mercury	9306-10-26 19:26 G	5120305.20	5120305.31	5120305.43	0.0543	0.0282
Mercury	9307-01-24 08:23 G	5120394.77	5120394.85	5120394.95	0.0544	0.0404
Venus	9307-03-21 10:04 G	5120450.92	5120450.92	5120450.94	0.0544	0.0543
Moon	9308-03-13 13:55 G	5120808.86	5120809.08	5120809.30	0.0538	0.0091
Earth	9308-03-13 16:19 G	5120808.96	5120809.18	5120809.41	0.0538	0.0120 *
Mercury	9312-09-09 15:36 G	5122450.01	5122450.15	5122450.29	0.0485	0.0263
Mercury	9312-12-08 11:31 G	5122539.86	5122539.98	5122540.10	0.0484	0.0337
Venus	9313-01-20 10:33 G	5122582.76	5122582.94	5122583.12	0.0484	0.0238
Earth	9314-09-19 16:04 G	5123189.96	5123190.17	5123190.38	0.0494	0.0227
Moon	9314-09-19 19:55 G	5123190.13	5123190.33	5123190.53	0.0494	0.0253 *
Mercury	9318-08-14 22:04 G	5124615.34	5124615.42	5124615.49	0.0543	0.0450
Mercury	9318-11-12 11:31 G	5124704.86	5124704.98	5124705.10	0.0544	0.0244
Venus	9318-11-23 21:36 G	5124716.20	5124716.40	5124716.60	0.0544	0.0041
Earth	9320-03-18 22:33 G	5125197.21	5125197.44	5125197.67	0.0536	0.0093
Moon	9320-03-19 02:09 G	5125197.36	5125197.59	5125197.83	0.0536	0.0074 *
Mercury	9324-06-28 16:33 G	5126760.10	5126760.19	5126760.28	0.0485	0.0406
Venus	9324-09-25 16:33 G	5126848.99	5126849.19	5126849.39	0.0484	0.0112

Mercury	9324-09-26 12:00 G	5126849.85	5126850.00	5126850.16	0.0484	0.0186
Moon	9326-09-24 00:14 G	5127577.35	5127577.51	5127577.66	0.0495	0.0373
Earth	9326-09-24 03:36 G	5127577.51	5127577.65	5127577.80	0.0495	0.0389 *
Venus	9330-07-29 08:23 G	5128981.75	5128981.85	5128981.96	0.0543	0.0463
Mercury	9330-08-31 14:23 G	5129014.96	5129015.10	5129015.24	0.0544	0.0083
Moon	9332-03-23 22:04 G	5129585.22	5129585.42	5129585.62	0.0534	0.0268
Earth	9332-03-24 01:40 G	5129585.37	5129585.57	5129585.76	0.0534	0.0294 *
Venus	9336-05-31 22:19 G	5131115.37	5131115.43	5131115.48	0.0485	0.0463
Mercury	9336-07-15 12:28 G	5131159.85	5131160.02	5131160.18	0.0485	0.0037
Mercury	9342-06-19 16:48 G	5133325.06	5133325.20	5133325.33	0.0543	0.0089
Earth	9344-03-29 01:26 G	5133973.47	5133973.56	5133973.65	0.0532	0.0487
Moon	9344-03-29 03:21 G	5133973.59	5133973.64	5133973.70	0.0532	0.0513 *
Mercury	9348-05-03 13:11 G	5135469.89	5135470.05	5135470.22	0.0485	0.0111
Venus	9348-09-27 18:57 G	5135617.22	5135617.29	5135617.37	0.0485	0.0448
Moon	9349-09-01 12:43 G	5135955.91	5135956.03	5135956.16	0.0488	0.0406
Earth	9349-09-01 13:55 G	5135955.95	5135956.08	5135956.21	0.0488	0.0407 *
Mercury	9354-04-07 18:00 G	5137635.13	5137635.25	5137635.37	0.0543	0.0280
Mercury	9354-07-06 06:57 G	5137724.70	5137724.79	5137724.88	0.0543	0.0404
Venus	9354-08-01 14:38 G	5137750.95	5137751.11	5137751.27	0.0543	0.0326
Mercury	9360-02-20 14:09 G	5139779.95	5139780.09	5139780.23	0.0485	0.0256
Mercury	9360-05-20 10:04 G	5139869.80	5139869.92	5139870.04	0.0485	0.0345
Venus	9360-06-03 01:11 G	5139883.35	5139883.55	5139883.75	0.0485	0.0097
Earth	9361-09-05 21:21 G	5140343.19	5140343.39	5140343.59	0.0489	0.0257
Moon	9361-09-05 23:45 G	5140343.30	5140343.49	5140343.69	0.0489	0.0286 *
Mercury	9366-01-24 19:55 G	5141945.26	5141945.33	5141945.40	0.0543	0.0458
Venus	9366-04-05 23:45 G	5142016.31	5142016.49	5142016.69	0.0543	0.0189
Mercury	9366-04-24 09:21 G	5142034.77	5142034.89	5142035.01	0.0543	0.0235
Mars	9370-02-01 16:48 G	5143414.00	5143414.20	5143414.40	0.0501	0.0366
Mercury	9371-12-09 14:38 G	5144090.03	5144090.11	5144090.20	0.0485	0.0404
Venus	9372-02-07 06:14 G	5144149.59	5144149.76	5144149.93	0.0485	0.0258

Mercury	9372-03-08 10:04 G	5144179.77	5144179.92	5144180.08	0.0485	0.0188
Moon	9373-09-09 23:45 G	5144730.27	5144730.49	5144730.72	0.0490	0.0127
Earth	9373-09-10 02:52 G	5144730.40	5144730.62	5144730.86	0.0490	0.0109 *
Mercury	9378-02-10 12:00 G	5146344.87	5146345.00	5146345.14	0.0544	0.0073
Moon	9379-03-08 12:43 G	5146735.86	5146736.03	5146736.21	0.0540	0.0337
Earth	9379-03-08 14:38 G	5146735.94	5146736.11	5146736.29	0.0540	0.0360 *
Mercury	9383-12-26 10:48 G	5148489.78	5148489.95	5148490.11	0.0485	0.0040
Earth	9385-09-14 12:14 G	5149117.77	5149118.01	5149118.24	0.0492	0.0047
Moon	9385-09-14 15:50 G	5149117.93	5149118.16	5149118.40	0.0492	0.0070 *
Mercury	9389-11-29 14:52 G	5150654.98	5150655.12	5150655.25	0.0544	0.0093
Earth	9391-03-13 20:38 G	5151124.14	5151124.36	5151124.58	0.0538	0.0150
Moon	9391-03-14 00:14 G	5151124.28	5151124.51	5151124.74	0.0538	0.0123 *
Mercury	9395-10-14 11:16 G	5152799.81	5152799.97	5152800.13	0.0485	0.0112
Venus	9396-02-09 07:55 G	5152917.67	5152917.83	5152917.99	0.0485	0.0298
Moon	9397-09-18 18:57 G	5153505.08	5153505.29	5153505.51	0.0493	0.0223
Earth	9397-09-18 22:33 G	5153505.23	5153505.44	5153505.66	0.0493	0.0203 *
Mercury	9401-09-18 17:02 G	5154965.09	5154965.21	5154965.33	0.0543	0.0265
Venus	9401-12-13 21:50 G	5155051.21	5155051.41	5155051.61	0.0543	0.0124
Mercury	9401-12-17 06:14 G	5155054.67	5155054.76	5155054.84	0.0543	0.0419
Moon	9403-03-19 19:40 G	5155512.09	5155512.32	5155512.55	0.0536	0.0033
Earth	9403-03-19 23:31 G	5155512.25	5155512.48	5155512.71	0.0536	0.0056 *
Mars	9405-11-09 21:07 G	5156478.20	5156478.38	5156478.58	0.0498	0.0380
Mercury	9407-08-03 12:14 G	5157109.87	5157110.01	5157110.15	0.0485	0.0255
Venus	9407-10-16 14:23 G	5157183.90	5157184.10	5157184.30	0.0485	0.0051
Mercury	9407-11-01 08:09 G	5157199.72	5157199.84	5157199.96	0.0485	0.0345
Earth	9409-09-24 10:19 G	5157892.78	5157892.93	5157893.10	0.0495	0.0363
Moon	9409-09-24 12:57 G	5157892.88	5157893.04	5157893.20	0.0495	0.0342 *
Mercury	9413-07-07 18:14 G	5159275.19	5159275.26	5159275.34	0.0542	0.0457
Venus	9413-08-18 04:19 G	5159316.55	5159316.68	5159316.82	0.0543	0.0405
Mercury	9413-10-05 07:55 G	5159364.70	5159364.83	5159364.95	0.0543	0.0236

Earth	9415-03-24 19:55 G	5159900.13	5159900.33	5159900.53	0.0535	0.0248
Moon	9415-03-24 22:33 G	5159900.24	5159900.44	5159900.64	0.0534	0.0228 *
Mercury	9419-05-22 12:57 G	5161419.96	5161420.04	5161420.14	0.0485	0.0401
Venus	9419-06-21 20:09 G	5161450.23	5161450.34	5161450.46	0.0485	0.0403
Mercury	9419-08-20 08:23 G	5161509.70	5161509.85	5161510.01	0.0485	0.0194
Moon	9421-09-28 20:09 G	5162280.31	5162280.34	5162280.37	0.0496	0.0492
Mercury	9425-07-24 10:04 G	5163674.78	5163674.92	5163675.05	0.0543	0.0063
Moon	9427-03-29 19:55 G	5164288.22	5164288.33	5164288.44	0.0533	0.0466
Earth	9427-03-29 20:52 G	5164288.25	5164288.37	5164288.50	0.0533	0.0443 *
Mercury	9431-06-08 08:38 G	5165819.70	5165819.86	5165820.03	0.0485	0.0039
Earth	9432-09-01 17:02 G	5166271.10	5166271.21	5166271.32	0.0488	0.0431
Moon	9432-09-01 19:11 G	5166271.20	5166271.30	5166271.42	0.0488	0.0432 *
Mercury	9437-05-12 12:28 G	5167984.89	5167985.02	5167985.16	0.0544	0.0106
Venus	9437-08-21 13:40 G	5168085.94	5168086.07	5168086.21	0.0544	0.0404
Mercury	9443-03-27 09:21 G	5170129.73	5170129.89	5170130.06	0.0485	0.0109
Venus	9443-06-23 21:36 G	5170218.21	5170218.40	5170218.60	0.0484	0.0152
Moon	9444-09-05 21:07 G	5170658.21	5170658.38	5170658.56	0.0489	0.0314
Earth	9444-09-06 00:14 G	5170658.33	5170658.51	5170658.71	0.0489	0.0283 *
Mercury	9449-02-28 15:07 G	5172295.01	5172295.13	5172295.25	0.0543	0.0272
Venus	9449-04-26 00:43 G	5172351.33	5172351.53	5172351.73	0.0544	0.0102
Mercury	9449-05-29 04:19 G	5172384.59	5172384.68	5172384.76	0.0544	0.0414
Mercury	9455-01-13 10:04 G	5174439.78	5174439.92	5174440.06	0.0485	0.0258
Venus	9455-02-27 02:52 G	5174484.44	5174484.62	5174484.81	0.0485	0.0203
Mercury	9455-04-13 05:45 G	5174529.63	5174529.74	5174529.86	0.0485	0.0341
Earth	9456-09-10 08:23 G	5175045.62	5175045.85	5175046.08	0.0490	0.0133
Moon	9456-09-10 12:14 G	5175045.78	5175046.01	5175046.23	0.0490	0.0144 *
Mars	9459-07-07 15:07 G	5176075.87	5176076.13	5176076.38	0.0529	0.0018
Mercury	9460-12-17 17:16 G	5176605.14	5176605.22	5176605.30	0.0543	0.0446
Mercury	9461-03-17 06:43 G	5176694.66	5176694.78	5176694.90	0.0543	0.0248
Earth	9462-03-08 14:52 G	5177050.97	5177051.12	5177051.28	0.0540	0.0395

Moon	9462-03-08 18:00 G	5177051.08	5177051.25	5177051.43	0.0540	0.0368	*
Mercury	9466-11-01 11:02 G	5178749.87	5178749.96	5178750.05	0.0485	0.0401	
Mercury	9467-01-30 06:28 G	5178839.61	5178839.77	5178839.92	0.0485	0.0192	
Moon	9468-09-14 15:07 G	5179432.89	5179433.13	5179433.37	0.0492	0.0048	
Earth	9468-09-14 18:43 G	5179433.04	5179433.28	5179433.51	0.0492	0.0022	*
Mercury	9473-01-03 08:23 G	5181004.71	5181004.85	5181004.99	0.0543	0.0063	
Moon	9474-03-13 10:04 G	5181438.71	5181438.92	5181439.14	0.0538	0.0173	
Earth	9474-03-13 13:55 G	5181438.87	5181439.08	5181439.30	0.0538	0.0197	*
Mercury	9478-11-18 06:57 G	5183149.62	5183149.79	5183149.96	0.0485	0.0041	
Venus	9479-03-01 05:31 G	5183252.60	5183252.73	5183252.87	0.0485	0.0357	
Earth	9480-09-19 03:50 G	5183820.44	5183820.66	5183820.88	0.0493	0.0178	
Moon	9480-09-19 06:14 G	5183820.55	5183820.76	5183820.97	0.0493	0.0194	*
Mercury	9484-10-22 10:19 G	5185314.80	5185314.93	5185315.07	0.0543	0.0115	
Venus	9485-01-01 16:19 G	5185385.99	5185386.18	5185386.38	0.0543	0.0175	
Earth	9486-03-18 16:33 G	5185826.96	5185827.19	5185827.43	0.0537	0.0013	
Moon	9486-03-18 19:55 G	5185827.10	5185827.33	5185827.55	0.0537	0.0021	*
Mercury	9490-09-06 07:11 G	5187459.64	5187459.80	5187459.96	0.0485	0.0111	
Venus	9490-11-04 10:19 G	5187518.73	5187518.93	5187519.14	0.0485	0.0012	
Moon	9492-09-23 09:07 G	5188207.69	5188207.88	5188208.07	0.0494	0.0306	
Earth	9492-09-23 10:48 G	5188207.77	5188207.95	5188208.12	0.0494	0.0329	*
Mercury	9496-08-10 12:28 G	5189624.91	5189625.02	5189625.14	0.0543	0.0288	
Venus	9496-09-06 02:09 G	5189651.44	5189651.59	5189651.75	0.0544	0.0336	
Mercury	9496-11-08 01:40 G	5189714.49	5189714.57	5189714.67	0.0544	0.0401	
Moon	9498-03-23 19:55 G	5190215.11	5190215.33	5190215.56	0.0535	0.0193	
Earth	9498-03-23 21:36 G	5190215.19	5190215.40	5190215.61	0.0535	0.0213	*
Mercury	9502-06-26 08:09 G	5191769.70	5191769.84	5191769.98	0.0485	0.0256	
Venus	9502-07-11 16:33 G	5191785.05	5191785.19	5191785.33	0.0485	0.0350	
Mercury	9502-09-24 03:50 G	5191859.55	5191859.66	5191859.78	0.0484	0.0342	
Moon	9504-09-28 21:50 G	5192595.34	5192595.41	5192595.49	0.0496	0.0465	
Earth	9504-09-28 21:50 G	5192595.38	5192595.41	5192595.46	0.0496	0.0487	*

Mercury	9508-05-30 15:07 G	5193935.05	5193935.13	5193935.20	0.0543	0.0455
Mercury	9508-08-28 04:48 G	5194024.57	5194024.70	5194024.82	0.0544	0.0240
Earth	9510-03-30 00:43 G	5194603.38	5194603.53	5194603.67	0.0533	0.0409
Moon	9510-03-30 00:14 G	5194603.39	5194603.51	5194603.64	0.0533	0.0437 *
Mercury	9514-04-14 08:52 G	5196079.78	5196079.87	5196079.96	0.0485	0.0403
Mercury	9514-07-13 04:04 G	5196169.52	5196169.67	5196169.83	0.0485	0.0188
Moon	9515-09-02 18:28 G	5196586.20	5196586.27	5196586.36	0.0488	0.0458
Earth	9515-09-02 22:04 G	5196586.34	5196586.42	5196586.50	0.0488	0.0454 *
Mercury	9520-06-16 07:11 G	5198334.67	5198334.80	5198334.94	0.0543	0.0074
Venus	9520-09-10 13:40 G	5198420.98	5198421.07	5198421.16	0.0543	0.0485
Mars	9524-04-29 04:33 G	5199747.42	5199747.69	5199747.97	0.0500	0.0182
Mercury	9526-05-01 04:48 G	5200479.54	5200479.70	5200479.87	0.0485	0.0040
Venus	9526-07-13 18:28 G	5200553.09	5200553.27	5200553.46	0.0485	0.0208
Earth	9527-09-07 06:28 G	5200973.58	5200973.77	5200973.95	0.0489	0.0305
Moon	9527-09-07 10:04 G	5200973.75	5200973.92	5200974.10	0.0489	0.0335 *
Mercury	9532-04-04 08:52 G	5202644.74	5202644.87	5202645.01	0.0543	0.0111
Venus	9532-05-15 21:07 G	5202686.17	5202686.38	5202686.58	0.0543	0.0043
Mercury	9538-02-17 05:31 G	5204789.56	5204789.73	5204789.89	0.0485	0.0110
Venus	9538-03-19 00:00 G	5204819.31	5204819.50	5204819.70	0.0485	0.0147
Moon	9539-09-11 10:19 G	5205360.71	5205360.93	5205361.16	0.0490	0.0162
Earth	9539-09-11 13:55 G	5205360.86	5205361.08	5205361.31	0.0490	0.0156 *
Mercury	9544-01-22 10:48 G	5206954.83	5206954.95	5206955.06	0.0543	0.0292
Mercury	9544-04-20 23:45 G	5207044.40	5207044.49	5207044.59	0.0543	0.0394
Moon	9545-03-08 03:50 G	5207365.52	5207365.66	5207365.81	0.0540	0.0419
Earth	9545-03-08 07:11 G	5207365.68	5207365.80	5207365.94	0.0540	0.0442 *
Mercury	9549-12-06 06:00 G	5209099.61	5209099.75	5209099.89	0.0485	0.0259
Mercury	9550-03-06 01:40 G	5209189.45	5209189.57	5209189.69	0.0485	0.0339
Earth	9551-09-15 19:26 G	5209748.07	5209748.31	5209748.54	0.0491	0.0014
Moon	9551-09-15 21:50 G	5209748.18	5209748.41	5209748.64	0.0491	0.0021 *
Mercury	9555-11-10 12:43 G	5211264.96	5211265.03	5211265.09	0.0543	0.0470

Mercury	9556-02-08 02:23 G	5211354.47	5211354.60	5211354.72	0.0544	0.0226
Earth	9557-03-13 13:26 G	5211753.86	5211754.06	5211754.27	0.0539	0.0235
Moon	9557-03-13 17:02 G	5211754.00	5211754.21	5211754.42	0.0539	0.0218 *
Mercury	9561-09-24 06:57 G	5213409.70	5213409.79	5213409.89	0.0485	0.0401
Mercury	9561-12-23 02:09 G	5213499.44	5213499.59	5213499.75	0.0484	0.0190
Venus	9562-03-21 01:26 G	5213587.46	5213587.56	5213587.67	0.0484	0.0410
Moon	9563-09-20 02:52 G	5214135.39	5214135.62	5214135.86	0.0492	0.0159
Earth	9563-09-20 04:33 G	5214135.47	5214135.69	5214135.92	0.0492	0.0145 *
Mercury	9567-11-27 05:02 G	5215664.58	5215664.71	5215664.85	0.0544	0.0065
Venus	9568-01-22 16:19 G	5215721.00	5215721.18	5215721.36	0.0544	0.0258
Moon	9569-03-18 17:31 G	5216142.00	5216142.23	5216142.47	0.0537	0.0057
Earth	9569-03-18 19:40 G	5216142.09	5216142.32	5216142.56	0.0537	0.0029 *
Mercury	9573-10-11 02:38 G	5217809.44	5217809.61	5217809.78	0.0485	0.0037
Venus	9573-11-24 07:11 G	5217853.59	5217853.80	5217854.00	0.0485	0.0056
Earth	9575-09-24 14:52 G	5218522.94	5218523.12	5218523.31	0.0494	0.0301
Moon	9575-09-24 14:52 G	5218522.94	5218523.12	5218523.32	0.0494	0.0279 *
Mars	9577-12-27 11:02 G	5219347.91	5219347.96	5219348.02	0.0527	0.0512
Mercury	9579-09-15 07:40 G	5219974.68	5219974.82	5219974.95	0.0543	0.0105
Venus	9579-09-27 02:38 G	5219986.43	5219986.61	5219986.79	0.0543	0.0253
Earth	9581-03-23 22:33 G	5220530.23	5220530.44	5220530.66	0.0535	0.0177
Moon	9581-03-23 23:02 G	5220530.25	5220530.46	5220530.67	0.0535	0.0160 *
Mercury	9585-07-30 03:21 G	5222119.48	5222119.64	5222119.80	0.0485	0.0110
Venus	9585-07-30 13:11 G	5222119.89	5222120.05	5222120.21	0.0485	0.0296
Earth	9587-09-29 03:36 G	5222910.56	5222910.65	5222910.73	0.0496	0.0460
Moon	9587-09-29 05:31 G	5222910.62	5222910.73	5222910.84	0.0496	0.0442 *
Mercury	9591-07-04 09:21 G	5224284.77	5224284.89	5224285.00	0.0543	0.0288
Mercury	9591-10-01 22:19 G	5224374.34	5224374.43	5224374.53	0.0543	0.0398
Earth	9593-03-28 19:40 G	5224918.15	5224918.32	5224918.49	0.0533	0.0365
Moon	9593-03-28 21:07 G	5224918.23	5224918.38	5224918.55	0.0533	0.0392 *
Mercury	9597-05-18 04:04 G	5226429.53	5226429.67	5226429.81	0.0485	0.0258

Mercury	9597-08-15 23:45 G	5226519.38	5226519.49	5226519.61	0.0485	0.0342
Earth	9598-09-02 03:36 G	5226901.61	5226901.65	5226901.71	0.0488	0.0475
Moon	9598-09-02 07:40 G	5226901.79	5226901.82	5226901.85	0.0488	0.0481
Mercury	9603-04-22 11:02 G	5228594.89	5228594.96	5228595.02	0.0542	0.0470
Mercury	9603-07-21 00:28 G	5228684.40	5228684.52	5228684.65	0.0543	0.0225
Venus	9603-09-30 08:38 G	5228755.85	5228755.86	5228755.89	0.0543	0.0539
Mercury	9609-03-06 04:48 G	5230739.61	5230739.70	5230739.79	0.0485	0.0404
Mercury	9609-06-04 00:00 G	5230829.35	5230829.50	5230829.66	0.0485	0.0187
Venus	9609-08-01 14:23 G	5230887.93	5230888.10	5230888.27	0.0485	0.0261
Moon	9610-09-06 04:48 G	5231288.54	5231288.70	5231288.86	0.0488	0.0364
Earth	9610-09-06 08:23 G	5231288.68	5231288.85	5231289.02	0.0488	0.0334 *
Mars	9613-09-30 20:23 G	5232409.11	5232409.35	5232409.60	0.0529	0.0154
Mercury	9615-05-09 02:38 G	5232994.48	5232994.61	5232994.75	0.0544	0.0053
Venus	9615-06-04 18:00 G	5233021.05	5233021.25	5233021.45	0.0544	0.0025
Mercury	9621-03-23 00:43 G	5235139.37	5235139.53	5235139.70	0.0485	0.0041
Venus	9621-04-06 20:38 G	5235154.16	5235154.36	5235154.56	0.0485	0.0091
Earth	9622-09-10 15:50 G	5235675.94	5235676.16	5235676.38	0.0489	0.0186
Moon	9622-09-10 18:28 G	5235676.06	5235676.27	5235676.48	0.0489	0.0183 *
Venus	9627-02-07 04:48 G	5237286.62	5237286.70	5237286.80	0.0543	0.0482
Mercury	9627-02-25 05:16 G	5237304.59	5237304.72	5237304.86	0.0544	0.0116
Earth	9628-03-07 09:36 G	5237680.79	5237680.90	5237681.01	0.0541	0.0477
Moon	9628-03-07 13:11 G	5237680.93	5237681.05	5237681.18	0.0541	0.0447 *
Venus	9632-12-11 02:09 G	5239420.52	5239420.59	5239420.67	0.0485	0.0445
Mercury	9633-01-09 01:11 G	5239449.39	5239449.55	5239449.72	0.0485	0.0112
Moon	9634-09-14 22:33 G	5240063.20	5240063.44	5240063.69	0.0491	0.0010
Earth	9634-09-15 00:14 G	5240063.27	5240063.51	5240063.74	0.0491	0.0036 *
Mercury	9638-12-14 07:55 G	5241614.71	5241614.83	5241614.95	0.0543	0.0283
Mercury	9639-03-13 21:07 G	5241704.29	5241704.38	5241704.47	0.0544	0.0404
Moon	9640-03-12 12:43 G	5242068.83	5242069.03	5242069.24	0.0539	0.0255
Earth	9640-03-12 15:36 G	5242068.95	5242069.15	5242069.35	0.0539	0.0268 *

Mercury	9644-10-28 02:09 G	5243759.46	5243759.59	5243759.73	0.0485	0.0256
Mercury	9645-01-25 21:50 G	5243849.30	5243849.41	5243849.53	0.0485	0.0343
Venus	9645-04-08 22:33 G	5243922.39	5243922.44	5243922.49	0.0485	0.0468
Earth	9646-09-19 10:33 G	5244450.71	5244450.94	5244451.17	0.0492	0.0120
Moon	9646-09-19 10:33 G	5244450.72	5244450.94	5244451.16	0.0492	0.0131 *
Mercury	9650-10-02 09:36 G	5245924.83	5245924.90	5245924.97	0.0542	0.0465
Mercury	9650-12-30 23:16 G	5246014.34	5246014.47	5246014.59	0.0543	0.0230
Venus	9651-02-10 14:09 G	5246055.93	5246056.09	5246056.25	0.0543	0.0328
Earth	9652-03-17 15:50 G	5246456.93	5246457.16	5246457.39	0.0537	0.0069
Moon	9652-03-17 17:02 G	5246456.99	5246457.21	5246457.43	0.0537	0.0100 *
Mercury	9656-08-16 02:52 G	5248069.54	5248069.62	5248069.72	0.0485	0.0403
Mercury	9656-11-13 22:19 G	5248159.27	5248159.43	5248159.58	0.0485	0.0190
Venus	9656-12-13 04:19 G	5248188.48	5248188.68	5248188.88	0.0485	0.0114
Earth	9658-09-23 20:23 G	5248838.16	5248838.35	5248838.55	0.0494	0.0276
Moon	9658-09-23 22:04 G	5248838.22	5248838.42	5248838.64	0.0494	0.0250 *
Venus	9662-10-15 22:48 G	5250321.26	5250321.45	5250321.64	0.0543	0.0192
Mercury	9662-10-19 01:11 G	5250324.42	5250324.55	5250324.69	0.0543	0.0056
Earth	9664-03-22 17:31 G	5250845.01	5250845.23	5250845.46	0.0536	0.0132
Moon	9664-03-22 18:28 G	5250845.04	5250845.27	5250845.50	0.0536	0.0117 *
Venus	9668-08-18 09:36 G	5252454.73	5252454.90	5252455.08	0.0485	0.0240
Mercury	9668-09-01 22:48 G	5252469.28	5252469.45	5252469.61	0.0485	0.0040
Moon	9670-09-28 00:28 G	5253225.40	5253225.52	5253225.65	0.0495	0.0411
Earth	9670-09-28 03:50 G	5253225.54	5253225.66	5253225.78	0.0495	0.0423 *
Mercury	9674-08-07 03:07 G	5254634.50	5254634.63	5254634.77	0.0543	0.0125
Moon	9676-03-27 17:45 G	5255233.08	5255233.24	5255233.42	0.0535	0.0358
Earth	9676-03-27 20:52 G	5255233.19	5255233.37	5255233.55	0.0535	0.0328 *
Mars	9678-07-23 17:16 G	5256080.93	5256081.22	5256081.52	0.0500	0.0011
Mercury	9680-06-20 23:45 G	5256779.33	5256779.49	5256779.65	0.0485	0.0106
Mercury	9686-05-26 05:45 G	5258944.62	5258944.74	5258944.85	0.0543	0.0293
Mercury	9686-08-23 18:57 G	5259034.20	5259034.29	5259034.39	0.0544	0.0397

Earth	9688-04-02 00:00 G	5259621.46	5259621.50	5259621.55	0.0533	0.0522
Moon	9688-04-02 04:04 G	5259621.65	5259621.67	5259621.69	0.0533	0.0529
Mercury	9692-04-09 00:28 G	5261089.38	5261089.52	5261089.66	0.0485	0.0254
Mercury	9692-07-07 19:55 G	5261179.21	5261179.33	5261179.45	0.0484	0.0343
Venus	9692-08-20 11:45 G	5261222.84	5261222.99	5261223.15	0.0484	0.0320
Earth	9693-09-05 13:55 G	5261603.93	5261604.08	5261604.24	0.0488	0.0357
Moon	9693-09-05 16:33 G	5261604.05	5261604.19	5261604.33	0.0488	0.0384 *
Mercury	9698-03-14 08:09 G	5263254.77	5263254.84	5263254.91	0.0543	0.0461
Mercury	9698-06-11 21:50 G	5263344.29	5263344.41	5263344.53	0.0544	0.0236
Venus	9698-06-23 19:26 G	5263356.11	5263356.31	5263356.51	0.0544	0.0115
Mercury	9704-01-28 01:26 G	5265399.47	5265399.56	5265399.65	0.0485	0.0397
Venus	9704-04-26 18:00 G	5265489.05	5265489.25	5265489.46	0.0485	0.0034
Mercury	9704-04-26 20:38 G	5265489.20	5265489.36	5265489.51	0.0485	0.0194 *
Moon	9705-09-10 21:07 G	5265991.16	5265991.38	5265991.60	0.0489	0.0201
Earth	9705-09-10 22:33 G	5265991.23	5265991.44	5265991.65	0.0489	0.0208 *
Venus	9710-02-27 04:19 G	5267621.55	5267621.68	5267621.82	0.0543	0.0403
Mercury	9710-04-01 00:00 G	5267654.37	5267654.50	5267654.64	0.0543	0.0062
Moon	9711-03-08 04:04 G	5267995.58	5267995.67	5267995.78	0.0540	0.0483
Earth	9711-03-08 07:26 G	5267995.75	5267995.81	5267995.89	0.0540	0.0515 *
Venus	9715-12-31 23:31 G	5269755.36	5269755.48	5269755.60	0.0485	0.0387
Mercury	9716-02-13 20:52 G	5269799.21	5269799.37	5269799.54	0.0485	0.0045
Earth	9717-09-15 06:57 G	5270378.56	5270378.79	5270379.03	0.0491	0.0058
Moon	9717-09-15 06:57 G	5270378.57	5270378.79	5270379.02	0.0491	0.0031 *
Mercury	9722-01-18 01:55 G	5271964.45	5271964.58	5271964.72	0.0543	0.0117
Earth	9723-03-13 11:31 G	5272383.79	5272383.98	5272384.17	0.0539	0.0310
Moon	9723-03-13 13:11 G	5272383.87	5272384.05	5272384.24	0.0539	0.0300 *
Mercury	9727-12-02 21:36 G	5274109.24	5274109.40	5274109.57	0.0485	0.0106
Earth	9729-09-19 13:11 G	5274765.82	5274766.05	5274766.29	0.0491	0.0088
Moon	9729-09-19 14:52 G	5274765.88	5274766.12	5274766.36	0.0491	0.0092 *
Mars	9732-03-22 20:23 G	5275681.17	5275681.35	5275681.54	0.0526	0.0364

Mercury	9733-11-06 03:36 G	5276274.53	5276274.65	5276274.76	0.0543	0.0301
Mercury	9734-02-03 16:48 G	5276364.11	5276364.20	5276364.30	0.0544	0.0390
Venus	9734-03-02 11:02 G	5276390.83	5276390.96	5276391.10	0.0544	0.0396
Earth	9735-03-18 15:50 G	5276771.93	5276772.16	5276772.38	0.0539	0.0110
Moon	9735-03-18 15:50 G	5276771.93	5276772.16	5276772.39	0.0539	0.0140 *
Mercury	9739-09-20 22:48 G	5278419.31	5278419.45	5278419.60	0.0485	0.0247
Mercury	9739-12-19 18:28 G	5278509.15	5278509.27	5278509.38	0.0484	0.0351
Venus	9740-01-03 02:23 G	5278523.41	5278523.60	5278523.79	0.0484	0.0178
Moon	9741-09-23 20:09 G	5279153.13	5279153.34	5279153.55	0.0493	0.0214
Earth	9741-09-23 23:16 G	5279153.26	5279153.47	5279153.67	0.0493	0.0242 *
Mercury	9745-08-25 06:00 G	5280584.68	5280584.75	5280584.81	0.0543	0.0470
Venus	9745-11-04 22:04 G	5280656.22	5280656.42	5280656.62	0.0544	0.0113
Mercury	9745-11-22 19:40 G	5280674.20	5280674.32	5280674.45	0.0544	0.0229
Moon	9747-03-23 19:40 G	5281160.10	5281160.32	5281160.54	0.0537	0.0090
Earth	9747-03-23 22:04 G	5281160.19	5281160.42	5281160.65	0.0537	0.0097 *
Mercury	9751-07-09 23:45 G	5282729.40	5282729.49	5282729.58	0.0485	0.0392
Venus	9751-09-08 07:55 G	5282789.64	5282789.83	5282790.02	0.0485	0.0177
Mercury	9751-10-07 18:43 G	5282819.13	5282819.28	5282819.43	0.0484	0.0197
Earth	9753-09-28 09:36 G	5283540.77	5283540.90	5283541.04	0.0495	0.0397
Moon	9753-09-28 13:40 G	5283540.93	5283541.07	5283541.22	0.0495	0.0390 *
Mercury	9757-09-10 22:33 G	5284984.31	5284984.44	5284984.58	0.0544	0.0067
Earth	9759-03-29 01:55 G	5285548.39	5285548.58	5285548.77	0.0535	0.0298
Moon	9759-03-29 05:45 G	5285548.56	5285548.74	5285548.92	0.0535	0.0332 *
Mercury	9763-07-26 19:26 G	5287129.15	5287129.31	5287129.48	0.0485	0.0051
Mars	9767-12-27 00:00 G	5288743.32	5288743.50	5288743.69	0.0529	0.0364
Mercury	9769-06-30 00:43 G	5289294.40	5289294.53	5289294.67	0.0543	0.0108
Moon	9771-04-02 20:38 G	5289936.28	5289936.36	5289936.45	0.0533	0.0492
Earth	9771-04-03 00:28 G	5289936.43	5289936.52	5289936.62	0.0533	0.0486 *
Mercury	9775-05-14 20:09 G	5291439.18	5291439.34	5291439.50	0.0485	0.0100
Venus	9775-09-10 10:04 G	5291557.80	5291557.92	5291558.04	0.0485	0.0384

Moon	9776-09-05 20:38 G	5291919.23	5291919.36	5291919.50	0.0488	0.0401
Earth	9776-09-05 22:04 G	5291919.27	5291919.42	5291919.57	0.0488	0.0376 *
Mercury	9781-04-18 02:38 G	5293604.50	5293604.61	5293604.73	0.0543	0.0286
Venus	9781-07-13 17:45 G	5293691.05	5293691.24	5293691.43	0.0543	0.0189
Mercury	9781-07-16 16:04 G	5293694.08	5293694.17	5293694.26	0.0543	0.0402
Mercury	9787-03-02 21:07 G	5295749.24	5295749.38	5295749.52	0.0485	0.0243
Venus	9787-05-16 16:04 G	5295823.97	5295824.17	5295824.38	0.0485	0.0033
Mercury	9787-05-31 16:33 G	5295839.08	5295839.19	5295839.31	0.0484	0.0354
Earth	9788-09-10 03:50 G	5296306.46	5296306.66	5296306.87	0.0489	0.0236
Moon	9788-09-10 03:50 G	5296306.47	5296306.66	5296306.87	0.0489	0.0228 *
Mercury	9793-02-04 03:50 G	5297914.60	5297914.66	5297914.73	0.0543	0.0475
Venus	9793-03-18 01:11 G	5297956.39	5297956.55	5297956.71	0.0543	0.0338
Mercury	9793-05-04 17:45 G	5298004.12	5298004.24	5298004.37	0.0544	0.0225
Moon	9794-03-07 08:38 G	5298310.81	5298310.86	5298310.92	0.0542	0.0523
Mercury	9798-12-19 22:33 G	5300059.34	5300059.44	5300059.54	0.0485	0.0382
Venus	9799-01-19 22:48 G	5300090.30	5300090.45	5300090.60	0.0485	0.0318
Mercury	9799-03-19 17:31 G	5300149.08	5300149.23	5300149.38	0.0484	0.0208
Earth	9800-09-15 12:14 G	5300693.78	5300694.01	5300694.24	0.0490	0.0086
Moon	9800-09-15 13:40 G	5300693.83	5300694.07	5300694.32	0.0490	0.0059 *
Mercury	9805-02-21 20:38 G	5302314.22	5302314.36	5302314.50	0.0544	0.0060
Moon	9806-03-13 13:55 G	5302698.90	5302699.08	5302699.28	0.0540	0.0337
Earth	9806-03-13 14:52 G	5302698.94	5302699.12	5302699.30	0.0540	0.0346 *
Mercury	9811-01-06 18:00 G	5304459.09	5304459.25	5304459.42	0.0484	0.0057
Moon	9812-09-19 17:31 G	5305081.00	5305081.23	5305081.46	0.0491	0.0061
Earth	9812-09-19 20:38 G	5305081.13	5305081.36	5305081.59	0.0491	0.0065 *
Mercury	9816-12-10 23:16 G	5306624.34	5306624.47	5306624.61	0.0544	0.0104
Venus	9817-03-22 14:09 G	5306726.01	5306726.09	5306726.17	0.0544	0.0495
Moon	9818-03-18 20:23 G	5307087.14	5307087.35	5307087.56	0.0539	0.0167
Earth	9818-03-18 22:04 G	5307087.20	5307087.42	5307087.65	0.0539	0.0136 *
Mercury	9822-10-25 18:57 G	5308769.13	5308769.29	5308769.45	0.0485	0.0089

Venus	9823-01-23 00:57 G	5308858.36	5308858.54	5308858.72	0.0484	0.0243
Earth	9824-09-24 07:26 G	5309468.60	5309468.81	5309469.02	0.0493	0.0221
Moon	9824-09-24 11:31 G	5309468.76	5309468.98	5309469.19	0.0493	0.0190 *
Mercury	9828-09-29 01:40 G	5310934.45	5310934.57	5310934.69	0.0543	0.0275
Venus	9828-11-25 00:00 G	5310991.30	5310991.50	5310991.71	0.0543	0.0020
Mercury	9828-12-27 14:52 G	5311024.04	5311024.12	5311024.21	0.0543	0.0413
Earth	9830-03-24 00:28 G	5311475.29	5311475.52	5311475.75	0.0537	0.0064
Moon	9830-03-24 04:04 G	5311475.44	5311475.67	5311475.90	0.0537	0.0066 *
Mars	9832-10-18 12:57 G	5312414.78	5312415.04	5312415.31	0.0500	0.0218
Mercury	9834-08-13 19:40 G	5313079.18	5313079.32	5313079.46	0.0485	0.0237
Venus	9834-09-28 06:28 G	5313124.57	5313124.77	5313124.97	0.0485	0.0112
Mercury	9834-11-11 15:07 G	5313169.02	5313169.13	5313169.24	0.0485	0.0362
Moon	9836-09-28 14:23 G	5313855.94	5313856.10	5313856.26	0.0494	0.0367
Earth	9836-09-28 18:28 G	5313856.12	5313856.27	5313856.42	0.0494	0.0375 *
Mercury	9840-07-18 03:21 G	5315244.57	5315244.64	5315244.72	0.0543	0.0455
Venus	9840-07-30 08:52 G	5315256.86	5315256.87	5315256.91	0.0543	0.0538
Mercury	9840-10-15 17:16 G	5315334.10	5315334.22	5315334.34	0.0543	0.0242
Moon	9842-03-28 22:04 G	5315863.24	5315863.42	5315863.62	0.0535	0.0295
Earth	9842-03-29 02:09 G	5315863.39	5315863.59	5315863.80	0.0535	0.0260 *
Mercury	9846-06-01 20:52 G	5317389.27	5317389.37	5317389.47	0.0485	0.0377
Venus	9846-06-03 12:57 G	5317390.98	5317391.04	5317391.10	0.0485	0.0462
Mercury	9846-08-30 15:50 G	5317479.01	5317479.16	5317479.31	0.0485	0.0214
Mercury	9852-08-03 18:43 G	5319644.15	5319644.28	5319644.42	0.0544	0.0061
Earth	9854-04-03 02:52 G	5320251.51	5320251.62	5320251.75	0.0534	0.0449
Moon	9854-04-03 06:00 G	5320251.64	5320251.75	5320251.87	0.0534	0.0455 *
Mercury	9858-06-18 16:48 G	5321789.04	5321789.20	5321789.37	0.0484	0.0071
Venus	9858-09-30 09:50 G	5321892.85	5321892.91	5321892.98	0.0484	0.0456
Earth	9859-09-07 06:00 G	5322234.61	5322234.75	5322234.88	0.0487	0.0397
Moon	9859-09-07 05:45 G	5322234.63	5322234.74	5322234.85	0.0487	0.0422 *
Mercury	9864-05-22 21:21 G	5323954.26	5323954.39	5323954.53	0.0544	0.0109

Venus	9864-08-02 17:16 G	5324026.05	5324026.22	5324026.40	0.0544	0.0271
Mercury	9870-04-06 17:31 G	5326099.07	5326099.23	5326099.40	0.0485	0.0080
Venus	9870-06-05 15:36 G	5326158.96	5326159.15	5326159.35	0.0484	0.0102
Earth	9871-09-11 12:28 G	5326621.82	5326622.02	5326622.22	0.0488	0.0254
Moon	9871-09-11 14:09 G	5326621.88	5326622.09	5326622.30	0.0488	0.0239 *
Mercury	9876-03-11 00:00 G	5328264.38	5328264.50	5328264.62	0.0544	0.0273
Venus	9876-04-07 04:48 G	5328291.52	5328291.70	5328291.88	0.0544	0.0236
Mercury	9876-06-08 13:40 G	5328353.98	5328354.07	5328354.15	0.0544	0.0418
Mercury	9882-01-23 18:43 G	5330409.13	5330409.28	5330409.42	0.0485	0.0224
Venus	9882-02-08 21:50 G	5330425.24	5330425.41	5330425.59	0.0485	0.0251
Mercury	9882-04-23 14:09 G	5330498.98	5330499.09	5330499.19	0.0484	0.0373
Moon	9883-09-15 18:14 G	5331009.03	5331009.26	5331009.49	0.0490	0.0080
Earth	9883-09-15 21:21 G	5331009.16	5331009.39	5331009.62	0.0490	0.0104 *
Mars	9886-06-18 08:09 G	5332015.59	5332015.84	5332016.09	0.0527	0.0135
Mercury	9887-12-29 02:23 G	5332574.52	5332574.60	5332574.68	0.0543	0.0444
Mercury	9888-03-27 16:19 G	5332664.05	5332664.18	5332664.30	0.0543	0.0254
Moon	9889-03-12 18:14 G	5333014.10	5333014.26	5333014.42	0.0540	0.0373
Earth	9889-03-12 19:11 G	5333014.14	5333014.30	5333014.47	0.0540	0.0375 *
Mercury	9893-11-11 19:26 G	5334719.21	5334719.31	5334719.42	0.0485	0.0369
Mercury	9894-02-09 14:23 G	5334808.96	5334809.10	5334809.25	0.0485	0.0223
Earth	9895-09-20 06:28 G	5335396.53	5335396.77	5335397.00	0.0491	0.0046
Moon	9895-09-20 10:19 G	5335396.70	5335396.93	5335397.17	0.0491	0.0034 *
Mercury	9900-01-14 18:28 G	5336974.13	5336974.27	5336974.40	0.0543	0.0081
Earth	9901-03-18 23:16 G	5337402.25	5337402.47	5337402.69	0.0539	0.0171
Moon	9901-03-19 02:38 G	5337402.39	5337402.61	5337402.83	0.0539	0.0202 *
Mercury	9905-11-29 15:21 G	5339118.98	5339119.14	5339119.31	0.0485	0.0078
Venus	9906-02-12 00:28 G	5339193.37	5339193.52	5339193.67	0.0484	0.0315
Moon	9907-09-25 10:48 G	5339783.73	5339783.95	5339784.18	0.0492	0.0161
Earth	9907-09-25 14:52 G	5339783.90	5339784.12	5339784.34	0.0492	0.0193 *
Mercury	9911-11-03 19:40 G	5341284.19	5341284.32	5341284.46	0.0544	0.0109

Venus	9911-12-15 21:36 G	5341326.20	5341326.40	5341326.60	0.0544	0.0051
Moon	9913-03-23 21:21 G	5341790.16	5341790.39	5341790.62	0.0538	0.0028
Earth	9913-03-24 01:26 G	5341790.32	5341790.56	5341790.79	0.0538	0.0026 *
Mercury	9917-09-17 16:33 G	5343429.03	5343429.19	5343429.36	0.0485	0.0067
Venus	9917-10-18 07:11 G	5343459.60	5343459.80	5343460.01	0.0484	0.0036
Earth	9919-09-30 01:11 G	5344171.38	5344171.55	5344171.72	0.0493	0.0346
Moon	9919-09-30 04:19 G	5344171.52	5344171.68	5344171.84	0.0493	0.0345 *
Venus	9923-08-20 07:55 G	5345591.73	5345591.83	5345591.94	0.0544	0.0462
Mercury	9923-08-22 22:04 G	5345594.30	5345594.42	5345594.54	0.0544	0.0278
Mercury	9923-11-20 11:45 G	5345683.90	5345683.99	5345684.07	0.0544	0.0414
Earth	9925-03-29 07:11 G	5346178.59	5346178.80	5346179.01	0.0536	0.0227
Moon	9925-03-29 10:33 G	5346178.75	5346178.94	5346179.14	0.0536	0.0263 *
Venus	9929-06-23 13:11 G	5347725.93	5347726.05	5347726.17	0.0485	0.0391
Mercury	9929-07-06 17:31 G	5347739.08	5347739.23	5347739.38	0.0485	0.0212
Mercury	9929-10-04 12:57 G	5347828.94	5347829.04	5347829.14	0.0484	0.0384
Mercury	9935-06-11 00:43 G	5349904.45	5349904.53	5349904.61	0.0543	0.0443
Mercury	9935-09-08 14:38 G	5349994.00	5349994.11	5349994.24	0.0544	0.0258
Moon	9937-04-03 10:19 G	5350566.79	5350566.93	5350567.08	0.0534	0.0424
Earth	9937-04-03 12:00 G	5350566.87	5350567.00	5350567.14	0.0534	0.0426 *
Mercury	9941-04-24 18:43 G	5352049.17	5352049.28	5352049.39	0.0485	0.0354
Mercury	9941-07-23 13:40 G	5352138.92	5352139.07	5352139.21	0.0484	0.0236
Earth	9942-09-07 15:36 G	5352550.03	5352550.15	5352550.28	0.0487	0.0413
Moon	9942-09-07 17:31 G	5352550.12	5352550.23	5352550.34	0.0487	0.0429 *
Mercury	9947-06-27 17:31 G	5354304.09	5354304.23	5354304.36	0.0544	0.0094
Venus	9947-08-23 20:52 G	5354361.23	5354361.37	5354361.52	0.0544	0.0375
Mars	9951-04-08 19:55 G	5355685.10	5355685.33	5355685.57	0.0502	0.0295
Mercury	9953-05-11 14:09 G	5356448.93	5356449.09	5356449.26	0.0485	0.0086
Venus	9953-06-25 15:21 G	5356493.95	5356494.14	5356494.33	0.0485	0.0173
Moon	9954-09-11 19:55 G	5356937.14	5356937.33	5356937.54	0.0488	0.0251
Earth	9954-09-11 23:16 G	5356937.27	5356937.47	5356937.66	0.0488	0.0271 *

Mercury	9959-04-15 19:26 G	5358614.18	5358614.31	5358614.45	0.0543	0.0083
Venus	9959-04-28 06:14 G	5358626.57	5358626.76	5358626.96	0.0543	0.0146
Mercury	9965-02-27 15:21 G	5360758.97	5360759.14	5360759.30	0.0485	0.0057
Venus	9965-02-28 21:50 G	5360760.22	5360760.41	5360760.60	0.0485	0.0178
Earth	9966-09-16 06:43 G	5361324.56	5361324.78	5361325.01	0.0489	0.0127
Moon	9966-09-16 10:48 G	5361324.72	5361324.95	5361325.18	0.0489	0.0105 *
Mercury	9971-02-01 20:38 G	5362924.24	5362924.36	5362924.48	0.0543	0.0274
Mercury	9971-05-02 10:04 G	5363013.84	5363013.92	5363014.01	0.0544	0.0417
Earth	9972-03-12 18:28 G	5363329.12	5363329.27	5363329.41	0.0541	0.0415
Moon	9972-03-12 20:52 G	5363329.22	5363329.37	5363329.52	0.0541	0.0419 *
Mercury	9976-12-16 16:33 G	5365069.04	5365069.19	5365069.34	0.0485	0.0197
Mercury	9977-03-16 12:00 G	5365158.91	5365159.00	5365159.09	0.0484	0.0401
Moon	9978-09-20 11:45 G	5365711.75	5365711.99	5365712.22	0.0490	0.0011
Earth	9978-09-20 15:36 G	5365711.92	5365712.15	5365712.39	0.0490	0.0023 *
Mercury	9982-11-20 22:48 G	5367234.38	5367234.45	5367234.53	0.0543	0.0447
Mercury	9983-02-18 12:57 G	5367323.92	5367324.04	5367324.16	0.0544	0.0253
Moon	9984-03-17 22:19 G	5367717.23	5367717.43	5367717.64	0.0540	0.0240
Earth	9984-03-18 02:09 G	5367717.38	5367717.59	5367717.81	0.0540	0.0206 *
Mars	9987-01-14 07:55 G	5368749.76	5368749.83	5368749.91	0.0499	0.0481
Mercury	9988-10-04 17:31 G	5369379.12	5369379.23	5369379.35	0.0485	0.0343
Mercury	9989-01-02 12:28 G	5369468.88	5369469.02	5369469.16	0.0484	0.0248
Venus	9989-03-03 00:28 G	5369528.41	5369528.52	5369528.65	0.0484	0.0387
Earth	9990-09-24 23:31 G	5370099.27	5370099.48	5370099.71	0.0492	0.0174
Moon	9990-09-25 02:38 G	5370099.40	5370099.61	5370099.83	0.0492	0.0145 *
Mercury	9994-12-07 15:50 G	5371634.02	5371634.16	5371634.30	0.0544	0.0094
Venus	9995-01-04 01:40 G	5371661.38	5371661.57	5371661.76	0.0544	0.0156
Earth	9996-03-23 10:19 G	5372105.69	5372105.93	5372106.16	0.0538	0.0009
Moon	9996-03-23 13:55 G	5372105.85	5372106.08	5372106.31	0.0538	0.0012 *
Mercury	10000-07-23 18:57 G	5373689.28	5373689.29	5373689.30	0.0485	0.0482
Mercury	10000-10-21 13:11 G	5373778.89	5373779.05	5373779.22	0.0484	0.0101

Venus 10000-11-06 06:57 G 5373794.59 5373794.79 5373795.00 0.0484 0.0035

11TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 11th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	10002-09-29 09:07	G	5374486.70	5374486.88	5374487.06	0.0493	0.0330	
Earth	10002-09-29 10:33	G	5374486.77	5374486.94	5374487.12	0.0493	0.0327	*
Venus	10006-09-08 12:28	G	5375926.87	5375927.02	5375927.17	0.0543	0.0355	
Mercury	10006-09-25 18:28	G	5375944.13	5375944.27	5375944.41	0.0543	0.0072	
Moon	10008-03-28 11:31	G	5376493.77	5376493.98	5376494.20	0.0536	0.0232	
Earth	10008-03-28 13:55	G	5376493.87	5376494.08	5376494.30	0.0536	0.0200	*
Venus	10012-07-12 12:43	G	5378060.88	5378061.03	5378061.19	0.0485	0.0321	
Mercury	10012-08-09 13:55	G	5378088.92	5378089.08	5378089.25	0.0485	0.0049	
Earth	10014-10-03 22:19	G	5378874.38	5378874.43	5378874.49	0.0495	0.0480	
Mercury	10018-07-14 20:23	G	5380254.23	5380254.35	5380254.48	0.0543	0.0248	
Mercury	10018-10-12 09:50	G	5380343.84	5380343.91	5380343.99	0.0544	0.0442	
Earth	10020-04-02 15:36	G	5380882.00	5380882.15	5380882.31	0.0534	0.0393	
Moon	10020-04-02 15:21	G	5380882.00	5380882.14	5380882.30	0.0534	0.0385	*
Mercury	10024-05-28 15:21	G	5382398.99	5382399.14	5382399.29	0.0485	0.0189	
Mercury	10024-08-26 10:33	G	5382488.86	5382488.94	5382489.03	0.0484	0.0410	
Moon	10025-09-06 23:16	G	5382865.39	5382865.47	5382865.57	0.0487	0.0442	
Earth	10025-09-07 02:38	G	5382865.51	5382865.61	5382865.72	0.0487	0.0431	*
Mercury	10030-05-02 21:21	G	5384564.31	5384564.39	5384564.47	0.0543	0.0442	

Mercury	10030-07-31 11:31 G	5384653.86	5384653.98	5384654.10	0.0544	0.0257
Venus	10030-09-11 18:43 G	5384696.16	5384696.28	5384696.39	0.0544	0.0445
Mercury	10036-03-16 16:33 G	5386709.08	5386709.19	5386709.32	0.0485	0.0328
Mercury	10036-06-14 11:31 G	5386798.85	5386798.98	5386799.13	0.0484	0.0264
Venus	10036-07-14 16:33 G	5386829.02	5386829.19	5386829.37	0.0484	0.0252
Earth	10037-09-11 09:50 G	5387252.73	5387252.91	5387253.11	0.0487	0.0288
Moon	10037-09-11 13:55 G	5387252.88	5387253.08	5387253.28	0.0487	0.0258 *
Mars	10040-09-12 07:40 G	5388349.57	5388349.82	5388350.08	0.0527	0.0052
Venus	10042-05-17 04:48 G	5388961.50	5388961.70	5388961.91	0.0544	0.0072
Mercury	10042-05-19 13:55 G	5388963.95	5388964.08	5388964.22	0.0544	0.0090
Mercury	10048-01-03 17:45 G	5391019.21	5391019.24	5391019.28	0.0485	0.0471
Venus	10048-03-19 22:19 G	5391095.23	5391095.43	5391095.63	0.0484	0.0106
Mercury	10048-04-02 12:14 G	5391108.85	5391109.01	5391109.17	0.0484	0.0112
Moon	10049-09-15 12:14 G	5391639.78	5391640.01	5391640.24	0.0489	0.0123
Earth	10049-09-15 16:04 G	5391639.95	5391640.17	5391640.40	0.0489	0.0144 *
Mercury	10054-03-07 16:48 G	5393274.06	5393274.20	5393274.34	0.0544	0.0072
Moon	10055-03-12 22:48 G	5393644.33	5393644.45	5393644.58	0.0542	0.0450
Earth	10055-03-13 02:38 G	5393644.47	5393644.61	5393644.75	0.0542	0.0435 *
Venus	10059-11-24 04:33 G	5395361.63	5395361.69	5395361.76	0.0485	0.0459
Mercury	10060-01-20 13:11 G	5395418.88	5395419.05	5395419.21	0.0484	0.0034
Earth	10061-09-20 00:57 G	5396027.30	5396027.54	5396027.78	0.0490	0.0006
Moon	10061-09-20 04:04 G	5396027.44	5396027.67	5396027.90	0.0490	0.0014 *
Mercury	10065-12-24 19:11 G	5397584.18	5397584.30	5397584.43	0.0543	0.0239
Mercury	10066-03-24 08:52 G	5397673.79	5397673.87	5397673.94	0.0544	0.0451
Earth	10067-03-18 09:21 G	5398032.69	5398032.89	5398033.11	0.0540	0.0231
Moon	10067-03-18 13:26 G	5398032.86	5398033.06	5398033.26	0.0540	0.0263 *
Mercury	10071-11-08 13:55 G	5399728.93	5399729.08	5399729.23	0.0485	0.0180
Mercury	10072-02-06 09:21 G	5399818.81	5399818.89	5399818.97	0.0484	0.0418
Venus	10072-03-22 00:14 G	5399863.46	5399863.51	5399863.58	0.0484	0.0460
Moon	10073-09-24 08:52 G	5400414.64	5400414.87	5400415.11	0.0491	0.0130

Earth	10073-09-24 10:33 G	5400414.72	5400414.94	5400415.16	0.0491	0.0155	*
Mercury	10077-10-12 21:21 G	5401894.30	5401894.39	5401894.48	0.0543	0.0415	
Mercury	10078-01-10 11:16 G	5401983.85	5401983.97	5401984.08	0.0544	0.0283	
Venus	10078-01-23 03:50 G	5401996.48	5401996.66	5401996.84	0.0544	0.0251	
Moon	10079-03-23 10:48 G	5402420.72	5402420.95	5402421.19	0.0538	0.0023	
Earth	10079-03-23 13:55 G	5402420.85	5402421.08	5402421.31	0.0538	0.0030	*
Mercury	10083-08-27 15:21 G	5404039.02	5404039.14	5404039.26	0.0485	0.0319	
Mercury	10083-11-25 10:19 G	5404128.79	5404128.93	5404129.07	0.0484	0.0272	
Venus	10083-11-26 07:11 G	5404129.61	5404129.80	5404130.00	0.0484	0.0110	
Moon	10085-09-28 19:40 G	5404802.16	5404802.32	5404802.50	0.0492	0.0319	
Earth	10085-09-28 20:23 G	5404802.17	5404802.35	5404802.54	0.0492	0.0303	*
Venus	10089-09-27 09:50 G	5406261.74	5406261.91	5406262.09	0.0543	0.0288	
Mercury	10089-10-29 12:28 G	5406293.89	5406294.02	5406294.16	0.0544	0.0095	
Earth	10091-03-28 13:11 G	5406808.83	5406809.05	5406809.27	0.0537	0.0160	
Moon	10091-03-28 13:55 G	5406808.87	5406809.08	5406809.29	0.0537	0.0189	*
Mercury	10095-06-15 16:48 G	5408349.15	5408349.20	5408349.25	0.0485	0.0458	
Venus	10095-08-01 13:55 G	5408395.91	5408396.08	5408396.26	0.0485	0.0244	
Mercury	10095-09-13 11:16 G	5408438.81	5408438.97	5408439.13	0.0485	0.0127	
Earth	10097-10-03 06:43 G	5409189.70	5409189.78	5409189.88	0.0494	0.0455	
Moon	10097-10-03 09:21 G	5409189.84	5409189.89	5409189.94	0.0494	0.0481	*
Mercury	10101-08-18 14:52 G	5410603.98	5410604.12	5410604.26	0.0544	0.0078	
Earth	10103-04-03 17:45 G	5411197.07	5411197.24	5411197.42	0.0536	0.0359	
Moon	10103-04-03 19:55 G	5411197.15	5411197.33	5411197.52	0.0536	0.0339	*
Mars	10105-07-04 12:14 G	5412019.72	5412020.01	5412020.31	0.0502	0.0041	
Mercury	10107-07-03 12:00 G	5412748.83	5412749.00	5412749.16	0.0484	0.0026	
Earth	10108-09-07 11:45 G	5413180.90	5413180.99	5413181.09	0.0486	0.0445	
Moon	10108-09-07 15:36 G	5413181.07	5413181.15	5413181.25	0.0486	0.0445	*
Mercury	10113-06-06 17:31 G	5414914.10	5414914.23	5414914.35	0.0544	0.0242	
Mercury	10113-09-04 06:57 G	5415003.72	5415003.79	5415003.87	0.0544	0.0450	
Moon	10115-04-08 19:11 G	5415585.26	5415585.30	5415585.35	0.0534	0.0521	

Mercury	10119-04-21 12:57 G	5417058.89	5417059.04	5417059.19	0.0485	0.0167
Mercury	10119-07-20 08:09 G	5417148.77	5417148.84	5417148.92	0.0484	0.0431
Venus	10119-08-04 15:50 G	5417164.01	5417164.16	5417164.32	0.0484	0.0320
Moon	10120-09-11 15:21 G	5417567.94	5417568.14	5417568.34	0.0487	0.0273
Earth	10120-09-11 18:57 G	5417568.11	5417568.29	5417568.48	0.0487	0.0304 *
Mercury	10125-03-25 19:55 G	5419224.24	5419224.33	5419224.42	0.0543	0.0410
Venus	10125-06-06 09:07 G	5419296.68	5419296.88	5419297.09	0.0544	0.0036
Mercury	10125-06-23 09:50 G	5419313.80	5419313.91	5419314.03	0.0544	0.0290
Mercury	10131-02-07 13:55 G	5421368.95	5421369.08	5421369.20	0.0485	0.0313
Venus	10131-04-09 21:36 G	5421430.20	5421430.40	5421430.61	0.0485	0.0038
Mercury	10131-05-08 08:38 G	5421458.73	5421458.86	5421459.00	0.0484	0.0279
Earth	10132-09-16 02:23 G	5421955.38	5421955.60	5421955.82	0.0489	0.0160
Moon	10132-09-16 05:16 G	5421955.50	5421955.72	5421955.94	0.0489	0.0144 *
Venus	10137-02-08 18:57 G	5423562.20	5423562.29	5423562.38	0.0543	0.0483
Mercury	10137-04-11 12:14 G	5423623.88	5423624.01	5423624.14	0.0544	0.0119
Earth	10138-03-13 05:31 G	5423959.62	5423959.73	5423959.86	0.0541	0.0465
Moon	10138-03-13 09:36 G	5423959.81	5423959.90	5423960.01	0.0541	0.0483 *
Mercury	10142-11-26 15:21 G	5425679.08	5425679.14	5425679.20	0.0485	0.0451
Venus	10142-12-14 04:19 G	5425696.56	5425696.68	5425696.80	0.0485	0.0389
Mercury	10143-02-24 09:50 G	5425768.75	5425768.91	5425769.07	0.0485	0.0134
Moon	10144-09-20 10:04 G	5426342.67	5426342.92	5426343.16	0.0489	0.0035
Earth	10144-09-20 11:31 G	5426342.74	5426342.98	5426343.21	0.0489	0.0014 *
Mercury	10149-01-28 13:26 G	5427933.92	5427934.06	5427934.20	0.0543	0.0073
Moon	10150-03-18 02:52 G	5428347.43	5428347.62	5428347.81	0.0541	0.0305
Earth	10150-03-18 06:28 G	5428347.57	5428347.77	5428347.97	0.0541	0.0272 *
Mercury	10154-12-13 10:48 G	5430078.79	5430078.95	5430079.12	0.0485	0.0014
Moon	10156-09-24 19:26 G	5430730.09	5430730.31	5430730.53	0.0491	0.0118
Earth	10156-09-24 19:55 G	5430730.11	5430730.33	5430730.56	0.0491	0.0135 *
Mars	10159-03-05 17:31 G	5431622.10	5431622.23	5431622.38	0.0524	0.0439
Mercury	10160-11-16 15:36 G	5432244.02	5432244.15	5432244.27	0.0543	0.0248

Venus	10161-02-12 00:57 G	5432331.38	5432331.54	5432331.71	0.0544	0.0317
Mercury	10161-02-14 05:02 G	5432333.64	5432333.71	5432333.79	0.0544	0.0443
Earth	10162-03-23 12:43 G	5432735.80	5432736.03	5432736.26	0.0539	0.0069
Moon	10162-03-23 14:09 G	5432735.87	5432736.09	5432736.31	0.0539	0.0055 *
Mercury	10166-10-01 11:31 G	5434388.83	5434388.98	5434389.14	0.0485	0.0159
Venus	10166-12-16 06:43 G	5434464.59	5434464.78	5434464.97	0.0484	0.0177
Mercury	10166-12-30 06:57 G	5434478.72	5434478.79	5434478.86	0.0484	0.0439
Earth	10168-09-29 03:21 G	5435117.45	5435117.64	5435117.83	0.0492	0.0281
Moon	10168-09-29 05:45 G	5435117.55	5435117.74	5435117.93	0.0492	0.0302 *
Mercury	10172-09-04 18:00 G	5436554.16	5436554.25	5436554.34	0.0543	0.0416
Venus	10172-10-17 12:14 G	5436596.82	5436597.01	5436597.20	0.0544	0.0194
Mercury	10172-12-03 07:55 G	5436643.72	5436643.83	5436643.95	0.0544	0.0285
Earth	10174-03-28 20:09 G	5437124.12	5437124.34	5437124.57	0.0538	0.0136
Moon	10174-03-28 21:50 G	5437124.18	5437124.41	5437124.64	0.0538	0.0159 *
Mercury	10178-07-20 12:43 G	5438698.91	5438699.03	5438699.16	0.0485	0.0302
Venus	10178-08-21 12:57 G	5438730.85	5438731.04	5438731.23	0.0485	0.0178
Mercury	10178-10-18 07:40 G	5438788.68	5438788.82	5438788.95	0.0484	0.0290
Moon	10180-10-03 10:33 G	5439504.87	5439504.94	5439505.03	0.0494	0.0461
Earth	10180-10-03 13:55 G	5439504.98	5439505.08	5439505.20	0.0494	0.0433 *
Mercury	10184-09-21 10:48 G	5440953.82	5440953.95	5440954.08	0.0544	0.0122
Moon	10186-04-02 21:21 G	5441512.21	5441512.39	5441512.58	0.0536	0.0308
Earth	10186-04-03 00:43 G	5441512.35	5441512.53	5441512.71	0.0536	0.0331 *
Mercury	10190-05-08 13:40 G	5443009.01	5443009.07	5443009.14	0.0485	0.0446
Mercury	10190-08-06 08:09 G	5443098.68	5443098.84	5443099.00	0.0485	0.0139
Moon	10191-09-07 17:45 G	5443496.17	5443496.24	5443496.33	0.0486	0.0458
Earth	10191-09-07 21:36 G	5443496.33	5443496.40	5443496.47	0.0486	0.0461 *
Mars	10194-12-08 19:40 G	5444684.11	5444684.32	5444684.54	0.0528	0.0287
Mercury	10196-07-10 12:57 G	5445263.90	5445264.04	5445264.18	0.0543	0.0051
Earth	10198-04-08 01:40 G	5445900.52	5445900.57	5445900.63	0.0534	0.0518
Moon	10198-04-08 05:45 G	5445900.65	5445900.74	5445900.83	0.0534	0.0490

Mercury	10202-05-26 09:21 G	5447408.72	5447408.89	5447409.05	0.0485	0.0010
Venus	10202-08-24 15:21 G	5447499.02	5447499.14	5447499.26	0.0484	0.0390
Earth	10203-09-13 05:02 G	5447883.54	5447883.71	5447883.89	0.0487	0.0321
Moon	10203-09-13 07:55 G	5447883.65	5447883.83	5447884.01	0.0487	0.0291 *
Mercury	10208-04-29 14:09 G	5449573.96	5449574.09	5449574.21	0.0543	0.0244
Venus	10208-06-26 06:00 G	5449631.55	5449631.75	5449631.95	0.0543	0.0099
Mercury	10208-07-28 03:36 G	5449663.58	5449663.65	5449663.73	0.0544	0.0447
Mercury	10214-03-14 10:19 G	5451718.78	5451718.93	5451719.09	0.0485	0.0149
Venus	10214-04-29 21:50 G	5451765.20	5451765.41	5451765.61	0.0485	0.0036
Mercury	10214-06-12 05:45 G	5451808.68	5451808.74	5451808.80	0.0484	0.0450
Moon	10215-09-17 10:48 G	5452270.73	5452270.95	5452271.18	0.0488	0.0166
Earth	10215-09-17 12:14 G	5452270.79	5452271.01	5452271.23	0.0488	0.0177 *
Mercury	10220-02-16 15:50 G	5453884.08	5453884.16	5453884.25	0.0543	0.0423
Venus	10220-02-29 15:21 G	5453897.01	5453897.14	5453897.26	0.0543	0.0423
Mercury	10220-05-16 06:00 G	5453973.63	5453973.75	5453973.87	0.0544	0.0277
Moon	10221-03-12 21:36 G	5454274.34	5454274.40	5454274.46	0.0542	0.0521
Earth	10221-03-13 01:40 G	5454274.49	5454274.57	5454274.65	0.0542	0.0504
Mercury	10225-12-31 11:16 G	5456028.84	5456028.97	5456029.10	0.0485	0.0296
Venus	10226-01-03 03:07 G	5456031.48	5456031.63	5456031.78	0.0485	0.0324
Mercury	10226-03-31 06:00 G	5456118.62	5456118.75	5456118.88	0.0484	0.0295
Moon	10227-09-21 17:02 G	5456657.99	5456658.21	5456658.43	0.0489	0.0060
Earth	10227-09-21 17:45 G	5456658.00	5456658.24	5456658.47	0.0489	0.0036 *
Mercury	10232-03-04 08:38 G	5458283.73	5458283.86	5458284.00	0.0544	0.0114
Earth	10233-03-18 11:02 G	5458662.77	5458662.96	5458663.15	0.0541	0.0298
Moon	10233-03-18 13:11 G	5458662.87	5458663.05	5458663.23	0.0541	0.0326 *
Mercury	10237-10-19 12:28 G	5460338.95	5460339.02	5460339.09	0.0485	0.0437
Mercury	10238-01-17 06:43 G	5460428.63	5460428.78	5460428.94	0.0484	0.0148
Earth	10239-09-26 01:55 G	5461045.36	5461045.58	5461045.82	0.0490	0.0113
Moon	10239-09-26 04:33 G	5461045.45	5461045.69	5461045.93	0.0490	0.0100 *
Mercury	10243-12-22 11:16 G	5462593.83	5462593.97	5462594.11	0.0544	0.0051

Venus	10244-03-04 03:50 G	5462666.53	5462666.66	5462666.79	0.0544	0.0417
Earth	10245-03-23 18:28 G	5463051.04	5463051.27	5463051.49	0.0539	0.0096
Moon	10245-03-23 18:57 G	5463051.05	5463051.29	5463051.53	0.0539	0.0074 *
Mercury	10249-11-05 07:26 G	5464738.65	5464738.81	5464738.98	0.0485	0.0003
Venus	10250-01-05 05:02 G	5464799.53	5464799.71	5464799.89	0.0484	0.0241
Moon	10251-09-30 08:09 G	5465432.66	5465432.84	5465433.03	0.0492	0.0284
Earth	10251-09-30 11:31 G	5465432.79	5465432.98	5465433.19	0.0492	0.0260 *
Mercury	10255-10-10 13:26 G	5466903.93	5466904.06	5466904.19	0.0543	0.0224
Venus	10255-11-07 13:40 G	5466931.87	5466932.07	5466932.27	0.0543	0.0104
Mercury	10256-01-08 03:07 G	5466993.56	5466993.63	5466993.70	0.0544	0.0466
Moon	10257-03-28 19:26 G	5467439.10	5467439.31	5467439.53	0.0538	0.0126
Earth	10257-03-28 22:19 G	5467439.21	5467439.43	5467439.66	0.0538	0.0103 *
Mars	10259-09-29 13:11 G	5468353.78	5468354.05	5468354.33	0.0501	0.0183
Mercury	10261-08-24 08:38 G	5469048.70	5469048.86	5469049.02	0.0485	0.0146
Venus	10261-09-10 11:31 G	5469065.78	5469065.98	5469066.18	0.0485	0.0113
Mercury	10261-11-22 03:50 G	5469138.61	5469138.66	5469138.72	0.0484	0.0454
Earth	10263-10-04 22:33 G	5469820.31	5469820.44	5469820.57	0.0493	0.0409
Moon	10263-10-05 02:23 G	5469820.49	5469820.60	5469820.71	0.0493	0.0434 *
Mercury	10267-07-29 14:23 G	5471214.01	5471214.10	5471214.19	0.0542	0.0419
Mercury	10267-10-27 04:33 G	5471303.57	5471303.69	5471303.80	0.0543	0.0280
Earth	10269-04-02 19:55 G	5471827.14	5471827.33	5471827.53	0.0536	0.0289
Moon	10269-04-03 00:00 G	5471827.30	5471827.50	5471827.70	0.0536	0.0264 *
Venus	10273-05-16 17:31 G	5473332.18	5473332.23	5473332.28	0.0486	0.0471
Mercury	10273-06-12 09:50 G	5473358.78	5473358.91	5473359.04	0.0485	0.0289
Mercury	10273-09-10 04:33 G	5473448.56	5473448.69	5473448.82	0.0485	0.0304
Earth	10274-09-08 06:43 G	5473811.74	5473811.78	5473811.83	0.0486	0.0475
Moon	10274-09-08 09:07 G	5473811.84	5473811.88	5473811.95	0.0486	0.0470
Mercury	10279-08-15 06:43 G	5475613.64	5475613.78	5475613.91	0.0543	0.0107
Moon	10281-04-07 18:43 G	5476215.16	5476215.28	5476215.41	0.0535	0.0450
Earth	10281-04-07 22:33 G	5476215.35	5476215.44	5476215.55	0.0535	0.0479 *

Mercury	10285-03-31 10:48 G	5477668.88	5477668.95	5477669.02	0.0485	0.0434
Mercury	10285-06-29 05:02 G	5477758.55	5477758.71	5477758.87	0.0485	0.0150
Venus	10285-09-12 12:57 G	5477833.97	5477834.04	5477834.12	0.0484	0.0450
Moon	10286-09-12 09:07 G	5478198.70	5478198.88	5478199.07	0.0487	0.0313
Earth	10286-09-12 10:33 G	5478198.78	5478198.94	5478199.11	0.0487	0.0341 *
Mercury	10291-06-03 09:07 G	5479923.74	5479923.88	5479924.02	0.0544	0.0062
Venus	10291-07-16 06:00 G	5479966.56	5479966.75	5479966.94	0.0544	0.0183
Mercury	10297-04-17 06:00 G	5482068.58	5482068.75	5482068.91	0.0485	0.0005
Venus	10297-05-18 19:26 G	5482100.11	5482100.31	5482100.51	0.0484	0.0096
Moon	10298-09-16 16:33 G	5482585.99	5482586.19	5482586.40	0.0488	0.0199
Earth	10298-09-16 17:16 G	5482586.01	5482586.22	5482586.44	0.0488	0.0199 *
Venus	10303-03-21 17:02 G	5484232.05	5484232.21	5484232.38	0.0543	0.0330
Mercury	10303-03-23 11:31 G	5484233.86	5484233.98	5484234.11	0.0543	0.0229
Mercury	10303-06-21 01:11 G	5484323.48	5484323.55	5484323.62	0.0544	0.0464
Earth	10304-03-13 06:00 G	5484589.71	5484589.75	5484589.79	0.0542	0.0531
Venus	10309-01-23 00:43 G	5486366.36	5486366.53	5486366.70	0.0485	0.0265
Mercury	10309-02-04 06:43 G	5486378.62	5486378.78	5486378.94	0.0485	0.0145
Mercury	10309-05-05 01:55 G	5486468.53	5486468.58	5486468.64	0.0484	0.0453
Earth	10310-09-22 00:43 G	5486973.30	5486973.53	5486973.76	0.0489	0.0056
Moon	10310-09-22 03:07 G	5486973.40	5486973.63	5486973.87	0.0489	0.0086 *
Mars	10313-05-31 22:04 G	5487956.19	5487956.42	5487956.65	0.0525	0.0230
Mercury	10315-01-09 13:40 G	5488543.98	5488544.07	5488544.16	0.0543	0.0403
Mercury	10315-04-09 03:36 G	5488633.54	5488633.65	5488633.77	0.0544	0.0297
Moon	10316-03-18 11:45 G	5488977.81	5488977.99	5488978.17	0.0541	0.0352
Earth	10316-03-18 12:14 G	5488977.83	5488978.01	5488978.20	0.0541	0.0331 *
Mercury	10320-11-23 07:55 G	5490688.70	5490688.83	5490688.96	0.0485	0.0288
Mercury	10321-02-21 02:38 G	5490778.49	5490778.61	5490778.74	0.0485	0.0305
Moon	10322-09-26 06:28 G	5491360.55	5491360.77	5491361.00	0.0490	0.0080
Earth	10322-09-26 10:04 G	5491360.69	5491360.92	5491361.15	0.0490	0.0091 *
Mercury	10327-01-26 05:02 G	5492943.58	5492943.71	5492943.85	0.0543	0.0110

Venus	10327-03-24 23:45 G	5493001.40	5493001.49	5493001.59	0.0543	0.0477
Moon	10328-03-23 10:04 G	5493365.70	5493365.92	5493366.14	0.0540	0.0115
Earth	10328-03-23 12:00 G	5493365.78	5493366.00	5493366.23	0.0540	0.0140 *
Mercury	10332-09-11 09:07 G	5494998.81	5494998.88	5494998.95	0.0486	0.0431
Mercury	10332-12-10 03:21 G	5495088.49	5495088.64	5495088.80	0.0485	0.0156
Venus	10333-01-25 03:21 G	5495134.49	5495134.64	5495134.80	0.0485	0.0305
Earth	10334-09-30 18:28 G	5495748.07	5495748.27	5495748.48	0.0491	0.0237
Moon	10334-09-30 22:19 G	5495748.24	5495748.43	5495748.63	0.0491	0.0264 *
Mercury	10338-11-14 06:57 G	5497253.65	5497253.79	5497253.93	0.0543	0.0069
Venus	10338-11-27 08:52 G	5497266.67	5497266.87	5497267.08	0.0543	0.0050
Earth	10340-03-28 16:04 G	5497753.94	5497754.17	5497754.40	0.0539	0.0059
Moon	10340-03-28 19:40 G	5497754.09	5497754.32	5497754.56	0.0539	0.0082 *
Mercury	10344-09-28 04:04 G	5499398.50	5499398.67	5499398.83	0.0485	0.0011
Venus	10344-09-30 08:23 G	5499400.65	5499400.85	5499401.06	0.0485	0.0056
Moon	10346-10-04 21:07 G	5500135.25	5500135.38	5500135.52	0.0493	0.0401
Earth	10346-10-05 00:43 G	5500135.39	5500135.53	5500135.69	0.0493	0.0381 *
Mars	10349-03-05 07:40 G	5501017.69	5501017.82	5501017.96	0.0528	0.0447
Mercury	10350-09-02 09:07 G	5501563.76	5501563.88	5501564.01	0.0543	0.0242
Mercury	10350-11-30 22:48 G	5501653.38	5501653.45	5501653.53	0.0544	0.0452
Moon	10352-04-02 18:43 G	5502142.07	5502142.28	5502142.49	0.0537	0.0233
Earth	10352-04-02 22:33 G	5502142.24	5502142.44	5502142.65	0.0537	0.0257 *
Venus	10356-06-05 14:38 G	5503667.01	5503667.11	5503667.22	0.0485	0.0413
Mercury	10356-07-17 05:02 G	5503708.55	5503708.71	5503708.87	0.0485	0.0141
Mercury	10356-10-15 00:14 G	5503798.46	5503798.51	5503798.56	0.0484	0.0456
Mercury	10362-06-21 11:31 G	5505873.89	5505873.98	5505874.07	0.0543	0.0411
Mercury	10362-09-19 01:40 G	5505963.46	5505963.57	5505963.69	0.0544	0.0291
Earth	10364-04-08 02:52 G	5506530.50	5506530.62	5506530.75	0.0535	0.0447
Moon	10364-04-08 05:31 G	5506530.60	5506530.73	5506530.87	0.0535	0.0430 *
Mercury	10368-05-05 05:45 G	5508018.62	5508018.74	5508018.88	0.0485	0.0289
Mercury	10368-08-03 00:28 G	5508108.40	5508108.52	5508108.65	0.0484	0.0303

Moon	10369-09-12 15:50 G	5508514.00	5508514.16	5508514.33	0.0487	0.0337
Earth	10369-09-12 16:33 G	5508514.04	5508514.19	5508514.35	0.0487	0.0362 *
Mercury	10374-07-08 04:04 G	5510273.54	5510273.67	5510273.81	0.0544	0.0121
Venus	10374-08-05 06:28 G	5510301.60	5510301.77	5510301.95	0.0544	0.0268
Mars	10378-03-19 02:23 G	5511623.42	5511623.60	5511623.80	0.0504	0.0385
Mercury	10380-02-22 07:11 G	5512328.73	5512328.80	5512328.87	0.0485	0.0430
Mercury	10380-05-22 01:26 G	5512418.40	5512418.56	5512418.72	0.0485	0.0155
Venus	10380-06-07 16:33 G	5512435.00	5512435.19	5512435.39	0.0485	0.0154
Earth	10381-09-17 00:14 G	5512901.31	5512901.51	5512901.72	0.0488	0.0220
Moon	10381-09-17 02:52 G	5512901.41	5512901.62	5512901.84	0.0488	0.0227 *
Venus	10386-04-09 13:26 G	5514566.89	5514567.06	5514567.24	0.0543	0.0268
Mercury	10386-04-26 05:31 G	5514583.59	5514583.73	5514583.87	0.0543	0.0066
Venus	10392-02-11 22:04 G	5516701.24	5516701.42	5516701.61	0.0485	0.0206
Mercury	10392-03-10 02:09 G	5516728.43	5516728.59	5516728.76	0.0485	0.0009
Moon	10393-09-21 03:50 G	5517288.44	5517288.66	5517288.89	0.0489	0.0109
Earth	10393-09-21 07:26 G	5517288.58	5517288.81	5517289.04	0.0489	0.0076 *
Mercury	10398-02-12 07:11 G	5518893.68	5518893.80	5518893.92	0.0543	0.0247
Mercury	10398-05-12 20:52 G	5518983.29	5518983.37	5518983.45	0.0543	0.0444
Moon	10399-03-18 03:21 G	5519292.49	5519292.64	5519292.79	0.0541	0.0396
Earth	10399-03-18 04:19 G	5519292.52	5519292.68	5519292.85	0.0541	0.0376 *
Mercury	10403-12-28 02:52 G	5521038.46	5521038.62	5521038.78	0.0485	0.0143
Mercury	10404-03-26 22:04 G	5521128.37	5521128.42	5521128.47	0.0484	0.0455
Earth	10405-09-25 12:00 G	5521675.77	5521676.00	5521676.24	0.0489	0.0062
Moon	10405-09-25 16:04 G	5521675.93	5521676.17	5521676.40	0.0489	0.0054 *
Mercury	10409-12-01 08:52 G	5523203.79	5523203.87	5523203.96	0.0543	0.0426
Mercury	10410-02-28 23:16 G	5523293.35	5523293.47	5523293.59	0.0544	0.0277
Earth	10411-03-23 12:00 G	5523680.78	5523681.00	5523681.22	0.0541	0.0176
Moon	10411-03-23 15:07 G	5523680.91	5523681.13	5523681.36	0.0541	0.0145 *
Mars	10413-12-24 03:21 G	5524687.45	5524687.64	5524687.83	0.0501	0.0381
Mercury	10415-10-16 04:04 G	5525348.54	5525348.67	5525348.80	0.0485	0.0286

Mercury	10416-01-13 22:48 G	5525438.32	5525438.45	5525438.58	0.0484	0.0305
Venus	10416-02-13 23:45 G	5525469.36	5525469.49	5525469.63	0.0484	0.0361
Moon	10417-09-29 16:33 G	5526062.99	5526063.19	5526063.41	0.0491	0.0234
Earth	10417-09-29 20:23 G	5526063.14	5526063.35	5526063.57	0.0491	0.0208 *
Venus	10421-12-16 09:07 G	5527601.68	5527601.88	5527602.08	0.0544	0.0036
Mercury	10421-12-18 01:55 G	5527603.45	5527603.58	5527603.72	0.0544	0.0113
Moon	10423-03-28 15:21 G	5528068.92	5528069.14	5528069.37	0.0539	0.0049
Earth	10423-03-28 19:26 G	5528069.08	5528069.31	5528069.54	0.0539	0.0026 *
Mercury	10427-08-04 05:02 G	5529658.64	5529658.71	5529658.78	0.0485	0.0431
Venus	10427-10-20 05:16 G	5529735.51	5529735.72	5529735.92	0.0485	0.0004
Mercury	10427-11-01 23:16 G	5529748.31	5529748.47	5529748.63	0.0485	0.0153
Earth	10429-10-04 05:45 G	5530450.58	5530450.74	5530450.90	0.0493	0.0354
Moon	10429-10-04 08:09 G	5530450.70	5530450.84	5530451.00	0.0493	0.0369 *
Venus	10433-08-20 19:11 G	5531867.22	5531867.30	5531867.40	0.0543	0.0482
Mercury	10433-10-06 04:19 G	5531913.54	5531913.68	5531913.82	0.0543	0.0057
Earth	10435-04-02 23:02 G	5532457.26	5532457.46	5532457.68	0.0537	0.0223
Moon	10435-04-03 02:23 G	5532457.40	5532457.60	5532457.82	0.0537	0.0196 *
Venus	10439-06-25 11:16 G	5534001.84	5534001.97	5534002.11	0.0485	0.0358
Mercury	10439-08-21 00:14 G	5534058.34	5534058.51	5534058.67	0.0485	0.0006
Moon	10441-10-08 16:04 G	5534838.12	5534838.17	5534838.24	0.0494	0.0477
Mercury	10445-07-25 05:45 G	5536223.61	5536223.74	5536223.86	0.0542	0.0244
Mercury	10445-10-22 19:26 G	5536313.23	5536313.31	5536313.39	0.0543	0.0447
Moon	10447-04-07 19:11 G	5536845.14	5536845.30	5536845.47	0.0535	0.0386
Earth	10447-04-07 20:52 G	5536845.22	5536845.37	5536845.52	0.0535	0.0403 *
Mercury	10451-06-09 00:57 G	5538368.39	5538368.54	5538368.70	0.0485	0.0143
Mercury	10451-09-06 20:09 G	5538458.29	5538458.34	5538458.40	0.0485	0.0457
Earth	10452-09-11 22:48 G	5538829.31	5538829.45	5538829.60	0.0487	0.0381
Moon	10452-09-12 01:26 G	5538829.40	5538829.56	5538829.73	0.0487	0.0356 *
Mercury	10457-05-13 07:11 G	5540533.72	5540533.80	5540533.89	0.0542	0.0428
Mercury	10457-08-10 21:21 G	5540623.27	5540623.39	5540623.51	0.0543	0.0272

Venus	10457-08-24 01:11 G	5540636.39	5540636.55	5540636.72	0.0543	0.0322
Mercury	10463-03-28 01:55 G	5542678.45	5542678.58	5542678.71	0.0485	0.0289
Mercury	10463-06-25 20:23 G	5542768.23	5542768.35	5542768.49	0.0485	0.0303
Venus	10463-06-27 12:43 G	5542769.84	5542770.03	5542770.21	0.0485	0.0209
Moon	10464-09-15 23:16 G	5543216.27	5543216.47	5543216.66	0.0487	0.0257
Earth	10464-09-16 02:38 G	5543216.41	5543216.61	5543216.82	0.0487	0.0247 *
Mars	10467-08-25 04:33 G	5544289.44	5544289.69	5544289.95	0.0525	0.0084
Venus	10469-04-28 10:19 G	5544901.75	5544901.93	5544902.13	0.0543	0.0203
Mercury	10469-05-29 23:31 G	5544933.34	5544933.48	5544933.62	0.0544	0.0099
Mercury	10475-01-14 03:07 G	5546988.56	5546988.63	5546988.71	0.0485	0.0430
Venus	10475-03-02 18:43 G	5547036.09	5547036.28	5547036.48	0.0485	0.0149
Mercury	10475-04-13 21:21 G	5547078.24	5547078.39	5547078.55	0.0485	0.0155
Earth	10476-09-20 09:21 G	5547603.66	5547603.89	5547604.12	0.0488	0.0105
Moon	10476-09-20 13:26 G	5547603.83	5547604.06	5547604.28	0.0488	0.0136 *
Mercury	10481-03-18 01:55 G	5549243.45	5549243.58	5549243.72	0.0544	0.0070
Earth	10482-03-17 06:00 G	5549607.61	5549607.75	5549607.91	0.0542	0.0410
Moon	10482-03-17 08:52 G	5549607.72	5549607.87	5549608.01	0.0542	0.0424 *
Mercury	10487-01-30 22:04 G	5551388.25	5551388.42	5551388.58	0.0485	0.0005
Moon	10488-09-24 12:57 G	5551990.81	5551991.04	5551991.28	0.0489	0.0031
Earth	10488-09-24 16:48 G	5551990.96	5551991.20	5551991.43	0.0489	0.0037 *
Mercury	10493-01-04 04:19 G	5553553.55	5553553.68	5553553.80	0.0543	0.0239
Mercury	10493-04-03 18:00 G	5553643.18	5553643.25	5553643.33	0.0544	0.0455
Moon	10494-03-22 09:21 G	5553995.68	5553995.89	5553996.11	0.0541	0.0181
Earth	10494-03-22 12:57 G	5553995.83	5553996.04	5553996.26	0.0541	0.0209 *
Mercury	10498-11-18 23:02 G	5555698.31	5555698.46	5555698.62	0.0485	0.0142
Mercury	10499-02-16 18:14 G	5555788.21	5555788.26	5555788.31	0.0485	0.0456
Venus	10499-03-04 20:23 G	5555804.25	5555804.35	5555804.46	0.0484	0.0418
Earth	10500-09-30 02:09 G	5556378.37	5556378.59	5556378.81	0.0491	0.0184
Moon	10500-09-30 04:48 G	5556378.49	5556378.70	5556378.91	0.0491	0.0213 *
Mercury	10504-10-24 05:45 G	5557863.65	5557863.74	5557863.82	0.0542	0.0424

Venus	10505-01-05 06:14 G	5557936.56	5557936.76	5557936.96	0.0543	0.0104
Mercury	10505-01-21 19:55 G	5557953.21	5557953.33	5557953.45	0.0543	0.0276
Earth	10506-03-28 13:40 G	5558383.84	5558384.07	5558384.30	0.0539	0.0018
Moon	10506-03-28 17:31 G	5558384.00	5558384.23	5558384.46	0.0539	0.0010 *
Mercury	10510-09-08 00:00 G	5560008.37	5560008.50	5560008.63	0.0486	0.0289
Venus	10510-11-09 01:55 G	5560070.38	5560070.58	5560070.78	0.0485	0.0057
Mercury	10510-12-06 18:28 G	5560098.15	5560098.27	5560098.41	0.0485	0.0304
Moon	10512-10-04 09:36 G	5560765.73	5560765.90	5560766.09	0.0492	0.0338
Earth	10512-10-04 11:02 G	5560765.79	5560765.96	5560766.14	0.0492	0.0330 *
Venus	10516-09-09 14:52 G	5562202.00	5562202.12	5562202.25	0.0542	0.0424
Mercury	10516-11-09 21:50 G	5562263.27	5562263.41	5562263.55	0.0543	0.0098
Moon	10518-04-02 13:55 G	5562771.85	5562772.08	5562772.31	0.0538	0.0147
Earth	10518-04-02 16:19 G	5562771.97	5562772.18	5562772.40	0.0538	0.0177 *
Mercury	10522-06-27 00:57 G	5564318.47	5564318.54	5564318.62	0.0486	0.0432
Venus	10522-07-15 07:11 G	5564336.65	5564336.80	5564336.96	0.0485	0.0303
Mercury	10522-09-24 19:11 G	5564408.14	5564408.30	5564408.46	0.0485	0.0152
Moon	10524-10-08 17:16 G	5565153.13	5565153.22	5565153.32	0.0493	0.0444
Earth	10524-10-08 17:31 G	5565153.16	5565153.23	5565153.30	0.0493	0.0469 *
Mercury	10528-08-28 23:31 G	5566573.35	5566573.48	5566573.62	0.0543	0.0082
Earth	10530-04-07 20:52 G	5567160.21	5567160.37	5567160.54	0.0536	0.0366
Moon	10530-04-07 21:07 G	5567160.22	5567160.38	5567160.55	0.0536	0.0355 *
Mars	10532-06-12 12:00 G	5567956.73	5567957.00	5567957.27	0.0504	0.0198
Mercury	10534-07-13 20:09 G	5568718.18	5568718.34	5568718.51	0.0485	0.0013
Moon	10535-09-12 22:33 G	5569144.30	5569144.44	5569144.58	0.0486	0.0383
Earth	10535-09-13 02:09 G	5569144.46	5569144.59	5569144.72	0.0486	0.0406 *
Mercury	10540-06-17 01:55 G	5570883.46	5570883.58	5570883.71	0.0543	0.0250
Venus	10540-09-13 00:28 G	5570971.39	5570971.52	5570971.66	0.0544	0.0404
Mercury	10540-09-14 15:50 G	5570973.09	5570973.16	5570973.24	0.0544	0.0445
Mercury	10546-05-01 21:07 G	5573028.22	5573028.38	5573028.53	0.0485	0.0143
Venus	10546-07-17 09:21 G	5573104.72	5573104.89	5573105.06	0.0484	0.0266

Mercury	10546-07-30 16:04 G	5573118.12	5573118.17	5573118.22	0.0484	0.0454
Earth	10547-09-17 07:40 G	5573531.62	5573531.82	5573532.01	0.0487	0.0269
Moon	10547-09-17 11:31 G	5573531.79	5573531.98	5573532.18	0.0487	0.0281 *
Mercury	10552-04-05 04:04 G	5575193.59	5575193.67	5575193.76	0.0543	0.0422
Venus	10552-05-18 11:16 G	5575236.77	5575236.97	5575237.17	0.0543	0.0115
Mercury	10552-07-03 18:28 G	5575283.16	5575283.27	5575283.39	0.0544	0.0282
Mercury	10558-02-17 22:04 G	5577338.30	5577338.42	5577338.56	0.0485	0.0287
Venus	10558-03-22 15:21 G	5577370.94	5577371.14	5577371.34	0.0485	0.0093
Mercury	10558-05-18 16:48 G	5577428.07	5577428.20	5577428.33	0.0485	0.0305
Moon	10559-09-21 11:31 G	5577918.76	5577918.98	5577919.21	0.0488	0.0157
Earth	10559-09-21 15:21 G	5577918.91	5577919.14	5577919.37	0.0488	0.0127 *
Mercury	10564-04-21 20:23 G	5579593.22	5579593.35	5579593.49	0.0543	0.0104
Moon	10565-03-16 22:48 G	5579922.34	5579922.45	5579922.57	0.0542	0.0469
Earth	10565-03-17 01:55 G	5579922.46	5579922.58	5579922.72	0.0542	0.0449 *
Venus	10569-11-25 20:23 G	5581637.29	5581637.35	5581637.42	0.0486	0.0456
Mercury	10569-12-06 23:02 G	5581648.40	5581648.46	5581648.54	0.0486	0.0432
Mercury	10570-03-06 17:16 G	5581738.07	5581738.22	5581738.38	0.0485	0.0153
Earth	10571-09-25 22:33 G	5582306.21	5582306.44	5582306.68	0.0489	0.0017
Moon	10571-09-26 01:26 G	5582306.33	5582306.56	5582306.78	0.0489	0.0022 *
Mercury	10576-02-08 22:19 G	5583903.29	5583903.43	5583903.56	0.0543	0.0078
Earth	10577-03-22 06:28 G	5584310.57	5584310.77	5584310.98	0.0541	0.0253
Moon	10577-03-22 10:19 G	5584310.72	5584310.93	5584311.14	0.0541	0.0223 *
Mercury	10581-12-23 18:00 G	5586048.09	5586048.25	5586048.42	0.0485	0.0014
Venus	10582-03-24 16:33 G	5586139.16	5586139.19	5586139.24	0.0484	0.0475
Moon	10583-09-30 02:38 G	5586693.39	5586693.61	5586693.84	0.0490	0.0181
Earth	10583-09-30 04:04 G	5586693.45	5586693.67	5586693.89	0.0490	0.0152 *
Mercury	10587-11-27 23:45 G	5588213.37	5588213.49	5588213.61	0.0543	0.0261
Venus	10588-01-25 02:38 G	5588271.41	5588271.61	5588271.80	0.0544	0.0169
Mercury	10588-02-25 13:40 G	5588302.99	5588303.07	5588303.15	0.0544	0.0435
Moon	10589-03-27 09:07 G	5588698.64	5588698.88	5588699.12	0.0540	0.0045

Earth	10589-03-27 12:14 G	5588698.78	5588699.01	5588699.24	0.0540	0.0058	*
Mercury	10593-10-11 19:11 G	5590358.15	5590358.30	5590358.46	0.0485	0.0139	
Venus	10593-11-27 23:16 G	5590405.27	5590405.47	5590405.67	0.0485	0.0118	
Mercury	10594-01-09 14:23 G	5590448.05	5590448.10	5590448.15	0.0484	0.0459	
Earth	10595-10-04 12:43 G	5591080.85	5591081.03	5591081.22	0.0491	0.0297	
Moon	10595-10-04 12:43 G	5591080.85	5591081.03	5591081.21	0.0491	0.0304	*
Mercury	10599-09-16 01:55 G	5592523.50	5592523.58	5592523.66	0.0543	0.0433	
Venus	10599-09-29 13:11 G	5592536.91	5592537.05	5592537.21	0.0543	0.0350	
Mercury	10599-12-14 16:19 G	5592613.06	5592613.18	5592613.30	0.0544	0.0272	
Earth	10601-04-02 19:26 G	5593087.08	5593087.31	5593087.53	0.0539	0.0142	
Moon	10601-04-02 20:09 G	5593087.13	5593087.34	5593087.56	0.0539	0.0110	*
Mercury	10605-07-31 20:09 G	5594668.22	5594668.34	5594668.48	0.0485	0.0285	
Venus	10605-08-04 04:33 G	5594671.52	5594671.69	5594671.87	0.0485	0.0244	
Mercury	10605-10-29 14:38 G	5594757.99	5594758.11	5594758.24	0.0484	0.0306	
Earth	10607-10-09 22:04 G	5595468.33	5595468.42	5595468.53	0.0493	0.0444	
Moon	10607-10-09 23:45 G	5595468.36	5595468.49	5595468.62	0.0493	0.0414	*
Mercury	10611-10-03 18:57 G	5596923.15	5596923.29	5596923.42	0.0544	0.0107	
Earth	10613-04-08 00:00 G	5597475.33	5597475.50	5597475.69	0.0537	0.0335	
Moon	10613-04-08 01:11 G	5597475.36	5597475.55	5597475.74	0.0537	0.0324	*
Mercury	10617-05-19 21:36 G	5598978.33	5598978.40	5598978.48	0.0485	0.0426	
Mercury	10617-08-17 15:36 G	5599068.00	5599068.15	5599068.31	0.0485	0.0157	
Earth	10618-09-13 08:09 G	5599459.74	5599459.84	5599459.96	0.0486	0.0426	
Moon	10618-09-13 12:14 G	5599459.89	5599460.01	5599460.15	0.0486	0.0403	*
Mars	10621-11-20 03:36 G	5600623.41	5600623.65	5600623.90	0.0525	0.0117	
Mercury	10623-07-22 20:52 G	5601233.23	5601233.37	5601233.51	0.0543	0.0070	
Venus	10623-10-03 23:31 G	5601306.39	5601306.48	5601306.58	0.0543	0.0482	
Earth	10625-04-12 23:02 G	5601863.41	5601863.46	5601863.53	0.0534	0.0513	
Mercury	10629-06-05 16:19 G	5603378.01	5603378.18	5603378.34	0.0485	0.0007	
Venus	10629-08-06 06:28 G	5603439.62	5603439.77	5603439.93	0.0485	0.0326	
Moon	10630-09-17 10:48 G	5603846.76	5603846.95	5603847.13	0.0487	0.0303	

Earth	10630-09-17 14:23 G	5603846.92	5603847.10	5603847.29	0.0487	0.0290 *
Mercury	10635-05-10 22:33 G	5605543.32	5605543.44	5605543.56	0.0543	0.0251
Venus	10635-06-08 08:23 G	5605571.65	5605571.85	5605572.06	0.0543	0.0048
Mercury	10635-08-08 12:28 G	5605632.94	5605633.02	5605633.10	0.0543	0.0442
Mercury	10641-03-24 17:16 G	5607688.07	5607688.22	5607688.38	0.0485	0.0138
Venus	10641-04-11 12:14 G	5607705.81	5607706.01	5607706.22	0.0485	0.0034
Mercury	10641-06-22 12:14 G	5607777.96	5607778.01	5607778.06	0.0484	0.0459
Earth	10642-09-21 19:11 G	5608234.08	5608234.30	5608234.52	0.0487	0.0156
Moon	10642-09-21 21:50 G	5608234.20	5608234.41	5608234.63	0.0487	0.0181 *
Mercury	10647-02-26 23:45 G	5609853.41	5609853.49	5609853.57	0.0543	0.0441
Mercury	10647-05-27 14:09 G	5609942.97	5609943.09	5609943.21	0.0544	0.0264
Earth	10648-03-16 23:02 G	5610237.37	5610237.46	5610237.56	0.0543	0.0491
Moon	10648-03-17 02:38 G	5610237.54	5610237.61	5610237.70	0.0543	0.0506 *
Venus	10652-12-15 18:43 G	5611972.17	5611972.28	5611972.41	0.0485	0.0391
Mercury	10653-01-10 18:43 G	5611998.15	5611998.28	5611998.42	0.0485	0.0278
Mercury	10653-04-10 13:11 G	5612087.93	5612088.05	5612088.18	0.0484	0.0312
Moon	10654-09-26 01:26 G	5612621.31	5612621.56	5612621.80	0.0488	0.0005
Earth	10654-09-26 02:38 G	5612621.38	5612621.61	5612621.85	0.0488	0.0014 *
Mercury	10659-03-15 16:48 G	5614253.06	5614253.20	5614253.33	0.0544	0.0098
Moon	10660-03-22 05:02 G	5614625.50	5614625.71	5614625.91	0.0542	0.0259
Earth	10660-03-22 08:23 G	5614625.66	5614625.85	5614626.05	0.0542	0.0289 *
Mercury	10664-10-29 19:55 G	5616308.25	5616308.33	5616308.41	0.0485	0.0422
Mercury	10665-01-27 13:55 G	5616397.92	5616398.08	5616398.23	0.0484	0.0160
Earth	10666-09-30 09:50 G	5617008.69	5617008.91	5617009.14	0.0490	0.0129
Moon	10666-09-30 09:50 G	5617008.70	5617008.91	5617009.13	0.0490	0.0159 *
Mercury	10671-01-01 19:26 G	5618563.17	5618563.31	5618563.44	0.0544	0.0069
Venus	10671-02-14 04:33 G	5618606.51	5618606.69	5618606.86	0.0544	0.0263
Earth	10672-03-27 16:33 G	5619013.96	5619014.19	5619014.42	0.0540	0.0087
Moon	10672-03-27 18:00 G	5619014.03	5619014.25	5619014.48	0.0540	0.0082 *
Mercury	10676-11-15 14:52 G	5620707.96	5620708.12	5620708.28	0.0485	0.0014

Venus	10676-12-17 20:52 G	5620740.18	5620740.37	5620740.56	0.0485	0.0180
Earth	10678-10-04 19:55 G	5621396.13	5621396.33	5621396.52	0.0491	0.0275
Moon	10678-10-04 21:21 G	5621396.19	5621396.39	5621396.59	0.0491	0.0276 *
Venus	10682-10-19 14:09 G	5622871.91	5622872.09	5622872.27	0.0543	0.0261
Mercury	10682-10-20 21:21 G	5622873.26	5622873.39	5622873.51	0.0543	0.0243
Mercury	10683-01-18 11:16 G	5622962.89	5622962.97	5622963.04	0.0543	0.0451
Earth	10684-04-01 19:11 G	5623402.07	5623402.30	5623402.53	0.0538	0.0105
Moon	10684-04-01 19:26 G	5623402.07	5623402.31	5623402.55	0.0538	0.0071 *
Mars	10686-09-06 23:16 G	5624290.18	5624290.47	5624290.77	0.0503	0.0009
Venus	10688-08-23 02:09 G	5625006.40	5625006.59	5625006.78	0.0485	0.0183
Mercury	10688-09-03 15:36 G	5625018.00	5625018.15	5625018.31	0.0485	0.0135
Mercury	10688-12-02 10:33 G	5625107.90	5625107.94	5625107.99	0.0485	0.0464
Moon	10690-10-09 02:38 G	5625783.48	5625783.61	5625783.75	0.0493	0.0392
Earth	10690-10-09 05:31 G	5625783.61	5625783.73	5625783.85	0.0493	0.0420 *
Mercury	10694-08-08 22:48 G	5627183.37	5627183.45	5627183.54	0.0542	0.0426
Mercury	10694-11-06 13:11 G	5627272.94	5627273.05	5627273.17	0.0543	0.0278
Moon	10696-04-06 19:40 G	5627790.13	5627790.32	5627790.51	0.0537	0.0287
Earth	10696-04-06 21:36 G	5627790.22	5627790.40	5627790.60	0.0537	0.0295 *
Mercury	10700-06-23 16:48 G	5629328.07	5629328.20	5629328.34	0.0485	0.0277
Mercury	10700-09-21 11:16 G	5629417.85	5629417.97	5629418.10	0.0485	0.0314
Moon	10701-09-13 10:48 G	5629774.84	5629774.95	5629775.06	0.0486	0.0429
Earth	10701-09-13 14:23 G	5629775.02	5629775.10	5629775.20	0.0486	0.0450 *
Mercury	10706-08-26 14:52 G	5631582.98	5631583.12	5631583.25	0.0544	0.0094
Earth	10708-04-13 00:00 G	5632178.40	5632178.50	5632178.60	0.0536	0.0476
Moon	10708-04-13 03:21 G	5632178.58	5632178.64	5632178.72	0.0536	0.0509 *
Mercury	10712-04-11 18:28 G	5633638.19	5633638.27	5633638.36	0.0485	0.0414
Mercury	10712-07-10 12:28 G	5633727.87	5633728.02	5633728.18	0.0485	0.0170
Venus	10712-08-26 05:16 G	5633774.61	5633774.72	5633774.84	0.0484	0.0394
Earth	10713-09-17 20:52 G	5634162.20	5634162.37	5634162.55	0.0486	0.0313
Moon	10713-09-17 23:31 G	5634162.32	5634162.48	5634162.65	0.0486	0.0333 *

Mercury	10718-06-14 17:16 G	5635893.08	5635893.22	5635893.35	0.0544	0.0077
Venus	10718-06-28 07:11 G	5635906.60	5635906.80	5635907.00	0.0544	0.0031
Mercury	10724-04-28 13:26 G	5638037.89	5638038.06	5638038.22	0.0485	0.0024
Venus	10724-05-01 11:02 G	5638040.76	5638040.96	5638041.17	0.0485	0.0035
Moon	10725-09-22 01:26 G	5638549.34	5638549.56	5638549.79	0.0487	0.0196
Earth	10725-09-22 02:38 G	5638549.39	5638549.61	5638549.83	0.0487	0.0175 *
Venus	10730-03-02 18:28 G	5640172.19	5640172.27	5640172.37	0.0543	0.0484
Mercury	10730-04-02 19:40 G	5640203.20	5640203.32	5640203.45	0.0543	0.0242
Mercury	10730-07-01 09:36 G	5640292.83	5640292.90	5640292.98	0.0544	0.0455
Moon	10731-03-18 00:43 G	5640552.48	5640552.53	5640552.59	0.0543	0.0527
Earth	10731-03-18 04:33 G	5640552.62	5640552.69	5640552.76	0.0543	0.0515
Venus	10736-01-05 17:02 G	5642307.07	5642307.21	5642307.37	0.0485	0.0328
Mercury	10736-02-15 14:23 G	5642347.95	5642348.10	5642348.26	0.0485	0.0124
Mercury	10736-05-15 09:21 G	5642437.86	5642437.89	5642437.92	0.0484	0.0472
Moon	10737-09-26 10:19 G	5642936.71	5642936.93	5642937.16	0.0488	0.0020
Earth	10737-09-26 10:48 G	5642936.71	5642936.95	5642937.18	0.0488	0.0034 *
Mars	10740-05-12 05:02 G	5643895.55	5643895.71	5643895.88	0.0523	0.0398
Mercury	10742-01-19 21:36 G	5644513.32	5644513.40	5644513.49	0.0543	0.0416
Mercury	10742-04-19 12:00 G	5644602.89	5644603.00	5644603.12	0.0543	0.0288
Earth	10743-03-23 10:33 G	5644940.76	5644940.94	5644941.13	0.0541	0.0320
Moon	10743-03-23 12:57 G	5644940.85	5644941.04	5644941.23	0.0541	0.0287 *
Mercury	10747-12-04 15:21 G	5646658.01	5646658.14	5646658.28	0.0485	0.0271
Mercury	10748-03-03 09:50 G	5646747.79	5646747.91	5646748.03	0.0485	0.0320
Earth	10749-09-30 18:28 G	5647324.05	5647324.27	5647324.51	0.0490	0.0109
Moon	10749-09-30 20:09 G	5647324.11	5647324.34	5647324.58	0.0490	0.0137 *
Mercury	10754-02-05 14:09 G	5648912.95	5648913.09	5648913.22	0.0543	0.0112
Venus	10754-03-06 03:50 G	5648941.51	5648941.66	5648941.82	0.0543	0.0344
Moon	10755-03-28 14:52 G	5649328.89	5649329.12	5649329.36	0.0540	0.0121
Earth	10755-03-28 15:36 G	5649328.92	5649329.15	5649329.37	0.0540	0.0124 *
Mercury	10759-09-22 16:48 G	5650968.12	5650968.20	5650968.29	0.0485	0.0409

Mercury	10759-12-21 10:48 G	5651057.80	5651057.95	5651058.11	0.0485	0.0174
Venus	10760-01-07 19:26 G	5651075.14	5651075.31	5651075.49	0.0485	0.0248
Moon	10761-10-04 23:02 G	5651711.26	5651711.46	5651711.66	0.0490	0.0242
Earth	10761-10-05 01:40 G	5651711.37	5651711.57	5651711.78	0.0490	0.0247 *
Venus	10765-11-08 11:02 G	5653206.77	5653206.96	5653207.14	0.0543	0.0196
Mercury	10765-11-24 15:21 G	5653223.00	5653223.14	5653223.28	0.0543	0.0077
Moon	10767-04-02 17:16 G	5653716.99	5653717.22	5653717.44	0.0540	0.0033
Earth	10767-04-02 18:43 G	5653717.05	5653717.28	5653717.51	0.0540	0.0066 *
Venus	10771-09-13 02:09 G	5655341.39	5655341.59	5655341.79	0.0485	0.0109
Mercury	10771-10-09 12:14 G	5655367.84	5655368.01	5655368.17	0.0485	0.0034
Earth	10773-10-09 11:02 G	5656098.82	5656098.96	5656099.10	0.0492	0.0391
Moon	10773-10-09 14:52 G	5656098.96	5656099.12	5656099.28	0.0492	0.0362 *
Mars	10776-02-14 16:33 G	5656956.98	5656957.19	5656957.41	0.0526	0.0284
Mercury	10777-09-12 17:31 G	5657533.11	5657533.23	5657533.36	0.0543	0.0249
Mercury	10777-12-11 07:40 G	5657622.75	5657622.82	5657622.90	0.0544	0.0449
Earth	10779-04-08 01:40 G	5658105.37	5658105.57	5658105.77	0.0538	0.0261
Moon	10779-04-08 05:02 G	5658105.51	5658105.71	5658105.92	0.0538	0.0263 *
Venus	10783-05-19 07:55 G	5659607.78	5659607.83	5659607.87	0.0486	0.0472
Mercury	10783-07-28 13:11 G	5659677.89	5659678.05	5659678.21	0.0485	0.0115
Mercury	10783-10-26 07:40 G	5659767.82	5659767.82	5659767.85	0.0484	0.0482
Earth	10784-09-12 23:16 G	5660090.41	5660090.47	5660090.54	0.0485	0.0465
Moon	10784-09-13 01:55 G	5660090.50	5660090.58	5660090.66	0.0485	0.0454 *
Mercury	10789-07-01 20:09 G	5661843.25	5661843.34	5661843.42	0.0543	0.0417
Mercury	10789-09-29 10:33 G	5661932.83	5661932.94	5661933.06	0.0544	0.0290
Moon	10791-04-13 03:36 G	5662493.56	5662493.65	5662493.76	0.0536	0.0485
Earth	10791-04-13 07:26 G	5662493.70	5662493.81	5662493.94	0.0536	0.0452 *
Mercury	10795-05-16 14:23 G	5663987.97	5663988.10	5663988.24	0.0485	0.0258
Mercury	10795-08-14 08:38 G	5664077.75	5664077.86	5664077.99	0.0484	0.0333
Venus	10795-09-15 04:04 G	5664109.62	5664109.67	5664109.74	0.0484	0.0462
Moon	10796-09-17 04:48 G	5664477.54	5664477.70	5664477.87	0.0486	0.0353

Earth	10796-09-17 05:45 G	5664477.57	5664477.74	5664477.92	0.0486	0.0329 *
Venus	10801-07-17 10:04 G	5666241.72	5666241.92	5666242.12	0.0543	0.0132
Mercury	10801-07-18 12:57 G	5666242.91	5666243.04	5666243.18	0.0543	0.0123
Mercury	10807-03-04 15:36 G	5668298.06	5668298.15	5668298.24	0.0486	0.0402
Venus	10807-05-21 10:04 G	5668375.72	5668375.92	5668376.12	0.0485	0.0102
Mercury	10807-06-02 09:21 G	5668387.74	5668387.89	5668388.05	0.0485	0.0182
Moon	10808-09-21 11:45 G	5668864.79	5668864.99	5668865.20	0.0487	0.0212
Earth	10808-09-21 12:28 G	5668864.80	5668865.02	5668865.23	0.0487	0.0193 *
Venus	10813-03-21 19:26 G	5670507.17	5670507.31	5670507.45	0.0543	0.0395
Mercury	10813-05-06 15:07 G	5670552.99	5670553.13	5670553.26	0.0543	0.0057
Venus	10819-01-24 16:19 G	5672642.01	5672642.18	5672642.36	0.0485	0.0257
Mercury	10819-03-21 10:33 G	5672697.78	5672697.94	5672698.11	0.0485	0.0040
Earth	10820-09-25 18:57 G	5673252.06	5673252.29	5673252.53	0.0488	0.0057
Moon	10820-09-25 20:52 G	5673252.12	5673252.37	5673252.61	0.0488	0.0038 *
Mercury	10825-02-22 16:04 G	5674863.04	5674863.17	5674863.29	0.0543	0.0248
Mercury	10825-05-23 06:00 G	5674952.68	5674952.75	5674952.83	0.0544	0.0450
Moon	10826-03-22 07:26 G	5675255.62	5675255.81	5675256.00	0.0542	0.0325
Earth	10826-03-22 08:38 G	5675255.69	5675255.86	5675256.04	0.0542	0.0360 *
Mercury	10831-01-07 12:00 G	5677007.85	5677008.00	5677008.16	0.0485	0.0103
Moon	10832-09-30 00:00 G	5677639.28	5677639.50	5677639.73	0.0489	0.0111
Earth	10832-09-30 02:52 G	5677639.39	5677639.62	5677639.86	0.0489	0.0086 *
Mercury	10836-12-11 18:00 G	5679173.17	5679173.25	5679173.34	0.0543	0.0422
Mercury	10837-03-11 08:38 G	5679262.74	5679262.86	5679262.98	0.0544	0.0285
Venus	10837-03-25 02:38 G	5679276.49	5679276.61	5679276.74	0.0544	0.0423
Moon	10838-03-27 17:02 G	5679643.99	5679644.21	5679644.42	0.0541	0.0158
Earth	10838-03-27 17:45 G	5679644.02	5679644.24	5679644.46	0.0541	0.0158 *
Mars	10840-12-02 12:28 G	5680624.77	5680625.02	5680625.28	0.0503	0.0253
Mercury	10842-10-26 13:11 G	5681317.91	5681318.05	5681318.19	0.0485	0.0247
Mercury	10843-01-24 07:26 G	5681407.70	5681407.81	5681407.93	0.0484	0.0343
Venus	10843-01-26 19:26 G	5681410.16	5681410.31	5681410.46	0.0484	0.0319

Earth	10844-10-04 10:19 G	5682026.72	5682026.93	5682027.14	0.0490	0.0227
Moon	10844-10-04 14:09 G	5682026.88	5682027.09	5682027.30	0.0490	0.0212 *
Venus	10848-11-27 14:38 G	5683541.91	5683542.11	5683542.31	0.0544	0.0093
Mercury	10848-12-28 11:31 G	5683572.84	5683572.98	5683573.11	0.0544	0.0124
Earth	10850-04-02 02:38 G	5684032.38	5684032.61	5684032.84	0.0540	0.0043
Moon	10850-04-02 05:31 G	5684032.50	5684032.73	5684032.97	0.0540	0.0014 *
Mercury	10854-08-14 14:38 G	5685628.02	5685628.11	5685628.21	0.0485	0.0387
Venus	10854-10-02 01:40 G	5685676.37	5685676.57	5685676.77	0.0485	0.0040
Mercury	10854-11-12 08:23 G	5685717.70	5685717.85	5685718.01	0.0484	0.0196
Moon	10856-10-08 16:33 G	5686414.03	5686414.19	5686414.37	0.0492	0.0342
Earth	10856-10-08 20:23 G	5686414.20	5686414.35	5686414.51	0.0492	0.0373 *
Mercury	10860-10-16 13:55 G	5687882.94	5687883.08	5687883.22	0.0543	0.0044
Moon	10862-04-07 03:21 G	5688420.44	5688420.64	5688420.85	0.0538	0.0241
Earth	10862-04-07 07:26 G	5688420.60	5688420.81	5688421.02	0.0538	0.0233 *
Venus	10866-06-07 06:57 G	5689942.68	5689942.79	5689942.91	0.0486	0.0403
Mercury	10866-08-31 09:21 G	5690027.72	5690027.89	5690028.05	0.0485	0.0047
Moon	10867-09-13 09:07 G	5690405.84	5690405.88	5690405.93	0.0485	0.0476
Earth	10867-09-13 09:50 G	5690405.88	5690405.91	5690405.95	0.0485	0.0479 *
Mercury	10872-08-04 15:50 G	5692193.03	5692193.16	5692193.28	0.0543	0.0222
Mercury	10872-11-02 05:45 G	5692282.68	5692282.74	5692282.81	0.0544	0.0474
Earth	10874-04-12 10:04 G	5692808.78	5692808.92	5692809.06	0.0536	0.0419
Moon	10874-04-12 13:11 G	5692808.94	5692809.05	5692809.17	0.0536	0.0454 *
Mercury	10878-06-19 10:33 G	5694337.79	5694337.94	5694338.11	0.0485	0.0095
Moon	10879-09-17 15:07 G	5694793.00	5694793.13	5694793.28	0.0486	0.0377
Earth	10879-09-17 16:04 G	5694793.01	5694793.17	5694793.34	0.0486	0.0347 *
Mercury	10884-05-23 16:33 G	5696503.10	5696503.19	5696503.28	0.0543	0.0418
Venus	10884-08-05 07:26 G	5696576.62	5696576.81	5696577.00	0.0544	0.0201
Mercury	10884-08-21 07:11 G	5696592.68	5696592.80	5696592.91	0.0544	0.0288
Mercury	10890-04-07 12:14 G	5698647.87	5698648.01	5698648.15	0.0485	0.0233
Venus	10890-06-09 11:02 G	5698710.78	5698710.96	5698711.16	0.0485	0.0181

Mercury	10890-07-06 06:28 G	5698737.67	5698737.77	5698737.89	0.0484	0.0358
Earth	10891-09-21 22:48 G	5699180.24	5699180.45	5699180.67	0.0486	0.0210
Moon	10891-09-22 00:57 G	5699180.32	5699180.54	5699180.75	0.0486	0.0223 *
Mars	10894-08-06 01:11 G	5700229.32	5700229.55	5700229.79	0.0523	0.0214
Venus	10896-04-09 17:45 G	5700842.08	5700842.24	5700842.41	0.0543	0.0322
Mercury	10896-06-09 09:36 G	5700902.76	5700902.90	5700903.03	0.0544	0.0120
Mercury	10902-01-25 13:26 G	5702957.96	5702958.06	5702958.17	0.0485	0.0376
Venus	10902-02-13 16:48 G	5702977.01	5702977.20	5702977.39	0.0485	0.0183
Mercury	10902-04-25 07:26 G	5703047.66	5703047.81	5703047.96	0.0484	0.0208
Moon	10903-09-27 01:40 G	5703567.34	5703567.57	5703567.80	0.0487	0.0052
Earth	10903-09-27 04:33 G	5703567.46	5703567.69	5703567.92	0.0487	0.0073 *
Mercury	10908-03-29 12:14 G	5705212.87	5705213.01	5705213.15	0.0544	0.0044
Moon	10909-03-22 16:33 G	5705571.02	5705571.19	5705571.36	0.0543	0.0347
Earth	10909-03-22 16:48 G	5705571.03	5705571.20	5705571.36	0.0543	0.0380 *
Mercury	10914-02-11 08:23 G	5707357.69	5707357.85	5707358.02	0.0485	0.0063
Earth	10915-10-01 12:43 G	5707954.79	5707955.03	5707955.26	0.0489	0.0069
Moon	10915-10-01 16:19 G	5707954.95	5707955.18	5707955.42	0.0489	0.0088 *
Mercury	10920-01-16 14:38 G	5709522.98	5709523.11	5709523.24	0.0543	0.0211
Venus	10920-04-14 06:57 G	5709611.75	5709611.79	5709611.83	0.0544	0.0532
Mercury	10920-04-15 04:33 G	5709612.64	5709612.69	5709612.76	0.0544	0.0485
Earth	10921-03-28 00:43 G	5709959.31	5709959.53	5709959.74	0.0541	0.0183
Moon	10921-03-28 02:52 G	5709959.40	5709959.62	5709959.85	0.0541	0.0188 *
Mercury	10925-11-30 09:21 G	5711667.73	5711667.89	5711668.05	0.0485	0.0085
Venus	10926-02-15 18:57 G	5711745.18	5711745.29	5711745.41	0.0484	0.0392
Moon	10927-10-05 17:31 G	5712342.02	5712342.23	5712342.46	0.0490	0.0189
Earth	10927-10-05 21:21 G	5712342.18	5712342.39	5712342.60	0.0490	0.0210 *
Mercury	10931-11-04 16:19 G	5713833.09	5713833.18	5713833.28	0.0543	0.0391
Venus	10931-12-18 16:48 G	5713876.99	5713877.20	5713877.40	0.0543	0.0009
Mercury	10932-02-02 06:57 G	5713922.68	5713922.79	5713922.90	0.0544	0.0314
Moon	10933-04-02 02:09 G	5714347.36	5714347.59	5714347.82	0.0540	0.0020

Earth	10933-04-02 06:00 G	5714347.51	5714347.75	5714347.98	0.0540	0.0016 *
Mercury	10937-09-18 11:02 G	5715977.81	5715977.96	5715978.10	0.0485	0.0225
Venus	10937-10-22 01:40 G	5716011.37	5716011.57	5716011.77	0.0485	0.0035
Mercury	10937-12-17 05:16 G	5716067.61	5716067.72	5716067.83	0.0484	0.0367
Earth	10939-10-10 06:00 G	5716729.59	5716729.75	5716729.92	0.0491	0.0350
Moon	10939-10-10 08:52 G	5716729.71	5716729.87	5716730.05	0.0491	0.0323 *
Venus	10943-08-22 23:02 G	5718142.45	5718142.46	5718142.48	0.0542	0.0540
Mercury	10943-11-21 08:09 G	5718232.70	5718232.84	5718232.97	0.0544	0.0124
Earth	10945-04-07 06:43 G	5718735.56	5718735.78	5718735.99	0.0539	0.0195
Moon	10945-04-07 10:19 G	5718735.72	5718735.93	5718736.14	0.0539	0.0210 *
Venus	10949-06-27 08:23 G	5720277.70	5720277.85	5720278.01	0.0486	0.0324
Mercury	10949-07-07 12:43 G	5720287.92	5720288.03	5720288.13	0.0485	0.0362
Mercury	10949-10-05 06:28 G	5720377.62	5720377.77	5720377.92	0.0485	0.0223
Earth	10951-10-14 15:50 G	5721117.15	5721117.16	5721117.18	0.0492	0.0491
Mercury	10955-09-09 10:19 G	5722542.79	5722542.93	5722543.07	0.0544	0.0048
Moon	10957-04-12 10:19 G	5723123.79	5723123.93	5723124.08	0.0538	0.0418
Earth	10957-04-12 12:43 G	5723123.88	5723124.03	5723124.20	0.0538	0.0386 *
Mars	10959-05-23 19:26 G	5723895.08	5723895.31	5723895.56	0.0506	0.0282
Mercury	10961-07-24 07:26 G	5724687.64	5724687.81	5724687.97	0.0485	0.0074
Earth	10962-09-18 02:09 G	5725108.44	5725108.59	5725108.75	0.0485	0.0360
Moon	10962-09-18 04:33 G	5725108.54	5725108.69	5725108.83	0.0485	0.0389 *
Mercury	10967-06-28 12:57 G	5726852.91	5726853.04	5726853.17	0.0543	0.0214
Venus	10967-08-26 11:02 G	5726911.80	5726911.96	5726912.13	0.0544	0.0306
Mercury	10967-09-26 03:07 G	5726942.57	5726942.63	5726942.69	0.0544	0.0485
Mercury	10973-05-12 08:38 G	5728997.70	5728997.86	5728998.02	0.0485	0.0070
Venus	10973-06-29 11:02 G	5729045.78	5729045.96	5729046.13	0.0484	0.0252
Moon	10974-09-22 05:31 G	5729495.54	5729495.73	5729495.94	0.0486	0.0236
Earth	10974-09-22 08:38 G	5729495.66	5729495.86	5729496.07	0.0486	0.0225 *
Mercury	10979-04-16 15:07 G	5731163.03	5731163.13	5731163.23	0.0543	0.0382
Venus	10979-04-30 22:19 G	5731177.25	5731177.43	5731177.62	0.0543	0.0213

Mercury	10979-07-15 05:45 G	5731252.63	5731252.74	5731252.85	0.0544	0.0323
Mercury	10985-02-28 09:36 G	5733307.76	5733307.90	5733308.05	0.0485	0.0216
Venus	10985-03-04 16:19 G	5733311.99	5733312.18	5733312.38	0.0485	0.0112
Mercury	10985-05-29 03:50 G	5733397.56	5733397.66	5733397.77	0.0484	0.0376
Earth	10986-09-26 15:21 G	5733882.91	5733883.14	5733883.38	0.0487	0.0089
Moon	10986-09-26 19:11 G	5733883.07	5733883.30	5733883.54	0.0487	0.0061 *
Mercury	10991-05-03 07:55 G	5735562.70	5735562.83	5735562.97	0.0544	0.0151
Earth	10992-03-21 20:09 G	5735886.20	5735886.34	5735886.50	0.0542	0.0408
Moon	10992-03-21 22:04 G	5735886.24	5735886.42	5735886.59	0.0542	0.0374 *
Venus	10996-11-07 22:48 G	5737578.41	5737578.45	5737578.50	0.0486	0.0471
Mercury	10996-12-17 11:16 G	5737617.86	5737617.97	5737618.08	0.0485	0.0354
Mercury	10997-03-17 05:02 G	5737707.57	5737707.71	5737707.86	0.0485	0.0232
Moon	10998-09-30 19:55 G	5738270.10	5738270.33	5738270.57	0.0488	0.0064
Earth	10998-09-30 23:31 G	5738270.25	5738270.48	5738270.72	0.0488	0.0050 *

12TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 12th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	11003-02-20 08:52 G	5739872.73	5739872.87	5739873.01	0.0543	0.0044		
Moon	11004-03-27 18:43 G	5740274.08	5740274.28	5740274.49	0.0542	0.0233		
Earth	11004-03-27 22:04 G	5740274.21	5740274.42	5740274.63	0.0542	0.0221 *		
Mercury	11009-01-04 06:28 G	5742017.61	5742017.77	5742017.93	0.0485	0.0089		
Venus	11009-03-07 20:23 G	5742080.30	5742080.35	5742080.39	0.0484	0.0471		

Earth	11010-10-06 07:40 G	5742657.60	5742657.82	5742658.04	0.0489	0.0191
Moon	11010-10-06 10:33 G	5742657.72	5742657.94	5742658.15	0.0489	0.0168 *
Mercury	11014-12-09 11:02 G	5744182.83	5744182.96	5744183.09	0.0543	0.0218
Venus	11015-01-07 14:38 G	5744211.91	5744212.11	5744212.31	0.0544	0.0075
Mercury	11015-03-09 01:11 G	5744272.49	5744272.55	5744272.61	0.0544	0.0480
Earth	11016-04-02 05:45 G	5744662.51	5744662.74	5744662.97	0.0541	0.0024
Moon	11016-04-02 09:36 G	5744662.67	5744662.90	5744663.13	0.0541	0.0053 *
Mercury	11020-10-23 07:26 G	5746327.65	5746327.81	5746327.97	0.0485	0.0059
Venus	11020-11-11 01:55 G	5746346.38	5746346.58	5746346.78	0.0485	0.0108
Moon	11022-10-10 12:43 G	5747044.85	5747045.03	5747045.23	0.0491	0.0304
Earth	11022-10-10 14:38 G	5747044.94	5747045.11	5747045.28	0.0491	0.0330 *
Venus	11026-09-12 01:55 G	5748477.47	5748477.58	5748477.70	0.0543	0.0442
Mercury	11026-09-27 13:11 G	5748492.96	5748493.05	5748493.15	0.0543	0.0386
Mercury	11026-12-26 03:50 G	5748582.56	5748582.66	5748582.78	0.0544	0.0322
Moon	11028-04-07 11:45 G	5749050.77	5749050.99	5749051.22	0.0539	0.0188
Earth	11028-04-07 14:38 G	5749050.90	5749051.11	5749051.34	0.0539	0.0175 *
Venus	11032-07-17 08:09 G	5750612.67	5750612.84	5750613.02	0.0485	0.0253
Mercury	11032-08-11 08:38 G	5750637.72	5750637.86	5750638.01	0.0485	0.0202
Mercury	11032-11-09 02:52 G	5750727.53	5750727.62	5750727.72	0.0484	0.0390
Earth	11034-10-15 00:28 G	5751432.46	5751432.52	5751432.59	0.0492	0.0472
Moon	11034-10-15 00:14 G	5751432.49	5751432.51	5751432.54	0.0492	0.0488 *
Mercury	11038-10-14 06:43 G	5752892.65	5752892.78	5752892.91	0.0544	0.0158
Earth	11040-04-12 20:23 G	5753439.18	5753439.35	5753439.52	0.0537	0.0361
Moon	11040-04-12 21:07 G	5753439.23	5753439.38	5753439.54	0.0537	0.0391 *
Mercury	11044-05-30 09:50 G	5754947.80	5754947.91	5754948.03	0.0485	0.0346
Mercury	11044-08-28 03:36 G	5755037.51	5755037.65	5755037.80	0.0485	0.0239
Moon	11045-09-18 09:36 G	5755423.78	5755423.90	5755424.03	0.0486	0.0405
Earth	11045-09-18 12:43 G	5755423.89	5755424.03	5755424.19	0.0486	0.0374 *
Mars	11048-11-01 15:50 G	5756563.90	5756564.16	5756564.41	0.0524	0.0034
Mercury	11050-08-02 08:52 G	5757202.73	5757202.87	5757203.01	0.0543	0.0023

Venus	11050-09-15 13:26 G	5757246.93	5757247.06	5757247.20	0.0544	0.0403
Moon	11052-04-18 00:43 G	5757827.48	5757827.53	5757827.59	0.0536	0.0522
Mercury	11056-03-18 11:31 G	5759257.97	5759257.98	5759258.00	0.0486	0.0483
Mercury	11056-06-16 05:02 G	5759347.55	5759347.71	5759347.87	0.0485	0.0096
Venus	11056-07-19 10:48 G	5759380.80	5759380.95	5759381.10	0.0485	0.0325
Earth	11057-09-22 19:55 G	5759811.13	5759811.33	5759811.53	0.0486	0.0240
Moon	11057-09-22 23:31 G	5759811.28	5759811.48	5759811.69	0.0486	0.0239 *
Venus	11062-05-20 19:55 G	5761512.13	5761512.33	5761512.52	0.0543	0.0145
Mercury	11062-05-21 09:36 G	5761512.77	5761512.90	5761513.03	0.0543	0.0211
Mercury	11062-08-18 23:45 G	5761602.43	5761602.49	5761602.55	0.0544	0.0486
Venus	11068-03-24 17:16 G	5763647.02	5763647.22	5763647.42	0.0485	0.0035
Mercury	11068-04-04 06:28 G	5763657.60	5763657.77	5763657.93	0.0485	0.0048
Moon	11069-09-26 23:16 G	5764198.23	5764198.47	5764198.71	0.0487	0.0073
Earth	11069-09-27 02:38 G	5764198.38	5764198.61	5764198.84	0.0487	0.0104 *
Mercury	11074-03-09 11:16 G	5765822.88	5765822.97	5765823.07	0.0543	0.0391
Mercury	11074-06-07 02:09 G	5765912.48	5765912.59	5765912.70	0.0544	0.0316
Moon	11075-03-22 14:52 G	5766200.98	5766201.12	5766201.27	0.0543	0.0415
Earth	11075-03-22 17:45 G	5766201.10	5766201.24	5766201.37	0.0543	0.0444 *
Venus	11079-11-28 22:48 G	5767913.34	5767913.45	5767913.56	0.0486	0.0400
Mercury	11080-01-22 07:26 G	5767967.66	5767967.81	5767967.96	0.0485	0.0193
Mercury	11080-04-21 01:40 G	5768057.48	5768057.57	5768057.66	0.0484	0.0398
Earth	11081-10-01 07:40 G	5768585.59	5768585.82	5768586.06	0.0488	0.0032
Moon	11081-10-01 10:19 G	5768585.71	5768585.93	5768586.16	0.0488	0.0043 *
Mercury	11086-03-26 04:48 G	5770222.56	5770222.70	5770222.83	0.0544	0.0153
Earth	11087-03-28 04:19 G	5770589.47	5770589.68	5770589.89	0.0542	0.0244
Moon	11087-03-28 08:09 G	5770589.64	5770589.84	5770590.04	0.0542	0.0265 *
Mercury	11091-11-10 08:52 G	5772277.76	5772277.87	5772277.99	0.0485	0.0333
Mercury	11092-02-08 02:38 G	5772367.47	5772367.61	5772367.75	0.0484	0.0251
Moon	11093-10-05 13:55 G	5772972.85	5772973.08	5772973.32	0.0489	0.0148
Earth	11093-10-05 15:36 G	5772972.93	5772973.15	5772973.37	0.0489	0.0172 *

Mercury	11098-01-12 07:11 G	5774532.66	5774532.80	5774532.94	0.0544	0.0016
Venus	11098-01-26 18:28 G	5774547.08	5774547.27	5774547.46	0.0544	0.0182
Moon	11099-04-02 09:36 G	5774977.67	5774977.90	5774978.13	0.0541	0.0078
Earth	11099-04-02 12:57 G	5774977.81	5774978.04	5774978.27	0.0541	0.0047 *
Mercury	11103-08-30 10:04 G	5776587.90	5776587.92	5776587.95	0.0486	0.0476
Mercury	11103-11-28 03:21 G	5776677.48	5776677.64	5776677.81	0.0485	0.0102
Venus	11103-12-02 00:57 G	5776681.35	5776681.54	5776681.73	0.0485	0.0177
Moon	11105-10-11 00:00 G	5777360.33	5777360.50	5777360.69	0.0491	0.0295
Earth	11105-10-11 00:14 G	5777360.34	5777360.51	5777360.70	0.0491	0.0312 *
Venus	11109-10-02 04:33 G	5778812.53	5778812.69	5778812.84	0.0543	0.0345
Mercury	11109-11-01 09:21 G	5778842.75	5778842.89	5778843.02	0.0543	0.0188
Mercury	11110-01-29 23:31 G	5778932.43	5778932.48	5778932.52	0.0544	0.0509
Earth	11111-04-08 18:00 G	5779366.03	5779366.25	5779366.47	0.0539	0.0144
Moon	11111-04-08 19:40 G	5779366.10	5779366.32	5779366.53	0.0539	0.0162 *
Mars	11113-08-19 02:09 G	5780229.29	5780229.59	5780229.88	0.0505	0.0038
Venus	11115-08-07 07:26 G	5780947.62	5780947.81	5780948.00	0.0485	0.0184
Mercury	11115-09-16 04:48 G	5780987.54	5780987.70	5780987.86	0.0485	0.0041
Earth	11117-10-15 10:19 G	5781747.85	5781747.93	5781748.03	0.0492	0.0452
Moon	11117-10-15 12:43 G	5781747.97	5781748.03	5781748.10	0.0492	0.0474 *
Mercury	11121-08-20 10:04 G	5783152.82	5783152.92	5783153.02	0.0542	0.0384
Mercury	11121-11-18 00:43 G	5783242.42	5783242.53	5783242.64	0.0543	0.0321
Earth	11123-04-13 17:02 G	5783754.03	5783754.21	5783754.40	0.0538	0.0322
Moon	11123-04-13 18:00 G	5783754.07	5783754.25	5783754.43	0.0538	0.0345 *
Mercury	11127-07-05 06:14 G	5785297.61	5785297.76	5785297.91	0.0485	0.0183
Mercury	11127-10-03 00:28 G	5785387.43	5785387.52	5785387.61	0.0485	0.0410
Earth	11128-09-18 23:45 G	5785739.35	5785739.49	5785739.64	0.0485	0.0386
Moon	11128-09-19 03:36 G	5785739.53	5785739.65	5785739.77	0.0485	0.0412 *
Mercury	11133-09-06 02:38 G	5787552.48	5787552.61	5787552.75	0.0543	0.0148
Venus	11133-10-05 10:04 G	5787581.82	5787581.92	5787582.03	0.0544	0.0467
Moon	11135-04-18 18:14 G	5788142.17	5788142.26	5788142.36	0.0537	0.0483

Earth	11135-04-18 21:07 G	5788142.32	5788142.38	5788142.46	0.0537	0.0507 *
Mercury	11139-04-23 07:11 G	5789607.69	5789607.80	5789607.93	0.0485	0.0328
Mercury	11139-07-22 01:11 G	5789697.41	5789697.55	5789697.69	0.0484	0.0258
Venus	11139-08-09 09:36 G	5789715.79	5789715.90	5789716.03	0.0484	0.0393
Moon	11140-09-23 00:14 G	5790126.31	5790126.51	5790126.72	0.0486	0.0250
Earth	11140-09-23 03:36 G	5790126.46	5790126.65	5790126.85	0.0486	0.0257 *
Venus	11145-06-09 21:07 G	5791847.18	5791847.38	5791847.59	0.0543	0.0055
Mercury	11145-06-25 05:02 G	5791862.57	5791862.71	5791862.85	0.0544	0.0026
Mercury	11151-02-09 08:52 G	5793917.83	5793917.87	5793917.92	0.0486	0.0466
Venus	11151-04-14 16:04 G	5793981.96	5793982.17	5793982.37	0.0485	0.0033
Mercury	11151-05-10 02:09 G	5794007.43	5794007.59	5794007.75	0.0485	0.0112
Earth	11152-09-27 09:50 G	5794513.68	5794513.91	5794514.14	0.0487	0.0122
Moon	11152-09-27 12:14 G	5794513.79	5794514.01	5794514.24	0.0487	0.0092 *
Mercury	11157-04-13 07:26 G	5796172.68	5796172.81	5796172.95	0.0543	0.0189
Mercury	11157-07-11 21:50 G	5796262.36	5796262.41	5796262.45	0.0544	0.0510
Earth	11158-03-22 23:31 G	5796516.37	5796516.48	5796516.60	0.0543	0.0467
Moon	11158-03-23 03:21 G	5796516.51	5796516.64	5796516.78	0.0543	0.0442 *
Venus	11162-12-18 21:21 G	5798248.24	5798248.39	5798248.53	0.0486	0.0335
Mercury	11163-02-26 03:07 G	5798317.47	5798317.63	5798317.79	0.0485	0.0037
Moon	11164-10-01 15:07 G	5798900.89	5798901.13	5798901.38	0.0488	0.0021
Earth	11164-10-01 16:33 G	5798900.96	5798901.19	5798901.43	0.0488	0.0016 *
Mars	11167-04-24 19:11 G	5799836.20	5799836.30	5799836.41	0.0521	0.0474
Mercury	11169-01-30 09:36 G	5800482.79	5800482.90	5800483.00	0.0543	0.0364
Mercury	11169-04-30 00:14 G	5800572.40	5800572.51	5800572.61	0.0544	0.0342
Moon	11170-03-28 03:21 G	5800904.44	5800904.64	5800904.84	0.0542	0.0295
Earth	11170-03-28 06:57 G	5800904.60	5800904.79	5800905.00	0.0542	0.0272 *
Mercury	11174-12-15 04:33 G	5802627.54	5802627.69	5802627.84	0.0485	0.0178
Mercury	11175-03-14 22:48 G	5802717.37	5802717.45	5802717.54	0.0485	0.0414
Moon	11176-10-06 00:43 G	5803288.32	5803288.53	5803288.75	0.0489	0.0129
Earth	11176-10-06 01:11 G	5803288.33	5803288.55	5803288.77	0.0489	0.0154 *

Venus	11181-02-15 15:21 G	5804881.96	5804882.14	5804882.32	0.0543	0.0247
Mercury	11181-02-16 01:26 G	5804882.42	5804882.56	5804882.69	0.0543	0.0153
Earth	11182-04-02 07:40 G	5805292.59	5805292.82	5805293.05	0.0541	0.0088
Moon	11182-04-02 10:19 G	5805292.71	5805292.93	5805293.15	0.0541	0.0116 *
Mercury	11186-10-03 06:00 G	5806937.63	5806937.75	5806937.87	0.0486	0.0320
Venus	11186-12-21 00:28 G	5807016.34	5807016.52	5807016.69	0.0485	0.0247
Mercury	11186-12-31 23:45 G	5807027.35	5807027.49	5807027.63	0.0485	0.0266
Earth	11188-10-10 09:07 G	5807675.69	5807675.88	5807676.07	0.0490	0.0292
Moon	11188-10-10 11:31 G	5807675.78	5807675.98	5807676.18	0.0490	0.0284 *
Venus	11192-10-21 00:43 G	5809147.36	5809147.53	5809147.70	0.0542	0.0285
Mercury	11192-12-05 03:07 G	5809192.49	5809192.63	5809192.77	0.0543	0.0030
Moon	11194-04-07 12:57 G	5809680.81	5809681.04	5809681.28	0.0540	0.0123
Earth	11194-04-07 13:11 G	5809680.83	5809681.05	5809681.28	0.0540	0.0104 *
Mercury	11198-07-22 07:11 G	5811247.76	5811247.80	5811247.85	0.0486	0.0463
Venus	11198-08-26 05:45 G	5811282.54	5811282.74	5811282.93	0.0485	0.0120
Mercury	11198-10-20 00:28 G	5811337.36	5811337.52	5811337.68	0.0485	0.0115
Moon	11200-10-14 11:31 G	5812062.90	5812062.98	5812063.08	0.0491	0.0454
Earth	11200-10-14 15:07 G	5812063.02	5812063.13	5812063.25	0.0491	0.0427 *
Mars	11203-01-27 07:55 G	5812897.60	5812897.83	5812898.07	0.0524	0.0216
Mercury	11204-09-23 05:16 G	5813502.59	5813502.72	5813502.85	0.0543	0.0198
Mercury	11204-12-21 19:40 G	5813592.27	5813592.32	5813592.37	0.0544	0.0501
Moon	11206-04-12 18:43 G	5814069.10	5814069.28	5814069.46	0.0539	0.0314
Earth	11206-04-12 21:07 G	5814069.19	5814069.38	5814069.58	0.0539	0.0295 *
Venus	11210-05-01 11:31 G	5815548.97	5815548.98	5815549.00	0.0486	0.0483
Mercury	11210-08-08 01:40 G	5815647.41	5815647.57	5815647.74	0.0485	0.0031
Moon	11211-09-19 02:52 G	5816054.52	5816054.62	5816054.74	0.0485	0.0428
Earth	11211-09-19 06:14 G	5816054.64	5816054.76	5816054.89	0.0485	0.0404 *
Mercury	11216-07-12 07:26 G	5817812.71	5817812.81	5817812.92	0.0543	0.0368
Mercury	11216-10-09 22:19 G	5817902.32	5817902.43	5817902.54	0.0544	0.0339
Earth	11218-04-18 02:38 G	5818457.52	5818457.61	5818457.72	0.0537	0.0479

Moon	11218-04-18 06:43 G	5818457.66	5818457.78	5818457.91	0.0537	0.0449 *
Mercury	11222-05-27 02:38 G	5819957.46	5819957.61	5819957.77	0.0485	0.0177
Mercury	11222-08-24 20:52 G	5820047.29	5820047.37	5820047.46	0.0484	0.0415
Venus	11222-08-28 07:40 G	5820050.75	5820050.82	5820050.89	0.0484	0.0456
Earth	11223-09-23 11:16 G	5820441.78	5820441.97	5820442.17	0.0486	0.0275
Moon	11223-09-23 13:40 G	5820441.88	5820442.07	5820442.26	0.0486	0.0262 *
Venus	11228-06-28 22:33 G	5822182.24	5822182.44	5822182.65	0.0543	0.0040
Mercury	11228-07-29 00:43 G	5822212.39	5822212.53	5822212.66	0.0544	0.0170
Mercury	11234-03-15 04:04 G	5824267.56	5824267.67	5824267.80	0.0486	0.0318
Venus	11234-05-03 13:55 G	5824316.88	5824317.08	5824317.28	0.0485	0.0095
Mercury	11234-06-12 21:50 G	5824357.28	5824357.41	5824357.55	0.0485	0.0269
Moon	11235-09-27 17:16 G	5824828.98	5824829.22	5824829.45	0.0487	0.0110
Earth	11235-09-27 18:28 G	5824829.05	5824829.27	5824829.50	0.0487	0.0139 *
Venus	11240-03-03 06:00 G	5826447.68	5826447.75	5826447.82	0.0542	0.0503
Mercury	11240-05-17 01:40 G	5826522.43	5826522.57	5826522.71	0.0543	0.0024
Moon	11241-03-21 13:11 G	5826830.95	5826831.05	5826831.17	0.0543	0.0480
Earth	11241-03-21 17:16 G	5826831.15	5826831.22	5826831.31	0.0543	0.0506 *
Mercury	11246-01-01 05:31 G	5828577.69	5828577.73	5828577.79	0.0486	0.0459
Venus	11246-01-06 19:40 G	5828583.15	5828583.32	5828583.49	0.0486	0.0271
Mercury	11246-03-31 23:02 G	5828667.30	5828667.46	5828667.62	0.0485	0.0121
Moon	11247-10-02 00:43 G	5829216.30	5829216.53	5829216.76	0.0487	0.0004
Earth	11247-10-02 01:11 G	5829216.31	5829216.55	5829216.78	0.0487	0.0010 *
Mercury	11252-03-05 03:21 G	5830832.51	5830832.64	5830832.77	0.0543	0.0202
Mercury	11252-06-02 17:31 G	5830922.18	5830922.23	5830922.29	0.0544	0.0495
Earth	11253-03-27 00:00 G	5831219.31	5831219.50	5831219.69	0.0543	0.0314
Moon	11253-03-27 03:07 G	5831219.45	5831219.63	5831219.81	0.0543	0.0337 *
Mercury	11258-01-17 23:45 G	5832977.33	5832977.49	5832977.66	0.0485	0.0029
Earth	11259-10-06 05:16 G	5833603.50	5833603.72	5833603.95	0.0488	0.0129
Moon	11259-10-06 07:40 G	5833603.58	5833603.82	5833604.06	0.0488	0.0101 *
Mercury	11263-12-23 05:02 G	5835142.62	5835142.71	5835142.82	0.0543	0.0381

Venus	11264-03-06 14:23 G	5835216.94	5835217.10	5835217.26	0.0544	0.0326
Mercury	11264-03-21 19:55 G	5835232.22	5835232.33	5835232.44	0.0544	0.0328
Moon	11265-04-01 07:55 G	5835607.60	5835607.83	5835608.06	0.0542	0.0144
Earth	11265-04-01 09:07 G	5835607.66	5835607.88	5835608.11	0.0542	0.0120 *
Mars	11267-11-12 22:19 G	5836563.16	5836563.43	5836563.71	0.0505	0.0183
Mercury	11269-11-06 01:11 G	5837287.40	5837287.55	5837287.70	0.0485	0.0171
Venus	11270-01-08 21:50 G	5837351.25	5837351.41	5837351.57	0.0485	0.0307
Mercury	11270-02-03 19:11 G	5837377.22	5837377.30	5837377.39	0.0484	0.0420
Moon	11271-10-10 09:36 G	5837990.71	5837990.90	5837991.10	0.0489	0.0262
Earth	11271-10-10 13:11 G	5837990.85	5837991.05	5837991.24	0.0489	0.0267 *
Venus	11275-11-10 01:40 G	5839482.38	5839482.57	5839482.76	0.0543	0.0194
Mercury	11276-01-08 22:33 G	5839542.31	5839542.44	5839542.57	0.0544	0.0163
Moon	11277-04-06 15:50 G	5839995.94	5839996.16	5839996.38	0.0540	0.0100
Earth	11277-04-06 17:31 G	5839996.00	5839996.23	5839996.46	0.0540	0.0074 *
Mercury	11281-08-25 02:09 G	5841597.48	5841597.59	5841597.72	0.0485	0.0317
Venus	11281-09-14 03:07 G	5841617.42	5841617.63	5841617.83	0.0485	0.0060
Mercury	11281-11-22 19:55 G	5841687.19	5841687.33	5841687.47	0.0485	0.0268
Earth	11283-10-14 21:21 G	5842378.26	5842378.39	5842378.52	0.0491	0.0404
Moon	11283-10-15 01:11 G	5842378.45	5842378.55	5842378.67	0.0491	0.0434 *
Mercury	11287-10-28 00:43 G	5843852.39	5843852.53	5843852.67	0.0543	0.0010
Earth	11289-04-11 22:33 G	5844384.24	5844384.44	5844384.64	0.0539	0.0262
Moon	11289-04-12 02:09 G	5844384.39	5844384.59	5844384.79	0.0539	0.0278 *
Venus	11293-05-20 08:38 G	5845883.77	5845883.86	5845883.97	0.0486	0.0426
Mercury	11293-06-13 03:50 G	5845907.61	5845907.66	5845907.71	0.0486	0.0457
Mercury	11293-09-10 21:07 G	5845997.22	5845997.38	5845997.54	0.0485	0.0122
Earth	11294-09-18 13:40 G	5846369.96	5846370.07	5846370.19	0.0485	0.0421
Moon	11294-09-18 15:36 G	5846370.07	5846370.15	5846370.25	0.0485	0.0444 *
Mercury	11299-08-16 01:55 G	5848162.45	5848162.58	5848162.71	0.0542	0.0198
Mercury	11299-11-13 16:04 G	5848252.12	5848252.17	5848252.23	0.0543	0.0498
Moon	11301-04-17 16:48 G	5848772.06	5848772.20	5848772.35	0.0537	0.0410

Earth	11301-04-17 20:52 G	5848772.24	5848772.37	5848772.51	0.0537	0.0437 *
Mercury	11305-06-30 22:04 G	5850307.26	5850307.42	5850307.58	0.0485	0.0026
Moon	11306-09-23 17:45 G	5850757.05	5850757.24	5850757.44	0.0486	0.0277
Earth	11306-09-23 18:57 G	5850757.11	5850757.29	5850757.48	0.0486	0.0292 *
Mercury	11311-06-05 03:21 G	5852472.54	5852472.64	5852472.74	0.0542	0.0383
Venus	11311-07-19 18:00 G	5852517.05	5852517.25	5852517.45	0.0543	0.0095
Mercury	11311-09-02 18:00 G	5852562.14	5852562.25	5852562.36	0.0543	0.0323
Mercury	11317-04-18 23:02 G	5854617.31	5854617.46	5854617.61	0.0485	0.0173
Venus	11317-05-23 10:33 G	5854651.75	5854651.94	5854652.14	0.0485	0.0154
Mercury	11317-07-17 17:16 G	5854707.14	5854707.22	5854707.30	0.0485	0.0419
Moon	11318-09-27 21:50 G	5855144.20	5855144.41	5855144.63	0.0486	0.0138
Earth	11318-09-27 22:19 G	5855144.21	5855144.43	5855144.65	0.0486	0.0164 *
Mars	11321-07-19 05:45 G	5856169.54	5856169.74	5856169.95	0.0521	0.0311
Venus	11323-03-24 03:36 G	5856782.53	5856782.65	5856782.77	0.0542	0.0434
Mercury	11323-06-21 20:09 G	5856872.21	5856872.34	5856872.47	0.0544	0.0150
Earth	11324-03-21 15:50 G	5857146.14	5857146.16	5857146.19	0.0544	0.0541
Moon	11324-03-21 19:26 G	5857146.25	5857146.31	5857146.39	0.0544	0.0516
Venus	11329-01-26 16:33 G	5858918.01	5858918.19	5858918.38	0.0486	0.0212
Mercury	11329-02-05 00:28 G	5858927.40	5858927.52	5858927.65	0.0486	0.0314
Mercury	11329-05-05 18:14 G	5859017.12	5859017.26	5859017.40	0.0485	0.0271
Earth	11330-10-02 04:19 G	5859531.45	5859531.68	5859531.92	0.0487	0.0030
Moon	11330-10-02 06:43 G	5859531.54	5859531.78	5859532.02	0.0487	0.0038 *
Mercury	11335-04-09 22:33 G	5861182.30	5861182.44	5861182.58	0.0543	0.0017
Moon	11336-03-27 00:14 G	5861534.33	5861534.51	5861534.69	0.0543	0.0366
Earth	11336-03-27 02:23 G	5861534.42	5861534.60	5861534.78	0.0543	0.0345 *
Mercury	11340-11-24 01:40 G	5863237.53	5863237.57	5863237.63	0.0486	0.0458
Mercury	11341-02-21 18:57 G	5863327.13	5863327.29	5863327.45	0.0485	0.0120
Moon	11342-10-06 07:26 G	5863918.58	5863918.81	5863919.04	0.0488	0.0077
Earth	11342-10-06 10:48 G	5863918.72	5863918.95	5863919.18	0.0488	0.0107 *
Mercury	11347-01-27 00:43 G	5865492.40	5865492.53	5865492.66	0.0543	0.0191

Venus	11347-03-27 14:52 G	5865551.99	5865552.12	5865552.25	0.0544	0.0414
Mercury	11347-04-26 14:52 G	5865582.08	5865582.12	5865582.17	0.0544	0.0508
Moon	11348-04-01 09:21 G	5865922.68	5865922.89	5865923.10	0.0542	0.0169
Earth	11348-04-01 10:04 G	5865922.70	5865922.92	5865923.14	0.0542	0.0151 *
Mercury	11352-12-10 20:09 G	5867637.18	5867637.34	5867637.50	0.0485	0.0025
Venus	11353-01-28 18:28 G	5867686.15	5867686.27	5867686.41	0.0485	0.0366
Earth	11354-10-10 19:26 G	5868306.11	5868306.31	5868306.52	0.0489	0.0245
Moon	11354-10-10 23:31 G	5868306.28	5868306.48	5868306.69	0.0489	0.0244 *
Mars	11357-04-23 07:11 G	5869231.65	5869231.80	5869231.95	0.0524	0.0420
Mercury	11358-11-15 01:55 G	5869802.48	5869802.58	5869802.68	0.0542	0.0379
Venus	11358-11-29 23:02 G	5869817.26	5869817.46	5869817.65	0.0542	0.0127
Mercury	11359-02-12 16:33 G	5869892.08	5869892.19	5869892.30	0.0543	0.0326
Earth	11360-04-06 11:02 G	5870310.73	5870310.96	5870311.19	0.0540	0.0032
Moon	11360-04-06 14:09 G	5870310.85	5870311.09	5870311.33	0.0540	0.0063 *
Mercury	11364-09-28 21:07 G	5871947.23	5871947.38	5871947.54	0.0486	0.0173
Venus	11364-10-04 00:00 G	5871952.29	5871952.50	5871952.70	0.0486	0.0011
Mercury	11364-12-27 15:21 G	5872037.06	5872037.14	5872037.22	0.0485	0.0420
Moon	11366-10-14 23:31 G	5872693.36	5872693.48	5872693.61	0.0491	0.0410
Earth	11366-10-15 03:36 G	5872693.50	5872693.65	5872693.80	0.0491	0.0382 *
Mercury	11370-12-01 18:14 G	5874202.13	5874202.26	5874202.40	0.0543	0.0148
Moon	11372-04-11 11:02 G	5874698.75	5874698.96	5874699.16	0.0539	0.0238
Earth	11372-04-11 14:52 G	5874698.91	5874699.12	5874699.34	0.0539	0.0218 *
Venus	11376-06-09 05:02 G	5876218.58	5876218.71	5876218.85	0.0486	0.0369
Mercury	11376-07-17 22:19 G	5876257.31	5876257.43	5876257.55	0.0486	0.0317
Mercury	11376-10-15 15:50 G	5876347.03	5876347.16	5876347.30	0.0485	0.0269
Moon	11377-09-18 16:04 G	5876685.11	5876685.17	5876685.25	0.0485	0.0464
Earth	11377-09-18 17:16 G	5876685.14	5876685.22	5876685.31	0.0485	0.0445 *
Mercury	11382-09-19 20:09 G	5878512.20	5878512.34	5878512.48	0.0543	0.0034
Earth	11384-04-16 20:38 G	5879087.22	5879087.36	5879087.52	0.0538	0.0403
Moon	11384-04-17 00:28 G	5879087.36	5879087.52	5879087.68	0.0538	0.0375 *

Mars	11386-05-02 10:48 G	5879832.78	5879832.95	5879833.12	0.0508	0.0410
Mercury	11388-05-06 00:00 G	5880567.45	5880567.50	5880567.56	0.0486	0.0455
Mercury	11388-08-03 17:02 G	5880657.06	5880657.21	5880657.37	0.0485	0.0123
Moon	11389-09-22 22:04 G	5881072.24	5881072.42	5881072.60	0.0485	0.0299
Earth	11389-09-22 22:19 G	5881072.26	5881072.43	5881072.61	0.0485	0.0316 *
Mercury	11394-07-08 22:19 G	5882822.30	5882822.43	5882822.56	0.0543	0.0201
Venus	11394-08-07 17:02 G	5882852.02	5882852.21	5882852.41	0.0543	0.0177
Mercury	11394-10-06 12:43 G	5882911.98	5882912.03	5882912.08	0.0544	0.0499
Mercury	11400-05-23 18:00 G	5884967.09	5884967.25	5884967.42	0.0485	0.0028
Venus	11400-06-12 07:26 G	5884986.63	5884986.81	5884987.00	0.0485	0.0211
Earth	11401-09-28 03:21 G	5885459.42	5885459.64	5885459.86	0.0486	0.0185
Moon	11401-09-28 05:31 G	5885459.51	5885459.73	5885459.96	0.0486	0.0163 *
Venus	11406-04-13 03:50 G	5887117.51	5887117.66	5887117.82	0.0542	0.0348
Mercury	11406-04-28 00:14 G	5887132.41	5887132.51	5887132.62	0.0543	0.0376
Mercury	11406-07-26 15:07 G	5887222.03	5887222.13	5887222.24	0.0544	0.0333
Moon	11407-03-22 13:40 G	5887461.07	5887461.07	5887461.09	0.0544	0.0543
Venus	11412-02-16 13:11 G	5889252.86	5889253.05	5889253.24	0.0486	0.0156
Mercury	11412-03-11 19:11 G	5889277.16	5889277.30	5889277.46	0.0485	0.0172
Mercury	11412-06-09 13:26 G	5889366.98	5889367.06	5889367.14	0.0485	0.0420
Moon	11413-10-02 06:57 G	5889846.56	5889846.79	5889847.02	0.0487	0.0065
Earth	11413-10-02 10:19 G	5889846.70	5889846.93	5889847.17	0.0487	0.0050 *
Mercury	11418-05-14 16:48 G	5891532.07	5891532.20	5891532.34	0.0543	0.0152
Earth	11419-03-27 20:38 G	5891849.20	5891849.36	5891849.53	0.0543	0.0385
Moon	11419-03-27 21:07 G	5891849.24	5891849.38	5891849.53	0.0543	0.0410 *
Mars	11422-02-07 00:28 G	5892896.33	5892896.52	5892896.74	0.0505	0.0355
Mercury	11423-12-29 20:23 G	5893587.23	5893587.35	5893587.47	0.0486	0.0317
Mercury	11424-03-28 14:09 G	5893676.95	5893677.09	5893677.22	0.0485	0.0269
Earth	11425-10-06 16:48 G	5894233.97	5894234.20	5894234.43	0.0488	0.0085
Moon	11425-10-06 20:52 G	5894234.14	5894234.37	5894234.60	0.0488	0.0055 *
Mercury	11430-03-02 18:28 G	5895842.13	5895842.27	5895842.41	0.0543	0.0030

Venus	11430-04-16 10:19 G	5895886.83	5895886.93	5895887.03	0.0543	0.0472
Earth	11431-04-02 01:55 G	5896237.37	5896237.58	5896237.80	0.0542	0.0195
Moon	11431-04-02 04:04 G	5896237.46	5896237.67	5896237.90	0.0542	0.0208 *
Mercury	11435-10-17 21:50 G	5897897.36	5897897.41	5897897.46	0.0486	0.0458
Mercury	11436-01-15 14:52 G	5897986.96	5897987.12	5897987.28	0.0485	0.0120
Venus	11436-02-18 14:38 G	5898021.01	5898021.11	5898021.21	0.0485	0.0422
Moon	11437-10-10 17:31 G	5898621.02	5898621.23	5898621.44	0.0489	0.0211
Earth	11437-10-10 21:21 G	5898621.18	5898621.39	5898621.61	0.0489	0.0214 *
Venus	11441-12-19 18:57 G	5900152.09	5900152.29	5900152.49	0.0543	0.0063
Mercury	11441-12-19 19:55 G	5900152.20	5900152.33	5900152.46	0.0543	0.0214 *
Mercury	11442-03-19 10:19 G	5900241.87	5900241.93	5900241.99	0.0544	0.0486
Moon	11443-04-07 05:02 G	5900625.49	5900625.71	5900625.94	0.0541	0.0025
Earth	11443-04-07 08:52 G	5900625.64	5900625.87	5900626.10	0.0541	0.0008 *
Venus	11447-10-24 20:52 G	5902287.17	5902287.37	5902287.57	0.0485	0.0059
Mercury	11447-11-03 16:19 G	5902297.02	5902297.18	5902297.34	0.0485	0.0024
Earth	11449-10-15 05:02 G	5903008.55	5903008.71	5903008.88	0.0490	0.0351
Moon	11449-10-15 07:55 G	5903008.69	5903008.83	5903008.98	0.0490	0.0380 *
Mercury	11453-10-07 21:50 G	5904462.32	5904462.41	5904462.51	0.0543	0.0388
Mercury	11454-01-05 12:57 G	5904551.93	5904552.04	5904552.15	0.0544	0.0322
Earth	11455-04-12 17:02 G	5905013.99	5905014.21	5905014.43	0.0540	0.0184
Moon	11455-04-12 20:52 G	5905014.16	5905014.37	5905014.59	0.0540	0.0202 *
Venus	11459-06-30 02:09 G	5906553.43	5906553.59	5906553.74	0.0486	0.0311
Mercury	11459-08-22 17:16 G	5906607.07	5906607.22	5906607.37	0.0485	0.0171
Mercury	11459-11-20 11:16 G	5906696.89	5906696.97	5906697.05	0.0484	0.0419
Earth	11460-09-18 22:19 G	5907000.38	5907000.43	5907000.50	0.0485	0.0465
Moon	11460-09-18 21:50 G	5907000.39	5907000.41	5907000.44	0.0485	0.0481 *
Moon	11461-10-19 12:14 G	5907396.01	5907396.01	5907396.02	0.0492	0.0491
Earth	11461-10-19 13:26 G	5907396.04	5907396.06	5907396.10	0.0492	0.0488
Mercury	11465-10-24 15:21 G	5908862.01	5908862.14	5908862.27	0.0543	0.0155
Moon	11467-04-17 19:40 G	5909402.15	5909402.32	5909402.51	0.0538	0.0342

Earth	11467-04-17 22:33 G	5909402.28	5909402.44	5909402.61	0.0538	0.0370	*
Mercury	11471-06-10 18:43 G	5910917.16	5910917.28	5910917.40	0.0486	0.0314	
Mercury	11471-09-08 12:14 G	5911006.87	5911007.01	5911007.15	0.0485	0.0270	
Earth	11472-09-23 04:04 G	5911387.50	5911387.67	5911387.84	0.0485	0.0335	
Moon	11472-09-23 06:28 G	5911387.59	5911387.77	5911387.95	0.0485	0.0311	*
Mars	11475-10-14 03:50 G	5912503.40	5912503.66	5912503.91	0.0521	0.0110	
Mercury	11477-08-12 17:02 G	5913172.07	5913172.21	5913172.35	0.0543	0.0026	
Venus	11477-08-27 15:21 G	5913186.96	5913187.14	5913187.32	0.0543	0.0252	
Moon	11479-04-22 22:19 G	5913790.42	5913790.43	5913790.45	0.0536	0.0534	
Mercury	11483-03-29 19:55 G	5915227.28	5915227.33	5915227.38	0.0486	0.0458	
Mercury	11483-06-27 12:57 G	5915316.88	5915317.04	5915317.20	0.0485	0.0120	
Venus	11483-07-02 03:50 G	5915321.50	5915321.66	5915321.84	0.0485	0.0269	
Moon	11484-09-27 06:00 G	5915774.54	5915774.75	5915774.96	0.0486	0.0188	
Earth	11484-09-27 09:21 G	5915774.68	5915774.89	5915775.11	0.0486	0.0206	*
Venus	11489-05-02 00:14 G	5917452.34	5917452.51	5917452.69	0.0542	0.0283	
Mercury	11489-05-31 18:28 G	5917482.14	5917482.27	5917482.40	0.0542	0.0209	
Mercury	11489-08-29 08:52 G	5917571.81	5917571.87	5917571.93	0.0543	0.0489	
Venus	11495-03-07 09:21 G	5919587.69	5919587.89	5919588.09	0.0486	0.0098	
Mercury	11495-04-15 14:09 G	5919626.92	5919627.09	5919627.25	0.0485	0.0028	
Earth	11496-10-01 13:11 G	5920161.82	5920162.05	5920162.29	0.0486	0.0079	
Moon	11496-10-01 17:16 G	5920161.99	5920162.22	5920162.45	0.0486	0.0097	*
Mercury	11501-03-20 19:26 G	5921792.22	5921792.31	5921792.41	0.0542	0.0399	
Mercury	11501-06-18 10:33 G	5921881.83	5921881.94	5921882.06	0.0544	0.0311	
Earth	11502-03-27 16:33 G	5922164.05	5922164.19	5922164.34	0.0544	0.0426	
Moon	11502-03-27 17:45 G	5922164.11	5922164.24	5922164.37	0.0544	0.0453	*
Venus	11506-11-11 15:21 G	5923854.09	5923854.14	5923854.20	0.0487	0.0464	
Mercury	11507-02-02 15:36 G	5923937.00	5923937.15	5923937.30	0.0485	0.0168	
Mercury	11507-05-03 09:21 G	5924026.82	5924026.89	5924026.98	0.0484	0.0423	
Moon	11508-10-06 15:50 G	5924548.93	5924549.16	5924549.40	0.0487	0.0027	
Earth	11508-10-06 19:55 G	5924549.10	5924549.33	5924549.56	0.0487	0.0056	*

Mercury	11513-04-06 12:57 G	5926191.91	5926192.04	5926192.18	0.0544	0.0144
Moon	11514-04-01 23:16 G	5926552.28	5926552.47	5926552.68	0.0543	0.0245
Earth	11514-04-02 02:38 G	5926552.41	5926552.61	5926552.83	0.0543	0.0231 *
Mercury	11518-11-21 16:48 G	5928247.08	5928247.20	5928247.32	0.0486	0.0312
Mercury	11519-02-19 10:19 G	5928336.79	5928336.93	5928337.06	0.0485	0.0271
Venus	11519-03-10 11:45 G	5928355.97	5928355.99	5928356.01	0.0484	0.0481
Earth	11520-10-11 02:09 G	5928936.38	5928936.59	5928936.81	0.0489	0.0191
Moon	11520-10-11 05:16 G	5928936.51	5928936.72	5928936.93	0.0489	0.0195 *
Venus	11525-01-08 19:55 G	5930487.13	5930487.33	5930487.54	0.0543	0.0028
Mercury	11525-01-23 15:21 G	5930502.00	5930502.14	5930502.28	0.0543	0.0024
Earth	11526-04-07 11:16 G	5930940.74	5930940.97	5930941.20	0.0541	0.0039
Moon	11526-04-07 15:21 G	5930940.90	5930941.14	5930941.37	0.0541	0.0010 *
Mercury	11530-09-09 18:14 G	5932557.21	5932557.26	5932557.32	0.0486	0.0453
Venus	11530-11-13 17:45 G	5932622.04	5932622.24	5932622.44	0.0485	0.0117
Mercury	11530-12-08 11:16 G	5932646.82	5932646.97	5932647.13	0.0485	0.0124
Moon	11532-10-15 09:50 G	5933323.74	5933323.91	5933324.08	0.0490	0.0355
Earth	11532-10-15 11:16 G	5933323.79	5933323.97	5933324.14	0.0490	0.0328 *
Venus	11536-09-13 05:45 G	5934752.67	5934752.74	5934752.82	0.0541	0.0501
Mercury	11536-11-11 17:02 G	5934812.08	5934812.21	5934812.34	0.0542	0.0203
Mercury	11537-02-09 07:26 G	5934901.76	5934901.81	5934901.87	0.0543	0.0496
Moon	11538-04-12 10:48 G	5935328.73	5935328.95	5935329.18	0.0540	0.0160
Earth	11538-04-12 14:09 G	5935328.87	5935329.09	5935329.32	0.0540	0.0146 *
Mars	11540-07-27 17:16 G	5936165.97	5936166.22	5936166.49	0.0507	0.0229
Venus	11542-07-19 22:33 G	5936888.27	5936888.44	5936888.62	0.0486	0.0254
Mercury	11542-09-26 12:14 G	5936956.85	5936957.01	5936957.17	0.0485	0.0025
Earth	11543-09-20 04:48 G	5937315.69	5937315.70	5937315.72	0.0485	0.0484
Moon	11544-10-19 19:26 G	5937711.24	5937711.31	5937711.38	0.0491	0.0465
Earth	11544-10-19 19:40 G	5937711.25	5937711.32	5937711.40	0.0491	0.0464 *
Mercury	11548-08-30 18:28 G	5939122.17	5939122.27	5939122.37	0.0542	0.0388
Mercury	11548-11-28 09:21 G	5939211.78	5939211.89	5939212.01	0.0543	0.0320

Earth	11550-04-17 17:31 G	5939717.05	5939717.23	5939717.41	0.0538	0.0328
Moon	11550-04-17 18:43 G	5939717.10	5939717.28	5939717.47	0.0538	0.0299 *
Mercury	11554-07-15 13:26 G	5941266.91	5941267.06	5941267.22	0.0486	0.0169
Mercury	11554-10-13 07:26 G	5941356.73	5941356.81	5941356.89	0.0485	0.0422
Moon	11555-09-24 05:16 G	5941702.56	5941702.72	5941702.89	0.0485	0.0334
Earth	11555-09-24 08:38 G	5941702.71	5941702.86	5941703.02	0.0485	0.0361 *
Venus	11560-09-16 11:02 G	5943521.80	5943521.96	5943522.13	0.0543	0.0316
Mercury	11560-09-16 10:48 G	5943521.82	5943521.95	5943522.09	0.0543	0.0136 *
Earth	11562-04-22 21:07 G	5944105.30	5944105.38	5944105.46	0.0538	0.0504
Moon	11562-04-22 22:04 G	5944105.34	5944105.42	5944105.52	0.0538	0.0497 *
Mercury	11566-05-03 15:21 G	5945577.01	5945577.14	5945577.26	0.0486	0.0307
Venus	11566-07-22 01:55 G	5945656.43	5945656.58	5945656.73	0.0485	0.0333
Mercury	11566-08-01 08:38 G	5945666.73	5945666.86	5945667.00	0.0485	0.0277
Earth	11567-09-28 14:23 G	5946089.89	5946090.10	5946090.30	0.0485	0.0230
Moon	11567-09-28 18:28 G	5946090.06	5946090.27	5946090.48	0.0485	0.0213 *
Venus	11572-05-21 22:04 G	5947787.24	5947787.42	5947787.61	0.0543	0.0211
Mercury	11572-07-05 13:11 G	5947831.91	5947832.05	5947832.19	0.0543	0.0038
Mercury	11578-02-19 16:33 G	5949887.14	5949887.19	5949887.25	0.0486	0.0450
Venus	11578-03-27 07:11 G	5949922.60	5949922.80	5949923.01	0.0485	0.0036
Mercury	11578-05-20 09:36 G	5949976.74	5949976.90	5949977.06	0.0485	0.0127
Moon	11579-10-02 15:21 G	5950476.91	5950477.14	5950477.37	0.0486	0.0117
Earth	11579-10-02 19:26 G	5950477.08	5950477.31	5950477.54	0.0486	0.0098 *
Mercury	11584-04-23 15:21 G	5952142.01	5952142.14	5952142.27	0.0543	0.0204
Mercury	11584-07-22 06:00 G	5952231.70	5952231.75	5952231.80	0.0544	0.0498
Moon	11585-03-26 17:16 G	5952479.13	5952479.22	5952479.33	0.0544	0.0486
Earth	11585-03-26 19:55 G	5952479.21	5952479.33	5952479.46	0.0544	0.0451 *
Venus	11589-11-30 12:57 G	5954188.93	5954189.04	5954189.15	0.0486	0.0404
Mercury	11590-03-08 10:48 G	5954286.79	5954286.95	5954287.11	0.0485	0.0019
Earth	11591-10-07 02:23 G	5954864.37	5954864.60	5954864.84	0.0487	0.0037
Moon	11591-10-07 05:31 G	5954864.50	5954864.73	5954864.96	0.0487	0.0013 *

Mercury	11596-02-10 17:02 G	5956452.11	5956452.21	5956452.31	0.0542	0.0381
Mercury	11596-05-10 08:09 G	5956541.73	5956541.84	5956541.95	0.0543	0.0327
Earth	11597-04-01 02:09 G	5956867.39	5956867.59	5956867.80	0.0542	0.0265
Moon	11597-04-01 06:00 G	5956867.56	5956867.75	5956867.96	0.0542	0.0276 *
Mercury	11601-12-25 11:45 G	5958596.84	5958596.99	5958597.14	0.0486	0.0166
Mercury	11602-03-25 05:45 G	5958686.66	5958686.74	5958686.82	0.0485	0.0425
Moon	11603-10-11 07:55 G	5959251.61	5959251.83	5959252.06	0.0489	0.0181
Earth	11603-10-11 09:21 G	5959251.68	5959251.89	5959252.12	0.0489	0.0170 *
Venus	11608-01-28 18:14 G	5960822.06	5960822.26	5960822.46	0.0543	0.0103
Mercury	11608-02-27 09:50 G	5960851.78	5960851.91	5960852.05	0.0543	0.0150
Moon	11609-04-06 03:50 G	5961255.43	5961255.66	5961255.89	0.0541	0.0047
Earth	11609-04-06 07:40 G	5961255.59	5961255.82	5961256.05	0.0541	0.0077 *
Mercury	11613-10-13 13:11 G	5962906.93	5962907.05	5962907.18	0.0486	0.0307
Venus	11613-12-02 15:07 G	5962956.94	5962957.13	5962957.32	0.0485	0.0180
Mercury	11614-01-11 06:43 G	5962996.65	5962996.78	5962996.91	0.0485	0.0278
Moon	11615-10-15 14:52 G	5963638.96	5963639.12	5963639.29	0.0489	0.0327
Earth	11615-10-15 15:21 G	5963638.96	5963639.14	5963639.33	0.0489	0.0298 *
Venus	11619-10-03 01:26 G	5965087.45	5965087.56	5965087.68	0.0542	0.0442
Mercury	11619-12-16 11:02 G	5965161.82	5965161.96	5965162.10	0.0543	0.0040
Earth	11621-04-11 11:45 G	5965643.77	5965643.99	5965644.22	0.0541	0.0106
Moon	11621-04-11 13:55 G	5965643.86	5965644.08	5965644.30	0.0541	0.0112 *
Mercury	11625-08-01 15:07 G	5967217.07	5967217.13	5967217.20	0.0486	0.0442
Venus	11625-08-07 21:36 G	5967223.21	5967223.40	5967223.59	0.0486	0.0184
Mercury	11625-10-30 08:09 G	5967306.68	5967306.84	5967307.00	0.0485	0.0135
Earth	11627-10-19 23:45 G	5968026.38	5968026.49	5968026.60	0.0490	0.0435
Moon	11627-10-20 01:26 G	5968026.45	5968026.56	5968026.68	0.0490	0.0430 *
Mars	11630-01-07 12:43 G	5968836.77	5968837.03	5968837.28	0.0521	0.0048
Mercury	11631-10-04 13:11 G	5969471.92	5969472.05	5969472.18	0.0543	0.0214
Mercury	11632-01-02 03:50 G	5969561.60	5969561.66	5969561.72	0.0544	0.0490
Earth	11633-04-16 19:55 G	5970032.14	5970032.33	5970032.53	0.0540	0.0295

Moon	11633-04-16 20:23 G	5970032.14	5970032.35	5970032.56	0.0540	0.0261 *
Mercury	11637-08-18 09:07 G	5971616.72	5971616.88	5971617.05	0.0485	0.0018
Earth	11638-09-23 16:04 G	5972018.03	5972018.17	5972018.32	0.0485	0.0377
Moon	11638-09-23 20:09 G	5972018.18	5972018.34	5972018.51	0.0485	0.0346 *
Mercury	11643-07-23 15:21 G	5973782.04	5973782.14	5973782.24	0.0543	0.0383
Venus	11643-10-06 13:26 G	5973856.93	5973857.06	5973857.19	0.0544	0.0412
Mercury	11643-10-21 06:28 G	5973871.66	5973871.77	5973871.88	0.0544	0.0328
Moon	11645-04-22 00:14 G	5974420.42	5974420.51	5974420.62	0.0538	0.0475
Earth	11645-04-22 02:23 G	5974420.51	5974420.60	5974420.72	0.0538	0.0478 *
Mercury	11649-06-06 10:33 G	5975926.79	5975926.94	5975927.09	0.0485	0.0156
Venus	11649-08-10 00:00 G	5975991.38	5975991.50	5975991.61	0.0485	0.0397
Mercury	11649-09-04 04:19 G	5976016.61	5976016.68	5976016.76	0.0484	0.0434
Moon	11650-09-27 18:00 G	5976405.05	5976405.25	5976405.47	0.0485	0.0231
Earth	11650-09-27 22:04 G	5976405.22	5976405.42	5976405.62	0.0485	0.0247 *
Venus	11655-06-11 00:00 G	5978122.30	5978122.50	5978122.70	0.0542	0.0115
Mercury	11655-08-09 08:38 G	5978181.73	5978181.86	5978182.00	0.0543	0.0158
Mercury	11661-03-25 11:45 G	5980236.87	5980236.99	5980237.12	0.0486	0.0301
Venus	11661-04-15 05:02 G	5980257.51	5980257.71	5980257.91	0.0486	0.0029
Mercury	11661-06-23 05:02 G	5980326.58	5980326.71	5980326.85	0.0485	0.0283
Earth	11662-10-02 03:36 G	5980792.42	5980792.65	5980792.88	0.0486	0.0118
Moon	11662-10-02 06:28 G	5980792.55	5980792.77	5980792.99	0.0486	0.0139 *
Mercury	11667-05-28 10:19 G	5982491.79	5982491.93	5982492.07	0.0543	0.0026
Earth	11668-03-25 18:14 G	5982794.16	5982794.26	5982794.36	0.0543	0.0485
Moon	11668-03-25 21:50 G	5982794.35	5982794.41	5982794.48	0.0543	0.0519 *
Venus	11672-12-19 11:02 G	5984523.81	5984523.96	5984524.11	0.0486	0.0338
Mercury	11673-01-11 13:26 G	5984547.00	5984547.06	5984547.13	0.0486	0.0439
Mercury	11673-04-11 06:28 G	5984636.61	5984636.77	5984636.92	0.0485	0.0139
Moon	11674-10-06 07:55 G	5985179.59	5985179.83	5985180.07	0.0487	0.0009
Earth	11674-10-06 09:21 G	5985179.65	5985179.89	5985180.12	0.0487	0.0015 *
Mercury	11679-03-16 11:16 G	5986801.84	5986801.97	5986802.10	0.0543	0.0215

Mercury	11679-06-14 01:55 G	5986891.52	5986891.58	5986891.64	0.0544	0.0488
Moon	11680-03-30 18:57 G	5987182.10	5987182.29	5987182.48	0.0543	0.0319
Earth	11680-03-30 22:48 G	5987182.26	5987182.45	5987182.65	0.0543	0.0305 *
Mercury	11685-01-28 07:55 G	5988946.67	5988946.83	5988947.00	0.0485	0.0008
Moon	11686-10-10 15:50 G	5989566.95	5989567.16	5989567.37	0.0488	0.0164
Earth	11686-10-10 16:19 G	5989566.96	5989567.18	5989567.40	0.0488	0.0145 *
Mercury	11691-01-02 13:11 G	5991111.95	5991112.05	5991112.15	0.0543	0.0391
Venus	11691-02-16 16:19 G	5991156.99	5991157.18	5991157.37	0.0543	0.0177
Mercury	11691-04-02 04:19 G	5991201.57	5991201.68	5991201.80	0.0544	0.0322
Earth	11692-04-05 08:38 G	5991570.64	5991570.86	5991571.09	0.0543	0.0112
Moon	11692-04-05 11:31 G	5991570.76	5991570.98	5991571.20	0.0543	0.0080 *
Mars	11694-10-22 00:57 G	5992500.25	5992500.54	5992500.83	0.0507	0.0017
Mercury	11696-11-16 09:07 G	5993256.73	5993256.88	5993257.04	0.0485	0.0148
Venus	11696-12-21 14:23 G	5993291.93	5993292.10	5993292.28	0.0485	0.0250
Mercury	11697-02-14 02:52 G	5993346.56	5993346.62	5993346.69	0.0484	0.0442
Earth	11698-10-14 22:48 G	5993954.26	5993954.45	5993954.65	0.0489	0.0279
Moon	11698-10-15 00:43 G	5993954.35	5993954.53	5993954.72	0.0489	0.0305 *
Venus	11702-10-23 04:04 G	5995422.52	5995422.67	5995422.83	0.0542	0.0344
Mercury	11703-01-20 06:57 G	5995511.66	5995511.79	5995511.93	0.0544	0.0159
Moon	11704-04-11 18:00 G	5995959.01	5995959.25	5995959.49	0.0541	0.0080
Earth	11704-04-11 18:14 G	5995959.03	5995959.26	5995959.49	0.0541	0.0082 *
Venus	11708-08-27 20:23 G	5997558.15	5997558.35	5997558.55	0.0486	0.0117
Mercury	11708-09-05 10:48 G	5997566.82	5997566.95	5997567.08	0.0486	0.0289
Mercury	11708-12-04 04:04 G	5997656.54	5997656.67	5997656.80	0.0485	0.0295
Moon	11710-10-20 05:02 G	5998341.60	5998341.71	5998341.84	0.0490	0.0410
Earth	11710-10-20 07:55 G	5998341.71	5998341.83	5998341.96	0.0490	0.0415 *
Mercury	11714-11-08 09:21 G	5999821.74	5999821.89	5999822.03	0.0543	0.0020
Moon	11716-04-16 21:50 G	6000347.21	6000347.41	6000347.62	0.0539	0.0232
Earth	11716-04-16 23:31 G	6000347.28	6000347.48	6000347.69	0.0539	0.0265 *
Mercury	11720-06-24 12:00 G	6001876.93	6001877.00	6001877.07	0.0486	0.0432

Mercury	11720-09-22 05:02 G	6001966.55	6001966.71	6001966.86	0.0485	0.0145
Moon	11721-09-23 21:36 G	6002333.25	6002333.40	6002333.56	0.0485	0.0362
Earth	11721-09-24 01:26 G	6002333.43	6002333.56	6002333.70	0.0485	0.0393 *
Mercury	11726-08-27 10:48 G	6004131.82	6004131.95	6004132.09	0.0543	0.0193
Venus	11726-10-26 13:55 G	6004192.00	6004192.08	6004192.16	0.0543	0.0500
Mercury	11726-11-25 01:26 G	6004221.52	6004221.56	6004221.61	0.0544	0.0509
Earth	11728-04-22 02:52 G	6004735.50	6004735.62	6004735.76	0.0538	0.0443
Moon	11728-04-22 06:14 G	6004735.63	6004735.76	6004735.89	0.0538	0.0443 *
Mercury	11732-07-11 06:28 G	6006276.60	6006276.77	6006276.93	0.0485	0.0013
Venus	11732-08-29 22:48 G	6006326.40	6006326.45	6006326.50	0.0485	0.0468
Earth	11733-09-28 06:43 G	6006720.59	6006720.78	6006720.98	0.0485	0.0267
Moon	11733-09-28 09:36 G	6006720.71	6006720.90	6006721.10	0.0485	0.0257 *
Mercury	11738-06-15 11:31 G	6008441.88	6008441.98	6008442.08	0.0542	0.0390
Venus	11738-06-30 20:38 G	6008457.16	6008457.36	6008457.57	0.0543	0.0051
Mercury	11738-09-13 02:38 G	6008531.50	6008531.61	6008531.73	0.0544	0.0322
Mercury	11744-04-29 08:09 G	6010586.68	6010586.84	6010586.99	0.0485	0.0136
Venus	11744-05-05 05:31 G	6010592.53	6010592.73	6010592.93	0.0485	0.0106
Mercury	11744-07-28 01:55 G	6010676.52	6010676.58	6010676.63	0.0484	0.0454
Moon	11745-10-02 11:45 G	6011107.76	6011107.99	6011108.22	0.0486	0.0160
Earth	11745-10-02 12:57 G	6011107.82	6011108.04	6011108.27	0.0486	0.0135 *
Mars	11748-06-29 16:48 G	6012109.08	6012109.20	6012109.31	0.0519	0.0463
Mercury	11750-07-02 05:02 G	6012841.57	6012841.71	6012841.84	0.0544	0.0153
Earth	11751-03-26 17:45 G	6013109.18	6013109.24	6013109.31	0.0544	0.0519
Venus	11756-01-09 11:02 G	6014858.80	6014858.96	6014859.14	0.0486	0.0265
Mercury	11756-02-16 09:36 G	6014896.77	6014896.90	6014897.03	0.0486	0.0279
Mercury	11756-05-16 02:38 G	6014986.49	6014986.61	6014986.74	0.0485	0.0305
Moon	11757-10-06 17:31 G	6015495.00	6015495.23	6015495.46	0.0486	0.0019
Earth	11757-10-06 18:14 G	6015495.02	6015495.26	6015495.49	0.0486	0.0006 *
Mercury	11762-04-20 07:26 G	6017151.67	6017151.81	6017151.95	0.0543	0.0017
Earth	11763-04-01 05:31 G	6017497.55	6017497.73	6017497.92	0.0544	0.0326

Moon	11763-04-01 09:07 G	6017497.70	6017497.88	6017498.06	0.0544	0.0329 *
Mercury	11767-12-05 11:02 G	6019206.89	6019206.96	6019207.05	0.0486	0.0418
Mercury	11768-03-04 04:04 G	6019296.51	6019296.67	6019296.82	0.0485	0.0159
Earth	11769-10-11 01:26 G	6019882.33	6019882.56	6019882.79	0.0488	0.0128
Moon	11769-10-11 03:21 G	6019882.42	6019882.64	6019882.88	0.0488	0.0153 *
Mercury	11774-02-06 09:36 G	6021461.77	6021461.90	6021462.04	0.0543	0.0183
Venus	11774-03-08 19:55 G	6021492.16	6021492.33	6021492.51	0.0543	0.0284
Mercury	11774-05-07 00:14 G	6021551.48	6021551.51	6021551.55	0.0544	0.0520
Moon	11775-04-06 12:57 G	6021885.81	6021886.04	6021886.28	0.0542	0.0105
Earth	11775-04-06 14:09 G	6021885.87	6021886.09	6021886.32	0.0542	0.0138 *
Mercury	11779-12-22 05:02 G	6023606.55	6023606.71	6023606.87	0.0485	0.0011
Venus	11780-01-11 13:26 G	6023626.91	6023627.06	6023627.21	0.0485	0.0320
Moon	11781-10-15 06:14 G	6024269.58	6024269.76	6024269.95	0.0489	0.0287
Earth	11781-10-15 09:07 G	6024269.69	6024269.88	6024270.08	0.0489	0.0261 *
Mars	11784-04-03 23:45 G	6025171.28	6025171.49	6025171.71	0.0522	0.0288
Venus	11785-11-11 05:45 G	6025757.57	6025757.74	6025757.93	0.0542	0.0250
Mercury	11785-11-25 11:16 G	6025771.87	6025771.97	6025772.08	0.0542	0.0363
Mercury	11786-02-23 02:23 G	6025861.50	6025861.60	6025861.71	0.0543	0.0347
Moon	11787-04-11 19:11 G	6026274.08	6026274.30	6026274.52	0.0541	0.0045
Earth	11787-04-11 20:09 G	6026274.11	6026274.34	6026274.57	0.0541	0.0050 *
Venus	11791-09-16 19:40 G	6027893.12	6027893.32	6027893.53	0.0486	0.0046
Mercury	11791-10-10 06:43 G	6027916.62	6027916.78	6027916.93	0.0485	0.0129
Mercury	11792-01-08 00:28 G	6028006.47	6028006.52	6028006.57	0.0485	0.0462
Earth	11793-10-19 16:48 G	6028657.06	6028657.20	6028657.34	0.0490	0.0392
Moon	11793-10-19 20:23 G	6028657.20	6028657.35	6028657.50	0.0490	0.0377 *
Mercury	11797-12-12 03:36 G	6030171.51	6030171.65	6030171.78	0.0543	0.0157
Earth	11799-04-16 22:19 G	6030662.22	6030662.43	6030662.64	0.0541	0.0228
Moon	11799-04-17 00:57 G	6030662.32	6030662.54	6030662.77	0.0541	0.0194 *
Venus	11803-05-24 02:09 G	6032159.49	6032159.59	6032159.71	0.0487	0.0411
Mercury	11803-07-30 08:23 G	6032226.72	6032226.85	6032226.99	0.0486	0.0266

Mercury	11803-10-28 01:40 G	6032316.45	6032316.57	6032316.70	0.0485	0.0319
Earth	11804-09-24 12:43 G	6032648.91	6032649.03	6032649.17	0.0484	0.0405
Moon	11804-09-24 15:21 G	6032649.00	6032649.14	6032649.29	0.0484	0.0377 *
Mercury	11809-10-01 05:31 G	6034481.59	6034481.73	6034481.87	0.0543	0.0020
Moon	11811-04-23 01:55 G	6035050.44	6035050.58	6035050.73	0.0539	0.0417
Earth	11811-04-23 05:31 G	6035050.59	6035050.73	6035050.89	0.0539	0.0412 *
Mercury	11815-05-18 10:04 G	6036536.84	6036536.92	6036537.01	0.0486	0.0407
Mercury	11815-08-16 02:52 G	6036626.47	6036626.62	6036626.77	0.0485	0.0170
Moon	11816-09-28 15:50 G	6037035.97	6037036.16	6037036.37	0.0485	0.0278
Earth	11816-09-28 16:48 G	6037036.02	6037036.20	6037036.40	0.0485	0.0280 *
Mercury	11821-07-20 07:55 G	6038791.70	6038791.83	6038791.96	0.0543	0.0184
Venus	11821-07-21 00:14 G	6038792.30	6038792.51	6038792.71	0.0543	0.0054
Mercury	11821-10-17 22:48 G	6038881.41	6038881.45	6038881.49	0.0544	0.0520
Venus	11827-05-26 05:16 G	6040927.54	6040927.72	6040927.92	0.0485	0.0178
Mercury	11827-06-04 04:19 G	6040936.52	6040936.68	6040936.84	0.0485	0.0028
Moon	11828-10-02 21:50 G	6041423.21	6041423.41	6041423.63	0.0485	0.0179
Earth	11828-10-02 22:48 G	6041423.23	6041423.45	6041423.68	0.0485	0.0150 *
Venus	11833-03-25 11:45 G	6043057.89	6043057.99	6043058.10	0.0542	0.0467
Mercury	11833-05-08 10:04 G	6043101.82	6043101.92	6043102.03	0.0542	0.0354
Mercury	11833-08-06 01:11 G	6043191.45	6043191.55	6043191.66	0.0544	0.0358
Earth	11834-03-27 00:43 G	6043424.51	6043424.53	6043424.56	0.0544	0.0539
Venus	11839-01-29 10:33 G	6045193.75	6045193.94	6045194.13	0.0486	0.0194
Mercury	11839-03-23 05:16 G	6045246.57	6045246.72	6045246.88	0.0485	0.0121
Mercury	11839-06-20 23:02 G	6045336.43	6045336.46	6045336.50	0.0485	0.0471
Earth	11840-10-07 05:02 G	6045810.47	6045810.71	6045810.94	0.0486	0.0022
Moon	11840-10-07 07:11 G	6045810.56	6045810.80	6045811.05	0.0486	0.0031 *
Mercury	11845-02-24 11:31 G	6047411.97	6047411.98	6047412.00	0.0542	0.0536
Mercury	11845-05-25 03:21 G	6047501.51	6047501.64	6047501.77	0.0543	0.0183
Moon	11846-04-01 06:28 G	6047812.59	6047812.77	6047812.96	0.0543	0.0348
Earth	11846-04-01 08:38 G	6047812.69	6047812.86	6047813.04	0.0543	0.0353 *

Mars	11849-01-17 08:23 G	6048834.61	6048834.85	6048835.10	0.0507	0.0267
Mercury	11851-01-09 07:11 G	6049556.66	6049556.80	6049556.93	0.0486	0.0258
Mercury	11851-04-09 00:28 G	6049646.40	6049646.52	6049646.64	0.0485	0.0327
Moon	11852-10-11 08:52 G	6050197.65	6050197.87	6050198.09	0.0487	0.0135
Earth	11852-10-11 12:00 G	6050197.77	6050198.00	6050198.23	0.0487	0.0110 *
Mercury	11857-03-13 04:04 G	6051811.53	6051811.67	6051811.81	0.0543	0.0018
Venus	11857-03-28 17:16 G	6051827.07	6051827.22	6051827.38	0.0543	0.0353
Earth	11858-04-06 11:31 G	6052200.76	6052200.98	6052201.20	0.0543	0.0174
Moon	11858-04-06 11:16 G	6052200.76	6052200.97	6052201.19	0.0543	0.0142 *
Mercury	11862-10-28 09:07 G	6053866.79	6053866.88	6053866.97	0.0486	0.0394
Mercury	11863-01-26 01:55 G	6053956.43	6053956.58	6053956.73	0.0485	0.0185
Venus	11863-01-31 14:52 G	6053962.00	6053962.12	6053962.23	0.0485	0.0400
Earth	11864-10-15 19:26 G	6054585.11	6054585.31	6054585.52	0.0488	0.0243
Moon	11864-10-15 23:16 G	6054585.27	6054585.47	6054585.67	0.0488	0.0262 *
Venus	11868-12-01 03:50 G	6056092.47	6056092.66	6056092.85	0.0542	0.0178
Mercury	11868-12-30 06:00 G	6056121.62	6056121.75	6056121.89	0.0543	0.0188
Mercury	11869-03-29 20:52 G	6056211.33	6056211.37	6056211.41	0.0544	0.0516
Earth	11870-04-11 20:23 G	6056589.12	6056589.35	6056589.58	0.0542	0.0018
Moon	11870-04-11 22:33 G	6056589.20	6056589.44	6056589.68	0.0542	0.0010 *
Venus	11874-10-06 20:23 G	6058228.15	6058228.35	6058228.55	0.0485	0.0032
Mercury	11874-11-14 03:07 G	6058266.47	6058266.63	6058266.79	0.0485	0.0038
Moon	11876-10-19 22:19 G	6058972.27	6058972.43	6058972.60	0.0489	0.0353
Earth	11876-10-20 01:55 G	6058972.43	6058972.58	6058972.73	0.0489	0.0374 *
Mercury	11880-10-18 08:09 G	6060431.74	6060431.84	6060431.95	0.0543	0.0358
Mercury	11881-01-15 23:31 G	6060521.38	6060521.48	6060521.59	0.0544	0.0356
Moon	11882-04-17 03:07 G	6060977.41	6060977.63	6060977.84	0.0541	0.0175
Earth	11882-04-17 06:28 G	6060977.56	6060977.77	6060977.99	0.0541	0.0208 *
Venus	11886-06-12 02:23 G	6062494.46	6062494.60	6062494.75	0.0486	0.0337
Mercury	11886-09-02 04:33 G	6062576.53	6062576.69	6062576.85	0.0485	0.0104
Moon	11887-09-24 22:19 G	6062964.29	6062964.43	6062964.58	0.0484	0.0391

Earth	11887-09-24 23:02 G	6062964.35	6062964.46	6062964.58	0.0484	0.0417 *
Moon	11888-10-24 13:55 G	6063360.05	6063360.08	6063360.11	0.0491	0.0486
Mercury	11892-08-06 10:19 G	6064741.90	6064741.93	6064741.96	0.0542	0.0528
Mercury	11892-11-04 02:09 G	6064831.46	6064831.59	6064831.72	0.0544	0.0192
Earth	11894-04-22 13:11 G	6065365.89	6065366.05	6065366.21	0.0539	0.0387
Moon	11894-04-22 16:33 G	6065366.04	6065366.19	6065366.34	0.0539	0.0405 *
Mercury	11898-06-21 05:45 G	6066886.61	6066886.74	6066886.88	0.0486	0.0249
Mercury	11898-09-18 23:02 G	6066976.35	6066976.46	6066976.58	0.0485	0.0336
Moon	11899-09-29 02:38 G	6067351.44	6067351.61	6067351.79	0.0485	0.0303
Earth	11899-09-29 03:50 G	6067351.48	6067351.66	6067351.85	0.0485	0.0293 *
Mars	11902-09-26 07:55 G	6068443.60	6068443.83	6068444.07	0.0520	0.0211
Venus	11904-08-10 02:52 G	6069127.42	6069127.62	6069127.81	0.0543	0.0154
Mercury	11904-08-24 04:04 G	6069141.53	6069141.67	6069141.81	0.0543	0.0018
Mercury	11910-04-10 07:40 G	6071196.73	6071196.82	6071196.92	0.0486	0.0386
Venus	11910-06-15 05:16 G	6071262.55	6071262.72	6071262.90	0.0485	0.0253
Mercury	11910-07-09 00:28 G	6071286.37	6071286.52	6071286.67	0.0485	0.0193
Earth	11911-10-04 10:19 G	6071738.71	6071738.93	6071739.15	0.0485	0.0164
Moon	11911-10-04 12:43 G	6071738.82	6071739.03	6071739.26	0.0485	0.0195 *
Venus	11916-04-14 09:36 G	6073392.76	6073392.90	6073393.03	0.0541	0.0397
Mercury	11916-06-12 04:48 G	6073451.56	6073451.70	6073451.83	0.0543	0.0180
Mercury	11916-09-09 19:26 G	6073541.28	6073541.31	6073541.35	0.0544	0.0522
Venus	11922-02-18 11:45 G	6075528.79	6075528.99	6075529.19	0.0486	0.0114
Mercury	11922-04-27 02:09 G	6075596.43	6075596.59	6075596.75	0.0485	0.0052
Moon	11923-10-08 13:26 G	6076125.83	6076126.06	6076126.29	0.0486	0.0041
Earth	11923-10-08 16:48 G	6076125.96	6076126.20	6076126.43	0.0486	0.0034 *
Mercury	11928-03-31 06:28 G	6077761.66	6077761.77	6077761.87	0.0542	0.0360
Mercury	11928-06-28 21:36 G	6077851.30	6077851.40	6077851.51	0.0544	0.0353
Earth	11929-04-01 06:28 G	6078127.62	6078127.77	6078127.94	0.0544	0.0388
Moon	11929-04-01 07:26 G	6078127.65	6078127.81	6078127.97	0.0544	0.0378 *
Venus	11933-10-24 17:02 G	6079795.20	6079795.21	6079795.22	0.0487	0.0485

Mercury	11934-02-13 03:21 G	6079906.49	6079906.64	6079906.80	0.0485	0.0094
Earth	11935-10-12 21:21 G	6080513.16	6080513.39	6080513.63	0.0487	0.0094
Moon	11935-10-13 01:11 G	6080513.32	6080513.55	6080513.78	0.0487	0.0122 *
Mars	11938-07-01 00:28 G	6081505.45	6081505.52	6081505.61	0.0522	0.0495
Mercury	11940-01-18 08:23 G	6082071.83	6082071.85	6082071.88	0.0542	0.0532
Mercury	11940-04-17 00:14 G	6082161.38	6082161.51	6082161.64	0.0544	0.0189
Venus	11940-04-17 20:23 G	6082162.24	6082162.35	6082162.46	0.0544	0.0456
Earth	11941-04-06 18:28 G	6082516.06	6082516.27	6082516.49	0.0543	0.0194
Moon	11941-04-06 20:09 G	6082516.11	6082516.34	6082516.57	0.0543	0.0161 *
Mercury	11945-12-02 05:02 G	6084216.57	6084216.71	6084216.85	0.0486	0.0234
Venus	11946-02-20 14:23 G	6084297.07	6084297.10	6084297.15	0.0485	0.0473
Mercury	11946-03-01 22:19 G	6084306.32	6084306.43	6084306.54	0.0485	0.0351
Moon	11947-10-17 01:11 G	6084900.35	6084900.55	6084900.76	0.0488	0.0238
Earth	11947-10-17 04:48 G	6084900.50	6084900.70	6084900.91	0.0488	0.0226 *
Venus	11951-12-22 08:23 G	6086427.65	6086427.85	6086428.05	0.0543	0.0068
Mercury	11952-02-04 02:38 G	6086471.47	6086471.61	6086471.75	0.0543	0.0027
Moon	11953-04-12 00:57 G	6086904.31	6086904.54	6086904.77	0.0542	0.0018
Earth	11953-04-12 04:04 G	6086904.44	6086904.67	6086904.91	0.0542	0.0011 *
Mercury	11957-09-20 06:28 G	6088526.67	6088526.77	6088526.87	0.0486	0.0377
Venus	11957-10-26 19:55 G	6088563.13	6088563.33	6088563.53	0.0486	0.0104
Mercury	11957-12-18 23:16 G	6088616.32	6088616.47	6088616.62	0.0485	0.0201
Earth	11959-10-21 12:28 G	6089287.87	6089288.02	6089288.19	0.0489	0.0359
Moon	11959-10-21 15:07 G	6089287.97	6089288.13	6089288.30	0.0489	0.0333 *
Mercury	11963-11-23 04:33 G	6090781.55	6090781.69	6090781.83	0.0543	0.0153
Earth	11965-04-17 10:19 G	6091292.71	6091292.93	6091293.15	0.0541	0.0180
Moon	11965-04-17 14:09 G	6091292.87	6091293.09	6091293.31	0.0541	0.0153 *
Mars	11967-07-08 20:38 G	6092105.13	6092105.36	6092105.61	0.0509	0.0278
Venus	11969-07-02 02:09 G	6092829.42	6092829.59	6092829.76	0.0487	0.0265
Mercury	11969-10-07 00:43 G	6092926.37	6092926.53	6092926.69	0.0485	0.0060
Moon	11970-09-25 08:52 G	6093279.76	6093279.87	6093280.00	0.0484	0.0411

Earth	11970-09-25 10:33 G	6093279.84	6093279.94	6093280.05	0.0484	0.0429	*
Moon	11971-10-25 20:23 G	6093675.28	6093675.35	6093675.42	0.0490	0.0466	
Earth	11971-10-25 21:50 G	6093675.41	6093675.41	6093675.43	0.0490	0.0489	*
Mercury	11975-09-11 05:02 G	6095091.61	6095091.71	6095091.82	0.0542	0.0352	
Mercury	11975-12-09 20:23 G	6095181.25	6095181.35	6095181.45	0.0543	0.0359	
Moon	11977-04-22 07:40 G	6095680.66	6095680.82	6095681.00	0.0540	0.0369	
Earth	11977-04-22 10:33 G	6095680.77	6095680.94	6095681.12	0.0540	0.0352	*
Mercury	11981-07-26 02:23 G	6097236.44	6097236.60	6097236.76	0.0486	0.0081	
Earth	11982-09-29 16:04 G	6097666.99	6097667.17	6097667.35	0.0485	0.0303	
Moon	11982-09-29 18:57 G	6097667.11	6097667.29	6097667.47	0.0485	0.0318	*
Mercury	11987-06-30 06:28 G	6099401.76	6099401.77	6099401.80	0.0542	0.0535	
Venus	11987-08-30 00:14 G	6099462.32	6099462.51	6099462.69	0.0543	0.0223	
Mercury	11987-09-27 22:19 G	6099491.30	6099491.43	6099491.56	0.0543	0.0186	
Earth	11989-04-27 16:19 G	6100069.15	6100069.18	6100069.23	0.0538	0.0529	
Mercury	11993-05-14 03:50 G	6101546.51	6101546.66	6101546.80	0.0486	0.0225	
Venus	11993-07-04 05:16 G	6101597.57	6101597.72	6101597.87	0.0485	0.0327	
Mercury	11993-08-11 20:52 G	6101636.27	6101636.37	6101636.48	0.0485	0.0360	
Moon	11994-10-03 16:19 G	6102053.97	6102054.18	6102054.39	0.0485	0.0210	
Earth	11994-10-03 19:40 G	6102054.10	6102054.32	6102054.54	0.0485	0.0179	*
Venus	11999-05-04 11:31 G	6103727.82	6103727.98	6103728.15	0.0542	0.0302	
Mercury	11999-07-17 00:43 G	6103801.39	6103801.53	6103801.67	0.0543	0.0018	

13TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 13th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	12005-03-02 05:31 G	6105856.63	6105856.73	6105856.83	0.0486	0.0363
Venus	12005-03-09 11:16 G	6105863.77	6105863.97	6105864.18	0.0486	0.0042
Mercury	12005-05-30 22:19 G	6105946.28	6105946.43	6105946.57	0.0485	0.0215
Earth	12006-10-08 01:26 G	6106441.33	6106441.56	6106441.79	0.0486	0.0050
Moon	12006-10-08 05:16 G	6106441.48	6106441.72	6106441.95	0.0486	0.0048 *
Mercury	12011-05-05 03:07 G	6108111.49	6108111.63	6108111.76	0.0543	0.0150
Earth	12012-03-31 14:09 G	6108442.93	6108443.09	6108443.24	0.0544	0.0407
Moon	12012-03-31 14:52 G	6108442.95	6108443.12	6108443.29	0.0544	0.0391 *
Venus	12016-11-12 16:04 G	6110130.07	6110130.17	6110130.28	0.0487	0.0416
Mercury	12017-03-18 23:16 G	6110256.31	6110256.47	6110256.63	0.0485	0.0067
Moon	12018-10-12 04:04 G	6110828.44	6110828.67	6110828.91	0.0487	0.0107
Earth	12018-10-12 07:40 G	6110828.59	6110828.82	6110829.05	0.0487	0.0078 *
Mercury	12023-02-21 04:48 G	6112421.59	6112421.70	6112421.81	0.0542	0.0327
Mercury	12023-05-21 20:09 G	6112511.24	6112511.34	6112511.43	0.0544	0.0384
Moon	12024-04-05 19:40 G	6112831.11	6112831.32	6112831.54	0.0543	0.0190
Earth	12024-04-05 22:19 G	6112831.22	6112831.43	6112831.64	0.0543	0.0220 *
Mercury	12029-01-05 00:57 G	6114566.38	6114566.54	6114566.70	0.0486	0.0075
Earth	12030-10-16 15:21 G	6115215.94	6115216.14	6115216.36	0.0488	0.0211
Moon	12030-10-16 18:00 G	6115216.04	6115216.25	6115216.45	0.0488	0.0215 *
Mercury	12034-12-10 05:16 G	6116731.69	6116731.72	6116731.75	0.0541	0.0526
Venus	12035-01-10 06:00 G	6116762.55	6116762.75	6116762.95	0.0542	0.0003
Mercury	12035-03-09 21:07 G	6116821.25	6116821.38	6116821.51	0.0543	0.0192
Earth	12036-04-11 00:00 G	6117219.27	6117219.50	6117219.73	0.0542	0.0043
Moon	12036-04-11 03:36 G	6117219.42	6117219.65	6117219.89	0.0542	0.0061 *
Mercury	12040-10-24 02:38 G	6118876.46	6118876.61	6118876.75	0.0486	0.0215
Venus	12040-11-14 20:09 G	6118898.15	6118898.34	6118898.53	0.0486	0.0179
Mercury	12041-01-21 19:40 G	6118966.22	6118966.32	6118966.43	0.0485	0.0372
Moon	12042-10-20 21:36 G	6119603.22	6119603.40	6119603.59	0.0489	0.0312

Earth	12042-10-20 23:02 G	6119603.30	6119603.46	6119603.63	0.0489	0.0342 *
Venus	12046-09-14 15:50 G	6121028.13	6121028.16	6121028.20	0.0541	0.0529
Mercury	12046-12-26 22:48 G	6121131.31	6121131.45	6121131.59	0.0543	0.0018
Moon	12048-04-16 03:36 G	6121607.42	6121607.65	6121607.88	0.0542	0.0116
Earth	12048-04-16 06:57 G	6121607.57	6121607.79	6121608.02	0.0542	0.0144 *
Venus	12052-07-21 01:26 G	6123164.38	6123164.56	6123164.75	0.0486	0.0193
Mercury	12052-08-12 04:04 G	6123186.56	6123186.67	6123186.78	0.0486	0.0357
Mercury	12052-11-09 20:52 G	6123276.22	6123276.37	6123276.51	0.0485	0.0222
Earth	12053-09-24 19:26 G	6123595.22	6123595.31	6123595.40	0.0484	0.0443
Moon	12053-09-24 22:19 G	6123595.33	6123595.43	6123595.55	0.0484	0.0424 *
Moon	12054-10-25 04:48 G	6123990.62	6123990.70	6123990.78	0.0490	0.0453
Earth	12054-10-25 04:33 G	6123990.64	6123990.69	6123990.77	0.0490	0.0469 *
Mars	12056-12-20 05:45 G	6124777.48	6124777.74	6124778.00	0.0519	0.0010
Mercury	12058-10-15 00:57 G	6125441.40	6125441.54	6125441.68	0.0543	0.0157
Earth	12060-04-21 16:04 G	6125995.99	6125996.17	6125996.36	0.0540	0.0328
Moon	12060-04-21 17:45 G	6125996.08	6125996.24	6125996.42	0.0540	0.0351 *
Mercury	12064-08-28 22:04 G	6127586.27	6127586.42	6127586.59	0.0485	0.0079
Moon	12065-09-28 20:38 G	6127982.20	6127982.36	6127982.53	0.0484	0.0336
Earth	12065-09-29 00:14 G	6127982.34	6127982.51	6127982.69	0.0484	0.0318 *
Mercury	12070-08-03 03:07 G	6129751.52	6129751.63	6129751.74	0.0542	0.0327
Venus	12070-09-18 03:21 G	6129797.48	6129797.64	6129797.80	0.0543	0.0329
Mercury	12070-10-31 18:28 G	6129841.17	6129841.27	6129841.37	0.0544	0.0385
Earth	12072-04-26 23:16 G	6130384.39	6130384.47	6130384.55	0.0539	0.0504
Moon	12072-04-26 23:45 G	6130384.45	6130384.49	6130384.54	0.0539	0.0527 *
Mercury	12076-06-16 23:16 G	6131896.31	6131896.47	6131896.63	0.0485	0.0070
Venus	12076-07-23 04:04 G	6131932.55	6131932.67	6131932.79	0.0485	0.0394
Earth	12077-10-03 04:48 G	6132369.49	6132369.70	6132369.92	0.0485	0.0194
Moon	12077-10-03 08:38 G	6132369.65	6132369.86	6132370.07	0.0485	0.0221 *
Mercury	12082-05-22 04:48 G	6134061.65	6134061.70	6134061.75	0.0542	0.0506
Venus	12082-05-23 13:55 G	6134062.90	6134063.08	6134063.27	0.0542	0.0204

Mercury	12082-08-19 20:38 G	6134151.23	6134151.36	6134151.49	0.0543	0.0214
Venus	12088-03-28 10:04 G	6136198.72	6136198.92	6136199.12	0.0486	0.0027
Mercury	12088-04-05 00:57 G	6136206.40	6136206.54	6136206.69	0.0486	0.0210
Mercury	12088-07-03 18:14 G	6136296.16	6136296.26	6136296.36	0.0485	0.0376
Moon	12089-10-07 08:09 G	6136756.61	6136756.84	6136757.08	0.0486	0.0057
Earth	12089-10-07 11:31 G	6136756.75	6136756.98	6136757.22	0.0486	0.0066 *
Mercury	12094-06-07 21:36 G	6138461.26	6138461.40	6138461.54	0.0543	0.0023
Moon	12095-03-31 07:11 G	6138757.67	6138757.80	6138757.94	0.0544	0.0430
Earth	12095-03-31 08:38 G	6138757.74	6138757.86	6138758.01	0.0544	0.0443 *
Venus	12099-12-02 15:36 G	6140465.01	6140465.15	6140465.29	0.0487	0.0347
Mercury	12100-01-23 02:38 G	6140516.50	6140516.61	6140516.72	0.0486	0.0350
Mercury	12100-04-22 19:26 G	6140606.17	6140606.31	6140606.45	0.0485	0.0230
Earth	12101-10-12 17:45 G	6141144.01	6141144.24	6141144.47	0.0486	0.0064
Moon	12101-10-12 19:55 G	6141144.11	6141144.33	6141144.56	0.0486	0.0093 *
Mercury	12106-03-27 23:02 G	6142771.33	6142771.46	6142771.60	0.0542	0.0160
Mercury	12106-06-25 13:55 G	6142861.07	6142861.08	6142861.09	0.0544	0.0542
Earth	12107-04-06 16:33 G	6143145.98	6143146.19	6143146.39	0.0544	0.0258
Moon	12107-04-06 19:55 G	6143146.12	6143146.33	6143146.55	0.0544	0.0230 *
Mercury	12112-02-09 20:38 G	6144916.20	6144916.36	6144916.51	0.0485	0.0084
Moon	12113-10-16 20:38 G	6145531.14	6145531.36	6145531.59	0.0487	0.0190
Earth	12113-10-16 21:50 G	6145531.20	6145531.41	6145531.63	0.0487	0.0190 *
Mercury	12118-01-14 00:43 G	6147081.42	6147081.53	6147081.65	0.0542	0.0337
Venus	12118-01-30 06:00 G	6147097.55	6147097.75	6147097.95	0.0543	0.0090
Mercury	12118-04-13 16:19 G	6147171.08	6147171.18	6147171.28	0.0544	0.0376
Moon	12119-04-11 23:16 G	6147534.25	6147534.47	6147534.71	0.0543	0.0094
Earth	12119-04-12 03:07 G	6147534.40	6147534.63	6147534.86	0.0543	0.0069 *
Mars	12121-10-03 00:57 G	6148439.25	6148439.54	6148439.83	0.0509	0.0032
Mercury	12123-11-28 22:04 G	6149226.26	6149226.42	6149226.58	0.0485	0.0061
Venus	12123-12-05 18:28 G	6149233.10	6149233.27	6149233.45	0.0485	0.0246
Moon	12125-10-21 04:48 G	6149918.52	6149918.70	6149918.88	0.0488	0.0293

Earth	12125-10-21 04:48 G	6149918.53	6149918.70	6149918.89	0.0488	0.0320 *
Venus	12129-10-04 17:45 G	6151363.13	6151363.24	6151363.37	0.0541	0.0434
Mercury	12129-11-02 02:52 G	6151391.57	6151391.62	6151391.67	0.0542	0.0509
Mercury	12130-01-30 18:43 G	6151481.15	6151481.28	6151481.41	0.0544	0.0212
Earth	12131-04-17 12:28 G	6151922.80	6151923.02	6151923.25	0.0542	0.0118
Moon	12131-04-17 14:52 G	6151922.90	6151923.12	6151923.34	0.0542	0.0094 *
Venus	12135-08-10 23:45 G	6153499.29	6153499.49	6153499.68	0.0486	0.0128
Mercury	12135-09-16 23:16 G	6153536.33	6153536.47	6153536.61	0.0486	0.0206
Mercury	12135-12-15 16:19 G	6153626.09	6153626.18	6153626.29	0.0485	0.0379
Moon	12136-09-25 00:00 G	6153910.41	6153910.50	6153910.59	0.0484	0.0440
Earth	12136-09-25 03:36 G	6153910.58	6153910.65	6153910.73	0.0484	0.0457 *
Earth	12137-10-25 12:43 G	6154305.94	6154306.03	6154306.12	0.0490	0.0449
Moon	12137-10-25 14:38 G	6154306.01	6154306.11	6154306.22	0.0490	0.0440 *
Mercury	12141-11-18 20:52 G	6155791.23	6155791.37	6155791.51	0.0543	0.0041
Moon	12143-04-22 18:28 G	6156311.07	6156311.27	6156311.46	0.0540	0.0320
Earth	12143-04-22 18:43 G	6156311.09	6156311.28	6156311.48	0.0540	0.0298 *
Mercury	12147-07-06 00:57 G	6157846.43	6157846.54	6157846.65	0.0486	0.0346
Mercury	12147-10-03 17:45 G	6157936.10	6157936.24	6157936.38	0.0485	0.0234
Earth	12148-09-29 09:07 G	6158297.71	6158297.88	6158298.05	0.0484	0.0333
Moon	12148-09-29 12:57 G	6158297.88	6158298.04	6158298.20	0.0484	0.0353 *
Mercury	12153-09-06 21:36 G	6160101.27	6160101.40	6160101.54	0.0542	0.0155
Venus	12153-10-08 00:43 G	6160132.39	6160132.53	6160132.67	0.0543	0.0397
Moon	12155-04-27 16:04 G	6160699.08	6160699.17	6160699.27	0.0539	0.0487
Earth	12155-04-27 18:00 G	6160699.14	6160699.25	6160699.37	0.0539	0.0466 *
Mercury	12159-04-24 02:38 G	6162156.61	6162156.61	6162156.61	0.0487	0.0486
Mercury	12159-07-22 18:57 G	6162246.13	6162246.29	6162246.45	0.0486	0.0088
Venus	12159-08-13 02:38 G	6162267.55	6162267.61	6162267.67	0.0485	0.0463
Moon	12160-10-03 10:48 G	6162684.75	6162684.95	6162685.17	0.0485	0.0231
Earth	12160-10-03 14:09 G	6162684.89	6162685.09	6162685.31	0.0485	0.0208 *
Venus	12165-06-12 10:04 G	6164397.73	6164397.92	6164398.12	0.0541	0.0142

Mercury	12165-06-25 23:02 G	6164411.35	6164411.46	6164411.57	0.0542	0.0339
Mercury	12165-09-23 14:23 G	6164501.00	6164501.10	6164501.20	0.0543	0.0372
Venus	12171-04-18 07:40 G	6166533.62	6166533.82	6166534.03	0.0486	0.0092
Mercury	12171-05-10 20:09 G	6166556.18	6166556.34	6166556.50	0.0486	0.0059
Earth	12172-10-07 17:16 G	6167071.99	6167072.22	6167072.45	0.0485	0.0086
Moon	12172-10-07 19:26 G	6167072.09	6167072.31	6167072.54	0.0485	0.0070 *
Mercury	12177-04-14 00:28 G	6168721.48	6168721.52	6168721.56	0.0542	0.0521
Mercury	12177-07-12 16:19 G	6168811.05	6168811.18	6168811.31	0.0543	0.0201
Earth	12178-03-31 09:07 G	6169072.77	6169072.88	6169073.00	0.0544	0.0473
Moon	12178-03-31 12:00 G	6169072.88	6169073.00	6169073.14	0.0544	0.0452 *
Venus	12182-12-22 13:40 G	6170799.90	6170800.07	6170800.24	0.0487	0.0281
Mercury	12183-02-26 21:50 G	6170866.26	6170866.41	6170866.55	0.0486	0.0200
Mercury	12183-05-27 14:52 G	6170956.03	6170956.12	6170956.22	0.0485	0.0385
Moon	12184-10-11 21:50 G	6171459.17	6171459.41	6171459.65	0.0486	0.0071
Earth	12184-10-11 23:02 G	6171459.22	6171459.46	6171459.69	0.0486	0.0042 *
Mercury	12189-04-30 18:43 G	6173121.14	6173121.28	6173121.42	0.0543	0.0033
Moon	12190-04-05 16:33 G	6173460.99	6173461.19	6173461.40	0.0544	0.0262
Earth	12190-04-05 20:23 G	6173461.16	6173461.35	6173461.55	0.0544	0.0285 *
Mercury	12194-12-15 23:02 G	6175176.36	6175176.46	6175176.58	0.0486	0.0345
Mercury	12195-03-15 15:50 G	6175266.02	6175266.16	6175266.30	0.0485	0.0235
Moon	12196-10-16 04:33 G	6175846.48	6175846.69	6175846.90	0.0487	0.0168
Earth	12196-10-16 04:48 G	6175846.48	6175846.70	6175846.92	0.0487	0.0170 *
Mercury	12201-02-17 20:38 G	6177431.23	6177431.36	6177431.50	0.0543	0.0142
Venus	12201-02-19 07:26 G	6177432.62	6177432.81	6177433.00	0.0543	0.0182
Earth	12202-04-12 04:48 G	6177849.48	6177849.70	6177849.93	0.0543	0.0098
Moon	12202-04-12 07:40 G	6177849.61	6177849.82	6177850.05	0.0543	0.0126 *
Mercury	12206-10-05 00:57 G	6179486.53	6179486.54	6179486.56	0.0487	0.0483
Venus	12206-12-25 16:04 G	6179568.02	6179568.17	6179568.33	0.0486	0.0308
Mercury	12207-01-02 17:16 G	6179576.06	6179576.22	6179576.38	0.0485	0.0090
Earth	12208-10-21 12:57 G	6180233.85	6180234.04	6180234.22	0.0488	0.0301

Moon	12208-10-21 14:52 G	6180233.92	6180234.12	6180234.32	0.0488	0.0273 *
Mars	12211-03-18 08:52 G	6181111.64	6181111.87	6181112.11	0.0519	0.0214
Venus	12212-10-24 15:36 G	6181698.00	6181698.15	6181698.30	0.0541	0.0362
Mercury	12212-12-06 21:36 G	6181741.29	6181741.40	6181741.51	0.0541	0.0333
Mercury	12213-03-06 12:57 G	6181830.94	6181831.04	6181831.14	0.0543	0.0377
Moon	12214-04-17 05:02 G	6182237.47	6182237.71	6182237.95	0.0542	0.0053
Earth	12214-04-17 06:28 G	6182237.54	6182237.77	6182238.00	0.0542	0.0078 *
Venus	12218-08-30 21:07 G	6183834.18	6183834.38	6183834.58	0.0487	0.0066
Mercury	12218-10-21 18:28 G	6183886.11	6183886.27	6183886.43	0.0486	0.0057
Earth	12219-09-26 11:31 G	6184225.94	6184225.98	6184226.04	0.0484	0.0472
Moon	12219-09-26 15:36 G	6184226.08	6184226.15	6184226.22	0.0484	0.0459
Moon	12220-10-25 16:48 G	6184621.10	6184621.20	6184621.31	0.0489	0.0429
Earth	12220-10-25 20:09 G	6184621.23	6184621.34	6184621.45	0.0489	0.0430 *
Mercury	12224-09-24 22:48 G	6186051.41	6186051.45	6186051.48	0.0541	0.0521
Mercury	12224-12-23 14:38 G	6186140.98	6186141.11	6186141.24	0.0543	0.0198
Moon	12226-04-22 10:33 G	6186625.76	6186625.94	6186626.14	0.0541	0.0282
Earth	12226-04-22 11:45 G	6186625.78	6186625.99	6186626.19	0.0541	0.0257 *
Venus	12230-05-06 01:55 G	6188100.50	6188100.58	6188100.67	0.0488	0.0442
Mercury	12230-08-09 19:40 G	6188196.18	6188196.32	6188196.47	0.0486	0.0201
Mercury	12230-11-07 12:43 G	6188285.94	6188286.03	6188286.13	0.0485	0.0385
Moon	12231-09-30 10:48 G	6188612.81	6188612.95	6188613.11	0.0484	0.0377
Earth	12231-09-30 14:23 G	6188612.94	6188613.10	6188613.26	0.0484	0.0353 *
Mercury	12236-10-11 16:19 G	6190451.04	6190451.18	6190451.32	0.0543	0.0020
Venus	12236-10-27 22:33 G	6190467.35	6190467.44	6190467.54	0.0543	0.0472
Earth	12238-04-27 18:43 G	6191014.15	6191014.28	6191014.42	0.0540	0.0434
Moon	12238-04-27 22:19 G	6191014.30	6191014.43	6191014.56	0.0540	0.0447 *
Mercury	12242-05-28 21:21 G	6192506.29	6192506.39	6192506.51	0.0486	0.0341
Mercury	12242-08-26 14:09 G	6192595.95	6192596.09	6192596.23	0.0485	0.0239
Earth	12243-10-04 18:57 G	6193000.09	6193000.29	6193000.50	0.0484	0.0230
Moon	12243-10-04 21:07 G	6193000.18	6193000.38	6193000.57	0.0484	0.0247 *

Venus	12248-07-02 10:04 G	6194732.72	6194732.92	6194733.13	0.0542	0.0056
Mercury	12248-07-30 18:28 G	6194761.13	6194761.27	6194761.41	0.0543	0.0151
Mercury	12254-03-16 23:02 G	6196816.44	6196816.46	6196816.48	0.0487	0.0482
Venus	12254-05-08 05:02 G	6196868.52	6196868.71	6196868.90	0.0486	0.0151
Mercury	12254-06-14 15:07 G	6196905.97	6196906.13	6196906.29	0.0485	0.0090
Moon	12255-10-08 22:19 G	6197387.20	6197387.43	6197387.67	0.0485	0.0086
Earth	12255-10-08 23:16 G	6197387.24	6197387.47	6197387.70	0.0485	0.0106 *
Mercury	12260-05-18 20:23 G	6199071.23	6199071.35	6199071.46	0.0542	0.0326
Mercury	12260-08-16 11:45 G	6199160.89	6199160.99	6199161.09	0.0543	0.0387
Moon	12261-03-31 06:43 G	6199387.68	6199387.78	6199387.90	0.0544	0.0477
Earth	12261-03-31 10:33 G	6199387.85	6199387.94	6199388.03	0.0544	0.0499 *
Venus	12266-01-11 10:33 G	6201134.76	6201134.94	6201135.12	0.0487	0.0223
Mercury	12266-04-02 16:33 G	6201216.03	6201216.19	6201216.35	0.0486	0.0055
Moon	12267-10-13 05:31 G	6201774.51	6201774.73	6201774.96	0.0486	0.0050
Earth	12267-10-13 06:00 G	6201774.51	6201774.75	6201774.98	0.0486	0.0024 *
Mercury	12272-03-06 21:07 G	6203381.35	6203381.38	6203381.43	0.0541	0.0516
Mercury	12272-06-04 13:11 G	6203470.92	6203471.05	6203471.18	0.0543	0.0203
Earth	12273-04-05 14:23 G	6203775.92	6203776.10	6203776.29	0.0543	0.0323
Moon	12273-04-05 18:00 G	6203776.06	6203776.25	6203776.44	0.0543	0.0301 *
Mars	12275-12-28 06:43 G	6204772.50	6204772.78	6204773.06	0.0509	0.0152
Mercury	12278-01-19 17:45 G	6205526.10	6205526.24	6205526.39	0.0486	0.0201
Mercury	12278-04-19 11:02 G	6205615.86	6205615.96	6205616.06	0.0485	0.0386
Earth	12279-10-17 11:31 G	6206161.76	6206161.98	6206162.21	0.0487	0.0151
Moon	12279-10-17 13:40 G	6206161.84	6206162.07	6206162.30	0.0487	0.0141 *
Venus	12284-03-10 03:07 G	6207767.45	6207767.63	6207767.81	0.0542	0.0242
Mercury	12284-03-23 14:38 G	6207780.97	6207781.11	6207781.25	0.0542	0.0021
Moon	12285-04-10 18:14 G	6208164.03	6208164.26	6208164.49	0.0543	0.0165
Earth	12285-04-10 20:38 G	6208164.14	6208164.36	6208164.59	0.0543	0.0141 *
Mercury	12289-11-07 19:26 G	6209836.20	6209836.31	6209836.42	0.0486	0.0343
Venus	12290-01-13 12:28 G	6209902.89	6209903.02	6209903.15	0.0486	0.0367

Mercury	12290-02-05 12:00 G	6209925.86	6209926.00	6209926.14	0.0485	0.0237
Moon	12291-10-21 12:28 G	6210548.83	6210549.02	6210549.22	0.0488	0.0246
Earth	12291-10-21 15:50 G	6210548.97	6210549.16	6210549.35	0.0488	0.0274 *
Venus	12295-11-13 12:14 G	6212032.84	6212033.01	6212033.18	0.0541	0.0296
Mercury	12296-01-10 16:04 G	6212091.03	6212091.17	6212091.30	0.0542	0.0164
Mercury	12296-04-09 06:57 G	6212180.78	6212180.79	6212180.80	0.0544	0.0542
Earth	12297-04-16 04:33 G	6212552.46	6212552.69	6212552.93	0.0543	0.0043
Moon	12297-04-16 04:48 G	6212552.47	6212552.70	6212552.92	0.0543	0.0024 *
Mercury	12301-08-27 21:07 G	6214146.36	6214146.38	6214146.41	0.0487	0.0480
Venus	12301-09-19 18:28 G	6214169.06	6214169.27	6214169.47	0.0486	0.0009
Mercury	12301-11-25 13:26 G	6214235.90	6214236.06	6214236.22	0.0485	0.0093
Earth	12303-10-26 22:33 G	6214936.31	6214936.44	6214936.58	0.0489	0.0401
Moon	12303-10-27 02:23 G	6214936.48	6214936.60	6214936.74	0.0489	0.0407 *
Mercury	12307-10-30 18:00 G	6216401.14	6216401.25	6216401.36	0.0542	0.0338
Mercury	12308-01-28 09:36 G	6216490.80	6216490.90	6216491.00	0.0544	0.0377
Earth	12309-04-22 13:55 G	6216940.87	6216941.08	6216941.29	0.0541	0.0225
Moon	12309-04-22 16:33 G	6216940.99	6216941.19	6216941.41	0.0541	0.0256 *
Venus	12313-05-25 23:02 G	6218435.34	6218435.46	6218435.59	0.0487	0.0382
Mercury	12313-09-13 14:38 G	6218545.95	6218546.11	6218546.27	0.0486	0.0055
Earth	12314-09-30 19:55 G	6218928.18	6218928.33	6218928.48	0.0484	0.0372
Moon	12314-09-30 21:36 G	6218928.28	6218928.40	6218928.53	0.0484	0.0400 *
Mercury	12319-08-18 19:40 G	6220711.28	6220711.32	6220711.36	0.0542	0.0514
Mercury	12319-11-16 11:45 G	6220800.86	6220800.99	6220801.12	0.0543	0.0208
Moon	12321-04-27 16:19 G	6221329.04	6221329.18	6221329.33	0.0540	0.0416
Earth	12321-04-27 20:09 G	6221329.20	6221329.34	6221329.50	0.0540	0.0404 *
Mercury	12325-07-02 16:04 G	6222856.03	6222856.17	6222856.32	0.0486	0.0198
Mercury	12325-09-30 09:07 G	6222945.79	6222945.88	6222945.98	0.0485	0.0387
Moon	12326-10-05 00:14 G	6223315.32	6223315.51	6223315.72	0.0485	0.0262
Earth	12326-10-05 01:11 G	6223315.35	6223315.55	6223315.75	0.0485	0.0248 *
Mars	12329-09-07 03:36 G	6224383.45	6224383.65	6224383.86	0.0517	0.0317

Venus	12331-07-23 08:23 G	6225067.64	6225067.85	6225068.05	0.0541	0.0023
Mercury	12331-09-04 13:11 G	6225110.91	6225111.05	6225111.19	0.0542	0.0026
Moon	12333-05-03 00:00 G	6225717.50	6225717.50	6225717.52	0.0538	0.0537
Mercury	12337-04-20 17:16 G	6227166.12	6227166.22	6227166.34	0.0487	0.0344
Venus	12337-05-28 01:26 G	6227203.38	6227203.56	6227203.74	0.0486	0.0209
Mercury	12337-07-19 10:04 G	6227255.78	6227255.92	6227256.06	0.0486	0.0237
Moon	12338-10-09 05:16 G	6227702.50	6227702.72	6227702.94	0.0485	0.0104
Earth	12338-10-09 05:45 G	6227702.51	6227702.74	6227702.97	0.0485	0.0125 *
Venus	12343-03-27 17:31 G	6229333.18	6229333.23	6229333.29	0.0540	0.0518
Mercury	12343-06-23 14:23 G	6229420.97	6229421.10	6229421.24	0.0542	0.0161
Mercury	12343-09-21 05:16 G	6229510.72	6229510.72	6229510.73	0.0543	0.0542
Earth	12344-03-31 02:23 G	6229702.57	6229702.60	6229702.63	0.0544	0.0539
Moon	12344-03-31 06:14 G	6229702.68	6229702.76	6229702.84	0.0544	0.0510
Venus	12349-01-31 06:28 G	6231469.58	6231469.77	6231469.97	0.0487	0.0166
Mercury	12349-02-06 19:11 G	6231476.28	6231476.30	6231476.31	0.0487	0.0483
Mercury	12349-05-07 11:16 G	6231565.81	6231565.97	6231566.13	0.0486	0.0090
Earth	12350-10-13 09:07 G	6232089.64	6232089.88	6232090.11	0.0486	0.0004
Moon	12350-10-13 11:02 G	6232089.72	6232089.96	6232090.20	0.0486	0.0019 *
Mercury	12355-04-11 15:21 G	6233731.04	6233731.14	6233731.25	0.0542	0.0350
Mercury	12355-07-10 06:57 G	6233820.69	6233820.79	6233820.90	0.0543	0.0365
Moon	12356-04-05 06:57 G	6234090.61	6234090.79	6234090.98	0.0544	0.0339
Earth	12356-04-05 10:19 G	6234090.76	6234090.93	6234091.10	0.0544	0.0362 *
Mercury	12361-02-23 12:43 G	6235875.87	6235876.03	6235876.19	0.0486	0.0054
Moon	12362-10-17 11:31 G	6236476.76	6236476.98	6236477.21	0.0486	0.0108
Earth	12362-10-17 14:52 G	6236476.89	6236477.12	6236477.35	0.0486	0.0124 *
Mars	12365-06-11 16:19 G	6237445.01	6237445.18	6237445.37	0.0520	0.0377
Mercury	12367-01-28 17:16 G	6238041.19	6238041.22	6238041.25	0.0542	0.0527
Venus	12367-03-31 01:11 G	6238102.39	6238102.55	6238102.72	0.0543	0.0320
Mercury	12367-04-28 09:21 G	6238130.76	6238130.89	6238131.02	0.0543	0.0196
Earth	12368-04-10 21:07 G	6238479.16	6238479.38	6238479.60	0.0544	0.0174

Moon	12368-04-10 22:04 G	6238479.22	6238479.42	6238479.63	0.0544	0.0200 *
Mercury	12372-12-12 14:09 G	6240185.94	6240186.09	6240186.23	0.0486	0.0198
Venus	12373-02-02 09:21 G	6240237.80	6240237.89	6240237.99	0.0485	0.0425
Mercury	12373-03-12 06:57 G	6240275.70	6240275.79	6240275.89	0.0485	0.0386
Earth	12374-10-21 20:23 G	6240864.15	6240864.35	6240864.56	0.0487	0.0251
Moon	12374-10-22 00:28 G	6240864.31	6240864.52	6240864.73	0.0487	0.0224 *
Venus	12378-12-03 12:57 G	6242367.85	6242368.04	6242368.22	0.0541	0.0209
Mercury	12379-02-14 11:31 G	6242440.84	6242440.98	6242441.12	0.0543	0.0026
Earth	12380-04-16 06:14 G	6242867.52	6242867.76	6242867.99	0.0543	0.0016
Moon	12380-04-16 07:55 G	6242867.59	6242867.83	6242868.07	0.0543	0.0007 *
Mercury	12384-09-30 15:50 G	6244496.04	6244496.16	6244496.27	0.0486	0.0340
Venus	12384-10-08 14:52 G	6244503.92	6244504.12	6244504.33	0.0486	0.0053
Mercury	12384-12-29 08:09 G	6244585.70	6244585.84	6244585.99	0.0485	0.0239
Moon	12386-10-26 00:28 G	6245251.38	6245251.52	6245251.67	0.0489	0.0384
Earth	12386-10-26 04:19 G	6245251.54	6245251.68	6245251.84	0.0489	0.0381 *
Mercury	12390-12-03 12:57 G	6246750.90	6246751.04	6246751.18	0.0542	0.0156
Moon	12392-04-21 05:45 G	6247255.53	6247255.74	6247255.95	0.0541	0.0218
Earth	12392-04-21 09:21 G	6247255.67	6247255.89	6247256.11	0.0541	0.0186 *
Mars	12394-06-17 00:14 G	6248042.39	6248042.51	6248042.65	0.0512	0.0452
Venus	12396-06-13 19:11 G	6248770.15	6248770.30	6248770.45	0.0488	0.0327
Mercury	12396-07-19 17:02 G	6248806.20	6248806.21	6248806.23	0.0487	0.0484
Mercury	12396-10-17 09:07 G	6248895.73	6248895.88	6248896.04	0.0486	0.0090
Moon	12397-09-30 01:11 G	6249243.44	6249243.55	6249243.68	0.0484	0.0420
Earth	12397-09-30 01:40 G	6249243.44	6249243.57	6249243.71	0.0484	0.0391 *
Mercury	12402-09-21 14:09 G	6251060.98	6251061.09	6251061.20	0.0541	0.0343
Mercury	12402-12-20 05:31 G	6251150.63	6251150.73	6251150.84	0.0543	0.0369
Earth	12404-04-26 13:26 G	6251643.89	6251644.06	6251644.23	0.0540	0.0361
Moon	12404-04-26 17:31 G	6251644.06	6251644.23	6251644.39	0.0540	0.0375 *
Mercury	12408-08-05 10:33 G	6253205.78	6253205.94	6253206.10	0.0486	0.0056
Moon	12409-10-04 04:19 G	6253630.50	6253630.68	6253630.87	0.0484	0.0286

Earth	12409-10-04 05:02 G	6253630.52	6253630.71	6253630.90	0.0484	0.0273 *
Mercury	12414-07-10 14:52 G	6255371.11	6255371.12	6255371.13	0.0541	0.0538
Venus	12414-08-11 03:36 G	6255402.45	6255402.65	6255402.85	0.0542	0.0080
Mercury	12414-10-08 06:57 G	6255460.66	6255460.79	6255460.92	0.0543	0.0185
Moon	12416-05-01 15:07 G	6256032.05	6256032.13	6256032.22	0.0539	0.0500
Earth	12416-05-01 18:28 G	6256032.23	6256032.27	6256032.31	0.0539	0.0530
Mercury	12420-05-24 12:14 G	6257515.87	6257516.01	6257516.16	0.0486	0.0196
Venus	12420-06-15 22:48 G	6257538.29	6257538.45	6257538.62	0.0486	0.0273
Mercury	12420-08-22 05:16 G	6257605.63	6257605.72	6257605.82	0.0485	0.0389
Earth	12421-10-08 09:50 G	6258017.69	6258017.91	6258018.14	0.0485	0.0149
Moon	12421-10-08 12:00 G	6258017.77	6258018.00	6258018.24	0.0485	0.0124 *
Venus	12426-04-15 14:52 G	6259668.01	6259668.12	6259668.23	0.0541	0.0448
Mercury	12426-07-27 09:07 G	6259770.74	6259770.88	6259771.02	0.0543	0.0016
Moon	12427-03-30 21:07 G	6260017.38	6260017.38	6260017.40	0.0545	0.0544
Mars	12430-03-24 01:26 G	6261106.37	6261106.56	6261106.76	0.0509	0.0373
Venus	12432-02-20 03:50 G	6261804.46	6261804.66	6261804.86	0.0487	0.0105
Mercury	12432-03-12 13:55 G	6261825.97	6261826.08	6261826.19	0.0486	0.0339
Mercury	12432-06-10 06:14 G	6261915.62	6261915.76	6261915.90	0.0485	0.0239
Moon	12433-10-12 11:02 G	6262404.73	6262404.96	6262405.19	0.0485	0.0011
Earth	12433-10-12 14:23 G	6262404.86	6262405.10	6262405.33	0.0485	0.0025 *
Mercury	12438-05-15 11:16 G	6264080.83	6264080.97	6264081.10	0.0542	0.0158
Earth	12439-04-05 12:00 G	6264405.84	6264406.00	6264406.17	0.0544	0.0389
Moon	12439-04-05 14:09 G	6264405.92	6264406.09	6264406.25	0.0544	0.0370 *
Venus	12443-10-26 08:52 G	6266070.84	6266070.87	6266070.90	0.0488	0.0482
Mercury	12443-12-30 15:36 G	6266136.13	6266136.15	6266136.18	0.0487	0.0478
Mercury	12444-03-29 07:40 G	6266225.66	6266225.82	6266225.98	0.0485	0.0093
Earth	12445-10-16 20:38 G	6266792.13	6266792.36	6266792.59	0.0486	0.0104
Moon	12445-10-17 00:43 G	6266792.30	6266792.53	6266792.76	0.0486	0.0081 *
Mercury	12450-03-03 12:43 G	6268390.92	6268391.03	6268391.14	0.0541	0.0338
Venus	12450-04-19 00:43 G	6268437.40	6268437.53	6268437.67	0.0542	0.0403

Mercury	12450-06-01 04:19 G	6268480.58	6268480.68	6268480.78	0.0543	0.0375
Earth	12451-04-10 18:28 G	6268794.05	6268794.27	6268794.48	0.0543	0.0209
Moon	12451-04-10 18:57 G	6268794.08	6268794.29	6268794.51	0.0543	0.0236 *
Mercury	12456-01-16 08:38 G	6270535.70	6270535.86	6270536.02	0.0486	0.0056
Venus	12456-02-22 05:45 G	6270572.73	6270572.74	6270572.76	0.0486	0.0484
Moon	12457-10-20 23:02 G	6271179.24	6271179.46	6271179.67	0.0487	0.0200
Earth	12457-10-21 02:52 G	6271179.41	6271179.62	6271179.83	0.0487	0.0229 *
Mercury	12461-12-20 13:40 G	6272701.04	6272701.07	6272701.10	0.0541	0.0526
Venus	12461-12-22 10:04 G	6272702.73	6272702.92	6272703.12	0.0541	0.0138
Mercury	12462-03-20 05:45 G	6272790.61	6272790.74	6272790.87	0.0543	0.0195
Moon	12463-04-15 21:07 G	6273182.16	6273182.38	6273182.61	0.0542	0.0041
Earth	12463-04-16 00:14 G	6273182.28	6273182.51	6273182.74	0.0542	0.0029 *
Venus	12467-10-28 11:16 G	6274838.77	6274838.97	6274839.17	0.0486	0.0113
Mercury	12467-11-04 10:19 G	6274845.78	6274845.93	6274846.07	0.0486	0.0197
Mercury	12468-02-02 03:07 G	6274935.54	6274935.63	6274935.73	0.0485	0.0388
Earth	12469-10-25 07:40 G	6275566.66	6275566.82	6275566.98	0.0488	0.0350
Moon	12469-10-25 10:48 G	6275566.80	6275566.95	6275567.11	0.0488	0.0358 *
Mercury	12474-01-06 06:57 G	6277100.64	6277100.79	6277100.93	0.0543	0.0017
Earth	12475-04-21 05:45 G	6277570.51	6277570.74	6277570.96	0.0542	0.0146
Moon	12475-04-21 09:50 G	6277570.69	6277570.91	6277571.13	0.0542	0.0182 *
Venus	12479-07-03 17:16 G	6279105.05	6279105.22	6279105.40	0.0487	0.0261
Mercury	12479-08-23 12:14 G	6279155.90	6279156.01	6279156.12	0.0486	0.0334
Mercury	12479-11-21 04:33 G	6279245.55	6279245.69	6279245.83	0.0485	0.0244
Moon	12480-09-29 06:57 G	6279558.70	6279558.79	6279558.88	0.0484	0.0442
Earth	12480-09-29 07:40 G	6279558.70	6279558.82	6279558.95	0.0484	0.0411 *
Earth	12481-10-29 15:07 G	6279954.09	6279954.13	6279954.18	0.0489	0.0477
Mars	12483-12-01 08:52 G	6280716.63	6280716.87	6280717.12	0.0517	0.0165
Mercury	12485-10-25 08:38 G	6281410.73	6281410.86	6281411.00	0.0542	0.0170
Mercury	12486-01-23 00:00 G	6281500.48	6281500.50	6281500.52	0.0544	0.0538
Moon	12487-04-26 10:48 G	6281958.77	6281958.95	6281959.14	0.0541	0.0341

Earth	12487-04-26 14:23 G	6281958.93	6281959.10	6281959.29	0.0541	0.0328 *
Mercury	12491-06-11 13:40 G	6283466.05	6283466.07	6283466.11	0.0487	0.0476
Mercury	12491-09-09 05:45 G	6283555.58	6283555.74	6283555.90	0.0485	0.0096
Earth	12492-10-03 11:16 G	6283945.78	6283945.97	6283946.15	0.0484	0.0290
Moon	12492-10-03 13:26 G	6283945.87	6283946.06	6283946.25	0.0484	0.0295 *
Mercury	12497-08-13 10:48 G	6285720.84	6285720.95	6285721.06	0.0542	0.0341
Venus	12497-08-30 04:48 G	6285737.51	6285737.70	6285737.89	0.0542	0.0172
Mercury	12497-11-11 02:23 G	6285810.50	6285810.60	6285810.70	0.0544	0.0375
Earth	12499-05-01 21:50 G	6286347.34	6286347.41	6286347.50	0.0539	0.0503
Moon	12499-05-01 23:31 G	6286347.38	6286347.48	6286347.59	0.0539	0.0475 *
Mercury	12503-06-29 07:11 G	6287865.64	6287865.80	6287865.96	0.0486	0.0050
Venus	12503-07-06 20:09 G	6287873.19	6287873.34	6287873.49	0.0486	0.0333
Moon	12504-10-08 13:11 G	6288332.83	6288333.05	6288333.27	0.0485	0.0141
Earth	12504-10-08 16:19 G	6288332.97	6288333.18	6288333.41	0.0485	0.0168 *
Venus	12509-05-05 15:36 G	6290003.00	6290003.15	6290003.30	0.0540	0.0358
Mercury	12509-06-02 12:14 G	6290030.98	6290031.01	6290031.05	0.0541	0.0520
Mercury	12509-08-31 04:19 G	6290120.55	6290120.68	6290120.82	0.0543	0.0202
Venus	12515-03-12 00:28 G	6292139.32	6292139.52	6292139.73	0.0487	0.0046
Mercury	12515-04-17 08:23 G	6292175.71	6292175.85	6292176.00	0.0486	0.0196
Mercury	12515-07-16 01:11 G	6292265.46	6292265.55	6292265.65	0.0485	0.0390
Earth	12516-10-12 21:07 G	6292720.15	6292720.38	6292720.62	0.0486	0.0045
Moon	12516-10-13 01:11 G	6292720.31	6292720.55	6292720.78	0.0486	0.0034 *
Mercury	12521-06-19 06:00 G	6294430.61	6294430.75	6294430.89	0.0542	0.0021
Moon	12522-04-05 07:11 G	6294720.65	6294720.80	6294720.97	0.0544	0.0408
Earth	12522-04-05 07:55 G	6294720.69	6294720.83	6294720.98	0.0544	0.0425 *
Venus	12526-11-15 05:45 G	6296405.64	6296405.74	6296405.84	0.0488	0.0421
Mercury	12527-02-03 10:19 G	6296485.81	6296485.93	6296486.04	0.0487	0.0335
Mercury	12527-05-04 02:38 G	6296575.47	6296575.61	6296575.75	0.0485	0.0244
Moon	12528-10-16 22:04 G	6297107.18	6297107.42	6297107.65	0.0486	0.0054
Earth	12528-10-17 01:55 G	6297107.35	6297107.58	6297107.81	0.0486	0.0078 *

Mercury	12533-04-07 06:43 G	6298740.64	6298740.78	6298740.91	0.0542	0.0175
Venus	12533-05-08 20:09 G	6298772.24	6298772.34	6298772.45	0.0543	0.0465
Mercury	12533-07-05 21:50 G	6298830.39	6298830.41	6298830.44	0.0544	0.0533
Moon	12534-04-10 11:16 G	6299108.78	6299108.97	6299109.16	0.0544	0.0281
Earth	12534-04-10 13:26 G	6299108.85	6299109.06	6299109.27	0.0544	0.0250 *
Mercury	12538-11-22 12:14 G	6300795.98	6300796.01	6300796.05	0.0487	0.0470
Mercury	12539-02-20 04:19 G	6300885.52	6300885.68	6300885.84	0.0485	0.0102
Earth	12540-10-21 08:09 G	6301494.63	6301494.84	6301495.05	0.0487	0.0204
Moon	12540-10-21 11:16 G	6301494.76	6301494.97	6301495.18	0.0487	0.0180 *
Venus	12545-01-11 07:26 G	6303037.61	6303037.81	6303038.01	0.0542	0.0069
Mercury	12545-01-24 08:23 G	6303050.74	6303050.85	6303050.96	0.0542	0.0352
Mercury	12545-04-24 00:14 G	6303140.41	6303140.51	6303140.61	0.0544	0.0365
Earth	12546-04-16 00:00 G	6303497.27	6303497.50	6303497.73	0.0544	0.0065
Moon	12546-04-16 03:50 G	6303497.43	6303497.66	6303497.89	0.0544	0.0069 *
Mars	12548-09-11 00:57 G	6304376.28	6304376.54	6304376.80	0.0511	0.0218
Venus	12550-11-17 09:50 G	6305173.72	6305173.91	6305174.10	0.0486	0.0180
Mercury	12550-12-09 05:45 G	6305195.58	6305195.74	6305195.90	0.0486	0.0044
Moon	12552-10-25 12:00 G	6305881.84	6305882.00	6305882.18	0.0488	0.0340
Earth	12552-10-25 13:55 G	6305881.91	6305882.08	6305882.26	0.0488	0.0330 *
Mercury	12556-11-12 10:19 G	6307360.90	6307360.93	6307360.97	0.0542	0.0525
Mercury	12557-02-10 02:38 G	6307450.48	6307450.61	6307450.74	0.0543	0.0200
Moon	12558-04-21 06:14 G	6307885.53	6307885.76	6307885.98	0.0542	0.0155
Earth	12558-04-21 10:04 G	6307885.70	6307885.92	6307886.15	0.0542	0.0121 *
Venus	12562-07-23 15:21 G	6309439.95	6309440.14	6309440.33	0.0487	0.0196
Mercury	12562-09-27 07:11 G	6309505.66	6309505.80	6309505.95	0.0486	0.0186
Mercury	12562-12-26 00:00 G	6309595.41	6309595.50	6309595.60	0.0485	0.0399
Earth	12563-09-30 14:52 G	6309874.02	6309874.12	6309874.24	0.0484	0.0426
Moon	12563-09-30 17:16 G	6309874.15	6309874.22	6309874.31	0.0484	0.0453 *
Earth	12564-10-29 22:19 G	6310269.35	6310269.43	6310269.51	0.0489	0.0457
Moon	12564-10-29 21:50 G	6310269.38	6310269.41	6310269.45	0.0489	0.0484 *

Mercury	12568-11-29 04:33 G	6311760.55	6311760.69	6311760.84	0.0542	0.0031
Earth	12570-04-26 15:36 G	6312273.96	6312274.15	6312274.35	0.0541	0.0295
Moon	12570-04-26 18:14 G	6312274.07	6312274.26	6312274.44	0.0541	0.0303 *
Mercury	12574-07-16 08:38 G	6313815.75	6313815.86	6313815.98	0.0487	0.0331
Mercury	12574-10-14 00:57 G	6313905.40	6313905.54	6313905.68	0.0485	0.0248
Moon	12575-10-04 15:36 G	6314260.98	6314261.15	6314261.33	0.0484	0.0308
Earth	12575-10-04 18:57 G	6314261.11	6314261.29	6314261.47	0.0484	0.0308 *
Mercury	12580-09-17 06:00 G	6316070.62	6316070.75	6316070.89	0.0542	0.0156
Venus	12580-09-19 04:04 G	6316072.49	6316072.67	6316072.85	0.0542	0.0255
Moon	12582-05-01 19:40 G	6316662.19	6316662.32	6316662.47	0.0539	0.0435
Earth	12582-05-01 19:55 G	6316662.21	6316662.33	6316662.44	0.0539	0.0467 *
Mercury	12586-05-04 10:33 G	6318125.90	6318125.94	6318125.98	0.0487	0.0468
Venus	12586-07-25 17:45 G	6318208.13	6318208.24	6318208.36	0.0486	0.0399
Mercury	12586-08-02 02:23 G	6318215.45	6318215.60	6318215.76	0.0486	0.0105
Earth	12587-10-08 23:16 G	6318648.26	6318648.47	6318648.69	0.0484	0.0190
Moon	12587-10-09 03:21 G	6318648.42	6318648.64	6318648.86	0.0484	0.0158 *
Venus	12592-05-24 11:16 G	6320337.81	6320337.97	6320338.14	0.0541	0.0299
Mercury	12592-07-06 06:28 G	6320380.67	6320380.77	6320380.88	0.0542	0.0355
Mercury	12592-10-03 22:19 G	6320470.33	6320470.43	6320470.54	0.0543	0.0362
Venus	12598-03-31 00:14 G	6322474.30	6322474.51	6322474.71	0.0487	0.0029
Mercury	12598-05-21 04:19 G	6322525.52	6322525.68	6322525.84	0.0486	0.0035
Moon	12599-10-13 01:26 G	6323035.32	6323035.56	6323035.79	0.0485	0.0054
Earth	12599-10-13 05:02 G	6323035.48	6323035.71	6323035.95	0.0485	0.0064 *
Mercury	12604-04-25 08:09 G	6324690.82	6324690.84	6324690.86	0.0541	0.0534
Mercury	12604-07-24 00:28 G	6324780.39	6324780.52	6324780.65	0.0543	0.0191
Moon	12605-04-05 05:16 G	6325035.60	6325035.72	6325035.85	0.0545	0.0451
Earth	12605-04-05 06:28 G	6325035.65	6325035.77	6325035.89	0.0545	0.0458 *
Venus	12609-12-05 05:16 G	6326740.58	6326740.72	6326740.86	0.0488	0.0350
Mercury	12610-03-10 05:45 G	6326835.60	6326835.74	6326835.89	0.0486	0.0179
Mercury	12610-06-07 22:33 G	6326925.36	6326925.44	6326925.53	0.0485	0.0405

Earth	12611-10-18 09:36 G	6327422.67	6327422.90	6327423.13	0.0486	0.0060
Moon	12611-10-18 12:28 G	6327422.80	6327423.02	6327423.25	0.0486	0.0037 *
Mercury	12616-05-12 02:52 G	6329090.47	6329090.62	6329090.76	0.0543	0.0028
Earth	12617-04-10 18:28 G	6329424.07	6329424.27	6329424.47	0.0544	0.0272
Moon	12617-04-10 22:04 G	6329424.23	6329424.42	6329424.62	0.0544	0.0306 *
Mercury	12621-12-27 07:40 G	6331145.70	6331145.82	6331145.94	0.0486	0.0318
Mercury	12622-03-27 00:00 G	6331235.36	6331235.50	6331235.63	0.0485	0.0260
Moon	12623-10-22 14:38 G	6331809.88	6331810.11	6331810.33	0.0487	0.0167
Earth	12623-10-22 16:04 G	6331809.96	6331810.17	6331810.39	0.0487	0.0188 *
Venus	12628-02-01 10:04 G	6333372.72	6333372.92	6333373.12	0.0542	0.0034
Mercury	12628-02-29 04:48 G	6333400.56	6333400.70	6333400.84	0.0542	0.0147
Moon	12629-04-15 23:16 G	6333812.24	6333812.47	6333812.70	0.0543	0.0100
Earth	12629-04-16 03:21 G	6333812.42	6333812.64	6333812.87	0.0543	0.0092 *
Mercury	12633-10-15 09:07 G	6335455.83	6335455.88	6335455.93	0.0487	0.0461
Venus	12633-12-07 07:40 G	6335508.65	6335508.82	6335509.00	0.0486	0.0246
Mercury	12634-01-13 00:57 G	6335545.38	6335545.54	6335545.70	0.0486	0.0111
Moon	12635-10-26 22:33 G	6336197.27	6336197.44	6336197.60	0.0488	0.0331
Earth	12635-10-26 22:48 G	6336197.27	6336197.45	6336197.64	0.0488	0.0311 *
Mars	12638-02-26 13:11 G	6337050.79	6337051.05	6337051.31	0.0518	0.0064
Venus	12639-10-06 20:09 G	6337638.27	6337638.34	6337638.42	0.0540	0.0501
Mercury	12639-12-18 06:14 G	6337710.64	6337710.76	6337710.87	0.0542	0.0331
Mercury	12640-03-16 21:50 G	6337800.32	6337800.41	6337800.51	0.0543	0.0384
Earth	12641-04-21 09:50 G	6338200.68	6338200.91	6338201.14	0.0542	0.0087
Moon	12641-04-21 12:57 G	6338200.82	6338201.04	6338201.26	0.0542	0.0121 *
Venus	12645-08-12 13:40 G	6339774.87	6339775.07	6339775.27	0.0487	0.0128
Mercury	12645-11-01 02:38 G	6339855.45	6339855.61	6339855.77	0.0486	0.0031
Moon	12646-09-30 20:23 G	6340189.31	6340189.35	6340189.41	0.0484	0.0470
Earth	12646-09-30 23:45 G	6340189.41	6340189.49	6340189.59	0.0484	0.0443 *
Earth	12647-10-31 05:31 G	6340584.62	6340584.73	6340584.84	0.0488	0.0433
Moon	12647-10-31 07:26 G	6340584.73	6340584.81	6340584.91	0.0488	0.0455 *

Mercury	12651-10-06 06:28 G	6342020.75	6342020.77	6342020.79	0.0541	0.0533
Mercury	12652-01-03 22:48 G	6342110.32	6342110.45	6342110.58	0.0543	0.0192
Moon	12653-04-26 12:14 G	6342588.80	6342589.01	6342589.22	0.0542	0.0258
Earth	12653-04-26 12:57 G	6342588.84	6342589.04	6342589.25	0.0542	0.0259 *
Mercury	12657-08-20 04:33 G	6344165.54	6344165.69	6344165.84	0.0486	0.0168
Mercury	12657-11-17 21:21 G	6344255.31	6344255.39	6344255.47	0.0485	0.0417
Earth	12658-10-05 05:02 G	6344576.54	6344576.71	6344576.89	0.0484	0.0322
Moon	12658-10-05 08:38 G	6344576.69	6344576.86	6344577.05	0.0484	0.0311 *
Venus	12663-10-10 01:40 G	6346407.41	6346407.57	6346407.73	0.0543	0.0327
Mercury	12663-10-23 00:43 G	6346420.39	6346420.53	6346420.67	0.0543	0.0018
Moon	12665-05-01 19:40 G	6346977.18	6346977.32	6346977.48	0.0541	0.0404
Earth	12665-05-01 21:21 G	6346977.26	6346977.39	6346977.53	0.0541	0.0436 *
Mercury	12669-06-08 06:14 G	6348475.64	6348475.76	6348475.89	0.0486	0.0309
Venus	12669-08-14 17:31 G	6348543.19	6348543.23	6348543.28	0.0485	0.0472
Mercury	12669-09-05 22:33 G	6348565.31	6348565.44	6348565.58	0.0485	0.0269
Moon	12670-10-09 05:16 G	6348963.50	6348963.72	6348963.94	0.0484	0.0171
Earth	12670-10-09 08:52 G	6348963.66	6348963.87	6348964.08	0.0484	0.0202 *
Venus	12675-06-14 13:55 G	6350672.89	6350673.08	6350673.27	0.0541	0.0200
Mercury	12675-08-11 02:52 G	6350730.49	6350730.62	6350730.76	0.0543	0.0151
Mercury	12681-03-27 08:09 G	6352785.79	6352785.84	6352785.90	0.0487	0.0447
Venus	12681-04-19 23:31 G	6352809.28	6352809.48	6352809.68	0.0486	0.0100
Mercury	12681-06-25 00:00 G	6352875.35	6352875.50	6352875.66	0.0485	0.0126
Earth	12682-10-13 14:09 G	6353350.86	6353351.09	6353351.32	0.0485	0.0078
Moon	12682-10-13 17:02 G	6353350.98	6353351.21	6353351.43	0.0485	0.0073 *
Mercury	12687-05-30 04:48 G	6355040.59	6355040.70	6355040.82	0.0542	0.0323
Mercury	12687-08-27 20:38 G	6355130.27	6355130.36	6355130.46	0.0543	0.0394
Earth	12688-04-04 12:00 G	6355350.90	6355351.00	6355351.11	0.0544	0.0479
Moon	12688-04-04 14:52 G	6355351.02	6355351.12	6355351.24	0.0544	0.0479 *
Venus	12692-12-24 03:50 G	6357075.50	6357075.66	6357075.83	0.0488	0.0282
Mercury	12693-04-13 01:26 G	6357185.40	6357185.56	6357185.72	0.0486	0.0025

Moon	12694-10-17 18:00 G	6357738.01	6357738.25	6357738.49	0.0486	0.0019
Earth	12694-10-17 19:26 G	6357738.08	6357738.31	6357738.55	0.0486	0.0044 *
Mercury	12699-03-18 06:14 G	6359350.71	6359350.76	6359350.81	0.0541	0.0506
Mercury	12699-06-15 22:33 G	6359440.31	6359440.44	6359440.57	0.0543	0.0218
Moon	12700-04-10 16:19 G	6359739.00	6359739.18	6359739.36	0.0544	0.0337
Earth	12700-04-10 20:09 G	6359739.15	6359739.34	6359739.54	0.0544	0.0300 *
Mars	12702-12-08 01:26 G	6360710.27	6360710.56	6360710.84	0.0511	0.0019
Mercury	12705-01-31 03:07 G	6361495.48	6361495.63	6361495.78	0.0486	0.0162
Mercury	12705-04-30 19:55 G	6361585.25	6361585.33	6361585.41	0.0485	0.0423
Moon	12706-10-23 00:57 G	6362125.33	6362125.54	6362125.76	0.0486	0.0157
Earth	12706-10-23 01:40 G	6362125.35	6362125.57	6362125.79	0.0486	0.0167 *
Venus	12711-02-21 06:57 G	6363707.59	6363707.79	6363707.99	0.0542	0.0101
Mercury	12711-04-04 23:16 G	6363750.33	6363750.47	6363750.61	0.0543	0.0024
Earth	12712-04-16 00:00 G	6364127.27	6364127.50	6364127.72	0.0544	0.0128
Moon	12712-04-16 03:36 G	6364127.43	6364127.65	6364127.88	0.0544	0.0133 *
Mercury	12716-11-19 05:16 G	6365805.59	6365805.72	6365805.84	0.0487	0.0298
Venus	12716-12-27 08:52 G	6365843.72	6365843.87	6365844.02	0.0486	0.0325
Mercury	12717-02-16 21:36 G	6365895.27	6365895.40	6365895.53	0.0485	0.0281
Earth	12718-10-27 08:38 G	6366512.67	6366512.86	6366513.04	0.0487	0.0292
Moon	12718-10-27 10:48 G	6366512.77	6366512.95	6366513.13	0.0487	0.0318 *
Venus	12722-10-26 17:45 G	6367973.13	6367973.24	6367973.37	0.0540	0.0432
Mercury	12723-01-22 00:57 G	6368060.40	6368060.54	6368060.68	0.0542	0.0155
Moon	12724-04-21 07:40 G	6368515.58	6368515.82	6368516.06	0.0543	0.0086
Earth	12724-04-21 09:36 G	6368515.67	6368515.90	6368516.13	0.0543	0.0056 *
Venus	12728-09-01 14:09 G	6370109.89	6370110.09	6370110.30	0.0487	0.0051
Mercury	12728-09-07 06:57 G	6370115.73	6370115.79	6370115.86	0.0487	0.0437
Mercury	12728-12-05 22:48 G	6370205.30	6370205.45	6370205.61	0.0485	0.0136
Earth	12729-10-01 10:33 G	6370504.86	6370504.94	6370505.02	0.0484	0.0453
Moon	12729-10-01 14:23 G	6370505.06	6370505.10	6370505.14	0.0484	0.0474
Moon	12730-10-31 11:16 G	6370899.87	6370899.97	6370900.07	0.0488	0.0439

Earth	12730-10-31 14:09 G	6370899.98	6370900.09	6370900.22	0.0488	0.0416 *
Mercury	12734-11-10 03:07 G	6372370.51	6372370.63	6372370.74	0.0542	0.0326
Mercury	12735-02-07 18:57 G	6372460.19	6372460.29	6372460.38	0.0544	0.0392
Moon	12736-04-26 19:40 G	6372904.12	6372904.32	6372904.52	0.0542	0.0230
Earth	12736-04-26 20:38 G	6372904.15	6372904.36	6372904.57	0.0542	0.0238 *
Venus	12740-05-07 19:40 G	6374376.22	6374376.32	6374376.42	0.0488	0.0428
Mercury	12740-09-24 00:28 G	6374515.36	6374515.52	6374515.68	0.0486	0.0010
Moon	12741-10-05 11:31 G	6374891.81	6374891.98	6374892.17	0.0484	0.0320
Earth	12741-10-05 15:07 G	6374891.96	6374892.13	6374892.30	0.0484	0.0334 *
Mercury	12746-08-29 04:48 G	6376680.65	6376680.70	6376680.76	0.0541	0.0499
Venus	12746-10-30 05:45 G	6376742.63	6376742.74	6376742.87	0.0543	0.0438
Mercury	12746-11-26 21:21 G	6376770.26	6376770.39	6376770.52	0.0543	0.0227
Earth	12748-05-02 04:04 G	6377292.52	6377292.67	6377292.82	0.0540	0.0411
Moon	12748-05-02 06:57 G	6377292.62	6377292.79	6377292.96	0.0540	0.0376 *
Mercury	12752-07-13 01:55 G	6378825.43	6378825.58	6378825.73	0.0486	0.0153
Mercury	12752-10-10 18:28 G	6378915.20	6378915.27	6378915.35	0.0485	0.0432
Earth	12753-10-09 19:11 G	6379279.10	6379279.30	6379279.51	0.0484	0.0216
Moon	12753-10-09 21:50 G	6379279.20	6379279.41	6379279.62	0.0484	0.0187 *
Mars	12756-08-18 16:04 G	6380323.04	6380323.17	6380323.30	0.0515	0.0445
Venus	12758-07-04 16:33 G	6381007.99	6381008.19	6381008.39	0.0541	0.0100
Mercury	12758-09-14 23:02 G	6381080.32	6381080.46	6381080.60	0.0543	0.0050
Mercury	12764-05-01 03:50 G	6383135.53	6383135.66	6383135.79	0.0487	0.0290
Venus	12764-05-09 23:02 G	6383144.27	6383144.46	6383144.65	0.0486	0.0173
Mercury	12764-07-29 20:09 G	6383225.21	6383225.34	6383225.47	0.0485	0.0289
Moon	12765-10-13 23:45 G	6383666.25	6383666.49	6383666.73	0.0485	0.0093
Earth	12765-10-14 00:57 G	6383666.31	6383666.54	6383666.77	0.0485	0.0094 *
Mercury	12770-07-03 23:31 G	6385390.34	6385390.48	6385390.62	0.0542	0.0149
Moon	12771-04-05 04:19 G	6385665.61	6385665.68	6385665.76	0.0545	0.0513
Earth	12771-04-05 07:55 G	6385665.76	6385665.83	6385665.91	0.0545	0.0513 *
Venus	12776-01-14 05:16 G	6387410.53	6387410.72	6387410.90	0.0488	0.0201

Mercury	12776-02-18 06:00 G	6387445.68	6387445.75	6387445.82	0.0487	0.0425
Mercury	12776-05-17 21:50 G	6387535.26	6387535.41	6387535.57	0.0486	0.0149
Moon	12777-10-18 06:28 G	6388053.54	6388053.77	6388053.99	0.0485	0.0010
Earth	12777-10-18 07:11 G	6388053.56	6388053.80	6388054.03	0.0485	0.0031 *
Mercury	12782-04-22 01:11 G	6389700.43	6389700.55	6389700.66	0.0542	0.0329
Mercury	12782-07-20 17:02 G	6389790.11	6389790.21	6389790.31	0.0543	0.0389
Earth	12783-04-10 18:14 G	6390054.08	6390054.26	6390054.45	0.0545	0.0332
Moon	12783-04-10 22:19 G	6390054.26	6390054.43	6390054.60	0.0545	0.0367 *
Mercury	12788-03-05 23:16 G	6391845.31	6391845.47	6391845.63	0.0486	0.0012
Earth	12789-10-22 11:16 G	6392440.76	6392440.97	6392441.20	0.0486	0.0153
Moon	12789-10-22 13:55 G	6392440.85	6392441.08	6392441.31	0.0486	0.0150 *
Mars	12792-05-23 11:45 G	6393384.77	6393384.99	6393385.22	0.0518	0.0272
Mercury	12794-02-08 03:07 G	6394010.58	6394010.63	6394010.68	0.0542	0.0502
Venus	12794-03-12 09:50 G	6394042.73	6394042.91	6394043.10	0.0542	0.0204
Mercury	12794-05-08 19:26 G	6394100.18	6394100.31	6394100.44	0.0543	0.0224
Moon	12795-04-16 04:19 G	6394442.45	6394442.68	6394442.91	0.0544	0.0146
Earth	12795-04-16 06:57 G	6394442.57	6394442.79	6394443.02	0.0544	0.0148 *
Mercury	12799-12-24 01:11 G	6396155.40	6396155.55	6396155.70	0.0486	0.0136
Venus	12800-01-16 08:52 G	6396178.76	6396178.87	6396178.98	0.0486	0.0400
Mercury	12800-03-22 17:45 G	6396245.18	6396245.24	6396245.30	0.0485	0.0448
Moon	12801-10-26 14:52 G	6396827.95	6396828.12	6396828.30	0.0487	0.0306
Earth	12801-10-26 18:14 G	6396828.07	6396828.26	6396828.46	0.0487	0.0277 *
Venus	12805-11-14 22:19 G	6398308.27	6398308.43	6398308.59	0.0541	0.0321
Mercury	12806-02-24 21:50 G	6398410.27	6398410.41	6398410.55	0.0543	0.0059
Earth	12807-04-21 17:16 G	6398830.99	6398831.22	6398831.45	0.0543	0.0034
Moon	12807-04-21 17:16 G	6398831.00	6398831.22	6398831.44	0.0543	0.0064 *
Venus	12811-09-21 13:40 G	6400444.86	6400445.07	6400445.27	0.0487	0.0022
Mercury	12811-10-12 02:38 G	6400465.48	6400465.61	6400465.74	0.0487	0.0280
Mercury	12812-01-09 18:57 G	6400555.16	6400555.29	6400555.42	0.0485	0.0299
Moon	12812-09-30 18:00 G	6400820.25	6400820.25	6400820.26	0.0484	0.0483

Earth	12812-09-30 21:07 G	6400820.33	6400820.38	6400820.45	0.0484	0.0465
Earth	12813-10-31 01:11 G	6401215.42	6401215.55	6401215.69	0.0488	0.0400
Moon	12813-10-31 05:02 G	6401215.59	6401215.71	6401215.83	0.0488	0.0418 *
Mercury	12817-12-13 23:31 G	6402720.34	6402720.48	6402720.62	0.0542	0.0121
Earth	12819-04-27 00:28 G	6403219.30	6403219.52	6403219.73	0.0542	0.0211
Moon	12819-04-27 02:38 G	6403219.39	6403219.61	6403219.84	0.0542	0.0198 *
Venus	12823-05-27 19:11 G	6404711.17	6404711.30	6404711.45	0.0488	0.0355
Mercury	12823-07-31 04:33 G	6404775.62	6404775.69	6404775.77	0.0487	0.0417
Mercury	12823-10-28 20:38 G	6404865.20	6404865.36	6404865.51	0.0486	0.0157
Earth	12824-10-05 02:38 G	6405207.45	6405207.61	6405207.77	0.0484	0.0346
Moon	12824-10-05 04:48 G	6405207.54	6405207.70	6405207.87	0.0484	0.0329 *
Mercury	12829-10-01 23:45 G	6407030.38	6407030.49	6407030.61	0.0541	0.0321
Venus	12829-11-18 03:36 G	6407077.59	6407077.65	6407077.72	0.0542	0.0509
Mercury	12829-12-30 15:36 G	6407120.06	6407120.15	6407120.25	0.0543	0.0397
Moon	12831-05-01 22:19 G	6407607.26	6407607.43	6407607.61	0.0541	0.0344
Earth	12831-05-02 01:55 G	6407607.41	6407607.58	6407607.74	0.0541	0.0377 *
Mercury	12835-08-16 22:19 G	6409175.27	6409175.43	6409175.59	0.0486	0.0018
Moon	12836-10-09 06:57 G	6409594.58	6409594.79	6409595.02	0.0484	0.0200
Earth	12836-10-09 07:55 G	6409594.63	6409594.83	6409595.04	0.0484	0.0226 *
Mercury	12841-07-21 01:11 G	6411340.50	6411340.55	6411340.60	0.0541	0.0503
Venus	12841-07-23 14:09 G	6411342.89	6411343.09	6411343.30	0.0541	0.0030
Mercury	12841-10-18 17:31 G	6411430.11	6411430.23	6411430.36	0.0543	0.0223
Venus	12847-05-29 23:31 G	6413479.31	6413479.48	6413479.66	0.0486	0.0252
Mercury	12847-06-05 00:00 G	6413485.35	6413485.50	6413485.65	0.0486	0.0126
Mercury	12847-09-02 16:33 G	6413575.15	6413575.19	6413575.24	0.0485	0.0459
Moon	12848-10-13 10:33 G	6413981.72	6413981.94	6413982.16	0.0484	0.0117
Earth	12848-10-13 11:31 G	6413981.75	6413981.98	6413982.21	0.0484	0.0106 *
Mercury	12853-08-06 19:55 G	6415740.19	6415740.33	6415740.47	0.0543	0.0055
Earth	12854-04-04 13:55 G	6415981.04	6415981.08	6415981.13	0.0545	0.0531
Moon	12854-04-04 18:00 G	6415981.21	6415981.25	6415981.30	0.0545	0.0533

Mars	12857-03-03 17:31 G	6417045.01	6417045.23	6417045.47	0.0511	0.0303
Venus	12859-02-02 05:31 G	6417745.53	6417745.73	6417745.92	0.0487	0.0125
Mercury	12859-03-24 01:55 G	6417795.44	6417795.58	6417795.71	0.0486	0.0265
Mercury	12859-06-21 18:00 G	6417885.13	6417885.25	6417885.38	0.0485	0.0314
Earth	12860-10-17 17:02 G	6418368.97	6418369.21	6418369.44	0.0485	0.0018
Moon	12860-10-17 19:40 G	6418369.08	6418369.32	6418369.56	0.0485	0.0011 *
Mercury	12865-05-25 22:04 G	6420050.28	6420050.42	6420050.56	0.0542	0.0114
Moon	12866-04-09 22:48 G	6420369.29	6420369.45	6420369.63	0.0545	0.0384
Earth	12866-04-10 02:09 G	6420369.42	6420369.59	6420369.78	0.0545	0.0351 *
Mercury	12871-01-10 03:21 G	6422105.56	6422105.64	6422105.73	0.0487	0.0407
Mercury	12871-04-09 19:11 G	6422195.15	6422195.30	6422195.45	0.0485	0.0166
Moon	12872-10-21 18:57 G	6422756.07	6422756.29	6422756.51	0.0486	0.0138
Earth	12872-10-21 22:19 G	6422756.21	6422756.43	6422756.66	0.0486	0.0139 *
Mercury	12877-03-13 23:45 G	6424360.37	6424360.49	6424360.61	0.0542	0.0293
Venus	12877-03-31 12:57 G	6424377.88	6424378.04	6424378.21	0.0542	0.0307
Mercury	12877-06-11 15:36 G	6424450.06	6424450.15	6424450.23	0.0543	0.0423
Earth	12878-04-15 11:16 G	6424757.75	6424757.97	6424758.20	0.0544	0.0171
Moon	12878-04-15 12:14 G	6424757.80	6424758.01	6424758.22	0.0544	0.0160 *
Mercury	12883-01-26 21:07 G	6426505.22	6426505.38	6426505.54	0.0486	0.0028
Venus	12883-02-04 08:23 G	6426513.82	6426513.85	6426513.90	0.0486	0.0475
Earth	12884-10-26 05:45 G	6427143.54	6427143.74	6427143.94	0.0487	0.0262
Moon	12884-10-26 09:21 G	6427143.71	6427143.89	6427144.09	0.0487	0.0293 *
Venus	12888-12-03 20:23 G	6428643.18	6428643.35	6428643.54	0.0540	0.0248
Mercury	12888-12-31 00:00 G	6428670.44	6428670.50	6428670.56	0.0541	0.0494
Mercury	12889-03-30 16:19 G	6428760.05	6428760.18	6428760.31	0.0543	0.0230
Earth	12890-04-20 13:55 G	6429145.84	6429146.08	6429146.31	0.0543	0.0007
Moon	12890-04-20 15:21 G	6429145.90	6429146.14	6429146.38	0.0543	0.0031 *
Venus	12894-10-10 14:23 G	6430779.91	6430780.10	6430780.31	0.0487	0.0102
Mercury	12894-11-14 22:48 G	6430815.30	6430815.45	6430815.61	0.0486	0.0115
Mercury	12895-02-12 15:36 G	6430905.12	6430905.15	6430905.19	0.0485	0.0472

Earth	12895-10-01 09:50 G	6431135.87	6431135.91	6431135.97	0.0484	0.0472
Moon	12896-10-30 09:07 G	6431530.75	6431530.88	6431531.02	0.0487	0.0398
Earth	12896-10-30 12:43 G	6431530.89	6431531.03	6431531.18	0.0487	0.0386 *
Mercury	12901-01-17 18:00 G	6433070.11	6433070.25	6433070.39	0.0542	0.0054
Moon	12902-04-26 19:11 G	6433534.08	6433534.30	6433534.52	0.0543	0.0166
Earth	12902-04-26 22:04 G	6433534.21	6433534.42	6433534.65	0.0543	0.0179 *
Venus	12906-06-16 19:40 G	6435046.16	6435046.32	6435046.49	0.0488	0.0278
Mercury	12906-09-04 00:28 G	6435125.39	6435125.52	6435125.66	0.0487	0.0256
Mercury	12906-12-02 16:48 G	6435215.08	6435215.20	6435215.32	0.0485	0.0324
Moon	12907-10-06 12:14 G	6435522.85	6435523.01	6435523.19	0.0484	0.0337
Earth	12907-10-06 12:57 G	6435522.89	6435523.04	6435523.20	0.0484	0.0358 *
Moon	12908-11-04 20:38 G	6435918.33	6435918.36	6435918.41	0.0488	0.0481
Mars	12910-11-13 16:19 G	6436656.95	6436657.18	6436657.42	0.0515	0.0229
Mercury	12912-11-05 20:09 G	6437380.20	6437380.34	6437380.48	0.0542	0.0120
Earth	12914-05-02 08:23 G	6437922.68	6437922.85	6437923.03	0.0542	0.0357
Moon	12914-05-02 12:14 G	6437922.83	6437923.01	6437923.20	0.0542	0.0328 *
Mercury	12918-06-23 02:23 G	6439435.52	6439435.60	6439435.70	0.0487	0.0393
Mercury	12918-09-20 18:28 G	6439525.12	6439525.27	6439525.42	0.0485	0.0181
Moon	12919-10-10 16:19 G	6439909.99	6439910.18	6439910.39	0.0484	0.0221
Earth	12919-10-10 17:31 G	6439910.03	6439910.23	6439910.44	0.0484	0.0239 *
Venus	12924-08-12 18:14 G	6441678.06	6441678.26	6441678.46	0.0542	0.0081
Mercury	12924-08-24 22:04 G	6441690.30	6441690.42	6441690.54	0.0542	0.0290
Mercury	12924-11-22 14:09 G	6441780.00	6441780.09	6441780.17	0.0544	0.0428
Earth	12926-05-07 16:48 G	6442311.16	6442311.20	6442311.26	0.0540	0.0525
Venus	12930-06-18 23:02 G	6443814.31	6443814.46	6443814.61	0.0486	0.0323
Mercury	12930-07-09 19:40 G	6443835.16	6443835.32	6443835.48	0.0486	0.0033
Earth	12931-10-14 21:50 G	6444297.18	6444297.41	6444297.64	0.0484	0.0119
Moon	12931-10-15 00:43 G	6444297.30	6444297.53	6444297.76	0.0484	0.0138 *
Venus	12936-04-17 05:16 G	6445943.62	6445943.72	6445943.84	0.0540	0.0451
Mercury	12936-06-12 23:45 G	6446000.42	6446000.49	6446000.56	0.0541	0.0469

Mercury	12936-09-10 16:04 G	6446090.05	6446090.17	6446090.30	0.0543	0.0255
Venus	12942-02-22 04:48 G	6448080.50	6448080.70	6448080.90	0.0487	0.0053
Mercury	12942-04-27 21:36 G	6448145.24	6448145.40	6448145.55	0.0486	0.0108
Mercury	12942-07-26 14:09 G	6448235.07	6448235.09	6448235.11	0.0485	0.0479
Moon	12943-10-19 00:28 G	6448684.29	6448684.52	6448684.76	0.0485	0.0027
Earth	12943-10-19 04:19 G	6448684.44	6448684.68	6448684.91	0.0485	0.0009 *
Mercury	12948-06-29 16:48 G	6450400.06	6450400.20	6450400.34	0.0542	0.0062
Earth	12949-04-09 22:04 G	6450684.25	6450684.42	6450684.58	0.0544	0.0383
Moon	12949-04-10 00:00 G	6450684.36	6450684.50	6450684.65	0.0544	0.0414 *
Venus	12953-10-28 09:36 G	6452346.82	6452346.90	6452347.00	0.0489	0.0434
Mercury	12954-02-13 23:16 G	6452455.34	6452455.47	6452455.61	0.0487	0.0246
Mercury	12954-05-14 15:36 G	6452545.04	6452545.15	6452545.27	0.0486	0.0335
Earth	12955-10-23 10:04 G	6453071.69	6453071.92	6453072.15	0.0485	0.0126
Moon	12955-10-23 13:55 G	6453071.86	6453072.08	6453072.31	0.0485	0.0131 *
Mercury	12960-04-17 18:14 G	6454710.12	6454710.26	6454710.40	0.0542	0.0121
Venus	12960-04-20 10:04 G	6454712.78	6454712.92	6454713.07	0.0542	0.0376
Earth	12961-04-15 06:43 G	6455072.57	6455072.78	6455073.00	0.0544	0.0206
Moon	12961-04-15 07:26 G	6455072.58	6455072.81	6455073.04	0.0544	0.0188 *
Mercury	12965-12-03 01:11 G	6456765.45	6456765.55	6456765.64	0.0487	0.0386
Mercury	12966-03-02 17:02 G	6456855.06	6456855.21	6456855.36	0.0486	0.0188
Moon	12967-10-27 10:33 G	6457458.75	6457458.94	6457459.14	0.0486	0.0273
Earth	12967-10-27 14:09 G	6457458.89	6457459.09	6457459.29	0.0486	0.0244 *
Venus	12971-12-24 21:36 G	6458978.21	6458978.40	6458978.60	0.0541	0.0156
Mercury	12972-02-04 19:55 G	6459020.22	6459020.33	6459020.46	0.0542	0.0297
Mercury	12972-05-04 12:00 G	6459109.92	6459110.00	6459110.09	0.0543	0.0421
Moon	12973-04-20 16:04 G	6459460.94	6459461.17	6459461.39	0.0544	0.0011
Earth	12973-04-20 18:28 G	6459461.04	6459461.27	6459461.50	0.0544	0.0025 *
Mars	12975-08-23 03:36 G	6460315.41	6460315.65	6460315.90	0.0514	0.0269
Venus	12977-10-30 13:55 G	6461114.89	6461115.08	6461115.28	0.0487	0.0175
Mercury	12977-12-19 18:43 G	6461165.12	6461165.28	6461165.43	0.0486	0.0048

Earth	12979-10-31 20:38 G	6461846.21	6461846.36	6461846.51	0.0487	0.0368
Moon	12979-10-31 23:02 G	6461846.32	6461846.46	6461846.61	0.0487	0.0371 *
Mercury	12983-11-23 21:50 G	6463330.35	6463330.41	6463330.49	0.0541	0.0469
Mercury	12984-02-21 14:23 G	6463419.98	6463420.10	6463420.23	0.0543	0.0257
Earth	12985-04-26 05:02 G	6463849.49	6463849.71	6463849.94	0.0543	0.0157
Moon	12985-04-26 08:52 G	6463849.65	6463849.87	6463850.10	0.0543	0.0138 *
Venus	12989-07-05 18:43 G	6465381.10	6465381.28	6465381.47	0.0488	0.0208
Mercury	12989-10-07 19:55 G	6465475.18	6465475.33	6465475.49	0.0486	0.0101
Moon	12990-10-05 21:07 G	6465838.23	6465838.38	6465838.54	0.0484	0.0347
Earth	12990-10-05 22:33 G	6465838.29	6465838.44	6465838.59	0.0484	0.0370 *
Moon	12991-11-05 02:23 G	6466233.53	6466233.60	6466233.69	0.0488	0.0459
Mercury	12995-12-10 16:19 G	6467730.04	6467730.18	6467730.32	0.0543	0.0083
Moon	12997-05-01 08:52 G	6468237.68	6468237.87	6468238.07	0.0542	0.0305
Earth	12997-05-01 12:14 G	6468237.84	6468238.01	6468238.20	0.0542	0.0331 *

14TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 14th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	13001-07-27 21:50 G	6469785.28	6469785.41	6469785.55	0.0487	0.0240		
Mercury	13001-10-25 14:09 G	6469874.98	6469875.09	6469875.20	0.0485	0.0341		
Earth	13002-10-11 03:50 G	6470225.46	6470225.66	6470225.86	0.0484	0.0251		
Moon	13002-10-11 06:57 G	6470225.58	6470225.79	6470226.00	0.0484	0.0238 *		
Venus	13007-09-02 16:19 G	6472012.98	6472013.18	6472013.37	0.0541	0.0155		

Mercury	13007-09-29 17:02 G	6472040.07	6472040.21	6472040.35	0.0542	0.0111
Earth	13009-05-07 12:28 G	6472625.94	6472626.02	6472626.13	0.0540	0.0491
Moon	13009-05-07 14:23 G	6472626.04	6472626.10	6472626.17	0.0540	0.0516 *
Mercury	13013-05-15 23:45 G	6474095.39	6474095.49	6474095.59	0.0487	0.0379
Venus	13013-07-08 22:33 G	6474149.33	6474149.44	6474149.56	0.0487	0.0397
Mercury	13013-08-13 15:36 G	6474185.00	6474185.15	6474185.30	0.0486	0.0196
Moon	13014-10-15 05:02 G	6474612.50	6474612.71	6474612.94	0.0484	0.0155
Earth	13014-10-15 08:52 G	6474612.65	6474612.87	6474613.10	0.0484	0.0131 *
Venus	13019-05-08 02:23 G	6476278.46	6476278.60	6476278.74	0.0539	0.0383
Mercury	13019-07-18 18:14 G	6476350.14	6476350.26	6476350.38	0.0541	0.0296
Mercury	13019-10-16 10:04 G	6476439.84	6476439.92	6476440.01	0.0543	0.0420
Venus	13025-03-14 03:36 G	6478415.45	6478415.65	6478415.86	0.0487	0.0019
Mercury	13025-06-01 17:02 G	6478495.05	6478495.21	6478495.37	0.0486	0.0051
Earth	13026-10-19 12:00 G	6478999.76	6479000.00	6479000.23	0.0485	0.0014
Moon	13026-10-19 15:50 G	6478999.93	6479000.16	6479000.40	0.0485	0.0041 *
Mercury	13031-05-06 19:40 G	6480660.26	6480660.32	6480660.39	0.0541	0.0477
Mercury	13031-08-04 12:14 G	6480749.89	6480750.01	6480750.14	0.0543	0.0249
Moon	13032-04-09 23:45 G	6480999.35	6480999.49	6480999.64	0.0545	0.0436
Earth	13032-04-10 00:00 G	6480999.36	6480999.50	6480999.66	0.0545	0.0409 *
Venus	13036-11-17 08:52 G	6482681.74	6482681.87	6482682.01	0.0489	0.0362
Mercury	13037-03-20 18:43 G	6482805.13	6482805.28	6482805.44	0.0486	0.0091
Moon	13038-10-23 13:40 G	6483386.84	6483387.07	6483387.30	0.0485	0.0115
Earth	13038-10-23 17:16 G	6483386.99	6483387.22	6483387.45	0.0485	0.0107 *
Venus	13043-05-11 12:28 G	6485047.93	6485048.02	6485048.12	0.0542	0.0477
Mercury	13043-05-23 14:23 G	6485059.96	6485060.10	6485060.24	0.0543	0.0082
Moon	13044-04-15 10:33 G	6485387.73	6485387.94	6485388.15	0.0545	0.0210
Earth	13044-04-15 12:14 G	6485387.81	6485388.01	6485388.23	0.0545	0.0229 *
Mercury	13049-01-06 20:09 G	6487115.21	6487115.34	6487115.48	0.0487	0.0235
Mercury	13049-04-06 12:28 G	6487204.91	6487205.02	6487205.13	0.0485	0.0345
Earth	13050-10-27 22:33 G	6487774.23	6487774.44	6487774.65	0.0486	0.0228

Moon	13050-10-28 00:43 G	6487774.34	6487774.53	6487774.73	0.0486	0.0256 *
Venus	13055-01-14 00:00 G	6489313.29	6489313.50	6489313.70	0.0541	0.0059
Mercury	13055-03-11 16:19 G	6489370.04	6489370.18	6489370.32	0.0542	0.0094
Earth	13056-04-20 21:36 G	6489776.17	6489776.40	6489776.63	0.0544	0.0049
Moon	13056-04-21 00:57 G	6489776.31	6489776.54	6489776.78	0.0544	0.0023 *
Mercury	13060-10-25 22:04 G	6491425.33	6491425.42	6491425.53	0.0487	0.0374
Venus	13060-11-19 12:14 G	6491449.83	6491450.01	6491450.19	0.0487	0.0242
Mercury	13061-01-23 13:55 G	6491514.94	6491515.08	6491515.23	0.0486	0.0201
Moon	13062-11-01 05:16 G	6492161.55	6492161.72	6492161.89	0.0487	0.0346
Earth	13062-11-01 06:00 G	6492161.60	6492161.75	6492161.92	0.0487	0.0352 *
Mars	13065-02-07 23:16 G	6492991.20	6492991.47	6492991.73	0.0515	0.0016
Mercury	13066-12-28 17:02 G	6493680.09	6493680.21	6493680.33	0.0541	0.0288
Mercury	13067-03-28 08:52 G	6493769.79	6493769.87	6493769.96	0.0543	0.0427
Moon	13068-04-25 20:09 G	6494164.11	6494164.34	6494164.57	0.0543	0.0099
Earth	13068-04-26 00:00 G	6494164.27	6494164.50	6494164.72	0.0543	0.0120 *
Venus	13072-07-25 17:02 G	6495716.02	6495716.21	6495716.41	0.0488	0.0140
Mercury	13072-11-11 15:21 G	6495824.99	6495825.14	6495825.30	0.0486	0.0058
Earth	13073-10-06 08:09 G	6496153.71	6496153.84	6496153.99	0.0484	0.0383
Moon	13073-10-06 11:31 G	6496153.82	6496153.98	6496154.15	0.0484	0.0352 *
Moon	13074-11-05 12:43 G	6496548.94	6496549.03	6496549.12	0.0488	0.0444
Earth	13074-11-05 12:57 G	6496548.99	6496549.04	6496549.10	0.0488	0.0473 *
Mercury	13078-10-16 18:00 G	6497990.19	6497990.25	6497990.32	0.0540	0.0476
Mercury	13079-01-14 10:33 G	6498079.81	6498079.94	6498080.06	0.0542	0.0247
Earth	13080-05-01 06:14 G	6498552.56	6498552.76	6498552.95	0.0542	0.0292
Moon	13080-05-01 08:38 G	6498552.66	6498552.86	6498553.05	0.0542	0.0271 *
Mercury	13084-08-30 17:02 G	6500135.05	6500135.21	6500135.36	0.0486	0.0088
Moon	13085-10-10 07:11 G	6500540.61	6500540.80	6500541.00	0.0484	0.0257
Earth	13085-10-10 11:02 G	6500540.77	6500540.96	6500541.16	0.0484	0.0268 *
Venus	13090-09-21 15:07 G	6502347.95	6502348.13	6502348.31	0.0542	0.0236
Mercury	13090-11-02 12:14 G	6502389.87	6502390.01	6502390.15	0.0542	0.0071

Moon	13092-05-06 14:23 G	6502941.00	6502941.10	6502941.21	0.0541	0.0486
Earth	13092-05-06 14:52 G	6502941.01	6502941.12	6502941.25	0.0541	0.0463 *
Mercury	13096-06-18 18:57 G	6504445.15	6504445.29	6504445.43	0.0487	0.0228
Venus	13096-07-27 20:52 G	6504484.31	6504484.37	6504484.43	0.0486	0.0465
Mercury	13096-09-16 11:02 G	6504534.85	6504534.96	6504535.07	0.0485	0.0352
Earth	13097-10-14 15:21 G	6504927.92	6504928.14	6504928.36	0.0484	0.0149
Moon	13097-10-14 19:11 G	6504928.09	6504928.30	6504928.53	0.0484	0.0174 *
Venus	13102-05-28 03:21 G	6506613.47	6506613.64	6506613.81	0.0540	0.0292
Mercury	13102-08-22 14:09 G	6506699.95	6506700.09	6506700.23	0.0542	0.0101
Venus	13108-04-03 01:26 G	6508750.36	6508750.56	6508750.76	0.0487	0.0084
Mercury	13108-04-07 20:23 G	6508755.25	6508755.35	6508755.45	0.0487	0.0371
Mercury	13108-07-06 12:14 G	6508844.86	6508845.01	6508845.15	0.0486	0.0203
Moon	13109-10-19 15:50 G	6509314.92	6509315.16	6509315.40	0.0485	0.0054
Earth	13109-10-19 19:26 G	6509315.07	6509315.31	6509315.54	0.0485	0.0030 *
Mercury	13114-06-10 16:04 G	6511010.04	6511010.17	6511010.29	0.0541	0.0277
Mercury	13114-09-08 07:55 G	6511099.75	6511099.83	6511099.91	0.0543	0.0440
Moon	13115-04-11 01:55 G	6511314.46	6511314.58	6511314.70	0.0545	0.0461
Earth	13115-04-11 02:52 G	6511314.48	6511314.62	6511314.76	0.0545	0.0432 *
Venus	13119-12-08 06:28 G	6513016.61	6513016.77	6513016.93	0.0489	0.0299
Mercury	13120-04-24 13:40 G	6513154.92	6513155.07	6513155.23	0.0486	0.0061
Earth	13121-10-24 01:26 G	6513702.33	6513702.56	6513702.79	0.0485	0.0091
Moon	13121-10-24 03:36 G	6513702.43	6513702.65	6513702.87	0.0485	0.0109 *
Mercury	13126-03-29 16:33 G	6515320.13	6515320.19	6515320.26	0.0540	0.0469
Mercury	13126-06-27 09:07 G	6515409.76	6515409.88	6515410.00	0.0542	0.0254
Earth	13127-04-16 06:43 G	6515702.58	6515702.78	6515702.99	0.0544	0.0264
Moon	13127-04-16 09:36 G	6515702.69	6515702.90	6515703.12	0.0544	0.0243 *
Mars	13129-11-17 14:38 G	6516648.83	6516649.11	6516649.39	0.0514	0.0066
Mercury	13132-02-11 15:07 G	6517464.98	6517465.13	6517465.29	0.0487	0.0087
Moon	13133-10-28 06:14 G	6518089.55	6518089.76	6518089.97	0.0486	0.0237
Earth	13133-10-28 06:57 G	6518089.58	6518089.79	6518090.00	0.0486	0.0212 *

Venus	13138-02-02 20:09 G	6519648.13	6519648.34	6519648.54	0.0540	0.0011
Mercury	13138-04-15 10:33 G	6519719.80	6519719.94	6519720.08	0.0542	0.0072
Moon	13139-04-21 10:19 G	6520090.70	6520090.93	6520091.16	0.0544	0.0063
Earth	13139-04-21 14:09 G	6520090.86	6520091.09	6520091.32	0.0544	0.0089 *
Mercury	13143-11-30 16:48 G	6521775.06	6521775.20	6521775.34	0.0487	0.0228
Venus	13143-12-10 09:21 G	6521784.74	6521784.89	6521785.05	0.0487	0.0305
Mercury	13144-02-28 08:52 G	6521864.77	6521864.87	6521864.99	0.0486	0.0353
Moon	13145-11-01 10:04 G	6522476.76	6522476.92	6522477.10	0.0487	0.0322
Earth	13145-11-01 10:33 G	6522476.77	6522476.94	6522477.12	0.0487	0.0328 *
Venus	13149-10-08 06:00 G	6523913.72	6523913.75	6523913.79	0.0539	0.0529
Mercury	13150-02-01 11:45 G	6524029.85	6524029.99	6524030.13	0.0542	0.0112
Earth	13151-04-26 23:16 G	6524479.24	6524479.47	6524479.70	0.0544	0.0088
Moon	13151-04-27 02:09 G	6524479.37	6524479.59	6524479.82	0.0544	0.0062 *
Venus	13155-08-15 15:07 G	6526050.93	6526051.13	6526051.33	0.0488	0.0073
Mercury	13155-09-18 18:43 G	6526085.18	6526085.28	6526085.39	0.0487	0.0366
Mercury	13155-12-17 10:33 G	6526174.80	6526174.94	6526175.09	0.0486	0.0208
Moon	13156-10-06 10:33 G	6526468.80	6526468.94	6526469.09	0.0484	0.0369
Earth	13156-10-06 14:38 G	6526468.98	6526469.11	6526469.24	0.0484	0.0400 *
Earth	13157-11-05 17:02 G	6526864.12	6526864.21	6526864.30	0.0488	0.0449
Moon	13157-11-05 18:43 G	6526864.16	6526864.28	6526864.41	0.0488	0.0418 *
Mercury	13161-11-20 13:40 G	6528339.95	6528340.07	6528340.19	0.0542	0.0285
Mercury	13162-02-18 05:45 G	6528429.66	6528429.74	6528429.82	0.0543	0.0433
Moon	13163-05-02 08:09 G	6528867.63	6528867.84	6528868.06	0.0543	0.0242
Earth	13163-05-02 09:21 G	6528867.70	6528867.89	6528868.10	0.0543	0.0265 *
Venus	13167-04-20 18:57 G	6530317.24	6530317.29	6530317.37	0.0489	0.0462
Mercury	13167-10-05 11:45 G	6530484.84	6530484.99	6530485.15	0.0486	0.0063
Earth	13168-10-10 17:16 G	6530856.04	6530856.22	6530856.42	0.0484	0.0285
Moon	13168-10-10 21:21 G	6530856.20	6530856.39	6530856.58	0.0484	0.0276 *
Mercury	13173-09-08 15:21 G	6532650.07	6532650.14	6532650.21	0.0541	0.0463
Venus	13173-10-11 16:19 G	6532683.02	6532683.18	6532683.34	0.0542	0.0329

Mercury	13173-12-07 07:55 G	6532739.71	6532739.83	6532739.95	0.0543	0.0263
Moon	13175-05-07 16:04 G	6533256.06	6533256.17	6533256.29	0.0541	0.0461
Earth	13175-05-07 16:48 G	6533256.07	6533256.20	6533256.34	0.0541	0.0434 *
Mercury	13179-07-24 13:40 G	6534794.91	6534795.07	6534795.22	0.0487	0.0084
Moon	13180-10-14 18:57 G	6535243.07	6535243.29	6535243.51	0.0484	0.0190
Earth	13180-10-14 22:33 G	6535243.22	6535243.44	6535243.66	0.0484	0.0165 *
Mars	13183-07-31 17:45 G	6536263.24	6536263.24	6536263.27	0.0513	0.0512
Venus	13185-06-16 01:40 G	6536948.39	6536948.57	6536948.76	0.0539	0.0215
Mercury	13185-09-25 09:07 G	6537049.74	6537049.88	6537050.02	0.0542	0.0077
Venus	13191-04-22 22:19 G	6539085.23	6539085.43	6539085.62	0.0488	0.0144
Mercury	13191-05-12 14:52 G	6539104.99	6539105.12	6539105.26	0.0487	0.0229
Mercury	13191-08-10 07:11 G	6539194.69	6539194.80	6539194.91	0.0486	0.0354
Earth	13192-10-19 02:38 G	6539630.38	6539630.61	6539630.85	0.0485	0.0049
Moon	13192-10-19 04:48 G	6539630.48	6539630.70	6539630.93	0.0485	0.0063 *
Mercury	13197-07-14 10:19 G	6541359.79	6541359.93	6541360.07	0.0541	0.0110
Earth	13198-04-09 18:43 G	6541629.17	6541629.28	6541629.40	0.0544	0.0470
Moon	13198-04-09 20:38 G	6541629.27	6541629.36	6541629.46	0.0544	0.0496 *
Venus	13202-12-27 03:07 G	6543351.45	6543351.63	6543351.80	0.0489	0.0239
Mercury	13203-02-28 16:48 G	6543415.10	6543415.20	6543415.30	0.0487	0.0369
Mercury	13203-05-29 08:23 G	6543504.71	6543504.85	6543505.00	0.0486	0.0206
Moon	13204-10-23 05:02 G	6544017.47	6544017.71	6544017.95	0.0485	0.0089
Earth	13204-10-23 05:45 G	6544017.51	6544017.74	6544017.97	0.0485	0.0067 *
Mercury	13209-05-02 11:16 G	6545669.85	6545669.97	6545670.09	0.0541	0.0297
Mercury	13209-07-31 03:21 G	6545759.55	6545759.64	6545759.73	0.0543	0.0421
Moon	13210-04-15 00:14 G	6546017.31	6546017.51	6546017.71	0.0545	0.0280
Earth	13210-04-15 03:36 G	6546017.46	6546017.65	6546017.85	0.0545	0.0299 *
Mercury	13215-03-17 10:04 G	6547814.77	6547814.92	6547815.08	0.0486	0.0065
Moon	13216-10-27 10:19 G	6548404.73	6548404.93	6548405.14	0.0485	0.0212
Earth	13216-10-27 10:48 G	6548404.74	6548404.95	6548405.17	0.0485	0.0187 *
Mars	13219-05-05 10:48 G	6549324.71	6549324.95	6549325.20	0.0516	0.0194

Mercury	13221-02-18 12:43 G	6549979.97	6549980.03	6549980.10	0.0541	0.0475
Venus	13221-02-21 18:43 G	6549983.08	6549983.28	6549983.49	0.0541	0.0088
Mercury	13221-05-19 05:31 G	6550069.61	6550069.73	6550069.86	0.0543	0.0253
Earth	13222-04-20 15:07 G	6550405.91	6550406.13	6550406.36	0.0544	0.0119
Moon	13222-04-20 18:43 G	6550406.05	6550406.28	6550406.51	0.0544	0.0099 *
Venus	13226-12-29 06:43 G	6552119.64	6552119.78	6552119.91	0.0487	0.0366
Mercury	13227-01-03 11:31 G	6552124.83	6552124.98	6552125.14	0.0486	0.0083
Earth	13228-10-31 15:50 G	6552791.99	6552792.16	6552792.35	0.0486	0.0307
Moon	13228-10-31 17:45 G	6552792.05	6552792.24	6552792.44	0.0486	0.0295 *
Venus	13232-10-27 06:43 G	6554248.67	6554248.78	6554248.90	0.0539	0.0441
Mercury	13233-03-07 07:26 G	6554379.67	6554379.81	6554379.96	0.0542	0.0083
Moon	13234-04-25 22:33 G	6554794.20	6554794.44	6554794.68	0.0543	0.0030
Earth	13234-04-26 00:43 G	6554794.30	6554794.53	6554794.76	0.0543	0.0060 *
Venus	13238-09-03 11:45 G	6556385.79	6556385.99	6556386.19	0.0488	0.0015
Mercury	13238-10-22 13:11 G	6556434.92	6556435.05	6556435.20	0.0487	0.0225
Mercury	13239-01-20 05:31 G	6556524.62	6556524.73	6556524.83	0.0486	0.0356
Earth	13239-10-06 20:23 G	6556784.24	6556784.35	6556784.47	0.0484	0.0416
Moon	13239-10-07 00:14 G	6556784.38	6556784.51	6556784.66	0.0484	0.0385 *
Moon	13240-11-04 20:09 G	6557179.22	6557179.34	6557179.48	0.0488	0.0403
Earth	13240-11-04 23:16 G	6557179.37	6557179.47	6557179.59	0.0488	0.0429 *
Mercury	13244-12-24 08:38 G	6558689.72	6558689.86	6558690.01	0.0541	0.0105
Earth	13246-05-01 04:04 G	6559182.46	6559182.67	6559182.88	0.0542	0.0226
Moon	13246-05-01 04:19 G	6559182.48	6559182.68	6559182.89	0.0542	0.0207 *
Venus	13250-05-09 15:07 G	6560652.02	6560652.13	6560652.25	0.0490	0.0405
Mercury	13250-08-10 14:38 G	6560745.02	6560745.11	6560745.22	0.0488	0.0370
Mercury	13250-11-08 06:28 G	6560834.63	6560834.77	6560834.92	0.0486	0.0206
Moon	13251-10-10 20:24 G	6561171.16	6561171.35	6561171.54	0.0484	0.0297
Earth	13251-10-10 23:45 G	6561171.31	6561171.49	6561171.68	0.0484	0.0303 *
Mercury	13256-10-12 09:50 G	6562999.79	6562999.91	6563000.03	0.0541	0.0293
Venus	13256-10-30 12:28 G	6563017.88	6563018.02	6563018.16	0.0541	0.0393

Mercury	13257-01-10 01:55 G	6563089.49	6563089.58	6563089.66	0.0542	0.0424
Earth	13258-05-06 08:52 G	6563570.72	6563570.87	6563571.03	0.0541	0.0393
Moon	13258-05-06 11:02 G	6563570.81	6563570.96	6563571.11	0.0541	0.0420 *
Mercury	13262-08-27 07:55 G	6565144.67	6565144.83	6565144.99	0.0486	0.0060
Earth	13263-10-15 02:38 G	6565558.40	6565558.61	6565558.83	0.0484	0.0189
Moon	13263-10-15 04:48 G	6565558.50	6565558.70	6565558.90	0.0484	0.0216 *
Venus	13268-07-04 21:21 G	6567283.20	6567283.39	6567283.59	0.0540	0.0154
Mercury	13268-07-31 10:19 G	6567309.87	6567309.93	6567310.00	0.0541	0.0486
Mercury	13268-10-29 03:07 G	6567399.50	6567399.63	6567399.76	0.0543	0.0241
Venus	13274-05-11 19:40 G	6569420.14	6569420.32	6569420.51	0.0487	0.0208
Mercury	13274-06-15 09:50 G	6569454.75	6569454.91	6569455.06	0.0487	0.0081
Moon	13275-10-19 06:28 G	6569945.53	6569945.77	6569946.01	0.0484	0.0081
Earth	13275-10-19 06:57 G	6569945.56	6569945.79	6569946.03	0.0484	0.0072 *
Mercury	13280-08-17 05:02 G	6571709.57	6571709.71	6571709.85	0.0542	0.0069
Moon	13281-04-08 14:52 G	6571944.07	6571944.12	6571944.17	0.0545	0.0529
Earth	13281-04-08 17:45 G	6571944.15	6571944.24	6571944.33	0.0545	0.0501 *
Mars	13284-02-11 10:48 G	6572982.68	6572982.95	6572983.22	0.0513	0.0161
Venus	13286-01-15 00:14 G	6573686.32	6573686.51	6573686.70	0.0488	0.0178
Mercury	13286-04-03 11:16 G	6573764.83	6573764.97	6573765.11	0.0487	0.0225
Mercury	13286-07-02 03:21 G	6573854.53	6573854.64	6573854.75	0.0485	0.0355
Moon	13287-10-23 10:19 G	6574332.70	6574332.93	6574333.15	0.0485	0.0072
Earth	13287-10-23 11:02 G	6574332.72	6574332.96	6574333.19	0.0485	0.0048 *
Mercury	13292-06-05 06:57 G	6576019.65	6576019.79	6576019.93	0.0542	0.0105
Earth	13293-04-14 04:48 G	6576332.52	6576332.70	6576332.89	0.0545	0.0325
Moon	13293-04-14 08:38 G	6576332.67	6576332.86	6576333.06	0.0545	0.0297 *
Mercury	13298-01-20 13:12 G	6578074.95	6578075.05	6578075.15	0.0487	0.0365
Mercury	13298-04-20 04:48 G	6578164.56	6578164.70	6578164.85	0.0486	0.0209
Earth	13299-10-27 16:33 G	6578719.98	6578720.19	6578720.42	0.0486	0.0168
Moon	13299-10-27 18:43 G	6578720.06	6578720.28	6578720.50	0.0486	0.0190 *
Venus	13304-03-13 17:45 G	6580318.05	6580318.24	6580318.44	0.0540	0.0169

Mercury	13304-03-25 08:09 G	6580329.72	6580329.84	6580329.97	0.0541	0.0288
Mercury	13304-06-23 00:28 G	6580419.43	6580419.52	6580419.60	0.0542	0.0429
Moon	13305-04-20 08:09 G	6580720.61	6580720.84	6580721.07	0.0544	0.0136
Earth	13305-04-20 11:02 G	6580720.74	6580720.96	6580721.19	0.0544	0.0156 *
Venus	13310-01-18 02:38 G	6582454.52	6582454.61	6582454.71	0.0487	0.0424
Mercury	13310-02-07 06:00 G	6582474.59	6582474.75	6582474.91	0.0487	0.0059
Moon	13311-11-01 19:12 G	6583107.11	6583107.30	6583107.49	0.0487	0.0271
Earth	13311-11-01 22:04 G	6583107.24	6583107.42	6583107.62	0.0487	0.0287 *
Venus	13315-11-17 03:36 G	6584583.51	6584583.65	6584583.80	0.0539	0.0373
Mercury	13316-01-12 09:07 G	6584639.82	6584639.88	6584639.95	0.0540	0.0478
Mercury	13316-04-11 01:40 G	6584729.45	6584729.57	6584729.70	0.0542	0.0247
Earth	13317-04-25 17:16 G	6585108.99	6585109.22	6585109.45	0.0543	0.0019
Moon	13317-04-25 18:28 G	6585109.05	6585109.27	6585109.50	0.0543	0.0014 *
Venus	13321-09-23 07:40 G	6586720.61	6586720.82	6586721.02	0.0488	0.0043
Mercury	13321-11-26 07:40 G	6586784.66	6586784.82	6586784.97	0.0487	0.0085
Moon	13322-10-06 21:21 G	6587099.27	6587099.39	6587099.52	0.0484	0.0410
Earth	13322-10-07 00:43 G	6587099.45	6587099.53	6587099.64	0.0484	0.0439 *
Earth	13323-11-06 02:09 G	6587494.46	6587494.59	6587494.72	0.0487	0.0400
Moon	13323-11-06 05:45 G	6587494.60	6587494.74	6587494.90	0.0487	0.0376 *
Mercury	13328-01-29 02:38 G	6589039.47	6589039.61	6589039.76	0.0542	0.0060
Earth	13329-05-01 00:00 G	6589497.28	6589497.50	6589497.72	0.0543	0.0187
Moon	13329-05-01 00:57 G	6589497.31	6589497.54	6589497.77	0.0543	0.0171 *
Venus	13333-05-29 12:57 G	6590986.90	6590987.04	6590987.19	0.0489	0.0339
Mercury	13333-09-14 09:36 G	6591094.76	6591094.90	6591095.04	0.0487	0.0222
Mercury	13333-12-13 01:40 G	6591184.46	6591184.57	6591184.67	0.0486	0.0358
Earth	13334-10-11 05:02 G	6591486.54	6591486.71	6591486.89	0.0484	0.0322
Moon	13334-10-11 06:57 G	6591486.63	6591486.79	6591486.96	0.0484	0.0326 *
Mars	13337-10-24 23:45 G	6592596.30	6592596.49	6592596.69	0.0513	0.0354
Mercury	13339-11-17 04:33 G	6593349.55	6593349.69	6593349.83	0.0542	0.0118
Venus	13339-11-20 09:50 G	6593352.81	6593352.91	6593353.01	0.0542	0.0466

Moon	13341-05-06 06:00 G	6593885.61	6593885.75	6593885.92	0.0542	0.0393
Earth	13341-05-06 09:36 G	6593885.73	6593885.90	6593886.07	0.0542	0.0360 *
Mercury	13345-07-03 11:16 G	6595404.87	6595404.97	6595405.08	0.0487	0.0364
Mercury	13345-10-01 02:52 G	6595494.48	6595494.62	6595494.76	0.0486	0.0209
Moon	13346-10-15 07:55 G	6595873.62	6595873.83	6595874.04	0.0484	0.0235
Earth	13346-10-15 08:09 G	6595873.63	6595873.84	6595874.06	0.0484	0.0207 *
Venus	13351-07-25 21:50 G	6597618.21	6597618.41	6597618.62	0.0540	0.0067
Mercury	13351-09-05 06:14 G	6597659.64	6597659.76	6597659.89	0.0541	0.0292
Mercury	13351-12-03 22:33 G	6597749.36	6597749.44	6597749.53	0.0543	0.0428
Earth	13353-05-11 17:31 G	6598274.19	6598274.23	6598274.28	0.0541	0.0527
Moon	13353-05-11 21:36 G	6598274.37	6598274.40	6598274.43	0.0541	0.0535
Venus	13357-05-31 16:33 G	6599755.02	6599755.19	6599755.36	0.0487	0.0267
Mercury	13357-07-20 04:19 G	6599804.53	6599804.68	6599804.84	0.0486	0.0065
Moon	13358-10-19 12:00 G	6600260.78	6600261.00	6600261.22	0.0484	0.0096
Earth	13358-10-19 12:57 G	6600260.81	6600261.04	6600261.27	0.0484	0.0089 *
Mercury	13363-06-24 07:40 G	6601969.75	6601969.82	6601969.89	0.0540	0.0473
Mercury	13363-09-22 00:14 G	6602059.39	6602059.51	6602059.64	0.0542	0.0252
Earth	13364-04-08 15:36 G	6602259.11	6602259.15	6602259.20	0.0544	0.0531
Venus	13369-02-03 20:09 G	6604021.15	6604021.34	6604021.54	0.0489	0.0121
Mercury	13369-05-08 05:45 G	6604114.58	6604114.74	6604114.89	0.0487	0.0085
Earth	13370-10-23 17:02 G	6604647.98	6604648.21	6604648.45	0.0485	0.0027
Moon	13370-10-23 19:12 G	6604648.06	6604648.30	6604648.54	0.0485	0.0053 *
Mars	13373-07-30 06:14 G	6605658.60	6605658.76	6605658.93	0.0516	0.0402
Mercury	13375-07-11 01:40 G	6606369.42	6606369.57	6606369.71	0.0542	0.0070
Moon	13376-04-13 19:12 G	6606647.12	6606647.30	6606647.49	0.0544	0.0333
Earth	13376-04-13 22:48 G	6606647.28	6606647.45	6606647.63	0.0544	0.0362 *
Mercury	13381-02-24 07:26 G	6608424.67	6608424.81	6608424.95	0.0487	0.0225
Mercury	13381-05-24 23:16 G	6608514.37	6608514.47	6608514.58	0.0486	0.0355
Moon	13382-10-27 17:45 G	6609035.03	6609035.24	6609035.46	0.0485	0.0160
Earth	13382-10-27 20:52 G	6609035.14	6609035.37	6609035.59	0.0485	0.0142 *

Venus	13387-04-02 12:43 G	6610652.85	6610653.03	6610653.22	0.0541	0.0227
Mercury	13387-04-29 02:09 G	6610679.45	6610679.59	6610679.73	0.0542	0.0127
Earth	13388-04-19 05:02 G	6611035.49	6611035.71	6611035.93	0.0545	0.0195
Moon	13388-04-19 07:12 G	6611035.59	6611035.80	6611036.02	0.0545	0.0177 *
Mercury	13392-12-13 09:36 G	6612734.80	6612734.90	6612735.00	0.0488	0.0361
Mercury	13393-03-13 01:12 G	6612824.40	6612824.55	6612824.69	0.0486	0.0213
Earth	13394-11-01 02:24 G	6613422.41	6613422.60	6613422.80	0.0486	0.0262
Moon	13394-11-01 06:14 G	6613422.56	6613422.76	6613422.96	0.0486	0.0238 *
Venus	13398-12-06 00:28 G	6614918.35	6614918.52	6614918.68	0.0539	0.0307
Mercury	13399-02-15 03:50 G	6614989.54	6614989.66	6614989.78	0.0541	0.0304
Mercury	13399-05-15 20:09 G	6615079.25	6615079.34	6615079.43	0.0543	0.0416
Moon	13400-04-25 16:04 G	6615423.93	6615424.17	6615424.41	0.0544	0.0044
Earth	13400-04-25 16:04 G	6615423.94	6615424.17	6615424.40	0.0544	0.0016 *
Mars	13402-08-02 11:31 G	6616252.85	6616252.98	6616253.11	0.0516	0.0454
Venus	13404-10-13 05:31 G	6617055.53	6617055.73	6617055.93	0.0488	0.0107
Mercury	13404-12-31 02:38 G	6617134.45	6617134.61	6617134.77	0.0486	0.0066
Earth	13405-10-07 07:12 G	6617414.73	6617414.80	6617414.88	0.0484	0.0453
Moon	13405-10-07 09:07 G	6617414.78	6617414.88	6617414.98	0.0484	0.0430 *
Moon	13406-11-06 03:36 G	6617809.50	6617809.65	6617809.82	0.0487	0.0355
Earth	13406-11-06 07:26 G	6617809.67	6617809.81	6617809.96	0.0487	0.0380 *
Mercury	13410-12-05 05:31 G	6619299.67	6619299.73	6619299.80	0.0541	0.0479
Mercury	13411-03-04 22:19 G	6619389.31	6619389.43	6619389.56	0.0543	0.0249
Moon	13412-05-01 00:00 G	6619812.29	6619812.50	6619812.72	0.0543	0.0152
Earth	13412-05-01 02:38 G	6619812.39	6619812.61	6619812.83	0.0543	0.0161 *
Venus	13416-06-18 10:19 G	6621321.77	6621321.93	6621322.10	0.0489	0.0278
Mercury	13416-10-19 04:19 G	6621444.52	6621444.68	6621444.84	0.0487	0.0077
Moon	13417-10-11 11:02 G	6621801.80	6621801.96	6621802.13	0.0484	0.0349
Earth	13417-10-11 11:16 G	6621801.81	6621801.97	6621802.14	0.0484	0.0338 *
Mercury	13422-12-22 00:14 G	6623699.36	6623699.51	6623699.65	0.0542	0.0075
Earth	13424-05-06 08:09 G	6624200.66	6624200.84	6624201.03	0.0542	0.0326

Moon	13424-05-06 12:14 G	6624200.84	6624201.01	6624201.18	0.0542	0.0362 *
Mercury	13428-08-07 05:31 G	6625754.60	6625754.73	6625754.87	0.0487	0.0224
Mercury	13428-11-04 21:36 G	6625844.29	6625844.40	6625844.51	0.0486	0.0356
Moon	13429-10-15 13:26 G	6626188.87	6626189.06	6626189.25	0.0484	0.0257
Earth	13429-10-15 14:38 G	6626188.90	6626189.11	6626189.31	0.0484	0.0226 *
Venus	13434-08-14 20:09 G	6627953.14	6627953.34	6627953.55	0.0540	0.0018
Mercury	13434-10-10 01:26 G	6628009.42	6628009.56	6628009.70	0.0541	0.0111
Moon	13436-05-11 09:07 G	6628588.80	6628588.88	6628588.98	0.0541	0.0499
Earth	13436-05-11 12:57 G	6628588.95	6628589.04	6628589.14	0.0541	0.0490 *
Mars	13438-05-08 17:45 G	6629316.04	6629316.24	6629316.45	0.0513	0.0352
Mercury	13440-05-26 07:40 G	6630064.71	6630064.82	6630064.92	0.0488	0.0363
Venus	13440-06-20 13:12 G	6630089.90	6630090.05	6630090.20	0.0487	0.0329
Mercury	13440-08-23 23:02 G	6630154.32	6630154.46	6630154.61	0.0486	0.0212
Earth	13441-10-19 18:14 G	6630576.04	6630576.26	6630576.49	0.0484	0.0112
Moon	13441-10-19 20:38 G	6630576.13	6630576.36	6630576.59	0.0484	0.0114 *
Mercury	13446-07-29 01:40 G	6632319.45	6632319.57	6632319.69	0.0541	0.0310
Mercury	13446-10-26 18:00 G	6632409.16	6632409.25	6632409.35	0.0543	0.0411
Venus	13452-02-24 18:57 G	6634356.09	6634356.29	6634356.49	0.0488	0.0051
Mercury	13452-06-12 00:57 G	6634464.38	6634464.54	6634464.70	0.0486	0.0072
Moon	13453-10-23 20:24 G	6634963.12	6634963.35	6634963.58	0.0484	0.0033
Earth	13453-10-23 23:31 G	6634963.24	6634963.48	6634963.71	0.0484	0.0006 *
Mercury	13458-05-17 03:07 G	6636629.57	6636629.63	6636629.69	0.0541	0.0491
Mercury	13458-08-14 20:09 G	6636719.21	6636719.34	6636719.46	0.0543	0.0239
Earth	13459-04-14 19:55 G	6636962.18	6636962.33	6636962.49	0.0545	0.0396
Moon	13459-04-14 22:48 G	6636962.29	6636962.45	6636962.62	0.0545	0.0365 *
Venus	13463-10-30 23:16 G	6638622.39	6638622.47	6638622.56	0.0490	0.0439
Mercury	13464-03-31 02:38 G	6638774.45	6638774.61	6638774.77	0.0487	0.0073
Earth	13465-10-28 03:21 G	6639350.41	6639350.64	6639350.87	0.0485	0.0124
Moon	13465-10-28 07:12 G	6639350.57	6639350.80	6639351.02	0.0485	0.0133 *
Venus	13470-04-22 13:55 G	6640987.92	6640988.08	6640988.25	0.0541	0.0320

Mercury	13470-06-02 22:19 G	6641029.28	6641029.43	6641029.57	0.0542	0.0072
Moon	13471-04-20 07:26 G	6641350.58	6641350.81	6641351.03	0.0545	0.0201
Earth	13471-04-20 08:24 G	6641350.64	6641350.85	6641351.06	0.0545	0.0218 *
Mercury	13476-01-18 04:33 G	6643084.55	6643084.69	6643084.83	0.0487	0.0214
Mercury	13476-04-16 20:09 G	6643174.24	6643174.34	6643174.45	0.0486	0.0366
Moon	13477-11-01 05:31 G	6643737.52	6643737.73	6643737.95	0.0486	0.0217
Earth	13477-11-01 09:21 G	6643737.69	6643737.89	6643738.09	0.0486	0.0244 *
Venus	13481-12-26 01:55 G	6645253.40	6645253.58	6645253.77	0.0539	0.0211
Mercury	13482-03-22 00:00 G	6645339.36	6645339.50	6645339.64	0.0541	0.0105
Moon	13483-04-25 15:36 G	6645738.92	6645739.15	6645739.37	0.0544	0.0076
Earth	13483-04-25 17:16 G	6645738.98	6645739.22	6645739.45	0.0544	0.0046 *
Venus	13487-11-02 02:24 G	6647390.41	6647390.60	6647390.79	0.0488	0.0169
Mercury	13487-11-06 06:00 G	6647394.64	6647394.75	6647394.85	0.0488	0.0359
Mercury	13488-02-03 21:21 G	6647484.25	6647484.39	6647484.54	0.0486	0.0215
Moon	13488-10-06 13:55 G	6647730.00	6647730.08	6647730.18	0.0484	0.0449
Earth	13488-10-06 13:55 G	6647730.04	6647730.08	6647730.14	0.0484	0.0470 *
Earth	13489-11-05 14:52 G	6648124.97	6648125.12	6648125.28	0.0487	0.0360
Moon	13489-11-05 18:00 G	6648125.09	6648125.25	6648125.41	0.0487	0.0339 *
Mars	13492-01-19 23:16 G	6648930.22	6648930.47	6648930.73	0.0513	0.0137
Mercury	13494-01-08 01:12 G	6649649.42	6649649.55	6649649.67	0.0541	0.0291
Mercury	13494-04-07 17:16 G	6649739.14	6649739.22	6649739.31	0.0542	0.0428
Earth	13495-04-30 23:45 G	6650127.27	6650127.49	6650127.72	0.0543	0.0126
Moon	13495-05-01 03:36 G	6650127.42	6650127.65	6650127.88	0.0543	0.0124 *
Venus	13499-07-08 07:26 G	6651656.63	6651656.81	6651657.00	0.0489	0.0215
Mercury	13499-11-22 23:02 G	6651794.31	6651794.46	6651794.62	0.0486	0.0073
Moon	13500-10-11 16:48 G	6652117.06	6652117.20	6652117.35	0.0484	0.0375
Earth	13500-10-11 18:14 G	6652117.11	6652117.26	6652117.42	0.0484	0.0358 *
Moon	13501-11-10 18:28 G	6652512.26	6652512.27	6652512.30	0.0487	0.0486
Earth	13501-11-10 20:38 G	6652512.31	6652512.36	6652512.42	0.0487	0.0473
Mercury	13505-10-28 01:12 G	6653959.49	6653959.55	6653959.61	0.0540	0.0493

Mercury	13506-01-25 18:00 G	6654049.13	6654049.25	6654049.38	0.0542	0.0236
Moon	13507-05-07 00:00 G	6654515.32	6654515.50	6654515.69	0.0543	0.0324
Earth	13507-05-07 04:04 G	6654515.48	6654515.67	6654515.87	0.0543	0.0289 *
Mercury	13511-09-12 01:12 G	6656104.39	6656104.55	6656104.71	0.0487	0.0066
Earth	13512-10-15 23:02 G	6656504.26	6656504.46	6656504.66	0.0484	0.0241
Moon	13512-10-16 01:26 G	6656504.37	6656504.56	6656504.76	0.0484	0.0269 *
Venus	13517-09-03 17:02 G	6658288.01	6658288.21	6658288.41	0.0540	0.0079
Mercury	13517-11-13 19:55 G	6658359.19	6658359.33	6658359.47	0.0542	0.0060
Earth	13519-05-12 13:12 G	6658903.93	6658904.05	6658904.18	0.0542	0.0459
Moon	13519-05-12 16:19 G	6658904.07	6658904.18	6658904.29	0.0542	0.0467 *
Mercury	13523-07-01 02:52 G	6660414.48	6660414.62	6660414.77	0.0487	0.0208
Venus	13523-07-11 12:14 G	6660424.90	6660425.01	6660425.13	0.0487	0.0400
Mercury	13523-09-28 18:43 G	6660504.18	6660504.28	6660504.38	0.0485	0.0371
Moon	13524-10-19 23:16 G	6660891.25	6660891.47	6660891.69	0.0484	0.0126
Earth	13524-10-20 02:24 G	6660891.38	6660891.60	6660891.83	0.0484	0.0127 *
Venus	13529-05-09 05:45 G	6662553.63	6662553.74	6662553.85	0.0539	0.0446
Mercury	13529-09-01 21:50 G	6662669.27	6662669.41	6662669.56	0.0542	0.0111
Venus	13535-03-16 17:31 G	6664691.03	6664691.23	6664691.44	0.0488	0.0018
Mercury	13535-04-19 05:02 G	6664724.60	6664724.71	6664724.81	0.0487	0.0347
Mercury	13535-07-17 20:24 G	6664814.21	6664814.35	6664814.49	0.0486	0.0227
Earth	13536-10-24 07:12 G	6665278.57	6665278.80	6665279.04	0.0484	0.0009
Moon	13536-10-24 11:02 G	6665278.72	6665278.96	6665279.19	0.0484	0.0021 *
Mercury	13541-06-20 23:45 G	6666979.37	6666979.49	6666979.61	0.0541	0.0284
Mercury	13541-09-18 16:04 G	6667069.09	6667069.17	6667069.25	0.0543	0.0436
Moon	13542-04-14 21:36 G	6667277.23	6667277.40	6667277.57	0.0544	0.0388
Earth	13542-04-14 23:31 G	6667277.34	6667277.48	6667277.63	0.0544	0.0420 *
Venus	13546-11-19 20:52 G	6668957.25	6668957.37	6668957.51	0.0490	0.0375
Mercury	13547-05-05 21:36 G	6669124.24	6669124.40	6669124.56	0.0486	0.0078
Moon	13548-10-28 08:09 G	6669665.61	6669665.84	6669666.08	0.0485	0.0111
Earth	13548-10-28 11:45 G	6669665.76	6669665.99	6669666.22	0.0485	0.0106 *

Mercury	13553-04-09 00:43 G	6671289.46	6671289.53	6671289.60	0.0540	0.0470
Venus	13553-05-12 14:09 G	6671322.97	6671323.09	6671323.23	0.0541	0.0410
Mercury	13553-07-07 17:45 G	6671379.11	6671379.24	6671379.36	0.0542	0.0258
Moon	13554-04-20 07:12 G	6671665.60	6671665.80	6671666.00	0.0544	0.0238
Earth	13554-04-20 07:55 G	6671665.62	6671665.83	6671666.04	0.0544	0.0248 *
Mars	13556-10-27 05:16 G	6672586.47	6672586.72	6672586.97	0.0516	0.0236
Mercury	13559-02-21 23:31 G	6673434.32	6673434.48	6673434.64	0.0487	0.0063
Earth	13560-11-01 17:02 G	6674053.00	6674053.21	6674053.42	0.0485	0.0223
Moon	13560-11-01 19:40 G	6674053.12	6674053.32	6674053.54	0.0485	0.0196 *
Venus	13565-01-14 22:04 G	6675588.22	6675588.42	6675588.61	0.0539	0.0149
Mercury	13565-04-25 18:14 G	6675689.12	6675689.26	6675689.40	0.0542	0.0061
Earth	13566-04-25 12:00 G	6676053.77	6676054.00	6676054.23	0.0544	0.0083
Moon	13566-04-25 15:07 G	6676053.90	6676054.13	6676054.37	0.0544	0.0115 *
Venus	13570-11-22 02:24 G	6677725.43	6677725.60	6677725.78	0.0488	0.0247
Mercury	13570-12-11 01:40 G	6677744.43	6677744.57	6677744.71	0.0487	0.0199
Mercury	13571-03-10 17:31 G	6677834.13	6677834.23	6677834.33	0.0486	0.0381
Moon	13571-10-07 22:48 G	6678045.40	6678045.45	6678045.52	0.0484	0.0465
Earth	13571-10-08 00:43 G	6678045.51	6678045.53	6678045.56	0.0484	0.0480 *
Moon	13572-11-05 21:21 G	6678440.21	6678440.39	6678440.58	0.0486	0.0321
Earth	13572-11-05 23:16 G	6678440.31	6678440.47	6678440.64	0.0486	0.0341 *
Mercury	13577-02-11 19:55 G	6679999.19	6679999.33	6679999.47	0.0542	0.0118
Moon	13578-04-30 18:28 G	6680442.04	6680442.27	6680442.50	0.0544	0.0090
Earth	13578-04-30 22:33 G	6680442.21	6680442.44	6680442.67	0.0544	0.0094 *
Venus	13582-07-28 07:40 G	6681991.62	6681991.82	6681992.01	0.0489	0.0139
Mercury	13582-09-29 03:36 G	6682054.54	6682054.65	6682054.76	0.0487	0.0338
Mercury	13582-12-27 18:57 G	6682144.15	6682144.29	6682144.43	0.0486	0.0235
Earth	13583-10-12 03:50 G	6682432.51	6682432.66	6682432.81	0.0483	0.0369
Moon	13583-10-12 06:28 G	6682432.63	6682432.77	6682432.91	0.0483	0.0387 *
Earth	13584-11-10 04:33 G	6682827.61	6682827.69	6682827.77	0.0487	0.0456
Moon	13584-11-10 04:19 G	6682827.65	6682827.68	6682827.74	0.0487	0.0477 *

Mercury	13588-11-30 21:50 G	6684309.28	6684309.41	6684309.53	0.0541	0.0289
Mercury	13589-02-28 14:09 G	6684399.01	6684399.09	6684399.18	0.0543	0.0433
Earth	13590-05-06 09:50 G	6684830.71	6684830.91	6684831.12	0.0543	0.0268
Moon	13590-05-06 13:26 G	6684830.87	6684831.06	6684831.25	0.0543	0.0304 *
Mercury	13594-07-18 05:45 G	6686364.71	6686364.74	6686364.77	0.0488	0.0475
Mercury	13594-10-15 20:38 G	6686454.21	6686454.36	6686454.52	0.0486	0.0092
Moon	13595-10-16 04:33 G	6686819.51	6686819.69	6686819.88	0.0484	0.0282
Earth	13595-10-16 08:09 G	6686819.64	6686819.84	6686820.04	0.0484	0.0254 *
Mercury	13600-09-18 23:16 G	6688619.40	6688619.47	6688619.55	0.0541	0.0464
Venus	13600-09-22 20:09 G	6688623.16	6688623.34	6688623.54	0.0541	0.0187
Mercury	13600-12-17 16:19 G	6688709.06	6688709.18	6688709.31	0.0542	0.0266
Moon	13602-05-11 16:33 G	6689219.05	6689219.19	6689219.34	0.0542	0.0433
Earth	13602-05-11 18:14 G	6689219.12	6689219.26	6689219.39	0.0542	0.0433 *
Venus	13606-07-30 10:33 G	6690759.89	6690759.94	6690760.00	0.0487	0.0468
Mercury	13606-08-03 22:04 G	6690764.26	6690764.42	6690764.58	0.0487	0.0055
Earth	13607-10-20 11:31 G	6691206.76	6691206.98	6691207.21	0.0484	0.0142
Moon	13607-10-20 15:21 G	6691206.91	6691207.14	6691207.36	0.0484	0.0130 *
Venus	13612-05-28 07:12 G	6692888.65	6692888.80	6692888.96	0.0539	0.0351
Mercury	13612-10-05 18:00 G	6693019.11	6693019.25	6693019.39	0.0542	0.0087
Venus	13618-04-04 16:04 G	6695025.97	6695026.17	6695026.37	0.0488	0.0088
Mercury	13618-05-23 00:00 G	6695074.36	6695074.50	6695074.65	0.0487	0.0194
Mercury	13618-08-20 15:50 G	6695164.07	6695164.16	6695164.26	0.0486	0.0387
Moon	13619-10-24 13:12 G	6695593.82	6695594.05	6695594.29	0.0484	0.0008
Earth	13619-10-24 16:48 G	6695593.96	6695594.20	6695594.43	0.0484	0.0027 *
Mercury	13624-07-24 18:14 G	6697329.12	6697329.26	6697329.40	0.0541	0.0113
Earth	13625-04-13 18:28 G	6697592.14	6697592.27	6697592.40	0.0545	0.0452
Moon	13625-04-13 18:57 G	6697592.16	6697592.29	6697592.44	0.0545	0.0424 *
Venus	13629-12-08 21:36 G	6699292.24	6699292.40	6699292.57	0.0490	0.0296
Mercury	13630-03-11 02:24 G	6699384.49	6699384.60	6699384.72	0.0488	0.0329
Mercury	13630-06-08 17:45 G	6699474.11	6699474.24	6699474.38	0.0486	0.0246

Earth	13631-10-28 22:19 G	6699981.20	6699981.43	6699981.66	0.0484	0.0092
Moon	13631-10-29 00:57 G	6699981.31	6699981.54	6699981.76	0.0484	0.0092 *
Mercury	13636-05-12 19:40 G	6701639.20	6701639.32	6701639.44	0.0541	0.0294
Venus	13636-05-31 11:45 G	6701657.90	6701657.99	6701658.08	0.0541	0.0480
Mercury	13636-08-10 12:14 G	6701728.92	6701729.01	6701729.09	0.0543	0.0428
Earth	13637-04-19 05:02 G	6701980.52	6701980.71	6701980.92	0.0545	0.0279
Moon	13637-04-19 07:26 G	6701980.61	6701980.81	6701981.02	0.0545	0.0276 *
Mercury	13641-12-28 04:19 G	6703694.65	6703694.68	6703694.73	0.0488	0.0466
Mercury	13642-03-27 19:26 G	6703784.16	6703784.31	6703784.47	0.0486	0.0102
Moon	13643-11-02 00:43 G	6704368.31	6704368.53	6704368.76	0.0485	0.0180
Earth	13643-11-02 02:24 G	6704368.39	6704368.60	6704368.81	0.0485	0.0208 *
Mars	13646-04-15 19:12 G	6705264.04	6705264.30	6705264.57	0.0513	0.0066
Venus	13648-02-04 00:14 G	6705923.31	6705923.51	6705923.72	0.0540	0.0051
Mercury	13648-02-29 21:21 G	6705949.32	6705949.39	6705949.47	0.0541	0.0468
Mercury	13648-05-29 14:24 G	6706038.98	6706039.10	6706039.23	0.0543	0.0263
Moon	13649-04-24 14:24 G	6706368.88	6706369.10	6706369.33	0.0545	0.0138
Earth	13649-04-24 18:28 G	6706369.04	6706369.27	6706369.50	0.0545	0.0102 *
Venus	13653-12-11 02:09 G	6708060.44	6708060.59	6708060.75	0.0487	0.0321
Mercury	13654-01-13 21:21 G	6708094.23	6708094.39	6708094.55	0.0487	0.0040
Moon	13654-10-07 13:26 G	6708361.03	6708361.06	6708361.11	0.0484	0.0476
Earth	13655-11-06 08:38 G	6708755.68	6708755.86	6708756.03	0.0486	0.0325
Moon	13655-11-06 08:24 G	6708755.68	6708755.85	6708756.02	0.0486	0.0316 *
Mercury	13660-03-17 16:33 G	6710349.05	6710349.19	6710349.33	0.0542	0.0095
Earth	13661-04-30 05:02 G	6710757.48	6710757.71	6710757.94	0.0544	0.0072
Moon	13661-04-30 08:52 G	6710757.64	6710757.87	6710758.10	0.0544	0.0073 *
Venus	13665-08-16 06:28 G	6712326.57	6712326.77	6712326.98	0.0489	0.0068
Mercury	13665-11-01 22:48 G	6712404.31	6712404.45	6712404.60	0.0487	0.0185
Mercury	13666-01-30 14:38 G	6712494.02	6712494.11	6712494.20	0.0486	0.0395
Moon	13666-10-11 10:04 G	6712747.80	6712747.92	6712748.05	0.0484	0.0404
Earth	13666-10-11 13:40 G	6712747.93	6712748.07	6712748.22	0.0484	0.0381 *

Earth	13667-11-10 14:38 G	6713143.02	6713143.11	6713143.21	0.0487	0.0440
Moon	13667-11-10 16:48 G	6713143.14	6713143.20	6713143.28	0.0487	0.0466 *
Mercury	13672-01-04 18:14 G	6714659.11	6714659.26	6714659.40	0.0541	0.0086
Moon	13673-05-05 10:19 G	6715145.72	6715145.93	6715146.14	0.0543	0.0272
Earth	13673-05-05 12:43 G	6715145.82	6715146.03	6715146.24	0.0543	0.0241 *
Venus	13677-04-21 11:16 G	6716592.90	6716592.97	6716593.05	0.0490	0.0455
Mercury	13677-08-21 00:57 G	6716714.43	6716714.54	6716714.66	0.0488	0.0322
Mercury	13677-11-18 16:19 G	6716804.05	6716804.18	6716804.32	0.0486	0.0253
Earth	13678-10-15 18:28 G	6717135.08	6717135.27	6717135.47	0.0484	0.0267
Moon	13678-10-15 22:04 G	6717135.24	6717135.42	6717135.61	0.0484	0.0287 *
Venus	13683-10-12 17:31 G	6718958.06	6718958.23	6718958.41	0.0540	0.0256
Mercury	13683-10-23 18:14 G	6718969.14	6718969.26	6718969.39	0.0541	0.0287
Mercury	13684-01-21 10:48 G	6719058.87	6719058.95	6719059.03	0.0543	0.0434
Moon	13685-05-10 14:52 G	6719533.97	6719534.12	6719534.27	0.0542	0.0395
Earth	13685-05-10 15:07 G	6719533.98	6719534.13	6719534.29	0.0542	0.0400 *
Mercury	13689-06-09 03:21 G	6721024.59	6721024.64	6721024.69	0.0488	0.0455
Mercury	13689-09-06 18:28 G	6721114.11	6721114.27	6721114.42	0.0487	0.0114
Moon	13690-10-19 20:38 G	6721522.13	6721522.36	6721522.59	0.0484	0.0133
Earth	13690-10-19 23:45 G	6721522.27	6721522.49	6721522.72	0.0484	0.0152 *
Venus	13695-06-17 04:48 G	6723223.53	6723223.70	6723223.88	0.0539	0.0282
Mercury	13695-08-11 19:26 G	6723279.25	6723279.31	6723279.39	0.0540	0.0471
Mercury	13695-11-09 12:28 G	6723368.90	6723369.02	6723369.15	0.0542	0.0261
Moon	13697-05-16 02:24 G	6723922.56	6723922.60	6723922.65	0.0541	0.0530
Venus	13701-04-24 16:48 G	6725361.01	6725361.20	6725361.40	0.0488	0.0169
Mercury	13701-06-26 20:09 G	6725424.18	6725424.34	6725424.50	0.0487	0.0029
Earth	13702-10-25 03:07 G	6725909.40	6725909.63	6725909.87	0.0484	0.0038
Moon	13702-10-25 05:31 G	6725909.50	6725909.73	6725909.96	0.0484	0.0010 *
Mercury	13707-08-29 14:38 G	6727678.97	6727679.11	6727679.26	0.0542	0.0093
Earth	13708-04-14 00:28 G	6727907.40	6727907.52	6727907.63	0.0545	0.0470
Moon	13708-04-14 01:40 G	6727907.43	6727907.57	6727907.72	0.0545	0.0437 *

Mars	13711-01-22 21:36 G	6728921.12	6728921.40	6728921.68	0.0515	0.0051
Venus	13712-12-28 22:04 G	6729627.24	6729627.42	6729627.61	0.0489	0.0217
Mercury	13713-04-14 22:04 G	6729734.28	6729734.42	6729734.57	0.0487	0.0168
Mercury	13713-07-13 13:55 G	6729824.00	6729824.08	6729824.16	0.0485	0.0412
Moon	13714-10-29 06:57 G	6730296.55	6730296.79	6730297.03	0.0484	0.0076
Earth	13714-10-29 08:24 G	6730296.61	6730296.85	6730297.08	0.0484	0.0080 *
Mercury	13719-06-17 16:48 G	6731989.06	6731989.20	6731989.34	0.0542	0.0078
Moon	13720-04-19 09:21 G	6732295.70	6732295.89	6732296.08	0.0545	0.0302
Earth	13720-04-19 12:57 G	6732295.85	6732296.04	6732296.24	0.0545	0.0297 *
Mercury	13725-01-31 23:45 G	6734044.37	6734044.49	6734044.61	0.0488	0.0312
Mercury	13725-05-01 15:07 G	6734134.00	6734134.13	6734134.27	0.0486	0.0263
Moon	13726-11-02 12:43 G	6734683.82	6734684.03	6734684.24	0.0485	0.0168
Earth	13726-11-02 12:57 G	6734683.83	6734684.04	6734684.26	0.0485	0.0194 *
Venus	13731-02-24 03:21 G	6736258.44	6736258.64	6736258.84	0.0540	0.0054
Mercury	13731-04-05 18:14 G	6736299.13	6736299.26	6736299.39	0.0541	0.0258
Mercury	13731-07-04 10:33 G	6736388.87	6736388.94	6736389.02	0.0543	0.0463
Earth	13732-04-24 22:19 G	6736684.20	6736684.43	6736684.66	0.0544	0.0124
Moon	13732-04-25 02:24 G	6736684.38	6736684.60	6736684.82	0.0544	0.0160 *
Mercury	13736-11-20 02:09 G	6738354.53	6738354.59	6738354.65	0.0488	0.0447
Venus	13736-12-31 01:55 G	6738395.46	6738395.58	6738395.70	0.0487	0.0395
Mercury	13737-02-17 17:02 G	6738444.06	6738444.21	6738444.36	0.0486	0.0122
Earth	13738-11-06 19:40 G	6739071.14	6739071.32	6739071.50	0.0486	0.0311
Moon	13738-11-06 22:04 G	6739071.23	6739071.42	6739071.60	0.0486	0.0311 *
Venus	13742-10-29 11:31 G	6740523.91	6740523.98	6740524.06	0.0538	0.0498
Mercury	13743-01-22 18:14 G	6740609.19	6740609.26	6740609.34	0.0540	0.0461
Mercury	13743-04-22 11:16 G	6740698.85	6740698.97	6740699.10	0.0542	0.0268
Moon	13744-04-29 22:19 G	6741072.19	6741072.43	6741072.66	0.0544	0.0038
Earth	13744-04-30 01:26 G	6741072.33	6741072.56	6741072.80	0.0544	0.0040 *
Venus	13748-09-05 07:40 G	6742661.61	6742661.82	6742662.02	0.0489	0.0017
Mercury	13748-12-06 18:57 G	6742754.14	6742754.29	6742754.45	0.0487	0.0021

Earth	13749-10-12 02:38 G	6743063.48	6743063.61	6743063.75	0.0484	0.0388
Moon	13749-10-12 06:14 G	6743063.65	6743063.76	6743063.88	0.0484	0.0415 *
Moon	13750-11-10 22:48 G	6743458.38	6743458.45	6743458.53	0.0486	0.0457
Earth	13750-11-11 02:09 G	6743458.49	6743458.59	6743458.71	0.0486	0.0427 *
Mercury	13755-02-08 12:57 G	6745008.90	6745009.04	6745009.18	0.0542	0.0090
Earth	13756-05-05 10:48 G	6745460.74	6745460.95	6745461.17	0.0544	0.0210
Moon	13756-05-05 11:31 G	6745460.78	6745460.98	6745461.18	0.0544	0.0241 *
Venus	13760-05-11 12:14 G	6746927.88	6746928.01	6746928.14	0.0490	0.0374
Mercury	13760-09-24 20:52 G	6747064.22	6747064.37	6747064.52	0.0487	0.0158
Mercury	13760-12-23 12:43 G	6747153.95	6747154.03	6747154.11	0.0486	0.0423
Moon	13761-10-16 02:52 G	6747450.43	6747450.62	6747450.81	0.0483	0.0292
Earth	13761-10-16 05:45 G	6747450.55	6747450.74	6747450.93	0.0483	0.0277 *
Mars	13764-10-05 21:36 G	6748536.27	6748536.40	6748536.54	0.0511	0.0438
Venus	13766-11-01 19:55 G	6749293.18	6749293.33	6749293.49	0.0541	0.0357
Mercury	13766-11-27 14:52 G	6749318.98	6749319.12	6749319.26	0.0542	0.0082
Earth	13768-05-10 22:04 G	6749849.26	6749849.42	6749849.59	0.0543	0.0381
Moon	13768-05-11 00:28 G	6749849.34	6749849.52	6749849.70	0.0543	0.0364 *
Mercury	13772-07-13 23:02 G	6751374.34	6751374.46	6751374.58	0.0487	0.0295
Mercury	13772-10-11 14:24 G	6751463.97	6751464.10	6751464.23	0.0486	0.0279
Earth	13773-10-20 10:04 G	6751837.71	6751837.92	6751838.15	0.0483	0.0164
Moon	13773-10-20 12:14 G	6751837.79	6751838.01	6751838.23	0.0483	0.0141 *
Venus	13778-07-07 09:07 G	6753558.69	6753558.88	6753559.07	0.0539	0.0171
Mercury	13778-09-15 16:48 G	6753629.07	6753629.20	6753629.33	0.0541	0.0253
Mercury	13778-12-14 09:21 G	6753718.82	6753718.89	6753718.96	0.0543	0.0469
Moon	13780-05-16 03:50 G	6754237.60	6754237.66	6754237.74	0.0541	0.0511
Mercury	13784-05-02 00:43 G	6755684.47	6755684.53	6755684.60	0.0488	0.0437
Venus	13784-05-13 16:33 G	6755696.01	6755696.19	6755696.36	0.0488	0.0242
Mercury	13784-07-30 15:50 G	6755774.01	6755774.16	6755774.31	0.0486	0.0132
Moon	13785-10-24 12:57 G	6756224.80	6756225.04	6756225.28	0.0484	0.0025
Earth	13785-10-24 13:55 G	6756224.85	6756225.08	6756225.32	0.0484	0.0051 *

Mercury	13790-07-04 18:14 G	6757939.17	6757939.26	6757939.34	0.0540	0.0433
Mercury	13790-10-02 11:16 G	6758028.85	6758028.97	6758029.08	0.0542	0.0296
Moon	13791-04-14 02:24 G	6758222.48	6758222.60	6758222.73	0.0545	0.0457
Earth	13791-04-14 05:31 G	6758222.63	6758222.73	6758222.83	0.0545	0.0488 *
Venus	13796-01-17 21:36 G	6759962.21	6759962.40	6759962.60	0.0489	0.0144
Mercury	13796-05-18 17:45 G	6760084.08	6760084.24	6760084.40	0.0487	0.0008
Moon	13797-10-28 19:12 G	6760612.08	6760612.30	6760612.52	0.0484	0.0056
Earth	13797-10-28 19:55 G	6760612.10	6760612.33	6760612.56	0.0484	0.0067 *
Mars	13800-07-12 06:00 G	6761598.54	6761598.75	6761598.96	0.0513	0.0320
Mercury	13802-07-22 11:45 G	6762338.85	6762338.99	6762339.13	0.0542	0.0100
Earth	13803-04-20 09:07 G	6762610.69	6762610.88	6762611.06	0.0545	0.0327
Moon	13803-04-20 13:12 G	6762610.87	6762611.05	6762611.24	0.0545	0.0333 *
Mercury	13808-03-07 19:40 G	6764394.18	6764394.32	6764394.48	0.0488	0.0148
Mercury	13808-06-05 11:31 G	6764483.92	6764483.98	6764484.05	0.0486	0.0435
Earth	13809-11-03 01:26 G	6764999.34	6764999.56	6764999.78	0.0485	0.0183
Moon	13809-11-03 04:04 G	6764999.44	6764999.67	6764999.90	0.0485	0.0158 *
Venus	13814-03-16 00:57 G	6766593.35	6766593.54	6766593.74	0.0540	0.0126
Mercury	13814-05-10 13:12 G	6766648.91	6766649.05	6766649.19	0.0541	0.0082
Moon	13815-04-25 15:07 G	6766998.91	6766999.13	6766999.35	0.0545	0.0191
Earth	13815-04-25 18:57 G	6766999.06	6766999.29	6766999.51	0.0545	0.0155 *
Mercury	13819-12-25 21:50 G	6768704.28	6768704.41	6768704.53	0.0488	0.0286
Venus	13820-01-21 02:09 G	6768730.56	6768730.59	6768730.64	0.0487	0.0476
Mercury	13820-03-24 13:12 G	6768793.92	6768794.05	6768794.18	0.0486	0.0289
Moon	13821-11-07 01:55 G	6769386.40	6769386.58	6769386.76	0.0485	0.0301
Earth	13821-11-07 05:31 G	6769386.55	6769386.73	6769386.92	0.0485	0.0296 *
Venus	13825-11-18 13:12 G	6770858.92	6770859.05	6770859.19	0.0538	0.0404
Mercury	13826-02-26 14:52 G	6770958.99	6770959.12	6770959.24	0.0541	0.0258
Mercury	13826-05-27 07:26 G	6771048.74	6771048.81	6771048.88	0.0543	0.0465
Earth	13827-05-01 07:12 G	6771387.56	6771387.80	6771388.03	0.0545	0.0019
Moon	13827-05-01 08:38 G	6771387.64	6771387.86	6771388.09	0.0545	0.0027 *

Venus	13831-09-26 07:55 G	6772996.63	6772996.83	6772997.03	0.0488	0.0093
Mercury	13831-10-14 00:00 G	6773014.43	6773014.50	6773014.58	0.0488	0.0422
Mercury	13832-01-11 14:52 G	6773103.97	6773104.12	6773104.28	0.0486	0.0147
Moon	13832-10-12 10:19 G	6773378.83	6773378.93	6773379.05	0.0483	0.0427
Earth	13832-10-12 12:57 G	6773378.92	6773379.04	6773379.18	0.0483	0.0399 *
Earth	13833-11-11 11:31 G	6773773.86	6773773.98	6773774.10	0.0486	0.0411
Moon	13833-11-11 15:36 G	6773774.05	6773774.15	6773774.24	0.0486	0.0443 *
Mercury	13837-12-15 16:33 G	6775269.11	6775269.19	6775269.28	0.0541	0.0430
Mercury	13838-03-15 09:36 G	6775358.79	6775358.90	6775359.02	0.0543	0.0300
Earth	13839-05-06 18:43 G	6775776.07	6775776.28	6775776.50	0.0544	0.0191
Moon	13839-05-06 20:24 G	6775776.13	6775776.35	6775776.57	0.0544	0.0218 *
Venus	13843-06-01 11:45 G	6777262.83	6777262.99	6777263.16	0.0490	0.0300
Mercury	13843-10-30 16:33 G	6777414.03	6777414.19	6777414.35	0.0487	0.0008
Earth	13844-10-16 16:04 G	6777765.99	6777766.17	6777766.36	0.0484	0.0288
Moon	13844-10-16 17:45 G	6777766.07	6777766.24	6777766.43	0.0484	0.0299 *
Venus	13849-11-21 23:16 G	6779628.37	6779628.47	6779628.58	0.0541	0.0463
Mercury	13850-01-01 11:31 G	6779668.84	6779668.98	6779669.12	0.0542	0.0125
Moon	13851-05-11 23:45 G	6780164.31	6780164.49	6780164.67	0.0543	0.0340
Earth	13851-05-12 02:52 G	6780164.45	6780164.62	6780164.80	0.0543	0.0358 *
Mercury	13855-08-18 18:28 G	6781724.12	6781724.27	6781724.42	0.0487	0.0139
Mercury	13855-11-16 10:19 G	6781813.87	6781813.93	6781813.99	0.0486	0.0443
Moon	13856-10-20 20:52 G	6782153.14	6782153.37	6782153.60	0.0484	0.0150
Earth	13856-10-20 21:21 G	6782153.18	6782153.39	6782153.61	0.0484	0.0175 *
Venus	13861-07-27 07:55 G	6783893.63	6783893.83	6783894.03	0.0539	0.0092
Mercury	13861-10-20 12:00 G	6783978.86	6783979.00	6783979.14	0.0541	0.0071
Earth	13863-05-17 04:04 G	6784552.61	6784552.67	6784552.75	0.0542	0.0512
Moon	13863-05-17 07:55 G	6784552.74	6784552.83	6784552.95	0.0542	0.0481 *
Mars	13865-04-18 22:19 G	6785255.21	6785255.43	6785255.67	0.0516	0.0297
Venus	13867-06-03 16:48 G	6786031.05	6786031.20	6786031.35	0.0488	0.0321
Mercury	13867-06-06 20:38 G	6786034.23	6786034.36	6786034.48	0.0488	0.0277

Mercury	13867-09-04 12:00 G	6786123.87	6786124.00	6786124.12	0.0486	0.0300
Moon	13868-10-25 01:26 G	6786540.33	6786540.56	6786540.78	0.0484	0.0041
Earth	13868-10-25 02:24 G	6786540.37	6786540.60	6786540.83	0.0484	0.0059 *
Mercury	13873-08-08 13:12 G	6788288.92	6788289.05	6788289.18	0.0540	0.0256
Mercury	13873-11-06 05:31 G	6788378.67	6788378.73	6788378.81	0.0542	0.0465
Earth	13874-04-14 00:28 G	6788537.46	6788537.52	6788537.60	0.0544	0.0518
Moon	13874-04-14 04:33 G	6788537.58	6788537.69	6788537.80	0.0544	0.0482 *
Venus	13879-02-06 21:36 G	6790297.20	6790297.40	6790297.61	0.0489	0.0066
Mercury	13879-03-25 22:33 G	6790344.36	6790344.44	6790344.52	0.0488	0.0415
Mercury	13879-06-23 13:26 G	6790433.91	6790434.06	6790434.22	0.0487	0.0156
Earth	13880-10-29 05:31 G	6790927.50	6790927.73	6790927.97	0.0484	0.0053
Moon	13880-10-29 08:24 G	6790927.61	6790927.85	6790928.09	0.0484	0.0033 *
Mercury	13885-05-27 14:38 G	6792599.02	6792599.11	6792599.19	0.0540	0.0436
Mercury	13885-08-25 07:40 G	6792688.70	6792688.82	6792688.94	0.0542	0.0295
Moon	13886-04-19 08:52 G	6792925.69	6792925.87	6792926.05	0.0545	0.0354
Earth	13886-04-19 12:43 G	6792925.86	6792926.03	6792926.22	0.0545	0.0350 *
Venus	13890-10-13 02:24 G	6794563.53	6794563.60	6794563.68	0.0491	0.0455
Mercury	13891-04-11 15:21 G	6794743.99	6794744.14	6794744.30	0.0487	0.0020
Moon	13892-11-02 06:43 G	6795314.56	6795314.78	6795315.01	0.0484	0.0143
Earth	13892-11-02 10:19 G	6795314.72	6795314.93	6795315.16	0.0484	0.0169 *
Venus	13897-04-04 04:19 G	6796928.49	6796928.68	6796928.86	0.0540	0.0232
Mercury	13897-06-13 09:50 G	6796998.77	6796998.91	6796999.05	0.0542	0.0127
Earth	13898-04-25 01:55 G	6797314.36	6797314.58	6797314.80	0.0545	0.0175
Moon	13898-04-25 04:19 G	6797314.47	6797314.68	6797314.89	0.0545	0.0206 *
Mercury	13903-01-29 17:02 G	6799054.06	6799054.21	6799054.36	0.0487	0.0131
Mercury	13903-04-29 08:52 G	6799143.81	6799143.87	6799143.93	0.0486	0.0450
Earth	13904-11-07 15:21 G	6799701.95	6799702.14	6799702.33	0.0485	0.0281
Moon	13904-11-07 19:26 G	6799702.12	6799702.31	6799702.50	0.0485	0.0292 *
Venus	13908-12-08 16:19 G	6801194.02	6801194.18	6801194.35	0.0538	0.0300
Mercury	13909-04-02 11:31 G	6801308.83	6801308.98	6801309.12	0.0541	0.0050

Earth	13910-05-01 11:45 G	6801702.76	6801702.99	6801703.22	0.0544	0.0006
Moon	13910-05-01 12:00 G	6801702.76	6801703.00	6801703.25	0.0544	0.0018 *
Venus	13914-10-16 06:43 G	6803331.59	6803331.78	6803331.98	0.0488	0.0164
Mercury	13914-11-17 19:12 G	6803364.17	6803364.30	6803364.43	0.0488	0.0269
Mercury	13915-02-15 10:33 G	6803453.82	6803453.94	6803454.06	0.0486	0.0307
Earth	13915-10-13 23:02 G	6803694.35	6803694.46	6803694.60	0.0484	0.0409
Moon	13915-10-14 00:28 G	6803694.44	6803694.52	6803694.62	0.0484	0.0440 *
Moon	13916-11-11 18:28 G	6804089.17	6804089.27	6804089.39	0.0486	0.0427
Earth	13916-11-11 22:19 G	6804089.30	6804089.43	6804089.57	0.0486	0.0398 *
Mars	13919-01-02 08:52 G	6804870.62	6804870.87	6804871.12	0.0511	0.0178
Mercury	13921-01-19 12:00 G	6805618.87	6805619.00	6805619.13	0.0540	0.0245
Mercury	13921-04-19 04:19 G	6805708.62	6805708.68	6805708.75	0.0542	0.0474
Moon	13922-05-06 12:00 G	6806090.79	6806091.00	6806091.22	0.0544	0.0187
Earth	13922-05-06 14:38 G	6806090.88	6806091.11	6806091.33	0.0544	0.0157 *
Venus	13926-06-21 11:16 G	6807597.79	6807597.97	6807598.15	0.0490	0.0226
Mercury	13926-09-05 21:07 G	6807674.30	6807674.38	6807674.47	0.0489	0.0409
Mercury	13926-12-04 12:14 G	6807763.86	6807764.01	6807764.16	0.0487	0.0163
Moon	13927-10-18 03:21 G	6808081.46	6808081.64	6808081.83	0.0484	0.0303
Earth	13927-10-18 03:36 G	6808081.47	6808081.65	6808081.84	0.0484	0.0298 *
Mercury	13932-11-07 12:57 G	6809928.95	6809929.04	6809929.12	0.0540	0.0433
Venus	13932-12-11 20:38 G	6809963.33	6809963.36	6809963.39	0.0541	0.0533
Mercury	13933-02-05 06:00 G	6810018.63	6810018.75	6810018.87	0.0542	0.0295
Earth	13934-05-11 22:04 G	6810479.24	6810479.42	6810479.61	0.0543	0.0324
Moon	13934-05-12 01:55 G	6810479.39	6810479.58	6810479.77	0.0543	0.0306 *
Mercury	13938-09-22 13:55 G	6812073.92	6812074.08	6812074.24	0.0487	0.0020
Moon	13939-10-22 05:16 G	6812468.51	6812468.72	6812468.94	0.0483	0.0165
Earth	13939-10-22 06:28 G	6812468.56	6812468.77	6812468.99	0.0483	0.0189 *
Venus	13944-08-16 07:55 G	6814228.63	6814228.83	6814229.03	0.0539	0.0006
Mercury	13944-11-24 07:40 G	6814328.68	6814328.82	6814328.96	0.0542	0.0120
Moon	13946-05-17 04:33 G	6814867.57	6814867.69	6814867.82	0.0542	0.0459

Earth	13946-05-17 08:09 G	6814867.75	6814867.84	6814867.95	0.0542	0.0487 *
Venus	13950-06-23 16:04 G	6816366.06	6816366.17	6816366.29	0.0488	0.0395
Mercury	13950-07-11 16:04 G	6816384.01	6816384.17	6816384.32	0.0487	0.0121
Mercury	13950-10-09 07:40 G	6816473.77	6816473.82	6816473.87	0.0486	0.0461
Earth	13951-10-26 10:48 G	6816855.72	6816855.95	6816856.18	0.0484	0.0075
Moon	13951-10-26 13:40 G	6816855.83	6816856.07	6816856.31	0.0484	0.0065 *
Venus	13956-04-20 20:52 G	6818494.34	6818494.37	6818494.40	0.0537	0.0530
Mercury	13956-09-12 09:36 G	6818638.76	6818638.90	6818639.04	0.0541	0.0051
Moon	13957-04-14 01:40 G	6818852.49	6818852.57	6818852.67	0.0545	0.0503
Earth	13957-04-14 06:00 G	6818852.72	6818852.75	6818852.79	0.0545	0.0537
Venus	13962-02-26 20:24 G	6820632.15	6820632.35	6820632.56	0.0489	0.0010
Mercury	13962-04-29 17:45 G	6820694.11	6820694.24	6820694.37	0.0488	0.0263
Mercury	13962-07-28 08:52 G	6820783.75	6820783.87	6820784.00	0.0486	0.0313
Moon	13963-10-30 10:48 G	6821242.72	6821242.95	6821243.18	0.0484	0.0013
Earth	13963-10-30 14:24 G	6821242.87	6821243.10	6821243.34	0.0484	0.0039 *
Mercury	13968-07-01 11:16 G	6822948.84	6822948.97	6822949.10	0.0541	0.0228
Mercury	13968-09-29 03:50 G	6823038.60	6823038.66	6823038.72	0.0543	0.0492
Earth	13969-04-19 16:48 G	6823241.04	6823241.20	6823241.38	0.0545	0.0369
Moon	13969-04-19 20:09 G	6823241.18	6823241.34	6823241.50	0.0545	0.0379 *
Venus	13973-11-02 00:43 G	6824898.41	6824898.53	6824898.66	0.0491	0.0387
Mercury	13974-02-15 19:55 G	6825004.24	6825004.33	6825004.41	0.0488	0.0401
Mercury	13974-05-16 10:48 G	6825093.80	6825093.95	6825094.10	0.0487	0.0169
Earth	13975-11-03 20:09 G	6825630.12	6825630.34	6825630.56	0.0485	0.0155
Moon	13975-11-04 00:14 G	6825630.29	6825630.51	6825630.74	0.0485	0.0131 *
Mercury	13980-04-19 11:45 G	6827258.90	6827258.99	6827259.08	0.0540	0.0423
Venus	13980-04-24 02:52 G	6827263.46	6827263.62	6827263.79	0.0540	0.0312
Mercury	13980-07-18 04:33 G	6827348.58	6827348.69	6827348.81	0.0542	0.0305
Moon	13981-04-24 20:24 G	6827629.13	6827629.35	6827629.57	0.0544	0.0235
Earth	13981-04-24 21:21 G	6827629.18	6827629.39	6827629.61	0.0544	0.0207 *
Mars	13983-10-08 08:52 G	6828525.65	6828525.87	6828526.11	0.0518	0.0301

Mercury	13986-03-04 12:28 G	6829403.86	6829404.02	6829404.17	0.0487	0.0027
Moon	13987-11-07 21:50 G	6830017.22	6830017.41	6830017.61	0.0485	0.0278
Earth	13987-11-08 01:40 G	6830017.38	6830017.57	6830017.77	0.0485	0.0268 *
Venus	13991-12-28 13:40 G	6831528.88	6831529.07	6831529.25	0.0538	0.0230
Mercury	13992-05-06 06:00 G	6831658.61	6831658.75	6831658.89	0.0541	0.0121
Moon	13993-04-30 03:36 G	6832017.43	6832017.65	6832017.88	0.0544	0.0020
Earth	13993-04-30 05:16 G	6832017.49	6832017.72	6832017.95	0.0544	0.0040 *
Venus	13997-11-04 05:02 G	6833666.53	6833666.71	6833666.89	0.0489	0.0234
Mercury	13997-12-21 14:09 G	6833713.94	6833714.09	6833714.24	0.0488	0.0117
Mercury	13998-03-21 05:45 G	6833803.70	6833803.74	6833803.79	0.0486	0.0465
Earth	13998-10-13 07:12 G	6834009.70	6834009.80	6834009.92	0.0484	0.0424
Moon	13998-10-13 07:26 G	6834009.72	6834009.81	6834009.89	0.0484	0.0451 *
Earth	13999-11-12 05:02 G	6834404.56	6834404.71	6834404.86	0.0486	0.0377
Moon	13999-11-12 07:26 G	6834404.69	6834404.81	6834404.94	0.0486	0.0405 *

15TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 15th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	14004-02-23 07:26 G	6835968.66	6835968.81	6835968.95	0.0541	0.0061		
Earth	14005-05-05 15:36 G	6836405.93	6836406.15	6836406.38	0.0544	0.0129		
Moon	14005-05-05 18:57 G	6836406.07	6836406.29	6836406.52	0.0544	0.0159 *		
Venus	14009-07-10 10:19 G	6837932.73	6837932.93	6837933.12	0.0490	0.0153		
Mercury	14009-10-09 16:19 G	6838024.05	6838024.18	6838024.31	0.0488	0.0255		

Mercury	14010-01-07 07:40 G	6838113.70	6838113.82	6838113.94	0.0486	0.0321
Moon	14010-10-17 10:04 G	6838396.75	6838396.92	6838397.09	0.0483	0.0314
Earth	14010-10-17 11:16 G	6838396.80	6838396.97	6838397.15	0.0483	0.0314 *
Moon	14011-11-16 09:50 G	6838791.89	6838791.91	6838791.95	0.0487	0.0483
Mercury	14015-12-12 09:07 G	6840278.75	6840278.88	6840279.01	0.0541	0.0233
Mercury	14016-03-11 01:40 G	6840368.51	6840368.57	6840368.63	0.0543	0.0488
Moon	14017-05-10 23:02 G	6840794.26	6840794.46	6840794.66	0.0543	0.0279
Earth	14017-05-11 02:52 G	6840794.43	6840794.62	6840794.82	0.0543	0.0300 *
Mercury	14021-07-28 18:14 G	6842334.17	6842334.26	6842334.35	0.0488	0.0397
Mercury	14021-10-26 09:07 G	6842423.73	6842423.88	6842424.03	0.0487	0.0173
Earth	14022-10-21 14:09 G	6842783.88	6842784.09	6842784.31	0.0484	0.0203
Moon	14022-10-21 17:16 G	6842784.00	6842784.22	6842784.44	0.0484	0.0174 *
Venus	14027-09-05 09:50 G	6844563.71	6844563.91	6844564.11	0.0539	0.0093
Mercury	14027-09-30 10:33 G	6844588.85	6844588.94	6844589.04	0.0540	0.0411
Mercury	14027-12-29 03:36 G	6844678.54	6844678.65	6844678.77	0.0542	0.0318
Earth	14029-05-16 11:02 G	6845182.85	6845182.96	6845183.09	0.0542	0.0463
Moon	14029-05-16 13:40 G	6845182.95	6845183.07	6845183.20	0.0542	0.0443 *
Venus	14033-07-12 13:55 G	6846701.02	6846701.08	6846701.15	0.0488	0.0461
Mercury	14033-08-14 10:48 G	6846733.79	6846733.95	6846734.11	0.0487	0.0030
Moon	14034-10-25 15:21 G	6847170.91	6847171.14	6847171.37	0.0484	0.0084
Earth	14034-10-25 19:12 G	6847171.07	6847171.30	6847171.53	0.0484	0.0089 *
Venus	14039-05-10 19:55 G	6848829.22	6848829.33	6848829.44	0.0537	0.0447
Mercury	14039-10-17 04:33 G	6848988.56	6848988.69	6848988.83	0.0541	0.0131
Moon	14040-04-13 05:45 G	6849167.70	6849167.74	6849167.78	0.0544	0.0532
Venus	14045-03-17 18:00 G	6850967.05	6850967.25	6850967.45	0.0490	0.0071
Mercury	14045-06-02 12:28 G	6851043.87	6851044.02	6851044.17	0.0488	0.0115
Mercury	14045-08-31 04:04 G	6851133.64	6851133.67	6851133.72	0.0486	0.0469
Earth	14046-10-29 23:16 G	6851558.24	6851558.47	6851558.71	0.0484	0.0025
Moon	14046-10-30 03:21 G	6851558.41	6851558.64	6851558.88	0.0484	0.0006 *
Mercury	14051-08-05 05:45 G	6853298.60	6853298.74	6853298.88	0.0541	0.0056

Moon	14052-04-18 07:26 G	6853555.66	6853555.81	6853555.97	0.0544	0.0415
Earth	14052-04-18 09:50 G	6853555.76	6853555.91	6853556.07	0.0544	0.0404 *
Venus	14056-11-20 22:04 G	6855233.27	6855233.42	6855233.58	0.0491	0.0322
Mercury	14057-03-21 14:24 G	6855353.97	6855354.10	6855354.23	0.0488	0.0256
Mercury	14057-06-19 05:31 G	6855443.62	6855443.73	6855443.86	0.0486	0.0322
Moon	14058-11-02 22:33 G	6855945.21	6855945.44	6855945.67	0.0484	0.0110
Earth	14058-11-03 02:24 G	6855945.37	6855945.60	6855945.82	0.0484	0.0133 *
Venus	14063-05-14 00:43 G	6857598.39	6857598.53	6857598.67	0.0540	0.0387
Mercury	14063-05-24 06:43 G	6857608.65	6857608.78	6857608.91	0.0540	0.0243
Mercury	14063-08-21 23:31 G	6857698.41	6857698.48	6857698.54	0.0543	0.0479
Moon	14064-04-23 18:57 G	6857944.09	6857944.29	6857944.48	0.0545	0.0265
Earth	14064-04-23 19:26 G	6857944.11	6857944.31	6857944.53	0.0545	0.0239 *
Mercury	14069-01-07 16:33 G	6859664.10	6859664.19	6859664.28	0.0488	0.0392
Mercury	14069-04-07 07:26 G	6859753.67	6859753.81	6859753.96	0.0487	0.0178
Earth	14070-11-07 06:57 G	6860332.59	6860332.79	6860333.00	0.0485	0.0247
Moon	14070-11-07 09:36 G	6860332.71	6860332.90	6860333.09	0.0485	0.0264 *
Mars	14073-03-28 02:09 G	6861204.32	6861204.59	6861204.86	0.0511	0.0027
Venus	14075-01-16 13:12 G	6861863.86	6861864.05	6861864.25	0.0539	0.0145
Mercury	14075-03-12 08:24 G	6861918.76	6861918.85	6861918.94	0.0540	0.0420
Mercury	14075-06-10 01:26 G	6862008.45	6862008.56	6862008.68	0.0542	0.0311
Earth	14076-04-29 07:40 G	6862332.59	6862332.82	6862333.06	0.0545	0.0068
Moon	14076-04-29 10:48 G	6862332.71	6862332.95	6862333.18	0.0545	0.0043 *
Venus	14080-11-23 02:52 G	6864001.46	6864001.62	6864001.78	0.0488	0.0299
Mercury	14081-01-24 09:07 G	6864063.72	6864063.88	6864064.03	0.0487	0.0033
Moon	14081-10-12 12:43 G	6864324.97	6864325.03	6864325.09	0.0484	0.0465
Earth	14081-10-12 14:24 G	6864325.00	6864325.10	6864325.19	0.0484	0.0437 *
Moon	14082-11-11 10:33 G	6864719.80	6864719.94	6864720.10	0.0486	0.0382
Earth	14082-11-11 11:31 G	6864719.83	6864719.98	6864720.15	0.0486	0.0360 *
Mercury	14087-03-29 03:21 G	6866318.50	6866318.64	6866318.78	0.0542	0.0138
Moon	14088-05-04 14:09 G	6866720.87	6866721.09	6866721.32	0.0544	0.0132

Earth	14088-05-04 18:00 G	6866721.02	6866721.25	6866721.48	0.0544	0.0104 *
Venus	14092-07-29 07:26 G	6868267.61	6868267.81	6868268.01	0.0490	0.0091
Mercury	14092-11-12 11:02 G	6868373.80	6868373.96	6868374.11	0.0488	0.0111
Mercury	14093-02-10 02:38 G	6868463.57	6868463.61	6868463.64	0.0486	0.0471
Earth	14093-10-16 18:14 G	6868712.10	6868712.26	6868712.44	0.0484	0.0328
Moon	14093-10-16 21:36 G	6868712.22	6868712.40	6868712.58	0.0484	0.0316 *
Moon	14094-11-15 17:45 G	6869107.18	6869107.24	6869107.32	0.0487	0.0463
Earth	14094-11-15 18:28 G	6869107.23	6869107.27	6869107.33	0.0487	0.0474 *
Mercury	14099-01-15 04:19 G	6870628.54	6870628.68	6870628.83	0.0540	0.0050
Earth	14100-05-10 21:36 G	6871109.20	6871109.40	6871109.60	0.0543	0.0263
Moon	14100-05-11 00:43 G	6871109.33	6871109.53	6871109.74	0.0543	0.0240 *
Venus	14104-04-04 10:04 G	6872533.92	6872533.92	6872533.93	0.0492	0.0492
Mercury	14104-09-01 12:28 G	6872683.89	6872684.02	6872684.16	0.0488	0.0255
Mercury	14104-11-30 03:50 G	6872773.54	6872773.66	6872773.78	0.0487	0.0322
Moon	14105-10-21 18:00 G	6873099.04	6873099.25	6873099.46	0.0484	0.0190
Earth	14105-10-21 21:50 G	6873099.20	6873099.41	6873099.62	0.0484	0.0219 *
Venus	14110-09-25 06:28 G	6874898.57	6874898.77	6874898.96	0.0539	0.0161
Mercury	14110-11-04 05:16 G	6874938.59	6874938.72	6874938.85	0.0540	0.0238
Mercury	14111-02-01 21:50 G	6875028.35	6875028.41	6875028.47	0.0542	0.0481
Moon	14112-05-16 01:55 G	6875497.42	6875497.58	6875497.74	0.0542	0.0403
Earth	14112-05-16 03:36 G	6875497.51	6875497.65	6875497.79	0.0542	0.0423 *
Mercury	14116-06-20 14:24 G	6876994.02	6876994.10	6876994.20	0.0489	0.0395
Mercury	14116-09-18 05:16 G	6877083.58	6877083.72	6877083.87	0.0487	0.0177
Earth	14117-10-26 00:28 G	6877486.29	6877486.52	6877486.75	0.0484	0.0111
Moon	14117-10-26 04:33 G	6877486.46	6877486.69	6877486.91	0.0484	0.0108 *
Venus	14122-05-30 16:19 G	6879164.04	6879164.18	6879164.33	0.0537	0.0383
Mercury	14122-08-23 05:45 G	6879248.66	6879248.74	6879248.83	0.0540	0.0431
Mercury	14122-11-20 23:02 G	6879338.35	6879338.46	6879338.58	0.0542	0.0300
Venus	14128-04-06 15:50 G	6881301.97	6881302.16	6881302.36	0.0489	0.0138
Mercury	14128-07-07 07:26 G	6881393.65	6881393.81	6881393.96	0.0487	0.0038

Moon	14129-10-30 00:57 G	6881873.31	6881873.54	6881873.78	0.0484	0.0025
Earth	14129-10-30 04:48 G	6881873.46	6881873.70	6881873.93	0.0484	0.0008 *
Mercury	14134-09-09 00:57 G	6883648.40	6883648.54	6883648.68	0.0542	0.0127
Earth	14135-04-19 09:50 G	6883870.77	6883870.91	6883871.05	0.0545	0.0432
Moon	14135-04-19 10:19 G	6883870.81	6883870.93	6883871.05	0.0545	0.0453 *
Mars	14138-01-02 09:07 G	6884859.60	6884859.88	6884860.16	0.0518	0.0057
Venus	14139-12-11 19:40 G	6885568.15	6885568.32	6885568.50	0.0491	0.0258
Mercury	14140-04-25 08:52 G	6885703.72	6885703.87	6885704.03	0.0487	0.0111
Mercury	14140-07-24 00:43 G	6885793.49	6885793.53	6885793.56	0.0486	0.0471
Earth	14141-11-03 08:09 G	6886260.61	6886260.84	6886261.07	0.0484	0.0115
Moon	14141-11-03 10:33 G	6886260.72	6886260.94	6886261.16	0.0484	0.0100 *
Venus	14146-06-03 01:26 G	6887933.47	6887933.56	6887933.66	0.0540	0.0480
Mercury	14146-06-28 02:52 G	6887958.47	6887958.62	6887958.76	0.0541	0.0049
Earth	14147-04-24 21:07 G	6888259.18	6888259.38	6888259.59	0.0545	0.0263
Moon	14147-04-24 23:16 G	6888259.27	6888259.47	6888259.68	0.0545	0.0286 *
Mercury	14152-02-12 11:02 G	6890013.82	6890013.96	6890014.09	0.0488	0.0251
Mercury	14152-05-12 02:09 G	6890103.47	6890103.59	6890103.71	0.0486	0.0325
Moon	14153-11-07 12:43 G	6890647.83	6890648.03	6890648.24	0.0485	0.0251
Earth	14153-11-07 13:26 G	6890647.86	6890648.06	6890648.27	0.0485	0.0230 *
Venus	14158-02-05 12:14 G	6892198.81	6892199.01	6892199.21	0.0538	0.0062
Mercury	14158-04-16 03:50 G	6892268.53	6892268.66	6892268.79	0.0540	0.0233
Mercury	14158-07-14 20:24 G	6892358.29	6892358.35	6892358.41	0.0542	0.0486
Moon	14159-04-30 00:00 G	6892647.27	6892647.50	6892647.73	0.0544	0.0080
Earth	14159-04-30 03:21 G	6892647.41	6892647.64	6892647.87	0.0544	0.0101 *
Mercury	14163-12-01 12:28 G	6894323.94	6894324.02	6894324.11	0.0489	0.0396
Venus	14163-12-13 22:48 G	6894336.32	6894336.45	6894336.60	0.0489	0.0359
Mercury	14164-02-29 03:21 G	6894413.50	6894413.64	6894413.79	0.0487	0.0176
Earth	14164-10-12 20:09 G	6894640.27	6894640.34	6894640.42	0.0484	0.0455
Moon	14164-10-12 23:31 G	6894640.43	6894640.48	6894640.52	0.0484	0.0475
Moon	14165-11-11 17:45 G	6895035.09	6895035.24	6895035.39	0.0486	0.0362

Earth	14165-11-11 18:28 G	6895035.11	6895035.27	6895035.44	0.0486	0.0340 *
Mercury	14170-02-02 04:19 G	6896578.60	6896578.68	6896578.78	0.0539	0.0424
Mercury	14170-05-02 21:36 G	6896668.29	6896668.40	6896668.52	0.0541	0.0304
Earth	14171-05-05 10:04 G	6897035.69	6897035.92	6897036.15	0.0544	0.0065
Moon	14171-05-05 13:40 G	6897035.84	6897036.07	6897036.30	0.0544	0.0087 *
Venus	14175-08-19 03:21 G	6898602.44	6898602.64	6898602.85	0.0490	0.0033
Mercury	14175-12-18 05:02 G	6898723.56	6898723.71	6898723.87	0.0487	0.0034
Moon	14176-10-16 19:26 G	6899027.15	6899027.31	6899027.48	0.0484	0.0334
Earth	14176-10-16 23:16 G	6899027.31	6899027.47	6899027.63	0.0484	0.0349 *
Earth	14177-11-15 21:50 G	6899422.33	6899422.41	6899422.51	0.0486	0.0448
Moon	14177-11-16 00:00 G	6899422.40	6899422.50	6899422.61	0.0486	0.0431 *
Mercury	14182-02-18 22:33 G	6900978.30	6900978.44	6900978.58	0.0541	0.0117
Moon	14183-05-10 15:21 G	6901423.92	6901424.14	6901424.36	0.0544	0.0199
Earth	14183-05-10 17:45 G	6901424.03	6901424.24	6901424.45	0.0544	0.0227 *
Venus	14187-04-24 07:55 G	6902868.74	6902868.83	6902868.94	0.0492	0.0425
Mercury	14187-10-06 07:12 G	6903033.65	6903033.80	6903033.95	0.0488	0.0108
Mercury	14188-01-03 22:48 G	6903123.42	6903123.45	6903123.48	0.0486	0.0474
Earth	14188-10-21 03:07 G	6903414.43	6903414.63	6903414.84	0.0484	0.0238
Moon	14188-10-21 06:57 G	6903414.59	6903414.79	6903415.01	0.0484	0.0209 *
Venus	14193-10-14 03:50 G	6905233.48	6905233.66	6905233.85	0.0540	0.0236
Mercury	14193-12-08 00:14 G	6905288.37	6905288.51	6905288.66	0.0541	0.0060
Earth	14195-05-16 04:19 G	6905812.52	6905812.68	6905812.84	0.0543	0.0393
Moon	14195-05-16 04:33 G	6905812.53	6905812.69	6905812.85	0.0543	0.0377 *
Mercury	14199-07-25 09:07 G	6907343.75	6907343.88	6907344.01	0.0488	0.0250
Mercury	14199-10-23 00:00 G	6907433.39	6907433.50	6907433.63	0.0486	0.0326
Moon	14200-10-26 02:24 G	6907801.37	6907801.60	6907801.83	0.0484	0.0125
Earth	14200-10-26 06:00 G	6907801.53	6907801.75	6907801.98	0.0484	0.0128 *
Venus	14205-06-19 16:48 G	6909499.03	6909499.20	6909499.37	0.0538	0.0295
Mercury	14205-09-27 01:55 G	6909598.45	6909598.58	6909598.71	0.0540	0.0235
Mercury	14205-12-25 18:43 G	6909688.22	6909688.28	6909688.34	0.0542	0.0487

Venus	14211-04-27 12:28 G	6911636.84	6911637.02	6911637.21	0.0489	0.0198
Mercury	14211-05-14 11:02 G	6911653.87	6911653.96	6911654.06	0.0489	0.0390
Mercury	14211-08-12 01:55 G	6911743.43	6911743.58	6911743.72	0.0487	0.0180
Earth	14212-10-30 10:19 G	6912188.70	6912188.93	6912189.17	0.0484	0.0017
Moon	14212-10-30 12:43 G	6912188.81	6912189.03	6912189.26	0.0484	0.0041 *
Mercury	14217-07-16 02:52 G	6913908.53	6913908.62	6913908.71	0.0539	0.0419
Mercury	14217-10-13 20:09 G	6913998.22	6913998.34	6913998.46	0.0541	0.0309
Earth	14218-04-19 06:57 G	6914185.67	6914185.79	6914185.92	0.0544	0.0462
Moon	14218-04-19 07:55 G	6914185.73	6914185.83	6914185.94	0.0544	0.0484 *
Venus	14222-12-31 15:21 G	6915902.96	6915903.14	6915903.33	0.0491	0.0202
Mercury	14223-05-31 03:07 G	6916053.47	6916053.63	6916053.79	0.0488	0.0031
Moon	14224-11-03 13:26 G	6916575.83	6916576.06	6916576.30	0.0485	0.0088
Earth	14224-11-03 14:09 G	6916575.86	6916576.09	6916576.32	0.0485	0.0096 *
Mars	14227-06-23 21:21 G	6917538.16	6917538.39	6917538.63	0.0511	0.0242
Mercury	14229-08-01 21:21 G	6918308.25	6918308.39	6918308.53	0.0541	0.0124
Moon	14230-04-24 11:31 G	6918573.80	6918573.98	6918574.16	0.0544	0.0328
Earth	14230-04-24 14:24 G	6918573.90	6918574.10	6918574.29	0.0544	0.0300 *
Mercury	14235-03-19 05:02 G	6920363.56	6920363.71	6920363.86	0.0488	0.0112
Mercury	14235-06-16 20:24 G	6920453.32	6920453.35	6920453.39	0.0486	0.0470
Moon	14236-11-07 16:33 G	6920962.99	6920963.19	6920963.39	0.0485	0.0231
Earth	14236-11-07 17:31 G	6920963.01	6920963.23	6920963.44	0.0485	0.0204 *
Venus	14241-02-25 07:12 G	6922533.60	6922533.80	6922534.00	0.0538	0.0006
Mercury	14241-05-20 21:50 G	6922618.27	6922618.41	6922618.56	0.0541	0.0070
Earth	14242-04-29 21:07 G	6922962.16	6922962.38	6922962.61	0.0545	0.0139
Moon	14242-04-30 00:57 G	6922962.31	6922962.54	6922962.77	0.0545	0.0114 *
Venus	14247-01-02 20:38 G	6924671.26	6924671.36	6924671.46	0.0488	0.0424
Mercury	14247-01-05 07:12 G	6924673.67	6924673.80	6924673.94	0.0488	0.0249
Mercury	14247-04-04 22:19 G	6924763.31	6924763.43	6924763.55	0.0486	0.0327
Earth	14247-10-14 02:09 G	6924955.55	6924955.59	6924955.65	0.0484	0.0471
Earth	14248-11-11 22:19 G	6925350.26	6925350.43	6925350.61	0.0485	0.0316

Moon	14248-11-12 00:28 G	6925350.35	6925350.52	6925350.70	0.0485	0.0335 *
Venus	14252-10-30 19:40 G	6926799.31	6926799.32	6926799.33	0.0536	0.0535
Mercury	14253-03-08 23:16 G	6926928.34	6926928.47	6926928.60	0.0540	0.0249
Mercury	14253-06-06 16:04 G	6927018.11	6927018.17	6927018.24	0.0542	0.0475
Moon	14254-05-05 05:16 G	6927350.49	6927350.72	6927350.96	0.0545	0.0051
Earth	14254-05-05 08:38 G	6927350.63	6927350.86	6927351.09	0.0545	0.0032 *
Venus	14258-09-08 00:57 G	6928937.34	6928937.54	6928937.75	0.0490	0.0034
Mercury	14258-10-24 09:07 G	6928983.79	6928983.88	6928983.98	0.0489	0.0390
Mercury	14259-01-21 23:45 G	6929073.35	6929073.49	6929073.64	0.0487	0.0180
Earth	14259-10-18 05:02 G	6929342.56	6929342.71	6929342.86	0.0484	0.0364
Moon	14259-10-18 08:52 G	6929342.71	6929342.87	6929343.04	0.0484	0.0344 *
Moon	14260-11-16 00:00 G	6929737.38	6929737.50	6929737.62	0.0486	0.0411
Earth	14260-11-16 02:52 G	6929737.52	6929737.62	6929737.73	0.0486	0.0428 *
Mercury	14264-12-26 00:57 G	6931238.45	6931238.54	6931238.63	0.0540	0.0425
Mercury	14265-03-25 18:14 G	6931328.14	6931328.26	6931328.38	0.0542	0.0306
Earth	14266-05-10 19:26 G	6931739.10	6931739.31	6931739.53	0.0544	0.0202
Moon	14266-05-10 20:38 G	6931739.15	6931739.36	6931739.57	0.0544	0.0171 *
Venus	14270-05-14 04:48 G	6933203.57	6933203.70	6933203.84	0.0491	0.0365
Mercury	14270-11-10 01:40 G	6933383.41	6933383.57	6933383.73	0.0487	0.0036
Moon	14271-10-22 05:16 G	6933729.51	6933729.72	6933729.94	0.0484	0.0225
Earth	14271-10-22 08:52 G	6933729.67	6933729.87	6933730.07	0.0484	0.0254 *
Venus	14276-11-03 03:50 G	6935568.50	6935568.66	6935568.82	0.0539	0.0322
Mercury	14277-01-11 19:40 G	6935638.18	6935638.32	6935638.46	0.0541	0.0130
Earth	14278-05-16 00:57 G	6936127.38	6936127.54	6936127.72	0.0543	0.0359
Moon	14278-05-16 01:55 G	6936127.40	6936127.58	6936127.77	0.0543	0.0341 *
Mercury	14282-08-29 03:07 G	6937693.48	6937693.63	6937693.78	0.0488	0.0113
Mercury	14282-11-26 18:28 G	6937783.24	6937783.27	6937783.31	0.0486	0.0470
Earth	14283-10-26 11:45 G	6938116.77	6938116.99	6938117.21	0.0484	0.0147
Moon	14283-10-26 13:55 G	6938116.87	6938117.08	6938117.30	0.0484	0.0150 *
Venus	14288-07-08 14:24 G	6939833.92	6939834.10	6939834.29	0.0537	0.0221

Mercury	14288-10-30 20:52 G	6939948.22	6939948.37	6939948.51	0.0540	0.0060
Earth	14290-05-21 06:28 G	6940515.70	6940515.77	6940515.84	0.0542	0.0513
Mars	14292-03-28 11:45 G	6941192.73	6941192.99	6941193.27	0.0517	0.0125
Venus	14294-05-16 08:24 G	6941971.68	6941971.85	6941972.02	0.0489	0.0256
Mercury	14294-06-17 05:02 G	6942003.58	6942003.71	6942003.84	0.0488	0.0253
Mercury	14294-09-14 20:09 G	6942093.22	6942093.34	6942093.46	0.0487	0.0323
Moon	14295-10-30 14:24 G	6942503.86	6942504.10	6942504.34	0.0484	0.0064
Earth	14295-10-30 14:52 G	6942503.89	6942504.12	6942504.36	0.0484	0.0039 *
Mercury	14300-08-19 21:07 G	6944258.25	6944258.38	6944258.51	0.0540	0.0257
Mercury	14300-11-17 13:55 G	6944348.01	6944348.08	6944348.15	0.0542	0.0467
Moon	14301-04-18 21:36 G	6944500.34	6944500.40	6944500.46	0.0544	0.0522
Earth	14301-04-18 23:16 G	6944500.39	6944500.47	6944500.57	0.0544	0.0498 *
Venus	14306-01-20 13:40 G	6946237.87	6946238.07	6946238.26	0.0491	0.0134
Mercury	14306-04-06 07:26 G	6946313.72	6946313.81	6946313.90	0.0489	0.0388
Mercury	14306-07-04 22:04 G	6946403.28	6946403.42	6946403.57	0.0487	0.0182
Moon	14307-11-04 18:28 G	6946891.05	6946891.27	6946891.49	0.0484	0.0073
Earth	14307-11-04 19:40 G	6946891.09	6946891.32	6946891.55	0.0484	0.0075 *
Mercury	14312-06-07 22:19 G	6948568.35	6948568.43	6948568.52	0.0540	0.0439
Mercury	14312-09-05 15:50 G	6948658.04	6948658.16	6948658.28	0.0542	0.0294
Earth	14313-04-24 10:48 G	6948888.77	6948888.95	6948889.14	0.0545	0.0332
Moon	14313-04-24 14:24 G	6948888.92	6948889.10	6948889.28	0.0545	0.0354 *
Mercury	14318-04-22 23:45 G	6950713.34	6950713.49	6950713.65	0.0487	0.0038
Earth	14319-11-08 23:02 G	6951278.24	6951278.46	6951278.67	0.0484	0.0185
Moon	14319-11-09 01:12 G	6951278.34	6951278.55	6951278.77	0.0484	0.0214 *
Venus	14324-03-17 07:40 G	6952868.62	6952868.82	6952869.02	0.0539	0.0084
Mercury	14324-06-24 17:45 G	6952968.10	6952968.24	6952968.38	0.0541	0.0123
Moon	14325-04-29 19:40 G	6953277.09	6953277.32	6953277.55	0.0545	0.0135
Earth	14325-04-29 23:16 G	6953277.25	6953277.47	6953277.69	0.0545	0.0163 *
Venus	14330-01-22 17:45 G	6955006.23	6955006.24	6955006.26	0.0488	0.0486
Mercury	14330-02-09 01:40 G	6955023.42	6955023.57	6955023.72	0.0488	0.0105

Mercury	14330-05-09 17:02 G	6955113.19	6955113.21	6955113.24	0.0486	0.0476
Moon	14331-11-13 01:12 G	6955665.39	6955665.55	6955665.73	0.0485	0.0317
Earth	14331-11-13 04:19 G	6955665.50	6955665.68	6955665.87	0.0485	0.0298 *
Venus	14335-11-20 20:09 G	6957134.23	6957134.34	6957134.46	0.0536	0.0444
Mercury	14336-04-12 19:12 G	6957278.16	6957278.30	6957278.45	0.0540	0.0055
Earth	14337-05-05 07:40 G	6957665.59	6957665.82	6957666.05	0.0544	0.0002
Moon	14337-05-05 09:50 G	6957665.68	6957665.91	6957666.13	0.0544	0.0019 *
Venus	14341-09-27 20:52 G	6959272.17	6959272.37	6959272.58	0.0490	0.0091
Mercury	14341-11-28 03:07 G	6959333.50	6959333.63	6959333.77	0.0488	0.0252
Mercury	14342-02-25 18:14 G	6959423.15	6959423.26	6959423.38	0.0487	0.0324
Moon	14342-10-18 07:12 G	6959657.65	6959657.80	6959657.96	0.0484	0.0363
Earth	14342-10-18 10:48 G	6959657.81	6959657.95	6959658.09	0.0484	0.0382 *
Earth	14343-11-17 09:21 G	6960052.76	6960052.89	6960053.01	0.0486	0.0407
Moon	14343-11-17 12:43 G	6960052.90	6960053.03	6960053.18	0.0486	0.0385 *
Mars	14345-12-13 07:12 G	6960809.59	6960809.80	6960810.02	0.0509	0.0311
Mercury	14348-01-30 20:09 G	6961588.21	6961588.34	6961588.47	0.0540	0.0241
Mercury	14348-04-29 12:57 G	6961677.98	6961678.04	6961678.11	0.0542	0.0480
Moon	14349-05-10 14:24 G	6962053.87	6962054.10	6962054.34	0.0544	0.0134
Earth	14349-05-10 14:38 G	6962053.89	6962054.11	6962054.33	0.0544	0.0165 *
Venus	14353-06-03 01:12 G	6963538.39	6963538.55	6963538.71	0.0492	0.0306
Mercury	14353-09-16 05:16 G	6963643.63	6963643.72	6963643.82	0.0489	0.0391
Mercury	14353-12-14 19:55 G	6963733.19	6963733.33	6963733.48	0.0487	0.0181
Earth	14354-10-22 14:09 G	6964044.90	6964045.09	6964045.29	0.0484	0.0275
Moon	14354-10-22 16:19 G	6964044.99	6964045.18	6964045.38	0.0484	0.0251 *
Mercury	14359-11-18 20:09 G	6965898.26	6965898.34	6965898.42	0.0539	0.0444
Venus	14359-11-23 22:33 G	6965903.30	6965903.44	6965903.59	0.0540	0.0379
Mercury	14360-02-16 13:40 G	6965987.95	6965988.07	6965988.19	0.0542	0.0288
Moon	14361-05-15 17:45 G	6966442.06	6966442.24	6966442.42	0.0544	0.0309
Earth	14361-05-15 19:40 G	6966442.14	6966442.32	6966442.51	0.0544	0.0322 *
Mercury	14365-10-02 22:04 G	6968043.27	6968043.42	6968043.58	0.0487	0.0042

Moon	14366-10-26 18:28 G	6968432.04	6968432.27	6968432.50	0.0484	0.0174
Earth	14366-10-26 18:43 G	6968432.07	6968432.28	6968432.51	0.0484	0.0164 *
Venus	14371-07-29 10:33 G	6970168.75	6970168.94	6970169.14	0.0538	0.0159
Mercury	14371-12-05 15:21 G	6970298.00	6970298.14	6970298.28	0.0541	0.0112
Earth	14373-05-21 05:31 G	6970830.63	6970830.73	6970830.84	0.0543	0.0483
Moon	14373-05-21 09:21 G	6970830.82	6970830.89	6970830.96	0.0543	0.0516 *
Venus	14377-06-05 06:43 G	6972306.64	6972306.78	6972306.94	0.0489	0.0325
Mercury	14377-07-22 00:00 G	6972353.35	6972353.50	6972353.65	0.0488	0.0102
Mercury	14377-10-19 15:21 G	6972443.12	6972443.14	6972443.17	0.0486	0.0479
Moon	14378-10-30 20:38 G	6972819.13	6972819.36	6972819.58	0.0484	0.0081
Earth	14378-10-30 21:50 G	6972819.18	6972819.41	6972819.64	0.0484	0.0053 *
Mars	14381-09-17 06:00 G	6973871.60	6973871.75	6973871.90	0.0512	0.0417
Mercury	14383-09-23 17:02 G	6974608.07	6974608.21	6974608.36	0.0541	0.0062
Earth	14384-04-18 01:40 G	6974815.51	6974815.57	6974815.64	0.0544	0.0518
Moon	14384-04-18 04:33 G	6974815.68	6974815.69	6974815.71	0.0544	0.0543
Venus	14389-02-08 11:31 G	6976572.77	6976572.98	6976573.18	0.0490	0.0068
Mercury	14389-05-10 01:55 G	6976663.45	6976663.58	6976663.72	0.0488	0.0243
Mercury	14389-08-07 17:02 G	6976753.09	6976753.21	6976753.32	0.0486	0.0333
Earth	14390-11-04 02:09 G	6977206.36	6977206.59	6977206.83	0.0484	0.0059
Moon	14390-11-04 04:48 G	6977206.46	6977206.70	6977206.94	0.0484	0.0061 *
Mercury	14395-07-12 18:43 G	6978918.15	6978918.28	6978918.41	0.0540	0.0237
Mercury	14395-10-10 11:31 G	6979007.92	6979007.98	6979008.04	0.0542	0.0486
Moon	14396-04-23 08:38 G	6979203.69	6979203.86	6979204.03	0.0544	0.0377
Earth	14396-04-23 12:14 G	6979203.84	6979204.01	6979204.19	0.0544	0.0357 *
Venus	14400-10-14 13:40 G	6980839.02	6980839.07	6980839.13	0.0492	0.0473
Mercury	14401-02-26 03:36 G	6980973.56	6980973.65	6980973.75	0.0489	0.0388
Mercury	14401-05-26 18:14 G	6981063.12	6981063.26	6981063.41	0.0487	0.0183
Moon	14402-11-08 02:52 G	6981593.41	6981593.62	6981593.83	0.0485	0.0196
Earth	14402-11-08 06:00 G	6981593.53	6981593.75	6981593.97	0.0485	0.0167 *
Venus	14407-04-06 06:57 G	6983203.60	6983203.79	6983203.98	0.0539	0.0167

Mercury	14407-04-30 19:26 G	6983228.23	6983228.31	6983228.40	0.0539	0.0425
Mercury	14407-07-29 12:57 G	6983317.92	6983318.04	6983318.16	0.0541	0.0306
Earth	14408-04-28 20:24 G	6983592.14	6983592.35	6983592.57	0.0544	0.0195
Moon	14408-04-28 23:16 G	6983592.26	6983592.47	6983592.69	0.0544	0.0163 *
Mars	14410-09-16 22:33 G	6984463.36	6984463.44	6984463.54	0.0520	0.0491
Mercury	14413-03-14 20:09 G	6985373.18	6985373.34	6985373.50	0.0488	0.0041
Earth	14414-11-12 10:33 G	6985980.75	6985980.94	6985981.13	0.0485	0.0276
Moon	14414-11-12 14:09 G	6985980.91	6985981.09	6985981.28	0.0485	0.0286 *
Venus	14418-12-09 15:21 G	6987469.00	6987469.14	6987469.28	0.0536	0.0388
Mercury	14419-05-17 13:26 G	6987627.92	6987628.06	6987628.20	0.0541	0.0109
Moon	14420-05-04 00:00 G	6987980.26	6987980.50	6987980.74	0.0545	0.0020
Earth	14420-05-04 01:12 G	6987980.32	6987980.55	6987980.79	0.0545	0.0037 *
Venus	14424-10-16 20:09 G	6989607.15	6989607.34	6989607.54	0.0490	0.0163
Mercury	14424-12-31 22:33 G	6989683.28	6989683.44	6989683.59	0.0488	0.0097
Mercury	14425-03-31 13:55 G	6989773.07	6989773.08	6989773.09	0.0486	0.0485
Earth	14425-10-17 19:40 G	6989973.18	6989973.32	6989973.45	0.0484	0.0394
Moon	14425-10-17 21:36 G	6989973.26	6989973.40	6989973.54	0.0484	0.0373 *
Moon	14426-11-16 12:28 G	6990367.87	6990368.02	6990368.18	0.0485	0.0360
Earth	14426-11-16 16:04 G	6990368.03	6990368.17	6990368.31	0.0485	0.0387 *
Mercury	14431-03-05 14:52 G	6991937.97	6991938.12	6991938.26	0.0541	0.0071
Moon	14432-05-09 11:02 G	6992368.74	6992368.96	6992369.18	0.0545	0.0103
Earth	14432-05-09 12:14 G	6992368.78	6992369.01	6992369.23	0.0545	0.0133 *
Venus	14436-06-22 00:28 G	6993873.34	6993873.52	6993873.70	0.0491	0.0232
Mercury	14436-10-20 00:28 G	6993993.39	6993993.52	6993993.66	0.0488	0.0237
Mercury	14437-01-17 15:21 G	6994083.03	6994083.14	6994083.26	0.0486	0.0338
Moon	14437-10-21 22:19 G	6994360.23	6994360.43	6994360.64	0.0484	0.0268
Earth	14437-10-21 22:33 G	6994360.25	6994360.44	6994360.63	0.0484	0.0287 *
Moon	14438-11-20 23:31 G	6994755.45	6994755.48	6994755.52	0.0486	0.0480
Venus	14442-12-12 23:45 G	6996238.40	6996238.49	6996238.59	0.0540	0.0473
Mercury	14442-12-22 16:33 G	6996248.06	6996248.19	6996248.32	0.0540	0.0244

Mercury	14443-03-22 09:36 G	6996337.84	6996337.90	6996337.96	0.0542	0.0481
Earth	14444-05-14 23:45 G	6996757.30	6996757.49	6996757.69	0.0544	0.0299
Moon	14444-05-15 03:21 G	6996757.44	6996757.64	6996757.83	0.0544	0.0296 *
Mars	14446-06-23 16:19 G	6997527.00	6997527.18	6997527.38	0.0517	0.0381
Mercury	14448-08-08 02:38 G	6998303.52	6998303.61	6998303.71	0.0489	0.0375
Mercury	14448-11-05 17:16 G	6998393.07	6998393.22	6998393.36	0.0487	0.0194
Moon	14449-10-26 00:57 G	6998747.34	6998747.54	6998747.75	0.0484	0.0197
Earth	14449-10-26 02:38 G	6998747.39	6998747.61	6998747.83	0.0484	0.0177 *
Venus	14454-08-17 12:43 G	7000503.83	7000504.03	7000504.24	0.0538	0.0059
Mercury	14454-10-10 18:00 G	7000558.16	7000558.25	7000558.34	0.0539	0.0420
Mercury	14455-01-08 11:31 G	7000647.87	7000647.98	7000648.10	0.0542	0.0312
Moon	14456-05-20 04:19 G	7001145.59	7001145.68	7001145.78	0.0543	0.0489
Earth	14456-05-20 08:24 G	7001145.72	7001145.85	7001145.97	0.0543	0.0455 *
Venus	14460-06-24 04:04 G	7002641.56	7002641.67	7002641.80	0.0489	0.0389
Mercury	14460-08-24 18:43 G	7002703.12	7002703.28	7002703.43	0.0487	0.0046
Earth	14461-10-30 05:31 G	7003134.50	7003134.73	7003134.96	0.0484	0.0069
Moon	14461-10-30 08:09 G	7003134.61	7003134.84	7003135.08	0.0484	0.0097 *
Mercury	14466-10-27 12:57 G	7004957.90	7004958.04	7004958.18	0.0541	0.0131
Earth	14467-04-18 01:26 G	7005130.55	7005130.56	7005130.58	0.0544	0.0542
Venus	14472-02-28 08:52 G	7006907.67	7006907.87	7006908.08	0.0490	0.0004
Mercury	14472-06-12 20:38 G	7007013.21	7007013.36	7007013.52	0.0488	0.0095
Moon	14473-11-03 06:43 G	7007521.55	7007521.78	7007522.01	0.0484	0.0044
Earth	14473-11-03 10:04 G	7007521.69	7007521.92	7007522.15	0.0484	0.0040 *
Mercury	14478-08-15 12:57 G	7009267.90	7009268.04	7009268.19	0.0540	0.0072
Earth	14479-04-23 05:45 G	7009518.58	7009518.74	7009518.90	0.0545	0.0390
Moon	14479-04-23 09:07 G	7009518.73	7009518.88	7009519.04	0.0545	0.0404 *
Venus	14483-11-03 13:26 G	7011173.95	7011174.06	7011174.19	0.0492	0.0398
Mercury	14484-03-31 23:02 G	7011323.33	7011323.46	7011323.60	0.0488	0.0230
Mercury	14484-06-29 13:55 G	7011412.98	7011413.08	7011413.20	0.0487	0.0347
Earth	14485-11-07 15:07 G	7011908.91	7011909.13	7011909.35	0.0484	0.0152

Moon	14485-11-07 18:43 G	7011909.07	7011909.28	7011909.50	0.0484	0.0181 *
Venus	14490-04-25 03:21 G	7013538.46	7013538.64	7013538.83	0.0539	0.0233
Mercury	14490-06-03 14:24 G	7013577.97	7013578.10	7013578.23	0.0540	0.0252
Mercury	14490-09-01 07:26 G	7013667.74	7013667.81	7013667.88	0.0542	0.0474
Moon	14491-04-28 14:38 G	7013906.89	7013907.11	7013907.34	0.0545	0.0192
Earth	14491-04-28 16:48 G	7013906.99	7013907.20	7013907.41	0.0545	0.0225 *
Mercury	14496-01-19 01:12 G	7015633.45	7015633.55	7015633.65	0.0489	0.0368
Mercury	14496-04-17 15:50 G	7015723.02	7015723.16	7015723.30	0.0487	0.0202
Moon	14497-11-11 15:21 G	7016295.95	7016296.14	7016296.35	0.0484	0.0263
Earth	14497-11-11 18:57 G	7016296.10	7016296.29	7016296.49	0.0484	0.0261 *
Mars	14500-03-08 20:24 G	7017143.09	7017143.35	7017143.62	0.0509	0.0120
Venus	14501-12-29 16:48 G	7017804.03	7017804.20	7017804.37	0.0537	0.0295
Mercury	14502-03-23 15:50 G	7017888.07	7017888.16	7017888.25	0.0540	0.0427
Mercury	14502-06-21 09:36 G	7017977.78	7017977.90	7017978.01	0.0542	0.0307
Moon	14503-05-05 05:45 G	7018295.52	7018295.74	7018295.96	0.0545	0.0045
Earth	14503-05-05 06:00 G	7018295.52	7018295.75	7018295.98	0.0545	0.0056 *
Venus	14507-11-06 19:26 G	7019942.13	7019942.31	7019942.49	0.0489	0.0236
Mercury	14508-02-05 17:45 G	7020033.08	7020033.24	7020033.40	0.0487	0.0060
Moon	14508-10-18 04:19 G	7020288.54	7020288.68	7020288.84	0.0484	0.0379
Earth	14508-10-18 04:19 G	7020288.56	7020288.68	7020288.81	0.0484	0.0405 *
Earth	14509-11-17 00:14 G	7020683.37	7020683.51	7020683.67	0.0485	0.0373
Moon	14509-11-17 03:07 G	7020683.47	7020683.63	7020683.79	0.0485	0.0344 *
Mercury	14514-04-09 11:31 G	7022287.84	7022287.98	7022288.12	0.0541	0.0138
Earth	14515-05-10 16:48 G	7022683.98	7022684.20	7022684.43	0.0544	0.0110
Moon	14515-05-10 19:40 G	7022684.08	7022684.32	7022684.56	0.0544	0.0077 *
Venus	14519-07-12 22:33 G	7024208.25	7024208.44	7024208.64	0.0491	0.0165
Mercury	14519-11-24 19:26 G	7024343.15	7024343.31	7024343.46	0.0488	0.0088
Moon	14520-10-22 05:16 G	7024675.54	7024675.72	7024675.90	0.0484	0.0289
Earth	14520-10-22 06:57 G	7024675.61	7024675.79	7024675.98	0.0484	0.0301 *
Moon	14521-11-21 03:50 G	7025070.60	7025070.66	7025070.75	0.0486	0.0463

Earth	14521-11-21 05:45 G	7025070.71	7025070.74	7025070.78	0.0486	0.0479	*
Mercury	14526-01-26 12:43 G	7026597.89	7026598.03	7026598.18	0.0540	0.0045	
Moon	14527-05-15 20:52 G	7027072.17	7027072.37	7027072.57	0.0544	0.0271	
Earth	14527-05-16 00:43 G	7027072.33	7027072.53	7027072.74	0.0544	0.0271	*
Mercury	14531-09-12 21:36 G	7028653.26	7028653.40	7028653.53	0.0488	0.0226	
Mercury	14531-12-11 12:28 G	7028742.91	7028743.02	7028743.13	0.0487	0.0351	
Earth	14532-10-26 11:31 G	7029062.77	7029062.98	7029063.20	0.0484	0.0191	
Moon	14532-10-26 14:24 G	7029062.89	7029063.10	7029063.32	0.0484	0.0215	*
Venus	14537-09-06 09:21 G	7030838.69	7030838.89	7030839.09	0.0538	0.0007	
Mercury	14537-11-14 12:43 G	7030907.90	7030908.03	7030908.16	0.0540	0.0247	
Mercury	14538-02-12 05:45 G	7030997.68	7030997.74	7030997.81	0.0542	0.0477	
Earth	14539-05-21 04:04 G	7031460.52	7031460.67	7031460.81	0.0543	0.0422	
Moon	14539-05-21 07:40 G	7031460.70	7031460.82	7031460.94	0.0543	0.0460	*
Mercury	14543-07-02 00:00 G	7032963.40	7032963.50	7032963.60	0.0489	0.0360	
Venus	14543-07-15 04:33 G	7032976.64	7032976.69	7032976.75	0.0489	0.0468	
Mercury	14543-09-29 14:38 G	7033052.97	7033053.11	7033053.25	0.0487	0.0211	
Moon	14544-10-30 13:12 G	7033449.83	7033450.05	7033450.28	0.0484	0.0107	
Earth	14544-10-30 16:48 G	7033449.97	7033450.20	7033450.43	0.0484	0.0081	*
Venus	14549-05-11 21:21 G	7035104.36	7035104.39	7035104.43	0.0536	0.0525	
Mercury	14549-09-02 13:55 G	7035217.99	7035218.08	7035218.17	0.0539	0.0432	
Mercury	14549-12-01 07:26 G	7035307.69	7035307.81	7035307.93	0.0542	0.0302	
Venus	14555-03-20 09:21 G	7037242.69	7037242.89	7037243.09	0.0490	0.0077	
Mercury	14555-07-18 16:33 G	7037363.03	7037363.19	7037363.34	0.0487	0.0070	
Earth	14556-11-03 19:55 G	7037837.09	7037837.33	7037837.56	0.0484	0.0028	
Moon	14556-11-03 23:31 G	7037837.25	7037837.48	7037837.72	0.0484	0.0040	*
Mercury	14561-09-19 09:21 G	7039617.75	7039617.89	7039618.03	0.0541	0.0133	
Moon	14562-04-23 07:40 G	7039833.68	7039833.82	7039833.98	0.0545	0.0419	
Earth	14562-04-23 10:33 G	7039833.79	7039833.94	7039834.10	0.0545	0.0408	*
Mars	14564-12-12 09:21 G	7040797.64	7040797.89	7040798.14	0.0520	0.0214	
Venus	14566-11-23 13:40 G	7041508.92	7041509.07	7041509.23	0.0492	0.0319	

Mercury	14567-05-06 18:28 G	7041673.12	7041673.27	7041673.43	0.0488	0.0072
Moon	14568-11-07 21:07 G	7042224.16	7042224.38	7042224.61	0.0484	0.0166
Earth	14568-11-08 00:28 G	7042224.30	7042224.52	7042224.75	0.0484	0.0139 *
Venus	14573-05-15 06:57 G	7043873.64	7043873.79	7043873.95	0.0539	0.0343
Mercury	14573-07-08 11:16 G	7043927.83	7043927.97	7043928.12	0.0541	0.0041
Earth	14574-04-28 23:16 G	7044222.26	7044222.47	7044222.68	0.0545	0.0244
Moon	14574-04-29 00:00 G	7044222.29	7044222.50	7044222.71	0.0545	0.0212 *
Mercury	14579-02-22 20:24 G	7045983.21	7045983.35	7045983.48	0.0488	0.0217
Mercury	14579-05-23 11:02 G	7046072.86	7046072.96	7046073.07	0.0487	0.0360
Earth	14580-11-12 04:48 G	7046611.50	7046611.70	7046611.90	0.0485	0.0247
Moon	14580-11-12 06:57 G	7046611.60	7046611.79	7046611.99	0.0485	0.0243 *
Venus	14585-01-17 19:12 G	7048139.11	7048139.30	7048139.49	0.0537	0.0195
Mercury	14585-04-26 12:28 G	7048237.89	7048238.02	7048238.16	0.0540	0.0221
Mercury	14585-07-25 05:31 G	7048327.69	7048327.73	7048327.79	0.0542	0.0504
Earth	14586-05-04 08:38 G	7048610.63	7048610.86	7048611.09	0.0545	0.0080
Moon	14586-05-04 10:33 G	7048610.70	7048610.94	7048611.18	0.0545	0.0075 *
Venus	14590-11-25 18:14 G	7050277.10	7050277.26	7050277.42	0.0489	0.0308
Mercury	14590-12-11 22:33 G	7050293.34	7050293.44	7050293.55	0.0489	0.0353
Mercury	14591-03-11 12:57 G	7050382.91	7050383.04	7050383.19	0.0487	0.0219
Moon	14591-10-18 12:14 G	7050603.88	7050604.01	7050604.15	0.0484	0.0389
Earth	14591-10-18 14:09 G	7050603.98	7050604.09	7050604.22	0.0484	0.0417 *
Moon	14592-11-16 09:07 G	7050998.70	7050998.88	7050999.06	0.0485	0.0326
Earth	14592-11-16 10:33 G	7050998.79	7050998.94	7050999.10	0.0485	0.0357 *
Mercury	14597-02-12 12:28 G	7052547.93	7052548.02	7052548.11	0.0539	0.0424
Mercury	14597-05-13 06:14 G	7052637.64	7052637.76	7052637.87	0.0541	0.0309
Moon	14598-05-09 08:52 G	7052998.64	7052998.87	7052999.10	0.0545	0.0044
Earth	14598-05-09 12:28 G	7052998.79	7052999.02	7052999.25	0.0545	0.0078 *
Venus	14602-08-01 23:16 G	7054543.27	7054543.47	7054543.68	0.0491	0.0084
Mercury	14602-10-01 00:57 G	7054603.54	7054603.54	7054603.56	0.0490	0.0487
Mercury	14602-12-29 15:21 G	7054692.98	7054693.14	7054693.29	0.0488	0.0080

Earth	14603-10-23 19:26 G	7054991.13	7054991.31	7054991.49	0.0484	0.0308
Moon	14603-10-23 22:33 G	7054991.26	7054991.44	7054991.63	0.0484	0.0300 *
Moon	14604-11-21 16:48 G	7055386.13	7055386.20	7055386.27	0.0486	0.0458
Earth	14604-11-21 16:33 G	7055386.14	7055386.19	7055386.27	0.0486	0.0466 *
Mercury	14609-03-02 07:40 G	7056947.68	7056947.82	7056947.96	0.0541	0.0131
Earth	14610-05-15 22:19 G	7057387.23	7057387.43	7057387.64	0.0544	0.0242
Moon	14610-05-16 02:09 G	7057387.39	7057387.59	7057387.80	0.0544	0.0247 *
Venus	14614-04-07 03:21 G	7058809.60	7058809.64	7058809.68	0.0493	0.0481
Mercury	14614-10-17 17:16 G	7059003.07	7059003.22	7059003.38	0.0488	0.0062
Moon	14615-10-27 18:57 G	7059378.09	7059378.29	7059378.50	0.0483	0.0227
Earth	14615-10-27 22:33 G	7059378.23	7059378.44	7059378.66	0.0483	0.0201 *
Venus	14620-09-26 11:16 G	7061173.77	7061173.97	7061174.17	0.0538	0.0106
Mercury	14620-12-19 09:21 G	7061257.74	7061257.89	7061258.04	0.0541	0.0042
Moon	14622-05-21 07:55 G	7061775.69	7061775.83	7061775.97	0.0544	0.0437
Earth	14622-05-21 10:33 G	7061775.79	7061775.94	7061776.10	0.0544	0.0404 *
Mercury	14626-08-05 19:26 G	7063313.17	7063313.31	7063313.46	0.0488	0.0200
Mercury	14626-11-03 10:19 G	7063402.84	7063402.93	7063403.03	0.0486	0.0376
Earth	14627-11-01 02:52 G	7063765.39	7063765.62	7063765.85	0.0483	0.0092
Moon	14627-11-01 06:28 G	7063765.55	7063765.77	7063766.00	0.0483	0.0112 *
Venus	14632-06-01 01:12 G	7065439.42	7065439.55	7065439.67	0.0536	0.0418
Mercury	14632-10-07 11:16 G	7065567.83	7065567.97	7065568.10	0.0540	0.0215
Mercury	14633-01-05 04:19 G	7065657.63	7065657.68	7065657.72	0.0542	0.0511
Venus	14638-04-09 08:38 G	7067577.66	7067577.86	7067578.05	0.0490	0.0151
Mercury	14638-05-24 21:21 G	7067623.28	7067623.39	7067623.50	0.0489	0.0343
Mercury	14638-08-22 11:45 G	7067712.86	7067712.99	7067713.13	0.0487	0.0228
Moon	14639-11-05 02:52 G	7068152.39	7068152.62	7068152.86	0.0484	0.0034
Earth	14639-11-05 06:14 G	7068152.53	7068152.76	7068152.99	0.0484	0.0016 *
Mercury	14644-07-26 12:14 G	7069877.92	7069878.01	7069878.11	0.0539	0.0397
Mercury	14644-10-24 06:00 G	7069967.64	7069967.75	7069967.86	0.0542	0.0336
Earth	14645-04-23 15:07 G	7070148.99	7070149.13	7070149.28	0.0544	0.0426

Moon	14645-04-23 16:48 G	7070149.07	7070149.20	7070149.34	0.0544	0.0434 *
Venus	14649-12-13 12:57 G	7071843.86	7071844.04	7071844.22	0.0492	0.0246
Mercury	14650-03-12 23:45 G	7071933.46	7071933.49	7071933.52	0.0490	0.0478
Mercury	14650-06-10 13:55 G	7072022.93	7072023.08	7072023.23	0.0488	0.0087
Earth	14651-11-09 11:31 G	7072539.76	7072539.98	7072540.21	0.0484	0.0126
Moon	14651-11-09 13:40 G	7072539.85	7072540.07	7072540.29	0.0484	0.0151 *
Mars	14654-06-04 03:50 G	7073477.40	7073477.66	7073477.92	0.0509	0.0133
Venus	14656-06-04 04:48 G	7074208.58	7074208.70	7074208.84	0.0539	0.0417
Mercury	14656-08-12 06:14 G	7074277.62	7074277.76	7074277.90	0.0541	0.0140
Earth	14657-04-28 18:57 G	7074537.09	7074537.29	7074537.50	0.0545	0.0273
Moon	14657-04-28 19:40 G	7074537.10	7074537.32	7074537.54	0.0545	0.0240 *
Mercury	14662-03-29 16:04 G	7076333.02	7076333.17	7076333.33	0.0488	0.0052
Moon	14663-11-13 15:50 G	7076926.95	7076927.16	7076927.38	0.0484	0.0228
Earth	14663-11-13 17:02 G	7076927.01	7076927.21	7076927.42	0.0484	0.0237 *
Venus	14668-02-07 16:48 G	7078474.00	7078474.20	7078474.40	0.0537	0.0123
Mercury	14668-05-31 07:40 G	7078587.67	7078587.82	7078587.96	0.0540	0.0044
Moon	14669-05-04 02:09 G	7078925.37	7078925.59	7078925.82	0.0545	0.0111
Earth	14669-05-04 05:16 G	7078925.49	7078925.72	7078925.95	0.0545	0.0109 *
Venus	14673-12-15 18:57 G	7080612.17	7080612.29	7080612.42	0.0489	0.0391
Mercury	14674-01-15 18:14 G	7080643.12	7080643.26	7080643.41	0.0488	0.0190
Mercury	14674-04-15 09:07 G	7080732.79	7080732.88	7080732.98	0.0487	0.0387
Earth	14674-10-19 01:55 G	7080919.48	7080919.58	7080919.70	0.0484	0.0425
Moon	14674-10-19 05:31 G	7080919.59	7080919.73	7080919.87	0.0484	0.0393 *
Moon	14675-11-17 20:38 G	7081314.19	7081314.36	7081314.53	0.0485	0.0316
Earth	14675-11-17 20:52 G	7081314.21	7081314.37	7081314.54	0.0485	0.0343 *
Mercury	14680-03-19 09:07 G	7082897.75	7082897.88	7082898.02	0.0540	0.0218
Mercury	14680-06-17 02:24 G	7082987.55	7082987.60	7082987.65	0.0542	0.0507
Earth	14681-05-09 18:14 G	7083314.02	7083314.26	7083314.49	0.0545	0.0060
Moon	14681-05-09 22:04 G	7083314.19	7083314.42	7083314.66	0.0545	0.0026 *
Venus	14685-08-21 00:00 G	7084878.30	7084878.50	7084878.71	0.0491	0.0005

Mercury	14685-11-03 20:38 G	7084953.25	7084953.36	7084953.48	0.0489	0.0326
Mercury	14686-02-01 11:02 G	7085042.83	7085042.96	7085043.10	0.0487	0.0245
Moon	14686-10-23 02:24 G	7085306.43	7085306.60	7085306.78	0.0484	0.0312
Earth	14686-10-23 06:14 G	7085306.59	7085306.76	7085306.94	0.0484	0.0318 *
Earth	14687-11-22 02:24 G	7085701.52	7085701.60	7085701.69	0.0485	0.0451
Moon	14687-11-22 04:33 G	7085701.61	7085701.69	7085701.78	0.0485	0.0451 *
Mercury	14692-01-06 10:48 G	7087207.85	7087207.95	7087208.05	0.0540	0.0391
Mercury	14692-04-05 04:33 G	7087297.58	7087297.69	7087297.80	0.0542	0.0342
Moon	14693-05-15 03:07 G	7087702.42	7087702.63	7087702.85	0.0544	0.0225
Earth	14693-05-15 06:28 G	7087702.56	7087702.77	7087702.99	0.0544	0.0223 *
Venus	14697-04-26 02:52 G	7089144.51	7089144.62	7089144.74	0.0493	0.0406
Mercury	14697-08-22 22:48 G	7089263.41	7089263.45	7089263.49	0.0489	0.0468
Mercury	14697-11-20 12:43 G	7089352.88	7089353.03	7089353.19	0.0487	0.0098
Earth	14698-10-27 09:07 G	7089693.67	7089693.88	7089694.09	0.0484	0.0212
Moon	14698-10-27 12:43 G	7089693.83	7089694.03	7089694.24	0.0484	0.0239 *
Venus	14703-10-17 14:38 G	7091508.92	7091509.11	7091509.30	0.0538	0.0213
Mercury	14704-01-24 06:14 G	7091607.62	7091607.76	7091607.89	0.0541	0.0167
Earth	14705-05-21 15:21 G	7092090.97	7092091.14	7092091.30	0.0544	0.0382
Moon	14705-05-21 16:19 G	7092091.04	7092091.18	7092091.33	0.0544	0.0413 *
Mercury	14709-09-09 14:52 G	7093662.97	7093663.12	7093663.28	0.0488	0.0042
Moon	14710-11-01 11:02 G	7094080.73	7094080.96	7094081.20	0.0484	0.0115
Earth	14710-11-01 14:09 G	7094080.86	7094081.09	7094081.32	0.0484	0.0102 *
Venus	14715-06-22 00:00 G	7095774.35	7095774.50	7095774.66	0.0536	0.0339
Mercury	14715-11-12 06:28 G	7095917.62	7095917.77	7095917.92	0.0540	0.0031
Earth	14717-05-26 17:16 G	7096479.18	7096479.22	7096479.28	0.0543	0.0529
Moon	14717-05-26 19:12 G	7096479.23	7096479.30	7096479.38	0.0543	0.0513 *
Mars	14719-03-10 09:50 G	7097131.64	7097131.91	7097132.19	0.0520	0.0036
Venus	14721-04-29 09:07 G	7097912.71	7097912.88	7097913.07	0.0490	0.0233
Mercury	14721-06-28 17:02 G	7097973.07	7097973.21	7097973.36	0.0489	0.0181
Mercury	14721-09-26 08:09 G	7098062.75	7098062.84	7098062.93	0.0487	0.0398

Earth	14722-11-05 19:12 G	7098468.06	7098468.30	7098468.53	0.0484	0.0010
Moon	14722-11-05 20:52 G	7098468.14	7098468.37	7098468.60	0.0484	0.0032 *
Mercury	14727-08-31 07:26 G	7100227.68	7100227.81	7100227.95	0.0540	0.0217
Mercury	14727-11-29 00:43 G	7100317.48	7100317.53	7100317.58	0.0542	0.0508
Moon	14728-04-23 10:48 G	7100463.82	7100463.95	7100464.08	0.0544	0.0458
Earth	14728-04-23 11:02 G	7100463.84	7100463.96	7100464.10	0.0544	0.0453 *
Venus	14733-01-02 13:40 G	7102178.88	7102179.07	7102179.26	0.0492	0.0163
Mercury	14733-04-16 19:26 G	7102283.19	7102283.31	7102283.43	0.0489	0.0317
Mercury	14733-07-15 09:50 G	7102372.78	7102372.91	7102373.05	0.0487	0.0254
Moon	14734-11-09 21:36 G	7102855.17	7102855.40	7102855.63	0.0484	0.0136
Earth	14734-11-09 22:19 G	7102855.20	7102855.43	7102855.66	0.0484	0.0113 *
Mercury	14739-06-19 08:52 G	7104537.77	7104537.87	7104537.97	0.0539	0.0395
Venus	14739-06-25 06:43 G	7104543.72	7104543.78	7104543.84	0.0540	0.0515
Mercury	14739-09-17 02:38 G	7104627.50	7104627.61	7104627.72	0.0542	0.0339
Moon	14740-04-28 21:21 G	7104852.20	7104852.39	7104852.59	0.0545	0.0262
Earth	14740-04-28 23:45 G	7104852.30	7104852.49	7104852.69	0.0545	0.0293 *
Mercury	14745-02-02 21:50 G	7106593.36	7106593.41	7106593.47	0.0489	0.0452
Mercury	14745-05-03 12:00 G	7106682.85	7106683.00	7106683.15	0.0487	0.0113
Moon	14746-11-14 02:24 G	7107242.40	7107242.60	7107242.81	0.0484	0.0211
Earth	14746-11-14 03:07 G	7107242.42	7107242.63	7107242.84	0.0484	0.0223 *
Venus	14751-02-27 20:24 G	7108809.14	7108809.35	7108809.55	0.0538	0.0017
Mercury	14751-07-06 04:33 G	7108937.56	7108937.69	7108937.83	0.0541	0.0171
Earth	14752-05-04 13:12 G	7109240.82	7109241.05	7109241.28	0.0545	0.0126
Moon	14752-05-04 17:16 G	7109240.99	7109241.22	7109241.44	0.0545	0.0137 *
Venus	14757-01-04 18:43 G	7110947.22	7110947.28	7110947.34	0.0489	0.0465
Mercury	14757-02-19 13:40 G	7110992.91	7110993.07	7110993.23	0.0488	0.0032
Moon	14757-10-19 08:38 G	7111234.73	7111234.86	7111234.98	0.0484	0.0404
Earth	14757-10-19 12:28 G	7111234.92	7111235.02	7111235.12	0.0484	0.0434 *
Earth	14758-11-18 07:12 G	7111629.64	7111629.80	7111629.98	0.0485	0.0331
Moon	14758-11-18 09:36 G	7111629.72	7111629.90	7111630.09	0.0485	0.0305 *

Mercury	14763-04-24 06:14 G	7113247.61	7113247.76	7113247.90	0.0540	0.0012
Moon	14764-05-09 19:40 G	7113629.08	7113629.32	7113629.56	0.0545	0.0004
Earth	14764-05-09 23:31 G	7113629.25	7113629.48	7113629.71	0.0545	0.0039 *
Venus	14768-09-09 23:31 G	7115213.27	7115213.48	7115213.68	0.0491	0.0074
Mercury	14768-12-08 15:50 G	7115303.02	7115303.16	7115303.31	0.0489	0.0171
Mercury	14769-03-08 06:43 G	7115392.70	7115392.78	7115392.87	0.0487	0.0407
Earth	14769-10-23 17:02 G	7115622.04	7115622.21	7115622.39	0.0484	0.0327
Moon	14769-10-23 20:38 G	7115622.20	7115622.36	7115622.54	0.0484	0.0328 *
Moon	14770-11-22 10:33 G	7116016.86	7116016.94	7116017.03	0.0485	0.0449
Earth	14770-11-22 13:55 G	7116016.99	7116017.08	7116017.18	0.0485	0.0439 *
Mars	14772-11-24 04:33 G	7116749.51	7116749.69	7116749.88	0.0507	0.0365
Mercury	14775-02-10 06:28 G	7117557.63	7117557.77	7117557.90	0.0539	0.0204
Mercury	14775-05-10 23:31 G	7117647.44	7117647.48	7117647.52	0.0542	0.0519
Earth	14776-05-15 02:52 G	7118017.40	7118017.62	7118017.84	0.0544	0.0192
Moon	14776-05-15 05:02 G	7118017.50	7118017.71	7118017.92	0.0544	0.0199 *
Venus	14780-05-16 02:52 G	7119479.48	7119479.62	7119479.78	0.0493	0.0328
Mercury	14780-09-26 18:00 G	7119613.14	7119613.25	7119613.37	0.0489	0.0309
Mercury	14780-12-25 08:38 G	7119702.73	7119702.86	7119702.99	0.0487	0.0264
Moon	14781-10-27 18:43 G	7120009.08	7120009.28	7120009.49	0.0484	0.0248
Earth	14781-10-27 21:36 G	7120009.20	7120009.40	7120009.62	0.0484	0.0220 *
Venus	14786-11-05 12:28 G	7121843.85	7121844.02	7121844.19	0.0538	0.0287
Mercury	14786-11-29 07:12 G	7121867.70	7121867.80	7121867.91	0.0539	0.0391
Mercury	14787-02-27 00:57 G	7121957.43	7121957.54	7121957.65	0.0541	0.0340
Earth	14788-05-20 11:31 G	7122405.80	7122405.98	7122406.16	0.0544	0.0351
Moon	14788-05-20 12:00 G	7122405.83	7122406.00	7122406.18	0.0544	0.0378 *
Mercury	14792-07-15 20:24 G	7123923.29	7123923.35	7123923.41	0.0490	0.0445
Mercury	14792-10-13 10:33 G	7124012.79	7124012.94	7124013.09	0.0488	0.0122
Earth	14793-11-01 00:57 G	7124396.31	7124396.54	7124396.76	0.0483	0.0115
Moon	14793-11-01 02:24 G	7124396.38	7124396.60	7124396.82	0.0483	0.0119 *
Venus	14798-07-11 00:43 G	7126109.36	7126109.53	7126109.72	0.0536	0.0248

Mercury	14798-12-16 02:38 G	7126267.47	7126267.61	7126267.75	0.0541	0.0166
Moon	14800-05-25 19:40 G	7126794.23	7126794.32	7126794.42	0.0543	0.0489
Earth	14800-05-25 22:48 G	7126794.37	7126794.45	7126794.53	0.0543	0.0508 *
Venus	14804-05-18 09:36 G	7128247.74	7128247.90	7128248.06	0.0490	0.0313
Mercury	14804-08-01 12:43 G	7128322.87	7128323.03	7128323.19	0.0488	0.0018
Moon	14805-11-05 04:33 G	7128783.45	7128783.69	7128783.93	0.0483	0.0021
Earth	14805-11-05 05:02 G	7128783.47	7128783.71	7128783.94	0.0483	0.0008 *
Mars	14808-08-29 10:33 G	7129811.78	7129811.94	7129812.12	0.0510	0.0389
Mercury	14810-10-04 04:33 G	7130577.54	7130577.69	7130577.83	0.0541	0.0012
Moon	14811-04-23 16:48 G	7130779.09	7130779.20	7130779.31	0.0544	0.0469
Earth	14811-04-23 18:14 G	7130779.14	7130779.26	7130779.37	0.0544	0.0470 *
Venus	14816-01-22 13:12 G	7132513.85	7132514.05	7132514.25	0.0491	0.0088
Mercury	14816-05-20 14:38 G	7132632.96	7132633.11	7132633.26	0.0488	0.0162
Mercury	14816-08-18 05:31 G	7132722.65	7132722.73	7132722.81	0.0487	0.0415
Moon	14817-11-09 07:40 G	7133170.60	7133170.82	7133171.04	0.0484	0.0120
Earth	14817-11-09 08:24 G	7133170.62	7133170.85	7133171.08	0.0484	0.0102 *
Mercury	14822-07-23 06:00 G	7134887.61	7134887.75	7134887.89	0.0540	0.0182
Mercury	14822-10-20 23:02 G	7134977.46	7134977.46	7134977.46	0.0542	0.0542
Earth	14823-04-29 05:02 G	7135167.53	7135167.71	7135167.91	0.0545	0.0310
Moon	14823-04-29 08:52 G	7135167.67	7135167.87	7135168.08	0.0545	0.0277 *
Venus	14827-09-27 16:48 G	7136780.19	7136780.20	7136780.22	0.0493	0.0490
Mercury	14828-03-08 16:48 G	7136943.08	7136943.20	7136943.33	0.0489	0.0300
Mercury	14828-06-06 07:26 G	7137032.68	7137032.81	7137032.94	0.0487	0.0272
Earth	14829-11-13 13:55 G	7137557.87	7137558.08	7137558.29	0.0484	0.0212
Moon	14829-11-13 16:19 G	7137557.96	7137558.18	7137558.41	0.0484	0.0191 *
Venus	14834-03-18 19:40 G	7139144.12	7139144.32	7139144.52	0.0537	0.0069
Mercury	14834-05-11 06:14 G	7139197.66	7139197.76	7139197.86	0.0539	0.0379
Mercury	14834-08-08 23:45 G	7139287.39	7139287.49	7139287.60	0.0541	0.0352
Moon	14835-05-04 05:45 G	7139555.51	7139555.74	7139555.96	0.0544	0.0165
Earth	14835-05-04 09:50 G	7139555.68	7139555.91	7139556.13	0.0544	0.0155 *

Mercury	14839-12-26 18:57 G	7141253.23	7141253.29	7141253.36	0.0490	0.0439
Mercury	14840-03-25 09:07 G	7141342.73	7141342.88	7141343.04	0.0488	0.0130
Earth	14840-10-18 23:31 G	7141550.40	7141550.48	7141550.58	0.0485	0.0443
Moon	14840-10-19 03:21 G	7141550.53	7141550.64	7141550.76	0.0485	0.0416 *
Moon	14841-11-17 15:36 G	7141944.98	7141945.15	7141945.34	0.0485	0.0298
Earth	14841-11-17 19:12 G	7141945.13	7141945.30	7141945.48	0.0485	0.0320 *
Venus	14845-11-21 07:26 G	7143409.72	7143409.81	7143409.91	0.0535	0.0466
Mercury	14846-05-28 00:57 G	7143597.41	7143597.54	7143597.68	0.0540	0.0170
Earth	14847-05-09 18:14 G	7143944.03	7143944.26	7143944.50	0.0545	0.0013
Moon	14847-05-09 21:21 G	7143944.16	7143944.39	7143944.62	0.0545	0.0026 *
Venus	14851-09-29 22:48 G	7145548.25	7145548.45	7145548.64	0.0491	0.0150
Mercury	14852-01-12 11:16 G	7145652.81	7145652.97	7145653.12	0.0488	0.0014
Moon	14852-10-23 00:14 G	7145937.36	7145937.51	7145937.69	0.0484	0.0348
Earth	14852-10-23 03:07 G	7145937.47	7145937.63	7145937.80	0.0484	0.0340 *
Earth	14853-11-21 22:33 G	7146332.33	7146332.44	7146332.56	0.0485	0.0422
Moon	14853-11-22 02:38 G	7146332.51	7146332.61	7146332.71	0.0485	0.0438 *
Mercury	14858-03-16 02:24 G	7147907.45	7147907.60	7147907.74	0.0540	0.0011
Moon	14859-05-15 05:16 G	7148332.50	7148332.72	7148332.95	0.0545	0.0181
Earth	14859-05-15 05:45 G	7148332.52	7148332.74	7148332.97	0.0545	0.0168 *
Venus	14863-06-05 03:07 G	7149814.46	7149814.63	7149814.81	0.0492	0.0248
Mercury	14863-10-31 13:26 G	7149962.92	7149963.06	7149963.21	0.0489	0.0151
Mercury	14864-01-29 04:19 G	7150052.61	7150052.68	7150052.76	0.0487	0.0427
Earth	14864-10-27 07:12 G	7150324.59	7150324.80	7150325.00	0.0484	0.0232
Moon	14864-10-27 08:24 G	7150324.66	7150324.85	7150325.04	0.0484	0.0261 *
Venus	14869-11-24 14:38 G	7152178.97	7152179.11	7152179.25	0.0539	0.0388
Mercury	14870-01-02 04:04 G	7152217.53	7152217.67	7152217.81	0.0540	0.0184
Mercury	14870-04-01 21:21 G	7152307.38	7152307.39	7152307.39	0.0542	0.0541
Moon	14871-05-20 15:36 G	7152720.98	7152721.15	7152721.32	0.0544	0.0356
Earth	14871-05-20 18:00 G	7152721.07	7152721.25	7152721.43	0.0544	0.0330 *
Mars	14873-06-03 23:02 G	7153466.25	7153466.46	7153466.68	0.0519	0.0327

Mercury	14875-08-19 15:21 G	7154273.02	7154273.14	7154273.27	0.0489	0.0293
Mercury	14875-11-17 05:45 G	7154362.62	7154362.74	7154362.87	0.0487	0.0279
Moon	14876-10-31 10:04 G	7154711.68	7154711.92	7154712.15	0.0484	0.0127
Earth	14876-10-31 10:04 G	7154711.70	7154711.92	7154712.15	0.0484	0.0126 *
Venus	14881-07-30 03:50 G	7156444.46	7156444.66	7156444.85	0.0537	0.0144
Mercury	14881-10-21 05:31 G	7156527.62	7156527.73	7156527.83	0.0539	0.0362
Mercury	14882-01-18 23:02 G	7156617.36	7156617.46	7156617.57	0.0541	0.0370
Earth	14883-05-26 03:07 G	7157109.53	7157109.63	7157109.73	0.0543	0.0486
Moon	14883-05-26 07:12 G	7157109.68	7157109.80	7157109.92	0.0543	0.0463 *
Venus	14887-06-07 08:09 G	7158582.72	7158582.84	7158582.97	0.0490	0.0384
Mercury	14887-06-07 17:45 G	7158583.17	7158583.24	7158583.31	0.0490	0.0430
Mercury	14887-09-05 07:55 G	7158672.68	7158672.83	7158672.98	0.0488	0.0137
Moon	14888-11-04 13:40 G	7159098.85	7159099.07	7159099.30	0.0484	0.0011
Earth	14888-11-04 14:52 G	7159098.88	7159099.12	7159099.35	0.0484	0.0018 *
Mercury	14893-11-06 23:45 G	7160927.36	7160927.49	7160927.63	0.0540	0.0181
Earth	14894-04-22 15:07 G	7161094.04	7161094.13	7161094.23	0.0543	0.0496
Moon	14894-04-22 18:14 G	7161094.15	7161094.26	7161094.37	0.0543	0.0484 *
Venus	14899-02-10 11:45 G	7162848.79	7162848.99	7162849.19	0.0492	0.0016
Mercury	14899-06-24 09:36 G	7162982.75	7162982.90	7162983.06	0.0489	0.0013
Earth	14900-11-09 19:12 G	7163486.07	7163486.30	7163486.53	0.0484	0.0090
Moon	14900-11-09 21:50 G	7163486.18	7163486.41	7163486.65	0.0484	0.0099 *
Mercury	14905-08-27 00:57 G	7165237.39	7165237.54	7165237.68	0.0540	0.0017
Moon	14906-04-28 19:26 G	7165482.12	7165482.31	7165482.50	0.0544	0.0307
Earth	14906-04-28 23:31 G	7165482.30	7165482.48	7165482.66	0.0544	0.0341 *
Venus	14910-10-17 15:07 G	7167115.03	7167115.13	7167115.24	0.0494	0.0419
Mercury	14911-04-13 11:45 G	7167292.84	7167292.99	7167293.14	0.0489	0.0148
Mercury	14911-07-12 02:38 G	7167382.54	7167382.61	7167382.68	0.0487	0.0431
Moon	14912-11-13 18:28 G	7167873.06	7167873.27	7167873.49	0.0484	0.0168
Earth	14912-11-13 22:04 G	7167873.21	7167873.42	7167873.64	0.0484	0.0194 *
Venus	14917-04-07 18:28 G	7169479.08	7169479.27	7169479.47	0.0538	0.0151

Mercury	14917-06-15 01:55 G	7169547.44	7169547.58	7169547.71	0.0540	0.0191
Mercury	14917-09-12 19:12 G	7169637.28	7169637.30	7169637.32	0.0542	0.0534
Earth	14918-05-04 10:04 G	7169870.70	7169870.92	7169871.14	0.0545	0.0182
Moon	14918-05-04 13:26 G	7169870.85	7169871.06	7169871.28	0.0545	0.0193 *
Mercury	14923-01-30 14:09 G	7171602.97	7171603.09	7171603.21	0.0489	0.0284
Mercury	14923-04-30 04:33 G	7171692.56	7171692.69	7171692.82	0.0487	0.0288
Moon	14923-10-20 06:00 G	7171865.65	7171865.75	7171865.86	0.0485	0.0433
Earth	14923-10-20 08:38 G	7171865.78	7171865.86	7171865.94	0.0485	0.0455 *
Earth	14924-11-18 02:38 G	7172260.43	7172260.61	7172260.79	0.0484	0.0301
Moon	14924-11-18 06:28 G	7172260.59	7172260.77	7172260.97	0.0484	0.0283 *
Mars	14927-02-19 03:21 G	7173083.38	7173083.64	7173083.91	0.0507	0.0135
Venus	14928-12-11 08:09 G	7173744.70	7173744.84	7173744.99	0.0535	0.0376
Mercury	14929-04-03 03:21 G	7173857.53	7173857.64	7173857.75	0.0539	0.0367
Mercury	14929-07-01 21:07 G	7173947.28	7173947.38	7173947.48	0.0542	0.0366
Moon	14930-05-09 21:21 G	7174259.15	7174259.39	7174259.63	0.0545	0.0045
Earth	14930-05-09 22:48 G	7174259.22	7174259.45	7174259.69	0.0545	0.0018 *
Venus	14934-10-19 21:21 G	7175883.21	7175883.39	7175883.57	0.0490	0.0221
Mercury	14934-11-18 16:19 G	7175913.10	7175913.18	7175913.25	0.0490	0.0425
Mercury	14935-02-16 06:14 G	7176002.61	7176002.76	7176002.91	0.0488	0.0142
Earth	14935-10-24 11:16 G	7176252.82	7176252.97	7176253.13	0.0484	0.0351
Moon	14935-10-24 12:14 G	7176252.87	7176253.01	7176253.16	0.0484	0.0369 *
Moon	14936-11-22 03:07 G	7176647.51	7176647.63	7176647.74	0.0485	0.0421
Earth	14936-11-22 06:43 G	7176647.66	7176647.78	7176647.91	0.0485	0.0407 *
Mercury	14941-04-19 22:48 G	7178257.32	7178257.45	7178257.59	0.0541	0.0194
Moon	14942-05-15 08:09 G	7178647.63	7178647.84	7178648.06	0.0545	0.0168
Earth	14942-05-15 09:36 G	7178647.68	7178647.90	7178648.13	0.0545	0.0146 *
Venus	14946-06-25 01:26 G	7180149.37	7180149.56	7180149.75	0.0492	0.0180
Mercury	14946-12-05 08:24 G	7180312.69	7180312.85	7180313.00	0.0488	0.0013
Earth	14947-10-28 15:36 G	7180639.95	7180640.15	7180640.35	0.0484	0.0244
Moon	14947-10-28 15:50 G	7180639.96	7180640.16	7180640.36	0.0484	0.0271 *

Venus	14952-12-14 13:55 G	7182513.99	7182514.08	7182514.18	0.0538	0.0473
Mercury	14953-02-05 23:31 G	7182567.34	7182567.48	7182567.63	0.0540	0.0015
Earth	14954-05-20 13:26 G	7183035.87	7183036.06	7183036.25	0.0544	0.0297
Moon	14954-05-20 16:48 G	7183036.02	7183036.20	7183036.40	0.0544	0.0323 *
Mercury	14958-09-23 10:04 G	7184622.77	7184622.92	7184623.07	0.0489	0.0145
Mercury	14958-12-22 00:57 G	7184712.47	7184712.54	7184712.61	0.0487	0.0435
Moon	14959-11-01 18:00 G	7185027.03	7185027.25	7185027.46	0.0484	0.0138
Earth	14959-11-01 19:12 G	7185027.08	7185027.30	7185027.53	0.0484	0.0141 *
Venus	14964-08-19 01:12 G	7186779.35	7186779.55	7186779.75	0.0536	0.0071
Mercury	14964-11-25 00:28 G	7186877.38	7186877.52	7186877.66	0.0539	0.0185
Mercury	14965-02-22 17:31 G	7186967.22	7186967.23	7186967.25	0.0541	0.0538
Moon	14966-05-25 16:33 G	7187424.05	7187424.19	7187424.33	0.0543	0.0431
Earth	14966-05-25 20:24 G	7187424.23	7187424.35	7187424.48	0.0543	0.0451 *
Venus	14970-06-27 05:45 G	7188917.67	7188917.74	7188917.82	0.0490	0.0452
Mercury	14970-07-12 12:14 G	7188932.89	7188933.01	7188933.14	0.0490	0.0284
Mercury	14970-10-10 02:38 G	7189022.49	7189022.61	7189022.74	0.0488	0.0289
Earth	14971-11-05 21:50 G	7189414.18	7189414.41	7189414.65	0.0484	0.0038
Moon	14971-11-06 00:43 G	7189414.29	7189414.53	7189414.77	0.0484	0.0008 *
Mercury	14976-09-13 00:57 G	7191187.44	7191187.54	7191187.65	0.0539	0.0375
Mercury	14976-12-11 18:43 G	7191277.18	7191277.28	7191277.39	0.0541	0.0359
Moon	14977-04-22 08:52 G	7191408.81	7191408.87	7191408.96	0.0544	0.0512
Earth	14977-04-22 12:43 G	7191408.98	7191409.03	7191409.10	0.0544	0.0524
Venus	14982-03-02 10:33 G	7193183.74	7193183.94	7193184.14	0.0491	0.0057
Mercury	14982-04-30 14:38 G	7193243.04	7193243.11	7193243.19	0.0490	0.0420
Mercury	14982-07-29 04:48 G	7193332.55	7193332.70	7193332.85	0.0488	0.0148
Moon	14983-11-09 22:33 G	7193801.21	7193801.44	7193801.67	0.0484	0.0075
Earth	14983-11-10 02:09 G	7193801.36	7193801.59	7193801.82	0.0484	0.0072 *
Mercury	14988-09-29 20:38 G	7195587.22	7195587.36	7195587.50	0.0541	0.0186
Earth	14989-04-28 01:26 G	7195797.39	7195797.56	7195797.73	0.0545	0.0365
Moon	14989-04-28 05:16 G	7195797.54	7195797.72	7195797.91	0.0545	0.0331 *

Mars	14991-11-23 11:02 G	7196736.74	7196736.96	7196737.20	0.0522	0.0293
Venus	14993-11-05 13:40 G	7197449.93	7197450.07	7197450.21	0.0493	0.0348
Mercury	14994-05-17 06:28 G	7197642.62	7197642.77	7197642.93	0.0488	0.0009
Earth	14995-11-14 05:02 G	7198188.50	7198188.71	7198188.93	0.0484	0.0179
Moon	14995-11-14 09:07 G	7198188.66	7198188.88	7198189.10	0.0484	0.0149 *
Venus	15000-04-27 20:09 G	7199814.16	7199814.34	7199814.52	0.0538	0.0248
Mercury	15000-07-19 22:19 G	7199897.28	7199897.43	7199897.57	0.0540	0.0014

16TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 16th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	15001-05-04 10:19 G		7200185.71	7200185.93	7200186.15	0.0545	0.0214	
Earth	15001-05-04 12:57 G		7200185.83	7200186.04	7200186.26	0.0545	0.0203 *	
Mercury	15006-03-06 08:38 G		7201952.71	7201952.86	7201953.01	0.0489	0.0139	
Mercury	15006-06-03 23:31 G		7202042.41	7202042.48	7202042.54	0.0487	0.0439	
Earth	15006-10-20 15:36 G		7202181.09	7202181.15	7202181.21	0.0485	0.0467	
Moon	15006-10-20 16:19 G		7202181.11	7202181.18	7202181.26	0.0485	0.0454 *	
Moon	15007-11-19 06:57 G		7202575.59	7202575.79	7202575.98	0.0484	0.0267	
Earth	15007-11-19 10:33 G		7202575.75	7202575.94	7202576.13	0.0484	0.0287 *	
Venus	15012-01-01 07:40 G		7204079.66	7204079.82	7204080.00	0.0535	0.0290	
Mercury	15012-05-07 23:02 G		7204207.32	7204207.46	7204207.60	0.0539	0.0177	
Moon	15013-05-09 18:43 G		7204574.05	7204574.28	7204574.50	0.0544	0.0074	
Earth	15013-05-09 18:43 G		7204574.05	7204574.28	7204574.52	0.0544	0.0050 *	

Venus	15017-11-08 18:14 G	7206218.09	7206218.26	7206218.42	0.0491	0.0284
Mercury	15017-12-23 10:19 G	7206262.81	7206262.93	7206263.06	0.0490	0.0284
Mercury	15018-03-23 00:43 G	7206352.41	7206352.53	7206352.66	0.0488	0.0291
Earth	15018-10-24 18:28 G	7206568.12	7206568.27	7206568.43	0.0485	0.0367
Moon	15018-10-24 18:57 G	7206568.15	7206568.29	7206568.44	0.0485	0.0387 *
Earth	15019-11-23 14:52 G	7206962.99	7206963.12	7206963.27	0.0485	0.0391
Moon	15019-11-23 17:45 G	7206963.13	7206963.24	7206963.36	0.0485	0.0410 *
Mercury	15024-02-24 23:31 G	7208517.38	7208517.48	7208517.59	0.0538	0.0368
Mercury	15024-05-24 17:16 G	7208607.12	7208607.22	7208607.33	0.0541	0.0363
Earth	15025-05-15 02:09 G	7208962.36	7208962.59	7208962.82	0.0544	0.0109
Moon	15025-05-15 04:48 G	7208962.47	7208962.70	7208962.94	0.0544	0.0134 *
Venus	15029-07-14 21:50 G	7210484.22	7210484.41	7210484.61	0.0493	0.0117
Mercury	15029-10-11 12:28 G	7210572.95	7210573.02	7210573.10	0.0490	0.0423
Mercury	15030-01-09 02:38 G	7210662.46	7210662.61	7210662.76	0.0488	0.0146
Moon	15030-10-28 20:09 G	7210955.16	7210955.34	7210955.52	0.0484	0.0291
Earth	15030-10-28 21:36 G	7210955.21	7210955.40	7210955.60	0.0484	0.0264 *
Mercury	15036-03-12 18:14 G	7212917.13	7212917.26	7212917.40	0.0540	0.0177
Moon	15037-05-20 07:12 G	7213350.61	7213350.80	7213350.99	0.0544	0.0293
Earth	15037-05-20 11:02 G	7213350.76	7213350.96	7213351.16	0.0544	0.0265 *
Mercury	15041-10-28 04:48 G	7214972.55	7214972.70	7214972.86	0.0488	0.0011
Earth	15042-11-02 01:26 G	7215342.35	7215342.56	7215342.79	0.0484	0.0158
Moon	15042-11-02 04:19 G	7215342.46	7215342.68	7215342.91	0.0484	0.0147 *
Venus	15047-09-08 23:31 G	7217114.28	7217114.48	7217114.69	0.0537	0.0008
Mercury	15047-12-30 19:55 G	7217227.18	7217227.33	7217227.47	0.0540	0.0009
Earth	15049-05-25 22:04 G	7217739.28	7217739.42	7217739.57	0.0544	0.0424
Moon	15049-05-26 01:55 G	7217739.43	7217739.58	7217739.73	0.0544	0.0401 *
Mercury	15053-08-16 06:43 G	7219282.64	7219282.78	7219282.93	0.0489	0.0138
Mercury	15053-11-13 21:36 G	7219372.33	7219372.40	7219372.46	0.0487	0.0440
Moon	15054-11-06 00:43 G	7219729.30	7219729.53	7219729.76	0.0484	0.0025
Earth	15054-11-06 04:19 G	7219729.45	7219729.68	7219729.92	0.0484	0.0052 *

Venus	15059-05-14 13:12 G	7221380.01	7221380.05	7221380.10	0.0534	0.0517
Mercury	15059-10-18 21:21 G	7221537.25	7221537.39	7221537.53	0.0539	0.0175
Earth	15060-04-22 14:52 G	7221724.12	7221724.12	7221724.14	0.0543	0.0543
Moon	15060-04-22 18:57 G	7221724.25	7221724.29	7221724.36	0.0543	0.0526
Venus	15065-03-22 07:40 G	7223518.62	7223518.82	7223519.02	0.0491	0.0120
Mercury	15065-06-04 08:52 G	7223592.75	7223592.87	7223593.00	0.0489	0.0278
Mercury	15065-09-01 23:16 G	7223682.35	7223682.47	7223682.60	0.0487	0.0295
Earth	15066-11-10 08:38 G	7224116.63	7224116.86	7224117.09	0.0484	0.0056
Moon	15066-11-10 12:28 G	7224116.79	7224117.02	7224117.25	0.0484	0.0053 *
Mercury	15071-08-06 22:04 G	7225847.32	7225847.42	7225847.53	0.0538	0.0362
Mercury	15071-11-04 15:50 G	7225937.06	7225937.16	7225937.27	0.0541	0.0370
Moon	15072-04-27 18:57 G	7226112.12	7226112.29	7226112.47	0.0543	0.0361
Earth	15072-04-27 22:19 G	7226112.28	7226112.43	7226112.60	0.0543	0.0395 *
Venus	15076-11-25 09:21 G	7227784.73	7227784.89	7227785.06	0.0494	0.0291
Mercury	15077-03-23 10:48 G	7227902.87	7227902.95	7227903.02	0.0490	0.0423
Mercury	15077-06-21 00:43 G	7227992.38	7227992.53	7227992.68	0.0488	0.0146
Moon	15078-11-14 08:38 G	7228503.63	7228503.86	7228504.09	0.0484	0.0130
Earth	15078-11-14 12:14 G	7228503.79	7228504.01	7228504.23	0.0484	0.0161 *
Mars	15081-05-16 02:24 G	7229417.33	7229417.60	7229417.87	0.0507	0.0097
Venus	15083-05-17 17:16 G	7230149.05	7230149.22	7230149.38	0.0537	0.0319
Mercury	15083-08-23 16:48 G	7230247.07	7230247.20	7230247.34	0.0540	0.0185
Earth	15084-05-03 06:00 G	7230500.54	7230500.75	7230500.96	0.0544	0.0238
Moon	15084-05-03 06:57 G	7230500.60	7230500.79	7230500.99	0.0544	0.0255 *
Mercury	15089-04-09 02:38 G	7232302.46	7232302.61	7232302.77	0.0489	0.0010
Moon	15089-10-19 21:07 G	7232496.34	7232496.38	7232496.43	0.0485	0.0474
Earth	15090-11-18 15:07 G	7232890.94	7232891.13	7232891.33	0.0484	0.0263
Moon	15090-11-18 17:45 G	7232891.05	7232891.24	7232891.44	0.0484	0.0249 *
Venus	15095-01-20 03:21 G	7234414.46	7234414.64	7234414.83	0.0535	0.0229
Mercury	15095-06-11 17:31 G	7234557.08	7234557.23	7234557.38	0.0540	0.0008
Earth	15096-05-08 13:40 G	7234888.84	7234889.07	7234889.30	0.0545	0.0084

Moon	15096-05-08 15:21 G	7234888.90	7234889.14	7234889.38	0.0545	0.0106	*
Venus	15100-11-28 16:04 G	7236553.03	7236553.17	7236553.31	0.0490	0.0352	
Mercury	15101-01-27 05:02 G	7236612.56	7236612.71	7236612.86	0.0489	0.0135	
Mercury	15101-04-26 19:40 G	7236702.26	7236702.32	7236702.39	0.0487	0.0443	
Moon	15101-10-24 23:02 G	7236883.34	7236883.46	7236883.59	0.0485	0.0406	
Earth	15101-10-25 00:57 G	7236883.40	7236883.54	7236883.68	0.0485	0.0382	*
Moon	15102-11-23 18:28 G	7237278.13	7237278.27	7237278.42	0.0485	0.0389	
Earth	15102-11-23 19:40 G	7237278.17	7237278.32	7237278.47	0.0485	0.0369	*
Mercury	15107-03-31 18:57 G	7238867.15	7238867.29	7238867.42	0.0539	0.0188	
Mercury	15107-06-29 12:14 G	7238957.00	7238957.01	7238957.02	0.0542	0.0538	
Moon	15108-05-14 22:04 G	7239277.20	7239277.42	7239277.64	0.0545	0.0104	
Earth	15108-05-15 01:26 G	7239277.33	7239277.56	7239277.79	0.0545	0.0080	*
Venus	15112-08-03 19:40 G	7240819.12	7240819.32	7240819.53	0.0492	0.0051	
Mercury	15112-11-15 06:57 G	7240922.67	7240922.79	7240922.92	0.0489	0.0278	
Mercury	15113-02-12 21:21 G	7241012.27	7241012.39	7241012.51	0.0487	0.0295	
Earth	15113-10-29 03:36 G	7241270.46	7241270.65	7241270.84	0.0484	0.0278	
Moon	15113-10-29 06:28 G	7241270.59	7241270.77	7241270.96	0.0484	0.0299	*
Earth	15114-11-27 23:45 G	7241665.44	7241665.49	7241665.54	0.0485	0.0472	
Mercury	15119-01-17 20:09 G	7243177.24	7243177.34	7243177.45	0.0539	0.0365	
Mercury	15119-04-17 14:09 G	7243266.99	7243267.09	7243267.19	0.0541	0.0369	
Earth	15120-05-20 12:28 G	7243665.82	7243666.02	7243666.23	0.0544	0.0241	
Moon	15120-05-20 16:33 G	7243665.99	7243666.19	7243666.39	0.0544	0.0265	*
Venus	15124-04-08 22:48 G	7245085.38	7245085.45	7245085.53	0.0494	0.0457	
Mercury	15124-09-03 09:21 G	7245232.81	7245232.89	7245232.97	0.0490	0.0416	
Mercury	15124-12-01 23:16 G	7245322.32	7245322.47	7245322.62	0.0488	0.0151	
Moon	15125-11-02 03:50 G	7245657.44	7245657.66	7245657.88	0.0484	0.0157	
Earth	15125-11-02 07:26 G	7245657.59	7245657.81	7245658.03	0.0484	0.0173	*
Venus	15130-09-28 23:16 G	7247449.27	7247449.47	7247449.67	0.0536	0.0095	
Mercury	15131-02-03 15:21 G	7247577.01	7247577.14	7247577.28	0.0540	0.0189	
Moon	15132-05-25 15:36 G	7248053.97	7248054.15	7248054.33	0.0543	0.0363	

Earth	15132-05-25 18:28 G	7248054.11	7248054.27	7248054.43	0.0543	0.0390 *
Mercury	15136-09-20 00:43 G	7249632.37	7249632.53	7249632.68	0.0489	0.0002
Earth	15137-11-06 10:04 G	7250044.69	7250044.92	7250045.15	0.0484	0.0071
Moon	15137-11-06 13:55 G	7250044.85	7250045.08	7250045.31	0.0484	0.0044 *
Venus	15142-06-03 10:48 G	7251714.84	7251714.95	7251715.06	0.0534	0.0443
Mercury	15142-11-22 16:19 G	7251887.03	7251887.18	7251887.32	0.0539	0.0009
Moon	15144-05-31 00:28 G	7252442.47	7252442.52	7252442.58	0.0543	0.0524
Earth	15144-05-31 00:00 G	7252442.48	7252442.50	7252442.54	0.0543	0.0538 *
Mars	15146-02-17 14:52 G	7253069.85	7253070.12	7253070.39	0.0522	0.0110
Venus	15148-04-11 03:07 G	7253853.45	7253853.63	7253853.83	0.0492	0.0179
Mercury	15148-07-09 02:52 G	7253942.47	7253942.62	7253942.76	0.0489	0.0141
Mercury	15148-10-06 17:31 G	7254032.16	7254032.23	7254032.30	0.0487	0.0438
Moon	15149-11-10 09:36 G	7254431.66	7254431.90	7254432.14	0.0484	0.0031
Earth	15149-11-10 13:12 G	7254431.81	7254432.05	7254432.28	0.0484	0.0034 *
Mercury	15154-09-10 16:33 G	7256197.05	7256197.19	7256197.32	0.0539	0.0196
Mercury	15154-12-09 09:50 G	7256286.89	7256286.91	7256286.94	0.0541	0.0529
Earth	15155-04-28 15:07 G	7256426.99	7256427.13	7256427.28	0.0544	0.0428
Moon	15155-04-28 17:31 G	7256427.08	7256427.23	7256427.38	0.0544	0.0400 *
Venus	15159-12-16 07:26 G	7258119.63	7258119.81	7258119.99	0.0493	0.0223
Mercury	15160-04-27 05:16 G	7258252.59	7258252.72	7258252.84	0.0490	0.0276
Mercury	15160-07-25 19:26 G	7258342.19	7258342.31	7258342.44	0.0488	0.0297
Earth	15161-11-14 17:16 G	7258819.00	7258819.22	7258819.44	0.0484	0.0140
Moon	15161-11-14 19:40 G	7258819.11	7258819.32	7258819.55	0.0484	0.0113 *
Venus	15166-06-06 13:55 G	7260483.94	7260484.08	7260484.22	0.0538	0.0387
Mercury	15166-06-29 17:31 G	7260507.13	7260507.23	7260507.34	0.0539	0.0379
Mercury	15166-09-27 11:31 G	7260596.88	7260596.98	7260597.09	0.0541	0.0356
Earth	15167-05-04 02:38 G	7260815.41	7260815.61	7260815.82	0.0545	0.0268
Moon	15167-05-04 03:07 G	7260815.43	7260815.63	7260815.84	0.0545	0.0290 *
Mercury	15172-02-14 07:26 G	7262562.73	7262562.81	7262562.89	0.0490	0.0416
Mercury	15172-05-13 21:21 G	7262652.24	7262652.39	7262652.54	0.0488	0.0151

Moon	15173-11-18 19:12 G	7263206.10	7263206.30	7263206.52	0.0484	0.0237
Earth	15173-11-18 20:24 G	7263206.15	7263206.35	7263206.55	0.0484	0.0246 *
Venus	15178-02-09 03:21 G	7264749.45	7264749.64	7264749.84	0.0536	0.0143
Mercury	15178-07-16 13:26 G	7264906.92	7264907.06	7264907.19	0.0541	0.0185
Moon	15179-05-09 12:14 G	7265203.79	7265204.01	7265204.23	0.0545	0.0131
Earth	15179-05-09 15:07 G	7265203.90	7265204.13	7265204.35	0.0545	0.0107 *
Venus	15183-12-18 12:57 G	7266887.93	7266888.04	7266888.15	0.0490	0.0413
Mercury	15184-03-01 23:16 G	7266962.32	7266962.47	7266962.63	0.0488	0.0008
Earth	15184-10-24 06:14 G	7267198.63	7267198.76	7267198.90	0.0485	0.0396
Moon	15184-10-24 09:21 G	7267198.77	7267198.89	7267199.01	0.0485	0.0421 *
Moon	15185-11-23 00:28 G	7267593.38	7267593.52	7267593.66	0.0485	0.0378
Earth	15185-11-23 01:26 G	7267593.40	7267593.56	7267593.72	0.0485	0.0351 *
Mercury	15190-05-04 14:38 G	7269216.97	7269217.11	7269217.26	0.0539	0.0010
Earth	15191-05-14 23:02 G	7269592.23	7269592.46	7269592.69	0.0544	0.0048
Moon	15191-05-15 02:52 G	7269592.39	7269592.62	7269592.86	0.0544	0.0074 *
Venus	15195-08-23 15:07 G	7271153.93	7271154.13	7271154.34	0.0492	0.0008
Mercury	15195-12-20 00:57 G	7271272.39	7271272.54	7271272.68	0.0489	0.0141
Mercury	15196-03-18 15:21 G	7271362.08	7271362.14	7271362.21	0.0487	0.0438
Moon	15196-10-28 04:48 G	7271585.53	7271585.70	7271585.88	0.0485	0.0315
Earth	15196-10-28 08:38 G	7271585.67	7271585.86	7271586.04	0.0485	0.0297 *
Earth	15197-11-27 05:45 G	7271980.66	7271980.74	7271980.82	0.0485	0.0453
Moon	15197-11-27 07:55 G	7271980.78	7271980.83	7271980.90	0.0485	0.0466 *
Mars	15199-11-05 08:09 G	7272688.74	7272688.84	7272688.96	0.0505	0.0464
Mercury	15202-02-20 15:21 G	7273527.00	7273527.14	7273527.28	0.0539	0.0184
Mercury	15202-05-21 08:38 G	7273616.86	7273616.86	7273616.87	0.0541	0.0540
Moon	15203-05-20 02:38 G	7273980.40	7273980.61	7273980.83	0.0544	0.0224
Earth	15203-05-20 06:14 G	7273980.54	7273980.76	7273980.97	0.0544	0.0203 *
Venus	15207-04-28 18:00 G	7275420.14	7275420.25	7275420.38	0.0494	0.0403
Mercury	15207-10-08 03:07 G	7275582.50	7275582.63	7275582.75	0.0490	0.0281
Mercury	15208-01-05 17:16 G	7275672.10	7275672.22	7275672.35	0.0488	0.0292

Earth	15208-11-01 11:45 G	7275972.78	7275972.99	7275973.21	0.0484	0.0194
Moon	15208-11-01 15:36 G	7275972.93	7275973.15	7275973.36	0.0484	0.0171 *
Venus	15213-10-17 17:45 G	7277784.04	7277784.24	7277784.43	0.0537	0.0149
Mercury	15213-12-09 15:21 G	7277837.04	7277837.14	7277837.24	0.0538	0.0386
Mercury	15214-03-09 09:21 G	7277926.78	7277926.89	7277927.00	0.0541	0.0348
Earth	15215-05-25 12:14 G	7278368.83	7278369.01	7278369.18	0.0544	0.0355
Moon	15215-05-25 13:40 G	7278368.89	7278369.07	7278369.25	0.0544	0.0326 *
Mercury	15219-07-27 05:31 G	7279892.66	7279892.73	7279892.82	0.0490	0.0416
Mercury	15219-10-24 19:26 G	7279982.16	7279982.31	7279982.46	0.0488	0.0152
Moon	15220-11-05 12:43 G	7280359.80	7280360.03	7280360.27	0.0484	0.0061
Earth	15220-11-05 16:19 G	7280359.95	7280360.18	7280360.41	0.0484	0.0088 *
Venus	15225-06-22 06:28 G	7282049.63	7282049.77	7282049.92	0.0534	0.0384
Mercury	15225-12-26 10:48 G	7282236.81	7282236.95	7282237.09	0.0540	0.0171
Earth	15227-05-30 22:33 G	7282757.36	7282757.44	7282757.52	0.0544	0.0508
Moon	15227-05-30 23:16 G	7282757.38	7282757.47	7282757.58	0.0544	0.0492 *
Venus	15231-05-01 01:12 G	7284188.38	7284188.55	7284188.73	0.0491	0.0246
Mercury	15231-08-12 21:21 G	7284292.24	7284292.39	7284292.55	0.0488	0.0014
Earth	15232-11-09 18:57 G	7284747.05	7284747.29	7284747.52	0.0483	0.0018
Moon	15232-11-09 21:21 G	7284747.16	7284747.39	7284747.62	0.0483	0.0012 *
Mars	15235-08-10 09:36 G	7285750.68	7285750.90	7285751.14	0.0508	0.0275
Mercury	15237-10-14 12:28 G	7286546.87	7286547.02	7286547.17	0.0540	0.0004
Moon	15238-04-27 16:04 G	7286742.02	7286742.17	7286742.32	0.0544	0.0423
Earth	15238-04-27 16:33 G	7286742.07	7286742.19	7286742.33	0.0544	0.0448 *
Venus	15243-01-04 04:48 G	7288454.51	7288454.70	7288454.90	0.0493	0.0159
Mercury	15243-05-31 23:31 G	7288602.33	7288602.48	7288602.63	0.0489	0.0133
Mercury	15243-08-29 14:09 G	7288692.03	7288692.09	7288692.15	0.0487	0.0444
Moon	15244-11-13 22:04 G	7289134.18	7289134.42	7289134.66	0.0484	0.0097
Earth	15244-11-13 23:02 G	7289134.24	7289134.46	7289134.69	0.0484	0.0124 *
Venus	15249-06-25 14:24 G	7290819.01	7290819.10	7290819.19	0.0538	0.0479
Mercury	15249-08-02 13:55 G	7290856.94	7290857.08	7290857.21	0.0539	0.0181

Moon	15250-05-03 00:43 G	7291130.35	7291130.53	7291130.71	0.0544	0.0322
Earth	15250-05-03 02:24 G	7291130.41	7291130.60	7291130.80	0.0544	0.0295 *
Mercury	15255-03-20 01:12 G	7292912.43	7292912.55	7292912.68	0.0490	0.0280
Mercury	15255-06-17 15:21 G	7293002.02	7293002.14	7293002.27	0.0488	0.0292
Moon	15256-11-18 01:12 G	7293521.36	7293521.55	7293521.75	0.0484	0.0228
Earth	15256-11-18 02:09 G	7293521.39	7293521.59	7293521.80	0.0484	0.0227 *
Venus	15261-02-28 01:55 G	7295084.38	7295084.58	7295084.78	0.0535	0.0064
Mercury	15261-05-21 14:24 G	7295167.00	7295167.10	7295167.21	0.0538	0.0371
Mercury	15261-08-19 08:24 G	7295256.74	7295256.85	7295256.96	0.0540	0.0362
Earth	15262-05-08 10:19 G	7295518.71	7295518.93	7295519.16	0.0544	0.0139
Moon	15262-05-08 13:55 G	7295518.85	7295519.08	7295519.31	0.0544	0.0162 *
Mercury	15267-01-06 03:36 G	7297222.57	7297222.65	7297222.73	0.0490	0.0419
Venus	15267-01-06 08:52 G	7297222.82	7297222.87	7297222.92	0.0490	0.0472
Mercury	15267-04-05 17:16 G	7297312.07	7297312.22	7297312.37	0.0488	0.0149
Moon	15267-10-24 07:26 G	7297513.73	7297513.81	7297513.91	0.0485	0.0443
Earth	15267-10-24 11:16 G	7297513.85	7297513.97	7297514.09	0.0485	0.0414 *
Earth	15268-11-22 06:00 G	7297908.59	7297908.75	7297908.93	0.0484	0.0328
Moon	15268-11-22 08:24 G	7297908.70	7297908.85	7297909.02	0.0484	0.0358 *
Mercury	15273-06-07 08:38 G	7299566.72	7299566.86	7299567.00	0.0540	0.0166
Moon	15274-05-13 11:45 G	7299906.76	7299906.99	7299907.23	0.0545	0.0038
Earth	15274-05-13 15:50 G	7299906.92	7299907.16	7299907.39	0.0545	0.0016 *
Venus	15278-09-11 13:40 G	7301488.87	7301489.07	7301489.27	0.0492	0.0076
Mercury	15279-01-22 19:40 G	7301622.17	7301622.32	7301622.48	0.0489	0.0011
Earth	15279-10-28 15:50 G	7301900.99	7301901.16	7301901.35	0.0484	0.0310
Moon	15279-10-28 19:26 G	7301901.15	7301901.31	7301901.49	0.0484	0.0321 *
Moon	15280-11-26 07:55 G	7302295.75	7302295.83	7302295.92	0.0485	0.0448
Earth	15280-11-26 11:02 G	7302295.86	7302295.96	7302296.07	0.0485	0.0433 *
Mercury	15285-03-26 10:04 G	7303876.77	7303876.92	7303877.06	0.0540	0.0020
Earth	15286-05-19 02:38 G	7304295.39	7304295.61	7304295.84	0.0545	0.0173
Moon	15286-05-19 05:02 G	7304295.50	7304295.71	7304295.93	0.0545	0.0188 *

Venus	15290-05-17 17:02 G	7305755.06	7305755.21	7305755.36	0.0494	0.0330
Mercury	15290-11-10 21:50 G	7305932.26	7305932.41	7305932.56	0.0489	0.0131
Mercury	15291-02-08 12:14 G	7306021.95	7306022.01	7306022.07	0.0487	0.0446
Moon	15291-11-01 15:36 G	7306287.93	7306288.15	7306288.37	0.0484	0.0183
Earth	15291-11-01 18:43 G	7306288.08	7306288.28	7306288.50	0.0484	0.0208 *
Venus	15296-11-05 17:45 G	7308119.06	7308119.24	7308119.43	0.0537	0.0238
Mercury	15297-01-12 11:31 G	7308186.84	7308186.98	7308187.12	0.0539	0.0190
Mercury	15297-04-12 05:02 G	7308276.70	7308276.71	7308276.73	0.0542	0.0538
Moon	15298-05-24 14:24 G	7308683.90	7308684.10	7308684.31	0.0544	0.0298
Earth	15298-05-24 14:38 G	7308683.93	7308684.11	7308684.29	0.0544	0.0331 *
Mars	15300-05-14 16:04 G	7309403.91	7309404.17	7309404.44	0.0522	0.0137
Mercury	15302-08-31 00:00 G	7310242.38	7310242.50	7310242.63	0.0490	0.0270
Mercury	15302-11-28 14:09 G	7310331.97	7310332.09	7310332.21	0.0488	0.0301
Earth	15303-11-06 22:33 G	7310675.22	7310675.44	7310675.67	0.0484	0.0102
Moon	15303-11-07 00:57 G	7310675.31	7310675.54	7310675.76	0.0484	0.0078 *
Venus	15308-07-12 07:40 G	7312384.65	7312384.82	7312384.99	0.0535	0.0289
Mercury	15308-11-01 12:43 G	7312496.93	7312497.03	7312497.14	0.0538	0.0368
Mercury	15309-01-30 06:57 G	7312586.68	7312586.79	7312586.89	0.0541	0.0367
Moon	15310-05-30 21:07 G	7313072.27	7313072.38	7313072.50	0.0543	0.0466
Earth	15310-05-30 23:02 G	7313072.35	7313072.46	7313072.57	0.0543	0.0478 *
Venus	15314-05-20 21:21 G	7314523.24	7314523.39	7314523.56	0.0491	0.0306
Mercury	15314-06-19 01:40 G	7314552.50	7314552.57	7314552.66	0.0490	0.0417
Mercury	15314-09-16 15:36 G	7314642.00	7314642.15	7314642.30	0.0488	0.0151
Moon	15315-11-11 00:14 G	7315062.27	7315062.51	7315062.76	0.0484	0.0015
Earth	15315-11-11 01:12 G	7315062.32	7315062.55	7315062.78	0.0484	0.0002 *
Mercury	15320-11-18 07:55 G	7316896.70	7316896.83	7316896.97	0.0540	0.0184
Moon	15321-04-27 13:40 G	7317056.95	7317057.07	7317057.19	0.0543	0.0454
Earth	15321-04-27 14:38 G	7317057.00	7317057.11	7317057.22	0.0543	0.0473 *
Venus	15326-01-24 01:12 G	7318789.35	7318789.55	7318789.75	0.0493	0.0098
Mercury	15326-07-05 17:45 G	7318952.08	7318952.24	7318952.39	0.0489	0.0011

Moon	15327-11-15 03:50 G	7319449.44	7319449.66	7319449.89	0.0484	0.0081
Earth	15327-11-15 05:02 G	7319449.49	7319449.71	7319449.94	0.0484	0.0105 *
Venus	15332-07-15 09:07 G	7321153.87	7321153.88	7321153.90	0.0538	0.0536
Mercury	15332-09-06 08:09 G	7321206.69	7321206.84	7321206.98	0.0539	0.0023
Earth	15333-05-02 18:43 G	7321445.09	7321445.28	7321445.47	0.0544	0.0327
Moon	15333-05-02 21:21 G	7321445.22	7321445.39	7321445.58	0.0544	0.0353 *
Mercury	15338-04-23 20:09 G	7323262.19	7323262.34	7323262.49	0.0489	0.0127
Mercury	15338-07-22 10:48 G	7323351.89	7323351.95	7323352.01	0.0487	0.0451
Earth	15339-11-19 09:50 G	7323836.70	7323836.91	7323837.12	0.0484	0.0210
Moon	15339-11-19 12:28 G	7323836.81	7323837.02	7323837.24	0.0484	0.0218 *
Venus	15344-03-19 21:36 G	7325419.20	7325419.40	7325419.61	0.0536	0.0007
Mercury	15344-06-25 09:07 G	7325516.74	7325516.88	7325517.02	0.0539	0.0200
Mercury	15344-09-23 02:52 G	7325606.59	7325606.62	7325606.65	0.0541	0.0528
Moon	15345-05-08 01:55 G	7325833.37	7325833.58	7325833.80	0.0545	0.0194
Earth	15345-05-08 05:45 G	7325833.52	7325833.74	7325833.96	0.0545	0.0169 *
Mercury	15350-02-09 22:19 G	7327572.31	7327572.43	7327572.56	0.0490	0.0267
Mercury	15350-05-10 12:28 G	7327661.90	7327662.02	7327662.15	0.0488	0.0306
Earth	15350-10-24 19:26 G	7327829.20	7327829.31	7327829.43	0.0485	0.0425
Moon	15350-10-24 23:02 G	7327829.38	7327829.46	7327829.54	0.0485	0.0455 *
Moon	15351-11-23 09:50 G	7328223.75	7328223.91	7328224.08	0.0484	0.0344
Earth	15351-11-23 13:12 G	7328223.88	7328224.05	7328224.23	0.0484	0.0312 *
Mars	15354-01-29 17:02 G	7329021.98	7329022.21	7329022.44	0.0505	0.0281
Venus	15355-11-23 11:45 G	7329684.96	7329684.99	7329685.02	0.0534	0.0526
Mercury	15356-04-13 10:33 G	7329826.83	7329826.94	7329827.04	0.0539	0.0377
Mercury	15356-07-12 04:33 G	7329916.59	7329916.69	7329916.80	0.0541	0.0360
Earth	15357-05-13 18:28 G	7330222.04	7330222.27	7330222.51	0.0545	0.0013
Moon	15357-05-13 21:36 G	7330222.18	7330222.40	7330222.63	0.0545	0.0023 *
Venus	15361-10-01 12:00 G	7331823.81	7331824.00	7331824.20	0.0492	0.0147
Mercury	15361-11-29 00:43 G	7331882.45	7331882.53	7331882.62	0.0490	0.0404
Mercury	15362-02-26 14:38 G	7331971.96	7331972.11	7331972.25	0.0488	0.0163

Moon	15362-10-28 20:38 G	7332216.18	7332216.36	7332216.53	0.0484	0.0331
Earth	15362-10-28 23:31 G	7332216.31	7332216.48	7332216.66	0.0484	0.0322 *
Earth	15363-11-27 18:00 G	7332611.14	7332611.25	7332611.38	0.0485	0.0417
Moon	15363-11-27 21:50 G	7332611.31	7332611.41	7332611.53	0.0485	0.0426 *
Mercury	15368-04-30 06:28 G	7334226.63	7334226.77	7334226.91	0.0540	0.0188
Moon	15369-05-19 04:19 G	7334610.45	7334610.68	7334610.91	0.0544	0.0158
Earth	15369-05-19 05:31 G	7334610.51	7334610.73	7334610.95	0.0544	0.0147 *
Venus	15373-06-06 13:55 G	7336089.91	7336090.08	7336090.26	0.0494	0.0268
Mercury	15373-12-15 16:04 G	7336282.02	7336282.17	7336282.33	0.0489	0.0016
Earth	15374-11-02 01:40 G	7336603.36	7336603.57	7336603.78	0.0484	0.0222
Moon	15374-11-02 03:36 G	7336603.45	7336603.65	7336603.86	0.0484	0.0198 *
Venus	15379-11-26 18:14 G	7338454.10	7338454.26	7338454.42	0.0537	0.0327
Mercury	15380-02-17 07:26 G	7338536.67	7338536.81	7338536.96	0.0539	0.0011
Moon	15381-05-24 12:14 G	7338998.82	7338999.01	7338999.21	0.0544	0.0270
Earth	15381-05-24 13:12 G	7338998.86	7338999.05	7338999.25	0.0544	0.0302 *
Mercury	15385-10-03 18:14 G	7340592.12	7340592.26	7340592.41	0.0489	0.0127
Mercury	15386-01-01 08:52 G	7340681.81	7340681.87	7340681.93	0.0487	0.0452
Moon	15386-11-06 05:16 G	7340990.49	7340990.72	7340990.96	0.0484	0.0100
Earth	15386-11-06 06:00 G	7340990.52	7340990.75	7340990.97	0.0484	0.0118 *
Mars	15389-11-04 03:21 G	7342084.56	7342084.64	7342084.72	0.0507	0.0483
Venus	15391-08-01 03:21 G	7342719.46	7342719.64	7342719.83	0.0535	0.0230
Mercury	15391-12-06 07:26 G	7342846.67	7342846.81	7342846.94	0.0539	0.0200
Mercury	15392-03-05 00:57 G	7342936.51	7342936.54	7342936.57	0.0541	0.0528
Earth	15393-05-29 17:02 G	7343387.09	7343387.21	7343387.35	0.0544	0.0447
Moon	15393-05-29 20:09 G	7343387.20	7343387.34	7343387.48	0.0544	0.0438 *
Venus	15397-06-08 21:07 G	7344858.25	7344858.38	7344858.51	0.0491	0.0381
Mercury	15397-07-22 20:52 G	7344902.24	7344902.37	7344902.50	0.0490	0.0261
Mercury	15397-10-20 11:02 G	7344991.84	7344991.96	7344992.08	0.0488	0.0312
Moon	15398-11-10 09:21 G	7345377.66	7345377.89	7345378.11	0.0484	0.0031
Earth	15398-11-10 10:48 G	7345377.71	7345377.95	7345378.18	0.0484	0.0015 *

Mercury	15403-09-25 08:24 G	7347156.74	7347156.85	7347156.95	0.0538	0.0385
Mercury	15403-12-24 02:24 G	7347246.50	7347246.60	7347246.71	0.0541	0.0352
Earth	15404-04-27 09:07 G	7347371.80	7347371.88	7347371.97	0.0543	0.0501
Moon	15404-04-27 11:02 G	7347371.86	7347371.96	7347372.08	0.0543	0.0478 *
Venus	15409-02-13 01:12 G	7349124.35	7349124.55	7349124.75	0.0493	0.0020
Mercury	15409-05-11 23:16 G	7349212.39	7349212.47	7349212.56	0.0490	0.0398
Mercury	15409-08-09 12:57 G	7349301.90	7349302.04	7349302.19	0.0488	0.0169
Earth	15410-11-15 13:40 G	7349764.84	7349765.07	7349765.30	0.0483	0.0092
Moon	15410-11-15 16:33 G	7349764.96	7349765.19	7349765.43	0.0483	0.0069 *
Mercury	15415-10-12 04:19 G	7351556.54	7351556.68	7351556.82	0.0540	0.0181
Moon	15416-05-02 18:43 G	7351760.12	7351760.28	7351760.45	0.0544	0.0374
Earth	15416-05-02 22:04 G	7351760.25	7351760.42	7351760.60	0.0544	0.0346 *
Mars	15418-11-03 10:19 G	7352674.84	7352674.93	7352675.04	0.0524	0.0483
Venus	15420-10-19 04:19 G	7353390.59	7353390.68	7353390.79	0.0495	0.0429
Mercury	15421-05-28 15:07 G	7353611.98	7353612.13	7353612.29	0.0489	0.0031
Moon	15422-11-19 14:38 G	7354151.90	7354152.11	7354152.31	0.0484	0.0205
Earth	15422-11-19 18:00 G	7354152.04	7354152.25	7354152.47	0.0484	0.0196 *
Venus	15427-04-10 00:14 G	7355754.31	7355754.51	7355754.71	0.0536	0.0100
Mercury	15427-07-31 06:00 G	7355866.60	7355866.75	7355866.90	0.0540	0.0009
Earth	15428-05-08 10:19 G	7356148.72	7356148.93	7356149.15	0.0544	0.0190
Moon	15428-05-08 14:09 G	7356148.87	7356149.09	7356149.30	0.0544	0.0204 *
Mercury	15433-03-16 17:02 G	7357922.06	7357922.21	7357922.36	0.0489	0.0119
Mercury	15433-06-14 07:26 G	7358011.76	7358011.81	7358011.86	0.0487	0.0458
Moon	15433-10-25 00:00 G	7358144.45	7358144.50	7358144.58	0.0485	0.0468
Earth	15433-10-25 02:52 G	7358144.53	7358144.62	7358144.73	0.0485	0.0438 *
Earth	15434-11-23 21:36 G	7358539.22	7358539.40	7358539.58	0.0484	0.0297
Moon	15434-11-24 01:26 G	7358539.39	7358539.56	7358539.73	0.0484	0.0328 *
Venus	15438-12-13 13:12 G	7360019.93	7360020.05	7360020.17	0.0534	0.0432
Mercury	15439-05-19 06:57 G	7360176.65	7360176.79	7360176.93	0.0539	0.0175
Moon	15440-05-13 17:31 G	7360536.99	7360537.23	7360537.47	0.0545	0.0001

Earth	15440-05-13 19:40 G	7360537.08	7360537.32	7360537.55	0.0545	0.0034 *
Venus	15444-10-21 09:50 G	7362158.73	7362158.91	7362159.10	0.0492	0.0213
Mercury	15445-01-02 19:12 G	7362232.18	7362232.30	7362232.44	0.0490	0.0258
Mercury	15445-04-02 09:21 G	7362321.77	7362321.89	7362322.01	0.0488	0.0315
Earth	15445-10-29 07:40 G	7362531.65	7362531.82	7362531.99	0.0485	0.0335
Moon	15445-10-29 09:21 G	7362531.74	7362531.89	7362532.06	0.0485	0.0341 *
Moon	15446-11-27 23:02 G	7362926.34	7362926.46	7362926.60	0.0485	0.0403
Earth	15446-11-28 02:38 G	7362926.48	7362926.61	7362926.74	0.0485	0.0400 *
Mercury	15451-03-07 06:43 G	7364486.68	7364486.78	7364486.89	0.0538	0.0380
Mercury	15451-06-05 00:57 G	7364576.43	7364576.54	7364576.65	0.0540	0.0355
Earth	15452-05-18 23:45 G	7364925.26	7364925.49	7364925.71	0.0545	0.0116
Moon	15452-05-18 23:45 G	7364925.27	7364925.49	7364925.71	0.0545	0.0127 *
Mars	15454-08-09 09:21 G	7365737.70	7365737.89	7365738.09	0.0522	0.0361
Venus	15456-06-26 14:09 G	7366424.90	7366425.09	7366425.28	0.0494	0.0188
Mercury	15456-10-21 22:04 G	7366542.33	7366542.42	7366542.51	0.0491	0.0391
Mercury	15457-01-19 11:45 G	7366631.84	7366631.99	7366632.13	0.0488	0.0177
Moon	15457-11-02 12:28 G	7366918.80	7366919.02	7366919.24	0.0484	0.0205
Earth	15457-11-02 12:43 G	7366918.83	7366919.03	7366919.24	0.0484	0.0231 *
Moon	15458-12-02 10:48 G	7367313.91	7367313.95	7367314.00	0.0485	0.0475
Venus	15462-12-16 14:52 G	7368788.99	7368789.12	7368789.26	0.0537	0.0393
Mercury	15463-03-24 02:09 G	7368886.46	7368886.59	7368886.73	0.0540	0.0177
Earth	15464-05-24 10:04 G	7369313.72	7369313.92	7369314.12	0.0545	0.0273
Moon	15464-05-24 12:14 G	7369313.79	7369314.01	7369314.22	0.0545	0.0240 *
Mercury	15468-11-07 13:55 G	7370941.92	7370942.08	7370942.23	0.0489	0.0036
Moon	15469-11-06 14:24 G	7371305.89	7371306.10	7371306.32	0.0484	0.0120
Earth	15469-11-06 16:04 G	7371305.95	7371306.17	7371306.40	0.0484	0.0129 *
Venus	15474-08-21 04:33 G	7373054.50	7373054.69	7373054.89	0.0535	0.0136
Mercury	15475-01-10 03:50 G	7373196.51	7373196.66	7373196.81	0.0540	0.0007
Moon	15476-05-29 18:57 G	7373702.15	7373702.29	7373702.43	0.0544	0.0426
Earth	15476-05-29 22:33 G	7373702.30	7373702.44	7373702.59	0.0544	0.0427 *

Venus	15480-06-28 20:52 G	7375193.31	7375193.37	7375193.44	0.0491	0.0459
Mercury	15480-08-26 16:04 G	7375252.02	7375252.17	7375252.32	0.0489	0.0104
Mercury	15480-11-24 06:43 G	7375341.74	7375341.78	7375341.81	0.0487	0.0474
Earth	15481-11-10 19:55 G	7375693.10	7375693.33	7375693.57	0.0483	0.0024
Moon	15481-11-10 23:02 G	7375693.22	7375693.46	7375693.70	0.0483	0.0050 *
Mercury	15486-10-29 05:31 G	7377506.59	7377506.73	7377506.87	0.0539	0.0170
Moon	15487-04-27 12:28 G	7377686.93	7377687.02	7377687.11	0.0543	0.0497
Earth	15487-04-27 15:36 G	7377687.08	7377687.15	7377687.22	0.0543	0.0516 *
Venus	15492-03-03 23:45 G	7379459.29	7379459.49	7379459.69	0.0492	0.0051
Mercury	15492-06-14 18:00 G	7379562.12	7379562.25	7379562.39	0.0490	0.0249
Mercury	15492-09-12 08:09 G	7379651.72	7379651.84	7379651.96	0.0488	0.0324
Moon	15493-11-14 19:26 G	7380080.08	7380080.31	7380080.54	0.0484	0.0054
Earth	15493-11-14 23:02 G	7380080.23	7380080.46	7380080.69	0.0484	0.0078 *
Mercury	15498-08-17 06:28 G	7381816.66	7381816.77	7381816.88	0.0538	0.0354
Mercury	15498-11-15 00:43 G	7381906.43	7381906.53	7381906.63	0.0541	0.0382
Earth	15499-05-03 01:12 G	7382075.38	7382075.55	7382075.73	0.0544	0.0364
Moon	15499-05-03 05:02 G	7382075.56	7382075.71	7382075.87	0.0544	0.0394 *
Venus	15503-11-09 02:52 G	7383725.49	7383725.62	7383725.76	0.0495	0.0358
Mercury	15504-04-03 20:38 G	7383872.26	7383872.36	7383872.45	0.0490	0.0385
Mercury	15504-07-02 10:19 G	7383961.78	7383961.93	7383962.07	0.0488	0.0183
Earth	15505-11-20 03:50 G	7384467.44	7384467.66	7384467.88	0.0484	0.0183
Moon	15505-11-20 07:40 G	7384467.61	7384467.82	7384468.03	0.0484	0.0197 *
Mars	15508-04-26 20:38 G	7385356.09	7385356.36	7385356.64	0.0505	0.0037
Venus	15510-04-29 21:21 G	7386089.20	7386089.39	7386089.59	0.0536	0.0171
Mercury	15510-09-04 00:43 G	7386216.40	7386216.53	7386216.67	0.0540	0.0184
Moon	15511-05-09 02:09 G	7386463.38	7386463.59	7386463.81	0.0544	0.0230
Earth	15511-05-09 05:16 G	7386463.51	7386463.72	7386463.93	0.0544	0.0218 *
Mercury	15516-04-20 12:43 G	7388271.87	7388272.03	7388272.18	0.0489	0.0047
Earth	15516-10-25 15:07 G	7388460.04	7388460.13	7388460.23	0.0486	0.0443
Moon	15516-10-25 16:19 G	7388460.15	7388460.18	7388460.24	0.0486	0.0474 *

Moon	15517-11-24 05:31 G	7388854.56	7388854.73	7388854.92	0.0484	0.0314
Earth	15517-11-24 09:07 G	7388854.70	7388854.88	7388855.07	0.0484	0.0287 *
Venus	15522-01-02 10:19 G	7390354.79	7390354.93	7390355.08	0.0534	0.0363
Mercury	15522-06-23 01:55 G	7390526.44	7390526.58	7390526.73	0.0539	0.0012
Earth	15523-05-14 15:36 G	7390851.92	7390852.15	7390852.38	0.0545	0.0062
Moon	15523-05-14 16:33 G	7390851.96	7390852.19	7390852.41	0.0545	0.0028 *
Venus	15527-11-11 10:33 G	7392493.78	7392493.94	7392494.11	0.0492	0.0297
Mercury	15528-02-07 14:52 G	7392581.97	7392582.12	7392582.27	0.0489	0.0095
Mercury	15528-05-07 05:16 G	7392671.71	7392671.72	7392671.74	0.0487	0.0483
Moon	15528-10-29 18:57 G	7392847.12	7392847.29	7392847.47	0.0485	0.0340
Earth	15528-10-29 18:57 G	7392847.13	7392847.29	7392847.45	0.0485	0.0343 *
Earth	15529-11-28 12:28 G	7393241.89	7393242.02	7393242.17	0.0484	0.0387
Moon	15529-11-28 14:52 G	7393241.99	7393242.12	7393242.26	0.0484	0.0381 *
Mercury	15534-04-11 03:21 G	7394836.50	7394836.64	7394836.78	0.0539	0.0175
Earth	15535-05-20 04:48 G	7395240.47	7395240.70	7395240.93	0.0545	0.0097
Moon	15535-05-20 06:00 G	7395240.52	7395240.75	7395240.99	0.0545	0.0104 *
Venus	15539-07-17 14:52 G	7396759.92	7396760.12	7396760.32	0.0493	0.0106
Mercury	15539-11-26 17:16 G	7396892.09	7396892.22	7396892.36	0.0490	0.0232
Mercury	15540-02-24 07:26 G	7396981.70	7396981.81	7396981.92	0.0488	0.0341
Moon	15540-11-02 21:21 G	7397234.19	7397234.39	7397234.59	0.0484	0.0214
Earth	15540-11-02 23:02 G	7397234.27	7397234.46	7397234.67	0.0484	0.0241 *
Moon	15541-12-02 16:48 G	7397629.12	7397629.20	7397629.28	0.0485	0.0457
Venus	15546-01-05 18:28 G	7399124.21	7399124.27	7399124.34	0.0538	0.0504
Mercury	15546-01-28 05:02 G	7399146.60	7399146.71	7399146.82	0.0538	0.0349
Mercury	15546-04-27 23:16 G	7399236.37	7399236.47	7399236.57	0.0541	0.0388
Moon	15547-05-25 13:55 G	7399628.88	7399629.08	7399629.29	0.0545	0.0222
Earth	15547-05-25 17:16 G	7399629.02	7399629.22	7399629.43	0.0545	0.0255 *
Mercury	15551-09-14 19:26 G	7401202.21	7401202.31	7401202.40	0.0490	0.0375
Mercury	15551-12-13 09:07 G	7401291.73	7401291.88	7401292.02	0.0488	0.0193
Earth	15552-11-07 01:40 G	7401621.35	7401621.57	7401621.80	0.0484	0.0140

Moon	15552-11-07 05:02 G	7401621.48	7401621.71	7401621.94	0.0484	0.0137 *
Venus	15557-09-10 07:26 G	7403389.61	7403389.81	7403390.02	0.0535	0.0034
Mercury	15557-11-16 06:00 G	7403456.73	7403456.75	7403456.76	0.0537	0.0533
Mercury	15558-02-14 00:43 G	7403546.39	7403546.53	7403546.66	0.0540	0.0211
Earth	15559-05-31 02:24 G	7404017.45	7404017.60	7404017.76	0.0544	0.0405
Moon	15559-05-31 06:14 G	7404017.61	7404017.76	7404017.91	0.0544	0.0413 *
Mercury	15563-10-01 11:16 G	7405601.82	7405601.97	7405602.12	0.0489	0.0052
Moon	15564-11-11 02:52 G	7406008.39	7406008.62	7406008.85	0.0484	0.0063
Earth	15564-11-11 06:43 G	7406008.54	7406008.78	7406009.01	0.0484	0.0034 *
Mercury	15569-12-03 00:43 G	7407856.39	7407856.53	7407856.68	0.0539	0.0016
Earth	15570-04-27 11:31 G	7408001.96	7408001.98	7408002.00	0.0543	0.0539
Moon	15570-04-27 15:07 G	7408002.07	7408002.13	7408002.19	0.0543	0.0523
Mars	15573-01-28 09:36 G	7409008.66	7409008.90	7409009.15	0.0524	0.0240
Venus	15575-03-25 00:14 G	7409794.32	7409794.51	7409794.71	0.0493	0.0134
Mercury	15575-07-20 13:40 G	7409911.92	7409912.07	7409912.22	0.0490	0.0085
Earth	15576-11-15 11:31 G	7410395.75	7410395.98	7410396.22	0.0484	0.0071
Moon	15576-11-15 15:36 G	7410395.91	7410396.15	7410396.38	0.0484	0.0052 *
Mercury	15581-09-21 01:40 G	7412166.43	7412166.57	7412166.71	0.0539	0.0174
Moon	15582-05-02 17:45 G	7412390.09	7412390.24	7412390.38	0.0544	0.0422
Earth	15582-05-02 21:07 G	7412390.22	7412390.38	7412390.55	0.0544	0.0390 *
Venus	15586-11-28 03:50 G	7414060.49	7414060.66	7414060.83	0.0495	0.0273
Mercury	15587-05-08 16:04 G	7414222.04	7414222.17	7414222.31	0.0490	0.0223
Mercury	15587-08-06 06:00 G	7414311.65	7414311.75	7414311.86	0.0488	0.0351
Moon	15588-11-19 11:31 G	7414782.76	7414782.98	7414783.20	0.0483	0.0188
Earth	15588-11-19 14:52 G	7414782.90	7414783.12	7414783.34	0.0483	0.0171 *
Venus	15593-05-18 23:02 G	7416424.28	7416424.46	7416424.64	0.0537	0.0268
Mercury	15593-07-10 02:52 G	7416476.51	7416476.62	7416476.74	0.0538	0.0353
Mercury	15593-10-07 21:07 G	7416566.28	7416566.38	7416566.49	0.0541	0.0384
Earth	15594-05-08 09:50 G	7416778.70	7416778.91	7416779.12	0.0545	0.0236
Moon	15594-05-08 11:31 G	7416778.78	7416778.98	7416779.18	0.0545	0.0242 *

Mercury	15599-02-24 18:43 G	7418532.18	7418532.28	7418532.38	0.0490	0.0358
Mercury	15599-05-25 08:24 G	7418621.71	7418621.85	7418621.99	0.0488	0.0210
Earth	15599-10-26 02:09 G	7418775.51	7418775.59	7418775.68	0.0485	0.0452
Moon	15599-10-26 02:24 G	7418775.56	7418775.60	7418775.66	0.0485	0.0474 *
Earth	15600-11-23 19:26 G	7419170.12	7419170.31	7419170.50	0.0484	0.0274
Moon	15600-11-23 21:21 G	7419170.22	7419170.39	7419170.57	0.0484	0.0297 *
Venus	15605-01-21 13:40 G	7420689.90	7420690.07	7420690.25	0.0534	0.0256
Mercury	15605-04-28 04:19 G	7420786.66	7420786.68	7420786.71	0.0538	0.0529
Mercury	15605-07-26 23:16 G	7420876.33	7420876.47	7420876.60	0.0540	0.0216
Earth	15606-05-13 23:31 G	7421167.24	7421167.48	7421167.71	0.0545	0.0079
Moon	15606-05-13 23:45 G	7421167.25	7421167.49	7421167.74	0.0545	0.0046 *
Venus	15610-11-30 10:04 G	7422828.79	7422828.92	7422829.06	0.0491	0.0374
Mercury	15611-03-13 10:04 G	7422931.77	7422931.92	7422932.08	0.0489	0.0064
Moon	15611-10-30 02:52 G	7423162.47	7423162.62	7423162.79	0.0485	0.0342
Earth	15611-10-30 05:02 G	7423162.55	7423162.71	7423162.87	0.0485	0.0352 *
Moon	15612-11-27 22:19 G	7423557.27	7423557.43	7423557.59	0.0484	0.0361
Earth	15612-11-27 23:16 G	7423557.33	7423557.47	7423557.62	0.0484	0.0375 *
Mercury	15617-05-15 00:28 G	7425186.38	7425186.52	7425186.67	0.0539	0.0040
Moon	15618-05-19 07:12 G	7425555.58	7425555.80	7425556.02	0.0545	0.0078
Earth	15618-05-19 09:50 G	7425555.68	7425555.91	7425556.14	0.0545	0.0079 *
Venus	15622-08-05 14:09 G	7427094.88	7427095.09	7427095.29	0.0493	0.0031
Mercury	15622-12-30 12:28 G	7427241.87	7427242.02	7427242.17	0.0489	0.0076
Earth	15623-11-03 09:50 G	7427549.71	7427549.91	7427550.11	0.0484	0.0250
Moon	15623-11-03 13:12 G	7427549.84	7427550.05	7427550.27	0.0484	0.0221 *
Moon	15624-12-02 04:48 G	7427944.63	7427944.70	7427944.79	0.0485	0.0450
Earth	15624-12-02 05:02 G	7427944.69	7427944.71	7427944.76	0.0485	0.0478 *
Mercury	15629-03-03 00:28 G	7429496.38	7429496.52	7429496.67	0.0538	0.0163
Earth	15630-05-24 13:26 G	7429943.85	7429944.06	7429944.27	0.0545	0.0226
Moon	15630-05-24 17:16 G	7429944.01	7429944.22	7429944.44	0.0545	0.0193 *
Venus	15634-04-10 17:02 G	7431361.12	7431361.21	7431361.30	0.0496	0.0442

Mercury	15634-10-18 14:52 G	7431551.98	7431552.12	7431552.26	0.0490	0.0214
Mercury	15635-01-16 05:02 G	7431641.60	7431641.71	7431641.81	0.0488	0.0361
Moon	15635-11-07 10:48 G	7431936.73	7431936.95	7431937.17	0.0484	0.0146
Earth	15635-11-07 14:52 G	7431936.89	7431937.12	7431937.34	0.0484	0.0146 *
Venus	15640-09-29 05:31 G	7433724.53	7433724.73	7433724.93	0.0535	0.0043
Mercury	15640-12-20 01:26 G	7433806.45	7433806.56	7433806.67	0.0538	0.0349
Mercury	15641-03-19 19:40 G	7433896.22	7433896.32	7433896.42	0.0540	0.0386
Moon	15642-05-29 19:26 G	7434332.14	7434332.31	7434332.48	0.0545	0.0382
Earth	15642-05-29 22:48 G	7434332.29	7434332.45	7434332.62	0.0545	0.0378 *
Mercury	15646-08-06 17:16 G	7435862.12	7435862.22	7435862.33	0.0491	0.0350
Mercury	15646-11-04 06:57 G	7435951.65	7435951.79	7435951.93	0.0488	0.0219
Earth	15647-11-11 18:00 G	7436324.02	7436324.25	7436324.48	0.0484	0.0045
Moon	15647-11-11 21:50 G	7436324.18	7436324.41	7436324.64	0.0484	0.0074 *
Venus	15652-06-03 18:43 G	7437990.21	7437990.28	7437990.37	0.0533	0.0484
Mercury	15652-10-08 02:24 G	7438116.58	7438116.60	7438116.61	0.0537	0.0532
Mercury	15653-01-05 21:07 G	7438206.25	7438206.38	7438206.52	0.0540	0.0212
Earth	15654-06-04 10:48 G	7438720.90	7438720.95	7438721.02	0.0544	0.0526
Venus	15658-04-13 01:12 G	7440129.37	7440129.55	7440129.73	0.0492	0.0218
Mercury	15658-05-25 19:55 G	7440172.31	7440172.33	7440172.36	0.0491	0.0484
Mercury	15658-08-23 09:21 G	7440261.74	7440261.89	7440262.04	0.0489	0.0079
Moon	15659-11-15 18:57 G	7440711.05	7440711.29	7440711.53	0.0483	0.0045
Earth	15659-11-15 22:19 G	7440711.19	7440711.43	7440711.66	0.0483	0.0059 *
Mars	15662-07-22 05:31 G	7441690.48	7441690.73	7441690.97	0.0506	0.0228
Mercury	15664-10-24 23:02 G	7442516.31	7442516.46	7442516.60	0.0540	0.0043
Earth	15665-05-02 04:33 G	7442705.54	7442705.69	7442705.85	0.0544	0.0405
Moon	15665-05-02 06:57 G	7442705.67	7442705.79	7442705.93	0.0544	0.0441 *
Venus	15669-12-17 03:50 G	7444395.47	7444395.66	7444395.85	0.0494	0.0194
Mercury	15670-06-11 11:16 G	7444571.82	7444571.97	7444572.12	0.0489	0.0065
Earth	15671-11-20 01:26 G	7445098.34	7445098.56	7445098.78	0.0484	0.0160
Moon	15671-11-20 03:07 G	7445098.42	7445098.63	7445098.84	0.0484	0.0185 *

Venus	15676-06-07 02:38 G	7446759.47	7446759.61	7446759.75	0.0537	0.0377
Mercury	15676-08-13 00:14 G	7446826.37	7446826.51	7446826.66	0.0539	0.0137
Moon	15677-05-07 15:21 G	7447093.93	7447094.14	7447094.35	0.0544	0.0253
Earth	15677-05-07 15:50 G	7447093.95	7447094.16	7447094.37	0.0544	0.0251 *
Mercury	15682-03-30 13:40 G	7448881.93	7448882.07	7448882.21	0.0490	0.0204
Mercury	15682-06-28 03:36 G	7448971.56	7448971.65	7448971.76	0.0488	0.0371
Moon	15682-10-25 10:19 G	7449090.89	7449090.93	7449090.96	0.0486	0.0478
Earth	15682-10-25 12:43 G	7449090.95	7449091.03	7449091.10	0.0486	0.0459 *
Moon	15683-11-24 06:14 G	7449485.56	7449485.76	7449485.96	0.0484	0.0282
Earth	15683-11-24 06:43 G	7449485.59	7449485.78	7449485.98	0.0484	0.0264 *
Venus	15688-02-10 13:26 G	7451024.87	7451025.06	7451025.25	0.0534	0.0170
Mercury	15688-06-01 00:14 G	7451136.40	7451136.51	7451136.63	0.0537	0.0336
Mercury	15688-08-29 18:28 G	7451226.18	7451226.27	7451226.37	0.0540	0.0398
Moon	15689-05-12 18:28 G	7451482.05	7451482.27	7451482.49	0.0544	0.0074
Earth	15689-05-12 20:09 G	7451482.11	7451482.34	7451482.57	0.0544	0.0106 *
Venus	15693-12-19 10:19 G	7453163.86	7453163.93	7453164.01	0.0492	0.0455
Mercury	15694-01-16 16:04 G	7453192.06	7453192.17	7453192.28	0.0491	0.0342
Mercury	15694-04-16 05:45 G	7453281.61	7453281.74	7453281.88	0.0489	0.0229
Earth	15694-10-29 17:16 G	7453478.07	7453478.22	7453478.38	0.0485	0.0360
Moon	15694-10-29 20:52 G	7453478.20	7453478.37	7453478.54	0.0485	0.0338 *
Moon	15695-11-28 11:16 G	7453872.82	7453872.97	7453873.13	0.0484	0.0350
Earth	15695-11-28 11:45 G	7453872.85	7453872.99	7453873.15	0.0484	0.0367 *
Mercury	15700-03-21 00:57 G	7455446.51	7455446.54	7455446.57	0.0537	0.0525
Mercury	15700-06-18 19:40 G	7455536.19	7455536.32	7455536.45	0.0540	0.0217
Earth	15701-05-19 05:31 G	7455870.50	7455870.73	7455870.96	0.0545	0.0050
Moon	15701-05-19 09:07 G	7455870.65	7455870.88	7455871.12	0.0545	0.0042 *
Venus	15705-08-25 14:24 G	7457429.89	7457430.10	7457430.30	0.0493	0.0053
Mercury	15705-11-05 18:43 G	7457502.25	7457502.28	7457502.31	0.0491	0.0477
Mercury	15706-02-03 07:55 G	7457591.68	7457591.83	7457591.98	0.0489	0.0088
Moon	15706-11-03 17:02 G	7457865.01	7457865.21	7457865.42	0.0484	0.0232

Earth	15706-11-03 21:07 G	7457865.18	7457865.38	7457865.58	0.0484	0.0261 *
Earth	15707-12-03 15:21 G	7458260.08	7458260.14	7458260.21	0.0484	0.0463
Moon	15707-12-03 17:31 G	7458260.12	7458260.23	7458260.33	0.0484	0.0436 *
Mercury	15712-04-06 20:52 G	7459846.23	7459846.37	7459846.52	0.0539	0.0041
Moon	15713-05-24 13:40 G	7460258.85	7460259.07	7460259.30	0.0545	0.0169
Earth	15713-05-24 17:45 G	7460259.02	7460259.24	7460259.45	0.0545	0.0204 *
Venus	15717-04-30 18:00 G	7461696.11	7461696.25	7461696.39	0.0495	0.0357
Mercury	15717-11-22 10:19 G	7461901.78	7461901.93	7461902.09	0.0489	0.0051
Earth	15718-11-08 01:12 G	7462252.33	7462252.55	7462252.77	0.0484	0.0157
Moon	15718-11-08 05:02 G	7462252.49	7462252.71	7462252.93	0.0484	0.0161 *
Venus	15723-10-20 08:09 G	7464059.65	7464059.84	7464060.04	0.0536	0.0148
Mercury	15724-01-24 22:33 G	7464156.30	7464156.44	7464156.58	0.0539	0.0135
Earth	15725-05-30 06:28 G	7464647.60	7464647.77	7464647.94	0.0545	0.0359
Moon	15725-05-30 08:52 G	7464647.70	7464647.87	7464648.03	0.0545	0.0370 *
Mars	15727-04-26 03:07 G	7465343.36	7465343.63	7465343.90	0.0524	0.0069
Mercury	15729-09-10 12:28 G	7466211.88	7466212.02	7466212.16	0.0490	0.0194
Mercury	15729-12-09 02:24 G	7466301.51	7466301.60	7466301.70	0.0488	0.0380
Moon	15730-11-12 00:57 G	7466639.31	7466639.54	7466639.78	0.0484	0.0084
Earth	15730-11-12 04:04 G	7466639.44	7466639.67	7466639.91	0.0484	0.0056 *
Venus	15735-06-24 22:19 G	7468325.29	7468325.43	7468325.57	0.0533	0.0378
Mercury	15735-11-12 23:45 G	7468466.37	7468466.49	7468466.61	0.0538	0.0314
Mercury	15736-02-10 18:00 G	7468556.16	7468556.25	7468556.34	0.0541	0.0421
Earth	15737-06-04 16:19 G	7469036.10	7469036.18	7469036.26	0.0544	0.0506
Moon	15737-06-04 16:33 G	7469036.14	7469036.19	7469036.23	0.0544	0.0533 *
Venus	15741-05-03 00:14 G	7470464.35	7470464.51	7470464.68	0.0492	0.0293
Mercury	15741-06-29 14:52 G	7470522.01	7470522.12	7470522.23	0.0491	0.0332
Mercury	15741-09-27 04:33 G	7470611.56	7470611.69	7470611.83	0.0489	0.0238
Earth	15742-11-16 08:52 G	7471026.64	7471026.87	7471027.10	0.0484	0.0049
Moon	15742-11-16 10:19 G	7471026.71	7471026.93	7471027.16	0.0484	0.0048 *
Mercury	15747-08-31 23:45 G	7472776.45	7472776.49	7472776.54	0.0537	0.0512

Mercury	15747-11-29 18:28 G	7472866.14	7472866.27	7472866.41	0.0539	0.0230
Moon	15748-05-02 00:57 G	7473020.43	7473020.54	7473020.68	0.0543	0.0463
Earth	15748-05-02 02:38 G	7473020.48	7473020.61	7473020.76	0.0543	0.0429 *
Venus	15753-01-06 03:07 G	7474730.43	7474730.63	7474730.83	0.0495	0.0118
Mercury	15753-04-17 17:16 G	7474832.18	7474832.22	7474832.26	0.0492	0.0470
Mercury	15753-07-16 06:28 G	7474921.62	7474921.77	7474921.93	0.0489	0.0096
Moon	15754-11-20 13:26 G	7475413.83	7475414.06	7475414.28	0.0484	0.0178
Earth	15754-11-20 13:26 G	7475413.84	7475414.06	7475414.29	0.0484	0.0150 *
Venus	15759-06-28 00:43 G	7477094.42	7477094.53	7477094.63	0.0536	0.0454
Mercury	15759-09-17 19:26 G	7477176.17	7477176.31	7477176.46	0.0539	0.0046
Moon	15760-05-07 10:33 G	7477408.75	7477408.94	7477409.13	0.0544	0.0282
Earth	15760-05-07 11:02 G	7477408.77	7477408.96	7477409.17	0.0544	0.0281 *
Mercury	15765-05-04 08:52 G	7479231.72	7479231.87	7479232.02	0.0490	0.0045
Earth	15765-10-25 22:48 G	7479406.40	7479406.45	7479406.50	0.0486	0.0471
Moon	15765-10-26 02:24 G	7479406.58	7479406.60	7479406.63	0.0486	0.0482
Moon	15766-11-24 15:36 G	7479800.96	7479801.15	7479801.34	0.0484	0.0266
Earth	15766-11-24 16:19 G	7479800.99	7479801.18	7479801.39	0.0484	0.0250 *
Venus	15771-03-02 13:12 G	7481359.85	7481360.05	7481360.25	0.0534	0.0083
Mercury	15771-07-06 20:24 G	7481486.21	7481486.35	7481486.50	0.0539	0.0140
Earth	15772-05-12 22:19 G	7481797.20	7481797.43	7481797.66	0.0545	0.0129
Moon	15772-05-13 01:26 G	7481797.33	7481797.56	7481797.80	0.0545	0.0097 *
Mercury	15777-02-20 11:16 G	7483541.83	7483541.97	7483542.11	0.0490	0.0182
Mercury	15777-05-21 01:26 G	7483631.47	7483631.56	7483631.65	0.0488	0.0392
Moon	15777-10-29 23:31 G	7483793.32	7483793.48	7483793.64	0.0485	0.0348
Earth	15777-10-30 03:21 G	7483793.50	7483793.64	7483793.80	0.0485	0.0371 *
Earth	15778-11-28 20:52 G	7484188.21	7484188.37	7484188.53	0.0484	0.0351
Moon	15778-11-28 23:02 G	7484188.29	7484188.46	7484188.64	0.0484	0.0329 *
Mars	15781-01-10 22:04 G	7484962.20	7484962.42	7484962.65	0.0503	0.0290
Mercury	15783-04-24 21:50 G	7485796.29	7485796.41	7485796.53	0.0538	0.0315
Mercury	15783-07-23 16:19 G	7485886.09	7485886.18	7485886.27	0.0541	0.0421

Moon	15784-05-18 07:40 G	7486185.58	7486185.82	7486186.05	0.0545	0.0017
Earth	15784-05-18 11:45 G	7486185.75	7486185.99	7486186.22	0.0545	0.0032 *
Venus	15788-09-13 13:55 G	7487764.88	7487765.08	7487765.27	0.0493	0.0129
Mercury	15788-12-09 13:26 G	7487851.95	7487852.06	7487852.18	0.0491	0.0324
Mercury	15789-03-09 03:07 G	7487941.50	7487941.63	7487941.77	0.0488	0.0246
Earth	15789-11-03 06:28 G	7488180.58	7488180.77	7488180.96	0.0485	0.0270
Moon	15789-11-03 10:04 G	7488180.73	7488180.92	7488181.13	0.0485	0.0245 *
Moon	15790-12-02 21:21 G	7488575.30	7488575.39	7488575.51	0.0484	0.0430
Earth	15790-12-03 00:43 G	7488575.46	7488575.53	7488575.62	0.0484	0.0451 *
Mercury	15795-02-10 23:02 G	7490106.40	7490106.46	7490106.52	0.0537	0.0495
Mercury	15795-05-11 17:45 G	7490196.12	7490196.24	7490196.37	0.0540	0.0248
Earth	15796-05-23 22:48 G	7490574.23	7490574.45	7490574.67	0.0545	0.0186
Moon	15796-05-24 01:55 G	7490574.36	7490574.58	7490574.80	0.0545	0.0153 *
Venus	15800-05-20 16:48 G	7492031.04	7492031.20	7492031.37	0.0495	0.0283
Mercury	15800-09-28 16:04 G	7492162.12	7492162.17	7492162.22	0.0491	0.0460
Mercury	15800-12-27 05:16 G	7492251.57	7492251.72	7492251.87	0.0489	0.0104
Moon	15801-11-08 07:55 G	7492567.61	7492567.83	7492568.06	0.0484	0.0176
Earth	15801-11-08 11:02 G	7492567.74	7492567.96	7492568.18	0.0484	0.0167 *
Venus	15806-11-09 08:09 G	7494394.66	7494394.84	7494395.02	0.0535	0.0237
Mercury	15807-02-28 18:28 G	7494506.12	7494506.27	7494506.41	0.0539	0.0058
Moon	15808-05-30 01:40 G	7494962.38	7494962.57	7494962.76	0.0544	0.0338
Earth	15808-05-30 02:52 G	7494962.44	7494962.62	7494962.81	0.0544	0.0328 *
Mercury	15812-10-15 07:26 G	7496561.65	7496561.81	7496561.96	0.0490	0.0041
Earth	15813-11-12 14:52 G	7496954.89	7496955.12	7496955.35	0.0484	0.0067
Moon	15813-11-12 16:19 G	7496954.96	7496955.18	7496955.40	0.0484	0.0093 *
Mars	15816-10-17 15:07 G	7498025.10	7498025.13	7498025.17	0.0505	0.0500
Venus	15818-07-14 20:38 G	7498660.20	7498660.36	7498660.53	0.0533	0.0299
Mercury	15818-12-17 19:12 G	7498816.15	7498816.30	7498816.44	0.0538	0.0132
Moon	15820-06-04 09:07 G	7499350.79	7499350.88	7499350.96	0.0544	0.0501
Earth	15820-06-04 10:48 G	7499350.84	7499350.95	7499351.06	0.0544	0.0474 *

Venus	15824-05-22 23:02 G	7500799.32	7500799.46	7500799.59	0.0492	0.0368
Mercury	15824-08-03 09:36 G	7500871.76	7500871.90	7500872.05	0.0490	0.0179
Mercury	15824-10-31 23:45 G	7500961.40	7500961.49	7500961.58	0.0488	0.0397
Earth	15825-11-16 18:00 G	7501342.01	7501342.25	7501342.48	0.0484	0.0033
Moon	15825-11-16 18:00 G	7501342.01	7501342.25	7501342.50	0.0484	0.0037 *
Mercury	15830-10-05 19:40 G	7503126.21	7503126.32	7503126.44	0.0538	0.0320
Mercury	15831-01-03 14:09 G	7503216.00	7503216.09	7503216.18	0.0540	0.0415
Earth	15831-05-03 02:38 G	7503335.49	7503335.61	7503335.74	0.0543	0.0452
Moon	15831-05-03 02:52 G	7503335.53	7503335.62	7503335.72	0.0543	0.0487 *
Venus	15836-01-27 03:07 G	7505065.43	7505065.63	7505065.83	0.0494	0.0037
Mercury	15836-05-22 12:14 G	7505181.90	7505182.01	7505182.13	0.0491	0.0315
Mercury	15836-08-20 01:55 G	7505271.45	7505271.58	7505271.71	0.0489	0.0255
Moon	15837-11-20 20:38 G	7505729.16	7505729.36	7505729.58	0.0483	0.0166
Earth	15837-11-20 22:04 G	7505729.19	7505729.42	7505729.64	0.0483	0.0135 *
Mercury	15842-07-24 20:52 G	7507436.32	7507436.37	7507436.43	0.0537	0.0500
Mercury	15842-10-22 15:50 G	7507526.03	7507526.16	7507526.29	0.0540	0.0244
Earth	15843-05-08 15:21 G	7507723.94	7507724.14	7507724.33	0.0544	0.0300
Moon	15843-05-08 17:45 G	7507724.04	7507724.24	7507724.44	0.0544	0.0291 *
Venus	15847-10-02 05:16 G	7509331.65	7509331.72	7509331.81	0.0496	0.0455
Mercury	15848-03-10 14:38 G	7509492.06	7509492.11	7509492.16	0.0491	0.0454
Mercury	15848-06-08 03:50 G	7509581.51	7509581.66	7509581.81	0.0489	0.0110
Earth	15848-10-26 07:12 G	7509721.78	7509721.80	7509721.84	0.0486	0.0482
Earth	15849-11-25 00:57 G	7510116.34	7510116.54	7510116.75	0.0484	0.0236
Moon	15849-11-25 03:36 G	7510116.44	7510116.65	7510116.85	0.0484	0.0246 *
Venus	15854-03-22 15:36 G	7511694.95	7511695.15	7511695.36	0.0535	0.0019
Mercury	15854-08-10 17:16 G	7511836.08	7511836.22	7511836.37	0.0539	0.0071
Moon	15855-05-13 23:02 G	7512112.24	7512112.46	7512112.69	0.0544	0.0115
Earth	15855-05-14 03:07 G	7512112.40	7512112.63	7512112.85	0.0544	0.0146 *
Mercury	15860-03-27 06:00 G	7513891.60	7513891.75	7513891.91	0.0490	0.0033
Earth	15860-10-30 11:45 G	7514108.85	7514108.99	7514109.14	0.0486	0.0381

Moon	15860-10-30 15:21 G	7514108.99	7514109.14	7514109.30	0.0486	0.0357 *
Moon	15861-11-29 02:52 G	7514503.45	7514503.62	7514503.80	0.0484	0.0314
Earth	15861-11-29 06:14 G	7514503.60	7514503.76	7514503.93	0.0484	0.0339 *
Venus	15865-11-25 04:19 G	7515960.63	7515960.68	7515960.74	0.0531	0.0511
Mercury	15866-05-29 18:00 G	7516146.10	7516146.25	7516146.39	0.0538	0.0121
Earth	15867-05-19 08:24 G	7516500.62	7516500.85	7516501.09	0.0544	0.0009
Moon	15867-05-19 12:14 G	7516500.78	7516501.01	7516501.24	0.0544	0.0014 *
Venus	15871-10-04 11:31 G	7518099.79	7518099.98	7518100.16	0.0494	0.0198
Mercury	15872-01-14 07:55 G	7518201.69	7518201.83	7518201.98	0.0491	0.0177
Mercury	15872-04-12 22:04 G	7518291.33	7518291.42	7518291.51	0.0489	0.0400
Moon	15872-11-03 12:28 G	7518495.82	7518496.02	7518496.23	0.0485	0.0262
Earth	15872-11-03 15:21 G	7518495.96	7518496.14	7518496.33	0.0485	0.0284 *
Earth	15873-12-03 10:33 G	7518890.85	7518890.94	7518891.05	0.0485	0.0437
Moon	15873-12-03 14:38 G	7518891.00	7518891.11	7518891.22	0.0485	0.0422 *
Mercury	15878-03-17 18:28 G	7520456.15	7520456.27	7520456.39	0.0537	0.0311
Mercury	15878-06-15 12:43 G	7520545.94	7520546.03	7520546.12	0.0540	0.0421
Moon	15879-05-24 14:09 G	7520888.86	7520889.09	7520889.33	0.0544	0.0120
Earth	15879-05-24 16:33 G	7520888.97	7520889.19	7520889.41	0.0544	0.0152 *
Mars	15881-07-20 17:45 G	7521677.02	7521677.24	7521677.47	0.0524	0.0296
Venus	15883-06-09 14:24 G	7522365.92	7522366.10	7522366.28	0.0496	0.0214
Mercury	15883-11-02 10:19 G	7522511.82	7522511.93	7522512.05	0.0491	0.0315
Mercury	15884-01-31 00:00 G	7522601.37	7522601.50	7522601.63	0.0489	0.0257
Earth	15884-11-07 18:43 G	7522883.06	7522883.28	7522883.50	0.0484	0.0184
Moon	15884-11-07 19:55 G	7522883.12	7522883.33	7522883.53	0.0484	0.0202 *
Venus	15889-11-28 06:00 G	7524729.59	7524729.75	7524729.92	0.0536	0.0313
Mercury	15890-01-03 18:43 G	7524766.23	7524766.28	7524766.33	0.0537	0.0505
Mercury	15890-04-03 13:40 G	7524855.94	7524856.07	7524856.20	0.0540	0.0238
Moon	15891-05-30 01:40 G	7525277.39	7525277.57	7525277.75	0.0545	0.0318
Earth	15891-05-30 02:09 G	7525277.40	7525277.59	7525277.79	0.0545	0.0301 *
Mercury	15895-08-21 13:12 G	7526821.99	7526822.05	7526822.11	0.0492	0.0449

Mercury	15895-11-19 02:24 G	7526911.45	7526911.60	7526911.75	0.0489	0.0117
Earth	15896-11-11 22:48 G	7527270.22	7527270.45	7527270.68	0.0484	0.0082
Moon	15896-11-11 23:16 G	7527270.24	7527270.47	7527270.71	0.0484	0.0106 *
Venus	15901-08-03 20:09 G	7528995.16	7528995.34	7528995.53	0.0533	0.0216
Mercury	15902-01-21 15:07 G	7529165.99	7529166.13	7529166.28	0.0539	0.0063
Earth	15903-06-05 14:24 G	7529665.97	7529666.10	7529666.23	0.0544	0.0452
Moon	15903-06-05 17:45 G	7529666.12	7529666.24	7529666.35	0.0544	0.0474 *
Venus	15907-06-12 21:36 G	7531134.31	7531134.40	7531134.49	0.0492	0.0439
Mercury	15907-09-08 04:19 G	7531221.53	7531221.68	7531221.84	0.0490	0.0030
Moon	15908-11-17 00:00 G	7531657.28	7531657.50	7531657.73	0.0484	0.0027
Earth	15908-11-17 01:40 G	7531657.33	7531657.57	7531657.80	0.0484	0.0021 *
Mercury	15913-11-09 16:33 G	7533476.04	7533476.19	7533476.33	0.0538	0.0114
Earth	15914-05-03 06:14 G	7533650.66	7533650.76	7533650.89	0.0543	0.0469
Moon	15914-05-03 07:55 G	7533650.74	7533650.83	7533650.93	0.0543	0.0498 *
Venus	15919-02-16 00:57 G	7535400.34	7535400.54	7535400.75	0.0494	0.0031
Mercury	15919-06-27 06:43 G	7535531.64	7535531.78	7535531.92	0.0490	0.0168
Mercury	15919-09-24 20:38 G	7535621.28	7535621.36	7535621.45	0.0488	0.0407
Earth	15920-11-21 06:00 G	7536044.52	7536044.75	7536044.97	0.0484	0.0122
Moon	15920-11-21 08:24 G	7536044.63	7536044.85	7536045.09	0.0484	0.0152 *
Mercury	15925-08-28 17:02 G	7537786.09	7537786.21	7537786.34	0.0537	0.0303
Mercury	15925-11-26 11:16 G	7537875.89	7537875.97	7537876.06	0.0540	0.0430
Moon	15926-05-08 09:36 G	7538038.72	7538038.90	7538039.09	0.0543	0.0315
Earth	15926-05-08 13:12 G	7538038.87	7538039.05	7538039.24	0.0543	0.0327 *
Venus	15930-10-22 01:40 G	7539666.46	7539666.57	7539666.70	0.0497	0.0393
Mercury	15931-04-15 08:38 G	7539841.74	7539841.86	7539841.98	0.0491	0.0313
Mercury	15931-07-13 22:19 G	7539931.30	7539931.43	7539931.56	0.0489	0.0258
Moon	15932-11-25 06:14 G	7540431.55	7540431.76	7540431.96	0.0484	0.0224
Earth	15932-11-25 09:36 G	7540431.69	7540431.90	7540432.11	0.0484	0.0221 *
Mars	15935-04-09 01:55 G	7541296.30	7541296.58	7541296.85	0.0503	0.0035
Venus	15937-04-11 13:26 G	7542029.86	7542030.06	7542030.26	0.0534	0.0094

Mercury	15937-06-16 17:31 G	7542096.17	7542096.23	7542096.28	0.0536	0.0495
Mercury	15937-09-14 12:14 G	7542185.88	7542186.01	7542186.14	0.0539	0.0245
Earth	15938-05-13 20:38 G	7542427.15	7542427.36	7542427.59	0.0544	0.0180
Moon	15938-05-14 00:43 G	7542427.31	7542427.53	7542427.76	0.0544	0.0147 *
Mercury	15943-02-01 11:02 G	7544151.91	7544151.96	7544152.02	0.0492	0.0451
Mercury	15943-05-02 00:14 G	7544241.36	7544241.51	7544241.66	0.0490	0.0116
Moon	15943-10-31 15:07 G	7544423.99	7544424.13	7544424.29	0.0486	0.0374
Earth	15943-10-31 18:00 G	7544424.12	7544424.25	7544424.39	0.0486	0.0399 *
Earth	15944-11-29 12:28 G	7544818.84	7544819.02	7544819.19	0.0484	0.0318
Moon	15944-11-29 16:04 G	7544818.99	7544819.17	7544819.36	0.0484	0.0289 *
Venus	15948-12-15 00:57 G	7546295.44	7546295.54	7546295.65	0.0532	0.0445
Mercury	15949-07-03 12:57 G	7546495.89	7546496.04	7546496.18	0.0539	0.0056
Moon	15950-05-19 01:55 G	7546815.35	7546815.58	7546815.82	0.0545	0.0043
Earth	15950-05-19 05:16 G	7546815.48	7546815.72	7546815.95	0.0545	0.0030 *
Venus	15954-10-24 10:04 G	7548434.75	7548434.92	7548435.09	0.0493	0.0270
Mercury	15955-02-18 02:52 G	7548551.46	7548551.62	7548551.77	0.0490	0.0027
Earth	15955-11-04 22:33 G	7548811.27	7548811.44	7548811.63	0.0485	0.0298
Moon	15955-11-04 23:45 G	7548811.31	7548811.49	7548811.67	0.0485	0.0286 *
Moon	15956-12-03 13:12 G	7549205.92	7549206.05	7549206.18	0.0484	0.0401
Earth	15956-12-03 16:33 G	7549206.08	7549206.19	7549206.32	0.0484	0.0417 *
Mercury	15961-04-21 14:09 G	7550805.95	7550806.09	7550806.23	0.0538	0.0124
Earth	15962-05-24 17:31 G	7551204.00	7551204.23	7551204.45	0.0545	0.0126
Moon	15962-05-24 18:00 G	7551204.03	7551204.25	7551204.47	0.0545	0.0100 *
Venus	15966-06-29 12:57 G	7552700.84	7552701.04	7552701.23	0.0495	0.0143
Mercury	15966-12-07 05:02 G	7552861.56	7552861.71	7552861.85	0.0490	0.0167
Mercury	15967-03-06 18:43 G	7552951.20	7552951.28	7552951.37	0.0488	0.0409
Earth	15967-11-09 01:26 G	7553198.35	7553198.56	7553198.78	0.0484	0.0197
Moon	15967-11-09 02:09 G	7553198.38	7553198.59	7553198.81	0.0484	0.0220 *
Venus	15972-12-18 07:12 G	7555064.67	7555064.80	7555064.93	0.0536	0.0407
Mercury	15973-02-07 15:21 G	7555116.02	7555116.14	7555116.27	0.0538	0.0302

Mercury	15973-05-08 09:50 G	7555205.83	7555205.91	7555206.00	0.0540	0.0434
Earth	15974-05-30 04:48 G	7555592.50	7555592.70	7555592.90	0.0545	0.0279
Moon	15974-05-30 07:12 G	7555592.61	7555592.80	7555593.00	0.0545	0.0304 *
Mercury	15978-09-25 07:12 G	7557171.69	7557171.80	7557171.92	0.0491	0.0306
Mercury	15978-12-23 20:52 G	7557261.24	7557261.37	7557261.50	0.0489	0.0264
Moon	15979-11-13 03:50 G	7557585.44	7557585.66	7557585.88	0.0484	0.0120
Earth	15979-11-13 05:31 G	7557585.51	7557585.73	7557585.96	0.0484	0.0096 *
Venus	15984-08-22 20:09 G	7559330.15	7559330.34	7559330.54	0.0533	0.0126
Mercury	15984-11-26 16:04 G	7559426.11	7559426.17	7559426.23	0.0536	0.0489
Mercury	15985-02-24 10:48 G	7559515.83	7559515.95	7559516.08	0.0539	0.0253
Moon	15986-06-04 06:43 G	7559980.65	7559980.78	7559980.91	0.0544	0.0445
Earth	15986-06-04 10:33 G	7559980.80	7559980.94	7559981.09	0.0544	0.0419 *
Mercury	15990-07-14 09:07 G	7561481.83	7561481.88	7561481.94	0.0492	0.0452
Mercury	15990-10-11 22:19 G	7561571.29	7561571.43	7561571.59	0.0490	0.0116
Earth	15991-11-17 08:24 G	7561972.61	7561972.85	7561973.08	0.0484	0.0009
Moon	15991-11-17 11:02 G	7561972.72	7561972.96	7561973.20	0.0484	0.0014 *
Mercury	15996-12-13 11:31 G	7563825.84	7563825.98	7563826.13	0.0538	0.0066
Moon	15997-05-01 22:19 G	7563965.39	7563965.43	7563965.48	0.0542	0.0528
Earth	15997-05-02 01:12 G	7563965.46	7563965.55	7563965.64	0.0542	0.0497 *
Moon	15998-06-09 20:38 G	7564369.34	7564369.36	7564369.40	0.0543	0.0538
Mars	16000-01-09 07:55 G	7564947.63	7564947.83	7564948.03	0.0526	0.0353

17TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 17th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Venus	16002-03-06 20:52 G	7565735.17	7565735.37	7565735.57	0.0494	0.0091
Mercury	16002-07-31 00:43 G	7565881.37	7565881.53	7565881.68	0.0490	0.0031
Moon	16003-11-21 07:55 G	7566359.61	7566359.83	7566360.05	0.0484	0.0129
Earth	16003-11-21 11:31 G	7566359.75	7566359.98	7566360.20	0.0484	0.0101 *
Mercury	16008-10-01 11:45 G	7568135.85	7568135.99	7568136.14	0.0538	0.0132
Earth	16009-05-07 07:12 G	7568353.63	7568353.80	7568353.98	0.0543	0.0358
Moon	16009-05-07 11:16 G	7568353.80	7568353.97	7568354.16	0.0543	0.0339 *
Venus	16013-11-10 00:14 G	7570001.36	7570001.51	7570001.67	0.0496	0.0321
Mercury	16014-05-19 03:07 G	7570191.49	7570191.63	7570191.77	0.0491	0.0165
Mercury	16014-08-16 17:02 G	7570281.13	7570281.21	7570281.29	0.0488	0.0410
Earth	16015-11-25 15:07 G	7570746.92	7570747.13	7570747.35	0.0484	0.0203
Moon	16015-11-25 18:57 G	7570747.08	7570747.29	7570747.50	0.0484	0.0197 *
Venus	16020-04-30 10:33 G	7572364.75	7572364.94	7572365.14	0.0535	0.0165
Mercury	16020-07-20 12:43 G	7572445.91	7572446.03	7572446.16	0.0537	0.0314
Mercury	16020-10-18 07:26 G	7572535.72	7572535.81	7572535.90	0.0540	0.0422
Moon	16021-05-12 15:07 G	7572741.91	7572742.13	7572742.36	0.0544	0.0173
Earth	16021-05-12 18:57 G	7572742.07	7572742.29	7572742.51	0.0544	0.0206 *
Mercury	16026-03-07 05:31 G	7574501.61	7574501.73	7574501.84	0.0491	0.0305
Mercury	16026-06-04 18:57 G	7574591.16	7574591.29	7574591.42	0.0489	0.0264
Earth	16026-10-31 00:28 G	7574739.40	7574739.52	7574739.64	0.0486	0.0411
Moon	16026-10-31 01:12 G	7574739.42	7574739.55	7574739.69	0.0486	0.0386 *
Moon	16027-11-29 14:52 G	7575133.92	7575134.12	7575134.32	0.0484	0.0270
Earth	16027-11-29 18:14 G	7575134.09	7575134.26	7575134.45	0.0484	0.0302 *
Venus	16032-01-04 01:12 G	7576630.40	7576630.55	7576630.70	0.0532	0.0358
Mercury	16032-05-08 13:55 G	7576756.03	7576756.08	7576756.14	0.0537	0.0494
Mercury	16032-08-06 08:52 G	7576845.75	7576845.87	7576846.00	0.0540	0.0251
Earth	16033-05-18 06:57 G	7577130.56	7577130.79	7577131.03	0.0545	0.0052
Moon	16033-05-18 08:38 G	7577130.64	7577130.86	7577131.09	0.0545	0.0067 *

Venus	16037-11-12 06:57 G	7578769.65	7578769.79	7578769.95	0.0493	0.0334
Mercury	16037-12-24 07:55 G	7578811.77	7578811.83	7578811.89	0.0492	0.0444
Mercury	16038-03-23 21:07 G	7578901.23	7578901.38	7578901.53	0.0489	0.0121
Earth	16038-11-04 04:19 G	7579126.51	7579126.68	7579126.87	0.0485	0.0312
Moon	16038-11-04 05:16 G	7579126.54	7579126.72	7579126.91	0.0485	0.0303 *
Earth	16039-12-03 22:48 G	7579521.33	7579521.45	7579521.59	0.0484	0.0401
Moon	16039-12-04 01:26 G	7579521.44	7579521.56	7579521.70	0.0484	0.0391 *
Mercury	16044-05-25 10:04 G	7581155.77	7581155.92	7581156.07	0.0538	0.0069
Earth	16045-05-23 14:52 G	7581518.89	7581519.12	7581519.35	0.0544	0.0095
Moon	16045-05-23 16:04 G	7581518.93	7581519.17	7581519.41	0.0544	0.0073 *
Venus	16049-07-18 08:09 G	7583035.64	7583035.84	7583036.05	0.0495	0.0087
Mercury	16050-01-09 22:33 G	7583211.29	7583211.44	7583211.60	0.0490	0.0031
Moon	16050-11-08 04:48 G	7583513.51	7583513.70	7583513.90	0.0485	0.0242
Earth	16050-11-08 06:43 G	7583513.58	7583513.78	7583513.99	0.0485	0.0215 *
Venus	16056-01-07 04:48 G	7585399.62	7585399.70	7585399.79	0.0535	0.0482
Mercury	16056-03-13 10:33 G	7585465.80	7585465.94	7585466.09	0.0537	0.0121
Moon	16057-05-28 18:28 G	7585907.08	7585907.27	7585907.48	0.0544	0.0269
Earth	16057-05-28 22:04 G	7585907.21	7585907.42	7585907.62	0.0544	0.0243 *
Mercury	16061-10-29 00:57 G	7587521.40	7587521.54	7587521.68	0.0491	0.0170
Mercury	16062-01-26 14:52 G	7587611.03	7587611.12	7587611.20	0.0489	0.0406
Earth	16062-11-12 10:04 G	7587900.70	7587900.92	7587901.15	0.0484	0.0116
Moon	16062-11-12 12:57 G	7587900.81	7587901.04	7587901.27	0.0484	0.0137 *
Venus	16067-09-11 15:07 G	7589664.93	7589665.13	7589665.33	0.0533	0.0070
Mercury	16067-12-31 10:33 G	7589775.82	7589775.94	7589776.06	0.0537	0.0322
Mercury	16068-03-30 05:02 G	7589865.62	7589865.71	7589865.80	0.0540	0.0414
Earth	16069-06-03 04:48 G	7590295.54	7590295.70	7590295.86	0.0545	0.0386
Moon	16069-06-03 08:52 G	7590295.72	7590295.87	7590296.02	0.0545	0.0412 *
Mercury	16073-08-17 03:36 G	7591831.53	7591831.65	7591831.77	0.0491	0.0305
Mercury	16073-11-14 17:02 G	7591921.08	7591921.21	7591921.34	0.0489	0.0265
Moon	16074-11-16 10:48 G	7592287.72	7592287.95	7592288.19	0.0484	0.0010

Earth	16074-11-16 14:24 G	7592287.87	7592288.10	7592288.34	0.0484	0.0015 *
Mercury	16079-10-19 11:16 G	7594085.93	7594085.97	7594086.02	0.0537	0.0507
Mercury	16080-01-17 06:28 G	7594175.64	7594175.77	7594175.90	0.0539	0.0237
Earth	16080-04-30 20:52 G	7594280.31	7594280.37	7594280.43	0.0542	0.0522
Moon	16081-06-08 12:43 G	7594683.94	7594684.03	7594684.11	0.0544	0.0509
Earth	16081-06-08 15:50 G	7594684.12	7594684.16	7594684.21	0.0544	0.0533
Venus	16085-03-25 18:57 G	7596070.10	7596070.29	7596070.48	0.0494	0.0160
Mercury	16085-06-05 06:00 G	7596141.69	7596141.75	7596141.81	0.0492	0.0444
Mercury	16085-09-02 19:12 G	7596231.15	7596231.30	7596231.45	0.0489	0.0121
Earth	16086-11-20 17:02 G	7596674.98	7596675.21	7596675.44	0.0484	0.0085
Moon	16086-11-20 20:38 G	7596675.14	7596675.36	7596675.59	0.0484	0.0111 *
Mars	16089-07-02 09:50 G	7597629.65	7597629.91	7597630.17	0.0504	0.0153
Mercury	16091-11-05 07:55 G	7598485.68	7598485.83	7598485.98	0.0539	0.0063
Moon	16092-05-06 04:33 G	7598668.52	7598668.69	7598668.87	0.0543	0.0361
Earth	16092-05-06 08:38 G	7598668.70	7598668.86	7598669.03	0.0543	0.0377 *
Venus	16096-11-28 21:21 G	7600336.22	7600336.39	7600336.57	0.0496	0.0256
Mercury	16097-06-21 21:21 G	7600541.23	7600541.39	7600541.54	0.0490	0.0023
Moon	16098-11-24 17:45 G	7601062.02	7601062.24	7601062.46	0.0484	0.0178
Earth	16098-11-24 21:07 G	7601062.16	7601062.38	7601062.59	0.0484	0.0187 *
Venus	16103-05-21 10:33 G	7602699.77	7602699.94	7602700.12	0.0535	0.0256
Mercury	16103-08-25 09:07 G	7602795.73	7602795.88	7602796.02	0.0538	0.0118
Earth	16104-05-12 17:45 G	7603057.03	7603057.24	7603057.46	0.0543	0.0233
Moon	16104-05-12 20:38 G	7603057.15	7603057.36	7603057.57	0.0543	0.0203 *
Mercury	16109-04-10 23:02 G	7604851.32	7604851.46	7604851.60	0.0491	0.0171
Mercury	16109-07-09 12:43 G	7604940.95	7604941.03	7604941.12	0.0489	0.0405
Earth	16109-10-31 04:33 G	7605054.58	7605054.69	7605054.80	0.0487	0.0429
Moon	16109-10-31 05:31 G	7605054.59	7605054.73	7605054.87	0.0487	0.0399 *
Earth	16110-11-30 00:00 G	7605449.31	7605449.50	7605449.69	0.0484	0.0283
Moon	16110-11-30 02:24 G	7605449.41	7605449.60	7605449.80	0.0484	0.0254 *
Venus	16115-01-23 23:31 G	7606965.30	7606965.48	7606965.65	0.0532	0.0281

Mercury	16115-06-13 09:21 G	7607105.77	7607105.89	7607106.02	0.0537	0.0309
Mercury	16115-09-11 03:50 G	7607195.58	7607195.66	7607195.75	0.0539	0.0426
Moon	16116-05-18 01:12 G	7607445.31	7607445.55	7607445.79	0.0544	0.0104
Earth	16116-05-18 01:26 G	7607445.33	7607445.56	7607445.79	0.0544	0.0084 *
Venus	16120-12-02 02:24 G	7609104.48	7609104.60	7609104.73	0.0493	0.0391
Mercury	16121-01-28 01:26 G	7609161.44	7609161.56	7609161.67	0.0491	0.0311
Mercury	16121-04-27 14:52 G	7609250.99	7609251.12	7609251.25	0.0489	0.0260
Moon	16121-11-04 06:14 G	7609441.60	7609441.76	7609441.94	0.0486	0.0326
Earth	16121-11-04 08:38 G	7609441.69	7609441.86	7609442.03	0.0486	0.0330 *
Moon	16122-12-04 01:55 G	7609836.43	7609836.58	7609836.74	0.0484	0.0370
Earth	16122-12-04 03:21 G	7609836.50	7609836.64	7609836.78	0.0484	0.0379 *
Mercury	16127-04-01 08:52 G	7611415.84	7611415.87	7611415.92	0.0536	0.0515
Mercury	16127-06-30 04:04 G	7611505.54	7611505.67	7611505.81	0.0539	0.0231
Moon	16128-05-23 04:48 G	7611833.47	7611833.70	7611833.92	0.0545	0.0039
Earth	16128-05-23 07:12 G	7611833.57	7611833.80	7611834.03	0.0545	0.0061 *
Venus	16132-08-07 06:28 G	7613370.56	7613370.77	7613370.97	0.0495	0.0019
Mercury	16132-11-16 04:04 G	7613471.61	7613471.67	7613471.74	0.0492	0.0444
Mercury	16133-02-13 17:16 G	7613561.07	7613561.22	7613561.37	0.0490	0.0121
Earth	16133-11-08 13:12 G	7613828.85	7613829.05	7613829.26	0.0485	0.0229
Moon	16133-11-08 16:19 G	7613828.98	7613829.18	7613829.39	0.0485	0.0256 *
Earth	16134-12-08 07:55 G	7614223.79	7614223.83	7614223.87	0.0484	0.0475
Mercury	16139-04-18 05:16 G	7615815.57	7615815.72	7615815.87	0.0539	0.0050
Earth	16140-05-28 18:14 G	7616222.05	7616222.26	7616222.48	0.0545	0.0213
Moon	16140-05-28 22:19 G	7616222.22	7616222.43	7616222.64	0.0545	0.0241 *
Venus	16144-04-12 08:38 G	7617636.77	7617636.86	7617636.96	0.0497	0.0436
Mercury	16144-12-02 19:26 G	7617871.16	7617871.31	7617871.46	0.0490	0.0022
Moon	16145-11-12 12:43 G	7618215.81	7618216.03	7618216.25	0.0484	0.0148
Earth	16145-11-12 16:19 G	7618215.96	7618216.18	7618216.41	0.0484	0.0130 *
Venus	16150-10-01 14:38 G	7619999.91	7620000.11	7620000.32	0.0534	0.0017
Mercury	16151-02-04 06:43 G	7620125.63	7620125.78	7620125.92	0.0538	0.0127

Moon	16152-06-03 02:38 G	7620610.45	7620610.61	7620610.77	0.0545	0.0387
Earth	16152-06-03 06:28 G	7620610.60	7620610.77	7620610.94	0.0545	0.0363 *
Mars	16154-04-05 06:28 G	7621281.51	7621281.77	7621282.04	0.0526	0.0109
Mercury	16156-09-20 21:36 G	7622181.26	7622181.40	7622181.55	0.0491	0.0163
Mercury	16156-12-19 11:31 G	7622270.90	7622270.98	7622271.06	0.0488	0.0412
Earth	16157-11-16 19:55 G	7622603.10	7622603.33	7622603.57	0.0484	0.0031
Moon	16157-11-16 23:31 G	7622603.25	7622603.48	7622603.72	0.0484	0.0012 *
Venus	16162-06-06 05:16 G	7624265.67	7624265.72	7624265.79	0.0531	0.0504
Mercury	16162-11-23 07:40 G	7624435.70	7624435.82	7624435.95	0.0537	0.0307
Mercury	16163-02-21 02:09 G	7624525.51	7624525.59	7624525.68	0.0540	0.0430
Earth	16164-06-08 14:24 G	7624999.02	7624999.10	7624999.19	0.0544	0.0503
Moon	16164-06-08 16:04 G	7624999.07	7624999.17	7624999.29	0.0544	0.0477 *
Venus	16168-04-14 14:24 G	7626404.92	7626405.10	7626405.28	0.0494	0.0217
Mercury	16168-07-09 23:31 G	7626491.36	7626491.48	7626491.60	0.0491	0.0310
Mercury	16168-10-07 12:57 G	7626580.91	7626581.04	7626581.17	0.0489	0.0260
Moon	16169-11-20 18:57 G	7626990.06	7626990.29	7626990.53	0.0484	0.0092
Earth	16169-11-20 22:19 G	7626990.20	7626990.43	7626990.66	0.0484	0.0067 *
Mercury	16174-09-11 08:09 G	7628745.79	7628745.84	7628745.89	0.0536	0.0498
Mercury	16174-12-10 03:21 G	7628835.51	7628835.64	7628835.77	0.0539	0.0245
Earth	16175-05-07 04:48 G	7628983.56	7628983.70	7628983.87	0.0542	0.0405
Moon	16175-05-07 08:38 G	7628983.70	7628983.86	7628984.02	0.0542	0.0387 *
Venus	16179-12-19 16:48 G	7630671.02	7630671.20	7630671.39	0.0496	0.0201
Mercury	16180-04-28 01:55 G	7630801.53	7630801.58	7630801.64	0.0492	0.0449
Mercury	16180-07-26 15:07 G	7630890.98	7630891.13	7630891.28	0.0490	0.0117
Earth	16181-11-25 01:40 G	7631377.36	7631377.57	7631377.80	0.0484	0.0167
Moon	16181-11-25 04:04 G	7631377.46	7631377.67	7631377.89	0.0484	0.0157 *
Venus	16186-06-09 05:02 G	7633034.55	7633034.71	7633034.88	0.0535	0.0310
Mercury	16186-09-28 03:07 G	7633145.49	7633145.63	7633145.78	0.0538	0.0045
Moon	16187-05-12 07:40 G	7633371.60	7633371.82	7633372.04	0.0543	0.0237
Earth	16187-05-12 09:21 G	7633371.69	7633371.89	7633372.09	0.0543	0.0264 *

Mercury	16192-05-14 17:31 G	7635201.08	7635201.23	7635201.39	0.0490	0.0024
Moon	16192-10-30 09:36 G	7635369.79	7635369.90	7635370.02	0.0487	0.0411
Earth	16192-10-30 11:45 G	7635369.90	7635369.99	7635370.10	0.0487	0.0440 *
Moon	16193-11-29 05:02 G	7635764.50	7635764.71	7635764.92	0.0484	0.0238
Earth	16193-11-29 06:14 G	7635764.57	7635764.76	7635764.96	0.0484	0.0267 *
Venus	16198-02-11 18:28 G	7637300.09	7637300.27	7637300.46	0.0532	0.0225
Mercury	16198-07-17 04:04 G	7637455.53	7637455.67	7637455.82	0.0538	0.0140
Moon	16199-05-17 18:28 G	7637760.06	7637760.27	7637760.49	0.0544	0.0139
Earth	16199-05-17 19:55 G	7637760.11	7637760.33	7637760.56	0.0544	0.0114 *
Venus	16203-12-23 00:57 G	7639439.47	7639439.54	7639439.61	0.0493	0.0462
Mercury	16204-03-03 19:55 G	7639511.19	7639511.33	7639511.48	0.0491	0.0161
Mercury	16204-06-01 09:36 G	7639600.82	7639600.90	7639600.99	0.0488	0.0413
Earth	16204-11-04 15:36 G	7639756.99	7639757.15	7639757.32	0.0486	0.0342
Moon	16204-11-04 18:43 G	7639757.12	7639757.28	7639757.45	0.0486	0.0339 *
Moon	16205-12-04 08:38 G	7640151.72	7640151.86	7640152.01	0.0484	0.0365
Earth	16205-12-04 09:07 G	7640151.74	7640151.88	7640152.04	0.0484	0.0363 *
Mars	16207-12-23 08:52 G	7640900.73	7640900.87	7640901.03	0.0501	0.0420
Mercury	16210-05-06 05:16 G	7641765.60	7641765.72	7641765.84	0.0537	0.0318
Mercury	16210-08-04 00:00 G	7641855.41	7641855.50	7641855.59	0.0540	0.0421
Earth	16211-05-24 08:38 G	7642148.63	7642148.86	7642149.09	0.0545	0.0040
Moon	16211-05-24 12:14 G	7642148.77	7642149.01	7642149.25	0.0545	0.0019 *
Venus	16215-08-28 04:19 G	7643705.47	7643705.68	7643705.88	0.0495	0.0052
Mercury	16215-12-21 22:19 G	7643821.32	7643821.43	7643821.55	0.0491	0.0300
Mercury	16216-03-20 11:45 G	7643910.86	7643910.99	7643911.12	0.0489	0.0269
Moon	16216-11-08 16:04 G	7644143.98	7644144.17	7644144.36	0.0485	0.0270
Earth	16216-11-08 19:40 G	7644144.12	7644144.32	7644144.52	0.0485	0.0242 *
Earth	16217-12-08 13:55 G	7644539.01	7644539.08	7644539.15	0.0484	0.0459
Mercury	16222-02-22 06:28 G	7646075.71	7646075.77	7646075.82	0.0536	0.0497
Mercury	16222-05-23 01:40 G	7646165.44	7646165.57	7646165.70	0.0539	0.0248
Moon	16223-05-29 15:07 G	7646536.92	7646537.13	7646537.35	0.0544	0.0212

Earth	16223-05-29 19:12 G	7646537.08	7646537.30	7646537.52	0.0544	0.0186 *
Venus	16227-05-03 04:48 G	7647971.57	7647971.70	7647971.83	0.0497	0.0377
Mercury	16227-10-10 00:14 G	7648131.45	7648131.51	7648131.58	0.0492	0.0447
Mercury	16228-01-07 13:26 G	7648220.91	7648221.06	7648221.21	0.0490	0.0119
Earth	16228-11-12 21:36 G	7648531.18	7648531.40	7648531.62	0.0485	0.0146
Moon	16228-11-13 01:12 G	7648531.33	7648531.55	7648531.77	0.0485	0.0155 *
Venus	16233-10-21 13:55 G	7650334.88	7650335.08	7650335.28	0.0534	0.0099
Mercury	16234-03-11 02:24 G	7650475.46	7650475.60	7650475.75	0.0538	0.0063
Earth	16235-06-04 02:52 G	7650925.44	7650925.62	7650925.80	0.0544	0.0332
Moon	16235-06-04 05:31 G	7650925.56	7650925.73	7650925.91	0.0544	0.0350 *
Mercury	16239-10-26 15:36 G	7652531.00	7652531.15	7652531.30	0.0490	0.0024
Moon	16240-11-16 22:33 G	7652918.20	7652918.44	7652918.68	0.0484	0.0022
Earth	16240-11-17 01:40 G	7652918.33	7652918.57	7652918.80	0.0484	0.0047 *
Mars	16243-09-27 21:50 G	7653963.21	7653963.41	7653963.61	0.0503	0.0354
Venus	16245-06-26 00:14 G	7654600.41	7654600.51	7654600.62	0.0531	0.0449
Mercury	16245-12-28 02:09 G	7654785.45	7654785.59	7654785.74	0.0537	0.0142
Moon	16247-06-09 06:43 G	7655313.65	7655313.78	7655313.93	0.0544	0.0439
Earth	16247-06-09 07:26 G	7655313.70	7655313.81	7655313.93	0.0544	0.0471 *
Venus	16251-05-05 12:57 G	7656739.88	7656740.04	7656740.21	0.0494	0.0289
Mercury	16251-08-14 18:14 G	7656841.12	7656841.26	7656841.40	0.0491	0.0159
Mercury	16251-11-12 07:55 G	7656930.75	7656930.83	7656930.91	0.0489	0.0416
Earth	16252-11-21 06:14 G	7657305.53	7657305.76	7657305.99	0.0484	0.0055
Moon	16252-11-21 08:24 G	7657305.62	7657305.85	7657306.07	0.0484	0.0077 *
Mercury	16257-10-16 02:52 G	7659095.50	7659095.62	7659095.74	0.0537	0.0328
Mercury	16258-01-13 21:36 G	7659185.31	7659185.40	7659185.50	0.0540	0.0410
Moon	16258-05-06 20:09 G	7659298.19	7659298.34	7659298.50	0.0542	0.0414
Earth	16258-05-06 22:48 G	7659298.32	7659298.45	7659298.60	0.0542	0.0430 *
Venus	16263-01-08 16:04 G	7661005.98	7661006.17	7661006.37	0.0496	0.0125
Mercury	16263-06-02 20:38 G	7661151.24	7661151.36	7661151.48	0.0491	0.0297
Mercury	16263-08-31 10:04 G	7661240.79	7661240.92	7661241.05	0.0489	0.0272

Moon	16264-11-25 08:09 G	7661692.61	7661692.84	7661693.07	0.0483	0.0139
Earth	16264-11-25 09:07 G	7661692.66	7661692.88	7661693.10	0.0483	0.0152 *
Venus	16269-06-29 05:02 G	7663369.58	7663369.71	7663369.85	0.0535	0.0397
Mercury	16269-08-04 03:50 G	7663405.62	7663405.66	7663405.71	0.0537	0.0509
Mercury	16269-11-01 23:16 G	7663495.34	7663495.47	7663495.60	0.0539	0.0238
Moon	16270-05-12 10:48 G	7663686.76	7663686.95	7663687.15	0.0544	0.0264
Earth	16270-05-12 11:16 G	7663686.77	7663686.97	7663687.17	0.0544	0.0284 *
Mercury	16275-03-21 23:16 G	7665461.40	7665461.47	7665461.54	0.0492	0.0434
Mercury	16275-06-19 12:14 G	7665550.86	7665551.01	7665551.16	0.0490	0.0130
Earth	16275-10-31 19:12 G	7665685.22	7665685.30	7665685.39	0.0487	0.0450
Moon	16275-10-31 22:19 G	7665685.32	7665685.43	7665685.56	0.0487	0.0420 *
Moon	16276-11-29 12:14 G	7666079.82	7666080.01	7666080.21	0.0484	0.0229
Earth	16276-11-29 13:12 G	7666079.85	7666080.05	7666080.25	0.0484	0.0252 *
Venus	16281-03-03 19:55 G	7667635.14	7667635.33	7667635.53	0.0533	0.0128
Mercury	16281-08-21 00:43 G	7667805.39	7667805.53	7667805.68	0.0538	0.0066
Earth	16282-05-17 23:02 G	7668075.23	7668075.46	7668075.68	0.0544	0.0135
Moon	16282-05-18 01:55 G	7668075.35	7668075.58	7668075.81	0.0544	0.0164 *
Mercury	16287-04-07 13:55 G	7669860.93	7669861.08	7669861.24	0.0490	0.0021
Moon	16287-11-04 17:45 G	7670072.09	7670072.24	7670072.40	0.0486	0.0357
Earth	16287-11-04 21:36 G	7670072.24	7670072.40	7670072.55	0.0486	0.0355 *
Earth	16288-12-03 16:04 G	7670467.01	7670467.17	7670467.34	0.0484	0.0346
Moon	16288-12-03 18:43 G	7670467.12	7670467.28	7670467.44	0.0484	0.0356 *
Mercury	16293-06-09 01:40 G	7672115.42	7672115.57	7672115.71	0.0538	0.0122
Moon	16294-05-23 03:50 G	7672463.43	7672463.66	7672463.89	0.0544	0.0011
Earth	16294-05-23 07:40 G	7672463.59	7672463.82	7672464.05	0.0544	0.0014 *
Venus	16298-09-16 00:43 G	7674040.34	7674040.53	7674040.73	0.0495	0.0113
Mercury	16299-01-24 16:19 G	7674171.04	7674171.18	7674171.33	0.0491	0.0160
Mercury	16299-04-24 06:00 G	7674260.67	7674260.75	7674260.83	0.0489	0.0416
Earth	16299-11-09 01:40 G	7674459.38	7674459.57	7674459.78	0.0485	0.0257
Moon	16299-11-09 05:16 G	7674459.54	7674459.72	7674459.91	0.0485	0.0285 *

Moon	16300-12-08 17:02 G	7674854.17	7674854.21	7674854.26	0.0484	0.0474
Earth	16300-12-08 20:38 G	7674854.27	7674854.36	7674854.45	0.0484	0.0442
Mercury	16305-03-29 00:57 G	7676425.43	7676425.54	7676425.67	0.0537	0.0328
Mercury	16305-06-26 19:55 G	7676515.23	7676515.33	7676515.42	0.0539	0.0410
Earth	16306-05-29 11:45 G	7676851.77	7676851.99	7676852.21	0.0545	0.0155
Moon	16306-05-29 15:21 G	7676851.92	7676852.14	7676852.35	0.0545	0.0183 *
Mars	16308-06-30 16:33 G	7677614.93	7677615.19	7677615.46	0.0526	0.0095
Venus	16310-05-23 03:50 G	7678306.50	7678306.66	7678306.83	0.0497	0.0302
Mercury	16310-11-13 19:12 G	7678481.18	7678481.30	7678481.42	0.0492	0.0294
Mercury	16311-02-11 08:24 G	7678570.73	7678570.85	7678570.98	0.0489	0.0277
Moon	16311-11-14 04:19 G	7678846.45	7678846.68	7678846.90	0.0485	0.0160
Earth	16311-11-14 07:12 G	7678846.58	7678846.80	7678847.02	0.0485	0.0156 *
Venus	16316-11-10 09:36 G	7680669.71	7680669.90	7680670.10	0.0534	0.0161
Mercury	16317-01-15 01:40 G	7680735.53	7680735.57	7680735.61	0.0536	0.0515
Mercury	16317-04-14 21:07 G	7680825.24	7680825.38	7680825.51	0.0539	0.0231
Moon	16318-06-03 20:38 G	7681240.17	7681240.36	7681240.56	0.0545	0.0316
Earth	16318-06-03 22:19 G	7681240.24	7681240.43	7681240.63	0.0545	0.0305 *
Mercury	16322-09-01 21:36 G	7682791.34	7682791.40	7682791.48	0.0492	0.0430
Mercury	16322-11-30 10:48 G	7682880.80	7682880.95	7682881.09	0.0490	0.0135
Earth	16323-11-18 10:19 G	7683233.70	7683233.93	7683234.17	0.0484	0.0059
Moon	16323-11-18 12:14 G	7683233.79	7683234.01	7683234.24	0.0484	0.0032 *
Venus	16328-07-16 00:14 G	7684935.37	7684935.51	7684935.66	0.0532	0.0364
Mercury	16329-01-31 22:33 G	7685135.29	7685135.44	7685135.59	0.0539	0.0057
Moon	16330-06-09 10:19 G	7685628.79	7685628.93	7685629.07	0.0545	0.0419
Earth	16330-06-09 11:02 G	7685628.83	7685628.96	7685629.09	0.0545	0.0451 *
Venus	16334-05-25 12:14 G	7687074.87	7687075.01	7687075.15	0.0493	0.0364
Mercury	16334-09-18 13:12 G	7687190.89	7687191.05	7687191.20	0.0490	0.0015
Moon	16335-11-22 13:26 G	7687620.82	7687621.06	7687621.31	0.0484	0.0060
Earth	16335-11-22 14:09 G	7687620.86	7687621.09	7687621.33	0.0484	0.0043 *
Mercury	16340-11-20 00:00 G	7689445.35	7689445.50	7689445.64	0.0538	0.0118

Earth	16341-05-07 03:36 G	7689613.52	7689613.65	7689613.78	0.0542	0.0446
Moon	16341-05-07 04:19 G	7689613.55	7689613.68	7689613.82	0.0542	0.0425 *
Venus	16346-01-28 13:40 G	7691340.87	7691341.07	7691341.28	0.0495	0.0059
Mercury	16346-07-07 14:52 G	7691500.98	7691501.12	7691501.27	0.0491	0.0153
Mercury	16346-10-05 04:33 G	7691590.62	7691590.69	7691590.77	0.0489	0.0422
Moon	16347-11-26 15:50 G	7692007.94	7692008.16	7692008.38	0.0484	0.0120
Earth	16347-11-26 16:48 G	7692007.98	7692008.20	7692008.42	0.0484	0.0139 *
Venus	16352-07-19 06:14 G	7693704.68	7693704.76	7693704.84	0.0535	0.0491
Mercury	16352-09-08 00:43 G	7693755.41	7693755.53	7693755.65	0.0537	0.0304
Mercury	16352-12-06 19:26 G	7693845.23	7693845.31	7693845.40	0.0540	0.0433
Earth	16353-05-12 12:43 G	7694001.83	7694002.03	7694002.22	0.0543	0.0303
Moon	16353-05-12 14:38 G	7694001.91	7694002.11	7694002.32	0.0543	0.0285 *
Venus	16357-10-03 15:50 G	7695607.11	7695607.16	7695607.21	0.0498	0.0480
Mercury	16358-04-25 17:31 G	7695811.11	7695811.23	7695811.35	0.0492	0.0291
Mercury	16358-07-24 06:43 G	7695900.66	7695900.78	7695900.91	0.0489	0.0279
Moon	16358-10-31 22:33 G	7696000.34	7696000.44	7696000.55	0.0487	0.0435
Earth	16358-11-01 02:09 G	7696000.53	7696000.59	7696000.67	0.0487	0.0461 *
Earth	16359-11-30 21:07 G	7696395.18	7696395.38	7696395.59	0.0484	0.0238
Moon	16359-12-01 00:00 G	7696395.28	7696395.50	7696395.71	0.0484	0.0217 *
Mars	16362-03-19 05:02 G	7697234.46	7697234.71	7697234.97	0.0501	0.0190
Venus	16364-03-23 16:19 G	7697969.98	7697970.18	7697970.39	0.0532	0.0063
Mercury	16364-06-27 00:00 G	7698065.46	7698065.50	7698065.55	0.0536	0.0511
Mercury	16364-09-24 19:26 G	7698155.18	7698155.31	7698155.44	0.0539	0.0234
Moon	16365-05-17 12:57 G	7698389.83	7698390.04	7698390.26	0.0544	0.0192
Earth	16365-05-17 16:19 G	7698389.96	7698390.18	7698390.41	0.0544	0.0164 *
Mercury	16370-02-11 20:24 G	7700121.27	7700121.35	7700121.42	0.0492	0.0425
Mercury	16370-05-12 09:21 G	7700210.74	7700210.89	7700211.03	0.0490	0.0141
Earth	16370-11-05 07:55 G	7700387.68	7700387.83	7700387.99	0.0486	0.0363
Moon	16370-11-05 11:16 G	7700387.83	7700387.97	7700388.12	0.0486	0.0375 *
Moon	16371-12-04 22:33 G	7700782.29	7700782.44	7700782.61	0.0484	0.0350

Earth	16371-12-05 02:24 G	7700782.43	7700782.60	7700782.77	0.0484	0.0335 *
Mercury	16376-07-13 20:24 G	7702465.20	7702465.35	7702465.50	0.0538	0.0052
Earth	16377-05-23 02:38 G	7702778.37	7702778.61	7702778.84	0.0545	0.0018
Moon	16377-05-23 06:28 G	7702778.54	7702778.77	7702779.00	0.0545	0.0034 *
Venus	16381-10-06 00:57 G	7704375.36	7704375.54	7704375.73	0.0494	0.0196
Mercury	16382-02-28 11:45 G	7704520.83	7704520.99	7704521.14	0.0490	0.0014
Moon	16382-11-09 09:36 G	7704774.71	7704774.90	7704775.09	0.0485	0.0294
Earth	16382-11-09 12:14 G	7704774.82	7704775.01	7704775.21	0.0485	0.0265 *
Earth	16383-12-09 05:16 G	7705169.63	7705169.72	7705169.84	0.0484	0.0429
Moon	16383-12-09 09:21 G	7705169.83	7705169.89	7705169.97	0.0484	0.0460 *
Mercury	16388-05-01 21:36 G	7706775.26	7706775.40	7706775.55	0.0538	0.0126
Moon	16389-05-28 13:12 G	7707166.82	7707167.05	7707167.28	0.0545	0.0166
Earth	16389-05-28 15:50 G	7707166.93	7707167.16	7707167.38	0.0545	0.0137 *
Venus	16393-06-11 04:04 G	7708641.49	7708641.67	7708641.85	0.0497	0.0221
Mercury	16393-12-17 14:09 G	7708830.94	7708831.09	7708831.23	0.0491	0.0137
Mercury	16394-03-17 03:36 G	7708920.59	7708920.65	7708920.72	0.0489	0.0438
Earth	16394-11-13 16:19 G	7709161.97	7709162.18	7709162.40	0.0485	0.0166
Moon	16394-11-13 18:00 G	7709162.04	7709162.25	7709162.46	0.0485	0.0166 *
Venus	16399-11-30 12:28 G	7711004.84	7711005.02	7711005.19	0.0534	0.0265
Mercury	16400-02-18 23:02 G	7711085.34	7711085.46	7711085.59	0.0537	0.0300
Mercury	16400-05-18 18:00 G	7711175.16	7711175.25	7711175.33	0.0540	0.0438
Earth	16401-06-03 04:04 G	7711555.47	7711555.67	7711555.87	0.0545	0.0285
Moon	16401-06-03 04:04 G	7711555.48	7711555.67	7711555.86	0.0545	0.0293 *
Mercury	16405-10-05 16:04 G	7713141.05	7713141.17	7713141.30	0.0491	0.0283
Mercury	16406-01-03 05:31 G	7713230.60	7713230.73	7713230.85	0.0489	0.0288
Moon	16406-11-17 18:28 G	7713549.03	7713549.27	7713549.51	0.0484	0.0042
Earth	16406-11-17 18:57 G	7713549.06	7713549.29	7713549.52	0.0484	0.0070 *
Venus	16411-08-05 02:24 G	7715270.43	7715270.60	7715270.78	0.0532	0.0265
Mercury	16411-12-07 23:45 G	7715395.43	7715395.49	7715395.55	0.0536	0.0486
Mercury	16412-03-06 19:12 G	7715485.17	7715485.30	7715485.43	0.0539	0.0260

Earth	16413-06-08 13:12 G	7715943.91	7715944.05	7715944.20	0.0544	0.0429
Moon	16413-06-08 15:21 G	7715943.98	7715944.14	7715944.31	0.0544	0.0394 *
Venus	16417-06-13 10:19 G	7717409.84	7717409.93	7717410.03	0.0493	0.0434
Mercury	16417-07-24 18:43 G	7717451.21	7717451.28	7717451.36	0.0492	0.0420
Mercury	16417-10-22 07:40 G	7717540.68	7717540.82	7717540.97	0.0490	0.0147
Moon	16418-11-21 22:04 G	7717936.20	7717936.42	7717936.65	0.0484	0.0042
Earth	16418-11-21 23:31 G	7717936.24	7717936.48	7717936.71	0.0484	0.0031 *
Mercury	16423-12-24 18:57 G	7719795.15	7719795.29	7719795.44	0.0538	0.0060
Earth	16424-05-05 22:33 G	7719928.33	7719928.44	7719928.56	0.0541	0.0470
Moon	16424-05-05 23:16 G	7719928.34	7719928.47	7719928.62	0.0541	0.0442 *
Mars	16426-12-19 18:00 G	7720886.24	7720886.25	7720886.27	0.0529	0.0527
Venus	16429-02-16 13:55 G	7721675.88	7721676.08	7721676.28	0.0496	0.0023
Mercury	16429-08-10 10:19 G	7721850.78	7721850.93	7721851.08	0.0491	0.0009
Earth	16430-11-26 04:33 G	7722323.46	7722323.69	7722323.91	0.0484	0.0130
Moon	16430-11-26 07:26 G	7722323.58	7722323.81	7722324.05	0.0484	0.0104 *
Mercury	16435-10-12 19:55 G	7724105.18	7724105.33	7724105.47	0.0537	0.0127
Moon	16436-05-11 05:02 G	7724316.53	7724316.71	7724316.90	0.0543	0.0309
Earth	16436-05-11 07:55 G	7724316.64	7724316.83	7724317.02	0.0543	0.0328 *
Venus	16440-10-22 16:33 G	7725942.07	7725942.19	7725942.32	0.0498	0.0395
Mercury	16441-05-29 12:43 G	7726160.89	7726161.03	7726161.18	0.0491	0.0130
Mercury	16441-08-27 02:24 G	7726250.54	7726250.60	7726250.66	0.0489	0.0446
Earth	16441-10-31 13:26 G	7726316.01	7726316.06	7726316.13	0.0487	0.0469
Moon	16441-10-31 16:48 G	7726316.12	7726316.20	7726316.29	0.0487	0.0450 *
Moon	16442-11-30 03:50 G	7726710.46	7726710.66	7726710.88	0.0483	0.0207
Earth	16442-11-30 07:40 G	7726710.62	7726710.82	7726711.03	0.0483	0.0226 *
Venus	16447-04-12 17:16 G	7728305.02	7728305.22	7728305.42	0.0533	0.0030
Mercury	16447-07-31 20:52 G	7728415.25	7728415.37	7728415.49	0.0537	0.0306
Mercury	16447-10-29 15:50 G	7728505.07	7728505.16	7728505.24	0.0540	0.0433
Earth	16448-05-16 20:09 G	7728705.12	7728705.34	7728705.56	0.0544	0.0181
Moon	16448-05-17 00:00 G	7728705.29	7728705.50	7728705.72	0.0544	0.0211 *

Mercury	16453-03-17 15:21 G	7730471.02	7730471.14	7730471.27	0.0491	0.0266
Mercury	16453-06-15 04:48 G	7730560.58	7730560.70	7730560.82	0.0489	0.0304
Moon	16453-11-04 16:04 G	7730703.03	7730703.17	7730703.32	0.0486	0.0388
Earth	16453-11-04 18:28 G	7730703.13	7730703.27	7730703.43	0.0486	0.0371 *
Earth	16454-12-04 12:00 G	7731097.83	7731098.00	7731098.17	0.0484	0.0323
Moon	16454-12-04 16:04 G	7731098.00	7731098.17	7731098.33	0.0484	0.0341 *
Venus	16458-12-16 09:07 G	7732570.80	7732570.88	7732570.96	0.0531	0.0486
Mercury	16459-05-19 22:04 G	7732725.36	7732725.42	7732725.49	0.0536	0.0483
Mercury	16459-08-17 17:31 G	7732815.11	7732815.23	7732815.36	0.0539	0.0265
Moon	16460-05-22 06:28 G	7733093.53	7733093.77	7733094.01	0.0544	0.0043
Earth	16460-05-22 09:36 G	7733093.67	7733093.90	7733094.14	0.0544	0.0031 *
Mars	16462-09-25 03:21 G	7733949.46	7733949.64	7733949.82	0.0525	0.0388
Venus	16464-10-25 00:14 G	7734710.34	7734710.51	7734710.68	0.0494	0.0269
Mercury	16465-01-03 17:45 G	7734781.16	7734781.24	7734781.32	0.0492	0.0409
Mercury	16465-04-03 06:28 G	7734870.63	7734870.77	7734870.92	0.0490	0.0157
Earth	16465-11-08 21:21 G	7735090.20	7735090.39	7735090.59	0.0486	0.0275
Moon	16465-11-08 22:33 G	7735090.27	7735090.44	7735090.62	0.0486	0.0304 *
Moon	16466-12-08 11:31 G	7735484.90	7735484.98	7735485.08	0.0484	0.0445
Earth	16466-12-08 15:21 G	7735485.03	7735485.14	7735485.26	0.0484	0.0417 *
Mercury	16471-06-05 18:43 G	7737125.14	7737125.28	7737125.43	0.0538	0.0086
Earth	16472-05-27 19:55 G	7737482.10	7737482.33	7737482.56	0.0545	0.0118
Moon	16472-05-27 20:52 G	7737482.15	7737482.37	7737482.59	0.0545	0.0151 *
Venus	16476-06-30 02:52 G	7738976.43	7738976.62	7738976.82	0.0496	0.0148
Mercury	16477-01-20 08:52 G	7739180.72	7739180.87	7739181.03	0.0490	0.0021
Moon	16477-11-13 02:09 G	7739477.36	7739477.59	7739477.82	0.0485	0.0171
Earth	16477-11-13 02:09 G	7739477.38	7739477.59	7739477.81	0.0485	0.0176 *
Venus	16482-12-19 10:33 G	7741339.79	7741339.94	7741340.10	0.0534	0.0342
Mercury	16483-03-24 18:43 G	7741435.13	7741435.28	7741435.42	0.0537	0.0116
Earth	16484-06-01 23:31 G	7741870.28	7741870.48	7741870.69	0.0545	0.0257
Moon	16484-06-02 00:43 G	7741870.32	7741870.53	7741870.74	0.0545	0.0263 *

Mercury	16488-11-08 11:31 G	7743490.83	7743490.98	7743491.13	0.0491	0.0121
Mercury	16489-02-06 01:12 G	7743580.50	7743580.55	7743580.61	0.0489	0.0456
Moon	16489-11-17 06:00 G	7743864.53	7743864.75	7743864.97	0.0484	0.0050
Earth	16489-11-17 07:26 G	7743864.58	7743864.81	7743865.04	0.0484	0.0078 *
Venus	16494-08-24 00:14 G	7745605.32	7745605.51	7745605.70	0.0531	0.0191
Mercury	16495-01-10 19:12 G	7745745.18	7745745.30	7745745.43	0.0536	0.0303
Mercury	16495-04-10 14:09 G	7745835.00	7745835.09	7745835.17	0.0539	0.0434
Moon	16496-06-07 06:43 G	7746258.62	7746258.78	7746258.95	0.0545	0.0370
Earth	16496-06-07 09:36 G	7746258.75	7746258.90	7746259.06	0.0545	0.0402 *
Mercury	16500-08-28 14:09 G	7747800.96	7747801.09	7747801.22	0.0492	0.0257
Mercury	16500-11-26 03:21 G	7747890.53	7747890.64	7747890.76	0.0489	0.0314
Earth	16501-11-22 10:48 G	7748251.72	7748251.95	7748252.19	0.0484	0.0022
Moon	16501-11-22 14:09 G	7748251.85	7748252.09	7748252.33	0.0484	0.0020 *
Mercury	16506-10-30 20:09 G	7750055.28	7750055.34	7750055.40	0.0536	0.0486
Mercury	16507-01-28 15:36 G	7750145.02	7750145.15	7750145.28	0.0539	0.0260
Moon	16507-05-07 00:14 G	7750243.40	7750243.51	7750243.63	0.0542	0.0457
Earth	16507-05-07 02:24 G	7750243.50	7750243.60	7750243.71	0.0542	0.0486 *
Earth	16508-06-13 21:50 G	7750647.41	7750647.41	7750647.43	0.0545	0.0544
Venus	16512-03-08 14:52 G	7752010.92	7752011.12	7752011.32	0.0495	0.0110
Mercury	16512-06-16 17:02 G	7752111.12	7752111.21	7752111.29	0.0492	0.0393
Mercury	16512-09-14 05:45 G	7752200.60	7752200.74	7752200.89	0.0490	0.0173
Moon	16513-11-26 11:16 G	7752638.75	7752638.97	7752639.20	0.0484	0.0089
Earth	16513-11-26 15:07 G	7752638.91	7752639.13	7752639.36	0.0484	0.0119 *
Mars	16516-06-13 11:02 G	7753568.68	7753568.96	7753569.24	0.0502	0.0075
Mercury	16518-11-16 17:16 G	7754455.07	7754455.22	7754455.36	0.0538	0.0090
Earth	16519-05-12 15:21 G	7754631.96	7754632.14	7754632.32	0.0543	0.0342
Moon	16519-05-12 18:57 G	7754632.11	7754632.29	7754632.48	0.0543	0.0326 *
Venus	16523-11-12 16:33 G	7756277.03	7756277.19	7756277.34	0.0497	0.0316
Mercury	16524-07-03 07:55 G	7756510.67	7756510.83	7756510.98	0.0490	0.0029
Moon	16524-10-31 20:52 G	7756631.31	7756631.37	7756631.46	0.0488	0.0461

Earth	16524-10-31 23:16 G	7756631.43	7756631.47	7756631.52	0.0488	0.0476	*
Earth	16525-11-30 18:00 G	7757026.04	7757026.25	7757026.46	0.0484	0.0216	
Moon	16525-11-30 21:50 G	7757026.20	7757026.41	7757026.63	0.0484	0.0200	*
Venus	16530-05-02 20:38 G	7758640.16	7758640.36	7758640.56	0.0533	0.0137	
Mercury	16530-09-04 18:14 G	7758765.12	7758765.26	7758765.41	0.0538	0.0091	
Moon	16531-05-17 22:33 G	7759020.22	7759020.44	7759020.65	0.0543	0.0227	
Earth	16531-05-18 02:09 G	7759020.37	7759020.59	7759020.81	0.0543	0.0195	*
Mercury	16536-04-21 10:19 G	7760820.78	7760820.93	7760821.08	0.0491	0.0112	
Mercury	16536-07-20 00:00 G	7760910.45	7760910.50	7760910.55	0.0489	0.0464	
Earth	16536-11-05 04:19 G	7761018.55	7761018.68	7761018.84	0.0487	0.0379	
Moon	16536-11-05 05:31 G	7761018.61	7761018.73	7761018.85	0.0487	0.0402	*
Moon	16537-12-04 19:26 G	7761413.15	7761413.31	7761413.49	0.0484	0.0332	
Earth	16537-12-04 23:16 G	7761413.29	7761413.47	7761413.65	0.0484	0.0313	*
Venus	16542-01-05 08:38 G	7762905.73	7762905.86	7762905.99	0.0530	0.0401	
Mercury	16542-06-23 18:14 G	7763075.13	7763075.26	7763075.38	0.0536	0.0290	
Mercury	16542-09-21 12:57 G	7763164.96	7763165.04	7763165.12	0.0539	0.0446	
Earth	16543-05-23 06:14 G	7763408.53	7763408.76	7763408.99	0.0544	0.0057	
Moon	16543-05-23 08:09 G	7763408.62	7763408.84	7763409.07	0.0544	0.0062	*
Venus	16547-11-15 00:28 G	7765045.38	7765045.52	7765045.66	0.0495	0.0353	
Mercury	16548-02-08 12:57 G	7765130.91	7765131.04	7765131.17	0.0492	0.0249	
Mercury	16548-05-08 02:09 G	7765220.48	7765220.59	7765220.71	0.0490	0.0323	
Earth	16548-11-09 09:50 G	7765405.73	7765405.91	7765406.10	0.0486	0.0282	
Moon	16548-11-09 10:19 G	7765405.74	7765405.93	7765406.11	0.0486	0.0305	*
Earth	16549-12-09 04:04 G	7765800.56	7765800.67	7765800.80	0.0484	0.0409	
Moon	16549-12-09 06:28 G	7765800.67	7765800.77	7765800.88	0.0484	0.0431	*
Mercury	16554-04-11 18:43 G	7767385.21	7767385.28	7767385.34	0.0536	0.0480	
Mercury	16554-07-10 13:55 G	7767474.96	7767475.08	7767475.21	0.0538	0.0265	
Earth	16555-05-28 15:50 G	7767796.93	7767797.16	7767797.39	0.0545	0.0090	
Moon	16555-05-28 16:04 G	7767796.93	7767797.17	7767797.40	0.0545	0.0124	*
Venus	16559-07-21 03:36 G	7769311.45	7769311.65	7769311.86	0.0497	0.0062	

Mercury	16559-11-27 15:36 G	7769441.06	7769441.15	7769441.24	0.0492	0.0384
Mercury	16560-02-25 04:33 G	7769530.55	7769530.69	7769530.83	0.0490	0.0183
Moon	16560-11-13 12:14 G	7769792.81	7769793.01	7769793.23	0.0485	0.0175
Earth	16560-11-13 14:09 G	7769792.87	7769793.09	7769793.30	0.0485	0.0186 *
Moon	16561-12-13 06:43 G	7770187.78	7770187.78	7770187.81	0.0484	0.0483
Venus	16566-01-08 11:45 G	7771674.88	7771674.99	7771675.11	0.0534	0.0437
Mercury	16566-04-28 15:07 G	7771784.99	7771785.13	7771785.28	0.0538	0.0088
Moon	16567-06-03 02:09 G	7772185.39	7772185.59	7772185.79	0.0545	0.0242
Earth	16567-06-03 04:19 G	7772185.47	7772185.68	7772185.89	0.0545	0.0238 *
Venus	16571-03-26 06:28 G	7773577.72	7773577.77	7773577.82	0.0499	0.0482
Mercury	16571-12-14 06:57 G	7773840.64	7773840.79	7773840.95	0.0490	0.0045
Earth	16572-11-17 18:28 G	7774180.04	7774180.27	7774180.50	0.0484	0.0087
Moon	16572-11-17 21:50 G	7774180.17	7774180.41	7774180.65	0.0484	0.0061 *
Venus	16577-09-13 03:07 G	7775940.43	7775940.63	7775940.83	0.0532	0.0087
Mercury	16578-02-14 16:48 G	7776095.05	7776095.20	7776095.35	0.0538	0.0087
Earth	16579-06-08 17:31 G	7776574.07	7776574.23	7776574.40	0.0545	0.0386
Moon	16579-06-08 21:21 G	7776574.22	7776574.39	7776574.57	0.0545	0.0353 *
Mars	16581-03-16 11:02 G	7777220.72	7777220.96	7777221.21	0.0528	0.0214
Mercury	16583-10-02 09:07 G	7778150.74	7778150.88	7778151.03	0.0491	0.0101
Mercury	16583-12-30 22:48 G	7778240.42	7778240.45	7778240.48	0.0489	0.0475
Moon	16584-11-21 17:31 G	7778567.00	7778567.23	7778567.46	0.0484	0.0007
Earth	16584-11-21 21:21 G	7778567.16	7778567.39	7778567.63	0.0484	0.0012 *
Mercury	16589-12-03 17:45 G	7780405.11	7780405.24	7780405.37	0.0537	0.0267
Mercury	16590-03-03 12:43 G	7780494.96	7780495.03	7780495.10	0.0540	0.0471
Earth	16590-05-06 09:07 G	7780558.80	7780558.88	7780558.98	0.0541	0.0497
Moon	16590-05-06 12:28 G	7780558.90	7780559.02	7780559.15	0.0541	0.0462 *
Moon	16591-06-14 00:14 G	7780962.48	7780962.51	7780962.56	0.0544	0.0535
Earth	16591-06-14 03:50 G	7780962.61	7780962.66	7780962.72	0.0544	0.0526
Venus	16595-03-28 14:24 G	7782345.91	7782346.10	7782346.29	0.0495	0.0187
Mercury	16595-07-21 11:45 G	7782460.86	7782460.99	7782461.12	0.0492	0.0239

Mercury	16595-10-19 00:57 G	7782550.43	7782550.54	7782550.66	0.0489	0.0333
Earth	16596-11-26 02:09 G	7782954.36	7782954.59	7782954.82	0.0484	0.0110
Moon	16596-11-26 06:14 G	7782954.53	7782954.76	7782954.98	0.0484	0.0080 *
Mercury	16601-09-22 17:31 G	7784715.16	7784715.23	7784715.31	0.0535	0.0466
Mercury	16601-12-21 12:57 G	7784804.92	7784805.04	7784805.17	0.0538	0.0278
Moon	16602-05-12 09:36 G	7784946.73	7784946.90	7784947.09	0.0542	0.0352
Earth	16602-05-12 13:26 G	7784946.90	7784947.06	7784947.24	0.0542	0.0365 *
Venus	16606-12-02 16:04 G	7786611.99	7786612.17	7786612.35	0.0498	0.0235
Mercury	16607-05-10 14:24 G	7786771.00	7786771.10	7786771.19	0.0493	0.0377
Mercury	16607-08-08 03:21 G	7786860.50	7786860.64	7786860.78	0.0490	0.0192
Earth	16607-11-02 10:33 G	7786946.92	7786946.94	7786946.97	0.0488	0.0485
Moon	16607-11-02 11:16 G	7786946.93	7786946.97	7786947.02	0.0488	0.0476 *
Moon	16608-12-01 03:21 G	7787341.43	7787341.64	7787341.86	0.0484	0.0194
Earth	16608-12-01 06:57 G	7787341.58	7787341.79	7787342.00	0.0484	0.0207 *
Venus	16613-05-22 18:57 G	7788975.11	7788975.29	7788975.48	0.0533	0.0217
Mercury	16613-10-09 13:55 G	7789114.93	7789115.08	7789115.22	0.0538	0.0094
Earth	16614-05-17 22:04 G	7789335.21	7789335.42	7789335.64	0.0543	0.0222
Moon	16614-05-18 00:57 G	7789335.34	7789335.54	7789335.74	0.0543	0.0255 *
Mercury	16619-05-27 05:45 G	7791170.59	7791170.74	7791170.89	0.0491	0.0053
Earth	16619-11-06 15:50 G	7791334.03	7791334.16	7791334.30	0.0487	0.0389
Moon	16619-11-06 16:19 G	7791334.06	7791334.18	7791334.31	0.0487	0.0413 *
Earth	16620-12-05 10:19 G	7791728.74	7791728.93	7791729.11	0.0483	0.0300
Moon	16620-12-05 12:14 G	7791728.85	7791729.01	7791729.18	0.0483	0.0325 *
Venus	16625-01-25 09:07 G	7793240.71	7793240.88	7793241.04	0.0531	0.0312
Mercury	16625-07-28 14:38 G	7793424.97	7793425.11	7793425.26	0.0537	0.0090
Moon	16626-05-23 08:52 G	7793723.63	7793723.87	7793724.11	0.0544	0.0079
Earth	16626-05-23 09:36 G	7793723.67	7793723.90	7793724.13	0.0544	0.0077 *
Venus	16630-12-05 01:26 G	7795380.47	7795380.56	7795380.65	0.0494	0.0439
Mercury	16631-03-15 08:24 G	7795480.70	7795480.85	7795481.00	0.0491	0.0087
Moon	16631-11-10 18:57 G	7795721.12	7795721.29	7795721.47	0.0486	0.0310

Earth	16631-11-10 20:52 G	7795721.19	7795721.37	7795721.56	0.0486	0.0291	*
Moon	16632-12-09 13:55 G	7796115.96	7796116.08	7796116.21	0.0484	0.0410	
Earth	16632-12-09 14:24 G	7796115.97	7796116.10	7796116.24	0.0484	0.0396	*
Mars	16634-12-04 00:43 G	7796840.42	7796840.53	7796840.67	0.0499	0.0445	
Mercury	16637-05-16 16:04 G	7797735.04	7797735.17	7797735.30	0.0537	0.0265	
Mercury	16637-08-14 11:02 G	7797824.89	7797824.96	7797825.03	0.0540	0.0473	
Moon	16638-05-28 21:36 G	7798112.18	7798112.40	7798112.62	0.0545	0.0108	
Earth	16638-05-28 23:02 G	7798112.23	7798112.46	7798112.69	0.0545	0.0074	*
Venus	16642-08-10 03:50 G	7799646.46	7799646.66	7799646.87	0.0496	0.0021	
Mercury	16643-01-01 10:33 G	7799790.81	7799790.94	7799791.08	0.0492	0.0228	
Mercury	16643-03-31 23:45 G	7799880.38	7799880.49	7799880.60	0.0489	0.0344	
Earth	16643-11-15 00:14 G	7800108.30	7800108.51	7800108.72	0.0485	0.0195	
Moon	16643-11-15 03:36 G	7800108.43	7800108.65	7800108.87	0.0485	0.0172	*
Moon	16644-12-13 17:31 G	7800503.18	7800503.23	7800503.28	0.0484	0.0470	
Mercury	16649-03-04 17:02 G	7802045.13	7802045.21	7802045.29	0.0536	0.0445	
Mercury	16649-06-02 12:28 G	7802134.90	7802135.02	7802135.14	0.0539	0.0300	
Earth	16650-06-03 10:19 G	7802500.72	7802500.93	7802501.15	0.0545	0.0222	
Moon	16650-06-03 13:55 G	7802500.86	7802501.08	7802501.30	0.0545	0.0215	*
Venus	16654-04-15 05:45 G	7803912.63	7803912.74	7803912.86	0.0498	0.0404	
Mercury	16654-10-20 13:12 G	7804100.95	7804101.05	7804101.15	0.0492	0.0365	
Mercury	16655-01-18 02:09 G	7804190.45	7804190.59	7804190.73	0.0490	0.0202	
Moon	16655-11-19 00:57 G	7804495.32	7804495.54	7804495.78	0.0485	0.0070	
Earth	16655-11-19 05:02 G	7804495.48	7804495.71	7804495.94	0.0485	0.0095	*
Venus	16660-10-03 03:21 G	7806275.44	7806275.64	7806275.85	0.0532	0.0012	
Mercury	16661-03-21 12:43 G	7806444.89	7806445.03	7806445.18	0.0537	0.0108	
Moon	16662-06-08 11:02 G	7806888.77	7806888.96	7806889.15	0.0544	0.0324	
Earth	16662-06-08 14:38 G	7806888.94	7806889.11	7806889.29	0.0544	0.0358	*
Mercury	16666-11-06 04:19 G	7808500.53	7808500.68	7808500.83	0.0491	0.0059	
Earth	16667-11-23 09:21 G	7808882.66	7808882.89	7808883.12	0.0484	0.0001	
Moon	16667-11-23 13:12 G	7808882.82	7808883.05	7808883.28	0.0484	0.0010	*

Mars	16670-09-08 22:48 G	7809903.26	7809903.45	7809903.64	0.0501	0.0363
Venus	16672-06-07 17:16 G	7810541.19	7810541.22	7810541.26	0.0529	0.0520
Mercury	16673-01-07 13:26 G	7810754.91	7810755.06	7810755.21	0.0537	0.0080
Moon	16673-05-06 02:38 G	7810873.51	7810873.61	7810873.70	0.0540	0.0489
Earth	16673-05-06 06:14 G	7810873.70	7810873.76	7810873.82	0.0540	0.0520 *
Earth	16674-06-13 23:02 G	7811277.38	7811277.46	7811277.57	0.0544	0.0498
Moon	16674-06-14 01:55 G	7811277.50	7811277.58	7811277.66	0.0544	0.0510 *
Venus	16678-04-17 13:55 G	7812680.91	7812681.08	7812681.25	0.0495	0.0269
Mercury	16678-08-25 06:43 G	7812810.63	7812810.78	7812810.93	0.0491	0.0081
Moon	16679-11-27 09:21 G	7813269.66	7813269.89	7813270.13	0.0484	0.0068
Earth	16679-11-27 12:43 G	7813269.81	7813270.03	7813270.26	0.0484	0.0098 *
Mercury	16684-10-26 13:55 G	7815064.96	7815065.08	7815065.22	0.0536	0.0268
Mercury	16685-01-24 08:52 G	7815154.81	7815154.87	7815154.94	0.0539	0.0471
Earth	16685-05-11 15:21 G	7815261.97	7815262.14	7815262.30	0.0542	0.0384
Moon	16685-05-11 18:43 G	7815262.11	7815262.28	7815262.44	0.0542	0.0381 *
Venus	16689-12-21 17:02 G	7816947.02	7816947.21	7816947.41	0.0497	0.0148
Mercury	16690-06-13 09:36 G	7817120.76	7817120.90	7817121.03	0.0492	0.0216
Mercury	16690-09-10 22:48 G	7817210.35	7817210.45	7817210.55	0.0490	0.0356
Moon	16690-11-01 22:19 G	7817262.42	7817262.43	7817262.46	0.0488	0.0486
Earth	16691-12-01 16:48 G	7817656.99	7817657.20	7817657.42	0.0484	0.0194
Moon	16691-12-01 18:43 G	7817657.08	7817657.28	7817657.49	0.0484	0.0192 *
Venus	16696-06-10 20:52 G	7819310.21	7819310.37	7819310.53	0.0534	0.0317
Mercury	16696-08-14 15:07 G	7819375.05	7819375.13	7819375.22	0.0536	0.0446
Mercury	16696-11-12 10:33 G	7819464.82	7819464.94	7819465.07	0.0539	0.0300
Moon	16697-05-17 02:24 G	7819650.39	7819650.60	7819650.81	0.0543	0.0272
Earth	16697-05-17 03:50 G	7819650.46	7819650.66	7819650.88	0.0543	0.0239 *
Mercury	16702-04-02 12:00 G	7821430.90	7821431.00	7821431.10	0.0492	0.0356
Mercury	16702-07-01 00:43 G	7821520.40	7821520.53	7821520.67	0.0490	0.0211
Moon	16702-11-06 23:16 G	7821649.37	7821649.47	7821649.58	0.0487	0.0425
Earth	16702-11-07 01:26 G	7821649.44	7821649.56	7821649.70	0.0487	0.0397 *

Moon	16703-12-06 19:40 G	7822044.14	7822044.32	7822044.51	0.0484	0.0316
Earth	16703-12-06 19:55 G	7822044.15	7822044.33	7822044.52	0.0484	0.0289 *
Venus	16708-02-15 12:00 G	7823575.82	7823576.00	7823576.19	0.0531	0.0207
Mercury	16708-09-01 12:00 G	7823774.86	7823775.00	7823775.15	0.0538	0.0126
Moon	16709-05-23 15:07 G	7824038.90	7824039.13	7824039.35	0.0544	0.0091
Earth	16709-05-23 15:36 G	7824038.92	7824039.15	7824039.38	0.0544	0.0092 *
Mercury	16714-01-19 14:38 G	7825741.11	7825741.11	7825741.11	0.0493	0.0493
Mercury	16714-04-19 03:07 G	7825830.48	7825830.63	7825830.79	0.0491	0.0071
Earth	16714-11-11 06:28 G	7826036.59	7826036.77	7826036.95	0.0486	0.0300
Moon	16714-11-11 10:04 G	7826036.74	7826036.92	7826037.10	0.0486	0.0308 *
Moon	16715-12-11 00:00 G	7826431.37	7826431.50	7826431.62	0.0484	0.0398
Earth	16715-12-11 01:12 G	7826431.41	7826431.55	7826431.69	0.0484	0.0385 *
Mercury	16720-06-20 12:28 G	7828084.87	7828085.02	7828085.16	0.0537	0.0067
Earth	16721-05-28 20:52 G	7828427.14	7828427.37	7828427.61	0.0544	0.0047
Moon	16721-05-28 23:45 G	7828427.25	7828427.49	7828427.73	0.0544	0.0079 *
Venus	16725-08-30 02:24 G	7829981.40	7829981.60	7829981.80	0.0497	0.0095
Mercury	16726-02-05 05:16 G	7830140.57	7830140.72	7830140.87	0.0492	0.0075
Moon	16726-11-15 06:43 G	7830423.57	7830423.78	7830424.00	0.0486	0.0181
Earth	16726-11-15 10:33 G	7830423.73	7830423.94	7830424.16	0.0486	0.0207 *
Earth	16727-12-15 05:45 G	7830818.71	7830818.74	7830818.78	0.0484	0.0478
Moon	16727-12-15 08:09 G	7830818.76	7830818.84	7830818.92	0.0484	0.0452 *
Mercury	16732-04-08 12:43 G	7832394.90	7832395.03	7832395.17	0.0536	0.0257
Mercury	16732-07-07 07:40 G	7832484.76	7832484.82	7832484.89	0.0539	0.0478
Moon	16733-06-03 01:40 G	7832815.35	7832815.57	7832815.79	0.0544	0.0181
Earth	16733-06-03 05:16 G	7832815.51	7832815.72	7832815.95	0.0544	0.0192 *
Mars	16735-06-12 06:43 G	7833554.51	7833554.78	7833555.04	0.0528	0.0032
Venus	16737-05-05 04:19 G	7834247.53	7834247.68	7834247.84	0.0499	0.0328
Mercury	16737-11-24 07:55 G	7834450.69	7834450.83	7834450.97	0.0492	0.0212
Mercury	16738-02-21 21:07 G	7834540.28	7834540.38	7834540.49	0.0490	0.0361
Earth	16738-11-19 14:24 G	7834810.88	7834811.10	7834811.33	0.0485	0.0110

Moon	16738-11-19 18:14 G	7834811.03	7834811.26	7834811.49	0.0485	0.0086 *
Venus	16743-10-24 02:24 G	7836610.40	7836610.60	7836610.80	0.0532	0.0087
Mercury	16744-01-26 12:57 G	7836704.97	7836705.04	7836705.13	0.0535	0.0449
Mercury	16744-04-25 08:38 G	7836794.74	7836794.86	7836794.98	0.0538	0.0297
Earth	16745-06-08 15:50 G	7837203.98	7837204.16	7837204.35	0.0545	0.0335
Moon	16745-06-08 18:57 G	7837204.11	7837204.29	7837204.49	0.0545	0.0303 *
Mercury	16749-09-12 10:33 G	7838760.84	7838760.94	7838761.05	0.0493	0.0348
Mercury	16749-12-10 23:31 G	7838850.35	7838850.48	7838850.62	0.0490	0.0221
Moon	16750-11-23 15:50 G	7839197.92	7839198.16	7839198.39	0.0484	0.0023
Earth	16750-11-23 18:57 G	7839198.06	7839198.29	7839198.52	0.0484	0.0011 *
Venus	16755-06-28 17:31 G	7840876.12	7840876.23	7840876.36	0.0530	0.0433
Mercury	16756-02-12 10:04 G	7841104.77	7841104.92	7841105.06	0.0538	0.0123
Earth	16756-05-06 09:36 G	7841188.89	7841188.90	7841188.94	0.0540	0.0537
Moon	16756-05-06 13:26 G	7841188.99	7841189.06	7841189.15	0.0540	0.0503
Moon	16757-06-14 03:21 G	7841592.53	7841592.64	7841592.74	0.0545	0.0488
Earth	16757-06-14 04:33 G	7841592.59	7841592.69	7841592.81	0.0545	0.0478 *
Venus	16761-05-07 13:26 G	7843015.92	7843016.06	7843016.21	0.0495	0.0346
Mercury	16761-07-01 13:12 G	7843071.03	7843071.05	7843071.07	0.0493	0.0486
Mercury	16761-09-29 01:40 G	7843160.42	7843160.57	7843160.72	0.0491	0.0077
Earth	16762-11-27 21:50 G	7843585.18	7843585.41	7843585.64	0.0484	0.0086
Moon	16762-11-27 23:16 G	7843585.25	7843585.47	7843585.70	0.0484	0.0061 *
Mercury	16767-12-01 11:16 G	7845414.82	7845414.97	7845415.12	0.0537	0.0054
Moon	16768-05-11 18:43 G	7845577.12	7845577.28	7845577.44	0.0542	0.0399
Earth	16768-05-11 20:52 G	7845577.22	7845577.37	7845577.53	0.0542	0.0398 *
Venus	16773-01-10 15:50 G	7847281.96	7847282.16	7847282.36	0.0497	0.0074
Mercury	16773-07-18 04:04 G	7847470.52	7847470.67	7847470.82	0.0491	0.0065
Earth	16774-12-02 02:09 G	7847972.38	7847972.59	7847972.81	0.0484	0.0183
Moon	16774-12-02 02:24 G	7847972.38	7847972.60	7847972.82	0.0484	0.0189 *
Venus	16779-07-01 21:21 G	7849645.26	7849645.39	7849645.52	0.0533	0.0410
Mercury	16779-09-19 11:31 G	7849724.85	7849724.98	7849725.12	0.0536	0.0245

Mercury	16779-12-18 06:28 G	7849814.71	7849814.77	7849814.83	0.0539	0.0490
Earth	16780-05-17 02:52 G	7849965.42	7849965.62	7849965.83	0.0542	0.0263
Moon	16780-05-17 03:21 G	7849965.46	7849965.64	7849965.83	0.0542	0.0298 *
Mercury	16785-05-06 06:14 G	7851780.63	7851780.76	7851780.90	0.0492	0.0209
Mercury	16785-08-03 19:26 G	7851870.21	7851870.31	7851870.42	0.0490	0.0365
Earth	16785-11-06 09:36 G	7851964.78	7851964.90	7851965.03	0.0488	0.0411
Moon	16785-11-06 13:12 G	7851964.95	7851965.05	7851965.16	0.0488	0.0439 *
Moon	16786-12-06 04:33 G	7852359.52	7852359.69	7852359.87	0.0484	0.0307
Earth	16786-12-06 06:14 G	7852359.57	7852359.76	7852359.95	0.0484	0.0276 *
Mars	16789-02-28 09:36 G	7853174.64	7853174.90	7853175.17	0.0499	0.0165
Venus	16791-03-06 10:48 G	7853910.75	7853910.95	7853911.15	0.0530	0.0125
Mercury	16791-07-08 12:00 G	7854034.91	7854035.00	7854035.08	0.0535	0.0436
Mercury	16791-10-06 07:26 G	7854124.69	7854124.81	7854124.93	0.0538	0.0306
Earth	16792-05-22 10:48 G	7854353.72	7854353.95	7854354.18	0.0543	0.0122
Moon	16792-05-22 12:43 G	7854353.79	7854354.03	7854354.27	0.0543	0.0117 *
Mercury	16797-02-22 08:52 G	7856090.76	7856090.87	7856090.98	0.0493	0.0347
Mercury	16797-05-22 21:50 G	7856180.27	7856180.41	7856180.54	0.0491	0.0222
Moon	16797-11-10 10:33 G	7856351.77	7856351.94	7856352.11	0.0487	0.0322
Earth	16797-11-10 14:24 G	7856351.93	7856352.10	7856352.28	0.0487	0.0316 *
Earth	16798-12-10 09:07 G	7856746.73	7856746.88	7856747.03	0.0484	0.0368
Moon	16798-12-10 11:45 G	7856746.84	7856746.99	7856747.14	0.0484	0.0375 *
Mercury	16803-07-25 07:55 G	7858434.68	7858434.83	7858434.98	0.0538	0.0118
Moon	16804-05-27 16:04 G	7858741.95	7858742.17	7858742.40	0.0544	0.0053
Earth	16804-05-27 19:40 G	7858742.09	7858742.32	7858742.56	0.0544	0.0023 *
Venus	16808-09-18 01:55 G	7860316.39	7860316.58	7860316.77	0.0496	0.0175
Mercury	16808-12-11 11:45 G	7860400.96	7860400.99	7860401.02	0.0493	0.0480
Mercury	16809-03-11 00:14 G	7860490.36	7860490.51	7860490.66	0.0491	0.0084
Earth	16809-11-14 19:26 G	7860739.10	7860739.31	7860739.52	0.0486	0.0218
Moon	16809-11-14 23:02 G	7860739.25	7860739.46	7860739.67	0.0486	0.0190 *
Moon	16810-12-14 10:19 G	7861133.83	7861133.93	7861134.02	0.0484	0.0436

Earth	16810-12-14 13:26 G	7861133.99	7861134.06	7861134.13	0.0484	0.0461 *
Mercury	16815-05-13 09:07 G	7862744.73	7862744.88	7862745.03	0.0537	0.0060
Earth	16816-06-02 08:09 G	7863130.62	7863130.84	7863131.07	0.0545	0.0170
Moon	16816-06-02 12:00 G	7863130.78	7863131.00	7863131.22	0.0545	0.0153 *
Venus	16820-05-24 03:50 G	7864582.49	7864582.66	7864582.84	0.0498	0.0250
Mercury	16820-12-28 02:38 G	7864800.46	7864800.61	7864800.76	0.0491	0.0060
Moon	16821-11-18 19:26 G	7865126.08	7865126.31	7865126.55	0.0485	0.0100
Earth	16821-11-18 22:33 G	7865126.22	7865126.44	7865126.67	0.0485	0.0122 *
Venus	16826-11-12 04:19 G	7866945.49	7866945.68	7866945.87	0.0532	0.0187
Mercury	16827-03-01 10:19 G	7867054.79	7867054.93	7867055.06	0.0536	0.0238
Mercury	16827-05-30 05:16 G	7867144.67	7867144.72	7867144.77	0.0539	0.0499
Moon	16828-06-07 17:45 G	7867519.03	7867519.24	7867519.44	0.0545	0.0282
Earth	16828-06-07 19:55 G	7867519.15	7867519.33	7867519.53	0.0545	0.0316 *
Mercury	16832-10-16 05:02 G	7869110.58	7869110.71	7869110.85	0.0492	0.0200
Mercury	16833-01-13 18:14 G	7869200.16	7869200.26	7869200.36	0.0490	0.0373
Earth	16833-11-23 02:52 G	7869513.39	7869513.62	7869513.85	0.0485	0.0023
Moon	16833-11-23 04:19 G	7869513.46	7869513.68	7869513.91	0.0485	0.0040 *
Venus	16838-07-17 18:28 G	7871211.12	7871211.27	7871211.43	0.0529	0.0338
Mercury	16838-12-18 10:33 G	7871364.86	7871364.94	7871365.03	0.0535	0.0427
Mercury	16839-03-18 06:00 G	7871454.64	7871454.75	7871454.87	0.0538	0.0316
Moon	16839-05-06 07:12 G	7871503.75	7871503.80	7871503.86	0.0539	0.0522
Earth	16840-06-13 01:40 G	7871907.44	7871907.57	7871907.70	0.0544	0.0447
Moon	16840-06-13 01:40 G	7871907.46	7871907.57	7871907.69	0.0544	0.0463 *
Venus	16844-05-26 10:04 G	7873350.82	7873350.92	7873351.04	0.0495	0.0413
Mercury	16844-08-04 07:12 G	7873420.69	7873420.80	7873420.90	0.0493	0.0345
Mercury	16844-11-01 19:55 G	7873510.20	7873510.33	7873510.47	0.0491	0.0225
Earth	16845-11-27 06:00 G	7873900.52	7873900.75	7873900.98	0.0484	0.0071
Moon	16845-11-27 06:14 G	7873900.52	7873900.76	7873901.01	0.0484	0.0049 *
Mercury	16851-01-04 06:43 G	7875764.64	7875764.78	7875764.92	0.0537	0.0128
Earth	16851-05-11 16:48 G	7875892.06	7875892.20	7875892.35	0.0540	0.0424

Moon	16851-05-11 18:00 G	7875892.12	7875892.25	7875892.40	0.0540	0.0430 *
Venus	16856-01-30 12:43 G	7877616.82	7877617.03	7877617.23	0.0497	0.0011
Mercury	16856-05-23 09:50 G	7877730.88	7877730.91	7877730.94	0.0494	0.0482
Mercury	16856-08-20 22:19 G	7877820.28	7877820.43	7877820.58	0.0491	0.0082
Moon	16857-12-01 07:26 G	7878287.60	7878287.81	7878288.02	0.0484	0.0176
Earth	16857-12-01 09:07 G	7878287.66	7878287.88	7878288.10	0.0484	0.0165 *
Venus	16862-07-20 18:14 G	7879980.18	7879980.26	7879980.35	0.0533	0.0481
Mercury	16862-10-23 06:57 G	7880074.64	7880074.79	7880074.94	0.0537	0.0065
Earth	16863-05-16 23:16 G	7880280.28	7880280.47	7880280.67	0.0542	0.0289
Moon	16863-05-17 00:14 G	7880280.32	7880280.51	7880280.71	0.0542	0.0321 *
Venus	16867-10-05 14:52 G	7881883.03	7881883.12	7881883.23	0.0500	0.0433
Mercury	16868-06-09 00:57 G	7882130.39	7882130.54	7882130.69	0.0492	0.0056
Moon	16868-11-05 13:55 G	7882280.00	7882280.08	7882280.17	0.0488	0.0452
Earth	16868-11-05 18:00 G	7882280.13	7882280.25	7882280.36	0.0488	0.0421 *
Earth	16869-12-05 13:12 G	7882674.85	7882675.05	7882675.25	0.0484	0.0260
Moon	16869-12-05 15:50 G	7882674.97	7882675.16	7882675.35	0.0484	0.0290 *
Venus	16874-03-25 08:52 G	7884245.67	7884245.87	7884246.07	0.0531	0.0049
Mercury	16874-08-11 07:55 G	7884384.70	7884384.83	7884384.96	0.0536	0.0247
Mercury	16874-11-09 02:52 G	7884474.56	7884474.62	7884474.68	0.0539	0.0491
Moon	16875-05-22 07:55 G	7884668.61	7884668.83	7884669.05	0.0543	0.0136
Earth	16875-05-22 11:02 G	7884668.73	7884668.96	7884669.19	0.0543	0.0144 *
Mercury	16880-03-28 03:21 G	7886440.50	7886440.64	7886440.78	0.0492	0.0197
Mercury	16880-06-25 16:33 G	7886530.09	7886530.19	7886530.29	0.0490	0.0375
Earth	16880-11-09 21:36 G	7886667.23	7886667.40	7886667.58	0.0487	0.0327
Moon	16880-11-10 01:12 G	7886667.39	7886667.55	7886667.72	0.0487	0.0329 *
Moon	16881-12-09 12:43 G	7887061.88	7887062.03	7887062.19	0.0484	0.0358
Earth	16881-12-09 16:04 G	7887062.02	7887062.17	7887062.33	0.0484	0.0354 *
Mercury	16886-05-30 08:52 G	7888694.78	7888694.87	7888694.96	0.0535	0.0426
Mercury	16886-08-28 04:19 G	7888784.57	7888784.68	7888784.80	0.0538	0.0319
Earth	16887-05-27 22:48 G	7889057.22	7889057.45	7889057.69	0.0544	0.0007

Moon	16887-05-28 02:52 G	7889057.38	7889057.62	7889057.85	0.0544	0.0033 *
Mars	16889-09-05 12:00 G	7889888.79	7889889.00	7889889.23	0.0527	0.0307
Venus	16891-10-07 23:45 G	7890651.31	7890651.49	7890651.67	0.0496	0.0243
Mercury	16892-01-15 05:45 G	7890750.64	7890750.74	7890750.86	0.0493	0.0337
Mercury	16892-04-13 18:43 G	7890840.15	7890840.28	7890840.41	0.0490	0.0232
Moon	16892-11-13 23:16 G	7891054.26	7891054.47	7891054.69	0.0486	0.0203
Earth	16892-11-14 02:09 G	7891054.39	7891054.59	7891054.80	0.0486	0.0230 *
Earth	16893-12-13 20:24 G	7891449.28	7891449.35	7891449.45	0.0484	0.0448
Moon	16893-12-14 00:14 G	7891449.40	7891449.51	7891449.63	0.0484	0.0420 *
Mercury	16898-06-16 05:16 G	7893094.58	7893094.72	7893094.86	0.0537	0.0136
Moon	16899-06-02 03:07 G	7893445.40	7893445.63	7893445.86	0.0544	0.0125
Earth	16899-06-02 06:14 G	7893445.54	7893445.76	7893445.99	0.0544	0.0141 *
Venus	16903-06-13 23:45 G	7894917.30	7894917.49	7894917.68	0.0499	0.0191
Mercury	16903-11-04 07:55 G	7895060.81	7895060.83	7895060.86	0.0494	0.0482
Mercury	16904-02-01 20:24 G	7895150.20	7895150.35	7895150.50	0.0491	0.0083
Earth	16904-11-19 04:48 G	7895441.48	7895441.70	7895441.92	0.0486	0.0138
Moon	16904-11-19 06:00 G	7895441.54	7895441.75	7895441.97	0.0486	0.0125 *
Venus	16909-12-02 02:24 G	7897280.43	7897280.60	7897280.78	0.0532	0.0265
Mercury	16910-04-05 05:45 G	7897404.59	7897404.74	7897404.89	0.0536	0.0054
Earth	16911-06-08 13:26 G	7897833.87	7897834.06	7897834.27	0.0544	0.0281
Moon	16911-06-08 14:38 G	7897833.92	7897834.11	7897834.31	0.0544	0.0253 *
Mercury	16915-11-20 22:48 G	7899460.30	7899460.45	7899460.60	0.0492	0.0060
Earth	16916-11-23 08:24 G	7899828.62	7899828.85	7899829.09	0.0485	0.0042
Moon	16916-11-23 08:52 G	7899828.63	7899828.87	7899829.12	0.0485	0.0065 *
Venus	16921-08-06 14:24 G	7901545.93	7901546.10	7901546.27	0.0529	0.0277
Mercury	16922-01-22 05:45 G	7901714.60	7901714.74	7901714.87	0.0536	0.0253
Mercury	16922-04-22 00:43 G	7901804.47	7901804.53	7901804.59	0.0539	0.0484
Earth	16923-06-13 21:21 G	7902222.24	7902222.39	7902222.54	0.0545	0.0418
Moon	16923-06-13 22:48 G	7902222.32	7902222.45	7902222.60	0.0545	0.0438 *
Venus	16927-06-16 08:38 G	7903685.83	7903685.86	7903685.90	0.0495	0.0484

Mercury	16927-09-09 01:40 G	7903770.43	7903770.57	7903770.70	0.0492	0.0196
Mercury	16927-12-07 14:38 G	7903860.02	7903860.11	7903860.21	0.0490	0.0378
Moon	16928-11-27 10:48 G	7904215.73	7904215.95	7904216.18	0.0484	0.0035
Earth	16928-11-27 12:43 G	7904215.80	7904216.03	7904216.26	0.0484	0.0056 *
Mercury	16933-11-10 06:14 G	7906024.68	7906024.76	7906024.85	0.0535	0.0438
Mercury	16934-02-08 01:55 G	7906114.46	7906114.58	7906114.70	0.0538	0.0308
Moon	16934-05-11 13:55 G	7906206.96	7906207.08	7906207.23	0.0541	0.0450
Earth	16934-05-11 14:24 G	7906206.97	7906207.10	7906207.23	0.0541	0.0446 *
Venus	16939-02-19 11:16 G	7907951.77	7907951.97	7907952.17	0.0497	0.0065
Mercury	16939-06-28 04:04 G	7908080.56	7908080.67	7908080.78	0.0493	0.0335
Mercury	16939-09-25 16:48 G	7908170.07	7908170.20	7908170.34	0.0490	0.0233
Earth	16940-12-01 15:36 G	7908602.93	7908603.15	7908603.37	0.0484	0.0150
Moon	16940-12-01 18:28 G	7908603.04	7908603.27	7908603.49	0.0484	0.0165 *
Mars	16943-05-25 22:33 G	7909508.16	7909508.44	7909508.72	0.0500	0.0044
Mercury	16945-11-27 03:21 G	7910424.49	7910424.64	7910424.78	0.0538	0.0133
Moon	16946-05-16 23:31 G	7910595.30	7910595.48	7910595.66	0.0542	0.0338
Earth	16946-05-17 01:40 G	7910595.38	7910595.57	7910595.77	0.0542	0.0307 *
Venus	16950-10-25 12:43 G	7912217.89	7912218.03	7912218.17	0.0499	0.0364
Mercury	16951-04-16 06:43 G	7912390.74	7912390.78	7912390.82	0.0493	0.0473
Mercury	16951-07-14 19:12 G	7912480.15	7912480.30	7912480.45	0.0491	0.0090
Earth	16951-11-06 23:31 G	7912595.38	7912595.48	7912595.59	0.0488	0.0433
Moon	16951-11-07 02:52 G	7912595.56	7912595.62	7912595.70	0.0488	0.0464 *
Moon	16952-12-05 16:04 G	7912989.98	7912990.17	7912990.36	0.0484	0.0275
Earth	16952-12-05 19:26 G	7912990.11	7912990.31	7912990.52	0.0484	0.0246 *
Venus	16957-04-14 09:07 G	7914580.68	7914580.88	7914581.09	0.0531	0.0045
Mercury	16957-09-15 04:19 G	7914734.53	7914734.68	7914734.83	0.0536	0.0050
Earth	16958-05-22 10:04 G	7914983.70	7914983.92	7914984.15	0.0542	0.0171
Moon	16958-05-22 14:09 G	7914983.86	7914984.09	7914984.31	0.0542	0.0152 *
Mercury	16963-05-02 20:52 G	7916790.22	7916790.37	7916790.52	0.0492	0.0061
Moon	16963-11-10 23:16 G	7916982.30	7916982.47	7916982.64	0.0488	0.0345

Earth	16963-11-11 01:55 G	7916982.43	7916982.58	7916982.75	0.0488	0.0344 *
Earth	16964-12-09 22:19 G	7917377.27	7917377.43	7917377.60	0.0484	0.0337
Moon	16964-12-10 01:55 G	7917377.42	7917377.58	7917377.76	0.0484	0.0332 *
Venus	16968-12-17 23:02 G	7918846.39	7918846.46	7918846.54	0.0528	0.0484
Mercury	16969-07-04 04:33 G	7919044.56	7919044.69	7919044.82	0.0535	0.0240
Mercury	16969-10-01 23:31 G	7919134.43	7919134.48	7919134.54	0.0538	0.0495
Moon	16970-05-27 13:40 G	7919371.83	7919372.07	7919372.30	0.0543	0.0008
Earth	16970-05-27 17:16 G	7919371.99	7919372.22	7919372.46	0.0543	0.0031 *
Venus	16974-10-27 18:57 G	7920986.13	7920986.29	7920986.46	0.0496	0.0301
Mercury	16975-02-18 23:16 G	7921100.34	7921100.47	7921100.61	0.0493	0.0202
Mercury	16975-05-19 12:28 G	7921189.92	7921190.02	7921190.12	0.0490	0.0373
Earth	16975-11-15 06:28 G	7921369.57	7921369.77	7921369.97	0.0487	0.0249
Moon	16975-11-15 07:40 G	7921369.62	7921369.82	7921370.02	0.0487	0.0223 *
Moon	16976-12-13 22:04 G	7921764.29	7921764.42	7921764.56	0.0484	0.0396
Earth	16976-12-14 01:26 G	7921764.46	7921764.56	7921764.67	0.0484	0.0427 *
Mercury	16981-04-22 04:04 G	7923354.59	7923354.67	7923354.75	0.0535	0.0444
Mercury	16981-07-20 23:45 G	7923444.37	7923444.49	7923444.61	0.0538	0.0301
Earth	16982-06-01 23:31 G	7923760.26	7923760.48	7923760.71	0.0544	0.0110
Moon	16982-06-02 01:55 G	7923760.36	7923760.58	7923760.80	0.0544	0.0095 *
Venus	16986-07-02 22:04 G	7925252.22	7925252.42	7925252.61	0.0498	0.0120
Mercury	16986-12-08 02:09 G	7925410.49	7925410.59	7925410.70	0.0493	0.0336
Mercury	16987-03-07 15:07 G	7925499.99	7925500.13	7925500.26	0.0491	0.0233
Earth	16987-11-19 11:31 G	7925756.76	7925756.98	7925757.20	0.0486	0.0151
Moon	16987-11-19 12:14 G	7925756.78	7925757.01	7925757.24	0.0486	0.0145 *
Venus	16992-12-20 22:33 G	7927615.29	7927615.44	7927615.60	0.0532	0.0330
Mercury	16993-05-09 00:43 G	7927754.39	7927754.53	7927754.68	0.0537	0.0121
Earth	16994-06-07 10:48 G	7928148.75	7928148.95	7928149.16	0.0545	0.0255
Moon	16994-06-07 11:16 G	7928148.75	7928148.97	7928149.19	0.0545	0.0229 *
Mercury	16998-09-26 04:48 G	7929720.67	7929720.70	7929720.74	0.0494	0.0474
Mercury	16998-12-24 17:16 G	7929810.07	7929810.22	7929810.37	0.0491	0.0089

Moon	16999-11-23 12:43 G	7930143.81	7930144.03	7930144.25	0.0485	0.0083
Earth	16999-11-23 14:38 G	7930143.88	7930144.11	7930144.35	0.0485	0.0056 *

18TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 18th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	17004-08-26 13:55 G		7931880.89	7931881.08	7931881.27	0.0530	0.0193	
Mercury	17005-02-26 01:55 G		7932064.43	7932064.58	7932064.73	0.0537	0.0057	
Moon	17006-06-13 19:55 G		7932537.19	7932537.33	7932537.47	0.0545	0.0423	
Earth	17006-06-13 23:02 G		7932537.30	7932537.46	7932537.62	0.0545	0.0396 *	
Mars	17008-02-26 06:57 G		7933159.60	7933159.79	7933159.98	0.0530	0.0361	
Mercury	17010-10-13 19:40 G		7934120.17	7934120.32	7934120.47	0.0492	0.0053	
Earth	17011-11-28 18:28 G		7934531.03	7934531.27	7934531.50	0.0484	0.0042	
Moon	17011-11-28 21:21 G		7934531.16	7934531.39	7934531.63	0.0484	0.0024 *	
Mercury	17016-12-15 02:52 G		7936374.48	7936374.62	7936374.75	0.0536	0.0237	
Mercury	17017-03-14 21:50 G		7936464.36	7936464.41	7936464.47	0.0538	0.0499	
Moon	17017-05-11 13:40 G		7936521.97	7936522.07	7936522.18	0.0540	0.0477	
Earth	17017-05-11 14:52 G		7936522.01	7936522.12	7936522.24	0.0540	0.0467 *	
Earth	17018-06-19 06:28 G		7936925.72	7936925.77	7936925.83	0.0544	0.0527	
Venus	17022-03-11 06:28 G		7938286.57	7938286.77	7938286.97	0.0497	0.0120	
Mercury	17022-08-01 21:21 G		7938430.26	7938430.39	7938430.53	0.0493	0.0203	
Mercury	17022-10-30 10:33 G		7938519.84	7938519.94	7938520.04	0.0490	0.0371	
Moon	17023-12-02 17:16 G		7938918.00	7938918.22	7938918.44	0.0484	0.0148	

Earth	17023-12-02 20:38 G	7938918.14	7938918.36	7938918.59	0.0484	0.0133 *
Mercury	17028-10-03 02:52 G	7940684.54	7940684.62	7940684.72	0.0535	0.0431
Mercury	17028-12-31 22:33 G	7940774.32	7940774.44	7940774.56	0.0538	0.0313
Earth	17029-05-16 21:36 G	7940910.22	7940910.40	7940910.58	0.0541	0.0333
Moon	17029-05-17 00:57 G	7940910.37	7940910.54	7940910.72	0.0541	0.0360 *
Venus	17033-11-14 07:40 G	7942552.66	7942552.82	7942552.98	0.0499	0.0310
Mercury	17034-05-21 00:00 G	7942740.39	7942740.50	7942740.61	0.0493	0.0342
Mercury	17034-08-18 12:43 G	7942829.90	7942830.03	7942830.17	0.0491	0.0227
Moon	17034-11-06 23:45 G	7942910.46	7942910.49	7942910.55	0.0489	0.0479
Earth	17034-11-07 02:52 G	7942910.53	7942910.62	7942910.71	0.0489	0.0450 *
Earth	17035-12-06 23:45 G	7943305.29	7943305.49	7943305.70	0.0484	0.0226
Moon	17035-12-07 03:36 G	7943305.45	7943305.65	7943305.85	0.0484	0.0251 *
Venus	17040-05-04 03:50 G	7944915.46	7944915.66	7944915.86	0.0531	0.0097
Mercury	17040-10-19 22:33 G	7945084.29	7945084.44	7945084.58	0.0537	0.0114
Moon	17041-05-21 21:50 G	7945298.20	7945298.41	7945298.64	0.0542	0.0184
Earth	17041-05-22 01:55 G	7945298.37	7945298.58	7945298.80	0.0542	0.0201 *
Mars	17043-12-01 16:48 G	7946222.12	7946222.20	7946222.30	0.0528	0.0493
Mercury	17046-03-09 02:52 G	7947050.59	7947050.62	7947050.66	0.0494	0.0476
Mercury	17046-06-06 15:21 G	7947139.99	7947140.14	7947140.29	0.0491	0.0089
Earth	17046-11-11 08:52 G	7947297.71	7947297.87	7947298.03	0.0488	0.0355
Moon	17046-11-11 10:04 G	7947297.76	7947297.92	7947298.07	0.0488	0.0351 *
Moon	17047-12-11 00:57 G	7947692.36	7947692.54	7947692.73	0.0484	0.0309
Earth	17047-12-11 04:04 G	7947692.51	7947692.67	7947692.85	0.0484	0.0321 *
Venus	17052-01-07 18:28 G	7949181.15	7949181.27	7949181.39	0.0528	0.0427
Mercury	17052-08-07 23:16 G	7949394.32	7949394.47	7949394.62	0.0537	0.0070
Earth	17053-05-27 12:14 G	7949686.78	7949687.01	7949687.25	0.0544	0.0057
Moon	17053-05-27 15:21 G	7949686.91	7949687.14	7949687.37	0.0544	0.0026 *
Venus	17057-11-16 17:31 G	7951321.09	7951321.23	7951321.36	0.0496	0.0372
Mercury	17058-03-25 17:45 G	7951450.09	7951450.24	7951450.39	0.0492	0.0053
Earth	17058-11-15 12:57 G	7951684.84	7951685.04	7951685.24	0.0486	0.0261

Moon	17058-11-15 13:40 G	7951684.86	7951685.07	7951685.29	0.0486	0.0233 *
Earth	17059-12-15 06:57 G	7952079.67	7952079.79	7952079.91	0.0484	0.0411
Moon	17059-12-15 09:21 G	7952079.75	7952079.89	7952080.03	0.0484	0.0382 *
Mercury	17064-05-27 00:28 G	7953704.38	7953704.52	7953704.65	0.0536	0.0249
Mercury	17064-08-24 19:26 G	7953794.26	7953794.31	7953794.38	0.0539	0.0491
Moon	17065-06-01 23:45 G	7954075.25	7954075.49	7954075.73	0.0544	0.0071
Earth	17065-06-02 00:43 G	7954075.30	7954075.53	7954075.76	0.0544	0.0088 *
Venus	17069-07-22 19:40 G	7955587.11	7955587.32	7955587.52	0.0498	0.0052
Mercury	17070-01-11 20:09 G	7955760.21	7955760.34	7955760.48	0.0492	0.0194
Mercury	17070-04-11 09:21 G	7955849.79	7955849.89	7955849.98	0.0490	0.0379
Moon	17070-11-19 14:52 G	7956071.91	7956072.12	7956072.33	0.0486	0.0164
Earth	17070-11-19 17:02 G	7956071.99	7956072.21	7956072.43	0.0486	0.0164 *
Venus	17076-01-10 23:02 G	7957950.34	7957950.46	7957950.58	0.0533	0.0422
Mercury	17076-03-15 01:12 G	7958014.46	7958014.55	7958014.64	0.0535	0.0429
Mercury	17076-06-12 20:52 G	7958104.25	7958104.37	7958104.49	0.0538	0.0316
Moon	17077-06-07 08:09 G	7958463.64	7958463.84	7958464.05	0.0544	0.0208
Earth	17077-06-07 10:19 G	7958463.72	7958463.93	7958464.15	0.0544	0.0228 *
Venus	17081-03-27 18:43 G	7959853.26	7959853.28	7959853.31	0.0500	0.0495
Mercury	17081-10-30 22:04 G	7960070.32	7960070.42	7960070.53	0.0493	0.0342
Mercury	17082-01-28 10:48 G	7960159.82	7960159.95	7960160.09	0.0491	0.0227
Earth	17082-11-23 18:57 G	7960459.06	7960459.29	7960459.52	0.0485	0.0072
Moon	17082-11-23 22:04 G	7960459.19	7960459.42	7960459.66	0.0485	0.0102 *
Venus	17087-09-15 12:43 G	7962215.83	7962216.03	7962216.23	0.0530	0.0113
Mercury	17088-03-31 21:36 G	7962414.26	7962414.40	7962414.55	0.0537	0.0129
Earth	17089-06-12 18:00 G	7962852.08	7962852.25	7962852.42	0.0544	0.0364
Moon	17089-06-12 21:50 G	7962852.25	7962852.41	7962852.58	0.0544	0.0394 *
Mercury	17093-08-19 00:43 G	7964380.51	7964380.53	7964380.57	0.0494	0.0481
Mercury	17093-11-16 13:12 G	7964469.90	7964470.05	7964470.20	0.0491	0.0083
Moon	17094-11-27 19:12 G	7964846.07	7964846.30	7964846.53	0.0485	0.0006
Earth	17094-11-27 22:48 G	7964846.22	7964846.45	7964846.68	0.0485	0.0024 *

Mars	17097-08-19 09:21 G	7965841.65	7965841.89	7965842.14	0.0500	0.0247
Mercury	17100-01-18 21:07 G	7966724.24	7966724.38	7966724.53	0.0536	0.0076
Earth	17100-05-11 06:00 G	7966836.67	7966836.75	7966836.85	0.0540	0.0493
Moon	17100-05-11 08:52 G	7966836.79	7966836.87	7966836.95	0.0540	0.0505 *
Moon	17101-06-18 18:57 G	7967240.23	7967240.29	7967240.36	0.0544	0.0522
Earth	17101-06-18 23:02 G	7967240.37	7967240.46	7967240.56	0.0544	0.0497
Venus	17105-03-31 04:33 G	7968621.50	7968621.69	7968621.88	0.0497	0.0190
Mercury	17105-09-05 15:50 G	7968780.01	7968780.16	7968780.31	0.0492	0.0054
Earth	17106-12-03 03:21 G	7969233.41	7969233.64	7969233.87	0.0484	0.0119
Moon	17106-12-03 06:57 G	7969233.57	7969233.79	7969234.01	0.0484	0.0141 *
Mercury	17111-11-07 21:50 G	7971034.28	7971034.41	7971034.54	0.0536	0.0261
Mercury	17112-02-05 17:02 G	7971124.15	7971124.21	7971124.28	0.0539	0.0478
Moon	17112-05-16 11:02 G	7971224.81	7971224.96	7971225.13	0.0541	0.0389
Earth	17112-05-16 15:07 G	7971224.96	7971225.13	7971225.30	0.0541	0.0358 *
Venus	17116-12-04 06:28 G	7972887.59	7972887.77	7972887.95	0.0499	0.0235
Mercury	17117-06-24 18:28 G	7973090.13	7973090.27	7973090.41	0.0492	0.0193
Mercury	17117-09-22 07:26 G	7973179.71	7973179.81	7973179.91	0.0490	0.0380
Earth	17117-11-07 09:50 G	7973225.84	7973225.91	7973225.99	0.0489	0.0460
Moon	17117-11-07 10:48 G	7973225.93	7973225.95	7973225.98	0.0489	0.0485 *
Moon	17118-12-07 03:07 G	7973620.42	7973620.63	7973620.84	0.0484	0.0233
Earth	17118-12-07 06:14 G	7973620.55	7973620.76	7973620.97	0.0484	0.0212 *
Venus	17123-05-25 02:52 G	7975250.43	7975250.62	7975250.82	0.0532	0.0180
Mercury	17123-08-26 22:33 G	7975344.36	7975344.44	7975344.53	0.0535	0.0442
Mercury	17123-11-24 18:28 G	7975434.15	7975434.27	7975434.39	0.0538	0.0305
Earth	17124-05-22 02:38 G	7975613.40	7975613.61	7975613.83	0.0543	0.0220
Moon	17124-05-22 06:14 G	7975613.55	7975613.76	7975613.98	0.0543	0.0201 *
Mercury	17129-04-12 21:07 G	7977400.27	7977400.38	7977400.49	0.0493	0.0332
Mercury	17129-07-11 09:36 G	7977489.77	7977489.90	7977490.04	0.0491	0.0236
Earth	17129-11-11 14:38 G	7977612.97	7977613.11	7977613.27	0.0488	0.0367
Moon	17129-11-11 15:50 G	7977612.99	7977613.16	7977613.33	0.0488	0.0352 *

Earth	17130-12-11 10:04 G	7978007.74	7978007.92	7978008.10	0.0484	0.0305
Moon	17130-12-11 12:14 G	7978007.83	7978008.01	7978008.19	0.0484	0.0291 *
Venus	17135-01-27 18:57 G	7979516.14	7979516.29	7979516.45	0.0529	0.0337
Mercury	17135-09-12 19:55 G	7979744.18	7979744.33	7979744.47	0.0537	0.0131
Moon	17136-05-27 11:45 G	7980001.75	7980001.99	7980002.23	0.0543	0.0052
Earth	17136-05-27 13:40 G	7980001.84	7980002.07	7980002.30	0.0543	0.0079 *
Venus	17140-12-06 13:12 G	7981655.95	7981656.05	7981656.15	0.0496	0.0430
Mercury	17141-01-29 23:02 G	7981710.43	7981710.46	7981710.50	0.0494	0.0478
Mercury	17141-04-29 11:16 G	7981799.83	7981799.97	7981800.12	0.0491	0.0086
Moon	17141-11-15 14:52 G	7981999.92	7982000.12	7982000.31	0.0487	0.0248
Earth	17141-11-15 17:02 G	7982000.02	7982000.21	7982000.40	0.0487	0.0276 *
Moon	17142-12-15 11:16 G	7982394.82	7982394.97	7982395.13	0.0484	0.0365
Earth	17142-12-15 12:28 G	7982394.89	7982395.02	7982395.16	0.0484	0.0395 *
Mercury	17147-07-01 20:24 G	7984054.20	7984054.35	7984054.50	0.0536	0.0057
Moon	17148-06-01 20:52 G	7984390.14	7984390.37	7984390.59	0.0543	0.0040
Earth	17148-06-01 21:50 G	7984390.17	7984390.41	7984390.64	0.0543	0.0062 *
Venus	17152-08-11 15:07 G	7985921.93	7985922.13	7985922.33	0.0498	0.0005
Mercury	17153-02-15 13:40 G	7986109.92	7986110.07	7986110.22	0.0492	0.0059
Earth	17153-11-19 21:21 G	7986387.18	7986387.39	7986387.61	0.0486	0.0180
Moon	17153-11-20 00:43 G	7986387.32	7986387.53	7986387.76	0.0486	0.0182 *
Earth	17154-12-19 16:33 G	7986782.19	7986782.19	7986782.20	0.0484	0.0484
Venus	17159-01-30 17:45 G	7988285.16	7988285.24	7988285.33	0.0532	0.0477
Mercury	17159-04-19 19:55 G	7988364.19	7988364.33	7988364.46	0.0535	0.0264
Mercury	17159-07-18 15:07 G	7988454.06	7988454.13	7988454.20	0.0538	0.0475
Earth	17160-06-07 01:55 G	7988778.36	7988778.58	7988778.80	0.0544	0.0197
Moon	17160-06-07 05:16 G	7988778.49	7988778.72	7988778.94	0.0544	0.0177 *
Mars	17162-05-22 13:12 G	7989492.80	7989493.05	7989493.31	0.0530	0.0174
Venus	17164-04-16 17:02 G	7990188.11	7990188.21	7990188.32	0.0501	0.0423
Mercury	17164-12-04 16:33 G	7990420.06	7990420.19	7990420.33	0.0493	0.0193
Mercury	17165-03-04 05:31 G	7990509.64	7990509.73	7990509.83	0.0490	0.0381

Moon	17165-11-23 23:16 G	7990774.24	7990774.47	7990774.69	0.0485	0.0113
Earth	17165-11-24 02:52 G	7990774.39	7990774.62	7990774.85	0.0485	0.0083 *
Venus	17170-10-05 07:55 G	7992550.62	7992550.83	7992551.03	0.0530	0.0057
Mercury	17171-02-05 20:09 G	7992674.26	7992674.34	7992674.42	0.0535	0.0452
Mercury	17171-05-06 16:04 G	7992764.05	7992764.17	7992764.29	0.0538	0.0295
Moon	17172-06-12 08:24 G	7993166.68	7993166.85	7993167.03	0.0545	0.0364
Earth	17172-06-12 12:28 G	7993166.84	7993167.02	7993167.21	0.0545	0.0338 *
Mercury	17176-09-22 19:12 G	7994730.20	7994730.30	7994730.42	0.0493	0.0330
Mercury	17176-12-21 07:55 G	7994819.70	7994819.83	7994819.96	0.0491	0.0238
Earth	17177-11-28 06:14 G	7995161.53	7995161.76	7995161.99	0.0484	0.0011
Moon	17177-11-28 09:50 G	7995161.68	7995161.91	7995162.14	0.0484	0.0004 *
Mercury	17183-02-22 17:16 G	7997074.08	7997074.22	7997074.37	0.0537	0.0120
Moon	17183-05-11 03:21 G	7997151.61	7997151.64	7997151.69	0.0540	0.0530
Earth	17183-05-11 07:12 G	7997151.73	7997151.80	7997151.88	0.0540	0.0509
Earth	17184-06-18 00:57 G	7997555.43	7997555.54	7997555.66	0.0545	0.0476
Moon	17184-06-18 04:19 G	7997555.59	7997555.68	7997555.77	0.0545	0.0497 *
Venus	17188-04-19 02:52 G	7998956.45	7998956.62	7998956.80	0.0496	0.0263
Mercury	17188-07-11 22:04 G	7999040.38	7999040.42	7999040.47	0.0494	0.0467
Mercury	17188-10-09 10:19 G	7999129.78	7999129.93	7999130.08	0.0491	0.0096
Moon	17189-12-02 07:12 G	7999548.57	7999548.80	7999549.03	0.0484	0.0131
Earth	17189-12-02 10:04 G	7999548.69	7999548.92	7999549.15	0.0484	0.0106 *
Mercury	17194-12-11 18:43 G	8001384.13	8001384.28	8001384.43	0.0536	0.0057
Earth	17195-05-16 18:00 G	8001540.09	8001540.25	8001540.42	0.0541	0.0376
Moon	17195-05-16 22:04 G	8001540.27	8001540.42	8001540.57	0.0541	0.0404 *
Venus	17199-12-24 02:52 G	8003222.43	8003222.62	8003222.82	0.0499	0.0174
Mercury	17200-07-28 12:14 G	8003439.86	8003440.01	8003440.16	0.0492	0.0053
Earth	17200-11-06 14:24 G	8003541.05	8003541.10	8003541.16	0.0489	0.0473
Moon	17200-11-06 15:21 G	8003541.14	8003541.14	8003541.15	0.0489	0.0489 *
Earth	17201-12-06 12:00 G	8003935.80	8003936.00	8003936.22	0.0484	0.0197
Moon	17201-12-06 14:09 G	8003935.89	8003936.09	8003936.29	0.0484	0.0216 *

Venus	17206-06-13 02:52 G	8005585.45	8005585.62	8005585.80	0.0532	0.0268
Mercury	17206-09-29 19:12 G	8005694.16	8005694.30	8005694.43	0.0535	0.0244
Mercury	17206-12-28 14:24 G	8005784.05	8005784.10	8005784.16	0.0538	0.0494
Moon	17207-05-21 23:16 G	8005928.25	8005928.47	8005928.69	0.0542	0.0223
Earth	17207-05-22 02:09 G	8005928.39	8005928.59	8005928.80	0.0542	0.0240 *
Mercury	17212-05-16 14:38 G	8007749.98	8007750.11	8007750.25	0.0493	0.0194
Mercury	17212-08-14 03:36 G	8007839.56	8007839.65	8007839.75	0.0490	0.0380
Moon	17212-11-10 17:16 G	8007928.07	8007928.22	8007928.37	0.0488	0.0361
Earth	17212-11-10 19:40 G	8007928.18	8007928.32	8007928.47	0.0488	0.0380 *
Moon	17213-12-10 15:21 G	8008322.94	8008323.14	8008323.34	0.0484	0.0273
Earth	17213-12-10 16:19 G	8008323.00	8008323.18	8008323.37	0.0484	0.0290 *
Mars	17216-02-08 08:09 G	8009112.62	8009112.84	8009113.05	0.0498	0.0321
Venus	17218-02-15 14:24 G	8009850.93	8009851.10	8009851.28	0.0529	0.0278
Mercury	17218-07-18 18:28 G	8010004.19	8010004.27	8010004.35	0.0534	0.0452
Mercury	17218-10-16 14:09 G	8010093.97	8010094.09	8010094.22	0.0537	0.0295
Earth	17219-05-27 05:31 G	8010316.50	8010316.73	8010316.96	0.0543	0.0108
Moon	17219-05-27 06:00 G	8010316.53	8010316.75	8010316.97	0.0543	0.0085 *
Mercury	17224-03-04 17:31 G	8012060.13	8012060.23	8012060.35	0.0494	0.0329
Mercury	17224-06-02 06:14 G	8012149.63	8012149.76	8012149.89	0.0491	0.0241
Earth	17224-11-15 01:55 G	8012315.39	8012315.58	8012315.77	0.0487	0.0284
Moon	17224-11-15 05:16 G	8012315.53	8012315.72	8012315.93	0.0487	0.0256 *
Moon	17225-12-14 20:24 G	8012710.21	8012710.35	8012710.51	0.0484	0.0359
Earth	17225-12-14 20:52 G	8012710.24	8012710.37	8012710.52	0.0484	0.0383 *
Mercury	17230-08-04 15:07 G	8014403.98	8014404.13	8014404.28	0.0537	0.0111
Earth	17231-06-01 15:21 G	8014704.91	8014705.14	8014705.38	0.0544	0.0036
Moon	17231-06-01 18:00 G	8014705.00	8014705.25	8014705.49	0.0544	0.0011 *
Venus	17235-08-31 14:38 G	8016256.91	8016257.11	8016257.32	0.0498	0.0086
Mercury	17235-12-22 20:38 G	8016370.31	8016370.36	8016370.40	0.0494	0.0463
Mercury	17236-03-21 08:38 G	8016459.72	8016459.86	8016460.01	0.0491	0.0101
Moon	17236-11-19 02:38 G	8016702.40	8016702.61	8016702.82	0.0486	0.0194

Earth	17236-11-19 06:28 G	8016702.55	8016702.77	8016702.98	0.0486	0.0190 *
Earth	17237-12-19 00:00 G	8017097.46	8017097.50	8017097.56	0.0484	0.0470
Moon	17237-12-19 02:24 G	8017097.58	8017097.60	8017097.63	0.0484	0.0480
Mercury	17242-05-23 16:04 G	8018714.03	8018714.17	8018714.32	0.0536	0.0069
Moon	17243-06-07 00:14 G	8019093.29	8019093.51	8019093.73	0.0545	0.0155
Earth	17243-06-07 04:04 G	8019093.45	8019093.67	8019093.90	0.0545	0.0177 *
Venus	17247-05-06 16:33 G	8020523.04	8020523.19	8020523.34	0.0500	0.0344
Mercury	17248-01-08 11:16 G	8020769.82	8020769.97	8020770.12	0.0492	0.0040
Earth	17248-11-23 10:33 G	8021089.71	8021089.94	8021090.17	0.0485	0.0094
Moon	17248-11-23 14:09 G	8021089.87	8021090.09	8021090.32	0.0485	0.0123 *
Mars	17251-11-14 05:02 G	8022175.64	8022175.71	8022175.79	0.0500	0.0482
Venus	17253-10-24 09:07 G	8022885.68	8022885.88	8022886.09	0.0531	0.0043
Mercury	17254-03-11 17:16 G	8023024.09	8023024.22	8023024.36	0.0536	0.0243
Mercury	17254-06-09 12:43 G	8023113.98	8023114.03	8023114.09	0.0538	0.0497
Earth	17255-06-12 16:04 G	8023481.99	8023482.17	8023482.37	0.0544	0.0317
Moon	17255-06-12 19:55 G	8023482.16	8023482.33	8023482.51	0.0544	0.0346 *
Mercury	17259-10-27 13:26 G	8025079.92	8025080.06	8025080.19	0.0493	0.0188
Mercury	17260-01-25 02:09 G	8025169.50	8025169.59	8025169.69	0.0490	0.0385
Moon	17260-11-27 10:04 G	8025476.68	8025476.92	8025477.16	0.0485	0.0008
Earth	17260-11-27 12:57 G	8025476.81	8025477.04	8025477.27	0.0485	0.0004 *
Venus	17265-06-29 00:14 G	8027151.43	8027151.51	8027151.60	0.0528	0.0480
Mercury	17265-12-28 18:00 G	8027334.16	8027334.25	8027334.34	0.0535	0.0430
Mercury	17266-03-28 13:40 G	8027423.95	8027424.07	8027424.19	0.0538	0.0317
Earth	17266-05-10 09:07 G	8027466.83	8027466.88	8027466.94	0.0539	0.0523
Moon	17267-06-17 23:02 G	8027870.34	8027870.46	8027870.59	0.0544	0.0465
Earth	17267-06-18 00:57 G	8027870.42	8027870.54	8027870.68	0.0544	0.0453 *
Venus	17271-05-08 23:45 G	8029291.35	8029291.49	8029291.65	0.0496	0.0328
Mercury	17271-08-15 15:50 G	8029390.06	8029390.16	8029390.28	0.0493	0.0327
Mercury	17271-11-13 04:33 G	8029479.56	8029479.69	8029479.82	0.0491	0.0242
Earth	17272-12-01 17:16 G	8029863.99	8029864.22	8029864.45	0.0484	0.0093

Moon	17272-12-01 18:57 G	8029864.07	8029864.29	8029864.51	0.0484	0.0122 *
Mercury	17278-01-14 13:26 G	8031733.91	8031734.06	8031734.21	0.0537	0.0115
Moon	17278-05-15 07:40 G	8031854.69	8031854.82	8031854.97	0.0540	0.0431
Earth	17278-05-15 11:45 G	8031854.83	8031854.99	8031855.14	0.0540	0.0400 *
Venus	17283-01-12 02:09 G	8033557.40	8033557.59	8033557.80	0.0499	0.0097
Mercury	17283-06-03 18:57 G	8033700.24	8033700.29	8033700.34	0.0494	0.0460
Mercury	17283-09-01 07:12 G	8033789.65	8033789.80	8033789.95	0.0492	0.0104
Earth	17283-11-07 00:00 G	8033856.46	8033856.50	8033856.55	0.0490	0.0480
Moon	17284-12-05 21:36 G	8034251.18	8034251.40	8034251.62	0.0484	0.0202
Earth	17284-12-05 22:19 G	8034251.22	8034251.43	8034251.65	0.0484	0.0187 *
Venus	17289-07-01 23:02 G	8035920.30	8035920.46	8035920.62	0.0531	0.0332
Mercury	17289-11-02 14:09 G	8036043.94	8036044.09	8036044.24	0.0536	0.0071
Earth	17290-05-20 20:09 G	8036243.14	8036243.34	8036243.54	0.0542	0.0265
Moon	17290-05-20 21:50 G	8036243.21	8036243.41	8036243.61	0.0542	0.0247 *
Mercury	17295-06-20 09:50 G	8038099.76	8038099.91	8038100.06	0.0492	0.0036
Earth	17295-11-11 05:31 G	8038243.60	8038243.73	8038243.88	0.0488	0.0389
Moon	17295-11-11 09:21 G	8038243.74	8038243.89	8038244.05	0.0488	0.0363 *
Moon	17296-12-10 00:43 G	8038638.35	8038638.53	8038638.72	0.0484	0.0259
Earth	17296-12-10 01:26 G	8038638.37	8038638.56	8038638.75	0.0484	0.0278 *
Venus	17301-03-07 14:09 G	8040185.91	8040186.09	8040186.28	0.0529	0.0192
Mercury	17301-08-22 15:07 G	8040353.99	8040354.13	8040354.26	0.0536	0.0251
Mercury	17301-11-20 10:19 G	8040443.88	8040443.93	8040444.00	0.0539	0.0490
Earth	17302-05-27 07:55 G	8040631.61	8040631.83	8040632.06	0.0543	0.0126
Moon	17302-05-27 09:21 G	8040631.66	8040631.89	8040632.13	0.0543	0.0109 *
Mercury	17307-04-09 12:28 G	8042409.88	8042410.02	8042410.16	0.0493	0.0173
Mercury	17307-07-08 01:12 G	8042499.47	8042499.55	8042499.64	0.0490	0.0400
Moon	17307-11-16 07:12 G	8042630.61	8042630.80	8042631.00	0.0487	0.0267
Earth	17307-11-16 11:02 G	8042630.78	8042630.96	8042631.15	0.0487	0.0293 *
Earth	17308-12-15 05:31 G	8043025.58	8043025.73	8043025.88	0.0484	0.0369
Moon	17308-12-15 07:55 G	8043025.67	8043025.83	8043026.00	0.0484	0.0350 *

Mercury	17313-06-10 16:04 G	8044664.08	8044664.17	8044664.26	0.0535	0.0428
Mercury	17313-09-08 12:00 G	8044753.89	8044754.00	8044754.12	0.0538	0.0320
Moon	17314-06-01 17:16 G	8045020.00	8045020.22	8045020.45	0.0544	0.0016
Earth	17314-06-01 20:52 G	8045020.13	8045020.37	8045020.60	0.0544	0.0018 *
Mars	17316-08-16 20:09 G	8045827.08	8045827.34	8045827.60	0.0529	0.0104
Venus	17318-09-20 12:57 G	8046591.85	8046592.04	8046592.24	0.0497	0.0156
Mercury	17319-01-26 14:38 G	8046720.00	8046720.11	8046720.23	0.0493	0.0318
Mercury	17319-04-26 03:07 G	8046809.50	8046809.63	8046809.77	0.0491	0.0251
Earth	17319-11-20 13:55 G	8047017.87	8047018.08	8047018.29	0.0486	0.0200
Moon	17319-11-20 17:16 G	8047018.02	8047018.22	8047018.43	0.0486	0.0211 *
Moon	17320-12-19 04:48 G	8047412.67	8047412.70	8047412.75	0.0484	0.0475
Earth	17320-12-19 08:38 G	8047412.78	8047412.86	8047412.93	0.0484	0.0457
Mercury	17325-06-27 12:57 G	8049063.90	8049064.04	8049064.19	0.0537	0.0140
Earth	17326-06-07 06:28 G	8049408.55	8049408.77	8049409.00	0.0544	0.0158
Moon	17326-06-07 10:33 G	8049408.72	8049408.94	8049409.17	0.0544	0.0139 *
Venus	17330-05-26 14:24 G	8050857.93	8050858.10	8050858.27	0.0500	0.0276
Mercury	17330-11-14 17:31 G	8051030.17	8051030.23	8051030.28	0.0494	0.0455
Mercury	17331-02-12 05:45 G	8051119.59	8051119.74	8051119.88	0.0492	0.0109
Moon	17331-11-24 15:50 G	8051404.94	8051405.16	8051405.40	0.0486	0.0133
Earth	17331-11-24 18:43 G	8051405.05	8051405.28	8051405.51	0.0486	0.0105 *
Venus	17336-11-13 06:28 G	8053220.57	8053220.77	8053220.97	0.0530	0.0114
Mercury	17337-04-15 12:43 G	8053373.88	8053374.03	8053374.18	0.0536	0.0063
Moon	17338-06-12 06:57 G	8053796.61	8053796.79	8053796.99	0.0544	0.0317
Earth	17338-06-12 10:19 G	8053796.73	8053796.93	8053797.13	0.0544	0.0290 *
Mercury	17342-12-01 08:24 G	8055429.70	8055429.85	8055430.00	0.0492	0.0029
Earth	17343-11-29 00:14 G	8055792.27	8055792.51	8055792.74	0.0485	0.0013
Moon	17343-11-29 01:26 G	8055792.34	8055792.56	8055792.79	0.0485	0.0011 *
Venus	17348-07-18 21:21 G	8057486.26	8057486.39	8057486.52	0.0527	0.0411
Mercury	17349-02-01 13:12 G	8057683.92	8057684.05	8057684.19	0.0535	0.0251
Mercury	17349-05-02 08:38 G	8057773.80	8057773.86	8057773.92	0.0538	0.0488

Earth	17350-06-17 20:09 G	8058185.20	8058185.34	8058185.49	0.0545	0.0427
Moon	17350-06-17 20:38 G	8058185.24	8058185.36	8058185.50	0.0545	0.0437 *
Venus	17354-05-29 00:28 G	8059626.41	8059626.52	8059626.63	0.0496	0.0413
Mercury	17354-09-19 11:02 G	8059739.82	8059739.96	8059740.10	0.0493	0.0166
Mercury	17354-12-18 00:00 G	8059829.42	8059829.50	8059829.58	0.0490	0.0408
Moon	17355-12-03 03:21 G	8060179.41	8060179.64	8060179.88	0.0484	0.0112
Earth	17355-12-03 03:50 G	8060179.43	8060179.66	8060179.89	0.0484	0.0082 *
Mercury	17360-11-20 13:55 G	8061993.99	8061994.08	8061994.17	0.0535	0.0434
Mercury	17361-02-18 09:50 G	8062083.79	8062083.91	8062084.03	0.0538	0.0314
Earth	17361-05-15 14:24 G	8062169.95	8062170.10	8062170.25	0.0540	0.0415
Moon	17361-05-15 16:48 G	8062170.08	8062170.20	8062170.34	0.0540	0.0441 *
Moon	17362-06-23 11:02 G	8062573.90	8062573.96	8062574.02	0.0545	0.0525
Venus	17366-02-01 03:07 G	8063892.42	8063892.63	8063892.83	0.0499	0.0015
Mercury	17366-07-08 13:55 G	8064049.96	8064050.08	8064050.20	0.0493	0.0302
Mercury	17366-10-06 02:24 G	8064139.47	8064139.60	8064139.73	0.0491	0.0266
Earth	17366-11-07 10:04 G	8064171.91	8064171.92	8064171.95	0.0490	0.0487
Moon	17367-12-07 06:57 G	8064566.59	8064566.79	8064567.00	0.0484	0.0187
Earth	17367-12-07 07:55 G	8064566.62	8064566.83	8064567.05	0.0484	0.0176 *
Mars	17370-05-05 10:19 G	8065446.65	8065446.93	8065447.21	0.0498	0.0065
Venus	17372-07-22 01:26 G	8066255.45	8066255.56	8066255.68	0.0532	0.0436
Mercury	17372-12-07 11:31 G	8066393.83	8066393.98	8066394.12	0.0537	0.0143
Earth	17373-05-21 02:38 G	8066558.41	8066558.61	8066558.81	0.0542	0.0279
Moon	17373-05-21 03:07 G	8066558.41	8066558.63	8066558.85	0.0542	0.0252 *
Venus	17377-10-07 03:07 G	8068158.55	8068158.63	8068158.73	0.0501	0.0450
Mercury	17378-04-26 16:19 G	8068360.12	8068360.18	8068360.24	0.0494	0.0444
Mercury	17378-07-25 04:33 G	8068449.54	8068449.69	8068449.83	0.0491	0.0120
Moon	17378-11-11 10:19 G	8068558.79	8068558.93	8068559.08	0.0489	0.0373
Earth	17378-11-11 14:24 G	8068558.96	8068559.10	8068559.23	0.0489	0.0396 *
Earth	17379-12-11 10:33 G	8068953.75	8068953.94	8068954.13	0.0484	0.0268
Moon	17379-12-11 13:12 G	8068953.84	8068954.05	8068954.26	0.0484	0.0242 *

Venus	17384-03-26 16:48 G	8070521.00	8070521.20	8070521.40	0.0529	0.0090
Mercury	17384-09-25 12:28 G	8070703.87	8070704.02	8070704.17	0.0536	0.0041
Moon	17385-05-26 09:50 G	8070946.69	8070946.91	8070947.14	0.0542	0.0126
Earth	17385-05-26 12:43 G	8070946.81	8070947.03	8070947.26	0.0542	0.0140 *
Mercury	17390-05-13 06:57 G	8072759.64	8072759.79	8072759.94	0.0492	0.0022
Earth	17390-11-15 19:40 G	8072946.14	8072946.32	8072946.50	0.0488	0.0302
Moon	17390-11-15 23:02 G	8072946.28	8072946.46	8072946.65	0.0488	0.0281 *
Moon	17391-12-15 11:45 G	8073340.83	8073340.99	8073341.15	0.0484	0.0344
Earth	17391-12-15 15:21 G	8073340.99	8073341.14	8073341.30	0.0484	0.0360 *
Mercury	17396-07-14 12:00 G	8075013.86	8075014.00	8075014.13	0.0535	0.0240
Mercury	17396-10-12 07:12 G	8075103.75	8075103.80	8075103.86	0.0538	0.0498
Earth	17397-05-31 16:19 G	8075334.94	8075335.18	8075335.41	0.0543	0.0010
Moon	17397-05-31 20:09 G	8075335.11	8075335.34	8075335.58	0.0543	0.0040 *
Venus	17401-10-10 12:57 G	8076926.86	8076927.04	8076927.22	0.0498	0.0238
Mercury	17402-03-02 09:36 G	8077069.76	8077069.90	8077070.05	0.0493	0.0160
Mercury	17402-05-30 22:33 G	8077159.37	8077159.44	8077159.52	0.0491	0.0416
Moon	17402-11-20 23:16 G	8077333.26	8077333.47	8077333.68	0.0487	0.0225
Earth	17402-11-21 01:40 G	8077333.36	8077333.57	8077333.78	0.0487	0.0208 *
Earth	17403-12-20 20:24 G	8077728.27	8077728.35	8077728.44	0.0484	0.0449
Moon	17403-12-21 00:28 G	8077728.48	8077728.52	8077728.57	0.0484	0.0471
Mercury	17408-05-03 12:14 G	8079323.92	8079324.01	8079324.10	0.0534	0.0430
Mercury	17408-08-01 08:09 G	8079413.72	8079413.84	8079413.96	0.0537	0.0316
Moon	17409-06-06 22:19 G	8079723.20	8079723.43	8079723.66	0.0544	0.0113
Earth	17409-06-07 01:55 G	8079723.36	8079723.58	8079723.81	0.0544	0.0132 *
Venus	17413-06-15 15:07 G	8081192.94	8081193.13	8081193.32	0.0500	0.0188
Mercury	17413-12-19 12:28 G	8081379.90	8081380.02	8081380.14	0.0494	0.0295
Mercury	17414-03-19 00:57 G	8081469.42	8081469.54	8081469.67	0.0491	0.0275
Earth	17414-11-25 06:14 G	8081720.53	8081720.76	8081720.99	0.0486	0.0114
Moon	17414-11-25 07:12 G	8081720.59	8081720.80	8081721.02	0.0486	0.0140 *
Venus	17419-12-04 06:57 G	8083555.61	8083555.79	8083555.98	0.0531	0.0206

Mercury	17420-05-20 09:21 G	8083723.74	8083723.89	8083724.03	0.0537	0.0138
Earth	17421-06-12 14:24 G	8084111.90	8084112.10	8084112.30	0.0545	0.0271
Moon	17421-06-12 15:50 G	8084111.97	8084112.16	8084112.34	0.0545	0.0303 *
Mercury	17425-10-07 15:21 G	8085690.08	8085690.14	8085690.22	0.0494	0.0429
Mercury	17426-01-05 03:36 G	8085779.51	8085779.65	8085779.80	0.0491	0.0136
Moon	17426-11-29 10:48 G	8086107.71	8086107.95	8086108.20	0.0485	0.0015
Earth	17426-11-29 10:48 G	8086107.72	8086107.95	8086108.19	0.0485	0.0021 *
Venus	17431-08-08 23:45 G	8087821.32	8087821.49	8087821.65	0.0528	0.0310
Mercury	17432-03-08 10:48 G	8088033.80	8088033.95	8088034.10	0.0536	0.0037
Earth	17433-06-18 03:50 G	8088500.51	8088500.66	8088500.81	0.0545	0.0411
Moon	17433-06-18 04:48 G	8088500.55	8088500.70	8088500.86	0.0545	0.0413 *
Mars	17435-02-06 08:09 G	8089098.78	8089098.84	8089098.91	0.0532	0.0511
Venus	17437-06-18 00:00 G	8089961.48	8089961.50	8089961.53	0.0496	0.0491
Mercury	17437-10-24 06:00 G	8090089.60	8090089.75	8090089.90	0.0492	0.0016
Moon	17438-12-03 12:14 G	8090494.80	8090495.01	8090495.24	0.0484	0.0102
Earth	17438-12-03 13:40 G	8090494.84	8090495.07	8090495.30	0.0484	0.0073 *
Mercury	17443-12-26 11:31 G	8092343.85	8092343.98	8092344.12	0.0535	0.0217
Mercury	17444-03-25 06:57 G	8092433.76	8092433.79	8092433.83	0.0538	0.0523
Moon	17444-05-15 20:09 G	8092485.21	8092485.34	8092485.48	0.0540	0.0442
Earth	17444-05-15 20:52 G	8092485.23	8092485.37	8092485.52	0.0540	0.0426 *
Moon	17445-06-23 11:02 G	8092888.89	8092888.96	8092889.04	0.0545	0.0510
Earth	17445-06-23 13:55 G	8092889.08	8092889.08	8092889.09	0.0545	0.0544
Venus	17449-02-21 02:09 G	8094227.39	8094227.59	8094227.80	0.0498	0.0068
Mercury	17449-08-12 08:38 G	8094399.71	8094399.86	8094400.00	0.0493	0.0150
Mercury	17449-11-09 21:21 G	8094489.32	8094489.39	8094489.47	0.0490	0.0425
Earth	17450-12-07 18:14 G	8094882.05	8094882.26	8094882.49	0.0484	0.0168
Moon	17450-12-07 21:07 G	8094882.16	8094882.38	8094882.61	0.0484	0.0167 *
Venus	17455-08-12 00:43 G	8096590.50	8096590.53	8096590.57	0.0532	0.0520
Mercury	17455-10-14 11:16 G	8096653.87	8096653.97	8096654.06	0.0534	0.0417
Mercury	17456-01-12 07:12 G	8096743.68	8096743.80	8096743.91	0.0537	0.0328

Moon	17456-05-20 22:33 G	8096873.24	8096873.44	8096873.63	0.0541	0.0272
Earth	17456-05-21 00:28 G	8096873.32	8096873.52	8096873.71	0.0541	0.0301 *
Venus	17460-10-27 02:52 G	8098493.49	8098493.62	8098493.76	0.0501	0.0369
Mercury	17461-05-31 11:16 G	8098709.85	8098709.97	8098710.09	0.0494	0.0287
Mercury	17461-08-28 23:45 G	8098799.37	8098799.49	8098799.62	0.0491	0.0284
Earth	17461-11-12 01:26 G	8098874.44	8098874.56	8098874.70	0.0490	0.0405
Moon	17461-11-12 04:48 G	8098874.57	8098874.70	8098874.85	0.0489	0.0379 *
Moon	17462-12-11 19:40 G	8099269.12	8099269.32	8099269.53	0.0484	0.0230
Earth	17462-12-11 23:16 G	8099269.28	8099269.47	8099269.67	0.0484	0.0260 *
Venus	17467-04-16 15:07 G	8100855.93	8100856.13	8100856.33	0.0529	0.0011
Mercury	17467-10-31 07:55 G	8101053.68	8101053.83	8101053.97	0.0536	0.0144
Earth	17468-05-26 08:52 G	8101261.65	8101261.87	8101262.09	0.0542	0.0165
Moon	17468-05-26 12:28 G	8101261.79	8101262.02	8101262.25	0.0542	0.0149 *
Mars	17470-11-11 20:09 G	8102161.15	8102161.34	8102161.53	0.0530	0.0369
Mercury	17473-03-19 14:09 G	8103020.02	8103020.09	8103020.17	0.0494	0.0422
Mercury	17473-06-17 02:24 G	8103109.45	8103109.60	8103109.74	0.0492	0.0144
Moon	17473-11-16 05:02 G	8103261.53	8103261.71	8103261.90	0.0488	0.0297
Earth	17473-11-16 07:26 G	8103261.63	8103261.81	8103261.99	0.0488	0.0311 *
Earth	17474-12-16 02:52 G	8103656.46	8103656.62	8103656.78	0.0484	0.0348
Moon	17474-12-16 06:43 G	8103656.62	8103656.78	8103656.95	0.0484	0.0337 *
Mercury	17479-08-19 08:38 G	8105363.71	8105363.86	8105364.01	0.0536	0.0039
Moon	17480-05-31 16:04 G	8105649.94	8105650.17	8105650.40	0.0543	0.0057
Earth	17480-05-31 19:55 G	8105650.10	8105650.33	8105650.57	0.0543	0.0027 *
Venus	17484-10-29 14:09 G	8107261.94	8107262.09	8107262.24	0.0497	0.0327
Mercury	17485-04-05 05:02 G	8107419.56	8107419.71	8107419.86	0.0492	0.0008
Earth	17485-11-20 12:57 G	8107648.83	8107649.04	8107649.25	0.0487	0.0216
Moon	17485-11-20 13:40 G	8107648.88	8107649.07	8107649.27	0.0487	0.0241 *
Moon	17486-12-20 03:21 G	8108043.57	8108043.64	8108043.71	0.0484	0.0458
Earth	17486-12-20 06:57 G	8108043.70	8108043.79	8108043.90	0.0484	0.0437 *
Mercury	17491-06-07 09:50 G	8109673.78	8109673.91	8109674.05	0.0535	0.0214

Mercury	17491-09-05 05:31 G	8109763.70	8109763.73	8109763.75	0.0538	0.0527
Earth	17492-06-06 09:21 G	8110038.66	8110038.89	8110039.12	0.0544	0.0117
Moon	17492-06-06 11:45 G	8110038.77	8110038.99	8110039.21	0.0544	0.0111 *
Venus	17496-07-04 15:21 G	8111527.94	8111528.14	8111528.34	0.0499	0.0105
Mercury	17497-01-22 07:26 G	8111729.67	8111729.81	8111729.95	0.0493	0.0138
Mercury	17497-04-21 20:09 G	8111819.28	8111819.34	8111819.41	0.0490	0.0436
Earth	17497-11-24 16:19 G	8112035.95	8112036.18	8112036.41	0.0486	0.0122
Moon	17497-11-24 16:33 G	8112035.96	8112036.19	8112036.43	0.0486	0.0145 *
Venus	17502-12-24 10:33 G	8113890.78	8113890.94	8113891.11	0.0531	0.0314
Mercury	17503-03-27 10:48 G	8113983.85	8113983.95	8113984.05	0.0535	0.0394
Mercury	17503-06-25 06:43 G	8114073.67	8114073.78	8114073.89	0.0538	0.0353
Earth	17504-06-12 20:24 G	8114427.15	8114427.35	8114427.56	0.0544	0.0257
Moon	17504-06-12 20:38 G	8114427.16	8114427.36	8114427.57	0.0544	0.0290 *
Mercury	17508-11-11 10:04 G	8116039.80	8116039.92	8116040.05	0.0494	0.0276
Mercury	17509-02-08 22:48 G	8116129.32	8116129.45	8116129.57	0.0491	0.0294
Moon	17509-11-29 19:55 G	8116423.10	8116423.33	8116423.55	0.0485	0.0017
Earth	17509-11-29 21:21 G	8116423.16	8116423.39	8116423.62	0.0485	0.0028 *
Venus	17514-08-29 00:00 G	8118156.32	8118156.50	8118156.69	0.0528	0.0218
Mercury	17515-04-13 06:43 G	8118383.64	8118383.78	8118383.93	0.0536	0.0160
Moon	17516-06-17 23:02 G	8118815.30	8118815.46	8118815.61	0.0544	0.0390
Earth	17516-06-18 00:57 G	8118815.38	8118815.54	8118815.70	0.0544	0.0385 *
Mercury	17520-08-30 12:43 G	8120349.96	8120350.03	8120350.11	0.0495	0.0415
Mercury	17520-11-28 00:57 G	8120439.40	8120439.54	8120439.69	0.0492	0.0153
Earth	17521-12-04 02:09 G	8120810.36	8120810.59	8120810.82	0.0485	0.0065
Moon	17521-12-04 05:02 G	8120810.48	8120810.71	8120810.95	0.0485	0.0091 *
Mars	17524-07-31 22:33 G	8121781.20	8121781.44	8121781.70	0.0498	0.0231
Mercury	17527-01-30 07:26 G	8122693.66	8122693.81	8122693.96	0.0535	0.0029
Moon	17527-05-16 17:16 G	8122800.11	8122800.22	8122800.34	0.0539	0.0461
Earth	17527-05-16 18:14 G	8122800.14	8122800.26	8122800.39	0.0539	0.0448 *
Earth	17528-06-23 09:50 G	8123203.84	8123203.91	8123203.98	0.0545	0.0518

Moon	17528-06-23 13:26 G	8123203.96	8123204.06	8123204.17	0.0545	0.0483	*
Venus	17532-03-13 02:24 G	8124562.41	8124562.60	8124562.80	0.0499	0.0153	
Mercury	17532-09-16 03:36 G	8124749.50	8124749.65	8124749.80	0.0493	0.0017	
Moon	17533-12-08 02:09 G	8125197.38	8125197.59	8125197.82	0.0484	0.0148	
Earth	17533-12-08 06:00 G	8125197.53	8125197.75	8125197.97	0.0484	0.0156	*
Mercury	17538-11-18 07:55 G	8127003.69	8127003.83	8127003.97	0.0535	0.0214	
Mercury	17539-02-16 03:21 G	8127093.62	8127093.64	8127093.67	0.0538	0.0525	
Earth	17539-05-22 03:07 G	8127188.44	8127188.63	8127188.82	0.0541	0.0318	
Moon	17539-05-22 06:14 G	8127188.56	8127188.76	8127188.97	0.0541	0.0284	*
Venus	17543-11-17 04:33 G	8128828.52	8128828.69	8128828.86	0.0501	0.0277	
Mercury	17544-07-05 06:28 G	8129059.63	8129059.77	8129059.92	0.0493	0.0123	
Mercury	17544-10-02 19:26 G	8129149.25	8129149.31	8129149.37	0.0491	0.0451	
Moon	17544-11-12 11:02 G	8129189.81	8129189.96	8129190.11	0.0490	0.0383	
Earth	17544-11-12 12:57 G	8129189.92	8129190.04	8129190.17	0.0489	0.0412	*
Earth	17545-12-12 10:04 G	8129584.72	8129584.92	8129585.12	0.0484	0.0249	
Moon	17545-12-12 13:55 G	8129584.88	8129585.08	8129585.29	0.0484	0.0218	*
Venus	17550-05-06 17:16 G	8131191.02	8131191.22	8131191.42	0.0530	0.0090	
Mercury	17550-09-06 08:52 G	8131313.77	8131313.87	8131313.98	0.0535	0.0393	
Mercury	17550-12-05 05:02 G	8131403.60	8131403.71	8131403.82	0.0538	0.0355	
Moon	17551-05-27 11:31 G	8131576.77	8131576.98	8131577.21	0.0542	0.0167	
Earth	17551-05-27 15:36 G	8131576.93	8131577.15	8131577.37	0.0542	0.0180	*
Mercury	17556-04-23 09:07 G	8133369.75	8133369.88	8133370.00	0.0494	0.0265	
Mercury	17556-07-21 21:36 G	8133459.28	8133459.40	8133459.52	0.0491	0.0305	
Earth	17556-11-16 17:31 G	8133577.06	8133577.23	8133577.41	0.0488	0.0318	
Moon	17556-11-16 18:00 G	8133577.08	8133577.25	8133577.42	0.0488	0.0313	*
Moon	17557-12-16 09:36 G	8133971.73	8133971.90	8133972.08	0.0484	0.0327	
Earth	17557-12-16 13:12 G	8133971.89	8133972.05	8133972.22	0.0484	0.0338	*
Venus	17562-01-09 09:36 G	8135456.79	8135456.90	8135457.03	0.0527	0.0424	
Mercury	17562-09-23 06:14 G	8135713.62	8135713.76	8135713.90	0.0537	0.0180	
Earth	17563-06-02 02:52 G	8135965.39	8135965.62	8135965.85	0.0543	0.0039	

Moon	17563-06-02 06:00 G	8135965.52	8135965.75	8135965.97	0.0543	0.0071 *
Venus	17567-11-19 13:40 G	8137596.96	8137597.07	8137597.19	0.0497	0.0406
Mercury	17568-02-10 11:45 G	8137679.91	8137679.99	8137680.08	0.0494	0.0402
Mercury	17568-05-10 00:00 G	8137769.36	8137769.50	8137769.64	0.0492	0.0164
Earth	17568-11-20 23:02 G	8137964.25	8137964.46	8137964.67	0.0487	0.0224
Moon	17568-11-20 23:31 G	8137964.28	8137964.48	8137964.69	0.0487	0.0250 *
Earth	17569-12-20 18:14 G	8138359.15	8138359.26	8138359.37	0.0484	0.0428
Moon	17569-12-20 20:24 G	8138359.28	8138359.35	8138359.43	0.0484	0.0454 *
Mercury	17574-07-12 06:28 G	8140023.62	8140023.77	8140023.92	0.0535	0.0014
Moon	17575-06-07 06:57 G	8140353.55	8140353.79	8140354.03	0.0543	0.0089
Earth	17575-06-07 07:55 G	8140353.60	8140353.83	8140354.06	0.0543	0.0091 *
Venus	17579-07-25 14:38 G	8141862.90	8141863.11	8141863.31	0.0500	0.0026
Mercury	17580-02-27 02:24 G	8142079.45	8142079.60	8142079.75	0.0493	0.0022
Moon	17580-11-25 01:55 G	8142351.37	8142351.58	8142351.79	0.0487	0.0152
Earth	17580-11-25 03:36 G	8142351.43	8142351.65	8142351.88	0.0487	0.0133 *
Venus	17586-01-12 09:36 G	8144225.77	8144225.90	8144226.04	0.0530	0.0398
Mercury	17586-04-30 06:43 G	8144333.64	8144333.78	8144333.92	0.0534	0.0203
Mercury	17586-07-29 02:09 G	8144423.58	8144423.59	8144423.61	0.0537	0.0534
Moon	17587-06-12 15:07 G	8144741.94	8144742.13	8144742.33	0.0544	0.0264
Earth	17587-06-12 16:33 G	8144741.98	8144742.19	8144742.40	0.0544	0.0228 *
Mars	17589-05-03 06:57 G	8145432.56	8145432.79	8145433.02	0.0532	0.0256
Venus	17591-03-30 15:36 G	8146129.08	8146129.15	8146129.24	0.0502	0.0462
Mercury	17591-12-16 05:02 G	8146389.57	8146389.71	8146389.86	0.0493	0.0117
Mercury	17592-03-14 17:45 G	8146479.20	8146479.24	8146479.30	0.0491	0.0459
Earth	17592-11-29 08:09 G	8146738.61	8146738.84	8146739.07	0.0486	0.0041
Moon	17592-11-29 11:16 G	8146738.74	8146738.97	8146739.21	0.0486	0.0021 *
Venus	17597-09-16 23:45 G	8148491.30	8148491.49	8148491.69	0.0528	0.0133
Mercury	17598-02-16 06:57 G	8148643.69	8148643.79	8148643.90	0.0534	0.0393
Mercury	17598-05-17 03:07 G	8148733.52	8148733.63	8148733.74	0.0537	0.0354
Earth	17599-06-18 03:21 G	8149130.48	8149130.64	8149130.82	0.0545	0.0365

Moon	17599-06-18 06:43 G	8149130.60	8149130.78	8149130.96	0.0545	0.0362 *
Mercury	17603-10-04 07:55 G	8150699.71	8150699.83	8150699.96	0.0494	0.0253
Mercury	17604-01-01 20:24 G	8150789.24	8150789.35	8150789.47	0.0491	0.0318
Moon	17604-12-03 09:07 G	8151125.65	8151125.88	8151126.11	0.0485	0.0077
Earth	17604-12-03 12:57 G	8151125.81	8151126.04	8151126.27	0.0485	0.0054 *
Mercury	17610-03-05 04:33 G	8153043.55	8153043.69	8153043.83	0.0537	0.0181
Earth	17610-05-15 23:31 G	8153115.37	8153115.48	8153115.61	0.0539	0.0461
Moon	17610-05-16 02:09 G	8153115.48	8153115.59	8153115.71	0.0539	0.0467 *
Moon	17611-06-23 12:57 G	8153518.93	8153519.04	8153519.16	0.0545	0.0468
Earth	17611-06-23 16:48 G	8153519.12	8153519.20	8153519.29	0.0545	0.0502 *
Venus	17615-04-02 02:52 G	8154897.44	8154897.62	8154897.80	0.0498	0.0236
Mercury	17615-07-23 10:33 G	8155009.86	8155009.94	8155010.03	0.0494	0.0392
Mercury	17615-10-20 22:48 G	8155099.31	8155099.45	8155099.59	0.0492	0.0173
Earth	17616-12-07 15:50 G	8155512.94	8155513.16	8155513.39	0.0484	0.0147
Moon	17616-12-07 19:40 G	8155513.10	8155513.32	8155513.55	0.0484	0.0133 *
Mercury	17621-12-22 05:45 G	8157353.58	8157353.74	8157353.89	0.0536	0.0017
Moon	17622-05-21 06:28 G	8157503.58	8157503.77	8157503.96	0.0540	0.0296
Earth	17622-05-21 10:04 G	8157503.74	8157503.92	8157504.11	0.0540	0.0330 *
Venus	17626-12-06 04:04 G	8159163.49	8159163.67	8159163.86	0.0501	0.0197
Mercury	17627-08-09 01:12 G	8159409.40	8159409.55	8159409.71	0.0492	0.0037
Earth	17627-11-12 22:19 G	8159505.31	8159505.43	8159505.55	0.0490	0.0419
Moon	17627-11-12 22:19 G	8159505.31	8159505.43	8159505.57	0.0490	0.0392 *
Moon	17628-12-11 17:16 G	8159900.00	8159900.22	8159900.43	0.0484	0.0208
Earth	17628-12-11 20:38 G	8159900.16	8159900.36	8159900.56	0.0484	0.0240 *
Venus	17633-05-25 18:14 G	8161526.07	8161526.26	8161526.45	0.0529	0.0187
Mercury	17633-10-10 05:45 G	8161663.60	8161663.74	8161663.88	0.0534	0.0188
Earth	17634-05-26 15:36 G	8161891.93	8161892.15	8161892.37	0.0541	0.0202
Moon	17634-05-26 19:12 G	8161892.09	8161892.30	8161892.52	0.0541	0.0195 *
Mercury	17639-05-28 03:36 G	8163719.50	8163719.65	8163719.80	0.0494	0.0111
Mercury	17639-08-25 16:33 G	8163809.14	8163809.19	8163809.23	0.0491	0.0465

Earth	17639-11-17 02:52 G	8163892.46	8163892.62	8163892.80	0.0489	0.0331
Moon	17639-11-17 03:50 G	8163892.49	8163892.66	8163892.85	0.0489	0.0328 *
Earth	17640-12-16 00:43 G	8164287.37	8164287.53	8164287.71	0.0484	0.0328
Moon	17640-12-16 03:07 G	8164287.46	8164287.63	8164287.79	0.0484	0.0325 *
Mars	17643-01-20 08:24 G	8165052.63	8165052.85	8165053.09	0.0496	0.0296
Venus	17645-01-28 09:07 G	8165791.73	8165791.88	8165792.04	0.0526	0.0337
Mercury	17645-07-29 06:00 G	8165973.64	8165973.75	8165973.86	0.0534	0.0379
Mercury	17645-10-27 01:55 G	8166063.47	8166063.58	8166063.69	0.0537	0.0364
Moon	17646-05-31 21:21 G	8166280.15	8166280.39	8166280.63	0.0542	0.0099
Earth	17646-05-31 23:16 G	8166280.24	8166280.47	8166280.70	0.0542	0.0066 *
Venus	17650-12-08 12:28 G	8167931.98	8167932.02	8167932.07	0.0497	0.0485
Mercury	17651-03-16 06:14 G	8168029.64	8168029.76	8168029.89	0.0494	0.0250
Mercury	17651-06-13 18:57 G	8168119.17	8168119.29	8168119.40	0.0492	0.0323
Moon	17651-11-21 06:28 G	8168279.58	8168279.77	8168279.96	0.0488	0.0266
Earth	17651-11-21 08:24 G	8168279.65	8168279.85	8168280.06	0.0488	0.0237 *
Moon	17652-12-20 03:21 G	8168674.55	8168674.64	8168674.75	0.0484	0.0439
Earth	17652-12-20 03:50 G	8168674.55	8168674.66	8168674.79	0.0484	0.0414 *
Mercury	17657-08-15 02:24 G	8170373.46	8170373.60	8170373.75	0.0536	0.0179
Moon	17658-06-06 08:09 G	8170668.62	8170668.84	8170669.07	0.0544	0.0072
Earth	17658-06-06 08:38 G	8170668.63	8170668.86	8170669.09	0.0544	0.0069 *
Venus	17662-08-13 15:21 G	8172197.93	8172198.14	8172198.34	0.0500	0.0062
Mercury	17663-01-02 09:21 G	8172339.80	8172339.89	8172339.98	0.0495	0.0383
Mercury	17663-04-01 21:36 G	8172429.26	8172429.40	8172429.54	0.0492	0.0184
Earth	17663-11-25 13:55 G	8172666.86	8172667.08	8172667.30	0.0487	0.0143
Moon	17663-11-25 17:16 G	8172666.99	8172667.22	8172667.44	0.0487	0.0152 *
Venus	17669-01-31 10:33 G	8174560.86	8174560.94	8174561.01	0.0531	0.0491
Mercury	17669-06-03 03:36 G	8174683.50	8174683.65	8174683.80	0.0536	0.0005
Earth	17670-06-11 21:21 G	8175057.18	8175057.39	8175057.61	0.0544	0.0210
Moon	17670-06-12 00:00 G	8175057.28	8175057.50	8175057.71	0.0544	0.0244 *
Venus	17674-04-18 16:04 G	8176464.04	8176464.17	8176464.31	0.0502	0.0376

Mercury	17675-01-19 00:00 G	8176739.35	8176739.50	8176739.65	0.0492	0.0042
Moon	17675-11-29 13:40 G	8177053.84	8177054.07	8177054.31	0.0486	0.0026
Earth	17675-11-29 17:31 G	8177054.00	8177054.23	8177054.47	0.0486	0.0050 *
Venus	17680-10-06 02:24 G	8178826.40	8178826.60	8178826.81	0.0529	0.0030
Mercury	17681-03-22 04:33 G	8178993.55	8178993.69	8178993.84	0.0535	0.0177
Moon	17682-06-17 05:31 G	8179445.55	8179445.73	8179445.91	0.0545	0.0341
Earth	17682-06-17 09:21 G	8179445.71	8179445.89	8179446.07	0.0545	0.0348 *
Mercury	17686-11-07 02:38 G	8181049.46	8181049.61	8181049.75	0.0493	0.0101
Mercury	17687-02-04 15:21 G	8181139.11	8181139.14	8181139.18	0.0491	0.0475
Earth	17687-12-03 22:04 G	8181441.19	8181441.42	8181441.66	0.0485	0.0045
Moon	17687-12-04 01:55 G	8181441.35	8181441.58	8181441.81	0.0485	0.0065 *
Mercury	17693-01-08 04:48 G	8183303.59	8183303.70	8183303.81	0.0534	0.0366
Mercury	17693-04-08 00:43 G	8183393.43	8183393.53	8183393.64	0.0537	0.0378
Moon	17693-05-14 22:04 G	8183430.33	8183430.42	8183430.51	0.0538	0.0489
Earth	17693-05-15 01:12 G	8183430.45	8183430.55	8183430.66	0.0538	0.0479 *
Earth	17694-06-22 14:38 G	8183834.00	8183834.11	8183834.23	0.0544	0.0474
Moon	17694-06-22 18:00 G	8183834.12	8183834.25	8183834.38	0.0544	0.0443 *
Venus	17698-04-21 00:28 G	8185232.36	8185232.52	8185232.68	0.0499	0.0308
Mercury	17698-08-26 04:48 G	8185359.57	8185359.70	8185359.83	0.0494	0.0245
Mercury	17698-11-23 17:16 G	8185449.11	8185449.22	8185449.34	0.0492	0.0328
Moon	17699-12-07 22:33 G	8185828.21	8185828.44	8185828.67	0.0485	0.0119
Earth	17699-12-08 01:55 G	8185828.35	8185828.58	8185828.80	0.0485	0.0134 *
Mercury	17705-01-26 01:26 G	8187703.42	8187703.56	8187703.70	0.0536	0.0191
Earth	17705-05-21 07:26 G	8187818.64	8187818.81	8187818.99	0.0539	0.0354
Moon	17705-05-21 11:16 G	8187818.79	8187818.97	8187819.16	0.0539	0.0320 *
Venus	17709-12-26 01:40 G	8189498.38	8189498.57	8189498.77	0.0501	0.0126
Mercury	17710-06-15 07:26 G	8189669.72	8189669.81	8189669.91	0.0495	0.0383
Mercury	17710-09-12 19:40 G	8189759.18	8189759.32	8189759.46	0.0492	0.0186
Earth	17710-11-13 05:45 G	8189820.63	8189820.74	8189820.84	0.0491	0.0434
Moon	17710-11-13 06:43 G	8189820.65	8189820.78	8189820.92	0.0491	0.0404 *

Earth	17711-12-13 05:16 G	8190215.52	8190215.72	8190215.93	0.0484	0.0224
Moon	17711-12-13 07:26 G	8190215.60	8190215.81	8190216.01	0.0484	0.0198 *
Venus	17716-06-14 16:19 G	8191861.01	8191861.18	8191861.36	0.0530	0.0264
Mercury	17716-11-14 01:40 G	8192013.42	8192013.57	8192013.72	0.0535	0.0006
Moon	17717-05-26 11:16 G	8192206.76	8192206.97	8192207.20	0.0541	0.0222
Earth	17717-05-26 14:09 G	8192206.89	8192207.09	8192207.31	0.0541	0.0224 *
Mercury	17722-07-01 22:33 G	8194069.29	8194069.44	8194069.59	0.0493	0.0047
Moon	17722-11-17 10:19 G	8194207.77	8194207.93	8194208.09	0.0489	0.0342
Earth	17722-11-17 12:28 G	8194207.86	8194208.02	8194208.19	0.0489	0.0340 *
Moon	17723-12-17 09:21 G	8194602.71	8194602.89	8194603.07	0.0484	0.0319
Earth	17723-12-17 09:21 G	8194602.72	8194602.89	8194603.08	0.0484	0.0314 *
Venus	17728-02-18 08:24 G	8196126.68	8196126.85	8196127.03	0.0527	0.0255
Mercury	17728-09-02 02:38 G	8196323.46	8196323.61	8196323.75	0.0535	0.0181
Earth	17729-06-01 01:40 G	8196595.34	8196595.57	8196595.80	0.0542	0.0086
Moon	17729-06-01 02:09 G	8196595.37	8196595.59	8196595.81	0.0542	0.0120 *
Mercury	17734-04-20 00:57 G	8198379.40	8198379.54	8198379.69	0.0493	0.0095
Mercury	17734-07-18 13:40 G	8198469.05	8198469.07	8198469.10	0.0491	0.0481
Earth	17734-11-21 16:48 G	8198595.01	8198595.20	8198595.41	0.0488	0.0247
Moon	17734-11-21 20:09 G	8198595.15	8198595.34	8198595.54	0.0488	0.0275 *
Moon	17735-12-21 11:02 G	8198989.86	8198989.96	8198990.06	0.0484	0.0431
Earth	17735-12-21 12:28 G	8198989.90	8198990.02	8198990.15	0.0484	0.0401 *
Mercury	17740-06-21 03:21 G	8200633.53	8200633.64	8200633.75	0.0534	0.0360
Mercury	17740-09-18 23:31 G	8200723.38	8200723.48	8200723.58	0.0537	0.0386
Earth	17741-06-06 13:26 G	8200983.83	8200984.06	8200984.29	0.0543	0.0053
Moon	17741-06-06 15:07 G	8200983.89	8200984.13	8200984.37	0.0543	0.0059 *
Mars	17743-07-29 18:28 G	8201767.01	8201767.27	8201767.53	0.0531	0.0042
Venus	17745-09-02 13:55 G	8202532.89	8202533.08	8202533.28	0.0499	0.0137
Mercury	17746-02-06 03:36 G	8202689.52	8202689.65	8202689.79	0.0494	0.0235
Mercury	17746-05-06 16:04 G	8202779.07	8202779.17	8202779.28	0.0491	0.0337
Moon	17746-11-25 18:14 G	8202982.04	8202982.26	8202982.48	0.0487	0.0158

Earth	17746-11-25 22:04 G	8202982.20	8202982.42	8202982.64	0.0487	0.0153 *
Mercury	17752-07-08 00:14 G	8205033.37	8205033.51	8205033.65	0.0536	0.0202
Moon	17753-06-11 17:02 G	8205372.00	8205372.21	8205372.42	0.0543	0.0216
Earth	17753-06-11 20:24 G	8205372.13	8205372.35	8205372.57	0.0543	0.0183 *
Venus	17757-05-08 12:43 G	8206798.87	8206799.03	8206799.19	0.0502	0.0311
Mercury	17757-11-25 06:00 G	8206999.65	8206999.75	8206999.84	0.0495	0.0380
Mercury	17758-02-22 18:00 G	8207089.11	8207089.25	8207089.39	0.0492	0.0188
Earth	17758-11-30 01:12 G	8207369.32	8207369.55	8207369.78	0.0486	0.0065
Moon	17758-11-30 04:48 G	8207369.47	8207369.70	8207369.93	0.0486	0.0035 *
Venus	17763-10-27 01:26 G	8209161.36	8209161.56	8209161.76	0.0528	0.0055
Mercury	17764-04-26 00:28 G	8209343.37	8209343.52	8209343.67	0.0535	0.0017
Earth	17765-06-17 03:50 G	8209760.48	8209760.66	8209760.85	0.0544	0.0318
Moon	17765-06-17 07:40 G	8209760.63	8209760.82	8209761.01	0.0544	0.0303 *
Mercury	17769-12-11 20:38 G	8211399.21	8211399.36	8211399.51	0.0493	0.0047
Moon	17770-12-04 02:09 G	8211756.35	8211756.59	8211756.83	0.0486	0.0047
Earth	17770-12-04 05:16 G	8211756.49	8211756.72	8211756.96	0.0486	0.0028 *
Venus	17775-07-01 14:52 G	8213427.04	8213427.12	8213427.21	0.0525	0.0475
Mercury	17776-02-13 00:28 G	8213653.37	8213653.52	8213653.66	0.0534	0.0184
Earth	17776-05-14 22:04 G	8213745.34	8213745.42	8213745.50	0.0537	0.0500
Moon	17776-05-15 01:55 G	8213745.50	8213745.58	8213745.66	0.0537	0.0504 *
Moon	17777-06-22 09:36 G	8214148.75	8214148.90	8214149.06	0.0545	0.0415
Earth	17777-06-22 12:14 G	8214148.89	8214149.01	8214149.15	0.0545	0.0449 *
Venus	17781-05-10 23:45 G	8215567.37	8215567.49	8215567.62	0.0498	0.0386
Mercury	17781-09-29 23:31 G	8215709.33	8215709.48	8215709.62	0.0494	0.0092
Mercury	17781-12-28 12:14 G	8215798.99	8215799.01	8215799.03	0.0491	0.0485
Earth	17782-12-08 09:50 G	8216143.68	8216143.91	8216144.14	0.0485	0.0121
Moon	17782-12-08 11:45 G	8216143.77	8216143.99	8216144.21	0.0485	0.0104 *
Mercury	17787-12-02 00:57 G	8217963.43	8217963.54	8217963.65	0.0534	0.0368
Mercury	17788-02-29 21:07 G	8218053.28	8218053.38	8218053.49	0.0537	0.0378
Moon	17788-05-20 03:50 G	8218133.48	8218133.66	8218133.85	0.0539	0.0340

Earth	17788-05-20 07:26 G	8218133.64	8218133.81	8218133.98	0.0539	0.0373 *
Venus	17793-01-14 01:12 G	8219833.35	8219833.55	8219833.75	0.0500	0.0046
Mercury	17793-07-19 01:55 G	8220019.45	8220019.58	8220019.72	0.0494	0.0232
Mercury	17793-10-16 14:24 G	8220108.99	8220109.10	8220109.21	0.0491	0.0340
Moon	17793-11-12 11:02 G	8220135.85	8220135.96	8220136.08	0.0491	0.0417
Earth	17793-11-12 13:26 G	8220135.97	8220136.06	8220136.16	0.0491	0.0443 *
Moon	17794-12-12 12:57 G	8220530.81	8220531.04	8220531.26	0.0484	0.0188
Earth	17794-12-12 12:43 G	8220530.83	8220531.03	8220531.25	0.0484	0.0211 *
Mars	17797-04-16 03:21 G	8221386.36	8221386.64	8221386.93	0.0496	0.0060
Venus	17799-07-04 17:31 G	8222196.08	8222196.23	8222196.38	0.0530	0.0360
Mercury	17799-12-18 22:33 G	8222363.30	8222363.44	8222363.57	0.0536	0.0204
Earth	17800-05-26 18:00 G	8222522.05	8222522.25	8222522.46	0.0541	0.0239
Moon	17800-05-26 19:26 G	8222522.11	8222522.31	8222522.51	0.0541	0.0246 *
Venus	17804-09-20 01:40 G	8224099.53	8224099.57	8224099.62	0.0503	0.0488
Mercury	17805-05-08 04:48 G	8224329.60	8224329.70	8224329.80	0.0495	0.0370
Mercury	17805-08-05 16:48 G	8224419.06	8224419.20	8224419.34	0.0492	0.0197
Earth	17805-11-17 19:12 G	8224523.14	8224523.30	8224523.47	0.0489	0.0350
Moon	17805-11-17 22:33 G	8224523.29	8224523.44	8224523.61	0.0489	0.0359 *
Moon	17806-12-17 15:21 G	8224917.97	8224918.14	8224918.31	0.0484	0.0316
Earth	17806-12-17 17:02 G	8224918.03	8224918.21	8224918.40	0.0484	0.0301 *
Venus	17811-03-10 09:21 G	8226461.70	8226461.89	8226462.08	0.0527	0.0160
Mercury	17811-10-07 23:02 G	8226673.31	8226673.46	8226673.62	0.0535	0.0026
Earth	17812-06-01 01:40 G	8226910.35	8226910.57	8226910.80	0.0541	0.0110
Moon	17812-06-01 02:24 G	8226910.37	8226910.60	8226910.84	0.0541	0.0143 *
Mercury	17817-05-24 18:43 G	8228729.13	8228729.28	8228729.43	0.0493	0.0047
Moon	17817-11-21 18:43 G	8228910.09	8228910.28	8228910.46	0.0489	0.0292
Earth	17817-11-21 22:19 G	8228910.24	8228910.43	8228910.63	0.0489	0.0263 *
Earth	17818-12-21 20:09 G	8229305.20	8229305.34	8229305.48	0.0484	0.0386
Moon	17818-12-21 23:02 G	8229305.34	8229305.46	8229305.58	0.0484	0.0415 *
Mercury	17823-07-26 23:16 G	8230983.33	8230983.47	8230983.62	0.0534	0.0171

Moon	17824-06-06 06:14 G	8231298.53	8231298.76	8231298.98	0.0542	0.0030
Earth	17824-06-06 08:52 G	8231298.63	8231298.87	8231299.10	0.0542	0.0025 *
Venus	17828-09-22 09:50 G	8232867.73	8232867.91	8232868.10	0.0499	0.0198
Mercury	17829-03-12 21:21 G	8233039.24	8233039.39	8233039.54	0.0494	0.0095
Mercury	17829-06-10 10:04 G	8233128.90	8233128.92	8233128.95	0.0491	0.0482
Earth	17829-11-26 03:07 G	8233297.42	8233297.63	8233297.85	0.0488	0.0171
Moon	17829-11-26 06:43 G	8233297.57	8233297.78	8233298.00	0.0488	0.0169 *
Moon	17830-12-25 19:55 G	8233692.29	8233692.33	8233692.38	0.0484	0.0474
Earth	17830-12-25 23:16 G	8233692.42	8233692.47	8233692.53	0.0484	0.0471
Mercury	17835-05-14 22:48 G	8235293.35	8235293.45	8235293.56	0.0533	0.0372
Mercury	17835-08-12 18:57 G	8235383.19	8235383.29	8235383.40	0.0537	0.0374
Earth	17836-06-11 15:21 G	8235686.92	8235687.14	8235687.36	0.0544	0.0156
Moon	17836-06-11 19:12 G	8235687.08	8235687.30	8235687.52	0.0544	0.0187 *
Venus	17840-05-28 11:31 G	8237133.81	8237133.98	8237134.16	0.0502	0.0236
Mercury	17840-12-30 00:14 G	8237349.38	8237349.51	8237349.64	0.0494	0.0230
Mercury	17841-03-29 12:43 G	8237438.92	8237439.03	8237439.14	0.0492	0.0342
Moon	17841-11-30 05:45 G	8237684.50	8237684.74	8237684.98	0.0486	0.0048
Earth	17841-11-30 08:38 G	8237684.63	8237684.86	8237685.09	0.0486	0.0077 *
Venus	17846-11-15 22:33 G	8239496.24	8239496.44	8239496.64	0.0529	0.0125
Mercury	17847-05-31 19:55 G	8239693.20	8239693.33	8239693.48	0.0536	0.0195
Moon	17848-06-16 23:31 G	8240075.28	8240075.48	8240075.69	0.0544	0.0278
Earth	17848-06-17 02:52 G	8240075.43	8240075.62	8240075.82	0.0544	0.0295 *
Mercury	17852-10-18 03:07 G	8241659.53	8241659.63	8241659.72	0.0495	0.0369
Mercury	17853-01-15 15:07 G	8241748.99	8241749.13	8241749.27	0.0492	0.0198
Earth	17853-12-04 12:14 G	8242071.77	8242072.01	8242072.24	0.0485	0.0016
Moon	17853-12-04 13:55 G	8242071.85	8242072.08	8242072.30	0.0485	0.0030 *
Venus	17858-07-21 15:07 G	8243761.99	8243762.13	8243762.26	0.0526	0.0388
Mercury	17859-03-19 21:07 G	8244003.23	8244003.38	8244003.53	0.0535	0.0017
Moon	17859-05-15 20:52 G	8244060.32	8244060.37	8244060.45	0.0537	0.0516
Earth	17859-05-16 00:57 G	8244060.47	8244060.54	8244060.60	0.0537	0.0514

Earth	17860-06-22 14:52 G	8244463.98	8244464.12	8244464.27	0.0545	0.0429
Moon	17860-06-22 16:19 G	8244464.03	8244464.18	8244464.33	0.0545	0.0400 *
Venus	17864-05-30 21:21 G	8245902.32	8245902.39	8245902.48	0.0498	0.0456
Mercury	17864-11-03 17:31 G	8246059.08	8246059.23	8246059.38	0.0493	0.0056
Earth	17865-12-08 16:19 G	8246458.95	8246459.18	8246459.41	0.0485	0.0108
Moon	17865-12-08 16:19 G	8246458.95	8246459.18	8246459.42	0.0485	0.0086 *
Mercury	17871-01-05 21:50 G	8248313.26	8248313.41	8248313.55	0.0534	0.0165
Earth	17871-05-21 08:38 G	8248448.70	8248448.86	8248449.02	0.0538	0.0392
Moon	17871-05-21 10:48 G	8248448.79	8248448.95	8248449.12	0.0538	0.0360 *
Venus	17876-02-03 20:38 G	8250168.16	8250168.36	8250168.57	0.0500	0.0012
Mercury	17876-08-22 19:26 G	8250369.16	8250369.31	8250369.46	0.0494	0.0095
Earth	17876-11-12 16:48 G	8250451.12	8250451.20	8250451.28	0.0492	0.0459
Moon	17876-11-12 20:09 G	8250451.24	8250451.34	8250451.45	0.0492	0.0434 *
Mercury	17876-11-20 08:09 G	8250458.82	8250458.84	8250458.87	0.0491	0.0482
Moon	17877-12-12 16:48 G	8250845.99	8250846.20	8250846.41	0.0485	0.0177
Earth	17877-12-12 18:43 G	8250846.07	8250846.28	8250846.49	0.0485	0.0194 *
Venus	17882-07-24 16:04 G	8252531.06	8252531.17	8252531.28	0.0530	0.0440
Mercury	17882-10-24 21:50 G	8252623.30	8252623.41	8252623.52	0.0533	0.0358
Mercury	17883-01-22 18:00 G	8252713.15	8252713.25	8252713.35	0.0536	0.0386
Moon	17883-05-26 14:09 G	8252836.88	8252837.09	8252837.30	0.0540	0.0270
Earth	17883-05-26 14:38 G	8252836.91	8252837.11	8252837.31	0.0540	0.0264 *
Venus	17887-10-09 20:52 G	8254434.27	8254434.37	8254434.47	0.0503	0.0432
Mercury	17888-06-10 22:04 G	8254679.29	8254679.42	8254679.55	0.0495	0.0236
Mercury	17888-09-08 10:33 G	8254768.83	8254768.94	8254769.05	0.0492	0.0337
Moon	17888-11-16 18:57 G	8254838.15	8254838.29	8254838.44	0.0490	0.0382
Earth	17888-11-16 22:48 G	8254838.30	8254838.45	8254838.61	0.0490	0.0367 *
Earth	17889-12-16 22:04 G	8255233.23	8255233.42	8255233.61	0.0484	0.0283
Moon	17889-12-17 00:57 G	8255233.36	8255233.54	8255233.73	0.0484	0.0301 *
Venus	17894-03-29 04:33 G	8256796.49	8256796.69	8256796.89	0.0527	0.0102
Mercury	17894-11-10 17:45 G	8257023.10	8257023.24	8257023.38	0.0536	0.0189

Moon	17895-05-31 17:31 G	8257225.01	8257225.23	8257225.44	0.0541	0.0170
Earth	17895-05-31 18:57 G	8257225.07	8257225.29	8257225.52	0.0541	0.0137 *
Mars	17897-10-23 00:57 G	8258100.31	8258100.54	8258100.78	0.0532	0.0239
Mercury	17900-03-31 01:12 G	8258989.45	8258989.55	8258989.64	0.0495	0.0370
Mercury	17900-06-28 13:12 G	8259078.91	8259079.05	8259079.19	0.0492	0.0197
Earth	17900-11-22 05:16 G	8259225.53	8259225.72	8259225.91	0.0489	0.0273
Moon	17900-11-22 08:38 G	8259225.68	8259225.86	8259226.04	0.0489	0.0302 *
Moon	17901-12-21 22:48 G	8259620.33	8259620.45	8259620.58	0.0484	0.0401
Earth	17901-12-22 02:09 G	8259620.45	8259620.59	8259620.75	0.0484	0.0371 *
Mercury	17906-08-30 18:28 G	8261333.12	8261333.27	8261333.42	0.0535	0.0011
Earth	17907-06-07 05:02 G	8261613.48	8261613.71	8261613.94	0.0543	0.0001
Moon	17907-06-07 08:38 G	8261613.62	8261613.86	8261614.10	0.0543	0.0014 *
Venus	17911-10-13 08:24 G	8263202.69	8263202.85	8263203.03	0.0499	0.0273
Mercury	17912-04-16 15:36 G	8263389.00	8263389.15	8263389.30	0.0493	0.0056
Moon	17912-11-26 07:12 G	8263612.58	8263612.80	8263613.02	0.0487	0.0180
Earth	17912-11-26 10:04 G	8263612.70	8263612.92	8263613.13	0.0487	0.0182 *
Earth	17913-12-26 05:02 G	8264007.64	8264007.71	8264007.79	0.0484	0.0456
Moon	17913-12-26 08:52 G	8264007.79	8264007.87	8264007.95	0.0484	0.0452 *
Mercury	17918-06-18 19:26 G	8265643.17	8265643.31	8265643.46	0.0535	0.0174
Moon	17919-06-12 13:26 G	8266001.83	8266002.06	8266002.28	0.0544	0.0167
Earth	17919-06-12 17:02 G	8266001.99	8266002.21	8266002.44	0.0544	0.0137 *
Venus	17923-06-18 09:21 G	8267468.70	8267468.89	8267469.09	0.0501	0.0165
Mercury	17924-02-03 18:14 G	8267699.11	8267699.26	8267699.41	0.0494	0.0086
Mercury	17924-05-03 06:57 G	8267788.78	8267788.79	8267788.80	0.0491	0.0489
Earth	17924-11-30 14:24 G	8267999.87	8268000.10	8268000.33	0.0487	0.0090
Moon	17924-11-30 15:50 G	8267999.94	8268000.16	8268000.38	0.0487	0.0062 *
Venus	17929-12-05 22:48 G	8269831.27	8269831.45	8269831.64	0.0529	0.0216
Mercury	17930-04-06 20:09 G	8269953.23	8269953.34	8269953.45	0.0533	0.0355
Mercury	17930-07-05 16:19 G	8270043.08	8270043.18	8270043.28	0.0536	0.0389
Earth	17931-06-18 01:55 G	8270390.38	8270390.58	8270390.79	0.0543	0.0269

Moon	17931-06-18 04:19 G	8270390.49	8270390.68	8270390.89	0.0543	0.0251 *
Mercury	17935-11-22 20:09 G	8272009.21	8272009.34	8272009.47	0.0495	0.0237
Mercury	17936-02-20 08:38 G	8272098.75	8272098.86	8272098.97	0.0492	0.0336
Moon	17936-12-04 16:48 G	8272386.95	8272387.20	8272387.44	0.0486	0.0007
Earth	17936-12-04 16:33 G	8272386.96	8272387.19	8272387.42	0.0486	0.0003 *
Venus	17941-08-10 13:55 G	8274096.91	8274097.08	8274097.24	0.0526	0.0308
Mercury	17942-04-23 16:48 G	8274353.06	8274353.20	8274353.34	0.0535	0.0202
Earth	17942-05-15 22:48 G	8274375.43	8274375.45	8274375.48	0.0536	0.0532
Moon	17942-05-16 01:55 G	8274375.54	8274375.58	8274375.63	0.0536	0.0525
Moon	17943-06-23 09:21 G	8274778.71	8274778.89	8274779.07	0.0544	0.0369
Earth	17943-06-23 09:36 G	8274778.74	8274778.90	8274779.06	0.0544	0.0398 *
Mercury	17947-09-10 23:02 G	8276319.36	8276319.46	8276319.55	0.0495	0.0377
Mercury	17947-12-09 11:02 G	8276408.82	8276408.96	8276409.10	0.0493	0.0192
Moon	17948-12-08 18:28 G	8276774.05	8276774.27	8276774.49	0.0485	0.0063
Earth	17948-12-08 20:24 G	8276774.12	8276774.35	8276774.58	0.0485	0.0090 *
Mars	17951-07-12 15:36 G	8277719.88	8277720.15	8277720.43	0.0496	0.0155
Mercury	17954-02-09 16:19 G	8278663.03	8278663.18	8278663.33	0.0535	0.0008
Moon	17954-05-20 23:16 G	8278763.31	8278763.47	8278763.65	0.0538	0.0381
Earth	17954-05-21 00:43 G	8278763.39	8278763.53	8278763.68	0.0538	0.0416 *
Earth	17955-06-28 15:07 G	8279167.07	8279167.13	8279167.20	0.0544	0.0522
Venus	17959-02-23 18:43 G	8280503.08	8280503.28	8280503.48	0.0500	0.0083
Mercury	17959-09-27 13:40 G	8280718.92	8280719.07	8280719.22	0.0493	0.0054
Moon	17959-11-13 19:55 G	8280766.23	8280766.33	8280766.42	0.0492	0.0448
Earth	17959-11-13 23:16 G	8280766.41	8280766.47	8280766.55	0.0492	0.0468 *
Earth	17960-12-13 00:57 G	8281161.33	8281161.54	8281161.76	0.0485	0.0182
Moon	17960-12-13 04:19 G	8281161.46	8281161.68	8281161.90	0.0485	0.0165 *
Venus	17965-08-13 11:31 G	8282865.92	8282865.98	8282866.05	0.0530	0.0499
Mercury	17965-11-28 16:48 G	8282973.06	8282973.20	8282973.35	0.0534	0.0187
Moon	17966-05-26 08:09 G	8283151.66	8283151.84	8283152.03	0.0540	0.0295
Earth	17966-05-26 08:52 G	8283151.68	8283151.87	8283152.07	0.0540	0.0287 *

Venus	17970-10-29 19:40 G	8284769.18	8284769.32	8284769.46	0.0503	0.0356
Mercury	17971-07-16 16:19 G	8285029.04	8285029.18	8285029.33	0.0494	0.0087
Mercury	17971-10-14 05:02 G	8285118.70	8285118.71	8285118.72	0.0491	0.0488
Earth	17971-11-18 05:16 G	8285153.58	8285153.72	8285153.88	0.0490	0.0378
Moon	17971-11-18 08:38 G	8285153.74	8285153.86	8285154.00	0.0490	0.0399 *
Moon	17972-12-17 00:28 G	8285548.34	8285548.52	8285548.71	0.0484	0.0287
Earth	17972-12-17 04:04 G	8285548.48	8285548.67	8285548.87	0.0484	0.0268 *
Venus	17977-04-18 03:36 G	8287131.44	8287131.65	8287131.85	0.0528	0.0024
Mercury	17977-09-16 17:31 G	8287283.12	8287283.23	8287283.34	0.0534	0.0368
Mercury	17977-12-15 13:55 G	8287372.98	8287373.08	8287373.18	0.0537	0.0380
Earth	17978-05-31 19:55 G	8287540.10	8287540.33	8287540.55	0.0541	0.0155
Moon	17978-05-31 22:48 G	8287540.23	8287540.45	8287540.68	0.0541	0.0184 *
Mercury	17983-05-04 18:57 G	8289339.16	8289339.29	8289339.43	0.0494	0.0227
Mercury	17983-08-02 07:12 G	8289428.70	8289428.80	8289428.91	0.0492	0.0345
Moon	17983-11-22 08:09 G	8289540.66	8289540.84	8289541.03	0.0489	0.0312
Earth	17983-11-22 10:48 G	8289540.77	8289540.95	8289541.14	0.0489	0.0285 *
Earth	17984-12-21 07:55 G	8289935.67	8289935.83	8289935.99	0.0484	0.0356
Moon	17984-12-21 11:31 G	8289935.85	8289935.98	8289936.13	0.0484	0.0383 *
Mercury	17989-10-03 15:07 G	8291682.99	8291683.13	8291683.27	0.0536	0.0204
Moon	17990-06-06 01:55 G	8291928.35	8291928.58	8291928.82	0.0542	0.0005
Earth	17990-06-06 05:45 G	8291928.51	8291928.74	8291928.98	0.0542	0.0025 *
Venus	17994-11-01 03:36 G	8293537.50	8293537.65	8293537.81	0.0499	0.0328
Mercury	17995-02-20 21:07 G	8293649.29	8293649.38	8293649.48	0.0495	0.0376
Mercury	17995-05-21 09:07 G	8293738.74	8293738.88	8293739.02	0.0493	0.0191
Earth	17995-11-26 13:12 G	8293927.84	8293928.05	8293928.27	0.0488	0.0198
Moon	17995-11-26 14:38 G	8293927.91	8293928.11	8293928.32	0.0488	0.0193 *
Moon	17996-12-25 06:57 G	8294322.68	8294322.79	8294322.90	0.0484	0.0429
Earth	17996-12-25 10:04 G	8294322.83	8294322.92	8294323.02	0.0484	0.0440 *

19TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 19th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	18001-07-22 15:21 G		8295992.99	8295993.14	8295993.29	0.0535	0.0018	
Earth	18002-06-11 13:12 G		8296316.82	8296317.05	8296317.28	0.0543	0.0110	
Moon	18002-06-11 16:19 G		8296316.96	8296317.18	8296317.41	0.0543	0.0141	*
Venus	18006-07-07 04:19 G		8297803.48	8297803.68	8297803.88	0.0502	0.0112	
Mercury	18007-03-09 11:31 G		8298048.83	8298048.98	8298049.13	0.0493	0.0048	
Earth	18007-11-30 17:45 G		8298315.02	8298315.24	8298315.47	0.0487	0.0106	
Moon	18007-11-30 18:14 G		8298315.02	8298315.26	8298315.50	0.0487	0.0079	*
Venus	18012-12-24 17:16 G		8300166.05	8300166.22	8300166.40	0.0529	0.0271	
Mercury	18013-05-10 14:38 G		8300302.97	8300303.11	8300303.26	0.0534	0.0191	
Moon	18014-06-16 15:50 G		8300704.95	8300705.16	8300705.39	0.0544	0.0224	
Earth	18014-06-16 17:31 G		8300705.02	8300705.23	8300705.44	0.0544	0.0239	*
Mars	18016-04-13 00:14 G		8301371.37	8301371.51	8301371.66	0.0534	0.0445	
Mercury	18018-12-26 14:24 G		8302358.95	8302359.10	8302359.25	0.0494	0.0089	
Mercury	18019-03-26 03:07 G		8302448.61	8302448.63	8302448.65	0.0491	0.0487	
Moon	18019-12-04 21:21 G		8302702.17	8302702.39	8302702.62	0.0486	0.0016	
Earth	18019-12-04 23:31 G		8302702.25	8302702.48	8302702.71	0.0486	0.0013	*
Venus	18024-08-29 08:38 G		8304431.69	8304431.86	8304432.05	0.0526	0.0253	
Mercury	18025-02-26 14:52 G		8304613.02	8304613.12	8304613.23	0.0533	0.0380	
Mercury	18025-05-27 11:16 G		8304702.87	8304702.97	8304703.08	0.0536	0.0367	
Moon	18026-06-22 02:38 G		8305093.44	8305093.61	8305093.79	0.0544	0.0350	

Earth	18026-06-22 04:04 G	8305093.50	8305093.67	8305093.84	0.0544	0.0373 *
Mercury	18030-10-14 17:16 G	8306669.09	8306669.22	8306669.35	0.0494	0.0228
Mercury	18031-01-12 05:31 G	8306758.62	8306758.73	8306758.83	0.0492	0.0344
Earth	18031-12-09 02:52 G	8307089.39	8307089.62	8307089.86	0.0485	0.0078
Moon	18031-12-09 06:14 G	8307089.53	8307089.76	8307090.00	0.0485	0.0048 *
Mercury	18037-03-15 12:28 G	8309012.88	8309013.02	8309013.16	0.0536	0.0192
Moon	18037-05-20 01:26 G	8309078.41	8309078.56	8309078.71	0.0538	0.0401
Earth	18037-05-20 01:12 G	8309078.42	8309078.55	8309078.69	0.0538	0.0432 *
Earth	18038-06-27 16:19 G	8309482.09	8309482.18	8309482.27	0.0545	0.0502
Moon	18038-06-27 19:55 G	8309482.28	8309482.33	8309482.38	0.0545	0.0531
Venus	18042-03-14 16:48 G	8310838.01	8310838.20	8310838.40	0.0500	0.0154
Mercury	18042-08-02 19:55 G	8310979.24	8310979.33	8310979.43	0.0495	0.0366
Mercury	18042-10-31 07:55 G	8311068.69	8311068.83	8311068.97	0.0492	0.0201
Earth	18042-11-13 05:16 G	8311081.67	8311081.72	8311081.77	0.0492	0.0477
Moon	18042-11-13 08:09 G	8311081.78	8311081.84	8311081.92	0.0492	0.0465
Moon	18043-12-13 03:21 G	8311476.42	8311476.64	8311476.86	0.0485	0.0151
Earth	18043-12-13 06:57 G	8311476.58	8311476.79	8311477.01	0.0485	0.0168 *
Mercury	18049-01-01 13:26 G	8313322.91	8313323.06	8313323.22	0.0535	0.0021
Earth	18049-05-25 11:02 G	8313466.77	8313466.96	8313467.15	0.0539	0.0305
Moon	18049-05-25 13:12 G	8313466.86	8313467.05	8313467.25	0.0539	0.0316 *
Mars	18052-01-17 17:45 G	8314434.12	8314434.24	8314434.37	0.0531	0.0469
Venus	18053-11-17 15:21 G	8315103.98	8315104.14	8315104.30	0.0502	0.0299
Mercury	18054-08-19 09:50 G	8315378.76	8315378.91	8315379.06	0.0493	0.0050
Moon	18054-11-17 05:45 G	8315468.62	8315468.74	8315468.88	0.0491	0.0412
Earth	18054-11-17 08:24 G	8315468.72	8315468.85	8315469.00	0.0491	0.0391 *
Earth	18055-12-17 08:38 G	8315863.67	8315863.86	8315864.07	0.0485	0.0254
Moon	18055-12-17 12:28 G	8315863.83	8315864.02	8315864.22	0.0485	0.0276 *
Venus	18060-05-07 02:52 G	8317466.41	8317466.62	8317466.82	0.0528	0.0062
Mercury	18060-10-20 13:55 G	8317632.93	8317633.08	8317633.22	0.0534	0.0174
Moon	18061-05-30 14:24 G	8317854.89	8317855.10	8317855.32	0.0540	0.0205

Earth	18061-05-30 18:14 G	8317855.04	8317855.26	8317855.48	0.0540	0.0176	*
Mercury	18066-06-07 12:14 G	8319688.87	8319689.01	8319689.16	0.0494	0.0094	
Mercury	18066-09-05 00:57 G	8319778.52	8319778.54	8319778.57	0.0491	0.0483	
Earth	18066-11-21 14:09 G	8319855.91	8319856.09	8319856.27	0.0490	0.0299	
Moon	18066-11-21 15:21 G	8319855.98	8319856.14	8319856.31	0.0490	0.0325	*
Moon	18067-12-21 09:21 G	8320250.74	8320250.89	8320251.05	0.0484	0.0363	
Earth	18067-12-21 12:43 G	8320250.87	8320251.03	8320251.20	0.0484	0.0341	*
Mars	18069-12-30 05:02 G	8320990.58	8320990.71	8320990.85	0.0494	0.0435	
Venus	18072-01-10 15:36 G	8321732.07	8321732.15	8321732.24	0.0524	0.0472	
Mercury	18072-08-08 12:57 G	8321942.94	8321943.04	8321943.15	0.0533	0.0382	
Mercury	18072-11-06 09:21 G	8322032.78	8322032.89	8322033.00	0.0536	0.0365	
Earth	18073-06-04 20:52 G	8322243.14	8322243.37	8322243.61	0.0542	0.0051	
Moon	18073-06-05 00:43 G	8322243.30	8322243.53	8322243.76	0.0542	0.0029	*
Venus	18077-11-20 01:55 G	8323872.46	8323872.58	8323872.70	0.0499	0.0399	
Mercury	18078-03-26 15:21 G	8323999.01	8323999.14	8323999.27	0.0495	0.0229	
Mercury	18078-06-24 03:36 G	8324088.54	8324088.65	8324088.76	0.0492	0.0343	
Earth	18078-11-25 20:38 G	8324243.16	8324243.36	8324243.58	0.0488	0.0208	
Moon	18078-11-25 21:07 G	8324243.16	8324243.38	8324243.61	0.0488	0.0195	*
Earth	18079-12-25 17:16 G	8324638.11	8324638.22	8324638.33	0.0484	0.0427	
Moon	18079-12-25 19:26 G	8324638.19	8324638.31	8324638.43	0.0484	0.0411	*
Mercury	18084-08-25 10:04 G	8326342.78	8326342.92	8326343.06	0.0536	0.0181	
Moon	18085-06-10 04:04 G	8326631.43	8326631.67	8326631.90	0.0543	0.0114	
Earth	18085-06-10 06:28 G	8326631.54	8326631.77	8326632.00	0.0543	0.0084	*
Venus	18089-07-26 03:36 G	8328138.44	8328138.65	8328138.85	0.0501	0.0034	
Mercury	18090-01-12 18:14 G	8328309.16	8328309.26	8328309.36	0.0495	0.0365	
Mercury	18090-04-12 06:00 G	8328398.62	8328398.75	8328398.89	0.0493	0.0202	
Moon	18090-11-29 23:16 G	8328630.25	8328630.47	8328630.69	0.0487	0.0091	
Earth	18090-11-30 01:26 G	8328630.34	8328630.56	8328630.79	0.0487	0.0117	*
Moon	18091-12-29 19:12 G	8329025.27	8329025.30	8329025.33	0.0484	0.0479	
Venus	18096-01-13 16:19 G	8330501.03	8330501.18	8330501.33	0.0529	0.0352	

Mercury	18096-06-13 11:02 G	8330652.81	8330652.96	8330653.11	0.0535	0.0010
Earth	18097-06-15 18:28 G	8331020.06	8331020.27	8331020.49	0.0544	0.0220
Moon	18097-06-15 18:28 G	8331020.06	8331020.27	8331020.48	0.0544	0.0201 *
Venus	18101-04-01 03:50 G	8332404.61	8332404.66	8332404.73	0.0504	0.0478
Mercury	18102-01-30 08:38 G	8332708.71	8332708.86	8332709.01	0.0493	0.0061
Earth	18102-12-05 06:00 G	8333017.52	8333017.75	8333017.98	0.0486	0.0025
Moon	18102-12-05 09:21 G	8333017.66	8333017.89	8333018.13	0.0486	0.0033 *
Mars	18105-10-06 05:31 G	8334053.55	8334053.73	8334053.92	0.0497	0.0382
Venus	18107-09-19 09:07 G	8334766.69	8334766.88	8334767.08	0.0526	0.0164
Mercury	18108-04-02 12:00 G	8334962.86	8334963.00	8334963.14	0.0534	0.0174
Earth	18109-06-22 06:00 G	8335408.58	8335408.75	8335408.93	0.0544	0.0351
Moon	18109-06-22 09:07 G	8335408.69	8335408.88	8335409.07	0.0544	0.0333 *
Mercury	18113-11-18 10:48 G	8337018.80	8337018.95	8337019.10	0.0494	0.0090
Mercury	18114-02-15 23:16 G	8337108.45	8337108.47	8337108.49	0.0491	0.0486
Moon	18114-12-09 04:19 G	8337404.45	8337404.68	8337404.91	0.0486	0.0033
Earth	18114-12-09 08:09 G	8337404.61	8337404.84	8337405.07	0.0486	0.0064 *
Mercury	18120-01-20 12:14 G	8339272.90	8339273.01	8339273.12	0.0533	0.0363
Mercury	18120-04-19 08:38 G	8339362.76	8339362.86	8339362.96	0.0536	0.0383
Earth	18120-05-20 01:40 G	8339393.45	8339393.57	8339393.70	0.0537	0.0447
Moon	18120-05-20 02:52 G	8339393.47	8339393.62	8339393.78	0.0537	0.0415 *
Moon	18121-06-27 10:19 G	8339796.85	8339796.93	8339797.01	0.0544	0.0507
Earth	18121-06-27 14:24 G	8339796.99	8339797.10	8339797.21	0.0544	0.0478 *
Venus	18125-04-03 12:43 G	8341172.84	8341173.03	8341173.21	0.0500	0.0212
Mercury	18125-09-06 13:26 G	8341328.93	8341329.06	8341329.19	0.0495	0.0231
Moon	18125-11-13 06:14 G	8341396.70	8341396.76	8341396.82	0.0493	0.0475
Earth	18125-11-13 08:38 G	8341396.84	8341396.86	8341396.89	0.0493	0.0490
Mercury	18125-12-05 01:40 G	8341418.46	8341418.57	8341418.68	0.0492	0.0341
Earth	18126-12-13 12:14 G	8341791.79	8341792.01	8341792.23	0.0485	0.0154
Moon	18126-12-13 16:04 G	8341791.95	8341792.17	8341792.39	0.0485	0.0143 *
Mercury	18132-02-06 08:09 G	8343672.70	8343672.84	8343672.98	0.0535	0.0181

Moon	18132-05-25 00:00 G	8343781.33	8343781.50	8343781.68	0.0539	0.0345
Earth	18132-05-25 03:21 G	8343781.45	8343781.64	8343781.82	0.0539	0.0329 *
Venus	18136-12-07 13:40 G	8345438.89	8345439.07	8345439.25	0.0503	0.0225
Mercury	18137-06-25 16:19 G	8345639.09	8345639.18	8345639.28	0.0496	0.0366
Mercury	18137-09-23 04:19 G	8345728.54	8345728.68	8345728.82	0.0493	0.0203
Earth	18137-11-17 16:33 G	8345784.06	8345784.19	8345784.32	0.0491	0.0398
Moon	18137-11-17 17:31 G	8345784.13	8345784.23	8345784.35	0.0491	0.0423 *
Moon	18138-12-17 14:09 G	8346178.90	8346179.09	8346179.29	0.0484	0.0267
Earth	18138-12-17 17:16 G	8346179.03	8346179.22	8346179.43	0.0484	0.0243 *
Venus	18143-05-27 22:04 G	8347801.22	8347801.42	8347801.62	0.0528	0.0121
Mercury	18143-11-25 08:38 G	8347982.71	8347982.86	8347983.01	0.0535	0.0006
Earth	18144-05-30 11:02 G	8348169.75	8348169.96	8348170.18	0.0540	0.0200
Moon	18144-05-30 15:07 G	8348169.92	8348170.13	8348170.34	0.0540	0.0228 *
Mercury	18149-07-12 06:57 G	8350038.64	8350038.79	8350038.94	0.0493	0.0063
Earth	18149-11-21 22:48 G	8350171.27	8350171.45	8350171.63	0.0490	0.0309
Moon	18149-11-21 23:31 G	8350171.30	8350171.48	8350171.66	0.0490	0.0326 *
Earth	18150-12-21 20:38 G	8350566.19	8350566.36	8350566.53	0.0484	0.0328
Moon	18150-12-21 22:33 G	8350566.28	8350566.44	8350566.60	0.0484	0.0345 *
Venus	18155-01-30 14:24 G	8352066.97	8352067.10	8352067.24	0.0525	0.0393
Mercury	18155-09-13 09:21 G	8352292.75	8352292.89	8352293.04	0.0534	0.0186
Moon	18156-06-04 18:57 G	8352558.05	8352558.29	8352558.52	0.0542	0.0051
Earth	18156-06-04 22:04 G	8352558.19	8352558.42	8352558.66	0.0542	0.0069 *
Venus	18160-12-10 00:57 G	8354207.48	8354207.54	8354207.60	0.0499	0.0476
Mercury	18161-04-30 09:50 G	8354348.76	8354348.91	8354349.05	0.0494	0.0078
Moon	18161-11-26 02:09 G	8354558.38	8354558.59	8354558.79	0.0488	0.0198
Earth	18161-11-26 04:19 G	8354558.48	8354558.68	8354558.89	0.0488	0.0217 *
Moon	18162-12-25 23:45 G	8354953.35	8354953.49	8354953.63	0.0484	0.0393
Earth	18162-12-26 00:28 G	8354953.41	8354953.52	8354953.64	0.0484	0.0415 *
Mercury	18167-07-02 10:19 G	8356602.82	8356602.93	8356603.04	0.0533	0.0364
Mercury	18167-09-30 06:43 G	8356692.68	8356692.78	8356692.89	0.0536	0.0384

Earth	18168-06-10 10:04 G	8356946.69	8356946.92	8356947.15	0.0543	0.0066
Moon	18168-06-10 11:02 G	8356946.74	8356946.96	8356947.18	0.0543	0.0092 *
Mars	18170-07-09 00:43 G	8357705.28	8357705.53	8357705.77	0.0533	0.0185
Venus	18172-08-15 00:43 G	8358473.33	8358473.53	8358473.74	0.0501	0.0033
Mercury	18173-02-16 12:00 G	8358658.87	8358659.00	8358659.13	0.0495	0.0225
Mercury	18173-05-17 00:00 G	8358748.40	8358748.50	8358748.61	0.0492	0.0347
Earth	18173-11-30 07:12 G	8358945.57	8358945.80	8358946.02	0.0487	0.0129
Moon	18173-11-30 10:33 G	8358945.71	8358945.94	8358946.18	0.0487	0.0103 *
Moon	18174-12-30 02:38 G	8359340.57	8359340.61	8359340.66	0.0484	0.0472
Venus	18179-02-02 16:48 G	8360836.10	8360836.20	8360836.32	0.0529	0.0444
Mercury	18179-07-19 07:40 G	8361002.68	8361002.82	8361002.96	0.0535	0.0203
Earth	18180-06-15 19:12 G	8361335.08	8361335.30	8361335.52	0.0543	0.0199
Moon	18180-06-15 21:07 G	8361335.16	8361335.38	8361335.62	0.0543	0.0174 *
Venus	18184-04-20 00:43 G	8362739.42	8362739.53	8362739.64	0.0504	0.0414
Mercury	18184-12-05 14:38 G	8362969.02	8362969.11	8362969.21	0.0495	0.0364
Mercury	18185-03-05 02:38 G	8363058.47	8363058.61	8363058.75	0.0493	0.0203
Moon	18185-12-04 08:09 G	8363332.61	8363332.84	8363333.07	0.0487	0.0043
Earth	18185-12-04 12:00 G	8363332.77	8363333.00	8363333.24	0.0487	0.0037 *
Venus	18190-10-08 05:31 G	8365101.53	8365101.73	8365101.93	0.0526	0.0097
Mercury	18191-05-07 06:57 G	8365312.64	8365312.79	8365312.94	0.0534	0.0007
Moon	18192-06-20 18:57 G	8365723.11	8365723.29	8365723.48	0.0544	0.0304
Earth	18192-06-20 22:48 G	8365723.26	8365723.45	8365723.64	0.0544	0.0324 *
Mercury	18196-12-22 05:31 G	8367368.58	8367368.73	8367368.87	0.0494	0.0067
Earth	18197-12-08 17:45 G	8367720.01	8367720.24	8367720.47	0.0486	0.0055
Moon	18197-12-08 21:36 G	8367720.16	8367720.40	8367720.63	0.0486	0.0027 *
Mercury	18203-02-24 07:12 G	8369622.66	8369622.80	8369622.95	0.0534	0.0191
Moon	18203-05-20 17:16 G	8369708.10	8369708.22	8369708.35	0.0537	0.0441
Earth	18203-05-20 19:40 G	8369708.21	8369708.32	8369708.44	0.0537	0.0468 *
Earth	18204-06-27 08:24 G	8370111.73	8370111.85	8370111.98	0.0544	0.0453
Moon	18204-06-27 12:28 G	8370111.92	8370112.02	8370112.13	0.0544	0.0483 *

Venus	18208-04-23 12:28 G	8371507.86	8371508.02	8371508.19	0.0500	0.0296
Mercury	18208-10-11 08:09 G	8371678.69	8371678.84	8371678.99	0.0494	0.0073
Moon	18208-11-13 19:12 G	8371712.29	8371712.30	8371712.32	0.0493	0.0491
Moon	18209-12-13 18:43 G	8372107.05	8372107.28	8372107.51	0.0485	0.0138
Earth	18209-12-13 21:50 G	8372107.18	8372107.41	8372107.63	0.0485	0.0143 *
Mercury	18214-12-13 07:55 G	8373932.72	8373932.83	8373932.94	0.0533	0.0374
Mercury	18215-03-13 04:19 G	8374022.58	8374022.68	8374022.79	0.0536	0.0376
Earth	18215-05-26 04:33 G	8374096.52	8374096.69	8374096.87	0.0539	0.0345
Moon	18215-05-26 08:38 G	8374096.69	8374096.86	8374097.03	0.0539	0.0368 *
Venus	18219-12-28 13:40 G	8375773.88	8375774.07	8375774.27	0.0502	0.0142
Mercury	18220-07-30 11:02 G	8375988.83	8375988.96	8375989.09	0.0495	0.0211
Mercury	18220-10-27 23:16 G	8376078.37	8376078.47	8376078.57	0.0492	0.0361
Earth	18220-11-18 01:12 G	8376099.43	8376099.55	8376099.68	0.0491	0.0407
Moon	18220-11-18 01:55 G	8376099.47	8376099.58	8376099.70	0.0491	0.0431 *
Earth	18221-12-18 01:40 G	8376494.37	8376494.57	8376494.78	0.0484	0.0232
Moon	18221-12-18 03:36 G	8376494.46	8376494.65	8376494.84	0.0484	0.0261 *
Mars	18224-03-27 00:00 G	8377324.24	8377324.50	8377324.77	0.0495	0.0191
Venus	18226-06-16 23:16 G	8378136.29	8378136.47	8378136.66	0.0528	0.0218
Mercury	18226-12-30 05:45 G	8378332.60	8378332.74	8378332.88	0.0536	0.0204
Moon	18227-05-31 12:28 G	8378484.81	8378485.02	8378485.23	0.0540	0.0243
Earth	18227-05-31 16:04 G	8378484.96	8378485.17	8378485.39	0.0540	0.0215 *
Mercury	18232-05-18 13:26 G	8380298.96	8380299.06	8380299.16	0.0495	0.0356
Mercury	18232-08-16 01:12 G	8380388.42	8380388.55	8380388.69	0.0493	0.0211
Moon	18232-11-22 02:52 G	8380486.46	8380486.62	8380486.79	0.0490	0.0331
Earth	18232-11-22 05:16 G	8380486.55	8380486.72	8380486.90	0.0490	0.0318 *
Moon	18233-12-22 03:36 G	8380881.48	8380881.65	8380881.83	0.0484	0.0329
Earth	18233-12-22 04:04 G	8380881.50	8380881.67	8380881.85	0.0484	0.0317 *
Venus	18238-02-19 15:50 G	8382401.99	8382402.16	8382402.33	0.0525	0.0299
Mercury	18238-10-18 06:28 G	8382642.62	8382642.77	8382642.92	0.0535	0.0022
Earth	18239-06-06 01:12 G	8382873.32	8382873.55	8382873.78	0.0541	0.0084

Moon	18239-06-06 03:07 G	8382873.41	8382873.63	8382873.86	0.0541	0.0064 *
Mercury	18244-03-06 16:19 G	8384609.17	8384609.18	8384609.19	0.0496	0.0493
Mercury	18244-06-04 03:50 G	8384698.51	8384698.66	8384698.81	0.0493	0.0069
Earth	18244-11-26 11:02 G	8384873.76	8384873.96	8384874.17	0.0489	0.0227
Moon	18244-11-26 14:38 G	8384873.90	8384874.11	8384874.33	0.0489	0.0200 *
Moon	18245-12-26 08:09 G	8385268.71	8385268.84	8385268.98	0.0484	0.0383
Earth	18245-12-26 08:38 G	8385268.74	8385268.86	8385268.99	0.0484	0.0404 *
Mercury	18250-08-06 06:00 G	8386952.60	8386952.75	8386952.89	0.0533	0.0183
Earth	18251-06-11 04:19 G	8387261.44	8387261.68	8387261.91	0.0542	0.0042
Moon	18251-06-11 04:48 G	8387261.46	8387261.70	8387261.95	0.0542	0.0061 *
Venus	18255-09-05 00:00 G	8388808.30	8388808.50	8388808.70	0.0501	0.0112
Mercury	18256-03-23 06:43 G	8389008.63	8389008.78	8389008.93	0.0494	0.0069
Moon	18256-11-30 13:40 G	8389260.84	8389261.07	8389261.30	0.0488	0.0111
Earth	18256-11-30 17:31 G	8389261.01	8389261.23	8389261.46	0.0488	0.0137 *
Moon	18257-12-30 16:04 G	8389656.11	8389656.17	8389656.23	0.0484	0.0466
Venus	18262-02-22 13:40 G	8391171.02	8391171.07	8391171.12	0.0529	0.0511
Mercury	18262-05-25 06:00 G	8391262.64	8391262.75	8391262.86	0.0533	0.0373
Mercury	18262-08-23 02:38 G	8391352.50	8391352.61	8391352.71	0.0536	0.0375
Moon	18263-06-16 10:19 G	8391649.71	8391649.93	8391650.15	0.0543	0.0145
Earth	18263-06-16 13:26 G	8391649.84	8391650.06	8391650.28	0.0543	0.0174 *
Venus	18267-05-11 00:57 G	8393074.39	8393074.54	8393074.69	0.0504	0.0328
Mercury	18268-01-10 09:36 G	8393318.77	8393318.90	8393319.03	0.0495	0.0205
Mercury	18268-04-08 21:50 G	8393408.31	8393408.41	8393408.51	0.0492	0.0367
Earth	18268-12-04 22:33 G	8393648.21	8393648.44	8393648.67	0.0487	0.0046
Moon	18268-12-05 02:24 G	8393648.37	8393648.60	8393648.82	0.0487	0.0058 *
Venus	18273-10-28 05:16 G	8395436.51	8395436.72	8395436.92	0.0527	0.0013
Mercury	18274-06-11 03:36 G	8395662.51	8395662.65	8395662.79	0.0536	0.0197
Earth	18275-06-22 01:26 G	8396038.37	8396038.56	8396038.76	0.0544	0.0306
Moon	18275-06-22 05:31 G	8396038.54	8396038.73	8396038.94	0.0544	0.0289 *
Mercury	18279-10-29 12:28 G	8397628.92	8397629.02	8397629.13	0.0495	0.0341

Mercury	18280-01-27 00:28 G	8397718.38	8397718.52	8397718.65	0.0493	0.0227
Moon	18280-12-09 00:28 G	8398035.29	8398035.52	8398035.76	0.0486	0.0020
Earth	18280-12-09 03:36 G	8398035.41	8398035.65	8398035.88	0.0486	0.0046 *
Venus	18285-07-02 22:48 G	8399702.43	8399702.45	8399702.49	0.0524	0.0516
Mercury	18286-03-30 04:48 G	8399972.55	8399972.70	8399972.85	0.0535	0.0024
Earth	18286-05-20 01:40 G	8400023.47	8400023.57	8400023.67	0.0537	0.0479
Moon	18286-05-20 05:16 G	8400023.60	8400023.72	8400023.85	0.0537	0.0456 *
Moon	18287-06-27 11:02 G	8400426.85	8400426.96	8400427.09	0.0544	0.0465
Earth	18287-06-27 14:38 G	8400426.98	8400427.11	8400427.25	0.0544	0.0437 *
Venus	18291-05-13 11:31 G	8401842.85	8401842.98	8401843.12	0.0499	0.0372
Mercury	18291-08-17 15:07 G	8401939.10	8401939.13	8401939.16	0.0496	0.0483
Mercury	18291-11-15 02:38 G	8402028.46	8402028.61	8402028.76	0.0493	0.0079
Earth	18292-12-13 06:00 G	8402422.53	8402422.75	8402422.98	0.0485	0.0134
Moon	18292-12-13 07:26 G	8402422.60	8402422.81	8402423.03	0.0485	0.0140 *
Mercury	18298-01-16 05:31 G	8404282.58	8404282.73	8404282.87	0.0534	0.0160
Moon	18298-05-25 06:00 G	8404411.59	8404411.75	8404411.92	0.0538	0.0380
Earth	18298-05-25 10:04 G	8404411.75	8404411.92	8404412.10	0.0538	0.0355 *
Venus	18303-01-17 12:14 G	8406108.81	8406109.01	8406109.21	0.0502	0.0068
Mercury	18303-09-04 05:16 G	8406338.58	8406338.72	8406338.87	0.0494	0.0062
Moon	18303-11-19 06:14 G	8406414.67	8406414.76	8406414.86	0.0492	0.0444
Earth	18303-11-19 08:38 G	8406414.75	8406414.86	8406414.99	0.0492	0.0415 *
Moon	18304-12-18 10:33 G	8406809.74	8406809.94	8406810.15	0.0485	0.0251
Earth	18304-12-18 10:48 G	8406809.75	8406809.95	8406810.16	0.0485	0.0222 *
Venus	18309-07-06 21:50 G	8408471.24	8408471.41	8408471.58	0.0528	0.0297
Mercury	18309-11-05 04:48 G	8408592.59	8408592.70	8408592.81	0.0533	0.0362
Mercury	18310-02-03 01:12 G	8408682.45	8408682.55	8408682.66	0.0536	0.0385
Earth	18310-05-31 12:28 G	8408799.81	8408800.02	8408800.23	0.0539	0.0236
Moon	18310-05-31 15:21 G	8408799.95	8408800.14	8408800.34	0.0539	0.0264 *
Mercury	18315-06-23 08:09 G	8410648.71	8410648.84	8410648.98	0.0495	0.0199
Mercury	18315-09-20 20:24 G	8410738.25	8410738.35	8410738.45	0.0493	0.0374

Earth	18315-11-23 15:50 G	8410801.99	8410802.16	8410802.34	0.0491	0.0326
Moon	18315-11-23 19:40 G	8410802.15	8410802.32	8410802.49	0.0491	0.0331 *
Moon	18316-12-22 15:07 G	8411196.96	8411197.13	8411197.30	0.0484	0.0319
Earth	18316-12-22 16:04 G	8411196.99	8411197.17	8411197.35	0.0484	0.0309 *
Venus	18321-03-11 13:26 G	8412736.88	8412737.06	8412737.25	0.0525	0.0224
Mercury	18321-11-22 01:55 G	8412992.44	8412992.58	8412992.72	0.0535	0.0200
Moon	18322-06-05 19:55 G	8413188.09	8413188.33	8413188.57	0.0541	0.0086
Earth	18322-06-05 20:24 G	8413188.13	8413188.35	8413188.58	0.0541	0.0109 *
Mars	18324-10-03 20:09 G	8414039.09	8414039.34	8414039.60	0.0534	0.0068
Mercury	18327-04-11 11:16 G	8414958.86	8414958.97	8414959.07	0.0496	0.0335
Mercury	18327-07-09 23:02 G	8415048.33	8415048.46	8415048.59	0.0493	0.0234
Moon	18327-11-27 18:14 G	8415189.06	8415189.26	8415189.48	0.0489	0.0210
Earth	18327-11-27 22:19 G	8415189.23	8415189.43	8415189.64	0.0489	0.0237 *
Earth	18328-12-26 19:26 G	8415584.19	8415584.31	8415584.46	0.0484	0.0393
Moon	18328-12-26 22:04 G	8415584.26	8415584.42	8415584.58	0.0484	0.0366 *
Mercury	18333-09-10 02:38 G	8417302.46	8417302.61	8417302.76	0.0535	0.0019
Moon	18334-06-11 04:48 G	8417576.48	8417576.70	8417576.93	0.0542	0.0039
Earth	18334-06-11 07:12 G	8417576.57	8417576.80	8417577.03	0.0542	0.0023 *
Venus	18338-09-25 00:57 G	8419143.36	8419143.54	8419143.73	0.0501	0.0203
Mercury	18339-01-28 14:24 G	8419269.05	8419269.10	8419269.14	0.0496	0.0468
Mercury	18339-04-28 01:55 G	8419358.43	8419358.58	8419358.72	0.0493	0.0096
Earth	18339-12-02 04:19 G	8419576.46	8419576.68	8419576.90	0.0488	0.0144
Moon	18339-12-02 07:55 G	8419576.61	8419576.83	8419577.06	0.0488	0.0123 *
Moon	18340-12-30 20:24 G	8419971.29	8419971.35	8419971.42	0.0484	0.0462
Earth	18340-12-31 00:00 G	8419971.46	8419971.50	8419971.54	0.0484	0.0476
Mercury	18345-06-29 03:36 G	8421612.51	8421612.65	8421612.80	0.0534	0.0158
Earth	18346-06-16 20:09 G	8421965.12	8421965.34	8421965.57	0.0543	0.0160
Moon	18346-06-17 00:14 G	8421965.28	8421965.51	8421965.74	0.0543	0.0126 *
Venus	18350-05-31 00:57 G	8423409.36	8423409.54	8423409.72	0.0503	0.0245
Mercury	18351-02-14 04:19 G	8423668.53	8423668.68	8423668.83	0.0494	0.0050

Moon	18351-12-06 05:02 G	8423963.47	8423963.71	8423963.95	0.0487	0.0070
Earth	18351-12-06 07:55 G	8423963.60	8423963.83	8423964.06	0.0487	0.0054 *
Venus	18356-11-17 08:09 G	8425771.64	8425771.84	8425772.04	0.0527	0.0094
Mercury	18357-04-17 04:19 G	8425922.56	8425922.68	8425922.80	0.0533	0.0339
Mercury	18357-07-16 00:57 G	8426012.44	8426012.54	8426012.63	0.0536	0.0409
Moon	18358-06-22 03:07 G	8426353.43	8426353.63	8426353.83	0.0544	0.0273
Earth	18358-06-22 06:57 G	8426353.60	8426353.79	8426353.99	0.0544	0.0292 *
Mercury	18362-12-03 06:57 G	8427978.66	8427978.79	8427978.93	0.0495	0.0190
Mercury	18363-03-02 19:12 G	8428068.21	8428068.30	8428068.39	0.0492	0.0383
Earth	18363-12-10 12:57 G	8428350.81	8428351.04	8428351.28	0.0486	0.0038
Moon	18363-12-10 14:09 G	8428350.87	8428351.09	8428351.32	0.0486	0.0014 *
Venus	18368-07-22 22:48 G	8430037.34	8430037.45	8430037.57	0.0524	0.0428
Mercury	18369-05-04 00:43 G	8430322.40	8430322.53	8430322.67	0.0535	0.0214
Moon	18369-05-19 20:52 G	8430338.28	8430338.37	8430338.49	0.0535	0.0474
Earth	18369-05-20 01:12 G	8430338.47	8430338.55	8430338.64	0.0535	0.0496 *
Earth	18370-06-27 10:48 G	8430741.81	8430741.95	8430742.11	0.0544	0.0412
Moon	18370-06-27 13:12 G	8430741.92	8430742.05	8430742.18	0.0544	0.0442 *
Venus	18374-06-02 11:02 G	8432177.89	8432177.96	8432178.05	0.0500	0.0455
Mercury	18374-09-21 09:50 G	8432288.80	8432288.91	8432289.02	0.0496	0.0328
Mercury	18374-12-19 21:50 G	8432378.28	8432378.41	8432378.54	0.0493	0.0242
Earth	18375-12-14 18:14 G	8432738.04	8432738.26	8432738.49	0.0486	0.0125
Moon	18375-12-14 18:28 G	8432738.04	8432738.27	8432738.50	0.0486	0.0136 *
Mars	18378-06-22 08:09 G	8433658.56	8433658.84	8433659.12	0.0495	0.0101
Mercury	18381-02-20 01:12 G	8434632.40	8434632.55	8434632.70	0.0534	0.0027
Earth	18381-05-25 07:12 G	8434726.64	8434726.80	8434726.97	0.0537	0.0376
Moon	18381-05-25 10:48 G	8434726.80	8434726.95	8434727.10	0.0537	0.0401 *
Earth	18382-07-02 20:24 G	8435130.32	8435130.35	8435130.38	0.0544	0.0537
Moon	18382-07-02 20:52 G	8435130.35	8435130.37	8435130.40	0.0544	0.0540 *
Venus	18386-02-05 12:43 G	8436443.82	8436444.03	8436444.23	0.0502	0.0021
Mercury	18386-07-10 12:57 G	8436598.99	8436599.04	8436599.09	0.0497	0.0462

Mercury	18386-10-08 00:28 G	8436688.37	8436688.52	8436688.67	0.0494	0.0103
Earth	18386-11-18 19:40 G	8436730.21	8436730.32	8436730.44	0.0493	0.0425
Moon	18386-11-18 23:31 G	8436730.40	8436730.48	8436730.57	0.0493	0.0455 *
Moon	18387-12-18 21:21 G	8437125.19	8437125.39	8437125.58	0.0485	0.0241
Earth	18387-12-18 22:33 G	8437125.23	8437125.44	8437125.65	0.0485	0.0211 *
Venus	18392-07-25 22:04 G	8438806.29	8438806.42	8438806.56	0.0528	0.0388
Mercury	18392-12-09 01:40 G	8438942.42	8438942.57	8438942.72	0.0534	0.0159
Moon	18393-05-30 13:55 G	8439114.87	8439115.08	8439115.29	0.0539	0.0274
Earth	18393-05-30 15:36 G	8439114.94	8439115.15	8439115.36	0.0539	0.0253 *
Venus	18397-10-11 13:40 G	8440709.96	8440710.07	8440710.18	0.0505	0.0423
Mercury	18398-07-27 03:21 G	8440998.49	8440998.64	8440998.79	0.0494	0.0035
Moon	18398-11-22 23:31 G	8441117.31	8441117.48	8441117.64	0.0491	0.0338
Earth	18398-11-23 03:21 G	8441117.48	8441117.64	8441117.81	0.0491	0.0333 *
Earth	18399-12-23 02:52 G	8441512.44	8441512.62	8441512.81	0.0484	0.0299
Moon	18399-12-23 05:31 G	8441512.55	8441512.73	8441512.92	0.0484	0.0299 *
Venus	18404-03-30 15:21 G	8443071.94	8443072.14	8443072.34	0.0526	0.0125
Mercury	18404-09-27 02:38 G	8443252.49	8443252.61	8443252.73	0.0533	0.0337
Mercury	18404-12-25 23:16 G	8443342.37	8443342.47	8443342.56	0.0536	0.0412
Moon	18405-06-05 01:55 G	8443503.36	8443503.58	8443503.80	0.0541	0.0093
Earth	18405-06-05 03:21 G	8443503.42	8443503.64	8443503.87	0.0541	0.0122 *
Mercury	18410-05-15 06:00 G	8445308.61	8445308.75	8445308.89	0.0495	0.0177
Mercury	18410-08-12 18:00 G	8445398.17	8445398.25	8445398.34	0.0492	0.0395
Earth	18410-11-27 08:09 G	8445504.64	8445504.84	8445505.04	0.0489	0.0243
Moon	18410-11-27 11:45 G	8445504.79	8445504.99	8445505.20	0.0489	0.0215 *
Moon	18411-12-27 02:24 G	8445899.45	8445899.60	8445899.76	0.0484	0.0355
Earth	18411-12-27 05:45 G	8445899.61	8445899.74	8445899.89	0.0484	0.0384 *
Mercury	18416-07-16 03:07 G	8447562.60	8447562.63	8447562.66	0.0532	0.0519
Mercury	18416-10-14 00:14 G	8447652.38	8447652.51	8447652.65	0.0535	0.0237
Earth	18417-06-10 14:09 G	8447891.85	8447892.09	8447892.32	0.0542	0.0013
Moon	18417-06-10 17:45 G	8447892.00	8447892.24	8447892.48	0.0542	0.0023 *

Venus	18421-10-14 00:43 G	8449478.36	8449478.53	8449478.70	0.0500	0.0283
Mercury	18422-03-03 08:52 G	8449618.76	8449618.87	8449618.98	0.0496	0.0315
Mercury	18422-05-31 20:38 G	8449708.23	8449708.36	8449708.49	0.0493	0.0253
Moon	18422-12-01 11:31 G	8449891.75	8449891.98	8449892.21	0.0488	0.0137
Earth	18422-12-01 14:09 G	8449891.87	8449892.09	8449892.31	0.0488	0.0152 *
Earth	18423-12-31 10:48 G	8450286.90	8450286.95	8450287.01	0.0484	0.0468
Moon	18423-12-31 14:38 G	8450287.05	8450287.11	8450287.18	0.0484	0.0461
Mercury	18428-08-02 00:14 G	8451962.36	8451962.51	8451962.66	0.0534	0.0042
Moon	18429-06-15 14:24 G	8452279.88	8452280.10	8452280.33	0.0542	0.0104
Earth	18429-06-15 18:43 G	8452280.05	8452280.28	8452280.50	0.0542	0.0136 *
Venus	18433-06-19 00:14 G	8453744.32	8453744.51	8453744.70	0.0504	0.0164
Mercury	18433-12-20 11:31 G	8453928.93	8453928.98	8453929.04	0.0497	0.0455
Mercury	18434-03-19 23:02 G	8454018.32	8454018.46	8454018.61	0.0494	0.0112
Earth	18434-12-05 19:26 G	8454279.08	8454279.31	8454279.55	0.0488	0.0064
Moon	18434-12-05 20:24 G	8454279.13	8454279.35	8454279.57	0.0488	0.0088 *
Venus	18439-12-07 06:57 G	8456106.61	8456106.79	8456106.99	0.0526	0.0179
Mercury	18440-05-21 00:28 G	8456272.37	8456272.52	8456272.67	0.0533	0.0147
Earth	18441-06-21 03:07 G	8456668.43	8456668.63	8456668.84	0.0543	0.0265
Moon	18441-06-21 06:00 G	8456668.56	8456668.75	8456668.96	0.0543	0.0255 *
Mercury	18446-01-06 01:55 G	8458328.44	8458328.58	8458328.73	0.0495	0.0030
Earth	18446-12-10 00:43 G	8458666.30	8458666.53	8458666.76	0.0486	0.0026
Moon	18446-12-10 01:12 G	8458666.31	8458666.55	8458666.79	0.0486	0.0007 *
Venus	18451-08-11 22:48 G	8460372.30	8460372.45	8460372.61	0.0524	0.0341
Mercury	18452-03-09 00:43 G	8460582.41	8460582.53	8460582.65	0.0533	0.0336
Earth	18452-05-19 03:50 G	8460653.60	8460653.66	8460653.73	0.0535	0.0510
Moon	18452-05-19 07:40 G	8460653.73	8460653.82	8460653.92	0.0535	0.0488 *
Mercury	18452-06-06 21:21 G	8460672.29	8460672.39	8460672.48	0.0536	0.0411
Moon	18453-06-26 13:55 G	8461056.93	8461057.08	8461057.23	0.0544	0.0424
Earth	18453-06-26 14:24 G	8461056.94	8461057.10	8461057.26	0.0544	0.0394 *
Mercury	18457-10-25 05:02 G	8462638.57	8462638.71	8462638.85	0.0495	0.0163

Mercury	18458-01-22 17:02 G	8462728.14	8462728.21	8462728.30	0.0492	0.0411
Moon	18458-12-14 04:04 G	8463053.46	8463053.67	8463053.89	0.0485	0.0131
Earth	18458-12-14 05:45 G	8463053.51	8463053.74	8463053.97	0.0485	0.0115 *
Mercury	18463-12-27 01:26 G	8464892.53	8464892.56	8464892.59	0.0532	0.0517
Mercury	18464-03-25 22:33 G	8464982.31	8464982.44	8464982.58	0.0535	0.0239
Moon	18464-05-24 11:16 G	8465041.82	8465041.97	8465042.13	0.0537	0.0411
Earth	18464-05-24 13:40 G	8465041.91	8465042.07	8465042.24	0.0537	0.0388 *
Moon	18465-07-02 01:40 G	8465445.52	8465445.57	8465445.64	0.0545	0.0525
Earth	18465-07-02 03:50 G	8465445.60	8465445.66	8465445.73	0.0545	0.0523 *
Venus	18469-02-24 13:26 G	8466778.87	8466779.06	8466779.26	0.0502	0.0109
Mercury	18469-08-13 07:40 G	8466948.71	8466948.82	8466948.94	0.0496	0.0304
Mercury	18469-11-10 19:26 G	8467038.19	8467038.31	8467038.44	0.0493	0.0265
Moon	18469-11-18 01:55 G	8467045.51	8467045.58	8467045.66	0.0493	0.0462
Earth	18469-11-18 06:00 G	8467045.64	8467045.75	8467045.86	0.0493	0.0430 *
Earth	18470-12-18 08:52 G	8467440.66	8467440.87	8467441.08	0.0485	0.0203
Moon	18470-12-18 11:45 G	8467440.78	8467440.99	8467441.20	0.0485	0.0229 *
Venus	18475-08-15 01:40 G	8469141.50	8469141.57	8469141.63	0.0529	0.0497
Mercury	18476-01-12 23:45 G	8469292.33	8469292.49	8469292.64	0.0535	0.0064
Moon	18476-05-29 22:48 G	8469430.26	8469430.45	8469430.65	0.0539	0.0275
Earth	18476-05-29 23:16 G	8469430.27	8469430.47	8469430.68	0.0539	0.0262 *
Mars	18478-12-29 12:14 G	8470373.83	8470374.01	8470374.19	0.0533	0.0389
Venus	18480-10-30 13:40 G	8471044.92	8471045.07	8471045.22	0.0504	0.0339
Mercury	18481-06-01 10:33 G	8471258.88	8471258.94	8471259.01	0.0496	0.0442
Mercury	18481-08-29 22:04 G	8471348.28	8471348.42	8471348.57	0.0494	0.0125
Earth	18481-11-22 12:57 G	8471432.87	8471433.04	8471433.21	0.0491	0.0340
Moon	18481-11-22 16:33 G	8471433.03	8471433.19	8471433.35	0.0491	0.0340 *
Moon	18482-12-22 10:04 G	8471827.74	8471827.92	8471828.11	0.0485	0.0283
Earth	18482-12-22 13:55 G	8471827.89	8471828.08	8471828.26	0.0485	0.0291 *
Venus	18487-04-19 16:33 G	8473406.99	8473407.19	8473407.40	0.0525	0.0029
Mercury	18487-10-31 23:31 G	8473602.33	8473602.48	8473602.63	0.0533	0.0131

Earth	18488-06-04 03:50 G	8473818.44	8473818.66	8473818.89	0.0540	0.0143
Moon	18488-06-04 06:57 G	8473818.56	8473818.79	8473819.03	0.0540	0.0109 *
Mercury	18493-06-18 00:43 G	8475658.38	8475658.53	8475658.68	0.0495	0.0021
Moon	18493-11-26 16:04 G	8475819.96	8475820.17	8475820.39	0.0490	0.0226
Earth	18493-11-26 18:28 G	8475820.08	8475820.27	8475820.47	0.0490	0.0254 *
Earth	18494-12-26 18:14 G	8476215.12	8476215.26	8476215.41	0.0484	0.0375
Moon	18494-12-26 22:19 G	8476215.27	8476215.43	8476215.59	0.0484	0.0345 *
Mars	18496-12-10 14:38 G	8476929.98	8476930.11	8476930.25	0.0493	0.0431
Mercury	18499-08-19 23:31 G	8477912.36	8477912.48	8477912.61	0.0532	0.0322
Mercury	18499-11-17 20:09 G	8478002.25	8478002.34	8478002.43	0.0535	0.0423
Moon	18500-06-10 07:26 G	8478206.58	8478206.81	8478207.04	0.0541	0.0004
Earth	18500-06-10 11:31 G	8478206.74	8478206.98	8478207.21	0.0541	0.0017 *
Venus	18504-11-03 00:14 G	8479813.38	8479813.51	8479813.65	0.0501	0.0367
Mercury	18505-04-07 03:36 G	8479968.51	8479968.65	8479968.79	0.0495	0.0158
Mercury	18505-07-05 15:50 G	8480058.08	8480058.16	8480058.24	0.0493	0.0417
Earth	18505-12-02 00:43 G	8480207.32	8480207.53	8480207.76	0.0489	0.0164
Moon	18505-12-02 01:26 G	8480207.35	8480207.56	8480207.77	0.0489	0.0160 *
Moon	18506-12-31 18:14 G	8480602.18	8480602.26	8480602.36	0.0484	0.0448
Earth	18506-12-31 22:04 G	8480602.34	8480602.42	8480602.50	0.0484	0.0455 *
Mercury	18511-06-08 23:31 G	8482222.45	8482222.48	8482222.52	0.0532	0.0515
Mercury	18511-09-06 20:38 G	8482312.23	8482312.36	8482312.50	0.0535	0.0239
Earth	18512-06-15 20:52 G	8482595.14	8482595.37	8482595.59	0.0543	0.0117
Moon	18512-06-16 00:28 G	8482595.29	8482595.52	8482595.74	0.0543	0.0086 *
Venus	18516-07-09 01:55 G	8484079.38	8484079.58	8484079.78	0.0503	0.0071
Mercury	18517-01-24 06:43 G	8484278.66	8484278.78	8484278.90	0.0496	0.0292
Mercury	18517-04-23 18:28 G	8484368.15	8484368.27	8484368.39	0.0493	0.0278
Earth	18517-12-06 06:57 G	8484594.56	8484594.79	8484595.02	0.0488	0.0072
Moon	18517-12-06 07:40 G	8484594.59	8484594.82	8484595.06	0.0488	0.0100 *
Venus	18522-12-27 08:24 G	8486441.68	8486441.85	8486442.03	0.0527	0.0274
Mercury	18523-06-25 21:50 G	8486622.26	8486622.41	8486622.56	0.0534	0.0063

Moon	18524-06-21 07:55 G	8486983.62	8486983.83	8486984.05	0.0544	0.0247
Earth	18524-06-21 09:36 G	8486983.69	8486983.90	8486984.11	0.0544	0.0250 *
Mercury	18528-11-12 09:36 G	8488588.83	8488588.90	8488588.97	0.0496	0.0431
Mercury	18529-02-09 20:52 G	8488678.23	8488678.37	8488678.52	0.0494	0.0135
Moon	18529-12-10 09:07 G	8488981.65	8488981.88	8488982.11	0.0487	0.0002
Earth	18529-12-10 11:02 G	8488981.72	8488981.96	8488982.19	0.0487	0.0019 *
Mars	18532-09-16 15:36 G	8489992.98	8489993.15	8489993.33	0.0495	0.0387
Venus	18534-09-01 01:55 G	8490707.40	8490707.58	8490707.76	0.0525	0.0236
Mercury	18535-04-13 22:48 G	8490932.30	8490932.45	8490932.60	0.0534	0.0116
Moon	18535-05-20 08:38 G	8490968.78	8490968.86	8490968.96	0.0535	0.0497
Earth	18535-05-20 12:00 G	8490968.94	8490969.00	8490969.06	0.0535	0.0517 *
Moon	18536-06-26 20:09 G	8491372.20	8491372.34	8491372.48	0.0544	0.0415
Earth	18536-06-26 21:21 G	8491372.23	8491372.39	8491372.56	0.0544	0.0380 *
Mercury	18540-11-28 23:45 G	8492988.34	8492988.49	8492988.64	0.0494	0.0008
Earth	18541-12-14 15:50 G	8493368.93	8493369.16	8493369.39	0.0486	0.0107
Moon	18541-12-14 18:57 G	8493369.06	8493369.29	8493369.52	0.0486	0.0128 *
Mercury	18547-01-30 22:48 G	8495242.32	8495242.45	8495242.57	0.0532	0.0306
Mercury	18547-04-30 19:12 G	8495332.22	8495332.30	8495332.38	0.0535	0.0438
Earth	18547-05-25 16:04 G	8495357.03	8495357.17	8495357.33	0.0536	0.0406
Moon	18547-05-25 16:48 G	8495357.07	8495357.20	8495357.33	0.0536	0.0434 *
Earth	18548-07-02 02:24 G	8495760.51	8495760.60	8495760.70	0.0544	0.0497
Moon	18548-07-02 05:31 G	8495760.64	8495760.73	8495760.83	0.0544	0.0495 *
Venus	18552-03-16 12:00 G	8497113.81	8497114.00	8497114.19	0.0502	0.0185
Mercury	18552-09-17 02:09 G	8497298.45	8497298.59	8497298.73	0.0496	0.0152
Earth	18552-11-18 14:09 G	8497361.00	8497361.09	8497361.20	0.0494	0.0443
Moon	18552-11-18 17:45 G	8497361.18	8497361.24	8497361.31	0.0494	0.0472 *
Mercury	18552-12-15 14:24 G	8497388.02	8497388.10	8497388.17	0.0493	0.0424
Moon	18553-12-18 16:33 G	8497755.99	8497756.19	8497756.40	0.0486	0.0215
Earth	18553-12-18 20:09 G	8497756.13	8497756.34	8497756.56	0.0486	0.0192 *
Mercury	18558-11-18 22:33 G	8499552.39	8499552.44	8499552.49	0.0531	0.0499

Mercury	18559-02-16 19:40 G	8499642.19	8499642.32	8499642.45	0.0534	0.0253
Earth	18559-05-30 22:04 G	8499745.22	8499745.42	8499745.62	0.0538	0.0284
Moon	18559-05-31 00:14 G	8499745.31	8499745.51	8499745.72	0.0538	0.0289 *
Venus	18563-11-20 12:14 G	8501379.84	8501380.01	8501380.19	0.0505	0.0262
Mercury	18564-07-06 05:02 G	8501608.59	8501608.71	8501608.83	0.0496	0.0289
Mercury	18564-10-03 16:48 G	8501698.08	8501698.20	8501698.33	0.0493	0.0283
Moon	18564-11-22 19:26 G	8501748.15	8501748.31	8501748.48	0.0492	0.0348
Earth	18564-11-22 21:50 G	8501748.25	8501748.41	8501748.57	0.0492	0.0354 *
Earth	18565-12-23 00:00 G	8502143.31	8502143.50	8502143.70	0.0485	0.0278
Moon	18565-12-23 03:50 G	8502143.47	8502143.66	8502143.85	0.0485	0.0261 *
Venus	18570-05-09 15:50 G	8503741.96	8503742.16	8503742.36	0.0526	0.0055
Mercury	18570-12-05 19:55 G	8503952.18	8503952.33	8503952.48	0.0534	0.0064
Moon	18571-06-05 01:12 G	8504133.33	8504133.55	8504133.77	0.0540	0.0127
Earth	18571-06-05 04:48 G	8504133.48	8504133.70	8504133.93	0.0540	0.0161 *
Mercury	18576-04-24 08:09 G	8505918.77	8505918.84	8505918.92	0.0497	0.0423
Mercury	18576-07-22 19:40 G	8506008.18	8506008.32	8506008.47	0.0494	0.0145
Earth	18576-11-27 05:16 G	8506135.53	8506135.72	8506135.92	0.0490	0.0262
Moon	18576-11-27 05:45 G	8506135.54	8506135.74	8506135.94	0.0490	0.0235 *
Moon	18577-12-27 01:12 G	8506530.38	8506530.55	8506530.73	0.0484	0.0332
Earth	18577-12-27 04:33 G	8506530.54	8506530.69	8506530.85	0.0484	0.0363 *
Venus	18582-01-12 09:07 G	8508007.79	8508007.88	8508007.99	0.0523	0.0452
Mercury	18582-09-23 20:52 G	8508262.22	8508262.37	8508262.52	0.0533	0.0117
Earth	18583-06-10 15:50 G	8508521.93	8508522.16	8508522.39	0.0541	0.0029
Moon	18583-06-10 19:40 G	8508522.09	8508522.32	8508522.56	0.0541	0.0023 *
Venus	18587-11-23 00:43 G	8510148.45	8510148.53	8510148.62	0.0500	0.0452
Mercury	18588-05-10 22:19 G	8510318.29	8510318.43	8510318.58	0.0494	0.0013
Earth	18588-12-01 10:33 G	8510522.72	8510522.94	8510523.16	0.0489	0.0172
Moon	18588-12-01 11:45 G	8510522.76	8510522.99	8510523.21	0.0489	0.0173 *
Earth	18589-12-31 07:26 G	8510917.73	8510917.81	8510917.91	0.0484	0.0445
Moon	18589-12-31 09:50 G	8510917.83	8510917.91	8510918.01	0.0484	0.0445 *

Mercury	18594-07-12 21:36 G	8512572.27	8512572.40	8512572.53	0.0533	0.0295
Mercury	18594-10-10 18:14 G	8512662.18	8512662.26	8512662.34	0.0536	0.0452
Moon	18595-06-16 00:57 G	8512910.30	8512910.54	8512910.78	0.0542	0.0071
Earth	18595-06-16 03:21 G	8512910.41	8512910.64	8512910.87	0.0542	0.0103 *
Mars	18597-06-20 03:21 G	8513645.41	8513645.64	8513645.87	0.0535	0.0248
Venus	18599-07-29 01:40 G	8514414.36	8514414.57	8514414.77	0.0503	0.0013
Mercury	18600-02-28 01:12 G	8514628.41	8514628.55	8514628.69	0.0495	0.0138
Mercury	18600-05-28 13:26 G	8514717.99	8514718.06	8514718.12	0.0492	0.0436
Moon	18600-12-06 13:55 G	8514909.87	8514910.08	8514910.31	0.0488	0.0111
Earth	18600-12-06 16:04 G	8514909.94	8514910.17	8514910.40	0.0488	0.0081 *
Venus	18606-01-16 10:04 G	8516776.78	8516776.92	8516777.07	0.0527	0.0375
Mercury	18606-05-01 21:36 G	8516882.34	8516882.40	8516882.46	0.0531	0.0484
Mercury	18606-07-30 18:43 G	8516972.15	8516972.28	8516972.41	0.0534	0.0267
Earth	18607-06-22 09:36 G	8517298.69	8517298.90	8517299.11	0.0543	0.0226
Moon	18607-06-22 09:21 G	8517298.69	8517298.89	8517299.10	0.0543	0.0229 *
Venus	18611-04-03 23:02 G	8518680.38	8518680.46	8518680.56	0.0506	0.0451
Mercury	18611-12-18 03:36 G	8518938.53	8518938.65	8518938.77	0.0496	0.0284
Mercury	18612-03-16 15:21 G	8519028.02	8519028.14	8519028.26	0.0494	0.0288
Earth	18612-12-10 20:09 G	8519297.11	8519297.34	8519297.57	0.0487	0.0006
Moon	18612-12-10 23:16 G	8519297.23	8519297.47	8519297.71	0.0487	0.0007 *
Venus	18617-09-21 01:55 G	8521042.39	8521042.58	8521042.78	0.0524	0.0146
Mercury	18618-05-18 18:57 G	8521282.14	8521282.29	8521282.44	0.0533	0.0079
Moon	18618-05-20 13:26 G	8521284.03	8521284.06	8521284.10	0.0534	0.0524
Earth	18619-06-27 17:31 G	8521687.05	8521687.23	8521687.41	0.0543	0.0351
Moon	18619-06-27 19:40 G	8521687.16	8521687.32	8521687.49	0.0543	0.0386 *
Mercury	18623-10-06 06:28 G	8523248.70	8523248.77	8523248.85	0.0497	0.0421
Mercury	18624-01-03 18:00 G	8523338.11	8523338.25	8523338.40	0.0494	0.0146
Moon	18624-12-14 21:07 G	8523684.16	8523684.38	8523684.61	0.0486	0.0118
Earth	18624-12-15 00:43 G	8523684.31	8523684.53	8523684.76	0.0486	0.0093 *
Mercury	18630-03-06 18:57 G	8525592.14	8525592.29	8525592.44	0.0533	0.0116

Earth	18630-05-25 15:36 G	8525672.01	8525672.15	8525672.29	0.0536	0.0422
Moon	18630-05-25 16:48 G	8525672.08	8525672.20	8525672.33	0.0536	0.0451 *
Moon	18631-07-02 22:48 G	8526075.34	8526075.45	8526075.56	0.0544	0.0474
Earth	18631-07-03 02:24 G	8526075.49	8526075.60	8526075.71	0.0544	0.0476 *
Venus	18635-04-06 12:28 G	8527448.85	8527449.02	8527449.19	0.0502	0.0271
Mercury	18635-10-22 21:07 G	8527648.23	8527648.38	8527648.52	0.0495	0.0017
Moon	18635-11-19 21:50 G	8527676.35	8527676.41	8527676.48	0.0494	0.0473
Earth	18635-11-20 00:00 G	8527676.41	8527676.50	8527676.60	0.0494	0.0450 *
Earth	18636-12-19 05:45 G	8528071.53	8528071.74	8528071.96	0.0485	0.0181
Moon	18636-12-19 09:21 G	8528071.68	8528071.89	8528072.10	0.0485	0.0199 *
Mercury	18641-12-23 19:26 G	8529902.18	8529902.31	8529902.44	0.0532	0.0298
Mercury	18642-03-23 16:04 G	8529992.09	8529992.17	8529992.25	0.0536	0.0448
Moon	18642-05-30 21:07 G	8530060.19	8530060.38	8530060.57	0.0538	0.0307
Earth	18642-05-31 00:14 G	8530060.32	8530060.51	8530060.71	0.0538	0.0300 *
Venus	18646-12-10 12:43 G	8531714.84	8531715.03	8531715.23	0.0504	0.0175
Mercury	18647-08-10 23:45 G	8531958.35	8531958.49	8531958.63	0.0495	0.0132
Mercury	18647-11-08 11:45 G	8532047.93	8532047.99	8532048.06	0.0493	0.0442
Earth	18647-11-24 06:43 G	8532063.63	8532063.78	8532063.95	0.0492	0.0362
Moon	18647-11-24 07:12 G	8532063.64	8532063.80	8532063.96	0.0492	0.0347 *
Moon	18648-12-23 05:45 G	8532458.54	8532458.74	8532458.95	0.0485	0.0249
Earth	18648-12-23 09:07 G	8532458.69	8532458.88	8532459.08	0.0485	0.0267 *
Mars	18651-03-08 15:21 G	8533263.87	8533264.14	8533264.42	0.0493	0.0169
Venus	18653-05-29 17:45 G	8534077.05	8534077.24	8534077.44	0.0526	0.0155
Mercury	18653-10-11 19:55 G	8534212.27	8534212.33	8534212.40	0.0532	0.0480
Mercury	18654-01-09 17:16 G	8534302.09	8534302.22	8534302.35	0.0535	0.0274
Earth	18654-06-05 10:33 G	8534448.72	8534448.94	8534449.16	0.0539	0.0174
Moon	18654-06-05 14:38 G	8534448.88	8534449.11	8534449.33	0.0539	0.0139 *
Mercury	18659-05-30 02:38 G	8536268.49	8536268.61	8536268.73	0.0496	0.0271
Mercury	18659-08-27 14:24 G	8536357.98	8536358.10	8536358.22	0.0493	0.0299
Earth	18659-11-28 13:26 G	8536450.87	8536451.06	8536451.25	0.0491	0.0271

Moon	18659-11-28 14:38 G	8536450.91	8536451.11	8536451.33	0.0491	0.0244 *
Earth	18660-12-27 13:40 G	8536845.91	8536846.07	8536846.23	0.0484	0.0352
Moon	18660-12-27 15:36 G	8536845.99	8536846.15	8536846.33	0.0484	0.0327 *
Venus	18665-02-01 10:48 G	8538342.81	8538342.95	8538343.11	0.0523	0.0353
Mercury	18665-10-28 17:45 G	8538612.09	8538612.24	8538612.39	0.0534	0.0090
Moon	18666-06-10 14:09 G	8538836.85	8538837.09	8538837.33	0.0540	0.0046
Earth	18666-06-10 17:16 G	8538836.99	8538837.22	8538837.46	0.0540	0.0052 *
Mercury	18671-03-18 05:02 G	8540578.63	8540578.71	8540578.78	0.0497	0.0419
Mercury	18671-06-15 16:19 G	8540668.04	8540668.18	8540668.33	0.0494	0.0149
Moon	18671-12-02 15:07 G	8540837.92	8540838.13	8540838.34	0.0490	0.0190
Earth	18671-12-02 17:16 G	8540838.01	8540838.22	8540838.44	0.0490	0.0186 *
Moon	18672-12-31 16:19 G	8541233.08	8541233.18	8541233.29	0.0485	0.0436
Earth	18672-12-31 17:02 G	8541233.11	8541233.21	8541233.31	0.0485	0.0432 *
Mercury	18677-08-16 18:00 G	8542922.10	8542922.25	8542922.40	0.0533	0.0101
Earth	18678-06-16 00:14 G	8543225.28	8543225.51	8543225.74	0.0541	0.0076
Moon	18678-06-16 00:57 G	8543225.32	8543225.54	8543225.77	0.0541	0.0045 *
Venus	18682-08-17 22:19 G	8544749.23	8544749.43	8544749.63	0.0503	0.0079
Mercury	18683-04-03 19:12 G	8544978.15	8544978.30	8544978.44	0.0495	0.0014
Earth	18683-12-06 22:48 G	8545225.23	8545225.45	8545225.68	0.0489	0.0097
Moon	18683-12-07 02:09 G	8545225.36	8545225.59	8545225.82	0.0489	0.0125 *
Venus	18689-02-04 07:40 G	8547111.71	8547111.82	8547111.93	0.0527	0.0447
Mercury	18689-06-04 17:31 G	8547232.10	8547232.23	8547232.36	0.0532	0.0299
Mercury	18689-09-02 14:09 G	8547322.01	8547322.09	8547322.17	0.0535	0.0446
Earth	18690-06-21 06:57 G	8547613.58	8547613.79	8547614.01	0.0543	0.0203
Moon	18690-06-21 08:24 G	8547613.63	8547613.85	8547614.08	0.0543	0.0207 *
Venus	18694-04-22 23:02 G	8549015.32	8549015.46	8549015.60	0.0506	0.0368
Mercury	18695-01-20 22:04 G	8549288.28	8549288.42	8549288.56	0.0496	0.0129
Mercury	18695-04-20 10:19 G	8549377.87	8549377.93	8549377.99	0.0493	0.0446
Moon	18695-12-11 01:12 G	8549612.32	8549612.55	8549612.79	0.0487	0.0013
Earth	18695-12-11 05:02 G	8549612.47	8549612.71	8549612.94	0.0487	0.0008 *

Venus	18700-10-11 00:00 G	8551377.30	8551377.50	8551377.71	0.0525	0.0072
Mercury	18701-03-24 17:45 G	8551542.18	8551542.24	8551542.30	0.0531	0.0485
Mercury	18701-06-22 14:52 G	8551632.00	8551632.12	8551632.26	0.0535	0.0269
Moon	18702-06-27 15:36 G	8552001.99	8552002.15	8552002.32	0.0544	0.0367
Earth	18702-06-27 18:43 G	8552002.10	8552002.28	8552002.47	0.0544	0.0332 *
Mercury	18706-11-10 00:57 G	8553598.42	8553598.54	8553598.66	0.0496	0.0268
Mercury	18707-02-07 12:43 G	8553687.91	8553688.03	8553688.15	0.0493	0.0302
Earth	18707-12-16 08:52 G	8553999.64	8553999.87	8554000.10	0.0486	0.0082
Moon	18707-12-16 12:14 G	8553999.79	8554000.01	8554000.24	0.0486	0.0112 *
Mercury	18713-04-10 16:04 G	8555942.02	8555942.17	8555942.32	0.0534	0.0092
Moon	18713-05-25 17:31 G	8555987.13	8555987.23	8555987.34	0.0536	0.0468
Earth	18713-05-25 20:09 G	8555987.21	8555987.34	8555987.48	0.0536	0.0433 *
Earth	18714-07-03 06:43 G	8556390.66	8556390.78	8556390.90	0.0544	0.0459
Moon	18714-07-03 10:19 G	8556390.81	8556390.93	8556391.07	0.0544	0.0448 *
Venus	18718-04-26 11:02 G	8557783.82	8557783.96	8557784.11	0.0501	0.0347
Mercury	18718-08-29 03:50 G	8557908.58	8557908.66	8557908.75	0.0497	0.0407
Earth	18718-11-20 06:57 G	8557991.71	8557991.79	8557991.88	0.0494	0.0459
Moon	18718-11-20 07:12 G	8557991.75	8557991.80	8557991.86	0.0494	0.0477 *
Mercury	18718-11-26 15:21 G	8557998.00	8557998.14	8557998.28	0.0494	0.0160
Moon	18719-12-20 10:33 G	8558386.72	8558386.94	8558387.16	0.0486	0.0186
Earth	18719-12-20 13:40 G	8558386.85	8558387.07	8558387.28	0.0486	0.0170 *
Mercury	18725-01-27 16:33 G	8560252.04	8560252.19	8560252.34	0.0533	0.0091
Earth	18725-05-31 02:38 G	8560375.43	8560375.61	8560375.80	0.0537	0.0318
Moon	18725-05-31 06:43 G	8560375.59	8560375.78	8560375.97	0.0537	0.0321 *
Moon	18726-07-08 11:02 G	8560778.95	8560778.96	8560778.98	0.0544	0.0541
Venus	18729-12-30 08:52 G	8562049.67	8562049.87	8562050.07	0.0504	0.0112
Mercury	18730-09-14 17:16 G	8562308.08	8562308.22	8562308.37	0.0495	0.0017
Earth	18730-11-24 11:02 G	8562378.82	8562378.96	8562379.12	0.0493	0.0376
Moon	18730-11-24 12:43 G	8562378.86	8562379.03	8562379.19	0.0493	0.0353 *
Earth	18731-12-24 16:19 G	8562773.98	8562774.18	8562774.38	0.0485	0.0253

Moon	18731-12-24 18:14 G	8562774.06	8562774.26	8562774.46	0.0485	0.0234 *
Venus	18736-06-18 17:02 G	8564412.03	8564412.21	8564412.39	0.0526	0.0241
Mercury	18736-11-15 16:33 G	8564562.06	8564562.19	8564562.32	0.0532	0.0283
Mercury	18737-02-13 13:12 G	8564651.97	8564652.05	8564652.12	0.0535	0.0460
Moon	18737-06-05 04:33 G	8564763.47	8564763.69	8564763.92	0.0538	0.0164
Earth	18737-06-05 08:24 G	8564763.63	8564763.85	8564764.07	0.0538	0.0196 *
Mercury	18742-07-03 20:09 G	8566618.20	8566618.34	8566618.48	0.0496	0.0133
Mercury	18742-10-01 08:09 G	8566707.78	8566707.84	8566707.91	0.0493	0.0444
Moon	18742-11-28 15:36 G	8566765.96	8566766.15	8566766.34	0.0492	0.0260
Earth	18742-11-28 18:00 G	8566766.06	8566766.25	8566766.44	0.0492	0.0287 *
Moon	18743-12-28 19:26 G	8567161.13	8567161.31	8567161.50	0.0485	0.0313
Earth	18743-12-28 19:55 G	8567161.17	8567161.33	8567161.50	0.0485	0.0336 *
Venus	18748-02-22 07:12 G	8568677.64	8568677.80	8568677.98	0.0523	0.0289
Mercury	18748-09-03 15:50 G	8568872.10	8568872.16	8568872.22	0.0531	0.0487
Mercury	18748-12-02 12:57 G	8568961.91	8568962.04	8568962.17	0.0534	0.0265
Earth	18749-06-10 12:43 G	8569151.80	8569152.03	8569152.26	0.0540	0.0074
Moon	18749-06-10 14:38 G	8569151.89	8569152.11	8569152.33	0.0540	0.0077 *
Mars	18751-09-15 15:50 G	8569978.91	8569979.16	8569979.42	0.0535	0.0034
Mercury	18754-04-21 23:16 G	8570928.35	8570928.47	8570928.59	0.0496	0.0268
Mercury	18754-07-20 11:02 G	8571017.84	8571017.96	8571018.08	0.0494	0.0304
Earth	18754-12-03 01:12 G	8571153.33	8571153.55	8571153.76	0.0490	0.0195
Moon	18754-12-03 04:19 G	8571153.47	8571153.68	8571153.90	0.0490	0.0204 *
Moon	18756-01-01 23:02 G	8571548.36	8571548.46	8571548.55	0.0484	0.0434
Earth	18756-01-02 00:28 G	8571548.40	8571548.52	8571548.63	0.0484	0.0419 *
Mercury	18760-09-20 13:40 G	8573271.92	8573272.07	8573272.22	0.0534	0.0084
Earth	18761-06-15 22:33 G	8573540.21	8573540.44	8573540.67	0.0542	0.0056
Moon	18761-06-15 23:02 G	8573540.22	8573540.46	8573540.70	0.0542	0.0022 *
Venus	18765-09-06 21:50 G	8575084.22	8575084.41	8575084.60	0.0503	0.0159
Mercury	18766-02-08 02:09 G	8575238.51	8575238.59	8575238.67	0.0497	0.0405
Mercury	18766-05-08 13:40 G	8575327.93	8575328.07	8575328.21	0.0494	0.0162

Moon	18766-12-07 02:38 G	8575540.39	8575540.61	8575540.84	0.0489	0.0136
Earth	18766-12-07 06:28 G	8575540.54	8575540.77	8575541.00	0.0489	0.0107 *
Mercury	18772-07-09 14:24 G	8577581.95	8577582.10	8577582.25	0.0533	0.0096
Moon	18773-06-21 07:40 G	8577928.61	8577928.82	8577929.03	0.0543	0.0191
Earth	18773-06-21 10:04 G	8577928.70	8577928.92	8577929.14	0.0543	0.0185 *
Venus	18777-05-12 21:36 G	8579350.23	8579350.40	8579350.56	0.0505	0.0292
Mercury	18778-02-24 16:19 G	8579638.03	8579638.18	8579638.32	0.0495	0.0022
Earth	18778-12-11 11:16 G	8579927.74	8579927.97	8579928.21	0.0488	0.0019
Moon	18778-12-11 14:38 G	8579927.89	8579928.11	8579928.34	0.0488	0.0016 *
Venus	18783-10-31 00:57 G	8581712.33	8581712.54	8581712.74	0.0525	0.0025
Mercury	18784-04-27 14:52 G	8581891.99	8581892.12	8581892.25	0.0532	0.0278
Mercury	18784-07-26 11:31 G	8581981.91	8581981.98	8581982.05	0.0535	0.0466
Earth	18785-06-26 18:14 G	8582317.08	8582317.26	8582317.46	0.0543	0.0308
Moon	18785-06-26 22:04 G	8582317.24	8582317.42	8582317.61	0.0543	0.0339 *
Mercury	18789-12-13 18:14 G	8583948.12	8583948.26	8583948.40	0.0496	0.0132
Mercury	18790-03-13 06:28 G	8584037.70	8584037.77	8584037.83	0.0493	0.0444
Moon	18790-12-15 11:02 G	8584314.73	8584314.96	8584315.20	0.0487	0.0096
Earth	18790-12-15 13:55 G	8584314.85	8584315.08	8584315.31	0.0487	0.0066 *
Venus	18795-07-05 17:16 G	8585978.15	8585978.22	8585978.29	0.0522	0.0489
Mercury	18796-02-14 14:38 G	8586202.05	8586202.11	8586202.18	0.0531	0.0472
Mercury	18796-05-14 12:00 G	8586291.87	8586292.00	8586292.13	0.0534	0.0280
Earth	18796-05-24 19:12 G	8586302.17	8586302.30	8586302.42	0.0534	0.0451
Moon	18796-05-24 22:33 G	8586302.35	8586302.44	8586302.54	0.0534	0.0485 *
Moon	18797-07-01 22:19 G	8586705.28	8586705.43	8586705.59	0.0543	0.0414
Earth	18797-07-02 01:40 G	8586705.43	8586705.57	8586705.72	0.0543	0.0431 *
Venus	18801-05-15 06:14 G	8588118.64	8588118.76	8588118.88	0.0502	0.0404
Mercury	18801-10-01 21:07 G	8588258.26	8588258.38	8588258.50	0.0497	0.0273
Earth	18801-11-19 09:07 G	8588306.83	8588306.88	8588306.95	0.0495	0.0475
Moon	18801-11-19 10:48 G	8588306.91	8588306.95	8588307.00	0.0495	0.0485 *
Mercury	18801-12-30 08:52 G	8588347.75	8588347.87	8588347.99	0.0494	0.0299

Earth	18802-12-19 18:00 G	8588702.04	8588702.25	8588702.48	0.0486	0.0155
Moon	18802-12-19 19:55 G	8588702.12	8588702.33	8588702.55	0.0486	0.0168 *
Mars	18805-06-02 09:36 G	8589597.61	8589597.90	8589598.19	0.0493	0.0071
Mercury	18808-03-02 11:31 G	8590601.83	8590601.98	8590602.13	0.0533	0.0080
Moon	18808-05-29 16:48 G	8590690.03	8590690.20	8590690.38	0.0536	0.0345
Earth	18808-05-29 20:52 G	8590690.19	8590690.37	8590690.55	0.0536	0.0339 *
Moon	18809-07-07 09:36 G	8591093.84	8591093.90	8591093.97	0.0544	0.0520
Venus	18813-01-18 07:26 G	8592384.60	8592384.81	8592385.01	0.0504	0.0039
Mercury	18813-07-21 00:14 G	8592568.43	8592568.51	8592568.59	0.0497	0.0407
Mercury	18813-10-18 11:45 G	8592657.85	8592657.99	8592658.13	0.0494	0.0160
Moon	18813-11-23 15:36 G	8592694.00	8592694.15	8592694.31	0.0493	0.0362
Earth	18813-11-23 18:14 G	8592694.12	8592694.26	8592694.40	0.0493	0.0385 *
Moon	18814-12-23 22:48 G	8593089.24	8593089.45	8593089.67	0.0485	0.0218
Earth	18814-12-23 23:02 G	8593089.26	8593089.46	8593089.67	0.0485	0.0241 *
Venus	18819-07-08 13:12 G	8594746.89	8594747.05	8594747.22	0.0526	0.0304
Mercury	18819-12-20 12:00 G	8594911.85	8594912.00	8594912.15	0.0533	0.0107
Earth	18820-06-04 04:04 G	8595078.46	8595078.67	8595078.89	0.0538	0.0217
Moon	18820-06-04 06:57 G	8595078.58	8595078.79	8595079.00	0.0538	0.0185 *
Venus	18824-09-23 07:12 G	8596650.76	8596650.80	8596650.85	0.0507	0.0490
Mercury	18825-08-06 14:24 G	8596967.95	8596968.10	8596968.25	0.0495	0.0019
Earth	18825-11-28 00:43 G	8597081.35	8597081.53	8597081.72	0.0492	0.0297
Moon	18825-11-28 04:04 G	8597081.48	8597081.67	8597081.87	0.0492	0.0272 *
Moon	18826-12-28 00:43 G	8597476.36	8597476.53	8597476.71	0.0485	0.0307
Earth	18826-12-28 02:09 G	8597476.43	8597476.59	8597476.77	0.0485	0.0324 *
Venus	18831-03-13 06:28 G	8599012.59	8599012.77	8599012.96	0.0524	0.0207
Mercury	18831-10-08 12:28 G	8599221.89	8599222.02	8599222.15	0.0532	0.0287
Mercury	18832-01-06 09:21 G	8599311.81	8599311.89	8599311.96	0.0535	0.0460
Moon	18832-06-09 13:40 G	8599466.84	8599467.07	8599467.31	0.0540	0.0099
Earth	18832-06-09 14:24 G	8599466.87	8599467.10	8599467.33	0.0540	0.0091 *
Mercury	18837-05-25 17:02 G	8601278.07	8601278.21	8601278.36	0.0496	0.0124

Mercury	18837-08-23 05:16 G	8601367.66	8601367.72	8601367.77	0.0493	0.0452
Moon	18837-12-02 03:07 G	8601468.43	8601468.63	8601468.84	0.0490	0.0221
Earth	18837-12-02 06:57 G	8601468.58	8601468.79	8601469.00	0.0490	0.0206 *
Earth	18839-01-01 06:14 G	8601863.64	8601863.76	8601863.89	0.0484	0.0405
Moon	18839-01-01 09:21 G	8601863.78	8601863.89	8601864.01	0.0484	0.0426 *
Mercury	18843-07-27 12:57 G	8603531.97	8603532.04	8603532.11	0.0531	0.0470
Mercury	18843-10-25 10:19 G	8603621.80	8603621.93	8603622.06	0.0534	0.0283
Moon	18844-06-14 21:50 G	8603855.18	8603855.41	8603855.64	0.0541	0.0002
Earth	18844-06-14 23:16 G	8603855.24	8603855.47	8603855.71	0.0541	0.0036 *
Venus	18848-09-25 16:48 G	8605419.02	8605419.20	8605419.39	0.0503	0.0216
Mercury	18849-03-13 19:12 G	8605588.18	8605588.30	8605588.42	0.0497	0.0274
Mercury	18849-06-11 06:57 G	8605677.67	8605677.79	8605677.91	0.0494	0.0298
Earth	18849-12-06 09:36 G	8605855.68	8605855.90	8605856.13	0.0489	0.0122
Moon	18849-12-06 12:57 G	8605855.82	8605856.04	8605856.26	0.0489	0.0149 *
Earth	18851-01-05 08:38 G	8606250.85	8606250.86	8606250.88	0.0485	0.0483
Mercury	18855-08-13 10:33 G	8607931.79	8607931.94	8607932.09	0.0533	0.0094
Earth	18856-06-20 06:14 G	8608243.54	8608243.76	8608243.98	0.0542	0.0159
Moon	18856-06-20 09:36 G	8608243.67	8608243.90	8608244.13	0.0542	0.0169 *
Venus	18860-05-31 16:04 G	8609685.00	8609685.17	8609685.35	0.0505	0.0240
Mercury	18860-12-30 22:04 G	8609898.34	8609898.42	8609898.50	0.0497	0.0414
Mercury	18861-03-30 09:21 G	8609987.75	8609987.89	8609988.04	0.0495	0.0154
Moon	18861-12-10 12:00 G	8610242.76	8610243.00	8610243.24	0.0488	0.0029
Earth	18861-12-10 14:38 G	8610242.88	8610243.11	8610243.35	0.0488	0.0034 *
Venus	18866-11-18 19:55 G	8612047.12	8612047.33	8612047.53	0.0525	0.0081
Mercury	18867-06-01 09:50 G	8612241.76	8612241.91	8612242.06	0.0532	0.0110
Moon	18868-06-25 06:57 G	8612631.60	8612631.79	8612631.98	0.0543	0.0312
Earth	18868-06-25 10:48 G	8612631.75	8612631.95	8612632.15	0.0543	0.0281 *
Mercury	18873-01-16 12:28 G	8614297.87	8614298.02	8614298.17	0.0495	0.0017
Earth	18873-12-14 20:38 G	8614630.13	8614630.36	8614630.59	0.0487	0.0055
Moon	18873-12-14 22:04 G	8614630.20	8614630.42	8614630.65	0.0487	0.0086 *

Venus	18878-07-24 12:28 G	8616312.91	8616313.02	8616313.13	0.0522	0.0432
Mercury	18879-03-20 09:50 G	8616551.79	8616551.91	8616552.04	0.0532	0.0299
Moon	18879-05-24 09:36 G	8616616.83	8616616.90	8616616.98	0.0534	0.0505
Earth	18879-05-24 13:26 G	8616616.95	8616617.06	8616617.17	0.0534	0.0469 *
Mercury	18879-06-18 06:43 G	8616641.70	8616641.78	8616641.86	0.0535	0.0448
Earth	18880-06-30 20:52 G	8617020.22	8617020.37	8617020.52	0.0544	0.0407
Moon	18880-06-30 23:31 G	8617020.32	8617020.48	8617020.63	0.0544	0.0390 *
Venus	18884-06-03 04:48 G	8618453.66	8618453.70	8618453.77	0.0501	0.0480
Mercury	18884-11-04 15:07 G	8618607.99	8618608.13	8618608.28	0.0496	0.0125
Earth	18884-11-18 16:04 G	8618622.12	8618622.17	8618622.22	0.0495	0.0483
Mercury	18885-02-02 03:07 G	8618697.58	8618697.63	8618697.69	0.0493	0.0451
Moon	18885-12-19 00:14 G	8619017.28	8619017.51	8619017.75	0.0486	0.0149
Earth	18885-12-19 00:28 G	8619017.30	8619017.52	8619017.75	0.0486	0.0141 *
Mercury	18891-01-06 10:19 G	8620861.87	8620861.93	8620861.99	0.0531	0.0483
Mercury	18891-04-06 07:40 G	8620951.69	8620951.82	8620951.95	0.0534	0.0272
Earth	18891-05-29 21:21 G	8621005.22	8621005.39	8621005.57	0.0536	0.0354
Moon	18891-05-30 00:43 G	8621005.36	8621005.53	8621005.71	0.0536	0.0351 *
Moon	18892-07-06 08:09 G	8621408.76	8621408.84	8621408.94	0.0544	0.0499
Earth	18892-07-06 08:52 G	8621408.83	8621408.87	8621408.93	0.0544	0.0530 *
Venus	18896-02-07 05:16 G	8622719.52	8622719.72	8622719.93	0.0504	0.0036
Mercury	18896-08-23 18:00 G	8622918.13	8622918.25	8622918.38	0.0496	0.0264
Mercury	18896-11-21 05:45 G	8623007.62	8623007.74	8623007.86	0.0494	0.0307
Earth	18896-11-22 23:31 G	8623009.34	8623009.48	8623009.62	0.0494	0.0395
Moon	18896-11-23 02:52 G	8623009.47	8623009.62	8623009.78	0.0494	0.0368 *
Moon	18897-12-23 03:07 G	8623404.43	8623404.63	8623404.84	0.0485	0.0202
Earth	18897-12-23 04:48 G	8623404.49	8623404.70	8623404.90	0.0485	0.0227 *
Venus	18902-07-28 13:12 G	8625081.92	8625082.05	8625082.19	0.0526	0.0395
Mercury	18903-01-24 08:38 G	8625261.71	8625261.86	8625262.01	0.0533	0.0095
Moon	18903-06-05 04:33 G	8625393.47	8625393.69	8625393.92	0.0538	0.0202
Earth	18903-06-05 06:00 G	8625393.54	8625393.75	8625393.96	0.0538	0.0235 *

Mars	18905-12-10 08:52 G	8626312.63	8626312.87	8626313.11	0.0534	0.0198
Venus	18907-10-14 02:24 G	8626985.50	8626985.60	8626985.71	0.0506	0.0434
Mercury	18908-06-12 20:24 G	8627228.27	8627228.35	8627228.43	0.0497	0.0413
Mercury	18908-09-10 07:40 G	8627317.68	8627317.82	8627317.96	0.0494	0.0153
Moon	18908-11-27 23:31 G	8627396.29	8627396.48	8627396.66	0.0492	0.0289
Earth	18908-11-28 03:07 G	8627396.45	8627396.63	8627396.81	0.0492	0.0310 *
Earth	18909-12-28 06:28 G	8627791.59	8627791.77	8627791.95	0.0485	0.0308
Moon	18909-12-28 09:36 G	8627791.71	8627791.90	8627792.09	0.0485	0.0296 *
Venus	18914-04-02 05:31 G	8629347.53	8629347.73	8629347.93	0.0523	0.0126
Mercury	18914-11-12 08:52 G	8629571.71	8629571.87	8629572.02	0.0532	0.0096
Moon	18915-06-10 11:31 G	8629781.76	8629781.98	8629782.20	0.0539	0.0121
Earth	18915-06-10 12:14 G	8629781.78	8629782.01	8629782.24	0.0539	0.0111 *
Mercury	18920-06-29 10:19 G	8631627.78	8631627.93	8631628.07	0.0495	0.0017
Earth	18920-12-02 09:07 G	8631783.67	8631783.88	8631784.09	0.0491	0.0221
Moon	18920-12-02 12:28 G	8631783.82	8631784.02	8631784.21	0.0491	0.0242 *
Moon	18922-01-01 06:43 G	8632178.66	8632178.78	8632178.90	0.0485	0.0412
Earth	18922-01-01 10:19 G	8632178.80	8632178.93	8632179.07	0.0485	0.0390 *
Mercury	18926-08-31 07:40 G	8633881.70	8633881.82	8633881.95	0.0531	0.0303
Mercury	18926-11-29 04:33 G	8633971.61	8633971.69	8633971.78	0.0535	0.0444
Earth	18927-06-15 14:38 G	8634169.88	8634170.11	8634170.34	0.0540	0.0009
Moon	18927-06-15 17:16 G	8634169.98	8634170.22	8634170.46	0.0540	0.0025 *
Venus	18931-10-16 14:52 G	8635753.95	8635754.12	8635754.28	0.0503	0.0286
Mercury	18932-04-17 13:12 G	8635937.91	8635938.05	8635938.19	0.0496	0.0127
Mercury	18932-07-16 01:12 G	8636027.49	8636027.55	8636027.61	0.0493	0.0448
Moon	18932-12-06 13:40 G	8636170.85	8636171.07	8636171.30	0.0490	0.0158
Earth	18932-12-06 16:19 G	8636170.96	8636171.18	8636171.40	0.0490	0.0131 *
Earth	18934-01-05 14:52 G	8636566.07	8636566.12	8636566.17	0.0484	0.0470
Mercury	18938-06-19 07:40 G	8638191.77	8638191.82	8638191.88	0.0531	0.0494
Mercury	18938-09-17 05:16 G	8638281.58	8638281.72	8638281.85	0.0534	0.0260
Moon	18939-06-20 19:40 G	8638558.10	8638558.32	8638558.55	0.0542	0.0148

Earth	18939-06-20 23:31 G	8638558.26	8638558.48	8638558.71	0.0542	0.0135	*
Venus	18943-06-21 15:07 G	8640019.94	8640020.13	8640020.32	0.0505	0.0161	
Mercury	18944-02-04 16:04 G	8640248.05	8640248.17	8640248.30	0.0497	0.0266	
Mercury	18944-05-04 03:50 G	8640337.54	8640337.66	8640337.78	0.0494	0.0306	
Earth	18944-12-10 21:21 G	8640558.16	8640558.39	8640558.62	0.0488	0.0045	
Moon	18944-12-10 22:48 G	8640558.23	8640558.45	8640558.68	0.0488	0.0037	*
Venus	18949-12-08 18:00 G	8642382.06	8642382.25	8642382.45	0.0525	0.0158	
Mercury	18950-07-06 06:00 G	8642591.60	8642591.75	8642591.90	0.0534	0.0081	
Earth	18951-06-26 11:02 G	8642946.75	8642946.96	8642947.16	0.0543	0.0262	
Moon	18951-06-26 14:09 G	8642946.90	8642947.09	8642947.28	0.0543	0.0292	*
Mercury	18955-11-23 19:12 G	8644558.22	8644558.30	8644558.38	0.0497	0.0403	
Mercury	18956-02-21 06:28 G	8644647.63	8644647.77	8644647.91	0.0494	0.0163	
Moon	18956-12-15 02:09 G	8644945.35	8644945.59	8644945.83	0.0487	0.0071	
Earth	18956-12-15 02:24 G	8644945.36	8644945.60	8644945.83	0.0487	0.0044	*
Mars	18959-08-27 22:19 G	8645931.21	8645931.43	8645931.67	0.0494	0.0298	
Venus	18961-08-13 12:14 G	8646647.86	8646648.01	8646648.16	0.0522	0.0347	
Mercury	18962-04-24 06:43 G	8646901.63	8646901.78	8646901.94	0.0533	0.0098	
Earth	18962-05-24 15:50 G	8646932.07	8646932.16	8646932.27	0.0534	0.0483	
Moon	18962-05-24 19:40 G	8646932.27	8646932.32	8646932.39	0.0534	0.0515	*
Moon	18963-07-01 20:09 G	8647335.16	8647335.34	8647335.52	0.0543	0.0366	
Earth	18963-07-01 21:36 G	8647335.25	8647335.40	8647335.57	0.0543	0.0386	*
Earth	18967-11-19 17:45 G	8648937.24	8648937.24	8648937.26	0.0496	0.0495	
Mercury	18967-12-10 08:24 G	8648957.71	8648957.85	8648958.00	0.0495	0.0016	
Moon	18968-12-19 02:38 G	8649332.39	8649332.61	8649332.83	0.0487	0.0127	
Earth	18968-12-19 04:04 G	8649332.45	8649332.67	8649332.90	0.0487	0.0128	*
Mercury	18974-02-10 06:57 G	8651211.66	8651211.79	8651211.92	0.0532	0.0287	
Mercury	18974-05-11 03:36 G	8651301.58	8651301.65	8651301.73	0.0535	0.0460	
Moon	18974-05-29 18:43 G	8651320.11	8651320.28	8651320.46	0.0535	0.0360	
Earth	18974-05-29 21:07 G	8651320.22	8651320.38	8651320.55	0.0535	0.0369	*
Moon	18975-07-07 04:48 G	8651723.60	8651723.70	8651723.81	0.0543	0.0481	

Earth	18975-07-07 05:31 G	8651723.65	8651723.73	8651723.82	0.0543	0.0505 *
Venus	18979-02-27 00:14 G	8653054.31	8653054.51	8653054.72	0.0504	0.0089
Mercury	18979-09-28 11:02 G	8653267.82	8653267.96	8653268.11	0.0496	0.0134
Moon	18979-11-23 21:36 G	8653324.25	8653324.40	8653324.54	0.0494	0.0382
Earth	18979-11-24 01:12 G	8653324.42	8653324.55	8653324.68	0.0494	0.0408 *
Mercury	18979-12-26 23:02 G	8653357.40	8653357.46	8653357.53	0.0493	0.0443
Earth	18980-12-23 08:24 G	8653719.65	8653719.85	8653720.07	0.0486	0.0214
Moon	18980-12-23 11:45 G	8653719.77	8653719.99	8653720.21	0.0486	0.0183 *
Venus	18985-08-16 08:09 G	8655416.74	8655416.84	8655416.94	0.0526	0.0450
Mercury	18985-11-29 05:45 G	8655521.69	8655521.74	8655521.79	0.0530	0.0496
Mercury	18986-02-27 03:07 G	8655611.50	8655611.63	8655611.77	0.0534	0.0258
Earth	18986-06-03 21:50 G	8655708.20	8655708.41	8655708.61	0.0537	0.0257
Moon	18986-06-03 22:19 G	8655708.22	8655708.43	8655708.63	0.0537	0.0225 *
Venus	18990-11-02 00:00 G	8657320.37	8657320.50	8657320.65	0.0507	0.0364
Mercury	18991-07-17 14:24 G	8657577.97	8657578.10	8657578.22	0.0497	0.0268
Mercury	18991-10-15 01:55 G	8657667.46	8657667.58	8657667.70	0.0494	0.0304
Earth	18991-11-28 09:36 G	8657711.73	8657711.90	8657712.08	0.0493	0.0319
Moon	18991-11-28 12:57 G	8657711.86	8657712.04	8657712.22	0.0493	0.0307 *
Moon	18992-12-27 09:50 G	8658106.73	8658106.91	8658107.10	0.0485	0.0285
Earth	18992-12-27 13:40 G	8658106.89	8658107.07	8658107.26	0.0485	0.0297 *
Venus	18997-04-21 00:14 G	8659682.31	8659682.51	8659682.71	0.0523	0.0070
Mercury	18997-12-16 03:36 G	8659921.49	8659921.65	8659921.80	0.0533	0.0072
Earth	18998-06-09 04:48 G	8660096.47	8660096.70	8660096.93	0.0539	0.0135
Moon	18998-06-09 06:14 G	8660096.53	8660096.76	8660097.00	0.0539	0.0144 *

20TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 20th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	19003-05-06 17:16	G	8661888.14	8661888.22	8661888.31	0.0497	0.0404	
Mercury	19003-08-04 04:33	G	8661977.55	8661977.69	8661977.83	0.0495	0.0163	
Moon	19003-12-03 13:55	G	8662098.88	8662099.08	8662099.29	0.0491	0.0255	
Earth	19003-12-03 16:33	G	8662098.98	8662099.19	8662099.39	0.0491	0.0231	*
Earth	19005-01-01 16:48	G	8662494.07	8662494.20	8662494.36	0.0484	0.0378	
Moon	19005-01-01 20:52	G	8662494.25	8662494.37	8662494.50	0.0484	0.0401	*
Mercury	19009-10-05 04:04	G	8664231.52	8664231.67	8664231.82	0.0533	0.0111	
Moon	19010-06-15 11:16	G	8664484.75	8664484.97	8664485.20	0.0541	0.0042	
Earth	19010-06-15 14:52	G	8664484.88	8664485.12	8664485.35	0.0541	0.0013	*
Venus	19014-11-05 13:12	G	8666088.91	8666089.05	8666089.19	0.0502	0.0360	
Mercury	19015-05-23 07:26	G	8666287.66	8666287.81	8666287.95	0.0495	0.0024	
Earth	19015-12-07 22:33	G	8666486.22	8666486.44	8666486.66	0.0490	0.0142	
Moon	19015-12-07 23:45	G	8666486.28	8666486.49	8666486.71	0.0490	0.0167	*
Moon	19017-01-05 17:31	G	8666881.20	8666881.23	8666881.26	0.0484	0.0479	
Earth	19017-01-05 20:52	G	8666881.30	8666881.37	8666881.45	0.0484	0.0457	
Mercury	19021-07-24 04:48	G	8668541.57	8668541.70	8668541.83	0.0532	0.0289	
Mercury	19021-10-22 01:40	G	8668631.50	8668631.57	8668631.65	0.0535	0.0459	
Earth	19022-06-21 01:40	G	8668873.35	8668873.57	8668873.80	0.0541	0.0117	
Moon	19022-06-21 05:31	G	8668873.50	8668873.73	8668873.95	0.0541	0.0139	*
Mars	19024-05-31 18:14	G	8669584.15	8669584.26	8669584.37	0.0536	0.0477	
Venus	19026-07-11 11:16	G	8670354.77	8670354.97	8670355.17	0.0505	0.0100	
Mercury	19027-03-11 09:36	G	8670597.76	8670597.90	8670598.04	0.0496	0.0129	
Mercury	19027-06-08 21:21	G	8670687.33	8670687.39	8670687.46	0.0493	0.0445	
Moon	19027-12-12 01:12	G	8670873.31	8670873.55	8670873.79	0.0489	0.0046	
Earth	19027-12-12 01:12	G	8670873.32	8670873.55	8670873.78	0.0489	0.0057	*

Venus	19032-12-28 17:45 G	8672717.06	8672717.24	8672717.42	0.0525	0.0242
Mercury	19033-05-12 04:48 G	8672851.64	8672851.70	8672851.77	0.0531	0.0480
Mercury	19033-08-10 02:24 G	8672941.47	8672941.60	8672941.73	0.0534	0.0275
Moon	19034-06-26 07:12 G	8673261.60	8673261.80	8673262.01	0.0542	0.0270
Earth	19034-06-26 09:50 G	8673261.70	8673261.91	8673262.12	0.0542	0.0241 *
Mercury	19038-12-28 12:14 G	8674907.89	8674908.01	8674908.14	0.0497	0.0271
Mercury	19039-03-27 23:45 G	8674997.38	8674997.49	8674997.61	0.0494	0.0301
Moon	19039-12-16 04:33 G	8675260.47	8675260.69	8675260.91	0.0488	0.0056
Earth	19039-12-16 06:14 G	8675260.53	8675260.76	8675261.00	0.0488	0.0032 *
Venus	19044-09-02 07:55 G	8676982.66	8676982.83	8676983.00	0.0522	0.0286
Moon	19045-05-24 06:00 G	8677246.75	8677246.75	8677246.77	0.0533	0.0532
Earth	19045-05-24 09:21 G	8677246.82	8677246.89	8677246.97	0.0533	0.0501
Mercury	19045-05-29 01:40 G	8677251.42	8677251.57	8677251.72	0.0533	0.0072
Earth	19046-07-01 12:57 G	8677649.87	8677650.04	8677650.22	0.0543	0.0360
Moon	19046-07-01 13:40 G	8677649.90	8677650.07	8677650.25	0.0543	0.0344 *
Mercury	19050-10-16 15:21 G	8679218.06	8679218.14	8679218.23	0.0498	0.0406
Mercury	19051-01-14 02:38 G	8679307.47	8679307.61	8679307.76	0.0495	0.0163
Earth	19051-12-20 12:14 G	8679647.78	8679648.01	8679648.24	0.0487	0.0118
Moon	19051-12-20 15:36 G	8679647.92	8679648.15	8679648.38	0.0487	0.0108 *
Mercury	19057-03-17 01:40 G	8681561.42	8681561.57	8681561.73	0.0532	0.0119
Earth	19057-05-29 14:09 G	8681634.93	8681635.09	8681635.25	0.0535	0.0390
Moon	19057-05-29 15:21 G	8681634.99	8681635.14	8681635.31	0.0535	0.0380 *
Earth	19058-07-06 22:33 G	8682038.33	8682038.44	8682038.55	0.0544	0.0481
Moon	19058-07-07 00:43 G	8682038.41	8682038.53	8682038.66	0.0544	0.0459 *
Mars	19060-03-05 22:48 G	8682646.30	8682646.45	8682646.61	0.0535	0.0425
Venus	19062-03-18 23:45 G	8683389.29	8683389.49	8683389.68	0.0504	0.0170
Mercury	19062-11-02 05:31 G	8683617.59	8683617.73	8683617.88	0.0495	0.0026
Earth	19062-11-24 09:07 G	8683639.76	8683639.88	8683640.01	0.0495	0.0417
Moon	19062-11-24 12:14 G	8683639.88	8683640.01	8683640.16	0.0495	0.0388 *
Moon	19063-12-24 12:43 G	8684034.81	8684035.03	8684035.25	0.0486	0.0170

Earth	19063-12-24 16:33 G	8684034.98	8684035.19	8684035.40	0.0486	0.0202 *
Mercury	19069-01-03 02:09 G	8685871.46	8685871.59	8685871.72	0.0532	0.0302
Mercury	19069-04-02 23:16 G	8685961.39	8685961.47	8685961.55	0.0535	0.0447
Earth	19069-06-03 21:50 G	8686023.21	8686023.41	8686023.62	0.0537	0.0274
Moon	19069-06-03 22:33 G	8686023.23	8686023.44	8686023.66	0.0537	0.0241 *
Venus	19073-11-21 23:31 G	8687655.31	8687655.48	8687655.65	0.0506	0.0283
Mercury	19074-08-21 08:24 G	8687927.71	8687927.85	8687928.00	0.0496	0.0118
Mercury	19074-11-18 20:24 G	8688017.30	8688017.35	8688017.40	0.0493	0.0457
Moon	19074-11-28 14:24 G	8688026.92	8688027.10	8688027.29	0.0493	0.0318
Earth	19074-11-28 16:48 G	8688027.03	8688027.20	8688027.38	0.0493	0.0328 *
Earth	19075-12-28 20:38 G	8688422.17	8688422.36	8688422.55	0.0485	0.0285
Moon	19075-12-29 00:28 G	8688422.33	8688422.52	8688422.71	0.0485	0.0276 *
Mars	19078-02-15 07:40 G	8689201.59	8689201.82	8689202.05	0.0492	0.0303
Venus	19080-05-11 00:28 G	8690017.32	8690017.52	8690017.72	0.0524	0.0019
Mercury	19080-10-22 02:52 G	8690181.56	8690181.62	8690181.68	0.0531	0.0482
Mercury	19081-01-20 00:28 G	8690271.39	8690271.52	8690271.65	0.0534	0.0274
Moon	19081-06-09 05:31 G	8690411.51	8690411.73	8690411.95	0.0539	0.0163
Earth	19081-06-09 08:24 G	8690411.62	8690411.85	8690412.07	0.0539	0.0150 *
Mercury	19086-06-09 10:48 G	8692237.83	8692237.95	8692238.08	0.0497	0.0265
Mercury	19086-09-06 22:19 G	8692327.32	8692327.43	8692327.55	0.0494	0.0305
Earth	19086-12-02 20:52 G	8692414.17	8692414.37	8692414.58	0.0491	0.0241
Moon	19086-12-02 22:19 G	8692414.24	8692414.43	8692414.61	0.0491	0.0268 *
Moon	19088-01-01 19:12 G	8692809.17	8692809.30	8692809.45	0.0485	0.0389
Earth	19088-01-01 22:48 G	8692809.30	8692809.45	8692809.60	0.0485	0.0365 *
Venus	19092-01-14 18:00 G	8694283.18	8694283.25	8694283.32	0.0521	0.0487
Mercury	19092-11-08 00:57 G	8694581.39	8694581.54	8694581.69	0.0533	0.0090
Earth	19093-06-14 16:04 G	8694799.93	8694800.17	8694800.40	0.0540	0.0027
Moon	19093-06-14 19:55 G	8694800.10	8694800.33	8694800.56	0.0540	0.0052 *
Venus	19097-11-24 09:36 G	8696423.79	8696423.90	8696424.01	0.0502	0.0421
Mercury	19098-03-28 13:40 G	8696547.99	8696548.07	8696548.16	0.0498	0.0405

Mercury	19098-06-26 00:57 G	8696637.40	8696637.54	8696637.68	0.0495	0.0162
Earth	19098-12-07 03:07 G	8696801.41	8696801.63	8696801.85	0.0490	0.0153
Moon	19098-12-07 03:07 G	8696801.41	8696801.63	8696801.86	0.0490	0.0173 *
Earth	19100-01-06 03:07 G	8697196.54	8697196.63	8697196.72	0.0484	0.0446
Moon	19100-01-06 05:02 G	8697196.65	8697196.71	8697196.78	0.0484	0.0462 *
Mercury	19104-08-28 00:00 G	8698891.35	8698891.50	8698891.66	0.0532	0.0115
Moon	19105-06-20 15:07 G	8699187.89	8699188.13	8699188.36	0.0541	0.0111
Earth	19105-06-20 18:28 G	8699188.04	8699188.27	8699188.50	0.0541	0.0091 *
Venus	19109-07-31 09:50 G	8700689.70	8700689.91	8700690.11	0.0505	0.0026
Mercury	19110-04-15 03:50 G	8700947.52	8700947.66	8700947.81	0.0496	0.0026
Moon	19110-12-12 08:09 G	8701188.61	8701188.84	8701189.06	0.0489	0.0048
Earth	19110-12-12 10:04 G	8701188.69	8701188.92	8701189.15	0.0489	0.0066 *
Venus	19116-01-18 13:26 G	8703051.90	8703052.06	8703052.23	0.0525	0.0305
Mercury	19116-06-16 00:00 G	8703201.38	8703201.50	8703201.63	0.0531	0.0306
Mercury	19116-09-13 21:07 G	8703291.30	8703291.38	8703291.46	0.0534	0.0442
Earth	19117-06-26 02:52 G	8703576.40	8703576.62	8703576.83	0.0542	0.0217
Moon	19117-06-26 04:19 G	8703576.48	8703576.68	8703576.88	0.0542	0.0246 *
Venus	19121-04-05 09:21 G	8704955.83	8704955.89	8704955.96	0.0508	0.0480
Mercury	19122-02-01 06:57 G	8705257.64	8705257.79	8705257.93	0.0496	0.0115
Mercury	19122-05-01 18:43 G	8705347.23	8705347.28	8705347.33	0.0493	0.0461
Earth	19122-12-16 15:21 G	8705575.91	8705576.14	8705576.38	0.0488	0.0022
Moon	19122-12-16 18:57 G	8705576.05	8705576.29	8705576.52	0.0488	0.0044 *
Venus	19127-09-23 06:28 G	8707317.58	8707317.77	8707317.96	0.0522	0.0208
Mercury	19128-04-04 00:14 G	8707511.46	8707511.51	8707511.57	0.0531	0.0492
Earth	19128-05-24 10:04 G	8707561.87	8707561.92	8707561.98	0.0533	0.0514
Mercury	19128-07-02 21:50 G	8707601.28	8707601.41	8707601.55	0.0534	0.0264
Earth	19129-07-01 14:24 G	8707964.92	8707965.10	8707965.28	0.0543	0.0342
Moon	19129-07-01 15:36 G	8707964.95	8707965.15	8707965.35	0.0543	0.0319 *
Mercury	19133-11-20 09:50 G	8709567.79	8709567.91	8709568.04	0.0497	0.0252
Mercury	19134-02-17 21:21 G	8709657.28	8709657.39	8709657.51	0.0494	0.0319

Moon	19134-12-20 16:33 G	8709962.97	8709963.19	8709963.42	0.0487	0.0096
Earth	19134-12-20 20:38 G	8709963.13	8709963.36	8709963.58	0.0487	0.0108 *
Mercury	19140-04-20 23:02 G	8711911.31	8711911.46	8711911.61	0.0533	0.0090
Moon	19140-05-29 18:28 G	8711950.11	8711950.27	8711950.44	0.0535	0.0387
Earth	19140-05-29 18:28 G	8711950.13	8711950.27	8711950.43	0.0535	0.0402 *
Moon	19141-07-06 23:31 G	8712353.35	8712353.48	8712353.61	0.0544	0.0448
Earth	19141-07-07 03:07 G	8712353.51	8712353.63	8712353.75	0.0544	0.0465 *
Venus	19145-04-07 21:36 G	8713724.23	8713724.40	8713724.58	0.0503	0.0241
Mercury	19145-09-08 12:28 G	8713877.94	8713878.02	8713878.11	0.0497	0.0397
Moon	19145-11-24 12:14 G	8713954.88	8713955.01	8713955.16	0.0495	0.0394
Earth	19145-11-24 14:38 G	8713955.00	8713955.11	8713955.23	0.0495	0.0426 *
Mercury	19145-12-06 23:31 G	8713967.35	8713967.48	8713967.62	0.0495	0.0170
Earth	19146-12-24 23:02 G	8714350.25	8714350.46	8714350.68	0.0486	0.0191
Moon	19146-12-25 02:52 G	8714350.41	8714350.62	8714350.84	0.0486	0.0161 *
Mercury	19152-02-07 23:31 G	8716221.33	8716221.48	8716221.63	0.0532	0.0095
Moon	19152-06-03 23:31 G	8716338.28	8716338.48	8716338.68	0.0536	0.0256
Earth	19152-06-04 01:40 G	8716338.37	8716338.57	8716338.77	0.0536	0.0285 *
Venus	19156-12-11 20:52 G	8717990.19	8717990.37	8717990.56	0.0506	0.0214
Mercury	19157-09-25 02:24 G	8718277.45	8718277.60	8718277.74	0.0495	0.0028
Earth	19157-11-28 22:04 G	8718342.25	8718342.42	8718342.59	0.0493	0.0337
Moon	19157-11-28 23:16 G	8718342.30	8718342.47	8718342.63	0.0493	0.0332 *
Moon	19158-12-29 00:14 G	8718737.32	8718737.51	8718737.71	0.0485	0.0270
Earth	19158-12-29 03:50 G	8718737.47	8718737.66	8718737.85	0.0485	0.0276 *
Venus	19163-05-31 21:50 G	8720352.21	8720352.41	8720352.61	0.0524	0.0092
Mercury	19163-11-26 22:33 G	8720531.31	8720531.44	8720531.57	0.0531	0.0298
Mercury	19164-02-24 19:40 G	8720621.24	8720621.32	8720621.40	0.0534	0.0448
Earth	19164-06-09 03:07 G	8720726.40	8720726.63	8720726.85	0.0538	0.0172
Moon	19164-06-09 06:43 G	8720726.56	8720726.78	8720727.00	0.0538	0.0192 *
Mercury	19169-07-14 05:16 G	8722587.58	8722587.72	8722587.86	0.0497	0.0111
Mercury	19169-10-11 17:02 G	8722677.17	8722677.21	8722677.26	0.0494	0.0465

Earth	19169-12-03 06:00 G	8722729.55	8722729.75	8722729.95	0.0492	0.0251
Moon	19169-12-03 06:14 G	8722729.56	8722729.76	8722729.96	0.0492	0.0276 *
Earth	19171-01-02 09:07 G	8723124.73	8723124.88	8723125.04	0.0485	0.0357
Moon	19171-01-02 11:02 G	8723124.83	8723124.96	8723125.10	0.0485	0.0385 *
Venus	19175-02-03 14:52 G	8724618.00	8724618.12	8724618.24	0.0521	0.0418
Mercury	19175-09-14 22:33 G	8724841.38	8724841.44	8724841.49	0.0530	0.0491
Mercury	19175-12-13 19:55 G	8724931.20	8724931.33	8724931.47	0.0534	0.0265
Moon	19176-06-14 06:14 G	8725114.53	8725114.76	8725115.00	0.0539	0.0078
Earth	19176-06-14 10:04 G	8725114.69	8725114.92	8725115.16	0.0539	0.0050 *
Mars	19178-08-26 10:19 G	8725917.70	8725917.93	8725918.16	0.0537	0.0244
Mercury	19181-05-02 08:24 G	8726897.72	8726897.85	8726897.98	0.0497	0.0248
Mercury	19181-07-30 19:55 G	8726987.22	8726987.33	8726987.44	0.0494	0.0324
Moon	19181-12-07 11:02 G	8727116.75	8727116.96	8727117.17	0.0491	0.0176
Earth	19181-12-07 12:57 G	8727116.83	8727117.04	8727117.27	0.0491	0.0163 *
Moon	19183-01-06 12:14 G	8727511.92	8727512.01	8727512.11	0.0484	0.0443
Earth	19183-01-06 12:43 G	8727511.94	8727512.03	8727512.14	0.0484	0.0435 *
Mercury	19187-10-01 20:38 G	8729241.21	8729241.36	8729241.51	0.0533	0.0082
Earth	19188-06-19 19:55 G	8729503.10	8729503.33	8729503.57	0.0541	0.0075
Moon	19188-06-19 22:33 G	8729503.21	8729503.44	8729503.66	0.0541	0.0096 *
Venus	19192-08-19 10:19 G	8731024.73	8731024.93	8731025.14	0.0505	0.0064
Mercury	19193-02-18 11:31 G	8731207.89	8731207.98	8731208.07	0.0498	0.0383
Mercury	19193-05-18 22:48 G	8731297.31	8731297.45	8731297.58	0.0495	0.0184
Earth	19193-12-11 19:26 G	8731504.08	8731504.31	8731504.54	0.0489	0.0075
Moon	19193-12-11 22:48 G	8731504.22	8731504.45	8731504.69	0.0489	0.0048 *
Venus	19199-02-06 14:38 G	8733386.99	8733387.11	8733387.25	0.0526	0.0401
Mercury	19199-07-20 21:36 G	8733551.25	8733551.40	8733551.55	0.0532	0.0094
Earth	19200-06-25 08:24 G	8733891.63	8733891.85	8733892.07	0.0542	0.0202
Moon	19200-06-25 08:24 G	8733891.63	8733891.85	8733892.07	0.0542	0.0225 *
Venus	19204-04-24 08:38 G	8735290.74	8735290.86	8735290.99	0.0507	0.0399
Mercury	19205-03-07 01:12 G	8735607.40	8735607.55	8735607.69	0.0495	0.0037

Moon	19205-12-15 19:12 G	8735891.07	8735891.30	8735891.53	0.0488	0.0035
Earth	19205-12-15 23:02 G	8735891.23	8735891.46	8735891.69	0.0488	0.0012 *
Venus	19210-10-12 08:09 G	8737652.64	8737652.84	8737653.04	0.0523	0.0111
Mercury	19211-05-08 22:04 G	8737861.29	8737861.42	8737861.55	0.0531	0.0278
Earth	19211-05-24 15:50 G	8737877.12	8737877.16	8737877.21	0.0532	0.0522
Mercury	19211-08-06 19:12 G	8737951.23	8737951.30	8737951.37	0.0535	0.0471
Moon	19212-06-30 15:36 G	8738279.96	8738280.15	8738280.34	0.0543	0.0299
Earth	19212-06-30 18:14 G	8738280.08	8738280.26	8738280.45	0.0543	0.0327 *
Mercury	19216-12-24 04:04 G	8739917.52	8739917.67	8739917.81	0.0496	0.0105
Mercury	19217-03-23 15:50 G	8740007.12	8740007.16	8740007.20	0.0493	0.0471
Earth	19217-12-20 04:19 G	8740278.45	8740278.68	8740278.91	0.0487	0.0099
Moon	19217-12-20 08:09 G	8740278.62	8740278.84	8740279.07	0.0487	0.0085 *
Mercury	19223-02-24 21:07 G	8742171.32	8742171.38	8742171.45	0.0530	0.0480
Mercury	19223-05-25 18:43 G	8742261.15	8742261.28	8742261.41	0.0533	0.0274
Moon	19223-05-29 15:21 G	8742265.00	8742265.14	8742265.29	0.0534	0.0406
Earth	19223-05-29 16:33 G	8742265.05	8742265.19	8742265.34	0.0534	0.0419 *
Earth	19224-07-05 21:50 G	8742668.28	8742668.41	8742668.55	0.0543	0.0441
Moon	19224-07-06 01:55 G	8742668.44	8742668.58	8742668.73	0.0543	0.0424 *
Venus	19228-04-26 20:38 G	8744059.21	8744059.36	8744059.52	0.0504	0.0322
Mercury	19228-10-12 06:57 G	8744227.66	8744227.79	8744227.91	0.0497	0.0243
Earth	19228-11-23 23:31 G	8744270.37	8744270.48	8744270.59	0.0496	0.0435
Moon	19228-11-24 00:28 G	8744270.39	8744270.52	8744270.65	0.0496	0.0406 *
Mercury	19229-01-09 18:28 G	8744317.16	8744317.27	8744317.38	0.0494	0.0330
Moon	19229-12-24 06:57 G	8744665.57	8744665.79	8744666.02	0.0486	0.0154
Earth	19229-12-24 10:04 G	8744665.71	8744665.92	8744666.14	0.0486	0.0184 *
Mars	19232-05-12 10:33 G	8745535.65	8745535.94	8745536.24	0.0492	0.0025
Mercury	19235-03-13 18:57 G	8746571.14	8746571.29	8746571.45	0.0533	0.0089
Earth	19235-06-03 21:36 G	8746653.21	8746653.40	8746653.59	0.0535	0.0306
Moon	19235-06-04 00:57 G	8746653.34	8746653.54	8746653.74	0.0535	0.0280 *
Venus	19239-12-31 20:52 G	8748325.18	8748325.37	8748325.57	0.0506	0.0127

Mercury	19240-07-31 10:04 G	8748537.83	8748537.92	8748538.01	0.0498	0.0378
Mercury	19240-10-28 21:21 G	8748627.25	8748627.39	8748627.52	0.0495	0.0190
Earth	19240-11-28 08:09 G	8748657.68	8748657.84	8748658.01	0.0494	0.0348
Moon	19240-11-28 08:38 G	8748657.70	8748657.86	8748658.04	0.0494	0.0345 *
Earth	19241-12-28 14:38 G	8749052.92	8749053.11	8749053.31	0.0485	0.0265
Moon	19241-12-28 16:19 G	8749053.00	8749053.18	8749053.37	0.0485	0.0271 *
Venus	19246-06-19 21:21 G	8750687.20	8750687.39	8750687.58	0.0524	0.0177
Mercury	19246-12-30 19:26 G	8750881.16	8750881.31	8750881.46	0.0532	0.0098
Moon	19247-06-09 01:12 G	8751041.34	8751041.55	8751041.77	0.0538	0.0211
Earth	19247-06-09 05:16 G	8751041.50	8751041.72	8751041.94	0.0538	0.0187 *
Mercury	19252-08-17 00:14 G	8752937.36	8752937.51	8752937.66	0.0496	0.0052
Moon	19252-12-02 14:24 G	8753044.92	8753045.10	8753045.28	0.0492	0.0286
Earth	19252-12-02 16:33 G	8753044.99	8753045.19	8753045.39	0.0492	0.0258 *
Earth	19254-01-01 19:12 G	8753440.14	8753440.30	8753440.47	0.0485	0.0347
Moon	19254-01-01 18:57 G	8753440.15	8753440.29	8753440.45	0.0485	0.0375 *
Venus	19258-02-22 15:50 G	8754953.01	8754953.16	8754953.33	0.0521	0.0326
Mercury	19258-10-18 20:09 G	8755191.21	8755191.34	8755191.47	0.0531	0.0276
Mercury	19259-01-16 17:16 G	8755281.16	8755281.22	8755281.29	0.0535	0.0473
Earth	19259-06-14 16:04 G	8755429.94	8755430.17	8755430.41	0.0539	0.0062
Moon	19259-06-14 19:12 G	8755430.07	8755430.30	8755430.52	0.0539	0.0087 *
Mercury	19264-06-05 02:52 G	8757247.48	8757247.62	8757247.76	0.0496	0.0093
Mercury	19264-09-02 14:38 G	8757337.08	8757337.11	8757337.14	0.0493	0.0481
Earth	19264-12-06 21:36 G	8757432.18	8757432.40	8757432.62	0.0491	0.0170
Moon	19264-12-07 00:57 G	8757432.33	8757432.54	8757432.77	0.0491	0.0174 *
Moon	19266-01-05 20:52 G	8757827.28	8757827.37	8757827.48	0.0484	0.0434
Earth	19266-01-05 21:50 G	8757827.31	8757827.41	8757827.53	0.0484	0.0426 *
Mercury	19270-08-06 20:38 G	8759501.28	8759501.36	8759501.44	0.0531	0.0459
Mercury	19270-11-04 18:14 G	8759591.14	8759591.26	8759591.39	0.0534	0.0296
Moon	19271-06-20 00:57 G	8759818.30	8759818.54	8759818.78	0.0541	0.0084
Earth	19271-06-20 01:55 G	8759818.35	8759818.58	8759818.81	0.0541	0.0063 *

Venus	19275-09-08 09:36 G	8761359.70	8761359.90	8761360.09	0.0504	0.0142
Mercury	19276-03-24 05:45 G	8761557.61	8761557.74	8761557.87	0.0497	0.0233
Mercury	19276-06-21 17:16 G	8761647.11	8761647.22	8761647.33	0.0494	0.0339
Moon	19276-12-11 00:00 G	8761819.27	8761819.50	8761819.73	0.0490	0.0054
Earth	19276-12-11 04:04 G	8761819.44	8761819.67	8761819.90	0.0490	0.0083 *
Moon	19278-01-10 05:02 G	8762214.68	8762214.71	8762214.75	0.0484	0.0477
Venus	19282-02-25 14:24 G	8763722.03	8763722.10	8763722.17	0.0525	0.0489
Mercury	19282-08-23 18:00 G	8763901.10	8763901.25	8763901.40	0.0532	0.0100
Moon	19283-06-25 03:50 G	8764206.45	8764206.66	8764206.87	0.0541	0.0196
Earth	19283-06-25 05:31 G	8764206.51	8764206.73	8764206.95	0.0541	0.0179 *
Venus	19287-05-14 07:40 G	8765625.67	8765625.82	8765625.98	0.0508	0.0319
Mercury	19288-01-11 08:38 G	8765867.77	8765867.86	8765867.96	0.0498	0.0372
Mercury	19288-04-09 19:55 G	8765957.19	8765957.33	8765957.47	0.0495	0.0197
Earth	19288-12-15 10:04 G	8766206.69	8766206.92	8766207.15	0.0489	0.0003
Moon	19288-12-15 13:55 G	8766206.85	8766207.08	8766207.31	0.0489	0.0023 *
Venus	19293-10-31 06:43 G	8767987.58	8767987.78	8767987.99	0.0522	0.0031
Mercury	19294-06-11 18:00 G	8768211.10	8768211.25	8768211.41	0.0532	0.0089
Earth	19295-06-30 13:40 G	8768594.89	8768595.07	8768595.27	0.0542	0.0303
Moon	19295-06-30 17:45 G	8768595.03	8768595.24	8768595.44	0.0542	0.0270 *
Mercury	19300-01-27 22:48 G	8770267.31	8770267.45	8770267.60	0.0496	0.0059
Moon	19300-12-20 12:43 G	8770593.80	8770594.03	8770594.27	0.0487	0.0072
Earth	19300-12-20 15:50 G	8770593.93	8770594.16	8770594.39	0.0487	0.0088 *
Mercury	19306-03-31 18:14 G	8772521.13	8772521.26	8772521.39	0.0531	0.0277
Earth	19306-05-29 18:57 G	8772580.16	8772580.29	8772580.43	0.0533	0.0432
Moon	19306-05-29 21:36 G	8772580.26	8772580.40	8772580.56	0.0533	0.0411 *
Mercury	19306-06-29 15:21 G	8772611.07	8772611.14	8772611.21	0.0534	0.0471
Moon	19307-07-06 20:38 G	8772983.21	8772983.36	8772983.52	0.0544	0.0405
Earth	19307-07-07 00:57 G	8772983.40	8772983.54	8772983.69	0.0544	0.0423 *
Venus	19311-05-17 22:04 G	8774394.32	8774394.42	8774394.54	0.0503	0.0415
Mercury	19311-11-17 01:55 G	8774577.44	8774577.58	8774577.73	0.0496	0.0079

Earth	19311-11-25 10:48 G	8774585.84	8774585.95	8774586.05	0.0496	0.0441
Moon	19311-11-25 11:16 G	8774585.84	8774585.97	8774586.11	0.0496	0.0411 *
Earth	19312-12-24 21:07 G	8774981.17	8774981.38	8774981.60	0.0486	0.0174
Moon	19312-12-24 22:33 G	8774981.23	8774981.44	8774981.66	0.0486	0.0153 *
Mercury	19318-01-17 18:43 G	8776831.21	8776831.28	8776831.36	0.0530	0.0457
Mercury	19318-04-17 16:33 G	8776921.06	8776921.19	8776921.31	0.0534	0.0299
Moon	19318-06-04 00:00 G	8776968.31	8776968.50	8776968.70	0.0536	0.0295
Earth	19318-06-04 03:50 G	8776968.48	8776968.66	8776968.86	0.0536	0.0317 *
Earth	19319-07-12 14:24 G	8777372.10	8777372.10	8777372.10	0.0544	0.0544
Venus	19323-01-20 21:50 G	8778660.20	8778660.41	8778660.61	0.0505	0.0039
Mercury	19323-09-05 04:48 G	8778887.57	8778887.70	8778887.83	0.0497	0.0221
Moon	19323-11-29 15:21 G	8778973.00	8778973.14	8778973.30	0.0494	0.0362
Earth	19323-11-29 17:45 G	8778973.08	8778973.24	8778973.41	0.0494	0.0353 *
Mercury	19323-12-03 16:04 G	8778977.07	8778977.17	8778977.28	0.0494	0.0351
Earth	19324-12-29 00:28 G	8779368.33	8779368.52	8779368.72	0.0486	0.0257
Moon	19324-12-29 00:28 G	8779368.33	8779368.52	8779368.73	0.0486	0.0270 *
Venus	19329-07-10 00:28 G	8781022.35	8781022.52	8781022.69	0.0525	0.0284
Mercury	19330-02-03 17:31 G	8781231.08	8781231.23	8781231.37	0.0533	0.0122
Earth	19330-06-09 12:28 G	8781356.81	8781357.02	8781357.24	0.0537	0.0197
Moon	19330-06-09 16:04 G	8781356.96	8781357.17	8781357.38	0.0537	0.0224 *
Mars	19332-11-21 00:28 G	8782252.27	8782252.52	8782252.78	0.0536	0.0075
Venus	19334-09-25 20:38 G	8782926.33	8782926.36	8782926.40	0.0508	0.0500
Mercury	19335-06-24 07:40 G	8783197.72	8783197.82	8783197.92	0.0498	0.0359
Mercury	19335-09-21 18:57 G	8783287.15	8783287.29	8783287.42	0.0495	0.0209
Earth	19335-12-04 01:26 G	8783360.36	8783360.56	8783360.76	0.0493	0.0265
Moon	19335-12-04 05:02 G	8783360.52	8783360.71	8783360.90	0.0493	0.0293 *
Moon	19337-01-02 04:04 G	8783755.53	8783755.67	8783755.82	0.0485	0.0370
Earth	19337-01-02 05:31 G	8783755.57	8783755.73	8783755.90	0.0485	0.0339 *
Venus	19341-03-14 16:48 G	8785288.02	8785288.20	8785288.39	0.0521	0.0230
Mercury	19341-11-22 17:02 G	8785541.06	8785541.21	8785541.37	0.0531	0.0074

Moon	19342-06-14 14:09 G	8785744.85	8785745.09	8785745.32	0.0538	0.0107
Earth	19342-06-14 16:04 G	8785744.94	8785745.17	8785745.41	0.0538	0.0084 *
Mercury	19347-07-10 21:36 G	8787597.25	8787597.40	8787597.54	0.0496	0.0066
Moon	19347-12-08 04:04 G	8787747.45	8787747.67	8787747.89	0.0492	0.0182
Earth	19347-12-08 08:09 G	8787747.62	8787747.84	8787748.05	0.0492	0.0181 *
Earth	19349-01-06 10:33 G	8788142.83	8788142.94	8788143.06	0.0485	0.0418
Moon	19349-01-06 12:57 G	8788142.93	8788143.04	8788143.17	0.0485	0.0417 *
Mercury	19353-09-10 17:02 G	8789851.08	8789851.21	8789851.35	0.0531	0.0264
Mercury	19353-12-09 14:09 G	8789941.03	8789941.09	8789941.15	0.0534	0.0482
Moon	19354-06-19 22:33 G	8790133.21	8790133.44	8790133.66	0.0540	0.0065
Earth	19354-06-19 23:02 G	8790133.23	8790133.46	8790133.70	0.0540	0.0040 *
Venus	19358-09-28 09:21 G	8791694.71	8791694.89	8791695.07	0.0505	0.0229
Mercury	19359-04-29 00:28 G	8791907.38	8791907.52	8791907.67	0.0497	0.0073
Earth	19359-12-12 14:52 G	8792134.90	8792135.12	8792135.35	0.0490	0.0094
Moon	19359-12-12 18:43 G	8792135.05	8792135.28	8792135.51	0.0490	0.0064 *
Moon	19361-01-10 11:02 G	8792529.91	8792529.96	8792530.03	0.0484	0.0467
Mercury	19365-06-29 17:02 G	8794161.13	8794161.21	8794161.29	0.0530	0.0455
Mercury	19365-09-27 14:38 G	8794250.99	8794251.11	8794251.24	0.0533	0.0299
Earth	19366-06-25 08:09 G	8794521.62	8794521.84	8794522.06	0.0541	0.0161
Moon	19366-06-25 11:31 G	8794521.75	8794521.98	8794522.21	0.0541	0.0172 *
Venus	19370-06-03 09:36 G	8795960.72	8795960.90	8795961.09	0.0507	0.0223
Mercury	19371-02-15 03:50 G	8796217.52	8796217.66	8796217.79	0.0497	0.0208
Mercury	19371-05-15 15:07 G	8796307.04	8796307.13	8796307.24	0.0494	0.0366
Moon	19371-12-16 18:43 G	8796522.04	8796522.28	8796522.52	0.0489	0.0011
Earth	19371-12-16 21:36 G	8796522.17	8796522.40	8796522.64	0.0489	0.0012 *
Venus	19376-11-20 08:09 G	8798322.64	8798322.84	8798323.04	0.0523	0.0067
Mercury	19377-07-16 15:36 G	8798561.00	8798561.15	8798561.30	0.0533	0.0124
Moon	19378-06-30 16:33 G	8798909.99	8798910.19	8798910.40	0.0543	0.0256
Earth	19378-06-30 20:52 G	8798910.17	8798910.37	8798910.57	0.0543	0.0289 *
Mercury	19382-12-04 06:43 G	8800527.68	8800527.78	8800527.88	0.0498	0.0347

Mercury	19383-03-03 17:45 G	8800617.11	8800617.24	8800617.37	0.0495	0.0221
Earth	19383-12-21 01:55 G	8800909.36	8800909.58	8800909.82	0.0488	0.0082
Moon	19383-12-21 03:21 G	8800909.41	8800909.64	8800909.86	0.0488	0.0059 *
Mars	19386-08-07 18:28 G	8801870.04	8801870.27	8801870.52	0.0492	0.0271
Venus	19388-07-26 02:38 G	8802588.51	8802588.61	8802588.73	0.0520	0.0433
Mercury	19389-05-04 16:19 G	8802871.03	8802871.18	8802871.34	0.0532	0.0056
Moon	19389-05-29 00:00 G	8802895.35	8802895.50	8802895.64	0.0533	0.0412
Earth	19389-05-29 03:36 G	8802895.52	8802895.65	8802895.79	0.0533	0.0439 *
Earth	19390-07-06 07:55 G	8803298.69	8803298.83	8803298.99	0.0543	0.0412
Moon	19390-07-06 11:16 G	8803298.83	8803298.97	8803299.13	0.0543	0.0400 *
Venus	19394-06-05 22:19 G	8804729.41	8804729.43	8804729.45	0.0503	0.0499
Mercury	19394-09-22 09:50 G	8804837.88	8804837.91	8804837.94	0.0499	0.0485
Moon	19394-11-24 17:16 G	8804901.11	8804901.22	8804901.34	0.0497	0.0425
Earth	19394-11-24 19:40 G	8804901.23	8804901.32	8804901.42	0.0497	0.0447 *
Mercury	19394-12-20 20:38 G	8804927.21	8804927.36	8804927.51	0.0496	0.0079
Earth	19395-12-25 07:26 G	8805296.59	8805296.81	8805297.03	0.0487	0.0167
Moon	19395-12-25 07:55 G	8805296.60	8805296.83	8805297.06	0.0487	0.0149 *
Mercury	19401-02-21 16:04 G	8807181.04	8807181.17	8807181.31	0.0531	0.0247
Mercury	19401-05-22 13:12 G	8807271.00	8807271.05	8807271.10	0.0534	0.0498
Earth	19401-06-04 06:43 G	8807283.60	8807283.78	8807283.96	0.0534	0.0333
Moon	19401-06-04 10:33 G	8807283.75	8807283.94	8807284.13	0.0534	0.0314 *
Earth	19402-07-12 12:57 G	8807686.98	8807687.04	8807687.11	0.0543	0.0521
Venus	19406-02-09 20:38 G	8808995.15	8808995.36	8808995.56	0.0506	0.0042
Mercury	19406-10-09 23:16 G	8809237.32	8809237.47	8809237.61	0.0497	0.0066
Earth	19406-11-30 02:38 G	8809288.46	8809288.61	8809288.77	0.0495	0.0365
Moon	19406-11-30 06:14 G	8809288.62	8809288.76	8809288.91	0.0495	0.0382 *
Moon	19407-12-30 10:48 G	8809683.76	8809683.95	8809684.14	0.0486	0.0265
Earth	19407-12-30 12:28 G	8809683.82	8809684.02	8809684.22	0.0486	0.0247 *
Venus	19412-07-30 00:14 G	8811357.37	8811357.51	8811357.65	0.0524	0.0373
Mercury	19412-12-10 16:04 G	8811491.08	8811491.17	8811491.25	0.0530	0.0439

Mercury	19413-03-10 13:40 G	8811580.95	8811581.07	8811581.19	0.0533	0.0313
Moon	19413-06-09 09:07 G	8811671.66	8811671.88	8811672.09	0.0536	0.0242
Earth	19413-06-09 11:45 G	8811671.78	8811671.99	8811672.21	0.0536	0.0217 *
Venus	19417-10-15 19:55 G	8813261.22	8813261.33	8813261.44	0.0509	0.0418
Mercury	19418-07-29 02:09 G	8813547.46	8813547.59	8813547.73	0.0498	0.0203
Mercury	19418-10-26 13:55 G	8813636.98	8813637.08	8813637.17	0.0495	0.0372
Moon	19418-12-04 07:26 G	8813675.63	8813675.81	8813675.99	0.0494	0.0307
Earth	19418-12-04 11:16 G	8813675.78	8813675.97	8813676.17	0.0494	0.0277 *
Earth	19420-01-03 16:48 G	8814071.04	8814071.20	8814071.38	0.0485	0.0328
Moon	19420-01-03 19:40 G	8814071.16	8814071.32	8814071.48	0.0485	0.0355 *
Venus	19424-04-03 16:33 G	8815622.99	8815623.19	8815623.38	0.0521	0.0144
Mercury	19424-12-27 13:55 G	8815890.93	8815891.08	8815891.23	0.0532	0.0127
Earth	19425-06-14 18:14 G	8816060.03	8816060.26	8816060.49	0.0538	0.0099
Moon	19425-06-14 18:43 G	8816060.06	8816060.28	8816060.50	0.0538	0.0116 *
Mercury	19430-05-17 05:31 G	8817857.63	8817857.73	8817857.84	0.0498	0.0337
Mercury	19430-08-14 16:48 G	8817947.07	8817947.20	8817947.33	0.0495	0.0233
Earth	19430-12-08 19:26 G	8818063.10	8818063.31	8818063.53	0.0492	0.0188
Moon	19430-12-08 23:02 G	8818063.26	8818063.46	8818063.68	0.0492	0.0185 *
Moon	19432-01-07 18:14 G	8818458.14	8818458.26	8818458.39	0.0485	0.0402
Earth	19432-01-07 21:36 G	8818458.29	8818458.40	8818458.53	0.0485	0.0408 *
Mercury	19436-10-15 14:38 G	8820200.95	8820201.11	8820201.26	0.0532	0.0053
Earth	19437-06-20 05:02 G	8820448.47	8820448.71	8820448.94	0.0540	0.0027
Moon	19437-06-20 07:40 G	8820448.58	8820448.82	8820449.06	0.0540	0.0057 *
Venus	19441-10-18 10:33 G	8822029.79	8822029.94	8822030.10	0.0504	0.0321
Mercury	19442-03-05 08:38 G	8822167.82	8822167.86	8822167.90	0.0499	0.0474
Mercury	19442-06-02 19:26 G	8822257.17	8822257.31	8822257.46	0.0496	0.0090
Moon	19442-12-12 22:33 G	8822450.21	8822450.44	8822450.68	0.0490	0.0072
Earth	19442-12-13 01:26 G	8822450.33	8822450.56	8822450.79	0.0490	0.0101 *
Moon	19444-01-12 04:33 G	8822845.62	8822845.69	8822845.77	0.0484	0.0456
Mercury	19448-08-03 15:07 G	8824511.00	8824511.13	8824511.28	0.0531	0.0233

Mercury	19448-11-01 12:28 G	8824600.98	8824601.02	8824601.06	0.0534	0.0515
Moon	19449-06-25 12:00 G	8824836.78	8824837.00	8824837.22	0.0541	0.0161
Earth	19449-06-25 15:50 G	8824836.94	8824837.16	8824837.39	0.0541	0.0150 *
Venus	19453-06-23 10:04 G	8826295.72	8826295.92	8826296.12	0.0507	0.0135
Mercury	19454-03-21 22:19 G	8826567.29	8826567.43	8826567.58	0.0496	0.0050
Earth	19454-12-17 07:40 G	8826837.58	8826837.82	8826838.05	0.0489	0.0015
Moon	19454-12-17 08:38 G	8826837.63	8826837.86	8826838.08	0.0489	0.0009 *
Venus	19459-12-11 10:04 G	8828657.73	8828657.92	8828658.11	0.0523	0.0170
Mercury	19460-05-22 15:07 G	8828821.04	8828821.13	8828821.22	0.0530	0.0422
Mercury	19460-08-20 12:43 G	8828910.91	8828911.03	8828911.15	0.0533	0.0329
Earth	19461-06-30 21:21 G	8829225.19	8829225.39	8829225.59	0.0542	0.0266
Moon	19461-07-01 01:12 G	8829225.34	8829225.55	8829225.76	0.0542	0.0234 *
Mercury	19466-01-08 00:57 G	8830877.40	8830877.54	8830877.67	0.0498	0.0196
Mercury	19466-04-07 12:28 G	8830966.92	8830967.02	8830967.11	0.0495	0.0379
Earth	19466-12-21 12:28 G	8831224.79	8831225.02	8831225.25	0.0488	0.0070
Moon	19466-12-21 13:12 G	8831224.81	8831225.05	8831225.29	0.0488	0.0042 *
Venus	19471-08-16 03:21 G	8832923.49	8832923.64	8832923.80	0.0520	0.0339
Earth	19472-05-29 05:02 G	8833210.59	8833210.71	8833210.83	0.0532	0.0455
Moon	19472-05-29 08:52 G	8833210.73	8833210.87	8833211.01	0.0532	0.0423 *
Mercury	19472-06-08 12:57 G	8833220.89	8833221.04	8833221.19	0.0532	0.0142
Moon	19473-07-06 03:07 G	8833613.45	8833613.63	8833613.80	0.0542	0.0375
Earth	19473-07-06 05:16 G	8833613.56	8833613.72	8833613.89	0.0542	0.0385 *
Mercury	19477-10-27 04:04 G	8835187.56	8835187.67	8835187.77	0.0499	0.0333
Earth	19477-11-25 03:36 G	8835216.57	8835216.65	8835216.74	0.0498	0.0460
Moon	19477-11-25 07:12 G	8835216.70	8835216.80	8835216.91	0.0498	0.0442 *
Mercury	19478-01-24 15:07 G	8835277.00	8835277.13	8835277.26	0.0496	0.0238
Moon	19478-12-25 15:50 G	8835611.95	8835612.16	8835612.38	0.0487	0.0139
Earth	19478-12-25 17:45 G	8835612.02	8835612.24	8835612.47	0.0487	0.0154 *
Mercury	19484-03-27 12:57 G	8837530.88	8837531.04	8837531.19	0.0531	0.0052
Moon	19484-06-03 04:48 G	8837598.52	8837598.70	8837598.89	0.0534	0.0326

Earth	19484-06-03 08:09 G	8837598.67	8837598.84	8837599.02	0.0534	0.0347 *
Earth	19485-07-11 14:38 G	8838002.02	8838002.11	8838002.20	0.0544	0.0502
Moon	19485-07-11 13:55 G	8838002.05	8838002.08	8838002.12	0.0544	0.0536 *
Mars	19487-02-16 01:55 G	8838586.38	8838586.58	8838586.78	0.0536	0.0344
Venus	19489-02-28 22:04 G	8839330.22	8839330.42	8839330.62	0.0506	0.0135
Mercury	19489-08-15 07:26 G	8839497.76	8839497.81	8839497.86	0.0499	0.0466
Mercury	19489-11-12 18:14 G	8839587.12	8839587.26	8839587.41	0.0496	0.0100
Moon	19489-11-29 09:36 G	8839603.77	8839603.90	8839604.05	0.0496	0.0392
Earth	19489-11-29 13:40 G	8839603.92	8839604.07	8839604.23	0.0496	0.0370 *
Earth	19490-12-29 23:16 G	8839999.27	8839999.47	8839999.68	0.0486	0.0238
Moon	19490-12-30 02:09 G	8839999.39	8839999.59	8839999.80	0.0486	0.0260 *
Venus	19495-08-19 00:43 G	8841692.44	8841692.53	8841692.63	0.0525	0.0464
Mercury	19496-01-14 13:26 G	8841840.92	8841841.06	8841841.20	0.0531	0.0231
Mercury	19496-04-13 10:33 G	8841930.90	8841930.94	8841930.98	0.0534	0.0516
Earth	19496-06-08 16:19 G	8841986.97	8841987.18	8841987.39	0.0536	0.0229
Moon	19496-06-08 17:16 G	8841987.03	8841987.22	8841987.42	0.0536	0.0257 *
Venus	19500-11-04 21:21 G	8843596.24	8843596.39	8843596.55	0.0508	0.0324
Mercury	19501-09-01 21:07 G	8843897.23	8843897.38	8843897.53	0.0497	0.0041
Earth	19501-12-04 21:21 G	8843991.20	8843991.39	8843991.58	0.0494	0.0283
Moon	19501-12-05 00:57 G	8843991.37	8843991.54	8843991.72	0.0494	0.0311 *
Moon	19503-01-03 23:31 G	8844386.32	8844386.48	8844386.64	0.0485	0.0343
Earth	19503-01-04 02:52 G	8844386.45	8844386.62	8844386.80	0.0485	0.0319 *
Mars	19505-01-27 17:31 G	8845141.00	8845141.23	8845141.48	0.0491	0.0285
Venus	19507-04-24 18:57 G	8845958.09	8845958.29	8845958.50	0.0522	0.0044
Mercury	19507-11-03 13:55 G	8846150.98	8846151.08	8846151.18	0.0530	0.0412
Mercury	19508-02-01 11:31 G	8846240.87	8846240.98	8846241.10	0.0533	0.0343
Earth	19508-06-15 01:40 G	8846375.35	8846375.57	8846375.80	0.0538	0.0110
Moon	19508-06-15 03:36 G	8846375.41	8846375.65	8846375.89	0.0538	0.0115 *
Mercury	19513-06-21 00:00 G	8848207.37	8848207.50	8848207.64	0.0497	0.0181
Mercury	19513-09-18 11:31 G	8848296.89	8848296.98	8848297.07	0.0494	0.0393

Moon	19513-12-09 01:55 G	8848378.37	8848378.58	8848378.81	0.0492	0.0190
Earth	19513-12-09 04:48 G	8848378.49	8848378.70	8848378.91	0.0492	0.0195 *
Earth	19515-01-08 07:55 G	8848773.70	8848773.83	8848773.96	0.0485	0.0399
Moon	19515-01-08 11:31 G	8848773.84	8848773.98	8848774.12	0.0485	0.0383 *
Mercury	19519-11-20 12:00 G	8850550.85	8850551.00	8850551.14	0.0532	0.0158
Moon	19520-06-20 03:50 G	8850763.44	8850763.66	8850763.89	0.0539	0.0041
Earth	19520-06-20 07:40 G	8850763.58	8850763.82	8850764.05	0.0539	0.0010 *
Venus	19524-11-07 08:24 G	8852364.73	8852364.85	8852364.98	0.0504	0.0394
Mercury	19525-04-09 02:38 G	8852517.50	8852517.61	8852517.71	0.0499	0.0328
Mercury	19525-07-07 13:40 G	8852606.94	8852607.07	8852607.20	0.0496	0.0244
Earth	19525-12-13 09:36 G	8852765.68	8852765.90	8852766.13	0.0491	0.0114
Moon	19525-12-13 10:33 G	8852765.72	8852765.94	8852766.16	0.0491	0.0087 *
Moon	19527-01-12 08:24 G	8853160.77	8853160.85	8853160.95	0.0485	0.0444
Earth	19527-01-12 11:45 G	8853160.95	8853160.99	8853161.04	0.0485	0.0474 *
Mercury	19531-09-08 12:00 G	8854860.85	8854861.00	8854861.16	0.0531	0.0032
Earth	19532-06-25 14:09 G	8855151.86	8855152.09	8855152.32	0.0540	0.0126
Moon	19532-06-25 18:14 G	8855152.04	8855152.26	8855152.49	0.0540	0.0136 *
Venus	19536-07-13 07:55 G	8856630.62	8856630.83	8856631.03	0.0507	0.0062
Mercury	19537-01-26 05:45 G	8856827.69	8856827.74	8856827.79	0.0499	0.0465
Mercury	19537-04-25 16:33 G	8856917.05	8856917.19	8856917.33	0.0496	0.0102
Earth	19537-12-17 16:04 G	8857152.94	8857153.17	8857153.40	0.0490	0.0026
Moon	19537-12-17 17:02 G	8857152.97	8857153.21	8857153.45	0.0490	0.0030 *
Venus	19542-12-31 08:38 G	8858992.69	8858992.86	8858993.04	0.0523	0.0249
Mercury	19543-06-27 11:31 G	8859170.84	8859170.98	8859171.12	0.0530	0.0229
Mercury	19543-09-25 08:38 G	8859260.83	8859260.86	8859260.90	0.0534	0.0517
Moon	19544-06-30 18:00 G	8859540.03	8859540.25	8859540.47	0.0542	0.0215
Earth	19544-06-30 21:07 G	8859540.18	8859540.38	8859540.59	0.0542	0.0247 *
Mercury	19549-02-11 19:40 G	8861227.17	8861227.32	8861227.47	0.0497	0.0035
Moon	19549-12-21 20:38 G	8861540.13	8861540.36	8861540.58	0.0488	0.0031
Earth	19549-12-21 22:48 G	8861540.22	8861540.45	8861540.68	0.0488	0.0061 *

Venus	19554-09-05 02:52 G	8863258.44	8863258.62	8863258.80	0.0520	0.0257
Mercury	19555-04-15 11:45 G	8863480.90	8863480.99	8863481.09	0.0530	0.0413
Moon	19555-05-30 03:50 G	8863525.53	8863525.66	8863525.80	0.0532	0.0434
Earth	19555-05-30 07:40 G	8863525.71	8863525.82	8863525.93	0.0532	0.0466 *
Mercury	19555-07-14 09:36 G	8863570.78	8863570.90	8863571.02	0.0533	0.0340
Earth	19556-07-06 08:52 G	8863928.70	8863928.87	8863929.04	0.0543	0.0369
Moon	19556-07-06 09:07 G	8863928.72	8863928.88	8863929.04	0.0543	0.0372 *
Moon	19560-11-25 09:07 G	8865531.79	8865531.88	8865531.98	0.0498	0.0450
Earth	19560-11-25 12:57 G	8865531.97	8865532.04	8865532.13	0.0498	0.0466 *
Mercury	19560-11-30 22:33 G	8865537.31	8865537.44	8865537.58	0.0497	0.0175
Mercury	19561-02-28 10:04 G	8865626.84	8865626.92	8865627.01	0.0495	0.0400
Earth	19561-12-26 03:07 G	8865927.41	8865927.63	8865927.86	0.0487	0.0145
Moon	19561-12-26 06:28 G	8865927.54	8865927.77	8865928.00	0.0487	0.0134 *
Mercury	19567-05-02 10:33 G	8867880.79	8867880.94	8867881.08	0.0533	0.0165
Earth	19567-06-04 14:52 G	8867913.95	8867914.12	8867914.30	0.0534	0.0356
Moon	19567-06-04 16:48 G	8867914.03	8867914.20	8867914.38	0.0534	0.0343 *
Earth	19568-07-11 20:38 G	8868317.26	8868317.36	8868317.46	0.0543	0.0488
Moon	19568-07-11 23:02 G	8868317.39	8868317.46	8868317.53	0.0543	0.0521 *
Venus	19572-03-20 21:50 G	8869665.23	8869665.41	8869665.60	0.0505	0.0218
Mercury	19572-09-19 01:40 G	8869847.46	8869847.57	8869847.68	0.0498	0.0313
Earth	19572-11-29 21:50 G	8869919.27	8869919.41	8869919.56	0.0496	0.0378
Moon	19572-11-30 01:26 G	8869919.43	8869919.56	8869919.69	0.0496	0.0402 *
Mercury	19572-12-17 12:43 G	8869936.91	8869937.03	8869937.16	0.0495	0.0257
Moon	19573-12-30 04:48 G	8870314.51	8870314.70	8870314.90	0.0486	0.0253
Earth	19573-12-30 08:24 G	8870314.65	8870314.85	8870315.06	0.0486	0.0229 *
Mercury	19579-02-18 10:48 G	8872190.80	8872190.95	8872191.11	0.0531	0.0021
Earth	19579-06-09 20:24 G	8872302.14	8872302.35	8872302.56	0.0535	0.0245
Moon	19579-06-09 21:07 G	8872302.17	8872302.38	8872302.59	0.0535	0.0274 *
Venus	19583-11-24 18:14 G	8873931.09	8873931.26	8873931.44	0.0508	0.0256
Mercury	19584-07-08 04:04 G	8874157.62	8874157.67	8874157.73	0.0499	0.0461

Mercury	19584-10-05 14:52 G	8874246.98	8874247.12	8874247.27	0.0496	0.0108
Moon	19584-12-04 00:43 G	8874306.35	8874306.53	8874306.71	0.0495	0.0322
Earth	19584-12-04 03:21 G	8874306.45	8874306.64	8874306.82	0.0495	0.0297 *
Earth	19586-01-03 11:45 G	8874701.81	8874701.99	8874702.17	0.0486	0.0306
Moon	19586-01-03 15:21 G	8874701.97	8874702.14	8874702.31	0.0486	0.0323 *
Venus	19590-05-13 19:26 G	8876293.11	8876293.31	8876293.51	0.0522	0.0049
Mercury	19590-12-07 10:48 G	8876500.81	8876500.95	8876501.09	0.0530	0.0210
Mercury	19591-03-07 07:55 G	8876590.83	8876590.83	8876590.83	0.0533	0.0533
Moon	19591-06-14 22:19 G	8876690.21	8876690.43	8876690.65	0.0537	0.0135
Earth	19591-06-15 01:26 G	8876690.33	8876690.56	8876690.78	0.0537	0.0130 *
Mercury	19596-07-24 18:00 G	8878557.10	8878557.25	8878557.39	0.0497	0.0038
Earth	19596-12-08 10:48 G	8878693.74	8878693.95	8878694.16	0.0493	0.0209
Moon	19596-12-08 11:31 G	8878693.78	8878693.98	8878694.19	0.0493	0.0197 *
Moon	19598-01-07 12:57 G	8879088.89	8879089.04	8879089.20	0.0485	0.0364
Earth	19598-01-07 16:04 G	8879089.03	8879089.17	8879089.31	0.0485	0.0386 *
Venus	19602-01-16 11:31 G	8880558.89	8880558.98	8880559.06	0.0519	0.0465
Mercury	19602-09-25 10:04 G	8880810.82	8880810.92	8880811.02	0.0529	0.0411
Mercury	19602-12-24 07:40 G	8880900.71	8880900.82	8880900.94	0.0533	0.0341
Earth	19603-06-20 05:31 G	8881078.50	8881078.73	8881078.97	0.0539	0.0014
Moon	19603-06-20 09:36 G	8881078.67	8881078.90	8881079.14	0.0539	0.0023 *
Mars	19605-08-07 17:16 G	8881858.02	8881858.22	8881858.43	0.0538	0.0326
Venus	19607-11-27 08:24 G	8882699.79	8882699.85	8882699.92	0.0504	0.0478
Mercury	19608-05-12 21:07 G	8882867.24	8882867.38	8882867.52	0.0498	0.0171
Mercury	19608-08-10 08:38 G	8882956.77	8882956.86	8882956.94	0.0495	0.0404
Earth	19608-12-12 18:57 G	8883081.07	8883081.29	8883081.52	0.0491	0.0121
Moon	19608-12-12 20:09 G	8883081.10	8883081.34	8883081.58	0.0491	0.0096 *
Earth	19610-01-11 20:38 G	8883476.30	8883476.36	8883476.43	0.0485	0.0463
Moon	19610-01-11 22:48 G	8883476.36	8883476.45	8883476.55	0.0485	0.0437 *
Mercury	19614-10-12 08:24 G	8885210.70	8885210.85	8885211.00	0.0532	0.0160
Moon	19615-06-25 11:31 G	8885466.75	8885466.98	8885467.22	0.0540	0.0118

Earth	19615-06-25 15:21 G	8885466.91	8885467.14	8885467.37	0.0540	0.0109 *
Venus	19619-08-02 08:24 G	8886965.65	8886965.85	8886966.06	0.0506	0.0028
Mercury	19620-03-01 00:00 G	8887177.39	8887177.50	8887177.62	0.0498	0.0310
Mercury	19620-05-29 11:16 G	8887266.84	8887266.97	8887267.10	0.0495	0.0261
Moon	19620-12-16 22:33 G	8887468.21	8887468.44	8887468.66	0.0490	0.0043
Earth	19620-12-17 00:57 G	8887468.30	8887468.54	8887468.77	0.0490	0.0035 *
Venus	19626-01-19 09:50 G	8889327.76	8889327.91	8889328.07	0.0524	0.0344
Mercury	19626-07-31 09:07 G	8889520.72	8889520.88	8889521.03	0.0532	0.0018
Earth	19627-07-01 02:09 G	8889855.38	8889855.59	8889855.80	0.0542	0.0232
Moon	19627-07-01 03:36 G	8889855.44	8889855.65	8889855.86	0.0542	0.0202 *
Venus	19631-04-07 07:12 G	8891231.70	8891231.80	8891231.90	0.0509	0.0438
Mercury	19631-12-19 03:07 G	8891487.58	8891487.63	8891487.70	0.0499	0.0448
Mercury	19632-03-17 14:09 G	8891576.94	8891577.09	8891577.23	0.0496	0.0120
Earth	19632-12-21 06:43 G	8891855.55	8891855.78	8891856.01	0.0489	0.0052
Moon	19632-12-21 09:50 G	8891855.68	8891855.91	8891856.15	0.0489	0.0022 *
Venus	19637-09-24 04:19 G	8893593.49	8893593.68	8893593.88	0.0520	0.0159
Mercury	19638-05-19 09:21 G	8893830.75	8893830.89	8893831.04	0.0530	0.0201
Earth	19638-05-29 12:14 G	8893840.92	8893841.01	8893841.12	0.0531	0.0479
Moon	19638-05-29 15:07 G	8893841.01	8893841.13	8893841.25	0.0531	0.0448 *
Earth	19639-07-06 09:50 G	8894243.74	8894243.91	8894244.09	0.0542	0.0347
Moon	19639-07-06 11:16 G	8894243.79	8894243.97	8894244.15	0.0542	0.0353 *
Earth	19643-11-25 16:19 G	8895847.12	8895847.18	8895847.25	0.0499	0.0479
Moon	19643-11-25 19:55 G	8895847.25	8895847.33	8895847.41	0.0499	0.0466 *
Mercury	19644-01-04 16:19 G	8895887.03	8895887.18	8895887.32	0.0497	0.0036
Moon	19644-12-25 06:00 G	8896242.53	8896242.75	8896242.98	0.0488	0.0124
Earth	19644-12-25 09:50 G	8896242.68	8896242.91	8896243.13	0.0488	0.0131 *
Mercury	19650-03-07 09:07 G	8898140.78	8898140.88	8898140.99	0.0529	0.0394
Moon	19650-06-03 15:07 G	8898228.96	8898229.13	8898229.31	0.0532	0.0364
Earth	19650-06-03 15:36 G	8898228.98	8898229.15	8898229.32	0.0532	0.0372 *
Mercury	19650-06-05 06:43 G	8898230.67	8898230.78	8898230.90	0.0532	0.0357

Moon	19651-07-11 14:09 G	8898632.00	8898632.09	8898632.18	0.0542	0.0497
Earth	19651-07-11 17:02 G	8898632.09	8898632.21	8898632.33	0.0542	0.0461 *
Venus	19655-04-09 17:45 G	8900000.08	8900000.24	8900000.41	0.0505	0.0281
Mercury	19655-10-23 18:57 G	8900197.16	8900197.29	8900197.43	0.0498	0.0175
Moon	19655-11-29 22:48 G	8900234.32	8900234.45	8900234.58	0.0497	0.0414
Earth	19655-11-30 01:26 G	8900234.42	8900234.56	8900234.70	0.0497	0.0392 *
Mercury	19656-01-21 06:28 G	8900286.69	8900286.77	8900286.86	0.0495	0.0401
Earth	19656-12-29 14:38 G	8900629.90	8900630.11	8900630.32	0.0487	0.0214
Moon	19656-12-29 18:00 G	8900630.06	8900630.25	8900630.46	0.0487	0.0243 *
Mars	19659-04-23 18:57 G	8901475.00	8901475.29	8901475.59	0.0491	0.0016
Mercury	19662-03-24 06:28 G	8902540.62	8902540.77	8902540.91	0.0532	0.0160
Moon	19662-06-08 14:38 G	8902616.93	8902617.11	8902617.30	0.0535	0.0296
Earth	19662-06-08 16:48 G	8902617.00	8902617.20	8902617.41	0.0535	0.0263 *
Venus	19666-12-13 17:45 G	8904266.05	8904266.24	8904266.43	0.0508	0.0175
Mercury	19667-08-11 22:19 G	8904507.32	8904507.43	8904507.55	0.0499	0.0309
Mercury	19667-11-09 09:21 G	8904596.77	8904596.89	8904597.02	0.0496	0.0263
Earth	19667-12-04 11:02 G	8904621.79	8904621.96	8904622.15	0.0495	0.0304
Moon	19667-12-04 11:45 G	8904621.83	8904621.99	8904622.17	0.0495	0.0323 *
Moon	19669-01-02 17:02 G	8905017.03	8905017.21	8905017.40	0.0486	0.0309
Earth	19669-01-02 19:55 G	8905017.15	8905017.33	8905017.52	0.0486	0.0296 *
Venus	19673-06-01 16:33 G	8906628.00	8906628.19	8906628.39	0.0522	0.0120
Mercury	19674-01-10 06:43 G	8906850.63	8906850.78	8906850.94	0.0531	0.0025
Earth	19674-06-13 23:45 G	8907005.27	8907005.49	8907005.72	0.0537	0.0147
Moon	19674-06-14 03:36 G	8907005.43	8907005.65	8907005.88	0.0537	0.0149 *
Mercury	19679-05-31 01:26 G	8908817.50	8908817.56	8908817.63	0.0499	0.0446
Mercury	19679-08-28 12:14 G	8908906.87	8908907.01	8908907.16	0.0496	0.0121
Earth	19679-12-08 18:43 G	8909009.08	8909009.28	8909009.49	0.0493	0.0218
Moon	19679-12-08 20:09 G	8909009.12	8909009.34	8909009.56	0.0493	0.0196 *
Earth	19681-01-06 23:31 G	8909404.34	8909404.48	8909404.63	0.0485	0.0374
Moon	19681-01-07 01:40 G	8909404.42	8909404.57	8909404.72	0.0485	0.0352 *

Venus	19685-02-04 11:16 G	8910893.84	8910893.97	8910894.11	0.0519	0.0380
Mercury	19685-10-29 07:12 G	8911160.66	8911160.80	8911160.95	0.0531	0.0206
Moon	19686-06-19 05:16 G	8911393.48	8911393.72	8911393.95	0.0538	0.0006
Earth	19686-06-19 09:21 G	8911393.65	8911393.89	8911394.12	0.0538	0.0030 *
Mercury	19691-06-16 15:07 G	8913216.99	8913217.13	8913217.28	0.0497	0.0022
Moon	19691-12-12 23:16 G	8913396.25	8913396.47	8913396.69	0.0492	0.0107
Earth	19691-12-13 01:40 G	8913396.35	8913396.57	8913396.80	0.0492	0.0131 *
Moon	19693-01-11 03:21 G	8913791.52	8913791.64	8913791.75	0.0485	0.0426
Earth	19693-01-11 03:50 G	8913791.59	8913791.66	8913791.75	0.0485	0.0452 *
Mercury	19697-08-17 07:26 G	8915470.71	8915470.81	8915470.92	0.0529	0.0389
Mercury	19697-11-15 05:16 G	8915560.61	8915560.72	8915560.83	0.0533	0.0364
Earth	19698-06-24 17:16 G	8915781.99	8915782.22	8915782.45	0.0539	0.0090
Moon	19698-06-24 19:26 G	8915782.09	8915782.31	8915782.54	0.0539	0.0090 *
Venus	19702-08-22 04:04 G	8917300.47	8917300.67	8917300.87	0.0506	0.0087
Mercury	19703-04-05 17:16 G	8917527.09	8917527.22	8917527.36	0.0498	0.0174
Mercury	19703-07-04 04:48 G	8917616.61	8917616.70	8917616.78	0.0495	0.0402
Earth	19703-12-18 05:02 G	8917783.48	8917783.71	8917783.94	0.0491	0.0049
Moon	19703-12-18 08:24 G	8917783.61	8917783.85	8917784.08	0.0491	0.0059 *
Venus	19709-02-08 09:21 G	8919662.79	8919662.89	8919663.02	0.0523	0.0431
Mercury	19709-09-04 05:31 G	8919870.58	8919870.73	8919870.87	0.0532	0.0176
Moon	19710-06-30 23:45 G	8920170.26	8920170.49	8920170.72	0.0540	0.0176
Earth	19710-06-30 23:31 G	8920170.27	8920170.48	8920170.70	0.0540	0.0209 *
Venus	19714-04-27 02:09 G	8921566.46	8921566.59	8921566.72	0.0509	0.0382
Mercury	19715-01-22 20:09 G	8921837.23	8921837.34	8921837.46	0.0499	0.0315
Mercury	19715-04-22 07:26 G	8921926.68	8921926.81	8921926.93	0.0496	0.0257
Moon	19715-12-22 07:12 G	8922170.57	8922170.80	8922171.03	0.0489	0.0008
Earth	19715-12-22 10:48 G	8922170.72	8922170.95	8922171.18	0.0489	0.0037 *
Venus	19720-10-14 00:28 G	8923928.32	8923928.52	8923928.72	0.0520	0.0097
Moon	19721-05-29 06:28 G	8924155.66	8924155.77	8924155.89	0.0530	0.0463
Earth	19721-05-29 07:55 G	8924155.75	8924155.83	8924155.92	0.0530	0.0494 *

Mercury	19721-06-23 04:48 G	8924180.54	8924180.70	8924180.85	0.0531	0.0027
Moon	19722-07-06 01:55 G	8924558.41	8924558.58	8924558.77	0.0542	0.0330
Earth	19722-07-06 04:04 G	8924558.49	8924558.67	8924558.87	0.0542	0.0324 *
Mercury	19726-11-10 23:31 G	8926147.43	8926147.48	8926147.55	0.0500	0.0449
Moon	19726-11-25 20:09 G	8926162.27	8926162.34	8926162.42	0.0499	0.0473
Earth	19726-11-25 23:02 G	8926162.41	8926162.46	8926162.51	0.0499	0.0486 *
Mercury	19727-02-08 10:33 G	8926236.79	8926236.94	8926237.08	0.0497	0.0120
Earth	19727-12-26 17:02 G	8926557.99	8926558.21	8926558.44	0.0488	0.0122
Moon	19727-12-26 20:38 G	8926558.14	8926558.36	8926558.58	0.0488	0.0125 *
Mercury	19733-04-11 04:48 G	8928490.56	8928490.70	8928490.85	0.0530	0.0214
Moon	19733-06-03 10:33 G	8928543.79	8928543.94	8928544.10	0.0532	0.0388
Earth	19733-06-03 12:00 G	8928543.84	8928544.00	8928544.16	0.0532	0.0387 *
Mercury	19733-07-10 02:09 G	8928580.58	8928580.59	8928580.60	0.0534	0.0531
Earth	19734-07-11 14:09 G	8928946.96	8928947.09	8928947.23	0.0543	0.0442
Moon	19734-07-11 17:45 G	8928947.13	8928947.24	8928947.36	0.0543	0.0476 *
Venus	19738-04-29 17:02 G	8930335.08	8930335.21	8930335.36	0.0505	0.0362
Mercury	19738-11-27 13:26 G	8930546.91	8930547.06	8930547.20	0.0497	0.0024
Earth	19738-11-30 08:38 G	8930549.73	8930549.86	8930550.00	0.0497	0.0400
Moon	19738-11-30 09:21 G	8930549.78	8930549.89	8930550.01	0.0497	0.0427 *
Moon	19739-12-30 18:57 G	8930945.08	8930945.29	8930945.50	0.0487	0.0232
Earth	19739-12-30 21:36 G	8930945.19	8930945.40	8930945.62	0.0487	0.0203 *
Mercury	19745-01-28 05:02 G	8932800.61	8932800.71	8932800.82	0.0530	0.0398
Mercury	19745-04-28 02:52 G	8932890.51	8932890.62	8932890.74	0.0533	0.0357
Earth	19745-06-08 18:57 G	8932932.09	8932932.29	8932932.49	0.0534	0.0277
Moon	19745-06-08 22:19 G	8932932.24	8932932.43	8932932.63	0.0534	0.0311 *
Venus	19750-01-02 16:19 G	8934600.98	8934601.18	8934601.38	0.0507	0.0098
Mercury	19750-09-15 16:19 G	8934857.04	8934857.18	8934857.32	0.0498	0.0162
Earth	19750-12-04 17:02 G	8934937.03	8934937.21	8934937.39	0.0495	0.0313
Moon	19750-12-04 18:14 G	8934937.08	8934937.26	8934937.44	0.0495	0.0323 *
Mercury	19750-12-14 03:36 G	8934946.57	8934946.65	8934946.73	0.0495	0.0412

Earth	19752-01-04 02:09 G	8935332.41	8935332.59	8935332.78	0.0486	0.0284
Moon	19752-01-04 03:50 G	8935332.49	8935332.66	8935332.85	0.0486	0.0295 *
Venus	19756-06-21 17:02 G	8936963.03	8936963.21	8936963.40	0.0522	0.0212
Mercury	19757-02-14 03:50 G	8937200.51	8937200.66	8937200.80	0.0532	0.0179
Moon	19757-06-13 22:19 G	8937320.21	8937320.43	8937320.66	0.0536	0.0168
Earth	19757-06-14 02:24 G	8937320.38	8937320.60	8937320.83	0.0536	0.0163 *
Mars	19759-11-02 12:43 G	8938191.77	8938192.03	8938192.28	0.0537	0.0081
Mercury	19762-07-04 18:28 G	8939167.16	8939167.27	8939167.38	0.0499	0.0314
Mercury	19762-10-02 05:31 G	8939256.61	8939256.73	8939256.86	0.0496	0.0257
Moon	19762-12-08 18:43 G	8939324.07	8939324.28	8939324.48	0.0494	0.0208
Earth	19762-12-08 21:07 G	8939324.18	8939324.38	8939324.59	0.0494	0.0232 *
Moon	19764-01-08 03:50 G	8939719.48	8939719.66	8939719.83	0.0486	0.0336
Earth	19764-01-08 04:19 G	8939719.53	8939719.68	8939719.84	0.0486	0.0360 *
Venus	19768-02-25 10:48 G	8941228.78	8941228.95	8941229.11	0.0519	0.0297
Mercury	19768-12-03 03:50 G	8941510.50	8941510.66	8941510.81	0.0531	0.0013
Earth	19769-06-19 07:40 G	8941708.58	8941708.82	8941709.05	0.0537	0.0048
Moon	19769-06-19 10:48 G	8941708.72	8941708.95	8941709.18	0.0537	0.0015 *
Mercury	19774-04-22 21:36 G	8943477.34	8943477.40	8943477.45	0.0500	0.0455
Mercury	19774-07-21 08:09 G	8943566.70	8943566.84	8943566.99	0.0497	0.0113
Earth	19774-12-13 03:50 G	8943711.44	8943711.66	8943711.88	0.0492	0.0145
Moon	19774-12-13 07:12 G	8943711.57	8943711.80	8943712.03	0.0492	0.0120 *
Moon	19776-01-12 07:12 G	8944106.70	8944106.80	8944106.91	0.0485	0.0421
Earth	19776-01-12 08:09 G	8944106.75	8944106.84	8944106.95	0.0485	0.0438 *
Mercury	19780-09-21 02:38 G	8945820.47	8945820.61	8945820.76	0.0530	0.0217
Mercury	19780-12-20 00:00 G	8945910.49	8945910.50	8945910.52	0.0533	0.0528
Moon	19781-06-24 08:52 G	8946096.63	8946096.87	8946097.11	0.0539	0.0062
Earth	19781-06-24 10:04 G	8946096.68	8946096.92	8946097.15	0.0539	0.0067 *
Venus	19785-09-10 02:09 G	8947635.40	8947635.59	8947635.79	0.0506	0.0160
Mercury	19786-05-09 11:16 G	8947876.83	8947876.97	8947877.12	0.0497	0.0028
Moon	19786-12-17 07:55 G	8948098.60	8948098.83	8948099.06	0.0491	0.0071

Earth	19786-12-17 11:45 G	8948098.76	8948098.99	8948099.22	0.0491	0.0058 *
Venus	19792-02-28 05:02 G	8949997.64	8949997.71	8949997.78	0.0524	0.0489
Mercury	19792-07-10 02:38 G	8950130.51	8950130.61	8950130.71	0.0529	0.0408
Mercury	19792-10-08 00:28 G	8950220.40	8950220.52	8950220.64	0.0533	0.0345
Moon	19793-06-29 16:48 G	8950484.99	8950485.20	8950485.42	0.0541	0.0154
Earth	19793-06-29 18:14 G	8950485.04	8950485.26	8950485.48	0.0541	0.0187 *
Venus	19797-05-16 01:26 G	8951901.39	8951901.56	8951901.72	0.0509	0.0301
Mercury	19798-02-25 14:24 G	8952186.96	8952187.10	8952187.24	0.0498	0.0164
Mercury	19798-05-26 01:40 G	8952276.49	8952276.57	8952276.65	0.0495	0.0410
Earth	19798-12-21 17:31 G	8952485.99	8952486.23	8952486.46	0.0489	0.0027
Moon	19798-12-21 20:52 G	8952486.14	8952486.37	8952486.60	0.0489	0.0004 *
Venus	19803-11-03 22:48 G	8954263.24	8954263.45	8954263.65	0.0521	0.0020
Moon	19804-05-29 08:38 G	8954470.76	8954470.86	8954470.95	0.0530	0.0477
Earth	19804-05-29 08:52 G	8954470.81	8954470.87	8954470.94	0.0530	0.0506 *
Mercury	19804-07-28 01:12 G	8954530.40	8954530.55	8954530.70	0.0532	0.0167
Earth	19805-07-06 05:02 G	8954873.52	8954873.71	8954873.91	0.0542	0.0306
Moon	19805-07-06 08:09 G	8954873.65	8954873.84	8954874.04	0.0542	0.0314 *
Earth	19809-11-26 04:04 G	8956477.65	8956477.67	8956477.71	0.0499	0.0494
Moon	19809-11-26 05:02 G	8956477.68	8956477.71	8956477.75	0.0499	0.0492 *
Mercury	19809-12-15 17:31 G	8956497.11	8956497.23	8956497.34	0.0499	0.0304
Mercury	19810-03-15 04:19 G	8956586.56	8956586.68	8956586.81	0.0496	0.0267
Moon	19810-12-26 20:09 G	8956873.11	8956873.34	8956873.57	0.0488	0.0117
Earth	19810-12-26 22:48 G	8956873.23	8956873.45	8956873.68	0.0488	0.0110 *
Mars	19813-07-19 09:07 G	8957808.62	8957808.88	8957809.14	0.0491	0.0225
Venus	19815-07-09 18:00 G	8958529.23	8958529.25	8958529.29	0.0518	0.0512
Mercury	19816-05-16 01:55 G	8958840.42	8958840.58	8958840.73	0.0531	0.0013
Earth	19816-06-03 14:52 G	8958858.97	8958859.12	8958859.28	0.0532	0.0400
Moon	19816-06-03 17:45 G	8958859.09	8958859.24	8958859.40	0.0532	0.0404 *
Moon	19817-07-11 11:16 G	8959261.85	8959261.97	8959262.10	0.0542	0.0453
Earth	19817-07-11 15:07 G	8959261.99	8959262.13	8959262.28	0.0542	0.0421 *

Venus	19821-05-19 12:14 G	8960669.91	8960670.01	8960670.13	0.0505	0.0418
Mercury	19821-10-03 19:40 G	8960807.27	8960807.32	8960807.38	0.0500	0.0454
Earth	19821-11-30 09:36 G	8960864.78	8960864.90	8960865.04	0.0498	0.0413
Moon	19821-11-30 10:33 G	8960864.84	8960864.94	8960865.07	0.0498	0.0440 *
Mercury	19822-01-01 06:28 G	8960896.63	8960896.77	8960896.91	0.0497	0.0112
Earth	19822-12-31 00:57 G	8961260.33	8961260.54	8961260.76	0.0488	0.0189
Moon	19822-12-31 02:38 G	8961260.41	8961260.61	8961260.81	0.0488	0.0220 *
Mercury	19828-03-04 01:40 G	8963150.43	8963150.57	8963150.72	0.0530	0.0202
Moon	19828-06-08 14:52 G	8963246.94	8963247.12	8963247.30	0.0533	0.0327
Earth	19828-06-08 18:43 G	8963247.09	8963247.28	8963247.48	0.0533	0.0291 *
Earth	19829-07-16 22:19 G	8963650.39	8963650.43	8963650.47	0.0543	0.0533
Moon	19829-07-17 00:57 G	8963650.48	8963650.54	8963650.61	0.0543	0.0516
Venus	19833-01-22 10:48 G	8964935.75	8964935.95	8964936.15	0.0508	0.0046
Mercury	19833-10-20 09:07 G	8965206.74	8965206.88	8965207.03	0.0497	0.0033
Moon	19833-12-04 15:21 G	8965251.98	8965252.14	8965252.30	0.0496	0.0337
Earth	19833-12-04 17:45 G	8965252.07	8965252.24	8965252.42	0.0496	0.0327 *
Moon	19835-01-04 04:48 G	8965647.51	8965647.70	8965647.91	0.0487	0.0278
Earth	19835-01-04 05:31 G	8965647.54	8965647.73	8965647.93	0.0487	0.0270 *
Venus	19839-07-12 12:00 G	8967297.83	8967298.00	8967298.18	0.0522	0.0268
Mercury	19839-12-22 00:28 G	8967460.42	8967460.52	8967460.62	0.0529	0.0410
Mercury	19840-03-20 22:19 G	8967550.32	8967550.43	8967550.55	0.0532	0.0343
Earth	19840-06-13 18:43 G	8967635.06	8967635.28	8967635.50	0.0535	0.0184
Moon	19840-06-13 22:19 G	8967635.22	8967635.43	8967635.65	0.0535	0.0186 *
Mercury	19845-08-08 12:14 G	8969516.88	8969517.01	8969517.15	0.0498	0.0169
Mercury	19845-11-05 23:45 G	8969606.41	8969606.49	8969606.57	0.0495	0.0407
Earth	19845-12-09 02:52 G	8969639.43	8969639.62	8969639.83	0.0494	0.0242
Moon	19845-12-09 06:28 G	8969639.56	8969639.77	8969639.99	0.0494	0.0213 *
Moon	19847-01-08 09:36 G	8970034.74	8970034.90	8970035.08	0.0486	0.0326
Earth	19847-01-08 11:02 G	8970034.80	8970034.96	8970035.12	0.0486	0.0350 *
Venus	19851-03-17 05:31 G	8971563.55	8971563.73	8971563.91	0.0519	0.0242

Mercury	19852-01-07 22:33 G	8971860.30	8971860.44	8971860.59	0.0532	0.0157
Moon	19852-06-18 22:33 G	8972023.20	8972023.44	8972023.69	0.0537	0.0039
Earth	19852-06-19 00:43 G	8972023.30	8972023.53	8972023.77	0.0537	0.0070 *
Mercury	19857-05-27 15:36 G	8973827.03	8973827.15	8973827.26	0.0499	0.0306
Mercury	19857-08-25 02:24 G	8973916.48	8973916.60	8973916.73	0.0496	0.0265
Moon	19857-12-13 06:57 G	8974026.57	8974026.79	8974027.01	0.0493	0.0133
Earth	19857-12-13 10:33 G	8974026.72	8974026.94	8974027.17	0.0492	0.0156 *
Earth	19859-01-12 14:38 G	8974422.00	8974422.11	8974422.22	0.0485	0.0424
Moon	19859-01-12 17:31 G	8974422.11	8974422.23	8974422.35	0.0485	0.0413 *
Mercury	19863-10-26 23:02 G	8976170.31	8976170.46	8976170.62	0.0531	0.0027
Moon	19864-06-24 09:36 G	8976411.67	8976411.90	8976412.12	0.0539	0.0041
Earth	19864-06-24 09:50 G	8976411.68	8976411.91	8976412.15	0.0539	0.0051 *
Venus	19868-09-30 00:28 G	8977970.34	8977970.52	8977970.70	0.0506	0.0235
Mercury	19869-03-15 18:28 G	8978137.21	8978137.27	8978137.34	0.0500	0.0445
Mercury	19869-06-13 05:16 G	8978226.58	8978226.72	8978226.86	0.0496	0.0122
Earth	19869-12-17 17:02 G	8978413.99	8978414.21	8978414.45	0.0491	0.0070
Moon	19869-12-17 20:38 G	8978414.13	8978414.36	8978414.58	0.0491	0.0089 *
Mercury	19875-08-14 23:45 G	8980480.34	8980480.49	8980480.63	0.0530	0.0205
Earth	19876-06-29 19:55 G	8980800.11	8980800.33	8980800.55	0.0540	0.0169
Moon	19876-06-29 22:19 G	8980800.20	8980800.43	8980800.66	0.0540	0.0136 *
Venus	19880-06-04 20:52 G	8982236.20	8982236.37	8982236.55	0.0509	0.0242
Mercury	19881-04-01 07:26 G	8982536.66	8982536.81	8982536.96	0.0497	0.0031
Moon	19881-12-21 17:31 G	8982800.99	8982801.23	8982801.47	0.0490	0.0013
Earth	19881-12-21 20:09 G	8982801.11	8982801.34	8982801.57	0.0490	0.0014 *
Venus	19886-11-22 21:50 G	8984598.21	8984598.41	8984598.61	0.0521	0.0063
Earth	19887-05-29 10:04 G	8984785.88	8984785.92	8984785.98	0.0529	0.0515
Moon	19887-05-29 12:14 G	8984785.92	8984786.01	8984786.11	0.0529	0.0482 *
Mercury	19887-06-02 23:31 G	8984790.38	8984790.48	8984790.58	0.0529	0.0396
Mercury	19887-08-31 21:36 G	8984880.28	8984880.40	8984880.51	0.0532	0.0358
Moon	19888-07-04 23:16 G	8985188.28	8985188.47	8985188.67	0.0541	0.0296

Earth	19888-07-05 02:52 G	8985188.43	8985188.62	8985188.83	0.0541	0.0286 *
Mercury	19893-01-18 10:19 G	8986846.79	8986846.93	8986847.06	0.0498	0.0174
Mercury	19893-04-17 21:36 G	8986936.31	8986936.40	8986936.48	0.0495	0.0401
Earth	19893-12-26 01:26 G	8987188.33	8987188.56	8987188.79	0.0489	0.0097
Moon	19893-12-26 02:52 G	8987188.40	8987188.62	8987188.84	0.0489	0.0108 *
Venus	19898-07-28 13:12 G	8988863.96	8988864.05	8988864.15	0.0518	0.0454
Moon	19899-06-03 04:33 G	8989173.55	8989173.69	8989173.83	0.0531	0.0421
Earth	19899-06-03 08:09 G	8989173.69	8989173.84	8989173.98	0.0531	0.0418 *
Mercury	19899-06-19 20:38 G	8989190.21	8989190.36	8989190.51	0.0531	0.0154
Earth	19900-07-11 06:00 G	8989576.59	8989576.75	8989576.91	0.0542	0.0396
Moon	19900-07-11 09:21 G	8989576.75	8989576.89	8989577.03	0.0542	0.0427 *
Venus	19904-06-08 09:50 G	8991004.87	8991004.91	8991004.97	0.0505	0.0489
Mercury	19904-11-07 13:26 G	8991156.95	8991157.06	8991157.17	0.0499	0.0310
Moon	19904-11-30 12:43 G	8991179.94	8991180.03	8991180.12	0.0498	0.0453
Earth	19904-11-30 15:07 G	8991180.02	8991180.13	8991180.26	0.0498	0.0421 *
Mercury	19905-02-05 00:28 G	8991246.40	8991246.52	8991246.65	0.0496	0.0261
Moon	19905-12-31 07:26 G	8991575.59	8991575.81	8991576.03	0.0488	0.0208
Earth	19905-12-31 07:40 G	8991575.61	8991575.82	8991576.04	0.0488	0.0180 *
Mercury	19911-04-08 20:38 G	8993500.20	8993500.36	8993500.51	0.0531	0.0035
Earth	19911-06-09 11:31 G	8993561.79	8993561.98	8993562.17	0.0533	0.0311
Moon	19911-06-09 15:21 G	8993561.97	8993562.14	8993562.33	0.0533	0.0345 *
Moon	19912-07-16 12:57 G	8993964.95	8993965.04	8993965.15	0.0543	0.0492
Earth	19912-07-16 15:07 G	8993965.06	8993965.13	8993965.21	0.0543	0.0511 *
Mars	19914-01-28 00:14 G	8994525.26	8994525.51	8994525.76	0.0538	0.0138
Venus	19916-02-12 09:36 G	8995270.70	8995270.90	8995271.11	0.0507	0.0035
Mercury	19916-08-26 16:48 G	8995467.14	8995467.20	8995467.26	0.0500	0.0446
Mercury	19916-11-24 03:21 G	8995556.50	8995556.64	8995556.78	0.0497	0.0121
Earth	19916-12-05 00:43 G	8995567.36	8995567.53	8995567.70	0.0496	0.0336
Moon	19916-12-05 04:04 G	8995567.51	8995567.67	8995567.85	0.0496	0.0343 *
Moon	19918-01-04 11:02 G	8995962.78	8995962.96	8995963.16	0.0487	0.0260

Earth	19918-01-04 12:28 G	8995962.82	8995963.02	8995963.22	0.0487	0.0258 *
Venus	19922-08-01 09:36 G	8997632.75	8997632.90	8997633.06	0.0523	0.0343
Mercury	19923-01-25 20:52 G	8997810.23	8997810.37	8997810.51	0.0530	0.0220
Mercury	19923-04-25 18:14 G	8997900.25	8997900.26	8997900.28	0.0533	0.0529
Moon	19923-06-14 15:07 G	8997949.91	8997950.13	8997950.36	0.0535	0.0197
Earth	19923-06-14 18:14 G	8997950.04	8997950.26	8997950.48	0.0535	0.0200 *
Venus	19927-10-18 08:09 G	8999536.75	8999536.84	8999536.96	0.0510	0.0434
Mercury	19928-09-12 06:14 G	8999866.62	8999866.76	8999866.91	0.0497	0.0023
Moon	19928-12-09 05:16 G	8999954.52	8999954.72	8999954.93	0.0494	0.0223
Earth	19928-12-09 09:07 G	8999954.68	8999954.88	8999955.08	0.0494	0.0250 *
Earth	19930-01-08 16:48 G	9000350.03	9000350.20	9000350.37	0.0486	0.0338
Moon	19930-01-08 19:40 G	9000350.14	9000350.32	9000350.51	0.0486	0.0309 *
Mars	19932-01-07 09:21 G	9001078.73	9001078.89	9001079.06	0.0490	0.0401
Venus	19934-04-06 04:48 G	9001898.51	9001898.70	9001898.90	0.0520	0.0159
Mercury	19934-11-13 21:21 G	9002120.29	9002120.39	9002120.49	0.0529	0.0400
Mercury	19935-02-11 19:26 G	9002210.20	9002210.31	9002210.42	0.0533	0.0355
Earth	19935-06-20 03:21 G	9002338.41	9002338.64	9002338.87	0.0537	0.0084
Moon	19935-06-20 03:50 G	9002338.43	9002338.66	9002338.88	0.0537	0.0053 *
Mercury	19940-07-01 08:38 G	9004176.72	9004176.86	9004177.00	0.0498	0.0171
Mercury	19940-09-28 19:55 G	9004266.24	9004266.33	9004266.41	0.0495	0.0403
Earth	19940-12-13 13:12 G	9004341.84	9004342.05	9004342.27	0.0493	0.0167
Moon	19940-12-13 16:48 G	9004341.98	9004342.20	9004342.42	0.0493	0.0152 *
Moon	19942-01-12 14:52 G	9004737.00	9004737.12	9004737.25	0.0486	0.0404
Earth	19942-01-12 18:43 G	9004737.16	9004737.28	9004737.41	0.0486	0.0413 *
Mercury	19946-11-30 19:40 G	9006520.18	9006520.32	9006520.47	0.0532	0.0170
Earth	19947-06-25 09:50 G	9006726.68	9006726.91	9006727.14	0.0538	0.0033
Moon	19947-06-25 11:31 G	9006726.73	9006726.98	9006727.22	0.0538	0.0024 *
Venus	19951-10-20 19:40 G	9008305.16	9008305.32	9008305.49	0.0506	0.0291
Mercury	19952-04-19 11:31 G	9008486.87	9008486.98	9008487.09	0.0499	0.0313
Mercury	19952-07-17 22:33 G	9008576.31	9008576.44	9008576.56	0.0496	0.0257

Moon	19952-12-17 17:16 G	9008728.99	9008729.22	9008729.45	0.0492	0.0104
Earth	19952-12-17 19:55 G	9008729.10	9008729.33	9008729.56	0.0492	0.0081 *
Mercury	19958-09-18 18:43 G	9010830.12	9010830.28	9010830.44	0.0530	0.0035
Moon	19959-06-30 08:24 G	9011114.63	9011114.85	9011115.07	0.0540	0.0112
Earth	19959-06-30 11:31 G	9011114.75	9011114.98	9011115.20	0.0540	0.0145 *
Venus	19963-06-25 18:28 G	9012571.08	9012571.27	9012571.46	0.0509	0.0171
Mercury	19964-02-06 14:52 G	9012797.06	9012797.12	9012797.18	0.0500	0.0449
Mercury	19964-05-06 01:26 G	9012886.42	9012886.56	9012886.70	0.0497	0.0119
Earth	19964-12-22 03:21 G	9013116.40	9013116.64	9013116.87	0.0490	0.0008
Moon	19964-12-22 04:33 G	9013116.47	9013116.69	9013116.92	0.0490	0.0019 *
Mars	19967-10-13 17:16 G	9014142.12	9014142.22	9014142.34	0.0491	0.0451
Venus	19969-12-12 16:48 G	9014933.00	9014933.20	9014933.40	0.0521	0.0120
Moon	19970-05-29 01:12 G	9015100.48	9015100.55	9015100.62	0.0528	0.0499
Mercury	19970-07-07 18:28 G	9015140.13	9015140.27	9015140.42	0.0530	0.0227
Mercury	19970-10-05 16:04 G	9015230.14	9015230.17	9015230.20	0.0533	0.0520
Earth	19971-07-05 18:57 G	9015503.09	9015503.29	9015503.50	0.0541	0.0262
Moon	19971-07-05 22:48 G	9015503.25	9015503.45	9015503.65	0.0541	0.0279 *
Mercury	19976-02-23 04:33 G	9017196.54	9017196.69	9017196.83	0.0498	0.0021
Moon	19976-12-26 09:07 G	9017503.64	9017503.88	9017504.12	0.0489	0.0099
Earth	19976-12-26 09:21 G	9017503.66	9017503.89	9017504.12	0.0489	0.0086 *
Venus	19981-08-17 11:02 G	9019198.82	9019198.96	9019199.09	0.0518	0.0383
Mercury	19982-04-25 18:28 G	9019450.18	9019450.27	9019450.37	0.0529	0.0414
Earth	19982-06-03 07:40 G	9019488.69	9019488.82	9019488.96	0.0531	0.0431
Moon	19982-06-03 11:31 G	9019488.85	9019488.98	9019489.12	0.0531	0.0435 *
Mercury	19982-07-24 16:33 G	9019540.08	9019540.19	9019540.31	0.0533	0.0343
Moon	19983-07-11 03:07 G	9019891.48	9019891.63	9019891.79	0.0542	0.0406
Earth	19983-07-11 06:00 G	9019891.58	9019891.75	9019891.91	0.0542	0.0378 *
Earth	19987-11-30 21:36 G	9021495.30	9021495.40	9021495.53	0.0499	0.0430
Moon	19987-12-01 01:12 G	9021495.47	9021495.55	9021495.65	0.0499	0.0461 *
Mercury	19987-12-12 07:26 G	9021506.68	9021506.81	9021506.95	0.0498	0.0161

Mercury	19988-03-10 18:43 G	9021596.20	9021596.28	9021596.36	0.0495	0.0414
Moon	19988-12-30 13:12 G	9021890.84	9021891.05	9021891.26	0.0488	0.0195
Earth	19988-12-30 14:24 G	9021890.89	9021891.10	9021891.33	0.0488	0.0169 *
Mercury	19994-05-12 17:31 G	9023850.09	9023850.23	9023850.38	0.0532	0.0168
Moon	19994-06-08 11:16 G	9023876.80	9023876.97	9023877.16	0.0533	0.0355
Earth	19994-06-08 14:52 G	9023876.94	9023877.12	9023877.31	0.0533	0.0323 *
Earth	19995-07-16 17:45 G	9024280.15	9024280.24	9024280.34	0.0543	0.0495
Moon	19995-07-16 18:28 G	9024280.17	9024280.27	9024280.38	0.0543	0.0477 *
Venus	19999-03-03 06:43 G	9025605.58	9025605.78	9025605.98	0.0507	0.0101
Mercury	19999-09-30 10:04 G	9025816.81	9025816.92	9025817.03	0.0499	0.0308
Moon	19999-12-05 00:28 G	9025882.36	9025882.52	9025882.68	0.0497	0.0353
Earth	19999-12-05 04:04 G	9025882.51	9025882.67	9025882.84	0.0497	0.0346 *
Mercury	19999-12-28 20:52 G	9025906.25	9025906.37	9025906.50	0.0496	0.0262

21ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 21st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	20001-01-03 17:02 G	9026278.01	9026278.21	9026278.41	0.0487	0.0248		
Moon	20001-01-03 20:09 G	9026278.13	9026278.34	9026278.54	0.0487	0.0238 *		
Venus	20005-08-20 09:36 G	9027967.80	9027967.90	9027968.02	0.0523	0.0430		
Mercury	20006-02-28 18:00 G	9028160.09	9028160.25	9028160.40	0.0531	0.0022		
Earth	20006-06-13 20:09 G	9028265.13	9028265.34	9028265.56	0.0534	0.0213		
Moon	20006-06-13 21:50 G	9028265.20	9028265.41	9028265.62	0.0534	0.0200 *		

Venus	20010-11-06 04:33 G	9029871.55	9029871.69	9029871.83	0.0510	0.0371
Mercury	20011-07-19 13:12 G	9030126.99	9030127.05	9030127.11	0.0500	0.0449
Mercury	20011-10-16 23:45 G	9030216.34	9030216.49	9030216.63	0.0497	0.0118
Earth	20011-12-09 12:00 G	9030269.81	9030270.00	9030270.20	0.0495	0.0261
Moon	20011-12-09 15:36 G	9030269.95	9030270.15	9030270.35	0.0495	0.0232 *
Moon	20013-01-07 18:00 G	9030665.07	9030665.25	9030665.43	0.0486	0.0297
Earth	20013-01-07 21:50 G	9030665.24	9030665.41	9030665.58	0.0486	0.0328 *
Venus	20017-04-25 01:12 G	9032233.35	9032233.55	9032233.75	0.0519	0.0091
Mercury	20017-12-17 16:48 G	9032470.06	9032470.20	9032470.34	0.0529	0.0223
Mercury	20018-03-17 14:24 G	9032560.07	9032560.10	9032560.12	0.0533	0.0523
Earth	20018-06-18 20:38 G	9032653.14	9032653.36	9032653.59	0.0536	0.0106
Moon	20018-06-18 21:21 G	9032653.15	9032653.39	9032653.63	0.0536	0.0074 *
Mercury	20023-08-05 02:38 G	9034526.47	9034526.61	9034526.76	0.0498	0.0023
Moon	20023-12-13 18:14 G	9034657.04	9034657.26	9034657.49	0.0494	0.0167
Earth	20023-12-13 20:38 G	9034657.15	9034657.36	9034657.58	0.0494	0.0176 *
Earth	20025-01-12 03:21 G	9035052.51	9035052.64	9035052.77	0.0486	0.0404
Moon	20025-01-12 07:26 G	9035052.68	9035052.81	9035052.94	0.0486	0.0398 *
Mercury	20029-10-05 16:19 G	9036780.09	9036780.18	9036780.28	0.0529	0.0417
Mercury	20030-01-03 14:38 G	9036869.99	9036870.11	9036870.23	0.0532	0.0338
Moon	20030-06-24 00:14 G	9037041.29	9037041.51	9037041.74	0.0538	0.0009
Earth	20030-06-24 02:38 G	9037041.38	9037041.61	9037041.85	0.0538	0.0010 *
Venus	20034-11-08 18:57 G	9038640.16	9038640.29	9038640.43	0.0506	0.0374
Mercury	20035-05-24 05:45 G	9038836.61	9038836.74	9038836.88	0.0498	0.0159
Mercury	20035-08-21 17:02 G	9038926.13	9038926.21	9038926.29	0.0495	0.0416
Earth	20035-12-18 04:19 G	9039044.46	9039044.68	9039044.91	0.0492	0.0091
Moon	20035-12-18 05:31 G	9039044.51	9039044.73	9039044.95	0.0492	0.0119 *
Earth	20037-01-16 07:12 G	9039439.77	9039439.80	9039439.85	0.0485	0.0476
Mercury	20041-10-22 15:07 G	9041179.98	9041180.13	9041180.27	0.0532	0.0157
Earth	20042-06-29 11:45 G	9041429.76	9041429.99	9041430.21	0.0540	0.0128
Moon	20042-06-29 15:21 G	9041429.91	9041430.14	9041430.37	0.0540	0.0100 *

Venus	20046-07-14 18:28 G	9042906.07	9042906.27	9042906.47	0.0508	0.0086
Mercury	20047-03-12 08:52 G	9043146.76	9043146.87	9043146.99	0.0499	0.0297
Mercury	20047-06-09 19:55 G	9043236.21	9043236.33	9043236.45	0.0496	0.0274
Earth	20047-12-22 11:16 G	9043431.73	9043431.97	9043432.20	0.0490	0.0011
Moon	20047-12-22 11:16 G	9043431.73	9043431.97	9043432.21	0.0490	0.0026 *
Venus	20052-12-31 16:48 G	9045268.02	9045268.20	9045268.39	0.0522	0.0208
Moon	20053-05-28 11:45 G	9045415.93	9045415.99	9045416.06	0.0528	0.0506
Mercury	20053-08-10 15:50 G	9045490.00	9045490.16	9045490.31	0.0531	0.0021
Moon	20054-07-04 19:40 G	9045818.11	9045818.32	9045818.53	0.0541	0.0267
Earth	20054-07-04 23:02 G	9045818.26	9045818.46	9045818.67	0.0541	0.0247 *
Mercury	20058-12-29 11:45 G	9047456.93	9047456.99	9047457.05	0.0500	0.0441
Mercury	20059-03-28 22:19 G	9047546.29	9047546.43	9047546.57	0.0497	0.0125
Moon	20059-12-26 13:26 G	9047818.84	9047819.06	9047819.28	0.0489	0.0094
Earth	20059-12-26 14:52 G	9047818.89	9047819.12	9047819.35	0.0489	0.0076 *
Venus	20064-09-05 11:31 G	9049533.82	9049533.98	9049534.15	0.0519	0.0293
Mercury	20065-05-29 16:04 G	9049800.02	9049800.17	9049800.31	0.0530	0.0206
Moon	20065-06-02 08:09 G	9049803.72	9049803.84	9049803.97	0.0530	0.0446
Earth	20065-06-02 12:00 G	9049803.87	9049804.00	9049804.13	0.0530	0.0439 *
Earth	20066-07-10 07:55 G	9050206.66	9050206.83	9050207.01	0.0542	0.0364
Moon	20066-07-10 09:36 G	9050206.75	9050206.90	9050207.06	0.0542	0.0392 *
Mars	20068-04-22 22:33 G	9050859.28	9050859.44	9050859.62	0.0537	0.0401
Moon	20070-11-29 21:50 G	9051810.34	9051810.41	9051810.49	0.0499	0.0470
Earth	20070-11-30 01:40 G	9051810.47	9051810.57	9051810.68	0.0499	0.0438 *
Mercury	20071-01-15 01:12 G	9051856.40	9051856.55	9051856.69	0.0498	0.0020
Earth	20071-12-30 20:09 G	9052206.13	9052206.34	9052206.57	0.0488	0.0159
Moon	20071-12-30 23:16 G	9052206.25	9052206.47	9052206.70	0.0488	0.0181 *
Mercury	20077-03-17 14:52 G	9054110.02	9054110.12	9054110.22	0.0528	0.0410
Earth	20077-06-07 11:02 G	9054191.79	9054191.96	9054192.15	0.0532	0.0342
Moon	20077-06-07 13:26 G	9054191.91	9054192.06	9054192.23	0.0532	0.0372 *
Mercury	20077-06-15 12:57 G	9054199.93	9054200.04	9054200.16	0.0532	0.0344

Earth	20078-07-15 10:48 G	9054594.84	9054594.95	9054595.07	0.0542	0.0471
Moon	20078-07-15 11:16 G	9054594.84	9054594.97	9054595.11	0.0542	0.0450 *
Venus	20082-03-22 05:02 G	9055940.52	9055940.71	9055940.90	0.0507	0.0177
Mercury	20082-11-03 04:04 G	9056166.54	9056166.67	9056166.81	0.0499	0.0158
Earth	20082-12-04 11:16 G	9056197.81	9056197.97	9056198.14	0.0498	0.0356
Moon	20082-12-04 14:52 G	9056197.96	9056198.12	9056198.28	0.0498	0.0354 *
Mercury	20083-01-31 15:21 G	9056256.07	9056256.14	9056256.22	0.0496	0.0418
Moon	20084-01-03 22:48 G	9056593.25	9056593.45	9056593.66	0.0487	0.0225
Earth	20084-01-04 02:38 G	9056593.41	9056593.61	9056593.82	0.0487	0.0239 *
Mars	20086-04-02 03:21 G	9057412.36	9057412.64	9057412.93	0.0490	0.0140
Venus	20088-09-08 06:14 G	9058302.70	9058302.76	9058302.82	0.0523	0.0497
Mercury	20089-04-03 13:12 G	9058509.90	9058510.05	9058510.20	0.0531	0.0157
Moon	20089-06-12 14:52 G	9058579.90	9058580.12	9058580.34	0.0534	0.0219
Earth	20089-06-12 15:07 G	9058579.92	9058580.13	9058580.34	0.0534	0.0233 *
Venus	20093-11-25 03:50 G	9060206.50	9060206.66	9060206.83	0.0510	0.0287
Mercury	20094-08-22 07:26 G	9060476.69	9060476.81	9060476.93	0.0499	0.0294
Mercury	20094-11-19 18:14 G	9060566.14	9060566.26	9060566.39	0.0496	0.0278
Moon	20094-12-08 18:43 G	9060585.07	9060585.28	9060585.49	0.0496	0.0241
Earth	20094-12-08 21:07 G	9060585.19	9060585.38	9060585.58	0.0496	0.0271 *
Earth	20096-01-08 07:26 G	9060980.64	9060980.81	9060980.99	0.0486	0.0317
Moon	20096-01-08 11:16 G	9060980.79	9060980.97	9060981.16	0.0486	0.0287 *
Venus	20100-05-14 23:45 G	9062568.29	9062568.49	9062568.69	0.0520	0.0013
Mercury	20101-01-21 13:26 G	9062819.90	9062820.06	9062820.21	0.0531	0.0029
Moon	20101-06-18 20:09 G	9062968.11	9062968.34	9062968.56	0.0536	0.0091
Earth	20101-06-18 21:36 G	9062968.18	9062968.40	9062968.63	0.0536	0.0122 *
Mercury	20106-06-11 10:48 G	9064786.88	9064786.95	9064787.02	0.0500	0.0429
Mercury	20106-09-08 21:21 G	9064876.25	9064876.39	9064876.53	0.0497	0.0138
Earth	20106-12-14 05:45 G	9064972.53	9064972.74	9064972.96	0.0494	0.0184
Moon	20106-12-14 06:43 G	9064972.57	9064972.78	9064972.99	0.0494	0.0181 *
Moon	20108-01-13 08:38 G	9065367.72	9065367.86	9065368.01	0.0486	0.0388

Earth	20108-01-13 12:14 G	9065367.88	9065368.01	9065368.15	0.0486	0.0394 *
Venus	20112-01-18 19:26 G	9066834.27	9066834.31	9066834.36	0.0517	0.0505
Mercury	20112-11-09 14:09 G	9067129.94	9067130.09	9067130.23	0.0530	0.0207
Earth	20113-06-24 07:26 G	9067356.58	9067356.81	9067357.05	0.0538	0.0006
Moon	20113-06-24 11:02 G	9067356.72	9067356.96	9067357.20	0.0538	0.0020 *
Venus	20117-11-28 18:00 G	9068975.16	9068975.25	9068975.34	0.0505	0.0451
Mercury	20118-06-28 00:00 G	9069186.35	9069186.50	9069186.64	0.0497	0.0013
Earth	20118-12-18 11:16 G	9069359.74	9069359.97	9069360.20	0.0492	0.0099
Moon	20118-12-18 11:16 G	9069359.74	9069359.97	9069360.21	0.0492	0.0127 *
Earth	20120-01-17 14:52 G	9069755.06	9069755.12	9069755.18	0.0485	0.0467
Mercury	20124-08-28 14:09 G	9071439.99	9071440.09	9071440.20	0.0529	0.0391
Mercury	20124-11-26 12:28 G	9071529.91	9071530.02	9071530.13	0.0532	0.0364
Moon	20125-06-29 12:28 G	9071744.79	9071745.02	9071745.25	0.0539	0.0089
Earth	20125-06-29 16:04 G	9071744.95	9071745.17	9071745.40	0.0539	0.0116 *
Venus	20129-08-03 16:48 G	9073240.99	9073241.20	9073241.40	0.0508	0.0016
Mercury	20130-04-16 02:52 G	9073496.48	9073496.62	9073496.76	0.0498	0.0151
Mercury	20130-07-14 13:55 G	9073586.01	9073586.08	9073586.16	0.0495	0.0424
Moon	20130-12-22 16:19 G	9073746.95	9073747.18	9073747.40	0.0491	0.0029
Earth	20130-12-22 17:45 G	9073747.01	9073747.24	9073747.48	0.0491	0.0016 *
Venus	20136-01-21 15:21 G	9075602.97	9075603.14	9075603.31	0.0521	0.0289
Moon	20136-05-28 04:04 G	9075730.65	9075730.67	9075730.70	0.0527	0.0523
Mercury	20136-09-14 11:45 G	9075839.85	9075839.99	9075840.14	0.0531	0.0167
Earth	20137-07-04 18:43 G	9076133.07	9076133.28	9076133.49	0.0540	0.0224
Moon	20137-07-04 21:21 G	9076133.18	9076133.39	9076133.59	0.0540	0.0247 *
Venus	20141-04-08 13:40 G	9077507.01	9077507.07	9077507.13	0.0512	0.0488
Mercury	20142-02-02 05:45 G	9077806.63	9077806.74	9077806.86	0.0500	0.0291
Mercury	20142-05-02 16:48 G	9077896.08	9077896.20	9077896.32	0.0497	0.0282
Earth	20142-12-27 00:43 G	9078134.30	9078134.53	9078134.76	0.0490	0.0067
Moon	20142-12-27 04:04 G	9078134.43	9078134.67	9078134.90	0.0490	0.0092 *
Venus	20147-09-26 09:21 G	9079868.71	9079868.89	9079869.07	0.0518	0.0217

Earth	20148-06-02 09:36 G	9080118.78	9080118.90	9080119.02	0.0529	0.0456
Moon	20148-06-02 12:28 G	9080118.92	9080119.02	9080119.12	0.0529	0.0471 *
Mercury	20148-07-03 11:45 G	9080149.84	9080149.99	9080150.15	0.0530	0.0025
Moon	20149-07-10 01:55 G	9080521.40	9080521.58	9080521.76	0.0541	0.0365
Earth	20149-07-10 02:24 G	9080521.43	9080521.60	9080521.79	0.0541	0.0340 *
Mercury	20153-11-21 09:07 G	9082116.81	9082116.88	9082116.96	0.0500	0.0426
Earth	20153-11-30 10:19 G	9082125.84	9082125.93	9082126.04	0.0500	0.0449
Moon	20153-11-30 13:55 G	9082126.02	9082126.08	9082126.15	0.0500	0.0476 *
Mercury	20154-02-18 19:55 G	9082206.19	9082206.33	9082206.47	0.0497	0.0144
Moon	20154-12-31 03:07 G	9082521.41	9082521.63	9082521.85	0.0489	0.0169
Earth	20154-12-31 06:57 G	9082521.57	9082521.79	9082522.01	0.0489	0.0149 *
Mercury	20160-04-21 11:45 G	9084459.85	9084459.99	9084460.14	0.0529	0.0211
Moon	20160-06-07 12:00 G	9084506.83	9084507.00	9084507.17	0.0531	0.0382
Earth	20160-06-07 12:57 G	9084506.87	9084507.04	9084507.22	0.0531	0.0354 *
Moon	20161-07-15 11:02 G	9084909.82	9084909.96	9084910.09	0.0543	0.0431
Earth	20161-07-15 12:57 G	9084909.92	9084910.04	9084910.17	0.0543	0.0454 *
Venus	20165-04-11 06:14 G	9086275.59	9086275.76	9086275.93	0.0507	0.0269
Moon	20165-12-04 19:12 G	9086513.13	9086513.30	9086513.47	0.0498	0.0351
Earth	20165-12-04 21:21 G	9086513.24	9086513.39	9086513.55	0.0498	0.0363 *
Mercury	20165-12-07 23:02 G	9086516.31	9086516.46	9086516.60	0.0498	0.0012
Earth	20167-01-04 12:43 G	9086908.83	9086909.03	9086909.24	0.0487	0.0230
Moon	20167-01-04 16:33 G	9086908.99	9086909.19	9086909.40	0.0487	0.0213 *
Mercury	20172-02-08 12:14 G	9088769.91	9088770.01	9088770.12	0.0529	0.0391
Mercury	20172-05-08 10:33 G	9088859.83	9088859.94	9088860.05	0.0532	0.0365
Moon	20172-06-12 19:40 G	9088895.12	9088895.32	9088895.52	0.0534	0.0228
Earth	20172-06-12 20:38 G	9088895.15	9088895.36	9088895.57	0.0534	0.0243 *
Venus	20176-12-15 04:19 G	9090541.49	9090541.68	9090541.86	0.0509	0.0200
Mercury	20177-09-26 01:40 G	9090826.43	9090826.57	9090826.71	0.0498	0.0140
Earth	20177-12-09 05:02 G	9090900.52	9090900.71	9090900.91	0.0496	0.0278
Moon	20177-12-09 06:00 G	9090900.56	9090900.75	9090900.94	0.0496	0.0249 *

Mercury	20177-12-24 12:57 G	9090915.97	9090916.04	9090916.11	0.0495	0.0435
Moon	20179-01-08 12:28 G	9091295.83	9091296.02	9091296.22	0.0487	0.0279
Earth	20179-01-08 16:04 G	9091295.99	9091296.17	9091296.35	0.0486	0.0309 *
Venus	20183-06-04 01:55 G	9092903.37	9092903.58	9092903.78	0.0520	0.0087
Mercury	20184-02-25 11:16 G	9093169.82	9093169.97	9093170.11	0.0531	0.0187
Earth	20184-06-18 04:04 G	9093283.44	9093283.67	9093283.90	0.0535	0.0131
Moon	20184-06-18 07:12 G	9093283.56	9093283.80	9093284.03	0.0535	0.0104 *
Mars	20186-10-13 19:55 G	9094131.11	9094131.33	9094131.56	0.0539	0.0252
Mercury	20189-07-15 04:48 G	9095136.58	9095136.70	9095136.82	0.0499	0.0280
Mercury	20189-10-12 15:36 G	9095226.03	9095226.15	9095226.27	0.0496	0.0291
Earth	20189-12-13 13:12 G	9095287.84	9095288.05	9095288.27	0.0494	0.0192
Moon	20189-12-13 13:40 G	9095287.85	9095288.07	9095288.29	0.0494	0.0191 *
Earth	20191-01-12 21:07 G	9095683.25	9095683.38	9095683.53	0.0486	0.0386
Moon	20191-01-12 23:16 G	9095683.34	9095683.47	9095683.61	0.0486	0.0391 *
Venus	20195-02-06 19:26 G	9097169.19	9097169.31	9097169.43	0.0517	0.0415
Mercury	20195-12-14 10:33 G	9097479.79	9097479.94	9097480.10	0.0530	0.0018
Moon	20196-06-23 02:38 G	9097671.37	9097671.61	9097671.84	0.0537	0.0046
Earth	20196-06-23 06:28 G	9097671.53	9097671.77	9097672.00	0.0537	0.0024 *
Mercury	20201-05-04 07:40 G	9099446.75	9099446.82	9099446.90	0.0501	0.0421
Mercury	20201-08-01 18:28 G	9099536.13	9099536.27	9099536.41	0.0497	0.0149
Moon	20201-12-18 19:12 G	9099675.08	9099675.30	9099675.51	0.0493	0.0138
Earth	20201-12-18 20:52 G	9099675.14	9099675.37	9099675.60	0.0493	0.0109 *
Earth	20203-01-18 02:38 G	9100070.54	9100070.61	9100070.69	0.0486	0.0459
Moon	20203-01-18 02:09 G	9100070.59	9100070.59	9100070.61	0.0486	0.0485 *
Mercury	20207-10-03 10:33 G	9101789.79	9101789.94	9101790.08	0.0529	0.0200
Earth	20208-06-29 12:28 G	9102059.79	9102060.02	9102060.25	0.0538	0.0092
Moon	20208-06-29 15:36 G	9102059.93	9102060.15	9102060.38	0.0538	0.0069 *
Venus	20212-08-23 16:19 G	9103575.98	9103576.18	9103576.39	0.0509	0.0076
Mercury	20213-05-20 21:36 G	9103846.25	9103846.40	9103846.54	0.0498	0.0016
Earth	20213-12-23 04:33 G	9104062.46	9104062.69	9104062.92	0.0492	0.0025

Moon	20213-12-23 07:55 G	9104062.59	9104062.83	9104063.06	0.0492	0.0029 *
Venus	20219-02-10 14:52 G	9105937.99	9105938.12	9105938.27	0.0522	0.0375
Mercury	20219-07-22 10:19 G	9106099.82	9106099.93	9106100.03	0.0528	0.0391
Mercury	20219-10-20 08:24 G	9106189.74	9106189.85	9106189.97	0.0532	0.0364
Moon	20220-07-04 19:26 G	9106448.09	9106448.31	9106448.53	0.0540	0.0229
Earth	20220-07-04 20:52 G	9106448.16	9106448.37	9106448.59	0.0540	0.0208 *
Venus	20224-04-28 15:21 G	9107842.02	9107842.14	9107842.27	0.0511	0.0391
Mercury	20225-03-09 00:43 G	9108156.39	9108156.53	9108156.67	0.0499	0.0127
Mercury	20225-06-06 12:00 G	9108245.94	9108246.00	9108246.06	0.0496	0.0449
Moon	20225-12-27 07:55 G	9108449.60	9108449.83	9108450.06	0.0490	0.0089
Earth	20225-12-27 11:45 G	9108449.76	9108449.99	9108450.23	0.0490	0.0060 *
Venus	20230-10-16 10:19 G	9110203.73	9110203.93	9110204.12	0.0519	0.0126
Moon	20231-06-03 13:40 G	9110433.98	9110434.07	9110434.17	0.0529	0.0483
Earth	20231-06-03 15:21 G	9110434.04	9110434.14	9110434.26	0.0529	0.0464 *
Mercury	20231-08-08 09:21 G	9110499.75	9110499.89	9110500.04	0.0531	0.0189
Moon	20232-07-10 07:55 G	9110836.66	9110836.83	9110837.00	0.0541	0.0348
Earth	20232-07-10 09:07 G	9110836.69	9110836.88	9110837.06	0.0541	0.0327 *
Moon	20236-11-30 17:02 G	9112441.15	9112441.21	9112441.29	0.0500	0.0476
Earth	20236-11-30 19:26 G	9112441.22	9112441.31	9112441.41	0.0500	0.0454 *
Mercury	20236-12-26 03:50 G	9112466.54	9112466.66	9112466.78	0.0499	0.0268
Mercury	20237-03-25 14:38 G	9112555.99	9112556.11	9112556.22	0.0496	0.0303
Earth	20237-12-31 16:19 G	9112836.96	9112837.18	9112837.41	0.0489	0.0141
Moon	20237-12-31 20:09 G	9112837.13	9112837.34	9112837.56	0.0489	0.0159 *
Mars	20240-06-28 06:43 G	9113746.50	9113746.78	9113747.07	0.0490	0.0149
Mercury	20243-05-27 10:04 G	9114809.76	9114809.92	9114810.07	0.0530	0.0012
Earth	20243-06-08 20:52 G	9114822.20	9114822.37	9114822.55	0.0531	0.0361
Moon	20243-06-08 20:24 G	9114822.21	9114822.35	9114822.51	0.0531	0.0389 *
Earth	20244-07-15 19:40 G	9115225.19	9115225.32	9115225.45	0.0542	0.0442
Moon	20244-07-15 23:16 G	9115225.32	9115225.47	9115225.62	0.0542	0.0411 *
Venus	20248-05-01 06:00 G	9116610.60	9116610.75	9116610.89	0.0506	0.0353

Mercury	20248-10-14 06:57 G	9116776.71	9116776.79	9116776.87	0.0500	0.0406
Earth	20248-12-05 05:31 G	9116828.58	9116828.73	9116828.89	0.0498	0.0370
Moon	20248-12-05 06:14 G	9116828.61	9116828.76	9116828.92	0.0498	0.0354 *
Mercury	20249-01-11 17:31 G	9116866.09	9116866.23	9116866.37	0.0497	0.0161
Moon	20250-01-04 18:57 G	9117224.08	9117224.29	9117224.51	0.0488	0.0205
Earth	20250-01-04 22:19 G	9117224.22	9117224.43	9117224.64	0.0488	0.0223 *
Mercury	20255-03-15 09:36 G	9119119.75	9119119.90	9119120.05	0.0529	0.0184
Earth	20255-06-13 22:33 G	9119210.24	9119210.44	9119210.65	0.0532	0.0261
Moon	20255-06-14 00:57 G	9119210.33	9119210.54	9119210.76	0.0532	0.0240 *
Moon	20256-07-20 19:40 G	9119613.28	9119613.32	9119613.39	0.0543	0.0528
Venus	20260-01-05 02:52 G	9120876.42	9120876.62	9120876.82	0.0510	0.0119
Mercury	20260-10-30 20:09 G	9121176.19	9121176.34	9121176.49	0.0498	0.0017
Earth	20260-12-09 13:40 G	9121215.89	9121216.07	9121216.26	0.0497	0.0289
Moon	20260-12-09 14:09 G	9121215.89	9121216.09	9121216.30	0.0497	0.0259 *
Earth	20262-01-09 03:36 G	9121611.48	9121611.65	9121611.84	0.0487	0.0300
Moon	20262-01-09 05:31 G	9121611.55	9121611.73	9121611.92	0.0487	0.0277 *
Venus	20266-06-24 01:26 G	9123238.37	9123238.56	9123238.75	0.0520	0.0174
Mercury	20267-01-01 09:07 G	9123429.78	9123429.88	9123430.00	0.0528	0.0376
Mercury	20267-04-01 07:26 G	9123519.70	9123519.81	9123519.92	0.0531	0.0376
Moon	20267-06-18 23:16 G	9123598.25	9123598.47	9123598.70	0.0534	0.0127
Earth	20267-06-19 02:52 G	9123598.40	9123598.62	9123598.85	0.0534	0.0151 *
Mercury	20272-08-18 23:16 G	9125486.33	9125486.47	9125486.61	0.0499	0.0121
Mercury	20272-11-16 10:33 G	9125575.88	9125575.94	9125575.99	0.0496	0.0456
Moon	20272-12-13 21:21 G	9125603.19	9125603.39	9125603.60	0.0495	0.0209
Earth	20272-12-13 23:16 G	9125603.26	9125603.47	9125603.68	0.0495	0.0203 *
Earth	20274-01-13 08:52 G	9125998.73	9125998.87	9125999.02	0.0486	0.0375
Moon	20274-01-13 08:52 G	9125998.73	9125998.87	9125999.02	0.0486	0.0387 *
Venus	20278-02-26 19:12 G	9127504.15	9127504.30	9127504.46	0.0517	0.0331
Mercury	20279-01-18 07:26 G	9127829.67	9127829.81	9127829.96	0.0531	0.0191
Earth	20279-06-24 08:38 G	9127986.63	9127986.86	9127987.10	0.0536	0.0039

Moon	20279-06-24 12:14 G	9127986.78	9127987.01	9127987.24	0.0536	0.0065 *
Mercury	20284-06-07 02:38 G	9129796.49	9129796.61	9129796.74	0.0500	0.0256
Mercury	20284-09-04 13:26 G	9129885.95	9129886.06	9129886.18	0.0497	0.0318
Earth	20284-12-18 08:09 G	9129990.62	9129990.84	9129991.07	0.0493	0.0116
Moon	20284-12-18 11:31 G	9129990.76	9129990.98	9129991.21	0.0493	0.0144 *
Moon	20286-01-17 12:28 G	9130385.99	9130386.02	9130386.06	0.0485	0.0479
Earth	20286-01-17 13:55 G	9130386.00	9130386.08	9130386.17	0.0485	0.0450 *
Mercury	20290-11-06 08:09 G	9132139.69	9132139.84	9132140.00	0.0530	0.0016
Moon	20291-06-29 16:33 G	9132374.95	9132375.19	9132375.43	0.0538	0.0056
Earth	20291-06-29 18:43 G	9132375.05	9132375.28	9132375.52	0.0538	0.0081 *
Venus	20295-09-12 17:45 G	9133911.06	9133911.24	9133911.44	0.0508	0.0170
Mercury	20296-03-26 05:45 G	9134106.66	9134106.74	9134106.83	0.0500	0.0395
Mercury	20296-06-23 16:19 G	9134196.04	9134196.18	9134196.32	0.0497	0.0173
Moon	20296-12-22 10:48 G	9134377.72	9134377.95	9134378.19	0.0492	0.0032
Earth	20296-12-22 14:38 G	9134377.88	9134378.11	9134378.35	0.0492	0.0034 *
Venus	20302-03-02 18:00 G	9136273.18	9136273.25	9136273.33	0.0522	0.0481
Mercury	20302-08-26 08:38 G	9136449.72	9136449.86	9136450.01	0.0530	0.0168
Earth	20303-07-06 04:48 G	9136763.48	9136763.70	9136763.92	0.0540	0.0198
Moon	20303-07-06 04:33 G	9136763.49	9136763.69	9136763.90	0.0540	0.0223 *
Venus	20307-05-19 15:50 G	9138177.01	9138177.16	9138177.33	0.0511	0.0302
Mercury	20308-04-12 19:12 G	9138506.16	9138506.30	9138506.45	0.0498	0.0036
Earth	20308-12-27 21:36 G	9138765.16	9138765.40	9138765.63	0.0490	0.0053
Moon	20308-12-28 01:12 G	9138765.33	9138765.55	9138765.78	0.0490	0.0084 *
Venus	20313-11-05 12:00 G	9140538.79	9140539.00	9140539.20	0.0519	0.0026
Earth	20314-06-03 20:24 G	9140749.26	9140749.35	9140749.45	0.0528	0.0476
Moon	20314-06-03 20:38 G	9140749.30	9140749.36	9140749.43	0.0528	0.0502 *
Mercury	20314-06-14 08:24 G	9140759.73	9140759.85	9140759.96	0.0528	0.0359
Mercury	20314-09-12 06:28 G	9140849.67	9140849.77	9140849.87	0.0531	0.0393
Earth	20315-07-11 09:21 G	9141151.70	9141151.89	9141152.09	0.0540	0.0305
Moon	20315-07-11 12:14 G	9141151.82	9141152.01	9141152.21	0.0540	0.0317 *

Earth	20319-12-02 02:38 G	9142756.53	9142756.61	9142756.70	0.0501	0.0466
Moon	20319-12-02 03:36 G	9142756.59	9142756.65	9142756.70	0.0501	0.0486 *
Mercury	20320-01-30 22:04 G	9142816.28	9142816.42	9142816.56	0.0499	0.0114
Mercury	20320-04-29 09:07 G	9142905.84	9142905.88	9142905.93	0.0496	0.0465
Moon	20321-01-01 00:00 G	9143152.28	9143152.50	9143152.73	0.0490	0.0146
Earth	20321-01-01 03:07 G	9143152.41	9143152.63	9143152.86	0.0490	0.0132 *
Earth	20326-06-08 22:33 G	9145137.28	9145137.44	9145137.61	0.0530	0.0376
Moon	20326-06-09 00:14 G	9145137.35	9145137.51	9145137.67	0.0530	0.0399 *
Mercury	20326-07-01 06:43 G	9145159.63	9145159.78	9145159.92	0.0530	0.0207
Moon	20327-07-16 12:57 G	9145539.89	9145540.04	9145540.21	0.0541	0.0386
Earth	20327-07-16 17:02 G	9145540.07	9145540.21	9145540.37	0.0541	0.0419 *
Venus	20331-05-22 05:02 G	9146945.62	9146945.71	9146945.82	0.0507	0.0437
Mercury	20331-11-19 01:12 G	9147126.43	9147126.55	9147126.67	0.0500	0.0251
Earth	20331-12-06 13:55 G	9147143.94	9147144.08	9147144.24	0.0499	0.0382
Moon	20331-12-06 14:38 G	9147143.95	9147144.11	9147144.28	0.0499	0.0360 *
Mercury	20332-02-16 12:00 G	9147215.89	9147216.00	9147216.12	0.0497	0.0324
Earth	20333-01-05 09:21 G	9147539.68	9147539.89	9147540.10	0.0488	0.0212
Moon	20333-01-05 11:02 G	9147539.75	9147539.96	9147540.17	0.0488	0.0191 *
Mercury	20338-04-19 06:28 G	9149469.62	9149469.77	9149469.93	0.0530	0.0017
Moon	20338-06-13 21:50 G	9149525.21	9149525.41	9149525.62	0.0532	0.0250
Earth	20338-06-14 01:12 G	9149525.35	9149525.55	9149525.75	0.0532	0.0273 *
Earth	20339-07-22 02:24 G	9149928.55	9149928.60	9149928.66	0.0543	0.0528
Moon	20339-07-22 06:00 G	9149928.69	9149928.75	9149928.83	0.0543	0.0515
Mars	20341-01-08 21:07 G	9150465.12	9150465.38	9150465.63	0.0539	0.0019
Venus	20343-01-25 04:48 G	9151211.50	9151211.70	9151211.91	0.0510	0.0023
Mercury	20343-09-07 04:48 G	9151436.61	9151436.70	9151436.79	0.0501	0.0385
Mercury	20343-12-05 15:21 G	9151526.00	9151526.14	9151526.27	0.0497	0.0185
Moon	20343-12-10 23:16 G	9151531.28	9151531.47	9151531.66	0.0497	0.0269
Earth	20343-12-11 01:12 G	9151531.37	9151531.55	9151531.74	0.0497	0.0294 *
Moon	20345-01-09 15:36 G	9151926.95	9151927.15	9151927.35	0.0487	0.0274

Earth	20345-01-09 15:21 G	9151926.96	9151927.14	9151927.33	0.0487	0.0291	*
Venus	20349-07-14 02:09 G	9153573.42	9153573.59	9153573.77	0.0521	0.0267	
Mercury	20350-02-05 06:57 G	9153779.64	9153779.79	9153779.94	0.0529	0.0164	
Earth	20350-06-19 08:24 G	9153913.63	9153913.85	9153914.08	0.0534	0.0161	
Moon	20350-06-19 12:14 G	9153913.79	9153914.01	9153914.23	0.0534	0.0143	*
Venus	20354-09-30 03:07 G	9155477.58	9155477.63	9155477.68	0.0512	0.0494	
Mercury	20355-09-23 18:14 G	9155836.11	9155836.26	9155836.40	0.0498	0.0043	
Earth	20355-12-15 09:50 G	9155918.70	9155918.91	9155919.12	0.0495	0.0209	
Moon	20355-12-15 12:57 G	9155918.84	9155919.04	9155919.26	0.0495	0.0224	*
Moon	20357-01-13 17:31 G	9156314.11	9156314.23	9156314.37	0.0486	0.0389	
Earth	20357-01-13 19:26 G	9156314.16	9156314.31	9156314.46	0.0486	0.0367	*
Mars	20358-12-18 02:24 G	9157017.45	9157017.60	9157017.76	0.0489	0.0414	
Venus	20361-03-18 21:50 G	9157839.23	9157839.41	9157839.60	0.0518	0.0228	
Mercury	20361-11-24 07:26 G	9158089.69	9158089.81	9158089.93	0.0528	0.0345	
Mercury	20362-02-22 05:31 G	9158179.64	9158179.73	9158179.83	0.0532	0.0410	
Moon	20362-06-24 14:09 G	9158301.85	9158302.09	9158302.33	0.0536	0.0075	
Earth	20362-06-24 17:02 G	9158301.98	9158302.21	9158302.45	0.0536	0.0047	*
Mercury	20367-07-12 21:21 G	9160146.24	9160146.39	9160146.53	0.0499	0.0098	
Mercury	20367-10-10 08:24 G	9160235.82	9160235.85	9160235.89	0.0496	0.0479	
Moon	20367-12-19 13:55 G	9160305.87	9160306.08	9160306.31	0.0494	0.0152	
Earth	20367-12-19 18:00 G	9160306.02	9160306.25	9160306.47	0.0494	0.0123	*
Earth	20369-01-18 00:43 G	9160701.43	9160701.53	9160701.62	0.0486	0.0442	
Moon	20369-01-18 03:21 G	9160701.59	9160701.64	9160701.71	0.0486	0.0469	*
Mercury	20373-12-11 05:45 G	9162489.60	9162489.74	9162489.88	0.0530	0.0223	
Earth	20374-06-29 21:50 G	9162690.18	9162690.41	9162690.64	0.0537	0.0062	
Moon	20374-06-29 22:33 G	9162690.22	9162690.44	9162690.67	0.0537	0.0043	*
Venus	20378-10-02 16:19 G	9164246.00	9164246.18	9164246.35	0.0508	0.0248	
Mercury	20379-04-30 23:45 G	9164456.37	9164456.49	9164456.62	0.0500	0.0245	
Mercury	20379-07-29 10:48 G	9164545.84	9164545.95	9164546.06	0.0497	0.0331	
Earth	20379-12-23 23:45 G	9164693.26	9164693.49	9164693.72	0.0493	0.0044	

Moon	20379-12-24 03:36 G	9164693.42	9164693.65	9164693.88	0.0493	0.0038	*
Mercury	20385-09-29 05:45 G	9166799.58	9166799.74	9166799.90	0.0529	0.0035	
Earth	20386-07-05 03:50 G	9167078.44	9167078.66	9167078.89	0.0539	0.0175	
Moon	20386-07-05 05:45 G	9167078.52	9167078.74	9167078.97	0.0539	0.0204	*
Venus	20390-06-07 14:24 G	9168511.92	9168512.10	9168512.28	0.0511	0.0223	
Mercury	20391-02-17 03:07 G	9168766.54	9168766.63	9168766.72	0.0501	0.0381	
Mercury	20391-05-17 13:40 G	9168855.94	9168856.07	9168856.21	0.0498	0.0190	
Moon	20391-12-28 04:04 G	9169080.44	9169080.67	9169080.91	0.0491	0.0071	
Earth	20391-12-28 07:12 G	9169080.57	9169080.80	9169081.04	0.0491	0.0041	*
Mars	20394-09-23 19:12 G	9170081.21	9170081.30	9170081.40	0.0490	0.0464	
Venus	20396-11-24 11:16 G	9170873.77	9170873.97	9170874.17	0.0519	0.0059	
Earth	20397-06-02 22:48 G	9171064.37	9171064.45	9171064.55	0.0527	0.0486	
Moon	20397-06-02 23:45 G	9171064.44	9171064.49	9171064.56	0.0527	0.0509	*
Mercury	20397-07-18 05:16 G	9171109.57	9171109.72	9171109.87	0.0529	0.0159	
Moon	20398-07-10 07:12 G	9171466.61	9171466.80	9171466.99	0.0540	0.0299	
Earth	20398-07-10 10:48 G	9171466.76	9171466.95	9171467.16	0.0540	0.0290	*
Earth	20402-12-01 13:40 G	9173071.99	9173072.07	9173072.14	0.0502	0.0470	
Moon	20402-12-01 14:09 G	9173072.04	9173072.09	9173072.16	0.0502	0.0484	*
Mercury	20403-03-05 17:02 G	9173166.06	9173166.21	9173166.35	0.0498	0.0053	
Earth	20404-01-01 14:38 G	9173467.88	9173468.11	9173468.33	0.0490	0.0124	
Moon	20404-01-01 16:04 G	9173467.95	9173468.17	9173468.38	0.0490	0.0131	*
Venus	20408-07-30 06:43 G	9175139.67	9175139.78	9175139.89	0.0516	0.0434	
Mercury	20409-05-06 05:31 G	9175419.61	9175419.73	9175419.85	0.0528	0.0343	
Moon	20409-06-08 00:00 G	9175452.36	9175452.50	9175452.65	0.0530	0.0406	
Earth	20409-06-08 02:52 G	9175452.47	9175452.62	9175452.79	0.0530	0.0386	*
Mercury	20409-08-04 03:50 G	9175509.56	9175509.66	9175509.75	0.0532	0.0411	
Earth	20410-07-15 22:19 G	9175855.27	9175855.43	9175855.58	0.0542	0.0405	
Moon	20410-07-16 02:24 G	9175855.43	9175855.60	9175855.76	0.0542	0.0371	*
Moon	20414-12-05 22:19 G	9177459.29	9177459.43	9177459.59	0.0499	0.0365	
Earth	20414-12-06 00:28 G	9177459.38	9177459.52	9177459.67	0.0499	0.0386	*

Mercury	20414-12-22 19:55 G	9177476.19	9177476.33	9177476.48	0.0499	0.0089
Mercury	20415-03-22 07:12 G	9177565.78	9177565.80	9177565.82	0.0496	0.0489
Earth	20416-01-05 19:40 G	9177855.11	9177855.32	9177855.53	0.0488	0.0204
Moon	20416-01-05 20:09 G	9177855.11	9177855.34	9177855.57	0.0488	0.0177 *
Mercury	20421-02-22 05:45 G	9179729.73	9179729.74	9179729.75	0.0527	0.0525
Mercury	20421-05-23 04:33 G	9179819.55	9179819.69	9179819.83	0.0531	0.0236
Earth	20421-06-13 09:21 G	9179840.69	9179840.89	9179841.09	0.0532	0.0281
Moon	20421-06-13 13:12 G	9179840.85	9179841.05	9179841.26	0.0532	0.0250 *
Moon	20422-07-21 07:12 G	9180243.72	9180243.80	9180243.89	0.0543	0.0504
Earth	20422-07-21 09:50 G	9180243.85	9180243.91	9180243.99	0.0543	0.0517 *
Venus	20426-02-13 05:31 G	9181546.53	9181546.73	9181546.93	0.0509	0.0068
Mercury	20426-10-10 23:02 G	9181786.34	9181786.46	9181786.59	0.0500	0.0228
Earth	20426-12-10 10:19 G	9181846.75	9181846.93	9181847.12	0.0498	0.0301
Moon	20426-12-10 13:40 G	9181846.88	9181847.07	9181847.27	0.0498	0.0282 *
Mercury	20427-01-08 09:50 G	9181875.81	9181875.91	9181876.02	0.0497	0.0347
Moon	20428-01-09 23:31 G	9182242.29	9182242.48	9182242.67	0.0487	0.0272
Earth	20428-01-10 01:26 G	9182242.37	9182242.56	9182242.75	0.0487	0.0283 *
Venus	20432-08-02 04:33 G	9183908.55	9183908.69	9183908.83	0.0520	0.0372
Mercury	20433-03-11 04:48 G	9184129.54	9184129.70	9184129.85	0.0529	0.0051
Moon	20433-06-18 10:04 G	9184228.70	9184228.92	9184229.16	0.0533	0.0160
Earth	20433-06-18 13:40 G	9184228.85	9184229.07	9184229.29	0.0533	0.0176 *
Venus	20437-10-19 00:43 G	9185812.42	9185812.53	9185812.65	0.0512	0.0420
Mercury	20438-07-30 01:40 G	9186096.48	9186096.57	9186096.67	0.0501	0.0375
Mercury	20438-10-27 12:14 G	9186185.88	9186186.01	9186186.15	0.0498	0.0196
Moon	20438-12-14 12:57 G	9186233.84	9186234.04	9186234.25	0.0496	0.0242
Earth	20438-12-14 16:48 G	9186234.00	9186234.20	9186234.41	0.0496	0.0221 *
Earth	20440-01-14 05:16 G	9186629.57	9186629.72	9186629.89	0.0487	0.0357
Moon	20440-01-14 08:24 G	9186629.71	9186629.85	9186630.01	0.0487	0.0380 *
Venus	20444-04-06 23:02 G	9188174.26	9188174.46	9188174.65	0.0517	0.0133
Mercury	20444-12-28 04:33 G	9188439.54	9188439.69	9188439.84	0.0528	0.0139

Earth	20445-06-23 18:00 G	9188617.02	9188617.25	9188617.48	0.0535	0.0066
Moon	20445-06-23 19:40 G	9188617.09	9188617.32	9188617.54	0.0535	0.0094 *
Mercury	20450-08-15 15:21 G	9190495.99	9190496.14	9190496.28	0.0499	0.0055
Earth	20450-12-19 01:26 G	9190621.34	9190621.56	9190621.78	0.0495	0.0135
Moon	20450-12-19 05:02 G	9190621.49	9190621.71	9190621.93	0.0495	0.0162 *
Moon	20452-01-18 06:57 G	9191016.72	9191016.79	9191016.87	0.0486	0.0456
Earth	20452-01-18 10:33 G	9191016.83	9191016.94	9191017.05	0.0486	0.0430 *
Mercury	20456-10-16 03:50 G	9192749.54	9192749.66	9192749.78	0.0528	0.0338
Mercury	20457-01-14 02:09 G	9192839.49	9192839.59	9192839.68	0.0531	0.0414
Earth	20457-06-28 22:04 G	9193005.18	9193005.42	9193005.65	0.0537	0.0046
Moon	20457-06-28 23:02 G	9193005.21	9193005.46	9193005.70	0.0537	0.0034 *
Venus	20461-10-21 17:16 G	9194581.07	9194581.22	9194581.37	0.0508	0.0339
Mercury	20462-06-03 18:43 G	9194806.13	9194806.28	9194806.42	0.0499	0.0082
Moon	20462-12-23 07:26 G	9195008.58	9195008.81	9195009.05	0.0493	0.0044
Earth	20462-12-23 10:33 G	9195008.71	9195008.94	9195009.17	0.0493	0.0050 *
Mercury	20468-08-04 03:50 G	9197059.65	9197059.66	9197059.67	0.0527	0.0524
Mercury	20468-11-02 02:38 G	9197149.47	9197149.61	9197149.75	0.0531	0.0235
Moon	20469-07-04 03:50 G	9197393.45	9197393.66	9197393.88	0.0539	0.0194
Earth	20469-07-04 07:12 G	9197393.58	9197393.80	9197394.03	0.0539	0.0161 *
Venus	20473-06-26 16:04 G	9198846.97	9198847.17	9198847.37	0.0510	0.0127
Mercury	20474-03-22 21:50 G	9199116.28	9199116.41	9199116.54	0.0500	0.0220
Mercury	20474-06-20 08:38 G	9199205.76	9199205.86	9199205.96	0.0497	0.0354
Earth	20474-12-27 17:02 G	9199395.98	9199396.21	9199396.45	0.0491	0.0033
Moon	20474-12-27 18:28 G	9199396.05	9199396.27	9199396.49	0.0491	0.0060 *
Venus	20479-12-14 13:12 G	9201208.86	9201209.05	9201209.24	0.0520	0.0158
Moon	20480-06-02 03:50 G	9201379.64	9201379.66	9201379.70	0.0527	0.0521
Earth	20480-06-02 06:28 G	9201379.69	9201379.77	9201379.85	0.0527	0.0492 *
Mercury	20480-08-21 03:21 G	9201459.48	9201459.64	9201459.79	0.0530	0.0058
Earth	20481-07-09 17:31 G	9201782.04	9201782.23	9201782.44	0.0540	0.0278
Moon	20481-07-09 21:50 G	9201782.21	9201782.41	9201782.61	0.0540	0.0284 *

Moon	20485-11-30 19:55 G	9203387.28	9203387.33	9203387.37	0.0502	0.0489
Earth	20485-11-30 21:50 G	9203387.34	9203387.41	9203387.48	0.0502	0.0476 *
Mercury	20486-01-09 00:57 G	9203426.44	9203426.54	9203426.64	0.0501	0.0359
Mercury	20486-04-08 11:31 G	9203515.85	9203515.98	9203516.11	0.0497	0.0211
Earth	20486-12-31 23:45 G	9203783.26	9203783.49	9203783.71	0.0490	0.0116
Moon	20487-01-01 00:28 G	9203783.28	9203783.52	9203783.75	0.0490	0.0112 *
Venus	20491-08-19 08:52 G	9205474.72	9205474.87	9205475.03	0.0516	0.0333
Earth	20492-06-07 09:21 G	9205767.74	9205767.89	9205768.05	0.0528	0.0396
Moon	20492-06-07 13:12 G	9205767.91	9205768.05	9205768.21	0.0528	0.0406 *
Mercury	20492-06-09 03:36 G	9205769.49	9205769.65	9205769.80	0.0529	0.0126
Moon	20493-07-14 21:07 G	9206170.20	9206170.38	9206170.57	0.0541	0.0351
Earth	20493-07-15 00:28 G	9206170.37	9206170.52	9206170.69	0.0541	0.0385 *
Mars	20495-04-05 00:43 G	9206799.32	9206799.53	9206799.74	0.0538	0.0299
Earth	20497-12-05 05:02 G	9207774.58	9207774.71	9207774.85	0.0500	0.0399
Moon	20497-12-05 08:24 G	9207774.70	9207774.85	9207775.01	0.0500	0.0371 *
Mercury	20498-01-25 13:55 G	9207825.93	9207826.08	9207826.22	0.0499	0.0061
Moon	20499-01-05 01:26 G	9208170.35	9208170.56	9208170.78	0.0489	0.0163
Earth	20499-01-05 03:36 G	9208170.44	9208170.65	9208170.87	0.0489	0.0193 *
Mercury	20504-03-29 03:07 G	9210079.51	9210079.63	9210079.76	0.0527	0.0318
Moon	20504-06-13 08:09 G	9210155.64	9210155.84	9210156.05	0.0530	0.0262
Earth	20504-06-13 11:45 G	9210155.80	9210155.99	9210156.19	0.0530	0.0295 *
Mercury	20504-06-27 01:12 G	9210169.47	9210169.55	9210169.64	0.0531	0.0433
Earth	20505-07-21 07:40 G	9210558.73	9210558.82	9210558.92	0.0542	0.0492
Moon	20505-07-21 08:38 G	9210558.77	9210558.86	9210558.96	0.0542	0.0491 *
Venus	20509-03-05 02:24 G	9211881.41	9211881.60	9211881.80	0.0509	0.0137
Mercury	20509-11-14 16:48 G	9212136.06	9212136.20	9212136.34	0.0500	0.0082
Moon	20509-12-10 11:31 G	9212161.80	9212161.98	9212162.17	0.0499	0.0299
Earth	20509-12-10 15:07 G	9212161.96	9212162.13	9212162.32	0.0499	0.0314 *
Earth	20511-01-10 09:07 G	9212557.69	9212557.88	9212558.08	0.0488	0.0271
Moon	20511-01-10 12:28 G	9212557.82	9212558.02	9212558.22	0.0488	0.0261 *

Mars	20513-03-14 11:02 G	9213351.67	9213351.96	9213352.25	0.0489	0.0114
Venus	20515-08-23 02:38 G	9214243.51	9214243.61	9214243.72	0.0521	0.0447
Mercury	20516-01-16 02:09 G	9214389.57	9214389.59	9214389.61	0.0527	0.0520
Mercury	20516-04-15 00:57 G	9214479.40	9214479.54	9214479.68	0.0530	0.0238
Earth	20516-06-18 12:43 G	9214543.81	9214544.03	9214544.25	0.0533	0.0191
Moon	20516-06-18 15:07 G	9214543.92	9214544.13	9214544.35	0.0533	0.0176 *
Venus	20520-11-08 01:12 G	9216147.40	9216147.55	9216147.71	0.0512	0.0332
Mercury	20521-09-02 20:09 G	9216446.21	9216446.34	9216446.47	0.0500	0.0218
Mercury	20521-12-01 06:57 G	9216535.69	9216535.79	9216535.90	0.0497	0.0358
Earth	20521-12-15 02:09 G	9216549.38	9216549.59	9216549.80	0.0497	0.0226
Moon	20521-12-15 05:31 G	9216549.54	9216549.73	9216549.93	0.0497	0.0253 *
Moon	20523-01-14 11:31 G	9216944.84	9216944.98	9216945.13	0.0487	0.0373
Earth	20523-01-14 15:07 G	9216944.97	9216945.13	9216945.30	0.0487	0.0348 *
Venus	20527-04-27 21:21 G	9218509.19	9218509.39	9218509.59	0.0518	0.0056
Mercury	20528-02-02 01:12 G	9218789.40	9218789.55	9218789.71	0.0530	0.0056
Moon	20528-06-23 19:12 G	9218932.06	9218932.30	9218932.54	0.0535	0.0107
Earth	20528-06-23 19:12 G	9218932.07	9218932.30	9218932.53	0.0535	0.0079 *
Mercury	20533-06-21 23:31 G	9220756.38	9220756.48	9220756.58	0.0501	0.0355
Mercury	20533-09-19 10:04 G	9220845.79	9220845.92	9220846.05	0.0498	0.0216
Moon	20533-12-19 07:55 G	9220936.61	9220936.83	9220937.06	0.0495	0.0168
Earth	20533-12-19 10:48 G	9220936.73	9220936.95	9220937.17	0.0495	0.0142 *
Earth	20535-01-18 19:12 G	9221332.19	9221332.30	9221332.42	0.0486	0.0421
Moon	20535-01-18 22:48 G	9221332.36	9221332.45	9221332.56	0.0486	0.0439 *
Mercury	20539-11-21 01:40 G	9223099.42	9223099.57	9223099.72	0.0529	0.0124
Moon	20540-06-29 01:12 G	9223320.32	9223320.55	9223320.77	0.0537	0.0031
Earth	20540-06-29 03:50 G	9223320.42	9223320.66	9223320.89	0.0537	0.0034 *
Venus	20544-11-10 17:02 G	9224916.11	9224916.21	9224916.33	0.0507	0.0423
Mercury	20545-04-10 02:38 G	9225066.59	9225066.61	9225066.64	0.0501	0.0493
Mercury	20545-07-08 12:57 G	9225155.90	9225156.04	9225156.18	0.0498	0.0074
Earth	20545-12-23 18:28 G	9225324.04	9225324.27	9225324.50	0.0493	0.0058

Moon	20545-12-23 19:40 G	9225324.10	9225324.32	9225324.55	0.0493	0.0046 *
Moon	20547-01-22 21:07 G	9225719.33	9225719.38	9225719.44	0.0486	0.0472
Mercury	20551-09-09 01:55 G	9227409.45	9227409.58	9227409.71	0.0528	0.0308
Mercury	20551-12-08 00:00 G	9227499.42	9227499.50	9227499.59	0.0531	0.0443
Earth	20552-07-04 10:33 G	9227708.72	9227708.94	9227709.17	0.0538	0.0144
Moon	20552-07-04 14:38 G	9227708.89	9227709.11	9227709.34	0.0538	0.0180 *
Venus	20556-07-16 12:28 G	9229181.82	9229182.02	9229182.23	0.0510	0.0063
Mercury	20557-04-26 15:07 G	9229465.99	9229466.13	9229466.28	0.0499	0.0080
Earth	20557-12-27 22:33 G	9229711.21	9229711.44	9229711.68	0.0492	0.0021
Moon	20557-12-27 23:16 G	9229711.23	9229711.47	9229711.71	0.0492	0.0045 *
Venus	20563-01-03 13:40 G	9231543.89	9231544.07	9231544.25	0.0519	0.0249
Earth	20563-06-03 09:50 G	9231694.85	9231694.91	9231694.99	0.0526	0.0501
Mercury	20563-06-28 01:26 G	9231719.51	9231719.56	9231719.61	0.0527	0.0501
Mercury	20563-09-26 00:00 G	9231809.37	9231809.50	9231809.64	0.0530	0.0257
Moon	20564-07-09 12:43 G	9232096.82	9232097.03	9232097.24	0.0539	0.0264
Earth	20564-07-09 16:33 G	9232096.99	9232097.19	9232097.40	0.0539	0.0256 *
Earth	20568-11-30 23:45 G	9233702.45	9233702.49	9233702.55	0.0503	0.0489
Moon	20568-12-01 03:07 G	9233702.59	9233702.63	9233702.68	0.0503	0.0492
Mercury	20569-02-12 18:14 G	9233776.13	9233776.26	9233776.39	0.0500	0.0221
Mercury	20569-05-13 05:02 G	9233865.61	9233865.71	9233865.82	0.0497	0.0355
Moon	20570-01-01 03:07 G	9234098.41	9234098.63	9234098.85	0.0491	0.0094
Earth	20570-01-01 05:16 G	9234098.49	9234098.72	9234098.95	0.0491	0.0103 *
Venus	20574-09-08 06:14 G	9235809.59	9235809.76	9235809.94	0.0516	0.0264
Moon	20575-06-08 03:50 G	9236082.52	9236082.66	9236082.81	0.0528	0.0417
Earth	20575-06-08 07:55 G	9236082.68	9236082.83	9236082.97	0.0528	0.0408 *
Mercury	20575-07-14 23:31 G	9236119.32	9236119.48	9236119.63	0.0529	0.0059
Earth	20576-07-14 21:21 G	9236485.22	9236485.39	9236485.56	0.0541	0.0365
Moon	20576-07-14 23:31 G	9236485.31	9236485.48	9236485.66	0.0541	0.0335 *
Mercury	20580-12-01 21:50 G	9238086.31	9238086.41	9238086.51	0.0501	0.0355
Moon	20580-12-05 09:07 G	9238089.73	9238089.88	9238090.04	0.0501	0.0375

Earth	20580-12-05 12:43 G	9238089.91	9238090.03	9238090.18	0.0501	0.0405 *
Mercury	20581-03-01 08:09 G	9238175.71	9238175.84	9238175.98	0.0498	0.0217
Earth	20582-01-05 12:14 G	9238485.80	9238486.01	9238486.23	0.0489	0.0184
Moon	20582-01-05 15:36 G	9238485.93	9238486.15	9238486.38	0.0489	0.0153 *
Mercury	20587-05-02 23:31 G	9240429.32	9240429.48	9240429.63	0.0529	0.0130
Earth	20587-06-13 11:02 G	9240470.77	9240470.96	9240471.15	0.0530	0.0308
Moon	20587-06-13 13:55 G	9240470.89	9240471.08	9240471.28	0.0530	0.0276 *
Earth	20588-07-20 07:12 G	9240873.70	9240873.80	9240873.91	0.0542	0.0476
Moon	20588-07-20 07:55 G	9240873.72	9240873.83	9240873.95	0.0542	0.0479 *
Venus	20592-03-24 02:52 G	9242216.44	9242216.62	9242216.81	0.0509	0.0226
Mercury	20592-09-20 00:57 G	9242396.52	9242396.54	9242396.57	0.0502	0.0491
Earth	20592-12-09 23:31 G	9242477.31	9242477.48	9242477.66	0.0499	0.0320
Moon	20592-12-10 03:07 G	9242477.45	9242477.63	9242477.81	0.0499	0.0311 *
Mercury	20592-12-18 11:16 G	9242485.83	9242485.97	9242486.11	0.0498	0.0076
Moon	20594-01-09 13:55 G	9242872.88	9242873.08	9242873.27	0.0488	0.0253
Earth	20594-01-09 17:31 G	9242873.04	9242873.23	9242873.43	0.0488	0.0261 *
Mercury	20599-02-18 23:45 G	9244739.36	9244739.49	9244739.62	0.0528	0.0312
Mercury	20599-05-19 22:04 G	9244829.34	9244829.42	9244829.50	0.0531	0.0441
Moon	20599-06-18 15:50 G	9244858.94	9244859.16	9244859.39	0.0533	0.0190
Earth	20599-06-18 17:02 G	9244858.99	9244859.21	9244859.42	0.0533	0.0202 *
Venus	20603-11-29 00:57 G	9246482.36	9246482.54	9246482.72	0.0511	0.0248
Mercury	20604-10-07 14:24 G	9246795.95	9246796.10	9246796.24	0.0499	0.0066
Moon	20604-12-15 06:14 G	9246864.56	9246864.76	9246864.97	0.0497	0.0260
Earth	20604-12-15 09:07 G	9246864.68	9246864.88	9246865.08	0.0497	0.0235 *
Earth	20606-01-14 22:33 G	9247260.28	9247260.44	9247260.61	0.0487	0.0337
Moon	20606-01-15 02:09 G	9247260.44	9247260.59	9247260.74	0.0487	0.0365 *
Venus	20610-05-17 22:33 G	9248844.24	9248844.44	9248844.64	0.0518	0.0039
Mercury	20610-12-08 23:45 G	9249049.44	9249049.49	9249049.55	0.0527	0.0495
Mercury	20611-03-08 22:33 G	9249139.31	9249139.44	9249139.58	0.0530	0.0264
Moon	20611-06-24 21:36 G	9249247.18	9249247.40	9249247.62	0.0534	0.0124

Earth	20611-06-24 23:16 G	9249247.24	9249247.47	9249247.71	0.0534	0.0094 *
Mars	20613-09-25 20:52 G	9250071.20	9250071.37	9250071.56	0.0539	0.0379
Mercury	20616-07-26 16:33 G	9251106.07	9251106.19	9251106.32	0.0500	0.0219
Mercury	20616-10-24 03:21 G	9251195.54	9251195.64	9251195.74	0.0497	0.0357
Earth	20616-12-19 13:55 G	9251251.86	9251252.08	9251252.30	0.0495	0.0155
Moon	20616-12-19 15:07 G	9251251.92	9251252.13	9251252.34	0.0495	0.0176 *
Moon	20618-01-18 22:19 G	9251647.32	9251647.43	9251647.55	0.0487	0.0421
Earth	20618-01-19 01:12 G	9251647.43	9251647.55	9251647.68	0.0487	0.0409 *
Venus	20622-01-20 17:31 G	9253110.14	9253110.23	9253110.32	0.0515	0.0456
Mercury	20622-12-25 22:33 G	9253449.29	9253449.44	9253449.60	0.0529	0.0074
Earth	20623-06-30 03:36 G	9253635.42	9253635.65	9253635.89	0.0536	0.0017
Moon	20623-06-30 07:26 G	9253635.57	9253635.81	9253636.05	0.0536	0.0017 *
Venus	20627-12-01 12:14 G	9255250.95	9255251.01	9255251.08	0.0508	0.0481
Mercury	20628-05-14 19:40 G	9255416.22	9255416.32	9255416.42	0.0501	0.0360
Mercury	20628-08-12 06:14 G	9255505.63	9255505.76	9255505.89	0.0498	0.0212
Earth	20628-12-23 21:36 G	9255639.17	9255639.40	9255639.63	0.0494	0.0072
Moon	20628-12-23 22:19 G	9255639.19	9255639.43	9255639.67	0.0494	0.0052 *
Earth	20630-01-23 05:31 G	9256034.71	9256034.73	9256034.77	0.0486	0.0481
Moon	20630-01-23 07:26 G	9256034.75	9256034.81	9256034.89	0.0486	0.0458 *
Mercury	20634-10-13 21:36 G	9257759.24	9257759.40	9257759.55	0.0528	0.0130
Moon	20635-07-05 01:40 G	9258023.35	9258023.57	9258023.80	0.0537	0.0159
Earth	20635-07-05 05:45 G	9258023.52	9258023.74	9258023.97	0.0537	0.0125 *
Venus	20639-08-06 11:31 G	9259516.77	9259516.98	9259517.18	0.0510	0.0018
Mercury	20640-03-02 23:16 G	9259726.45	9259726.47	9259726.49	0.0502	0.0494
Mercury	20640-05-31 09:21 G	9259815.75	9259815.89	9259816.04	0.0499	0.0074
Moon	20640-12-28 03:50 G	9260026.43	9260026.66	9260026.88	0.0492	0.0036
Earth	20640-12-28 06:14 G	9260026.52	9260026.76	9260026.99	0.0492	0.0014 *
Venus	20646-01-23 10:04 G	9261878.76	9261878.92	9261879.08	0.0519	0.0314
Earth	20646-06-03 07:26 G	9262009.77	9262009.81	9262009.86	0.0525	0.0513
Mercury	20646-08-01 21:21 G	9262069.26	9262069.39	9262069.51	0.0528	0.0319

Mercury	20646-10-30 19:40 G	9262159.23	9262159.32	9262159.41	0.0531	0.0433
Earth	20647-07-10 13:26 G	9262411.85	9262412.06	9262412.27	0.0539	0.0237
Moon	20647-07-10 16:19 G	9262411.98	9262412.18	9262412.39	0.0539	0.0243 *
Venus	20651-04-11 09:36 G	9263782.81	9263782.90	9263782.99	0.0513	0.0457
Moon	20651-12-02 03:36 G	9264017.61	9264017.65	9264017.69	0.0503	0.0493
Earth	20651-12-02 07:12 G	9264017.77	9264017.80	9264017.84	0.0503	0.0496
Mercury	20652-03-19 12:28 G	9264125.88	9264126.02	9264126.16	0.0499	0.0066
Earth	20653-01-01 12:43 G	9264413.80	9264414.03	9264414.26	0.0491	0.0093
Moon	20653-01-01 16:04 G	9264413.94	9264414.17	9264414.41	0.0491	0.0080 *
Venus	20657-09-28 05:16 G	9266144.53	9266144.72	9266144.91	0.0517	0.0183
Mercury	20658-05-20 21:21 G	9266379.35	9266379.39	9266379.43	0.0527	0.0504
Earth	20658-06-08 10:19 G	9266397.79	9266397.93	9266398.08	0.0528	0.0419
Moon	20658-06-08 13:40 G	9266397.94	9266398.07	9266398.21	0.0528	0.0426 *
Mercury	20658-08-18 20:09 G	9266469.21	9266469.34	9266469.48	0.0530	0.0256
Moon	20659-07-15 23:16 G	9266800.28	9266800.47	9266800.68	0.0541	0.0319
Earth	20659-07-15 23:45 G	9266800.32	9266800.49	9266800.67	0.0541	0.0350 *
Earth	20663-12-06 18:28 G	9268405.15	9268405.27	9268405.41	0.0501	0.0413
Moon	20663-12-06 22:04 G	9268405.27	9268405.42	9268405.57	0.0501	0.0380 *
Mercury	20664-01-06 15:36 G	9268436.02	9268436.15	9268436.28	0.0500	0.0207
Mercury	20664-04-05 02:24 G	9268525.50	9268525.60	9268525.70	0.0497	0.0368
Moon	20665-01-05 14:52 G	9268800.90	9268801.12	9268801.35	0.0489	0.0143
Earth	20665-01-05 18:43 G	9268801.06	9268801.28	9268801.50	0.0489	0.0174 *
Mars	20667-06-09 06:57 G	9269685.51	9269685.79	9269686.07	0.0489	0.0149
Mercury	20670-06-06 20:52 G	9270779.21	9270779.37	9270779.52	0.0529	0.0078
Moon	20670-06-13 13:12 G	9270785.86	9270786.05	9270786.26	0.0530	0.0288
Earth	20670-06-13 15:07 G	9270785.95	9270786.13	9270786.32	0.0530	0.0319 *
Moon	20671-07-21 06:43 G	9271188.67	9271188.78	9271188.89	0.0541	0.0466
Earth	20671-07-21 08:38 G	9271188.75	9271188.86	9271188.99	0.0541	0.0457 *
Venus	20675-04-13 22:19 G	9272551.27	9272551.43	9272551.60	0.0509	0.0284
Mercury	20675-10-25 18:00 G	9272746.15	9272746.25	9272746.35	0.0501	0.0359

Moon	20675-12-10 22:04 G	9272792.24	9272792.42	9272792.60	0.0499	0.0321
Earth	20675-12-11 00:57 G	9272792.37	9272792.54	9272792.71	0.0499	0.0332 *
Mercury	20676-01-23 04:19 G	9272835.55	9272835.68	9272835.82	0.0498	0.0212
Earth	20677-01-09 21:21 G	9273188.19	9273188.39	9273188.59	0.0489	0.0249
Moon	20677-01-10 00:57 G	9273188.34	9273188.54	9273188.74	0.0489	0.0249 *
Mercury	20682-03-25 20:38 G	9275089.20	9275089.36	9275089.51	0.0528	0.0113
Moon	20682-06-18 17:02 G	9275174.00	9275174.21	9275174.42	0.0531	0.0212
Earth	20682-06-18 17:45 G	9275174.03	9275174.24	9275174.46	0.0531	0.0215 *
Venus	20686-12-17 19:26 G	9276817.13	9276817.31	9276817.50	0.0511	0.0195
Mercury	20687-08-13 20:52 G	9277056.37	9277056.37	9277056.38	0.0502	0.0501
Mercury	20687-11-11 07:12 G	9277145.66	9277145.80	9277145.95	0.0499	0.0067
Earth	20687-12-15 09:50 G	9277179.71	9277179.91	9277180.11	0.0498	0.0248
Moon	20687-12-15 11:16 G	9277179.78	9277179.97	9277180.16	0.0498	0.0274 *
Moon	20689-01-13 23:16 G	9277575.31	9277575.47	9277575.64	0.0488	0.0354
Earth	20689-01-14 02:24 G	9277575.43	9277575.60	9277575.77	0.0488	0.0325 *
Venus	20693-06-05 18:14 G	9279179.06	9279179.26	9279179.46	0.0518	0.0100
Mercury	20694-01-11 19:12 G	9279399.18	9279399.30	9279399.43	0.0527	0.0320
Mercury	20694-04-11 17:31 G	9279489.15	9279489.23	9279489.32	0.0531	0.0432
Earth	20694-06-23 17:16 G	9279561.99	9279562.22	9279562.45	0.0533	0.0112
Moon	20694-06-23 20:24 G	9279562.12	9279562.35	9279562.58	0.0533	0.0145 *
Mercury	20699-08-30 10:33 G	9281455.79	9281455.94	9281456.08	0.0500	0.0071
Earth	20699-12-19 20:09 G	9281567.12	9281567.34	9281567.56	0.0496	0.0163
Moon	20699-12-19 20:38 G	9281567.14	9281567.36	9281567.59	0.0496	0.0176 *
Earth	20701-01-19 08:09 G	9281962.71	9281962.84	9281962.97	0.0487	0.0400
Moon	20701-01-19 09:50 G	9281962.79	9281962.91	9281963.04	0.0487	0.0409 *
Venus	20705-02-09 12:57 G	9283444.92	9283445.04	9283445.17	0.0515	0.0398
Mercury	20705-10-31 18:43 G	9283709.25	9283709.28	9283709.32	0.0526	0.0513
Mercury	20706-01-29 17:45 G	9283799.10	9283799.24	9283799.38	0.0530	0.0246
Moon	20706-06-29 18:28 G	9283950.04	9283950.27	9283950.50	0.0535	0.0006
Earth	20706-06-29 22:33 G	9283950.21	9283950.44	9283950.68	0.0535	0.0004 *

Mercury	20711-06-19 13:40 G	9285765.94	9285766.07	9285766.20	0.0500	0.0209
Mercury	20711-09-17 00:28 G	9285855.42	9285855.52	9285855.62	0.0497	0.0366
Moon	20711-12-25 02:09 G	9285954.37	9285954.59	9285954.81	0.0494	0.0056
Earth	20711-12-25 04:33 G	9285954.46	9285954.69	9285954.92	0.0494	0.0081 *
Moon	20713-01-23 11:16 G	9286349.88	9286349.97	9286350.08	0.0486	0.0443
Earth	20713-01-23 12:00 G	9286349.95	9286350.00	9286350.06	0.0486	0.0470 *
Mercury	20717-11-17 18:14 G	9288109.10	9288109.26	9288109.41	0.0529	0.0066
Earth	20718-07-05 06:43 G	9288338.55	9288338.78	9288339.01	0.0537	0.0109
Moon	20718-07-05 10:19 G	9288338.71	9288338.93	9288339.15	0.0537	0.0143 *
Venus	20722-08-26 10:19 G	9289851.73	9289851.93	9289852.13	0.0510	0.0096
Mercury	20723-04-07 16:48 G	9290076.10	9290076.20	9290076.31	0.0501	0.0349
Mercury	20723-07-06 03:21 G	9290165.51	9290165.64	9290165.77	0.0498	0.0222
Earth	20723-12-29 11:45 G	9290341.76	9290341.99	9290342.22	0.0492	0.0005
Moon	20723-12-29 15:07 G	9290341.90	9290342.13	9290342.37	0.0492	0.0026 *
Venus	20729-02-12 10:04 G	9292213.80	9292213.92	9292214.05	0.0520	0.0402
Earth	20729-06-03 11:16 G	9292324.95	9292324.97	9292325.00	0.0525	0.0520
Mercury	20729-09-05 18:43 G	9292419.12	9292419.28	9292419.43	0.0528	0.0115
Moon	20730-07-10 13:55 G	9292726.86	9292727.08	9292727.31	0.0538	0.0219
Earth	20730-07-10 15:36 G	9292726.94	9292727.15	9292727.36	0.0538	0.0221 *
Venus	20734-05-01 05:02 G	9294117.59	9294117.71	9294117.84	0.0513	0.0398
Moon	20734-12-02 10:48 G	9294332.93	9294332.95	9294332.98	0.0504	0.0499
Mercury	20735-01-24 19:12 G	9294386.30	9294386.30	9294386.32	0.0502	0.0500
Mercury	20735-04-24 05:31 G	9294475.59	9294475.73	9294475.87	0.0499	0.0067
Moon	20736-01-02 11:16 G	9294728.74	9294728.97	9294729.20	0.0491	0.0068
Earth	20736-01-02 15:07 G	9294728.90	9294729.13	9294729.36	0.0491	0.0081 *
Venus	20740-10-18 04:33 G	9296479.49	9296479.69	9296479.89	0.0517	0.0102
Moon	20741-06-08 09:21 G	9296712.76	9296712.89	9296713.03	0.0527	0.0434
Earth	20741-06-08 12:00 G	9296712.87	9296713.00	9296713.14	0.0527	0.0428 *
Mercury	20741-06-24 18:14 G	9296729.13	9296729.26	9296729.39	0.0527	0.0306
Mercury	20741-09-22 16:48 G	9296819.11	9296819.20	9296819.28	0.0531	0.0446

Moon	20742-07-15 20:52 G	9297115.18	9297115.37	9297115.55	0.0540	0.0300
Earth	20742-07-15 21:50 G	9297115.23	9297115.41	9297115.60	0.0540	0.0331 *
Moon	20746-12-06 14:52 G	9298719.98	9298720.12	9298720.27	0.0502	0.0391
Earth	20746-12-06 18:00 G	9298720.13	9298720.25	9298720.37	0.0502	0.0424 *
Mercury	20747-02-10 08:24 G	9298785.71	9298785.85	9298785.99	0.0500	0.0078
Earth	20748-01-06 20:52 G	9299116.15	9299116.37	9299116.59	0.0490	0.0162
Moon	20748-01-07 00:28 G	9299116.30	9299116.52	9299116.74	0.0490	0.0134 *
Mercury	20753-04-12 16:48 G	9301039.17	9301039.20	9301039.23	0.0526	0.0515
Earth	20753-06-13 09:07 G	9301100.70	9301100.88	9301101.06	0.0529	0.0335
Moon	20753-06-13 09:21 G	9301100.71	9301100.89	9301101.07	0.0529	0.0307 *
Mercury	20753-07-11 15:50 G	9301129.02	9301129.16	9301129.29	0.0530	0.0244
Earth	20754-07-21 00:28 G	9301503.39	9301503.52	9301503.66	0.0541	0.0435
Moon	20754-07-21 03:21 G	9301503.51	9301503.64	9301503.79	0.0541	0.0442 *
Venus	20758-05-03 19:55 G	9302886.19	9302886.33	9302886.48	0.0509	0.0355
Mercury	20758-11-29 11:45 G	9303095.86	9303095.99	9303096.12	0.0501	0.0215
Earth	20758-12-11 05:45 G	9303107.58	9303107.74	9303107.91	0.0500	0.0341
Moon	20758-12-11 07:12 G	9303107.64	9303107.80	9303107.97	0.0500	0.0336 *
Mercury	20759-02-26 22:19 G	9303185.33	9303185.43	9303185.53	0.0498	0.0361
Moon	20760-01-11 00:57 G	9303503.34	9303503.54	9303503.75	0.0489	0.0245
Earth	20760-01-11 03:50 G	9303503.46	9303503.66	9303503.86	0.0489	0.0239 *
Mercury	20765-04-29 15:36 G	9305439.00	9305439.15	9305439.31	0.0529	0.0056
Earth	20765-06-18 11:31 G	9305488.77	9305488.98	9305489.19	0.0531	0.0233
Moon	20765-06-18 13:55 G	9305488.87	9305489.08	9305489.30	0.0531	0.0235 *
Earth	20766-07-26 09:21 G	9305891.88	9305891.89	9305891.91	0.0542	0.0541
Mars	20767-12-21 10:33 G	9306404.70	9306404.94	9306405.19	0.0540	0.0154
Venus	20770-01-06 18:28 G	9307152.07	9307152.27	9307152.47	0.0511	0.0114
Mercury	20770-09-17 14:52 G	9307406.02	9307406.12	9307406.22	0.0501	0.0352
Earth	20770-12-15 16:19 G	9307494.98	9307495.18	9307495.38	0.0498	0.0257
Moon	20770-12-15 16:48 G	9307495.01	9307495.20	9307495.40	0.0498	0.0283 *
Mercury	20770-12-16 01:26 G	9307495.43	9307495.56	9307495.69	0.0498	0.0220

Earth	20772-01-15 08:52 G	9307890.69	9307890.87	9307891.05	0.0488	0.0314
Moon	20772-01-15 10:19 G	9307890.78	9307890.93	9307891.09	0.0488	0.0345 *
Venus	20776-06-25 15:50 G	9309513.97	9309514.16	9309514.35	0.0519	0.0173
Mercury	20777-02-15 15:50 G	9309749.00	9309749.16	9309749.31	0.0528	0.0129
Moon	20777-06-23 13:26 G	9309876.84	9309877.06	9309877.28	0.0533	0.0162
Earth	20777-06-23 17:02 G	9309876.99	9309877.21	9309877.44	0.0533	0.0127 *
Mercury	20782-07-06 18:14 G	9311716.23	9311716.26	9311716.29	0.0502	0.0490
Mercury	20782-10-04 04:19 G	9311805.54	9311805.68	9311805.82	0.0499	0.0077
Moon	20782-12-19 23:02 G	9311882.25	9311882.46	9311882.67	0.0496	0.0181
Earth	20782-12-20 01:26 G	9311882.34	9311882.56	9311882.78	0.0496	0.0173 *
Moon	20784-01-19 12:57 G	9312277.91	9312278.04	9312278.19	0.0487	0.0393
Earth	20784-01-19 13:40 G	9312277.93	9312278.07	9312278.21	0.0487	0.0388 *
Venus	20788-02-29 12:14 G	9313779.85	9313780.01	9313780.17	0.0516	0.0317
Mercury	20788-12-04 16:04 G	9314059.04	9314059.17	9314059.30	0.0528	0.0310
Mercury	20789-03-04 14:38 G	9314149.03	9314149.11	9314149.19	0.0531	0.0444
Earth	20789-06-29 00:43 G	9314265.30	9314265.53	9314265.77	0.0535	0.0019
Moon	20789-06-29 04:48 G	9314265.47	9314265.70	9314265.93	0.0535	0.0017 *
Mercury	20794-07-23 06:43 G	9316115.63	9316115.78	9316115.92	0.0500	0.0078
Earth	20794-12-24 06:00 G	9316269.52	9316269.75	9316269.98	0.0495	0.0093
Moon	20794-12-24 09:21 G	9316269.66	9316269.89	9316270.13	0.0495	0.0064 *
Moon	20796-01-23 14:38 G	9316665.02	9316665.11	9316665.22	0.0486	0.0435
Earth	20796-01-23 15:21 G	9316665.08	9316665.14	9316665.23	0.0486	0.0459 *
Mercury	20800-09-22 15:36 G	9318369.11	9318369.15	9318369.20	0.0526	0.0501
Mercury	20800-12-21 14:38 G	9318458.98	9318459.11	9318459.25	0.0530	0.0258
Moon	20801-07-04 03:36 G	9318653.42	9318653.65	9318653.89	0.0536	0.0124
Earth	20801-07-04 06:14 G	9318653.53	9318653.76	9318653.99	0.0536	0.0093 *
Venus	20805-09-14 04:48 G	9320186.50	9320186.70	9320186.89	0.0510	0.0148
Mercury	20806-05-11 09:36 G	9320425.77	9320425.90	9320426.03	0.0500	0.0220
Mercury	20806-08-08 20:09 G	9320515.24	9320515.34	9320515.44	0.0497	0.0354
Moon	20806-12-28 09:07 G	9320656.65	9320656.88	9320657.12	0.0493	0.0016

Earth	20806-12-28 12:57 G	9320656.81	9320657.04	9320657.28	0.0493	0.0013	*
Venus	20812-03-03 05:02 G	9322548.63	9322548.71	9322548.81	0.0520	0.0461	
Mercury	20812-10-09 13:40 G	9322768.91	9322769.07	9322769.22	0.0529	0.0055	
Earth	20813-07-09 07:12 G	9323041.58	9323041.80	9323042.02	0.0538	0.0199	
Moon	20813-07-09 07:12 G	9323041.59	9323041.80	9323042.01	0.0538	0.0192	*
Venus	20817-05-20 02:09 G	9324452.44	9324452.59	9324452.75	0.0513	0.0329	
Mercury	20818-02-27 12:43 G	9324735.94	9324736.03	9324736.14	0.0502	0.0358	
Mercury	20818-05-27 23:16 G	9324825.34	9324825.47	9324825.60	0.0498	0.0215	
Earth	20819-01-01 21:07 G	9325044.15	9325044.38	9325044.61	0.0492	0.0072	
Moon	20819-01-02 00:43 G	9325044.30	9325044.53	9325044.76	0.0492	0.0055	*
Mars	20821-09-02 14:09 G	9326018.91	9326019.09	9326019.29	0.0489	0.0376	
Venus	20823-11-06 23:16 G	9326814.27	9326814.47	9326814.68	0.0517	0.0046	
Earth	20824-06-07 05:45 G	9327027.62	9327027.74	9327027.87	0.0526	0.0444	
Moon	20824-06-07 06:57 G	9327027.68	9327027.79	9327027.92	0.0526	0.0448	*
Mercury	20824-07-28 13:12 G	9327078.90	9327079.05	9327079.21	0.0528	0.0139	
Earth	20825-07-14 13:55 G	9327429.89	9327430.08	9327430.28	0.0540	0.0309	
Moon	20825-07-14 16:04 G	9327429.97	9327430.17	9327430.38	0.0540	0.0275	*
Earth	20829-12-05 23:45 G	9329035.38	9329035.49	9329035.61	0.0503	0.0434	
Moon	20829-12-06 01:26 G	9329035.43	9329035.56	9329035.70	0.0503	0.0405	*
Mercury	20829-12-16 16:19 G	9329046.16	9329046.18	9329046.20	0.0502	0.0493	
Mercury	20830-03-16 02:24 G	9329135.46	9329135.60	9329135.74	0.0499	0.0074	
Moon	20831-01-06 00:57 G	9329431.31	9329431.54	9329431.77	0.0490	0.0126	
Earth	20831-01-06 03:36 G	9329431.43	9329431.65	9329431.88	0.0490	0.0151	*
Mercury	20836-05-16 13:12 G	9331388.93	9331389.05	9331389.18	0.0527	0.0325	
Earth	20836-06-12 08:24 G	9331415.67	9331415.85	9331416.02	0.0528	0.0348	
Moon	20836-06-12 09:50 G	9331415.72	9331415.91	9331416.11	0.0528	0.0317	*
Mercury	20836-08-14 11:45 G	9331478.90	9331478.99	9331479.08	0.0531	0.0429	
Moon	20837-07-19 20:24 G	9331818.22	9331818.35	9331818.50	0.0541	0.0425	
Earth	20837-07-20 00:00 G	9331818.36	9331818.50	9331818.65	0.0541	0.0418	*
Venus	20841-05-22 18:28 G	9333221.17	9333221.27	9333221.38	0.0508	0.0432	

Earth	20841-12-10 11:02 G	9333422.81	9333422.96	9333423.14	0.0500	0.0350
Moon	20841-12-10 11:31 G	9333422.82	9333422.98	9333423.16	0.0500	0.0350 *
Mercury	20842-01-02 05:31 G	9333445.59	9333445.73	9333445.87	0.0500	0.0067
Earth	20843-01-10 09:21 G	9333818.69	9333818.89	9333819.10	0.0489	0.0229
Moon	20843-01-10 10:48 G	9333818.76	9333818.95	9333819.15	0.0489	0.0243 *
Mercury	20848-03-04 13:26 G	9335699.02	9335699.06	9335699.10	0.0527	0.0507
Mercury	20848-06-02 12:28 G	9335788.89	9335789.02	9335789.16	0.0530	0.0255
Moon	20848-06-17 10:48 G	9335803.75	9335803.95	9335804.15	0.0531	0.0250
Earth	20848-06-17 14:09 G	9335803.88	9335804.09	9335804.30	0.0531	0.0244 *
Earth	20849-07-25 10:48 G	9336206.90	9336206.95	9336207.01	0.0542	0.0525
Venus	20853-01-25 14:38 G	9337486.91	9337487.11	9337487.31	0.0511	0.0051
Mercury	20853-10-21 07:55 G	9337755.70	9337755.83	9337755.96	0.0500	0.0218
Moon	20853-12-14 15:36 G	9337809.98	9337810.15	9337810.34	0.0498	0.0297
Earth	20853-12-14 17:45 G	9337810.05	9337810.24	9337810.44	0.0498	0.0268 *
Mercury	20854-01-18 18:28 G	9337845.17	9337845.27	9337845.38	0.0497	0.0356
Moon	20855-01-14 11:31 G	9338205.80	9338205.98	9338206.16	0.0488	0.0332
Earth	20855-01-14 11:45 G	9338205.82	9338205.99	9338206.18	0.0488	0.0303 *
Venus	20859-07-15 15:07 G	9339848.95	9339849.13	9339849.30	0.0519	0.0255
Mercury	20860-03-21 12:43 G	9340098.87	9340099.03	9340099.18	0.0529	0.0069
Earth	20860-06-22 18:00 G	9340192.03	9340192.25	9340192.48	0.0532	0.0139
Moon	20860-06-22 22:04 G	9340192.20	9340192.42	9340192.65	0.0532	0.0173 *
Mercury	20865-08-09 11:02 G	9342065.86	9342065.96	9342066.06	0.0501	0.0361
Mercury	20865-11-06 21:21 G	9342155.26	9342155.39	9342155.52	0.0498	0.0210
Earth	20865-12-19 02:24 G	9342197.38	9342197.60	9342197.82	0.0497	0.0184
Moon	20865-12-19 06:00 G	9342197.53	9342197.75	9342197.97	0.0497	0.0188 *
Moon	20867-01-18 15:50 G	9342593.03	9342593.16	9342593.31	0.0487	0.0381
Earth	20867-01-18 16:48 G	9342593.06	9342593.20	9342593.35	0.0487	0.0378 *
Venus	20871-03-20 07:40 G	9344114.65	9344114.82	9344115.00	0.0515	0.0256
Mercury	20872-01-08 11:16 G	9344408.82	9344408.97	9344409.13	0.0528	0.0138
Moon	20872-06-27 13:55 G	9344579.84	9344580.08	9344580.32	0.0534	0.0040

Earth	20872-06-27 17:31 G	9344579.99	9344580.23	9344580.46	0.0534	0.0038	*
Mercury	20877-05-28 14:24 G	9346376.08	9346376.10	9346376.12	0.0502	0.0497	
Mercury	20877-08-26 00:28 G	9346465.37	9346465.52	9346465.66	0.0499	0.0071	
Moon	20877-12-23 07:55 G	9346584.61	9346584.83	9346585.06	0.0495	0.0075	
Earth	20877-12-23 11:45 G	9346584.77	9346584.99	9346585.22	0.0495	0.0103	*
Earth	20879-01-22 22:33 G	9346980.36	9346980.44	9346980.54	0.0487	0.0450	
Moon	20879-01-23 01:12 G	9346980.44	9346980.55	9346980.67	0.0487	0.0421	*
Mercury	20883-10-27 10:48 G	9348718.83	9348718.95	9348719.08	0.0527	0.0331	
Mercury	20884-01-25 09:21 G	9348808.80	9348808.89	9348808.99	0.0530	0.0422	
Earth	20884-07-02 22:19 G	9348968.19	9348968.43	9348968.66	0.0536	0.0071	
Moon	20884-07-02 23:31 G	9348968.25	9348968.48	9348968.70	0.0536	0.0102	*
Venus	20888-10-03 03:21 G	9350521.46	9350521.64	9350521.83	0.0510	0.0229	
Mercury	20889-06-14 03:36 G	9350775.51	9350775.65	9350775.79	0.0500	0.0068	
Earth	20889-12-27 20:09 G	9350972.11	9350972.34	9350972.57	0.0493	0.0021	
Moon	20889-12-27 23:45 G	9350972.26	9350972.49	9350972.72	0.0493	0.0007	*
Mercury	20895-08-15 10:33 G	9353028.92	9353028.94	9353028.96	0.0526	0.0521	
Mercury	20895-11-13 09:36 G	9353118.77	9353118.90	9353119.05	0.0530	0.0241	
Earth	20896-07-08 06:00 G	9353356.54	9353356.75	9353356.98	0.0538	0.0182	
Moon	20896-07-08 07:26 G	9353356.58	9353356.81	9353357.04	0.0538	0.0170	*
Venus	20900-06-09 01:26 G	9354787.38	9354787.56	9354787.74	0.0512	0.0247	
Mercury	20901-04-03 06:43 G	9355085.65	9355085.78	9355085.91	0.0501	0.0208	
Mercury	20901-07-01 17:31 G	9355175.13	9355175.23	9355175.32	0.0497	0.0367	
Moon	20902-01-02 00:43 G	9355359.29	9355359.53	9355359.77	0.0492	0.0040	
Earth	20902-01-02 03:21 G	9355359.41	9355359.64	9355359.88	0.0492	0.0063	*
Venus	20906-11-26 22:19 G	9357149.23	9357149.43	9357149.63	0.0517	0.0036	
Earth	20907-06-08 08:52 G	9357342.76	9357342.87	9357342.99	0.0526	0.0453	
Moon	20907-06-08 09:36 G	9357342.78	9357342.90	9357343.03	0.0526	0.0445	*
Mercury	20907-09-02 10:19 G	9357428.78	9357428.93	9357429.09	0.0529	0.0064	
Moon	20908-07-14 13:40 G	9357744.87	9357745.07	9357745.27	0.0539	0.0262	
Earth	20908-07-14 16:33 G	9357745.00	9357745.19	9357745.39	0.0539	0.0295	*

Moon	20912-12-06 02:24 G	9359350.47	9359350.60	9359350.74	0.0503	0.0414
Earth	20912-12-06 02:24 G	9359350.49	9359350.60	9359350.71	0.0503	0.0442 *
Mercury	20913-01-20 09:21 G	9359395.80	9359395.89	9359395.99	0.0501	0.0356
Mercury	20913-04-19 19:40 G	9359485.19	9359485.32	9359485.45	0.0498	0.0214
Earth	20914-01-06 07:12 G	9359746.58	9359746.80	9359747.02	0.0491	0.0140
Moon	20914-01-06 08:38 G	9359746.64	9359746.86	9359747.08	0.0491	0.0119 *
Venus	20918-08-01 18:00 G	9361415.16	9361415.25	9361415.34	0.0515	0.0455
Moon	20919-06-13 08:09 G	9361730.67	9361730.84	9361731.02	0.0528	0.0326
Earth	20919-06-13 11:02 G	9361730.79	9361730.96	9361731.14	0.0528	0.0357 *
Mercury	20919-06-21 10:19 G	9361738.78	9361738.93	9361739.09	0.0528	0.0124
Earth	20920-07-20 00:14 G	9362133.36	9362133.51	9362133.67	0.0540	0.0402
Moon	20920-07-20 04:04 G	9362133.53	9362133.67	9362133.82	0.0540	0.0416 *
Mars	20922-03-17 05:45 G	9362738.49	9362738.74	9362738.99	0.0539	0.0092
Venus	20924-06-11 14:24 G	9363556.06	9363556.10	9363556.15	0.0508	0.0492
Mercury	20924-11-08 12:28 G	9363706.01	9363706.02	9363706.04	0.0502	0.0498
Moon	20924-12-10 10:33 G	9363737.79	9363737.94	9363738.09	0.0501	0.0369
Earth	20924-12-10 12:43 G	9363737.87	9363738.03	9363738.19	0.0501	0.0359 *
Mercury	20925-02-05 22:33 G	9363795.30	9363795.44	9363795.59	0.0499	0.0070
Moon	20926-01-10 12:43 G	9364133.82	9364134.03	9364134.24	0.0490	0.0233
Earth	20926-01-10 12:57 G	9364133.83	9364134.04	9364134.25	0.0490	0.0219 *
Mercury	20931-04-09 09:07 G	9366048.75	9366048.88	9366049.00	0.0527	0.0329
Earth	20931-06-18 08:52 G	9366118.67	9366118.87	9366119.07	0.0530	0.0263
Moon	20931-06-18 12:43 G	9366118.83	9366119.03	9366119.24	0.0530	0.0268 *
Mercury	20931-07-08 07:40 G	9366138.73	9366138.82	9366138.91	0.0530	0.0424
Moon	20932-07-24 23:16 G	9366521.44	9366521.47	9366521.53	0.0541	0.0531
Earth	20932-07-25 02:38 G	9366521.53	9366521.61	9366521.70	0.0541	0.0502 *
Venus	20936-02-15 12:00 G	9367821.79	9367822.00	9367822.20	0.0511	0.0021
Mercury	20936-11-25 01:40 G	9368105.43	9368105.57	9368105.71	0.0500	0.0071
Earth	20936-12-14 23:16 G	9368125.28	9368125.47	9368125.67	0.0499	0.0278
Moon	20936-12-15 02:52 G	9368125.43	9368125.62	9368125.81	0.0499	0.0309 *

Moon	20938-01-14 18:28 G	9368521.11	9368521.27	9368521.45	0.0489	0.0323
Earth	20938-01-14 19:40 G	9368521.14	9368521.32	9368521.51	0.0489	0.0294 *
Mars	20940-02-21 14:38 G	9369288.85	9369289.11	9369289.37	0.0488	0.0247
Venus	20942-08-04 10:33 G	9370183.78	9370183.94	9370184.10	0.0518	0.0317
Mercury	20943-01-26 08:24 G	9370358.84	9370358.85	9370358.87	0.0526	0.0523
Mercury	20943-04-26 07:40 G	9370448.68	9370448.82	9370448.96	0.0529	0.0237
Moon	20943-06-23 07:40 G	9370506.60	9370506.82	9370507.04	0.0532	0.0193
Earth	20943-06-23 11:31 G	9370506.76	9370506.98	9370507.21	0.0532	0.0159 *
Venus	20947-10-21 09:36 G	9372087.82	9372087.90	9372088.00	0.0514	0.0458
Mercury	20948-09-13 05:02 G	9372415.58	9372415.71	9372415.84	0.0501	0.0208
Mercury	20948-12-11 15:36 G	9372505.05	9372505.15	9372505.25	0.0498	0.0367
Moon	20948-12-19 06:00 G	9372512.54	9372512.75	9372512.96	0.0497	0.0200
Earth	20948-12-19 09:50 G	9372512.70	9372512.91	9372513.13	0.0497	0.0195 *
Earth	20950-01-19 00:57 G	9372908.39	9372908.54	9372908.69	0.0487	0.0367
Moon	20950-01-19 03:36 G	9372908.49	9372908.65	9372908.81	0.0487	0.0359 *
Venus	20954-04-09 05:16 G	9374449.53	9374449.72	9374449.91	0.0516	0.0184
Mercury	20955-02-12 07:40 G	9374758.66	9374758.82	9374758.98	0.0529	0.0052
Earth	20955-06-28 16:48 G	9374894.97	9374895.20	9374895.44	0.0534	0.0054
Moon	20955-06-28 18:57 G	9374895.06	9374895.29	9374895.52	0.0534	0.0046 *
Mercury	20960-07-02 08:24 G	9376725.75	9376725.85	9376725.95	0.0501	0.0345
Mercury	20960-09-29 18:43 G	9376815.15	9376815.28	9376815.41	0.0498	0.0226
Earth	20960-12-23 18:57 G	9376900.07	9376900.29	9376900.52	0.0495	0.0111
Moon	20960-12-23 22:48 G	9376900.22	9376900.45	9376900.68	0.0495	0.0082 *
Moon	20962-01-23 02:24 G	9377295.48	9377295.60	9377295.72	0.0486	0.0410
Earth	20962-01-23 06:00 G	9377295.65	9377295.75	9377295.85	0.0486	0.0439 *
Mercury	20966-12-01 08:09 G	9379068.69	9379068.84	9379069.00	0.0528	0.0127
Earth	20967-07-04 01:26 G	9379283.33	9379283.56	9379283.80	0.0536	0.0059
Moon	20967-07-04 01:55 G	9379283.34	9379283.58	9379283.82	0.0536	0.0089 *
Venus	20971-10-24 01:26 G	9380856.40	9380856.56	9380856.72	0.0509	0.0301
Mercury	20972-04-20 11:16 G	9381035.94	9381035.97	9381036.00	0.0502	0.0490

Mercury	20972-07-18 21:07 G	9381125.24	9381125.38	9381125.53	0.0499	0.0077
Moon	20972-12-27 22:04 G	9381287.18	9381287.42	9381287.65	0.0494	0.0020
Earth	20972-12-28 00:43 G	9381287.30	9381287.53	9381287.77	0.0494	0.0031 *
Mercury	20978-09-19 08:09 G	9383378.71	9383378.84	9383378.97	0.0527	0.0313
Mercury	20978-12-18 06:43 G	9383468.70	9383468.78	9383468.87	0.0531	0.0442
Moon	20979-07-09 06:28 G	9383671.55	9383671.77	9383671.99	0.0537	0.0158
Earth	20979-07-09 08:38 G	9383671.64	9383671.86	9383672.09	0.0537	0.0169 *
Venus	20983-06-28 22:19 G	9385122.24	9385122.43	9385122.63	0.0512	0.0179
Mercury	20984-05-07 00:14 G	9385435.37	9385435.51	9385435.65	0.0500	0.0068
Earth	20985-01-01 07:40 G	9385674.59	9385674.82	9385675.05	0.0492	0.0053
Moon	20985-01-01 09:07 G	9385674.65	9385674.88	9385675.10	0.0492	0.0027 *
Venus	20989-12-15 19:26 G	9387484.12	9387484.31	9387484.52	0.0517	0.0110
Moon	20990-06-07 04:48 G	9387657.60	9387657.70	9387657.81	0.0524	0.0458
Earth	20990-06-07 06:57 G	9387657.69	9387657.79	9387657.90	0.0524	0.0467 *
Mercury	20990-07-08 06:43 G	9387688.76	9387688.78	9387688.81	0.0526	0.0518
Mercury	20990-10-06 06:00 G	9387778.61	9387778.75	9387778.89	0.0529	0.0242
Earth	20991-07-14 10:19 G	9388059.73	9388059.93	9388060.13	0.0539	0.0272
Moon	20991-07-14 13:55 G	9388059.87	9388060.08	9388060.29	0.0539	0.0240 *
Moon	20995-12-06 05:16 G	9389665.61	9389665.72	9389665.84	0.0504	0.0431
Earth	20995-12-06 07:12 G	9389665.71	9389665.80	9389665.91	0.0504	0.0454 *
Mercury	20996-02-24 03:21 G	9389745.51	9389745.64	9389745.77	0.0501	0.0208
Mercury	20996-05-23 13:55 G	9389834.98	9389835.08	9389835.18	0.0498	0.0368
Moon	20997-01-05 15:21 G	9390061.90	9390062.14	9390062.38	0.0491	0.0111
Earth	20997-01-05 15:21 G	9390061.92	9390062.14	9390062.37	0.0491	0.0131 *

22ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 22nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	21001-08-21 14:38	G	9391749.98	9391750.11	9391750.25	0.0514	0.0386	
Earth	21002-06-13 07:12	G	9392045.64	9392045.80	9392045.96	0.0527	0.0374	
Moon	21002-06-13 10:48	G	9392045.77	9392045.95	9392046.14	0.0527	0.0340	*
Mercury	21002-07-26 05:45	G	9392088.59	9392088.74	9392088.90	0.0528	0.0055	
Moon	21003-07-20 13:40	G	9392447.91	9392448.07	9392448.23	0.0540	0.0394	
Earth	21003-07-20 17:16	G	9392448.06	9392448.22	9392448.39	0.0540	0.0379	*
Earth	21007-12-11 19:55	G	9394053.18	9394053.33	9394053.49	0.0502	0.0370	
Moon	21007-12-11 23:31	G	9394053.34	9394053.48	9394053.64	0.0502	0.0385	*
Mercury	21007-12-14 06:43	G	9394055.68	9394055.78	9394055.88	0.0502	0.0344	
Mercury	21008-03-12 17:02	G	9394145.08	9394145.21	9394145.34	0.0499	0.0228	
Moon	21009-01-10 20:52	G	9394449.17	9394449.37	9394449.57	0.0490	0.0226	
Earth	21009-01-10 22:04	G	9394449.21	9394449.42	9394449.63	0.0490	0.0208	*
Mercury	21014-05-14 05:45	G	9396398.58	9396398.74	9396398.89	0.0528	0.0135	
Moon	21014-06-18 05:31	G	9396433.53	9396433.73	9396433.93	0.0529	0.0279	
Earth	21014-06-18 09:36	G	9396433.70	9396433.90	9396434.10	0.0529	0.0276	*
Earth	21015-07-26 02:52	G	9396836.52	9396836.62	9396836.73	0.0541	0.0486	
Moon	21015-07-26 04:48	G	9396836.64	9396836.70	9396836.77	0.0541	0.0515	*
Venus	21019-03-07 12:28	G	9398156.82	9398157.02	9398157.22	0.0511	0.0110	
Mercury	21019-10-02 10:04	G	9398365.89	9398365.92	9398365.96	0.0502	0.0480	
Moon	21019-12-16 03:50	G	9398440.49	9398440.66	9398440.84	0.0500	0.0317	
Earth	21019-12-16 07:40	G	9398440.64	9398440.82	9398441.02	0.0500	0.0285	*
Mercury	21019-12-30 20:09	G	9398455.20	9398455.34	9398455.48	0.0499	0.0088	
Earth	21021-01-15 04:04	G	9398836.49	9398836.67	9398836.86	0.0489	0.0285	
Moon	21021-01-15 06:57	G	9398836.61	9398836.79	9398836.98	0.0489	0.0307	*
Venus	21025-08-24 10:19	G	9400518.81	9400518.93	9400519.06	0.0519	0.0403	

Mercury	21026-03-02 06:00 G	9400708.63	9400708.75	9400708.88	0.0527	0.0316
Mercury	21026-05-31 04:48 G	9400798.62	9400798.70	9400798.79	0.0531	0.0439
Earth	21026-06-23 15:36 G	9400821.93	9400822.15	9400822.37	0.0532	0.0170
Moon	21026-06-23 18:28 G	9400822.06	9400822.27	9400822.48	0.0532	0.0200 *
Venus	21030-11-10 09:07 G	9402422.74	9402422.88	9402423.02	0.0513	0.0374
Mercury	21031-10-18 22:48 G	9402765.31	9402765.45	9402765.60	0.0500	0.0061
Earth	21031-12-20 15:50 G	9402827.95	9402828.16	9402828.37	0.0498	0.0202
Moon	21031-12-20 19:40 G	9402828.11	9402828.32	9402828.53	0.0498	0.0202 *
Moon	21033-01-19 04:04 G	9403223.51	9403223.67	9403223.83	0.0488	0.0345
Earth	21033-01-19 07:26 G	9403223.66	9403223.81	9403223.98	0.0488	0.0359 *
Venus	21037-04-29 06:00 G	9404784.55	9404784.75	9404784.95	0.0516	0.0092
Mercury	21037-12-19 06:00 G	9405018.70	9405018.75	9405018.79	0.0526	0.0501
Mercury	21038-03-19 05:16 G	9405108.58	9405108.72	9405108.85	0.0530	0.0260
Moon	21038-06-28 21:07 G	9405210.14	9405210.38	9405210.63	0.0534	0.0050
Earth	21038-06-28 21:50 G	9405210.17	9405210.41	9405210.64	0.0534	0.0064 *
Mercury	21043-08-07 01:55 G	9407075.45	9407075.58	9407075.71	0.0501	0.0201
Mercury	21043-11-04 12:28 G	9407164.93	9407165.02	9407165.12	0.0498	0.0373
Moon	21043-12-24 21:36 G	9407215.17	9407215.40	9407215.64	0.0496	0.0091
Earth	21043-12-25 00:28 G	9407215.30	9407215.52	9407215.75	0.0496	0.0119 *
Earth	21045-01-23 12:43 G	9407610.93	9407611.03	9407611.14	0.0487	0.0431
Moon	21045-01-23 16:48 G	9407611.07	9407611.20	9407611.33	0.0487	0.0401 *
Mercury	21050-01-05 04:19 G	9409418.53	9409418.68	9409418.84	0.0528	0.0064
Moon	21050-07-03 21:07 G	9409598.16	9409598.38	9409598.60	0.0535	0.0069
Earth	21050-07-03 22:33 G	9409598.21	9409598.44	9409598.67	0.0535	0.0037 *
Venus	21054-11-12 23:31 G	9411191.34	9411191.48	9411191.61	0.0510	0.0379
Mercury	21055-05-26 05:02 G	9411385.61	9411385.71	9411385.81	0.0502	0.0342
Mercury	21055-08-23 15:21 G	9411475.01	9411475.14	9411475.27	0.0499	0.0231
Earth	21055-12-29 08:52 G	9411602.64	9411602.87	9411603.11	0.0495	0.0041
Moon	21055-12-29 10:04 G	9411602.70	9411602.92	9411603.15	0.0495	0.0038 *
Mercury	21061-10-24 04:04 G	9413728.52	9413728.67	9413728.83	0.0527	0.0129

Earth	21062-07-09 03:50 G	9413986.43	9413986.66	9413986.88	0.0537	0.0146
Moon	21062-07-09 06:57 G	9413986.56	9413986.79	9413987.02	0.0537	0.0133 *
Venus	21066-07-18 21:36 G	9415457.20	9415457.40	9415457.60	0.0513	0.0094
Mercury	21067-03-14 08:38 G	9415695.82	9415695.86	9415695.90	0.0503	0.0477
Mercury	21067-06-11 18:28 G	9415785.13	9415785.27	9415785.42	0.0500	0.0093
Earth	21068-01-02 17:31 G	9415989.99	9415990.23	9415990.46	0.0493	0.0043
Moon	21068-01-02 17:31 G	9415989.99	9415990.23	9415990.47	0.0493	0.0014 *
Venus	21073-01-04 18:14 G	9417819.07	9417819.26	9417819.45	0.0517	0.0188
Earth	21073-06-07 08:38 G	9417972.77	9417972.86	9417972.96	0.0524	0.0477
Moon	21073-06-07 12:00 G	9417972.90	9417973.00	9417973.12	0.0524	0.0461 *
Mercury	21073-08-12 03:50 G	9418038.53	9418038.66	9418038.78	0.0527	0.0320
Mercury	21073-11-10 02:38 G	9418128.52	9418128.61	9418128.69	0.0530	0.0435
Moon	21074-07-14 07:40 G	9418374.60	9418374.82	9418375.03	0.0539	0.0227
Earth	21074-07-14 11:16 G	9418374.77	9418374.97	9418375.18	0.0539	0.0256 *
Mars	21076-06-11 02:24 G	9419072.41	9419072.60	9419072.80	0.0540	0.0350
Earth	21078-12-06 16:33 G	9419981.10	9419981.19	9419981.28	0.0504	0.0459
Moon	21078-12-06 19:55 G	9419981.22	9419981.33	9419981.45	0.0504	0.0437 *
Mercury	21079-03-30 21:50 G	9420095.27	9420095.41	9420095.56	0.0500	0.0047
Moon	21080-01-06 23:45 G	9420377.27	9420377.49	9420377.71	0.0491	0.0108
Earth	21080-01-07 01:12 G	9420377.33	9420377.55	9420377.78	0.0491	0.0123 *
Venus	21084-09-09 14:38 G	9422084.95	9422085.11	9422085.28	0.0515	0.0301
Mercury	21085-05-31 03:50 G	9422348.62	9422348.66	9422348.71	0.0526	0.0502
Moon	21085-06-12 08:09 G	9422360.67	9422360.84	9422361.02	0.0527	0.0349
Earth	21085-06-12 12:14 G	9422360.85	9422361.01	9422361.17	0.0527	0.0382 *
Mercury	21085-08-29 03:21 G	9422438.50	9422438.64	9422438.77	0.0530	0.0260
Earth	21086-07-19 22:19 G	9422763.27	9422763.43	9422763.61	0.0540	0.0367
Moon	21086-07-20 01:12 G	9422763.39	9422763.55	9422763.70	0.0540	0.0391 *
Moon	21090-12-10 23:31 G	9424368.35	9424368.48	9424368.63	0.0502	0.0393
Earth	21090-12-11 03:36 G	9424368.50	9424368.65	9424368.81	0.0502	0.0376 *
Mercury	21091-01-17 00:43 G	9424405.40	9424405.53	9424405.67	0.0501	0.0191

Mercury	21091-04-16 11:16 G	9424494.88	9424494.97	9424495.07	0.0498	0.0384
Earth	21092-01-11 06:00 G	9424764.54	9424764.75	9424764.96	0.0490	0.0200
Moon	21092-01-11 08:52 G	9424764.65	9424764.87	9424765.08	0.0490	0.0223 *
Mars	21094-05-18 12:28 G	9425622.72	9425623.02	9425623.32	0.0488	0.0028
Mercury	21097-06-17 03:36 G	9426748.50	9426748.65	9426748.81	0.0529	0.0081
Earth	21097-06-17 16:04 G	9426748.98	9426749.17	9426749.37	0.0529	0.0283
Moon	21097-06-17 19:26 G	9426749.12	9426749.31	9426749.50	0.0529	0.0295 *
Moon	21098-07-25 07:26 G	9427151.72	9427151.81	9427151.91	0.0541	0.0498
Earth	21098-07-25 08:09 G	9427151.74	9427151.84	9427151.96	0.0541	0.0474 *
Venus	21102-03-27 11:31 G	9428491.80	9428491.98	9428492.17	0.0510	0.0191
Mercury	21102-11-06 04:04 G	9428715.56	9428715.67	9428715.77	0.0502	0.0331
Earth	21102-12-16 14:09 G	9428755.90	9428756.09	9428756.28	0.0500	0.0292
Moon	21102-12-16 18:00 G	9428756.07	9428756.25	9428756.42	0.0500	0.0321 *
Mercury	21103-02-03 14:24 G	9428804.97	9428805.10	9428805.22	0.0498	0.0241
Moon	21104-01-16 08:24 G	9429151.68	9429151.85	9429152.04	0.0489	0.0297
Earth	21104-01-16 12:14 G	9429151.82	9429152.01	9429152.20	0.0489	0.0277 *
Venus	21108-09-13 10:04 G	9430853.86	9430853.92	9430853.98	0.0519	0.0492
Mercury	21109-04-06 02:52 G	9431058.47	9431058.62	9431058.78	0.0527	0.0117
Moon	21109-06-23 14:52 G	9431136.90	9431137.12	9431137.35	0.0530	0.0214
Earth	21109-06-23 16:19 G	9431136.96	9431137.18	9431137.40	0.0530	0.0187 *
Venus	21113-11-30 07:12 G	9432757.64	9432757.80	9432757.97	0.0514	0.0297
Mercury	21114-08-25 06:57 G	9433025.75	9433025.79	9433025.84	0.0503	0.0473
Mercury	21114-11-22 17:02 G	9433115.07	9433115.21	9433115.36	0.0500	0.0098
Moon	21114-12-20 20:52 G	9433143.15	9433143.37	9433143.58	0.0499	0.0207
Earth	21114-12-20 23:31 G	9433143.28	9433143.48	9433143.69	0.0499	0.0214 *
Earth	21116-01-20 18:14 G	9433539.10	9433539.26	9433539.42	0.0488	0.0350
Moon	21116-01-20 22:04 G	9433539.26	9433539.42	9433539.60	0.0488	0.0330 *
Venus	21120-05-19 05:02 G	9435119.50	9435119.71	9435119.91	0.0516	0.0013
Mercury	21121-01-23 02:38 G	9435368.48	9435368.61	9435368.74	0.0526	0.0308
Mercury	21121-04-23 01:12 G	9435458.47	9435458.55	9435458.64	0.0530	0.0445

Moon	21121-06-28 18:57 G	9435525.06	9435525.29	9435525.51	0.0532	0.0067
Earth	21121-06-28 19:40 G	9435525.09	9435525.32	9435525.55	0.0532	0.0083 *
Mercury	21126-09-10 20:24 G	9437425.21	9437425.35	9437425.49	0.0500	0.0042
Earth	21126-12-25 09:50 G	9437530.69	9437530.91	9437531.14	0.0497	0.0130
Moon	21126-12-25 11:02 G	9437530.74	9437530.96	9437531.18	0.0497	0.0102 *
Moon	21128-01-24 20:24 G	9437926.21	9437926.35	9437926.49	0.0487	0.0391
Earth	21128-01-25 00:00 G	9437926.39	9437926.50	9437926.62	0.0487	0.0421 *
Venus	21132-01-23 00:00 G	9439385.46	9439385.50	9439385.54	0.0513	0.0502
Mercury	21132-11-11 01:55 G	9439678.54	9439678.58	9439678.63	0.0526	0.0501
Mercury	21133-02-09 01:12 G	9439768.42	9439768.55	9439768.69	0.0529	0.0259
Earth	21133-07-04 00:28 G	9439913.28	9439913.52	9439913.75	0.0535	0.0025
Moon	21133-07-04 03:07 G	9439913.39	9439913.63	9439913.87	0.0535	0.0054 *
Venus	21137-12-03 00:57 G	9441526.47	9441526.54	9441526.62	0.0509	0.0474
Mercury	21138-06-29 23:45 G	9441735.36	9441735.49	9441735.63	0.0501	0.0179
Mercury	21138-09-27 10:19 G	9441824.85	9441824.93	9441825.02	0.0498	0.0398
Earth	21138-12-29 19:40 G	9441918.09	9441918.32	9441918.55	0.0495	0.0046
Moon	21138-12-29 20:09 G	9441918.10	9441918.34	9441918.58	0.0495	0.0048 *
Mercury	21144-11-28 01:55 G	9444078.42	9444078.58	9444078.73	0.0529	0.0082
Moon	21145-07-09 05:45 G	9444301.52	9444301.74	9444301.97	0.0537	0.0118
Earth	21145-07-09 09:36 G	9444301.68	9444301.90	9444302.13	0.0537	0.0136 *
Venus	21149-08-07 22:48 G	9445792.25	9445792.45	9445792.66	0.0512	0.0010
Mercury	21150-04-18 02:52 G	9446045.52	9446045.62	9446045.73	0.0502	0.0320
Mercury	21150-07-16 13:12 G	9446134.92	9446135.05	9446135.17	0.0498	0.0252
Moon	21151-01-03 00:57 G	9446305.32	9446305.54	9446305.77	0.0493	0.0009
Earth	21151-01-03 02:38 G	9446305.37	9446305.61	9446305.84	0.0493	0.0036 *
Venus	21156-01-25 20:24 G	9448154.19	9448154.35	9448154.52	0.0518	0.0290
Moon	21156-06-07 13:12 G	9448287.95	9448288.05	9448288.15	0.0524	0.0468
Earth	21156-06-07 17:02 G	9448288.12	9448288.21	9448288.30	0.0524	0.0482 *
Mercury	21156-09-16 02:09 G	9448388.44	9448388.59	9448388.75	0.0528	0.0098
Earth	21157-07-14 18:14 G	9448690.06	9448690.26	9448690.48	0.0538	0.0247

Moon	21157-07-14 21:36 G	9448690.19	9448690.40	9448690.61	0.0538	0.0223 *
Venus	21161-04-12 19:40 G	9450058.26	9450058.32	9450058.39	0.0515	0.0486
Moon	21161-12-06 19:55 G	9450296.23	9450296.33	9450296.44	0.0505	0.0444
Earth	21161-12-07 00:00 G	9450296.41	9450296.50	9450296.59	0.0505	0.0465 *
Mercury	21162-02-04 06:14 G	9450355.71	9450355.76	9450355.82	0.0503	0.0458
Mercury	21162-05-04 16:19 G	9450445.03	9450445.18	9450445.32	0.0499	0.0111
Earth	21163-01-07 09:50 G	9450692.69	9450692.91	9450693.14	0.0492	0.0116
Moon	21163-01-07 12:57 G	9450692.80	9450693.04	9450693.27	0.0492	0.0109 *
Venus	21167-09-30 15:36 G	9452419.97	9452420.15	9452420.34	0.0515	0.0205
Earth	21168-06-12 16:19 G	9452676.02	9452676.18	9452676.33	0.0525	0.0395
Moon	21168-06-12 19:40 G	9452676.16	9452676.32	9452676.49	0.0525	0.0367 *
Mercury	21168-07-05 01:26 G	9452698.43	9452698.56	9452698.70	0.0526	0.0293
Mercury	21168-10-03 00:14 G	9452788.43	9452788.51	9452788.58	0.0530	0.0459
Moon	21169-07-19 20:24 G	9453078.17	9453078.35	9453078.53	0.0539	0.0368
Earth	21169-07-19 22:04 G	9453078.25	9453078.42	9453078.60	0.0539	0.0346 *
Earth	21173-12-11 10:04 G	9454683.78	9454683.92	9454684.07	0.0503	0.0388
Moon	21173-12-11 13:55 G	9454683.95	9454684.08	9454684.22	0.0503	0.0407 *
Mercury	21174-02-20 18:57 G	9454755.15	9454755.29	9454755.44	0.0501	0.0036
Moon	21175-01-11 12:43 G	9455079.83	9455080.03	9455080.24	0.0491	0.0218
Earth	21175-01-11 16:19 G	9455079.97	9455080.18	9455080.40	0.0491	0.0191 *
Mercury	21180-04-23 00:57 G	9457008.48	9457008.54	9457008.60	0.0525	0.0484
Moon	21180-06-17 15:21 G	9457063.94	9457064.14	9457064.33	0.0527	0.0315
Earth	21180-06-17 17:16 G	9457064.03	9457064.22	9457064.42	0.0527	0.0298 *
Mercury	21180-07-22 00:14 G	9457098.38	9457098.51	9457098.64	0.0529	0.0274
Earth	21181-07-25 05:02 G	9457466.59	9457466.71	9457466.84	0.0540	0.0451
Moon	21181-07-25 04:33 G	9457466.60	9457466.69	9457466.80	0.0540	0.0477 *
Venus	21185-04-15 11:02 G	9458826.79	9458826.96	9458827.13	0.0511	0.0276
Mercury	21185-12-09 22:19 G	9459065.30	9459065.43	9459065.56	0.0501	0.0174
Moon	21185-12-15 19:40 G	9459071.15	9459071.32	9459071.51	0.0501	0.0328
Earth	21185-12-15 22:48 G	9459071.26	9459071.45	9459071.63	0.0501	0.0304 *

Mercury	21186-03-09 08:52 G	9459154.79	9459154.87	9459154.96	0.0498	0.0404
Earth	21187-01-15 23:16 G	9459467.28	9459467.47	9459467.67	0.0489	0.0267
Moon	21187-01-16 02:52 G	9459467.44	9459467.62	9459467.82	0.0489	0.0283 *
Mercury	21192-05-10 00:00 G	9461408.35	9461408.50	9461408.66	0.0528	0.0085
Earth	21192-06-22 19:12 G	9461452.08	9461452.30	9461452.51	0.0530	0.0198
Moon	21192-06-22 18:57 G	9461452.09	9461452.29	9461452.50	0.0530	0.0225 *
Moon	21193-07-30 17:02 G	9461855.17	9461855.21	9461855.27	0.0542	0.0527
Mars	21194-12-02 03:36 G	9462344.45	9462344.65	9462344.85	0.0541	0.0319
Venus	21196-12-19 09:21 G	9463092.70	9463092.89	9463093.08	0.0514	0.0198
Mercury	21197-09-28 01:55 G	9463375.47	9463375.58	9463375.69	0.0502	0.0309
Earth	21197-12-20 10:33 G	9463458.74	9463458.94	9463459.16	0.0499	0.0219
Moon	21197-12-20 11:45 G	9463458.78	9463458.99	9463459.19	0.0499	0.0202 *
Mercury	21197-12-26 12:14 G	9463464.88	9463465.01	9463465.13	0.0499	0.0265
Moon	21199-01-20 02:24 G	9463854.42	9463854.60	9463854.78	0.0488	0.0321
Earth	21199-01-20 05:45 G	9463854.58	9463854.74	9463854.91	0.0488	0.0343 *
Venus	21203-06-08 05:31 G	9465454.53	9465454.73	9465454.94	0.0516	0.0082
Mercury	21204-02-27 00:28 G	9465718.36	9465718.52	9465718.67	0.0528	0.0096
Earth	21204-06-28 01:26 G	9465840.33	9465840.56	9465840.79	0.0532	0.0093
Moon	21204-06-28 03:36 G	9465840.41	9465840.65	9465840.89	0.0532	0.0073 *
Mercury	21209-07-17 05:16 G	9467685.65	9467685.72	9467685.78	0.0503	0.0447
Mercury	21209-10-14 15:07 G	9467774.99	9467775.13	9467775.27	0.0499	0.0122
Earth	21209-12-24 19:55 G	9467846.11	9467846.33	9467846.56	0.0497	0.0136
Moon	21209-12-24 20:24 G	9467846.12	9467846.35	9467846.59	0.0497	0.0108 *
Earth	21211-01-24 10:04 G	9468241.80	9468241.92	9468242.04	0.0487	0.0414
Moon	21211-01-24 12:14 G	9468241.88	9468242.01	9468242.15	0.0487	0.0390 *
Venus	21215-02-11 02:24 G	9469720.48	9469720.60	9469720.73	0.0514	0.0402
Mercury	21215-12-16 00:43 G	9470028.39	9470028.53	9470028.66	0.0527	0.0276
Mercury	21216-03-14 23:31 G	9470118.41	9470118.48	9470118.54	0.0530	0.0478
Moon	21216-07-03 05:16 G	9470228.49	9470228.72	9470228.95	0.0534	0.0041
Earth	21216-07-03 08:52 G	9470228.63	9470228.87	9470229.10	0.0534	0.0016 *

Mercury	21221-08-02 18:14 G	9472085.12	9472085.26	9472085.41	0.0500	0.0020
Moon	21221-12-29 03:21 G	9472233.41	9472233.64	9472233.86	0.0495	0.0059
Earth	21221-12-29 05:02 G	9472233.48	9472233.71	9472233.94	0.0495	0.0053 *
Earth	21223-01-28 15:36 G	9472629.13	9472629.15	9472629.18	0.0487	0.0483
Mercury	21227-10-04 00:00 G	9474338.43	9474338.50	9474338.58	0.0525	0.0468
Mercury	21228-01-01 23:16 G	9474428.34	9474428.47	9474428.60	0.0529	0.0290
Earth	21228-07-08 12:14 G	9474616.78	9474617.01	9474617.24	0.0535	0.0117
Moon	21228-07-08 15:50 G	9474616.93	9474617.16	9474617.39	0.0535	0.0092 *
Venus	21232-08-26 21:21 G	9476127.19	9476127.39	9476127.59	0.0512	0.0080
Mercury	21233-05-21 21:07 G	9476395.24	9476395.38	9476395.51	0.0502	0.0167
Mercury	21233-08-19 07:40 G	9476484.74	9476484.82	9476484.90	0.0498	0.0412
Earth	21234-01-02 11:45 G	9476620.76	9476620.99	9476621.23	0.0494	0.0026
Moon	21234-01-02 14:52 G	9476620.88	9476621.12	9476621.36	0.0494	0.0004 *
Venus	21239-02-13 21:07 G	9478489.25	9478489.38	9478489.52	0.0517	0.0384
Earth	21239-06-07 21:07 G	9478603.31	9478603.38	9478603.46	0.0522	0.0492
Moon	21239-06-08 01:12 G	9478603.45	9478603.55	9478603.64	0.0522	0.0473 *
Mercury	21239-10-20 23:16 G	9478738.31	9478738.47	9478738.62	0.0528	0.0103
Moon	21240-07-13 15:21 G	9479004.92	9479005.14	9479005.36	0.0537	0.0201
Earth	21240-07-13 17:45 G	9479005.03	9479005.24	9479005.46	0.0537	0.0225 *
Venus	21244-05-01 18:14 G	9480393.14	9480393.26	9480393.39	0.0515	0.0405
Earth	21244-12-06 06:28 G	9480611.70	9480611.77	9480611.85	0.0506	0.0477
Moon	21244-12-06 10:33 G	9480611.84	9480611.94	9480612.03	0.0506	0.0458 *
Mercury	21245-03-10 00:28 G	9480705.41	9480705.52	9480705.63	0.0502	0.0304
Mercury	21245-06-07 10:33 G	9480794.83	9480794.94	9480795.07	0.0499	0.0272
Moon	21246-01-06 16:33 G	9481007.96	9481008.19	9481008.42	0.0493	0.0105
Earth	21246-01-06 20:09 G	9481008.12	9481008.34	9481008.57	0.0493	0.0106 *
Mars	21248-08-13 02:09 G	9481957.39	9481957.59	9481957.80	0.0488	0.0353
Venus	21250-10-19 15:36 G	9482754.95	9482755.15	9482755.35	0.0515	0.0120
Moon	21251-06-12 17:02 G	9482991.04	9482991.21	9482991.38	0.0525	0.0378
Earth	21251-06-12 19:40 G	9482991.17	9482991.32	9482991.47	0.0525	0.0403 *

Mercury	21251-08-08 22:48 G	9483048.29	9483048.45	9483048.61	0.0527	0.0090
Earth	21252-07-19 00:28 G	9483393.34	9483393.52	9483393.71	0.0539	0.0331
Moon	21252-07-19 00:43 G	9483393.37	9483393.53	9483393.71	0.0539	0.0357 *
Moon	21256-12-10 18:28 G	9484999.13	9484999.27	9484999.40	0.0504	0.0413
Earth	21256-12-10 21:07 G	9484999.24	9484999.38	9484999.53	0.0504	0.0392 *
Mercury	21256-12-27 04:04 G	9485015.60	9485015.67	9485015.74	0.0503	0.0437
Mercury	21257-03-26 13:55 G	9485104.95	9485105.08	9485105.22	0.0500	0.0134
Earth	21258-01-11 04:04 G	9485395.46	9485395.67	9485395.89	0.0491	0.0185
Moon	21258-01-11 07:55 G	9485395.62	9485395.83	9485396.03	0.0491	0.0216 *
Mercury	21263-05-27 23:02 G	9487358.32	9487358.46	9487358.59	0.0527	0.0273
Earth	21263-06-17 22:48 G	9487379.26	9487379.45	9487379.64	0.0527	0.0306
Moon	21263-06-17 23:16 G	9487379.30	9487379.47	9487379.65	0.0527	0.0330 *
Mercury	21263-08-25 21:36 G	9487448.34	9487448.40	9487448.47	0.0530	0.0481
Earth	21264-07-24 11:02 G	9487781.84	9487781.96	9487782.10	0.0541	0.0441
Moon	21264-07-24 13:40 G	9487781.94	9487782.07	9487782.20	0.0541	0.0455 *
Venus	21268-05-04 12:57 G	9489161.91	9489162.04	9489162.18	0.0510	0.0375
Earth	21268-12-15 09:07 G	9489386.70	9489386.88	9489387.07	0.0501	0.0309
Moon	21268-12-15 10:04 G	9489386.76	9489386.92	9489387.09	0.0501	0.0327 *
Mercury	21269-01-12 17:16 G	9489415.07	9489415.22	9489415.36	0.0500	0.0017
Moon	21270-01-15 06:43 G	9489782.59	9489782.78	9489782.98	0.0490	0.0273
Earth	21270-01-15 10:04 G	9489782.72	9489782.92	9489783.12	0.0490	0.0260 *
Mercury	21275-03-15 23:02 G	9491668.38	9491668.46	9491668.54	0.0526	0.0454
Mercury	21275-06-13 22:19 G	9491758.31	9491758.43	9491758.56	0.0529	0.0306
Earth	21275-06-23 03:50 G	9491767.45	9491767.66	9491767.88	0.0530	0.0206
Moon	21275-06-23 05:31 G	9491767.51	9491767.73	9491767.95	0.0530	0.0229 *
Moon	21276-07-29 18:43 G	9492170.21	9492170.28	9492170.35	0.0542	0.0512
Venus	21280-01-08 10:33 G	9493427.74	9493427.94	9493428.14	0.0513	0.0103
Mercury	21280-10-31 20:24 G	9493725.21	9493725.35	9493725.49	0.0501	0.0149
Earth	21280-12-19 19:55 G	9493774.13	9493774.33	9493774.54	0.0499	0.0225
Moon	21280-12-19 20:38 G	9493774.14	9493774.36	9493774.59	0.0499	0.0202 *

Mercury	21281-01-29 06:57 G	9493814.72	9493814.79	9493814.86	0.0498	0.0428
Earth	21282-01-19 16:04 G	9494170.01	9494170.17	9494170.34	0.0489	0.0336
Moon	21282-01-19 18:14 G	9494170.09	9494170.26	9494170.43	0.0489	0.0314 *
Venus	21286-06-27 07:55 G	9495789.64	9495789.83	9495790.02	0.0516	0.0186
Mercury	21287-04-01 22:19 G	9496068.28	9496068.43	9496068.58	0.0528	0.0120
Moon	21287-06-28 03:50 G	9496155.44	9496155.66	9496155.89	0.0531	0.0086
Earth	21287-06-28 06:57 G	9496155.56	9496155.79	9496156.02	0.0531	0.0107 *
Mercury	21292-08-19 23:02 G	9498035.35	9498035.46	9498035.58	0.0502	0.0297
Mercury	21292-11-17 09:21 G	9498124.77	9498124.89	9498125.01	0.0499	0.0278
Moon	21292-12-24 01:55 G	9498161.36	9498161.58	9498161.80	0.0498	0.0121
Earth	21292-12-24 03:36 G	9498161.43	9498161.65	9498161.88	0.0498	0.0148 *
Moon	21294-01-23 20:52 G	9498557.23	9498557.37	9498557.52	0.0488	0.0385
Earth	21294-01-23 21:21 G	9498557.26	9498557.39	9498557.52	0.0488	0.0404 *
Venus	21298-03-02 03:50 G	9500055.50	9500055.66	9500055.83	0.0513	0.0305
Mercury	21299-01-18 22:04 G	9500378.26	9500378.42	9500378.58	0.0527	0.0069
Earth	21299-07-03 10:33 G	9500543.70	9500543.94	9500544.17	0.0533	0.0004
Moon	21299-07-03 14:24 G	9500543.86	9500544.10	9500544.33	0.0533	0.0018 *
Mercury	21304-06-09 02:24 G	9502345.54	9502345.60	9502345.67	0.0503	0.0434
Mercury	21304-09-06 12:28 G	9502434.88	9502435.02	9502435.16	0.0500	0.0137
Earth	21304-12-29 13:26 G	9502548.83	9502549.06	9502549.29	0.0496	0.0064
Moon	21304-12-29 16:33 G	9502548.96	9502549.19	9502549.43	0.0496	0.0076 *
Earth	21306-01-29 02:38 G	9502944.57	9502944.61	9502944.67	0.0487	0.0473
Mercury	21310-11-07 21:21 G	9504688.25	9504688.39	9504688.53	0.0526	0.0265
Mercury	21311-02-05 20:09 G	9504778.28	9504778.34	9504778.40	0.0530	0.0486
Moon	21311-07-09 11:16 G	9504931.73	9504931.97	9504932.21	0.0535	0.0075
Earth	21311-07-09 14:09 G	9504931.87	9504932.09	9504932.33	0.0535	0.0105 *
Venus	21315-09-16 23:16 G	9506462.28	9506462.47	9506462.66	0.0512	0.0178
Mercury	21316-06-25 15:50 G	9506745.02	9506745.16	9506745.31	0.0501	0.0011
Moon	21317-01-02 19:40 G	9506936.09	9506936.32	9506936.55	0.0494	0.0010
Earth	21317-01-02 23:31 G	9506936.24	9506936.48	9506936.71	0.0494	0.0020 *

Venus	21322-03-05 21:36 G	9508824.32	9508824.40	9508824.48	0.0518	0.0473
Moon	21322-06-07 23:16 G	9508918.37	9508918.47	9508918.57	0.0522	0.0474
Earth	21322-06-08 02:24 G	9508918.53	9508918.60	9508918.67	0.0522	0.0498 *
Mercury	21322-08-26 21:21 G	9508998.31	9508998.39	9508998.47	0.0525	0.0451
Mercury	21322-11-24 20:38 G	9509088.23	9509088.36	9509088.49	0.0529	0.0309
Earth	21323-07-14 22:48 G	9509320.24	9509320.45	9509320.67	0.0537	0.0214
Moon	21323-07-15 00:00 G	9509320.29	9509320.50	9509320.71	0.0537	0.0194 *
Venus	21327-05-22 20:52 G	9510728.21	9510728.37	9510728.54	0.0514	0.0302
Moon	21327-12-07 14:24 G	9510927.02	9510927.10	9510927.19	0.0506	0.0468
Earth	21327-12-07 17:31 G	9510927.16	9510927.23	9510927.30	0.0506	0.0480 *
Mercury	21328-04-13 19:12 G	9511055.16	9511055.30	9511055.44	0.0501	0.0139
Mercury	21328-07-12 05:45 G	9511144.67	9511144.74	9511144.81	0.0498	0.0438
Earth	21329-01-07 06:57 G	9511323.56	9511323.79	9511324.02	0.0493	0.0098
Moon	21329-01-07 10:33 G	9511323.71	9511323.94	9511324.16	0.0493	0.0108 *
Venus	21333-11-08 17:45 G	9513090.04	9513090.24	9513090.45	0.0515	0.0022
Earth	21334-06-13 04:19 G	9513306.55	9513306.68	9513306.84	0.0525	0.0409
Moon	21334-06-13 05:31 G	9513306.58	9513306.73	9513306.88	0.0525	0.0392 *
Mercury	21334-09-12 21:07 G	9513398.23	9513398.38	9513398.54	0.0528	0.0133
Earth	21335-07-20 08:38 G	9513708.68	9513708.86	9513709.05	0.0539	0.0321
Moon	21335-07-20 10:04 G	9513708.74	9513708.92	9513709.11	0.0539	0.0348 *
Earth	21339-12-12 06:14 G	9515314.63	9515314.76	9515314.91	0.0504	0.0397
Moon	21339-12-12 07:12 G	9515314.69	9515314.80	9515314.92	0.0504	0.0426 *
Mercury	21340-01-31 22:33 G	9515365.32	9515365.44	9515365.55	0.0502	0.0278
Mercury	21340-04-30 08:38 G	9515454.75	9515454.86	9515454.98	0.0499	0.0296
Moon	21341-01-11 11:02 G	9515710.75	9515710.96	9515711.18	0.0491	0.0208
Earth	21341-01-11 14:09 G	9515710.88	9515711.09	9515711.31	0.0491	0.0177 *
Venus	21345-07-14 14:52 G	9517356.08	9517356.12	9517356.17	0.0512	0.0497
Earth	21346-06-18 06:14 G	9517694.58	9517694.76	9517694.95	0.0526	0.0316
Moon	21346-06-18 07:12 G	9517694.62	9517694.80	9517694.99	0.0526	0.0342 *
Mercury	21346-07-01 21:07 G	9517708.22	9517708.38	9517708.54	0.0527	0.0053

Moon	21347-07-25 11:16 G	9518096.84	9518096.97	9518097.11	0.0539	0.0432
Earth	21347-07-25 14:38 G	9518096.97	9518097.11	9518097.26	0.0539	0.0421 *
Mars	21349-02-26 10:48 G	9518678.70	9518678.95	9518679.20	0.0540	0.0025
Venus	21351-05-25 11:02 G	9519496.87	9519496.96	9519497.05	0.0510	0.0450
Mercury	21351-11-20 01:12 G	9519675.48	9519675.55	9519675.62	0.0503	0.0427
Earth	21351-12-16 14:52 G	9519701.94	9519702.12	9519702.30	0.0502	0.0320
Moon	21351-12-16 15:36 G	9519701.97	9519702.15	9519702.33	0.0502	0.0333 *
Mercury	21352-02-17 11:02 G	9519764.83	9519764.96	9519765.10	0.0500	0.0145
Earth	21353-01-15 19:12 G	9520098.10	9520098.30	9520098.50	0.0490	0.0250
Moon	21353-01-15 21:07 G	9520098.19	9520098.38	9520098.57	0.0490	0.0259 *
Mercury	21358-04-19 20:52 G	9522018.23	9522018.37	9522018.51	0.0526	0.0243
Moon	21358-06-23 05:02 G	9522082.52	9522082.71	9522082.92	0.0528	0.0241
Earth	21358-06-23 07:40 G	9522082.61	9522082.82	9522083.04	0.0528	0.0219 *
Mercury	21358-07-18 19:26 G	9522108.27	9522108.31	9522108.35	0.0529	0.0506
Earth	21359-07-30 21:21 G	9522485.34	9522485.39	9522485.45	0.0540	0.0523
Moon	21359-07-31 01:26 G	9522485.47	9522485.56	9522485.66	0.0540	0.0488
Venus	21363-01-28 08:09 G	9523762.64	9523762.84	9523763.05	0.0513	0.0030
Mercury	21363-12-06 14:24 G	9524074.95	9524075.10	9524075.24	0.0501	0.0012
Moon	21363-12-21 00:28 G	9524089.32	9524089.52	9524089.72	0.0500	0.0213
Earth	21363-12-21 02:24 G	9524089.39	9524089.60	9524089.80	0.0500	0.0236 *
Moon	21365-01-20 01:26 G	9524485.38	9524485.56	9524485.76	0.0489	0.0299
Earth	21365-01-20 01:40 G	9524485.40	9524485.57	9524485.74	0.0489	0.0325 *
Mars	21367-02-01 17:31 G	9525227.98	9525228.23	9525228.51	0.0487	0.0227
Venus	21369-07-17 07:12 G	9526124.63	9526124.80	9526124.98	0.0516	0.0268
Mercury	21370-02-05 19:40 G	9526328.24	9526328.32	9526328.41	0.0525	0.0443
Mercury	21370-05-06 19:12 G	9526418.17	9526418.30	9526418.42	0.0529	0.0315
Earth	21370-06-28 08:24 G	9526470.62	9526470.85	9526471.08	0.0531	0.0119
Moon	21370-06-28 12:14 G	9526470.77	9526471.01	9526471.24	0.0531	0.0091 *
Venus	21374-10-03 06:00 G	9528028.73	9528028.75	9528028.77	0.0516	0.0511
Mercury	21375-09-24 17:45 G	9528385.11	9528385.24	9528385.38	0.0502	0.0133

Mercury	21375-12-23 04:19 G	9528474.62	9528474.68	9528474.75	0.0498	0.0446
Earth	21375-12-25 14:09 G	9528476.87	9528477.09	9528477.32	0.0498	0.0152
Moon	21375-12-25 17:16 G	9528477.00	9528477.22	9528477.45	0.0498	0.0131 *
Moon	21377-01-24 06:28 G	9528872.64	9528872.77	9528872.91	0.0488	0.0388
Earth	21377-01-24 08:24 G	9528872.71	9528872.85	9528872.98	0.0488	0.0397 *
Venus	21381-03-22 03:21 G	9530390.46	9530390.64	9530390.83	0.0514	0.0223
Mercury	21382-02-22 19:26 G	9530728.15	9530728.31	9530728.46	0.0528	0.0134
Moon	21382-07-03 10:33 G	9530858.71	9530858.94	9530859.18	0.0533	0.0011
Earth	21382-07-03 14:09 G	9530858.85	9530859.09	9530859.32	0.0533	0.0014 *
Mercury	21387-07-13 21:07 G	9532695.26	9532695.38	9532695.50	0.0502	0.0271
Mercury	21387-10-11 07:26 G	9532784.69	9532784.81	9532784.92	0.0499	0.0303
Moon	21387-12-29 20:09 G	9532864.12	9532864.34	9532864.57	0.0496	0.0090
Earth	21387-12-30 00:00 G	9532864.27	9532864.50	9532864.73	0.0496	0.0070 *
Earth	21389-01-28 12:43 G	9533259.98	9533260.03	9533260.11	0.0487	0.0465
Mercury	21393-12-11 19:40 G	9535038.16	9535038.32	9535038.48	0.0527	0.0046
Earth	21394-07-08 21:50 G	9535247.18	9535247.41	9535247.64	0.0535	0.0095
Moon	21394-07-08 23:45 G	9535247.26	9535247.49	9535247.71	0.0535	0.0066 *
Venus	21398-10-06 00:14 G	9536797.34	9536797.51	9536797.68	0.0511	0.0270
Mercury	21399-05-02 00:28 G	9537005.44	9537005.52	9537005.60	0.0503	0.0409
Mercury	21399-07-30 10:33 G	9537094.80	9537094.94	9537095.07	0.0500	0.0162
Earth	21400-01-03 08:38 G	9537251.63	9537251.86	9537252.09	0.0495	0.0012
Moon	21400-01-03 12:14 G	9537251.78	9537252.01	9537252.24	0.0495	0.0015 *
Earth	21405-06-08 10:33 G	9539233.89	9539233.94	9539234.01	0.0521	0.0505
Moon	21405-06-08 12:14 G	9539233.92	9539234.01	9539234.10	0.0521	0.0477 *
Mercury	21405-09-30 19:40 G	9539348.18	9539348.32	9539348.47	0.0526	0.0229
Mercury	21405-12-29 18:28 G	9539438.24	9539438.27	9539438.29	0.0529	0.0521
Earth	21406-07-15 03:36 G	9539635.44	9539635.65	9539635.87	0.0536	0.0198
Moon	21406-07-15 04:04 G	9539635.44	9539635.67	9539635.90	0.0536	0.0182 *
Venus	21410-06-11 18:14 G	9541063.08	9541063.26	9541063.45	0.0514	0.0230
Earth	21410-12-07 20:52 G	9541242.31	9541242.37	9541242.42	0.0507	0.0491

Moon	21410-12-07 22:04 G	9541242.36	9541242.42	9541242.48	0.0507	0.0489 *
Mercury	21411-05-19 12:57 G	9541404.89	9541405.04	9541405.18	0.0501	0.0013
Moon	21412-01-08 10:48 G	9541638.72	9541638.95	9541639.19	0.0494	0.0096
Earth	21412-01-08 13:55 G	9541638.85	9541639.08	9541639.31	0.0494	0.0088 *
Venus	21416-11-28 19:12 G	9543425.10	9543425.30	9543425.51	0.0515	0.0079
Earth	21417-06-13 09:50 G	9543621.78	9543621.91	9543622.06	0.0523	0.0416
Moon	21417-06-13 10:19 G	9543621.78	9543621.93	9543622.09	0.0523	0.0400 *
Mercury	21417-07-19 19:12 G	9543658.21	9543658.30	9543658.40	0.0525	0.0421
Mercury	21417-10-17 18:28 G	9543748.15	9543748.27	9543748.39	0.0528	0.0335
Moon	21418-07-20 06:14 G	9544023.59	9544023.76	9544023.94	0.0537	0.0333
Earth	21418-07-20 09:07 G	9544023.69	9544023.88	9544024.08	0.0537	0.0302 *
Earth	21422-12-12 09:50 G	9545629.78	9545629.91	9545630.05	0.0505	0.0408
Moon	21422-12-12 10:33 G	9545629.82	9545629.94	9545630.06	0.0505	0.0437 *
Mercury	21423-03-07 16:04 G	9545715.03	9545715.17	9545715.31	0.0502	0.0133
Mercury	21423-06-05 02:38 G	9545804.55	9545804.61	9545804.67	0.0499	0.0446
Earth	21424-01-12 21:21 G	9546026.17	9546026.39	9546026.61	0.0492	0.0166
Moon	21424-01-12 23:02 G	9546026.26	9546026.46	9546026.67	0.0492	0.0196 *
Venus	21428-08-03 13:26 G	9547690.95	9547691.06	9547691.18	0.0512	0.0420
Moon	21429-06-18 05:02 G	9548009.55	9548009.71	9548009.89	0.0526	0.0354
Earth	21429-06-18 07:12 G	9548009.62	9548009.80	9548009.99	0.0526	0.0326 *
Mercury	21429-08-05 17:45 G	9548058.09	9548058.24	9548058.39	0.0528	0.0139
Earth	21430-07-25 13:55 G	9548411.93	9548412.08	9548412.24	0.0539	0.0405
Moon	21430-07-25 18:00 G	9548412.10	9548412.25	9548412.40	0.0539	0.0411 *
Moon	21434-12-16 22:19 G	9550017.26	9550017.43	9550017.59	0.0503	0.0337
Earth	21434-12-17 00:14 G	9550017.33	9550017.51	9550017.68	0.0503	0.0324 *
Mercury	21434-12-24 19:40 G	9550025.20	9550025.32	9550025.44	0.0503	0.0269
Mercury	21435-03-24 05:45 G	9550114.63	9550114.74	9550114.86	0.0499	0.0308
Earth	21436-01-17 05:16 G	9550413.52	9550413.72	9550413.92	0.0491	0.0244
Moon	21436-01-17 05:16 G	9550413.52	9550413.72	9550413.94	0.0491	0.0243 *
Mercury	21441-05-24 17:45 G	9552368.08	9552368.24	9552368.40	0.0527	0.0046

Earth	21441-06-23 09:36 G	9552397.69	9552397.90	9552398.12	0.0528	0.0228
Moon	21441-06-23 13:12 G	9552397.85	9552398.05	9552398.27	0.0528	0.0242 *
Moon	21442-07-30 19:55 G	9552800.22	9552800.33	9552800.45	0.0541	0.0475
Earth	21442-07-30 23:45 G	9552800.42	9552800.49	9552800.57	0.0541	0.0510 *
Venus	21446-02-17 09:50 G	9554097.71	9554097.91	9554098.12	0.0513	0.0070
Mercury	21446-10-12 23:02 G	9554335.38	9554335.46	9554335.54	0.0503	0.0405
Earth	21446-12-21 12:00 G	9554404.80	9554405.00	9554405.21	0.0501	0.0242
Moon	21446-12-21 15:07 G	9554404.92	9554405.13	9554405.35	0.0501	0.0215 *
Mercury	21447-01-10 08:52 G	9554424.74	9554424.87	9554425.01	0.0500	0.0167
Moon	21448-01-21 09:21 G	9554800.71	9554800.89	9554801.07	0.0489	0.0289
Earth	21448-01-21 11:16 G	9554800.79	9554800.97	9554801.15	0.0489	0.0317 *
Venus	21452-08-06 08:24 G	9556459.71	9556459.85	9556459.99	0.0517	0.0363
Mercury	21453-03-12 18:00 G	9556678.10	9556678.25	9556678.39	0.0526	0.0227
Mercury	21453-06-10 16:48 G	9556768.18	9556768.20	9556768.22	0.0530	0.0525
Moon	21453-06-28 11:02 G	9556785.73	9556785.96	9556786.20	0.0531	0.0097
Earth	21453-06-28 14:52 G	9556785.89	9556786.12	9556786.35	0.0531	0.0128 *
Venus	21457-10-23 06:43 G	9558363.67	9558363.78	9558363.90	0.0516	0.0419
Mercury	21458-10-29 12:14 G	9558734.86	9558735.01	9558735.15	0.0501	0.0028
Moon	21458-12-25 18:57 G	9558792.07	9558792.29	9558792.51	0.0499	0.0143
Earth	21458-12-25 22:33 G	9558792.22	9558792.44	9558792.66	0.0499	0.0159 *
Earth	21460-01-25 17:02 G	9559188.08	9559188.21	9559188.35	0.0488	0.0389
Moon	21460-01-25 20:24 G	9559188.20	9559188.35	9559188.50	0.0488	0.0382 *
Venus	21464-04-11 05:16 G	9560725.53	9560725.72	9560725.92	0.0514	0.0124
Mercury	21464-12-29 18:00 G	9560988.15	9560988.25	9560988.35	0.0525	0.0410
Mercury	21465-03-29 17:16 G	9561078.10	9561078.22	9561078.33	0.0529	0.0347
Earth	21465-07-03 19:55 G	9561174.09	9561174.33	9561174.56	0.0532	0.0026
Moon	21465-07-03 22:19 G	9561174.20	9561174.43	9561174.66	0.0532	0.0013 *
Mercury	21470-08-17 14:38 G	9563044.97	9563045.11	9563045.24	0.0502	0.0130
Mercury	21470-11-15 01:12 G	9563134.49	9563134.55	9563134.61	0.0499	0.0450
Earth	21470-12-30 04:19 G	9563179.45	9563179.68	9563179.91	0.0497	0.0081

Moon	21470-12-30 07:55 G	9563179.60	9563179.83	9563180.05	0.0497	0.0107 *
Moon	21472-01-29 16:48 G	9563575.17	9563575.20	9563575.24	0.0488	0.0482
Earth	21472-01-29 20:24 G	9563575.28	9563575.35	9563575.44	0.0488	0.0455
Mercury	21477-01-15 17:02 G	9565388.06	9565388.21	9565388.36	0.0527	0.0159
Moon	21477-07-08 23:02 G	9565562.22	9565562.46	9565562.70	0.0534	0.0050
Earth	21477-07-08 23:31 G	9565562.25	9565562.48	9565562.72	0.0534	0.0080 *
Venus	21481-10-25 20:24 G	9567132.20	9567132.35	9567132.50	0.0512	0.0334
Mercury	21482-06-05 17:45 G	9567355.12	9567355.24	9567355.36	0.0503	0.0271
Mercury	21482-09-03 03:50 G	9567444.55	9567444.66	9567444.78	0.0500	0.0306
Moon	21483-01-03 10:19 G	9567566.69	9567566.93	9567567.17	0.0496	0.0025
Earth	21483-01-03 13:12 G	9567566.82	9567567.05	9567567.29	0.0496	0.0009 *
Moon	21488-06-07 10:48 G	9569548.87	9569548.95	9569549.05	0.0520	0.0480
Earth	21488-06-07 11:16 G	9569548.93	9569548.97	9569549.01	0.0520	0.0512 *
Mercury	21488-11-03 16:04 G	9569698.01	9569698.17	9569698.33	0.0527	0.0042
Moon	21489-07-13 23:31 G	9569950.27	9569950.48	9569950.70	0.0536	0.0173
Earth	21489-07-14 01:26 G	9569950.35	9569950.56	9569950.79	0.0536	0.0182 *
Venus	21493-06-30 18:14 G	9571398.06	9571398.26	9571398.45	0.0514	0.0144
Earth	21493-12-07 03:50 G	9571557.63	9571557.66	9571557.72	0.0508	0.0496
Moon	21493-12-07 04:33 G	9571557.65	9571557.69	9571557.74	0.0508	0.0498 *
Mercury	21494-03-24 21:21 G	9571665.31	9571665.39	9571665.47	0.0504	0.0405
Mercury	21494-06-22 07:12 G	9571754.67	9571754.80	9571754.94	0.0500	0.0168
Earth	21495-01-07 22:33 G	9571954.22	9571954.44	9571954.67	0.0494	0.0082
Moon	21495-01-08 00:14 G	9571954.29	9571954.51	9571954.73	0.0494	0.0094 *
Venus	21499-12-18 17:02 G	9573760.01	9573760.21	9573760.40	0.0515	0.0151
Moon	21500-06-13 08:52 G	9573936.73	9573936.87	9573937.01	0.0523	0.0412
Earth	21500-06-13 10:19 G	9573936.80	9573936.93	9573937.07	0.0523	0.0425 *
Mercury	21500-08-23 15:50 G	9574008.02	9574008.16	9574008.30	0.0526	0.0230
Mercury	21500-11-21 14:38 G	9574098.09	9574098.11	9574098.13	0.0530	0.0521
Earth	21501-07-20 08:38 G	9574338.67	9574338.86	9574339.06	0.0538	0.0288
Moon	21501-07-20 12:28 G	9574338.84	9574339.02	9574339.22	0.0538	0.0323 *

Mars	21503-05-25 16:04 G	9575012.95	9575013.17	9575013.39	0.0540	0.0267
Moon	21505-12-12 16:33 G	9575945.10	9575945.19	9575945.30	0.0505	0.0447
Earth	21505-12-12 18:43 G	9575945.15	9575945.28	9575945.41	0.0505	0.0414 *
Mercury	21506-04-11 10:33 G	9576064.80	9576064.94	9576065.08	0.0501	0.0027
Earth	21507-01-13 06:14 G	9576341.54	9576341.76	9576341.98	0.0492	0.0158
Moon	21507-01-13 06:28 G	9576341.54	9576341.77	9576341.99	0.0492	0.0183 *
Venus	21511-08-24 13:26 G	9578025.91	9578026.06	9578026.21	0.0513	0.0336
Mercury	21512-06-11 15:50 G	9578318.06	9578318.16	9578318.26	0.0525	0.0414
Earth	21512-06-18 12:00 G	9578324.83	9578325.00	9578325.19	0.0526	0.0334
Moon	21512-06-18 15:36 G	9578324.98	9578325.15	9578325.32	0.0526	0.0363 *
Mercury	21512-09-09 15:07 G	9578408.01	9578408.13	9578408.25	0.0529	0.0345
Moon	21513-07-25 14:24 G	9578726.95	9578727.10	9578727.26	0.0539	0.0400
Earth	21513-07-25 18:28 G	9578727.12	9578727.27	9578727.44	0.0539	0.0393 *
Earth	21517-12-17 07:12 G	9580332.63	9580332.80	9580332.98	0.0503	0.0331
Moon	21517-12-17 10:19 G	9580332.76	9580332.93	9580333.11	0.0503	0.0336 *
Mercury	21518-01-28 13:40 G	9580374.93	9580375.07	9580375.21	0.0502	0.0114
Mercury	21518-04-28 00:14 G	9580464.46	9580464.51	9580464.56	0.0498	0.0464
Moon	21519-01-17 11:02 G	9580728.76	9580728.96	9580729.16	0.0491	0.0226
Earth	21519-01-17 12:57 G	9580728.84	9580729.04	9580729.25	0.0491	0.0235 *
Mars	21521-04-29 20:38 G	9581562.07	9581562.36	9581562.66	0.0488	0.0067
Moon	21524-06-23 12:00 G	9582712.80	9582713.00	9582713.21	0.0527	0.0246
Earth	21524-06-23 15:50 G	9582712.96	9582713.16	9582713.37	0.0527	0.0238 *
Mercury	21524-06-28 15:36 G	9582718.00	9582718.15	9582718.30	0.0528	0.0166
Earth	21525-07-31 02:38 G	9583115.52	9583115.61	9583115.71	0.0540	0.0493
Moon	21525-07-31 05:16 G	9583115.61	9583115.72	9583115.84	0.0540	0.0462 *
Venus	21529-03-09 06:14 G	9584432.56	9584432.76	9584432.96	0.0513	0.0132
Mercury	21529-11-16 16:04 G	9584685.05	9584685.17	9584685.29	0.0503	0.0268
Moon	21529-12-21 10:33 G	9584719.74	9584719.94	9584720.15	0.0501	0.0225
Earth	21529-12-21 14:24 G	9584719.90	9584720.10	9584720.30	0.0501	0.0253 *
Mercury	21530-02-14 02:24 G	9584774.48	9584774.60	9584774.71	0.0499	0.0307

Earth	21531-01-21 16:19 G	9585116.00	9585116.18	9585116.36	0.0490	0.0306
Moon	21531-01-21 19:40 G	9585116.12	9585116.32	9585116.52	0.0490	0.0275 *
Venus	21535-08-27 08:52 G	9586794.78	9586794.87	9586794.97	0.0517	0.0453
Mercury	21536-04-16 15:21 G	9587027.98	9587028.14	9587028.30	0.0527	0.0024
Earth	21536-06-28 17:31 G	9587101.00	9587101.23	9587101.46	0.0529	0.0139
Moon	21536-06-28 20:24 G	9587101.13	9587101.35	9587101.58	0.0529	0.0106 *
Venus	21540-11-12 02:09 G	9588698.45	9588698.59	9588698.73	0.0516	0.0360
Mercury	21541-09-04 19:12 G	9588995.23	9588995.30	9588995.38	0.0504	0.0410
Mercury	21541-12-03 05:16 G	9589084.58	9589084.72	9589084.86	0.0500	0.0162
Earth	21541-12-26 00:28 G	9589107.30	9589107.52	9589107.74	0.0500	0.0170
Moon	21541-12-26 03:50 G	9589107.45	9589107.66	9589107.88	0.0500	0.0162 *
Moon	21543-01-25 18:14 G	9589503.12	9589503.26	9589503.42	0.0489	0.0372
Earth	21543-01-25 22:04 G	9589503.28	9589503.42	9589503.57	0.0489	0.0378 *
Venus	21547-05-02 02:24 G	9591060.39	9591060.60	9591060.80	0.0514	0.0056
Mercury	21548-02-03 13:55 G	9591337.94	9591338.08	9591338.23	0.0526	0.0228
Mercury	21548-05-03 12:43 G	9591428.01	9591428.03	9591428.05	0.0529	0.0522
Moon	21548-07-03 15:07 G	9591488.89	9591489.13	9591489.37	0.0531	0.0028
Earth	21548-07-03 16:33 G	9591488.96	9591489.19	9591489.43	0.0531	0.0041 *
Mercury	21553-09-21 08:38 G	9593394.72	9593394.86	9593395.00	0.0501	0.0025
Moon	21553-12-30 08:52 G	9593494.64	9593494.87	9593495.10	0.0498	0.0114
Earth	21553-12-30 11:45 G	9593494.76	9593494.99	9593495.22	0.0498	0.0088 *
Earth	21555-01-30 04:19 G	9593890.60	9593890.68	9593890.78	0.0488	0.0447
Moon	21555-01-30 08:09 G	9593890.80	9593890.84	9593890.90	0.0488	0.0475
Mercury	21559-11-22 13:26 G	9595647.97	9595648.06	9595648.16	0.0525	0.0419
Mercury	21560-02-20 12:57 G	9595737.92	9595738.04	9595738.16	0.0528	0.0339
Moon	21560-07-08 19:55 G	9595877.11	9595877.33	9595877.56	0.0534	0.0035
Earth	21560-07-08 20:52 G	9595877.14	9595877.37	9595877.61	0.0534	0.0065 *
Venus	21564-11-14 20:38 G	9597467.25	9597467.36	9597467.47	0.0511	0.0422
Mercury	21565-07-10 12:00 G	9597704.86	9597705.00	9597705.14	0.0502	0.0115
Mercury	21565-10-07 22:19 G	9597794.38	9597794.43	9597794.48	0.0499	0.0464

Earth	21566-01-03 21:07 G	9597882.15	9597882.38	9597882.61	0.0496	0.0009
Moon	21566-01-03 22:48 G	9597882.22	9597882.45	9597882.67	0.0496	0.0029 *
Moon	21571-06-08 13:40 G	9599863.99	9599864.07	9599864.14	0.0520	0.0489
Earth	21571-06-08 14:38 G	9599864.10	9599864.11	9599864.13	0.0520	0.0518 *
Mercury	21571-12-09 13:12 G	9600047.90	9600048.05	9600048.20	0.0528	0.0159
Earth	21572-07-14 04:19 G	9600265.46	9600265.68	9600265.91	0.0536	0.0169
Moon	21572-07-14 07:55 G	9600265.60	9600265.83	9600266.06	0.0536	0.0169 *
Venus	21576-07-20 17:45 G	9601733.04	9601733.24	9601733.45	0.0514	0.0061
Earth	21576-12-07 10:04 G	9601872.89	9601872.92	9601872.96	0.0508	0.0501
Mercury	21577-04-28 15:07 G	9602015.01	9602015.13	9602015.25	0.0502	0.0255
Mercury	21577-07-27 01:26 G	9602104.45	9602104.56	9602104.67	0.0499	0.0320
Earth	21578-01-08 05:16 G	9602269.49	9602269.72	9602269.95	0.0494	0.0072
Moon	21578-01-08 05:31 G	9602269.49	9602269.73	9602269.97	0.0494	0.0089 *
Venus	21583-01-07 17:31 G	9604095.05	9604095.23	9604095.41	0.0516	0.0241
Earth	21583-06-13 16:04 G	9604252.04	9604252.17	9604252.30	0.0522	0.0432
Moon	21583-06-13 18:57 G	9604252.15	9604252.29	9604252.43	0.0522	0.0424 *
Mercury	21583-09-27 13:26 G	9604357.90	9604358.06	9604358.22	0.0527	0.0024
Moon	21584-07-19 07:55 G	9604653.65	9604653.83	9604654.03	0.0537	0.0309
Earth	21584-07-19 12:14 G	9604653.81	9604654.01	9604654.21	0.0537	0.0273 *
Earth	21588-12-11 18:57 G	9606260.17	9606260.29	9606260.42	0.0506	0.0424
Moon	21588-12-11 21:50 G	9606260.32	9606260.41	9606260.52	0.0506	0.0454 *
Mercury	21589-02-14 17:45 G	9606325.16	9606325.24	9606325.32	0.0503	0.0408
Mercury	21589-05-15 03:36 G	9606414.51	9606414.65	9606414.78	0.0500	0.0163
Moon	21590-01-12 07:12 G	9606656.59	9606656.80	9606657.02	0.0493	0.0170
Earth	21590-01-12 09:21 G	9606656.66	9606656.89	9606657.11	0.0493	0.0147 *
Venus	21594-09-12 13:26 G	9608360.88	9608361.06	9608361.24	0.0513	0.0251
Moon	21595-06-18 11:45 G	9608639.83	9608639.99	9608640.15	0.0525	0.0373
Earth	21595-06-18 15:36 G	9608639.97	9608640.15	9608640.33	0.0525	0.0341 *
Mercury	21595-07-16 13:12 G	9608667.90	9608668.05	9608668.19	0.0526	0.0211
Earth	21596-07-24 17:45 G	9609042.07	9609042.24	9609042.41	0.0538	0.0376

Moon	21596-07-24 21:07 G	9609042.22	9609042.38	9609042.54	0.0538	0.0381 *
Moon	21600-12-16 03:21 G	9610647.47	9610647.64	9610647.80	0.0504	0.0345
Earth	21600-12-16 06:43 G	9610647.62	9610647.78	9610647.96	0.0504	0.0343 *
Mercury	21601-03-03 06:28 G	9610724.63	9610724.77	9610724.92	0.0501	0.0019
Earth	21602-01-16 15:50 G	9611043.95	9611044.16	9611044.36	0.0492	0.0224
Moon	21602-01-16 18:57 G	9611044.08	9611044.29	9611044.51	0.0492	0.0209 *
Mercury	21607-05-04 11:31 G	9612977.89	9612977.98	9612978.08	0.0525	0.0418
Earth	21607-06-23 11:45 G	9613027.79	9613027.99	9613028.20	0.0527	0.0252
Moon	21607-06-23 15:21 G	9613027.94	9613028.14	9613028.34	0.0527	0.0257 *
Mercury	21607-08-02 10:48 G	9613067.84	9613067.95	9613068.08	0.0528	0.0340
Moon	21608-07-29 18:57 G	9613430.16	9613430.29	9613430.43	0.0540	0.0442
Earth	21608-07-29 20:24 G	9613430.24	9613430.35	9613430.46	0.0540	0.0474 *
Venus	21612-03-28 04:19 G	9614767.50	9614767.68	9614767.87	0.0513	0.0208
Mercury	21612-12-20 09:50 G	9615034.78	9615034.91	9615035.05	0.0502	0.0120
Earth	21612-12-20 19:40 G	9615035.13	9615035.32	9615035.52	0.0502	0.0261
Moon	21612-12-20 23:16 G	9615035.27	9615035.47	9615035.67	0.0502	0.0229 *
Mercury	21613-03-19 20:24 G	9615124.30	9615124.35	9615124.41	0.0499	0.0460
Moon	21614-01-20 19:26 G	9615431.13	9615431.31	9615431.51	0.0490	0.0268
Earth	21614-01-20 23:31 G	9615431.29	9615431.48	9615431.66	0.0490	0.0298 *
Venus	21618-09-15 04:33 G	9617129.68	9617129.69	9617129.71	0.0517	0.0514
Mercury	21619-05-21 10:48 G	9617377.80	9617377.95	9617378.10	0.0527	0.0151
Moon	21619-06-28 11:02 G	9617415.73	9617415.96	9617416.20	0.0529	0.0122
Earth	21619-06-28 13:26 G	9617415.83	9617416.06	9617416.28	0.0529	0.0154 *
Mars	21621-11-13 07:55 G	9618284.70	9618284.83	9618284.97	0.0541	0.0449
Venus	21623-12-02 01:40 G	9619033.40	9619033.57	9619033.74	0.0515	0.0275
Mercury	21624-10-08 13:26 G	9619344.93	9619345.06	9619345.18	0.0503	0.0258
Moon	21624-12-25 04:33 G	9619422.47	9619422.69	9619422.92	0.0500	0.0171
Earth	21624-12-25 07:26 G	9619422.60	9619422.81	9619423.03	0.0500	0.0179 *
Mercury	21625-01-05 23:31 G	9619434.37	9619434.48	9619434.59	0.0499	0.0318
Earth	21626-01-25 05:02 G	9619818.56	9619818.71	9619818.86	0.0489	0.0368

Moon	21626-01-25 08:38 G	9619818.72	9619818.86	9619819.02	0.0489	0.0367 *
Venus	21630-05-21 00:14 G	9621395.31	9621395.51	9621395.72	0.0515	0.0021
Mercury	21631-03-09 10:48 G	9621687.79	9621687.95	9621688.11	0.0527	0.0033
Earth	21631-07-03 18:00 G	9621804.01	9621804.25	9621804.48	0.0531	0.0053
Moon	21631-07-03 17:45 G	9621804.02	9621804.24	9621804.47	0.0531	0.0047 *
Mercury	21636-07-27 16:33 G	9623655.11	9623655.19	9623655.28	0.0503	0.0397
Mercury	21636-10-25 02:24 G	9623744.47	9623744.60	9623744.74	0.0500	0.0175
Earth	21636-12-29 17:16 G	9623810.00	9623810.22	9623810.45	0.0498	0.0096
Moon	21636-12-29 18:57 G	9623810.07	9623810.29	9623810.51	0.0498	0.0123 *
Moon	21638-01-29 07:12 G	9624205.74	9624205.80	9624205.88	0.0488	0.0464
Earth	21638-01-29 10:19 G	9624205.84	9624205.93	9624206.04	0.0488	0.0437 *
Venus	21642-01-23 21:50 G	9625661.33	9625661.41	9625661.50	0.0512	0.0459
Mercury	21642-12-26 11:02 G	9625997.82	9625997.96	9625998.11	0.0526	0.0213
Earth	21643-07-09 00:14 G	9626192.28	9626192.51	9626192.75	0.0533	0.0052
Moon	21643-07-09 03:07 G	9626192.39	9626192.63	9626192.87	0.0533	0.0021 *
Venus	21647-12-04 16:04 G	9627802.11	9627802.17	9627802.24	0.0511	0.0479
Mercury	21648-08-13 04:48 G	9628054.56	9628054.70	9628054.84	0.0501	0.0019
Moon	21649-01-02 22:33 G	9628197.20	9628197.44	9628197.68	0.0496	0.0035
Earth	21649-01-02 22:33 G	9628197.21	9628197.44	9628197.67	0.0496	0.0019 *
Moon	21654-06-07 20:24 G	9630179.28	9630179.35	9630179.44	0.0519	0.0491
Mercury	21654-10-14 10:33 G	9630307.84	9630307.94	9630308.04	0.0525	0.0404
Mercury	21655-01-12 09:50 G	9630397.80	9630397.91	9630398.03	0.0528	0.0354
Moon	21655-07-14 00:28 G	9630580.30	9630580.52	9630580.75	0.0535	0.0155
Earth	21655-07-14 04:33 G	9630580.47	9630580.69	9630580.92	0.0535	0.0155 *
Mars	21657-08-18 07:12 G	9631346.71	9631346.80	9631346.90	0.0539	0.0498
Venus	21659-08-09 12:14 G	9632067.81	9632068.01	9632068.22	0.0514	0.0012
Mercury	21660-06-01 07:40 G	9632364.69	9632364.82	9632364.96	0.0502	0.0127
Mercury	21660-08-29 18:14 G	9632454.20	9632454.26	9632454.32	0.0499	0.0452
Moon	21661-01-07 04:19 G	9632584.46	9632584.68	9632584.90	0.0495	0.0084
Earth	21661-01-07 06:14 G	9632584.53	9632584.76	9632584.99	0.0495	0.0061 *

Venus	21666-01-26 12:57 G	9634429.88	9634430.04	9634430.21	0.0516	0.0302
Moon	21666-06-12 08:24 G	9634566.73	9634566.85	9634566.97	0.0521	0.0442
Earth	21666-06-12 12:00 G	9634566.89	9634567.00	9634567.13	0.0521	0.0444 *
Mercury	21666-10-31 08:38 G	9634707.71	9634707.86	9634708.02	0.0527	0.0151
Earth	21667-07-19 04:48 G	9634968.50	9634968.70	9634968.91	0.0536	0.0254
Moon	21667-07-19 08:52 G	9634968.68	9634968.87	9634969.06	0.0536	0.0289 *
Venus	21671-04-14 08:38 G	9636333.81	9636333.86	9636333.91	0.0517	0.0498
Moon	21671-12-11 19:12 G	9636575.21	9636575.30	9636575.39	0.0507	0.0463
Earth	21671-12-11 22:33 G	9636575.33	9636575.44	9636575.57	0.0507	0.0433 *
Mercury	21672-03-20 11:16 G	9636674.85	9636674.97	9636675.09	0.0503	0.0264
Mercury	21672-06-17 21:21 G	9636764.28	9636764.39	9636764.50	0.0500	0.0312
Earth	21673-01-11 15:07 G	9636971.91	9636972.13	9636972.36	0.0493	0.0139
Moon	21673-01-11 18:28 G	9636972.05	9636972.27	9636972.50	0.0493	0.0159 *
Mars	21675-07-24 05:45 G	9637895.51	9637895.74	9637895.98	0.0488	0.0308
Venus	21677-10-01 08:38 G	9638695.67	9638695.86	9638696.05	0.0513	0.0193
Earth	21678-06-17 10:33 G	9638954.77	9638954.94	9638955.11	0.0524	0.0355
Moon	21678-06-17 14:24 G	9638954.94	9638955.10	9638955.25	0.0524	0.0389 *
Mercury	21678-08-19 08:24 G	9639017.69	9639017.85	9639018.01	0.0526	0.0041
Moon	21679-07-24 08:38 G	9639356.69	9639356.86	9639357.05	0.0538	0.0360
Earth	21679-07-24 11:02 G	9639356.80	9639356.96	9639357.14	0.0538	0.0357 *
Earth	21683-12-16 12:43 G	9640962.87	9640963.03	9640963.20	0.0505	0.0351
Moon	21683-12-16 16:19 G	9640963.01	9640963.18	9640963.35	0.0504	0.0344 *
Mercury	21684-01-07 14:38 G	9640985.03	9640985.11	9640985.20	0.0504	0.0401
Mercury	21684-04-06 00:28 G	9641074.39	9641074.52	9641074.66	0.0500	0.0171
Moon	21685-01-15 18:43 G	9641359.07	9641359.28	9641359.49	0.0492	0.0199
Earth	21685-01-15 22:33 G	9641359.23	9641359.44	9641359.65	0.0492	0.0214 *
Mercury	21690-06-07 08:09 G	9643327.70	9643327.84	9643327.98	0.0526	0.0227
Moon	21690-06-22 09:07 G	9643342.67	9643342.88	9643343.08	0.0526	0.0269
Earth	21690-06-22 12:00 G	9643342.80	9643343.00	9643343.20	0.0526	0.0263 *
Mercury	21690-09-05 07:12 G	9643417.78	9643417.80	9643417.82	0.0529	0.0525

Moon	21691-07-29 19:40 G	9643745.19	9643745.32	9643745.46	0.0540	0.0429
Earth	21691-07-29 20:09 G	9643745.23	9643745.34	9643745.47	0.0540	0.0459 *
Venus	21695-04-17 03:07 G	9645102.47	9645102.63	9645102.80	0.0512	0.0287
Moon	21695-12-20 21:50 G	9645350.21	9645350.41	9645350.63	0.0502	0.0237
Earth	21695-12-21 00:57 G	9645350.34	9645350.54	9645350.74	0.0502	0.0269 *
Mercury	21696-01-24 03:36 G	9645384.51	9645384.65	9645384.80	0.0501	0.0029
Earth	21697-01-20 04:48 G	9645746.51	9645746.70	9645746.89	0.0490	0.0288
Moon	21697-01-20 08:38 G	9645746.67	9645746.86	9645747.06	0.0490	0.0259 *
Mercury	21702-03-27 08:24 G	9647637.75	9647637.85	9647637.95	0.0525	0.0409
Mercury	21702-06-25 07:40 G	9647727.71	9647727.82	9647727.94	0.0528	0.0351
Earth	21702-06-28 16:19 G	9647730.96	9647731.18	9647731.40	0.0529	0.0164
Moon	21702-06-28 17:02 G	9647731.00	9647731.21	9647731.43	0.0529	0.0134 *
Venus	21706-12-21 21:36 G	9649368.22	9649368.40	9649368.58	0.0515	0.0214
Mercury	21707-11-13 06:00 G	9649694.62	9649694.75	9649694.89	0.0502	0.0126
Earth	21707-12-26 07:55 G	9649737.62	9649737.83	9649738.05	0.0500	0.0189
Moon	21707-12-26 09:50 G	9649737.70	9649737.91	9649738.12	0.0500	0.0184 *
Mercury	21708-02-10 16:19 G	9649784.13	9649784.18	9649784.25	0.0499	0.0453
Moon	21709-01-25 04:19 G	9650133.52	9650133.68	9650133.84	0.0489	0.0360
Earth	21709-01-25 07:26 G	9650133.66	9650133.81	9650133.97	0.0489	0.0358 *
Venus	21713-06-09 23:31 G	9651730.28	9651730.48	9651730.68	0.0515	0.0100
Mercury	21714-04-13 07:40 G	9652037.67	9652037.82	9652037.97	0.0527	0.0164
Earth	21714-07-03 18:57 G	9652119.06	9652119.29	9652119.53	0.0530	0.0065
Moon	21714-07-03 21:07 G	9652119.14	9652119.38	9652119.62	0.0530	0.0066 *
Mercury	21719-09-01 09:07 G	9654004.76	9654004.88	9654005.00	0.0503	0.0270
Mercury	21719-11-29 19:12 G	9654094.19	9654094.30	9654094.42	0.0500	0.0305
Moon	21719-12-30 17:02 G	9654124.98	9654125.21	9654125.44	0.0499	0.0134
Earth	21719-12-30 17:16 G	9654124.99	9654125.22	9654125.44	0.0499	0.0108 *
Earth	21721-01-29 12:43 G	9654520.92	9654521.03	9654521.15	0.0488	0.0427
Moon	21721-01-29 14:24 G	9654521.03	9654521.10	9654521.19	0.0488	0.0458 *
Venus	21725-02-12 17:16 G	9655996.10	9655996.22	9655996.36	0.0512	0.0399

Mercury	21726-01-30 06:14 G	9656347.60	9656347.76	9656347.92	0.0526	0.0044
Moon	21726-07-08 13:40 G	9656506.84	9656507.07	9656507.30	0.0532	0.0009
Earth	21726-07-08 17:16 G	9656506.99	9656507.22	9656507.46	0.0532	0.0033 *
Mercury	21731-06-20 12:28 G	9658314.94	9658315.02	9658315.11	0.0504	0.0408
Mercury	21731-09-17 22:19 G	9658404.30	9658404.43	9658404.57	0.0501	0.0166
Moon	21732-01-04 01:55 G	9658512.35	9658512.58	9658512.80	0.0497	0.0038
Earth	21732-01-04 03:36 G	9658512.42	9658512.65	9658512.89	0.0497	0.0029 *
Moon	21737-06-07 10:19 G	9660493.88	9660493.93	9660493.98	0.0518	0.0506
Mercury	21737-11-18 05:45 G	9660657.60	9660657.74	9660657.88	0.0525	0.0235
Mercury	21738-02-16 04:48 G	9660747.67	9660747.70	9660747.73	0.0529	0.0516
Earth	21738-07-13 21:07 G	9660895.15	9660895.38	9660895.61	0.0534	0.0134
Moon	21738-07-14 01:12 G	9660895.33	9660895.55	9660895.78	0.0534	0.0134 *
Venus	21742-08-29 11:02 G	9662402.76	9662402.96	9662403.16	0.0514	0.0074
Mercury	21743-07-07 01:40 G	9662714.43	9662714.57	9662714.71	0.0501	0.0025
Earth	21744-01-08 12:43 G	9662899.80	9662900.03	9662900.26	0.0495	0.0051
Moon	21744-01-08 16:04 G	9662899.94	9662900.17	9662900.40	0.0495	0.0080 *
Venus	21749-02-15 09:50 G	9664764.78	9664764.91	9664765.06	0.0516	0.0371
Earth	21749-06-12 11:16 G	9664881.86	9664881.97	9664882.09	0.0521	0.0454
Moon	21749-06-12 15:07 G	9664882.03	9664882.13	9664882.25	0.0521	0.0459 *
Mercury	21749-09-06 05:16 G	9664967.63	9664967.72	9664967.81	0.0525	0.0425
Mercury	21749-12-05 04:48 G	9665057.59	9665057.70	9665057.83	0.0528	0.0335
Moon	21750-07-19 00:28 G	9665283.32	9665283.52	9665283.74	0.0536	0.0271
Earth	21750-07-19 03:50 G	9665283.46	9665283.66	9665283.88	0.0536	0.0238 *
Venus	21754-05-04 07:40 G	9666668.70	9666668.82	9666668.94	0.0516	0.0417
Earth	21754-12-12 03:21 G	9666890.53	9666890.64	9666890.76	0.0507	0.0440
Moon	21754-12-12 07:12 G	9666890.71	9666890.80	9666890.88	0.0507	0.0467 *
Mercury	21755-04-25 05:02 G	9667024.57	9667024.71	9667024.84	0.0502	0.0117
Mercury	21755-07-23 15:21 G	9667114.09	9667114.14	9667114.19	0.0499	0.0462
Moon	21756-01-12 16:48 G	9667286.98	9667287.20	9667287.42	0.0493	0.0150
Earth	21756-01-12 20:38 G	9667287.14	9667287.36	9667287.59	0.0493	0.0129 *

Venus	21760-10-21 06:57 G	9669030.60	9669030.79	9669030.99	0.0513	0.0117
Moon	21761-06-17 09:50 G	9669269.77	9669269.91	9669270.07	0.0524	0.0398
Earth	21761-06-17 13:12 G	9669269.89	9669270.05	9669270.22	0.0524	0.0364 *
Mercury	21761-09-23 05:31 G	9669367.58	9669367.73	9669367.88	0.0528	0.0159
Earth	21762-07-24 13:12 G	9669671.87	9669672.05	9669672.23	0.0538	0.0343
Moon	21762-07-24 13:55 G	9669671.90	9669672.08	9669672.25	0.0538	0.0339 *
Moon	21766-12-16 10:19 G	9671277.76	9671277.93	9671278.10	0.0505	0.0351
Earth	21766-12-16 13:12 G	9671277.90	9671278.05	9671278.22	0.0505	0.0361 *
Mercury	21767-02-11 07:40 G	9671334.70	9671334.82	9671334.93	0.0503	0.0268
Mercury	21767-05-11 17:31 G	9671424.12	9671424.23	9671424.35	0.0500	0.0307
Earth	21768-01-17 00:28 G	9671674.31	9671674.52	9671674.73	0.0492	0.0204
Moon	21768-01-17 04:19 G	9671674.47	9671674.68	9671674.90	0.0492	0.0187 *
Earth	21773-06-22 13:55 G	9673657.89	9673658.08	9673658.29	0.0526	0.0272
Moon	21773-06-22 15:36 G	9673657.96	9673658.15	9673658.34	0.0526	0.0275 *
Mercury	21773-07-12 05:16 G	9673677.56	9673677.72	9673677.88	0.0526	0.0030
Earth	21774-07-29 19:40 G	9674060.19	9674060.32	9674060.45	0.0539	0.0444
Moon	21774-07-29 21:50 G	9674060.25	9674060.41	9674060.56	0.0539	0.0411 *
Mars	21776-02-08 00:00 G	9674618.28	9674618.50	9674618.74	0.0540	0.0212
Venus	21778-05-06 22:04 G	9675437.27	9675437.42	9675437.57	0.0512	0.0342
Mercury	21778-11-30 10:33 G	9675644.87	9675644.94	9675645.02	0.0504	0.0411
Earth	21778-12-21 00:14 G	9675665.32	9675665.51	9675665.71	0.0503	0.0280
Moon	21778-12-21 02:09 G	9675665.40	9675665.59	9675665.79	0.0503	0.0249 *
Mercury	21779-02-27 20:24 G	9675734.21	9675734.35	9675734.49	0.0500	0.0160
Moon	21780-01-21 03:36 G	9676061.45	9676061.65	9676061.85	0.0491	0.0251
Earth	21780-01-21 06:43 G	9676061.59	9676061.78	9676061.98	0.0491	0.0278 *
Mercury	21785-04-30 03:36 G	9677987.51	9677987.65	9677987.80	0.0525	0.0236
Earth	21785-06-27 10:33 G	9678045.72	9678045.94	9678046.16	0.0527	0.0183
Moon	21785-06-27 11:31 G	9678045.74	9678045.98	9678046.21	0.0527	0.0153 *
Mercury	21785-07-29 02:38 G	9678077.59	9678077.61	9678077.65	0.0529	0.0516
Earth	21786-08-03 21:21 G	9678448.37	9678448.39	9678448.42	0.0540	0.0536

Venus	21790-01-09 18:14 G	9679703.06	9679703.26	9679703.45	0.0515	0.0145
Mercury	21790-12-16 23:31 G	9680044.34	9680044.48	9680044.63	0.0502	0.0026
Moon	21790-12-25 11:45 G	9680052.77	9680052.99	9680053.22	0.0501	0.0197
Earth	21790-12-25 12:00 G	9680052.79	9680053.00	9680053.22	0.0501	0.0200 *
Earth	21792-01-25 13:55 G	9680448.92	9680449.08	9680449.24	0.0490	0.0349
Moon	21792-01-25 15:36 G	9680449.00	9680449.15	9680449.30	0.0490	0.0362 *
Mars	21794-01-10 20:52 G	9681165.16	9681165.37	9681165.59	0.0487	0.0345
Venus	21796-06-28 18:14 G	9682065.07	9682065.26	9682065.46	0.0514	0.0157
Mercury	21797-02-16 02:52 G	9682297.53	9682297.62	9682297.71	0.0524	0.0430
Mercury	21797-05-17 02:24 G	9682387.49	9682387.60	9682387.73	0.0528	0.0329
Moon	21797-07-02 08:52 G	9682433.65	9682433.87	9682434.10	0.0530	0.0089
Earth	21797-07-02 12:00 G	9682433.77	9682434.00	9682434.23	0.0530	0.0084 *
Mercury	21802-10-06 02:52 G	9684354.49	9684354.62	9684354.76	0.0502	0.0120
Moon	21802-12-30 21:50 G	9684440.19	9684440.41	9684440.62	0.0499	0.0147
Earth	21802-12-30 23:31 G	9684440.25	9684440.48	9684440.71	0.0499	0.0118 *
Mercury	21803-01-03 13:12 G	9684444.00	9684444.05	9684444.11	0.0499	0.0460
Moon	21804-01-30 19:12 G	9684836.21	9684836.30	9684836.41	0.0488	0.0445
Earth	21804-01-30 19:40 G	9684836.21	9684836.32	9684836.45	0.0488	0.0416 *
Venus	21808-03-04 14:09 G	9686330.94	9686331.09	9686331.25	0.0512	0.0332
Mercury	21809-03-06 02:24 G	9686697.45	9686697.60	9686697.76	0.0527	0.0144
Earth	21809-07-08 15:50 G	9686821.93	9686822.16	9686822.40	0.0532	0.0020
Moon	21809-07-08 20:09 G	9686822.10	9686822.34	9686822.57	0.0532	0.0019 *
Mercury	21814-07-25 06:14 G	9688664.64	9688664.76	9688664.88	0.0503	0.0259
Mercury	21814-10-22 16:19 G	9688754.07	9688754.18	9688754.29	0.0500	0.0316
Earth	21815-01-04 09:21 G	9688827.66	9688827.89	9688828.12	0.0497	0.0037
Moon	21815-01-04 12:43 G	9688827.80	9688828.03	9688828.27	0.0497	0.0039 *
Moon	21816-02-04 00:00 G	9689223.50	9689223.50	9689223.52	0.0487	0.0487
Earth	21816-02-04 00:43 G	9689223.52	9689223.53	9689223.57	0.0487	0.0484 *
Moon	21820-06-07 19:55 G	9690809.30	9690809.33	9690809.37	0.0518	0.0511
Mercury	21820-12-23 02:52 G	9691007.46	9691007.62	9691007.78	0.0527	0.0036

Moon	21821-07-13 19:40 G	9691210.09	9691210.32	9691210.55	0.0534	0.0120
Earth	21821-07-13 23:31 G	9691210.25	9691210.48	9691210.71	0.0534	0.0122 *
Venus	21825-09-18 07:55 G	9692737.64	9692737.83	9692738.03	0.0513	0.0142
Mercury	21826-05-13 09:07 G	9692974.80	9692974.88	9692974.96	0.0504	0.0407
Mercury	21826-08-10 18:43 G	9693064.15	9693064.28	9693064.42	0.0500	0.0165
Moon	21827-01-08 11:16 G	9693214.75	9693214.97	9693215.20	0.0495	0.0071
Earth	21827-01-08 15:21 G	9693214.91	9693215.14	9693215.37	0.0495	0.0041 *
Venus	21832-03-07 09:21 G	9695099.80	9695099.89	9695099.99	0.0517	0.0454
Moon	21832-06-12 11:02 G	9695196.86	9695196.96	9695197.07	0.0521	0.0464
Earth	21832-06-12 14:52 G	9695197.01	9695197.12	9695197.23	0.0521	0.0460 *
Mercury	21832-10-11 02:38 G	9695317.46	9695317.61	9695317.75	0.0526	0.0223
Earth	21833-07-19 05:02 G	9695598.50	9695598.71	9695598.93	0.0536	0.0225
Moon	21833-07-19 06:43 G	9695598.59	9695598.78	9695598.98	0.0536	0.0256 *
Venus	21837-05-24 03:21 G	9697003.50	9697003.64	9697003.79	0.0516	0.0354
Moon	21837-12-12 00:14 G	9697205.44	9697205.51	9697205.60	0.0508	0.0477
Earth	21837-12-12 03:21 G	9697205.54	9697205.64	9697205.75	0.0508	0.0450 *
Mercury	21838-05-29 21:50 G	9697374.27	9697374.41	9697374.55	0.0501	0.0018
Earth	21839-01-12 22:33 G	9697602.22	9697602.44	9697602.67	0.0494	0.0119
Moon	21839-01-13 02:38 G	9697602.38	9697602.61	9697602.83	0.0494	0.0138 *
Venus	21843-11-11 03:21 G	9699365.44	9699365.64	9699365.84	0.0513	0.0049
Earth	21844-06-17 09:50 G	9699584.75	9699584.91	9699585.07	0.0522	0.0379
Moon	21844-06-17 12:14 G	9699584.87	9699585.01	9699585.15	0.0522	0.0413 *
Mercury	21844-07-30 00:57 G	9699627.45	9699627.54	9699627.64	0.0524	0.0429
Mercury	21844-10-28 00:43 G	9699717.41	9699717.53	9699717.65	0.0528	0.0330
Earth	21845-07-24 05:31 G	9699986.55	9699986.73	9699986.92	0.0537	0.0321
Moon	21845-07-24 06:28 G	9699986.58	9699986.77	9699986.97	0.0537	0.0310 *
Earth	21849-12-16 16:19 G	9701593.03	9701593.18	9701593.35	0.0506	0.0373
Moon	21849-12-16 18:28 G	9701593.12	9701593.27	9701593.43	0.0506	0.0362 *
Mercury	21850-03-18 00:57 G	9701684.41	9701684.54	9701684.68	0.0503	0.0123
Mercury	21850-06-15 11:16 G	9701773.92	9701773.97	9701774.03	0.0499	0.0457

Moon	21851-01-17 03:50 G	9701989.44	9701989.66	9701989.88	0.0493	0.0174
Earth	21851-01-17 06:57 G	9701989.58	9701989.79	9701990.01	0.0493	0.0194 *
Moon	21856-06-22 08:38 G	9703972.66	9703972.86	9703973.07	0.0525	0.0287
Earth	21856-06-22 08:52 G	9703972.67	9703972.87	9703973.06	0.0525	0.0289 *
Mercury	21856-08-16 00:28 G	9704027.36	9704027.52	9704027.67	0.0527	0.0141
Moon	21857-07-29 08:52 G	9704374.72	9704374.87	9704375.03	0.0538	0.0389
Earth	21857-07-29 11:45 G	9704374.84	9704374.99	9704375.13	0.0538	0.0422 *
Venus	21861-05-26 20:24 G	9705772.24	9705772.35	9705772.47	0.0512	0.0422
Moon	21861-12-21 05:45 G	9705980.54	9705980.74	9705980.95	0.0504	0.0262
Earth	21861-12-21 06:14 G	9705980.58	9705980.76	9705980.95	0.0504	0.0291 *
Mercury	21862-01-04 04:33 G	9705994.57	9705994.69	9705994.81	0.0503	0.0261
Mercury	21862-04-03 14:24 G	9706083.99	9706084.10	9706084.22	0.0500	0.0315
Earth	21863-01-21 14:24 G	9706376.90	9706377.10	9706377.29	0.0491	0.0268
Moon	21863-01-21 15:50 G	9706376.97	9706377.16	9706377.36	0.0491	0.0248 *
Mercury	21868-06-04 00:00 G	9708337.35	9708337.50	9708337.66	0.0526	0.0050
Moon	21868-06-27 07:26 G	9708360.59	9708360.81	9708361.02	0.0527	0.0166
Earth	21868-06-27 09:36 G	9708360.69	9708360.90	9708361.12	0.0527	0.0196 *
Earth	21869-08-03 20:09 G	9708763.29	9708763.34	9708763.41	0.0540	0.0521
Moon	21869-08-04 00:00 G	9708763.47	9708763.50	9708763.56	0.0540	0.0529
Venus	21873-01-29 17:45 G	9710038.04	9710038.24	9710038.45	0.0515	0.0060
Mercury	21873-10-23 07:55 G	9710304.75	9710304.83	9710304.92	0.0504	0.0398
Moon	21873-12-25 17:02 G	9710368.01	9710368.21	9710368.41	0.0502	0.0215
Earth	21873-12-25 18:43 G	9710368.07	9710368.28	9710368.49	0.0502	0.0207 *
Mercury	21874-01-20 17:45 G	9710394.10	9710394.24	9710394.37	0.0501	0.0173
Moon	21875-01-25 20:38 G	9710764.19	9710764.36	9710764.52	0.0490	0.0355
Earth	21875-01-25 20:38 G	9710764.20	9710764.36	9710764.54	0.0490	0.0340 *
Venus	21879-07-19 16:48 G	9712400.03	9712400.20	9712400.39	0.0515	0.0237
Mercury	21880-03-23 00:14 G	9712647.37	9712647.51	9712647.66	0.0526	0.0229
Mercury	21880-06-20 23:31 G	9712737.46	9712737.48	9712737.49	0.0529	0.0525
Earth	21880-07-02 14:38 G	9712748.88	9712749.11	9712749.34	0.0530	0.0094

Moon	21880-07-02 18:43 G	9712749.04	9712749.28	9712749.51	0.0530	0.0103 *
Mercury	21885-11-08 20:24 G	9714704.21	9714704.35	9714704.49	0.0501	0.0024
Earth	21885-12-30 02:52 G	9714755.40	9714755.62	9714755.85	0.0499	0.0128
Moon	21885-12-30 06:14 G	9714755.54	9714755.76	9714755.99	0.0499	0.0157 *
Moon	21887-01-29 23:16 G	9715151.38	9715151.47	9715151.57	0.0489	0.0438
Earth	21887-01-30 00:00 G	9715151.38	9715151.50	9715151.64	0.0489	0.0408 *
Venus	21891-03-24 13:40 G	9716665.89	9716666.07	9716666.25	0.0512	0.0249
Mercury	21892-01-10 00:00 G	9716957.40	9716957.50	9716957.60	0.0525	0.0416
Mercury	21892-04-08 23:45 G	9717047.37	9717047.49	9717047.61	0.0528	0.0344
Moon	21892-07-07 14:52 G	9717136.89	9717137.12	9717137.36	0.0532	0.0031
Earth	21892-07-07 18:57 G	9717137.06	9717137.29	9717137.53	0.0532	0.0010 *
Mercury	21897-08-27 23:31 G	9719014.34	9719014.48	9719014.62	0.0502	0.0121
Mercury	21897-11-25 09:50 G	9719103.85	9719103.91	9719103.96	0.0499	0.0457
Moon	21898-01-03 08:24 G	9719142.62	9719142.85	9719143.08	0.0498	0.0050
Earth	21898-01-03 12:14 G	9719142.78	9719143.01	9719143.24	0.0498	0.0046 *
Earth	21899-02-03 05:31 G	9719538.68	9719538.73	9719538.78	0.0488	0.0475
Moon	21899-02-03 07:40 G	9719538.77	9719538.82	9719538.89	0.0488	0.0470 *
Mercury	21904-01-27 22:33 G	9721357.29	9721357.44	9721357.60	0.0527	0.0146
Earth	21904-07-13 18:28 G	9721525.04	9721525.27	9721525.50	0.0533	0.0101
Moon	21904-07-13 21:07 G	9721525.16	9721525.38	9721525.61	0.0533	0.0105 *
Venus	21908-10-08 05:02 G	9723072.52	9723072.71	9723072.89	0.0514	0.0214
Mercury	21909-06-17 02:38 G	9723324.49	9723324.61	9723324.73	0.0503	0.0262
Mercury	21909-09-14 12:43 G	9723413.92	9723414.03	9723414.14	0.0500	0.0314
Earth	21910-01-08 21:36 G	9723530.17	9723530.40	9723530.63	0.0496	0.0030
Moon	21910-01-09 01:26 G	9723530.33	9723530.56	9723530.79	0.0496	0.0060 *
Earth	21915-06-13 12:28 G	9725511.93	9725512.02	9725512.11	0.0519	0.0473
Moon	21915-06-13 15:21 G	9725512.05	9725512.14	9725512.22	0.0519	0.0480 *
Mercury	21915-11-15 22:19 G	9725667.27	9725667.43	9725667.58	0.0526	0.0049
Moon	21916-07-18 22:19 G	9725913.22	9725913.43	9725913.65	0.0535	0.0232
Earth	21916-07-18 22:33 G	9725913.23	9725913.44	9725913.66	0.0535	0.0203 *

Venus	21920-06-13 01:40 G	9727338.40	9727338.57	9727338.74	0.0517	0.0274
Earth	21920-12-12 08:52 G	9727520.77	9727520.87	9727520.96	0.0509	0.0461
Moon	21920-12-12 10:48 G	9727520.90	9727520.95	9727521.02	0.0509	0.0488 *
Mercury	21921-04-05 06:14 G	9727634.67	9727634.76	9727634.84	0.0504	0.0399
Mercury	21921-07-03 15:50 G	9727724.03	9727724.16	9727724.30	0.0501	0.0174
Moon	21922-01-13 03:36 G	9727917.42	9727917.65	9727917.88	0.0495	0.0122
Earth	21922-01-13 06:43 G	9727917.56	9727917.78	9727918.01	0.0495	0.0109 *
Venus	21926-12-01 00:43 G	9729700.33	9729700.53	9729700.74	0.0513	0.0026
Moon	21927-06-18 09:07 G	9729899.74	9729899.88	9729900.03	0.0522	0.0418
Earth	21927-06-18 10:19 G	9729899.77	9729899.93	9729900.08	0.0522	0.0389 *
Mercury	21927-09-03 21:36 G	9729977.26	9729977.40	9729977.55	0.0525	0.0238
Mercury	21927-12-02 20:52 G	9730067.34	9730067.37	9730067.40	0.0529	0.0516
Moon	21928-07-24 03:07 G	9730301.44	9730301.63	9730301.82	0.0537	0.0295
Earth	21928-07-24 05:02 G	9730301.52	9730301.71	9730301.91	0.0537	0.0306 *
Mars	21930-05-05 14:38 G	9730951.86	9730952.11	9730952.36	0.0541	0.0025
Moon	21932-12-16 23:16 G	9731908.31	9731908.47	9731908.64	0.0506	0.0364
Earth	21932-12-17 00:00 G	9731908.35	9731908.50	9731908.65	0.0506	0.0379 *
Mercury	21933-04-21 19:12 G	9732034.16	9732034.30	9732034.44	0.0502	0.0034
Earth	21934-01-17 14:52 G	9732304.91	9732305.12	9732305.34	0.0493	0.0186
Moon	21934-01-17 16:33 G	9732304.98	9732305.19	9732305.40	0.0493	0.0161 *
Venus	21938-08-05 22:19 G	9733966.34	9733966.43	9733966.52	0.0511	0.0455
Mercury	21939-06-22 21:36 G	9734287.31	9734287.40	9734287.50	0.0524	0.0420
Moon	21939-06-23 10:19 G	9734287.75	9734287.93	9734288.13	0.0525	0.0290
Earth	21939-06-23 12:14 G	9734287.82	9734288.01	9734288.20	0.0525	0.0298 *
Mercury	21939-09-20 21:36 G	9734377.28	9734377.40	9734377.52	0.0528	0.0341
Earth	21940-07-29 15:07 G	9734689.98	9734690.13	9734690.28	0.0539	0.0410
Moon	21940-07-29 18:43 G	9734690.11	9734690.28	9734690.45	0.0539	0.0377 *
Venus	21944-06-15 19:26 G	9736107.27	9736107.31	9736107.34	0.0511	0.0502
Moon	21944-12-21 10:04 G	9736295.73	9736295.92	9736296.11	0.0504	0.0274
Earth	21944-12-21 11:31 G	9736295.79	9736295.98	9736296.17	0.0504	0.0298 *

Mercury	21945-02-07 22:04 G	9736344.29	9736344.42	9736344.56	0.0502	0.0114
Mercury	21945-05-08 08:24 G	9736433.80	9736433.85	9736433.90	0.0499	0.0465
Moon	21946-01-21 19:55 G	9736692.12	9736692.33	9736692.54	0.0491	0.0241
Earth	21946-01-21 19:55 G	9736692.14	9736692.33	9736692.53	0.0491	0.0259 *
Mars	21948-04-07 09:21 G	9737498.59	9737498.89	9737499.19	0.0487	0.0091
Earth	21951-06-28 14:38 G	9738675.90	9738676.11	9738676.33	0.0527	0.0204
Moon	21951-06-28 18:14 G	9738676.04	9738676.26	9738676.49	0.0527	0.0172 *
Mercury	21951-07-09 21:50 G	9738687.25	9738687.41	9738687.56	0.0527	0.0161
Moon	21952-08-03 19:55 G	9739078.28	9739078.33	9739078.40	0.0540	0.0520
Earth	21952-08-03 23:45 G	9739078.42	9739078.49	9739078.57	0.0540	0.0508
Venus	21956-02-19 15:50 G	9740372.96	9740373.16	9740373.36	0.0514	0.0016
Mercury	21956-11-27 01:26 G	9740654.44	9740654.56	9740654.68	0.0503	0.0255
Earth	21956-12-25 22:33 G	9740683.23	9740683.44	9740683.65	0.0502	0.0216
Moon	21956-12-26 01:55 G	9740683.37	9740683.58	9740683.79	0.0502	0.0231 *
Mercury	21957-02-24 11:16 G	9740743.86	9740743.97	9740744.08	0.0500	0.0320
Moon	21958-01-26 01:12 G	9741079.41	9741079.55	9741079.72	0.0490	0.0352
Earth	21958-01-26 02:24 G	9741079.43	9741079.60	9741079.78	0.0490	0.0331 *
Venus	21962-08-08 15:21 G	9742734.98	9742735.14	9742735.30	0.0515	0.0317
Mercury	21963-04-27 20:38 G	9742997.20	9742997.36	9742997.52	0.0526	0.0040
Moon	21963-07-03 09:07 G	9743063.66	9743063.88	9743064.11	0.0528	0.0118
Earth	21963-07-03 13:12 G	9743063.83	9743064.05	9743064.28	0.0528	0.0113 *
Venus	21967-10-25 10:04 G	9744638.86	9744638.92	9744638.99	0.0518	0.0487
Mercury	21968-09-15 04:33 G	9744964.61	9744964.69	9744964.77	0.0504	0.0398
Mercury	21968-12-13 14:09 G	9745053.96	9745054.09	9745054.23	0.0501	0.0176
Moon	21968-12-30 05:16 G	9745070.50	9745070.72	9745070.94	0.0501	0.0171
Earth	21968-12-30 09:07 G	9745070.66	9745070.88	9745071.11	0.0501	0.0139 *
Earth	21970-01-30 09:21 G	9745466.76	9745466.89	9745467.02	0.0489	0.0399
Moon	21970-01-30 11:31 G	9745466.87	9745466.98	9745467.11	0.0489	0.0423 *
Venus	21974-04-13 11:16 G	9747000.78	9747000.97	9747001.17	0.0512	0.0174
Mercury	21975-02-13 20:09 G	9747307.20	9747307.34	9747307.49	0.0525	0.0230

Mercury	21975-05-14 19:12 G	9747397.29	9747397.30	9747397.33	0.0528	0.0522
Earth	21975-07-08 15:07 G	9747451.90	9747452.13	9747452.37	0.0530	0.0017
Moon	21975-07-08 18:28 G	9747452.04	9747452.27	9747452.50	0.0530	0.0046 *
Mercury	21980-10-01 17:31 G	9749364.09	9749364.23	9749364.38	0.0502	0.0039
Earth	21981-01-03 20:09 G	9749458.11	9749458.34	9749458.58	0.0499	0.0058
Moon	21981-01-04 00:14 G	9749458.28	9749458.51	9749458.74	0.0499	0.0056 *
Moon	21982-02-03 12:00 G	9749853.92	9749854.00	9749854.08	0.0488	0.0454
Earth	21982-02-03 15:21 G	9749854.08	9749854.14	9749854.21	0.0488	0.0465 *
Mercury	21986-12-02 19:26 G	9751617.22	9751617.31	9751617.40	0.0524	0.0424
Mercury	21987-03-02 19:12 G	9751707.18	9751707.30	9751707.42	0.0528	0.0336
Moon	21987-07-13 17:45 G	9751840.00	9751840.24	9751840.48	0.0533	0.0097
Earth	21987-07-13 18:57 G	9751840.06	9751840.29	9751840.52	0.0533	0.0087 *
Venus	21991-10-28 05:45 G	9753407.58	9753407.74	9753407.91	0.0513	0.0306
Mercury	21992-07-20 21:07 G	9753674.24	9753674.38	9753674.52	0.0503	0.0102
Mercury	21992-10-18 07:12 G	9753763.77	9753763.80	9753763.85	0.0499	0.0477
Moon	21993-01-08 03:36 G	9753845.41	9753845.65	9753845.89	0.0497	0.0052
Earth	21993-01-08 06:43 G	9753845.55	9753845.78	9753846.02	0.0497	0.0025 *
Moon	21998-06-12 15:21 G	9755827.06	9755827.14	9755827.23	0.0519	0.0486
Earth	21998-06-12 17:02 G	9755827.12	9755827.21	9755827.30	0.0519	0.0480 *
Mercury	21998-12-19 19:40 G	9756017.17	9756017.32	9756017.47	0.0527	0.0159
Moon	21999-07-19 01:40 G	9756228.36	9756228.57	9756228.77	0.0535	0.0222
Earth	21999-07-19 02:52 G	9756228.41	9756228.62	9756228.84	0.0535	0.0192 *

23RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 23rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	22003-07-03 02:09	G	9757673.40	9757673.59	9757673.78	0.0516	0.0183	
Moon	22003-12-12 14:52	G	9757836.06	9757836.12	9757836.19	0.0509	0.0488	
Earth	22003-12-12 15:36	G	9757836.07	9757836.15	9757836.24	0.0509	0.0467	*
Mercury	22004-05-09 00:14	G	9757984.39	9757984.51	9757984.63	0.0503	0.0246	
Mercury	22004-08-06 10:04	G	9758073.82	9758073.92	9758074.03	0.0500	0.0329	
Earth	22005-01-12 13:55	G	9758232.85	9758233.08	9758233.31	0.0495	0.0101	
Moon	22005-01-12 15:21	G	9758232.93	9758233.14	9758233.36	0.0495	0.0105	*
Venus	22009-12-20 01:40	G	9760035.38	9760035.57	9760035.77	0.0514	0.0117	
Moon	22010-06-17 15:50	G	9760215.04	9760215.16	9760215.30	0.0522	0.0423	
Earth	22010-06-17 17:02	G	9760215.06	9760215.21	9760215.37	0.0522	0.0395	*
Mercury	22010-10-07 19:55	G	9760327.17	9760327.33	9760327.49	0.0526	0.0025	
Earth	22011-07-24 10:33	G	9760616.75	9760616.94	9760617.14	0.0536	0.0295	
Moon	22011-07-24 13:40	G	9760616.87	9760617.07	9760617.28	0.0536	0.0280	*
Moon	22015-12-17 04:04	G	9762223.52	9762223.67	9762223.83	0.0507	0.0368	
Earth	22015-12-17 05:16	G	9762223.58	9762223.72	9762223.87	0.0507	0.0387	*
Mercury	22016-02-26 03:21	G	9762294.56	9762294.64	9762294.74	0.0504	0.0387	
Mercury	22016-05-25 13:12	G	9762383.92	9762384.05	9762384.18	0.0501	0.0185	
Moon	22017-01-16 21:50	G	9762620.18	9762620.41	9762620.64	0.0493	0.0148	
Earth	22017-01-16 21:50	G	9762620.19	9762620.41	9762620.63	0.0493	0.0178	*
Venus	22021-08-24 21:50	G	9764301.28	9764301.41	9764301.56	0.0511	0.0368	
Earth	22022-06-22 14:24	G	9764602.92	9764603.10	9764603.30	0.0523	0.0313	
Moon	22022-06-22 17:45	G	9764603.05	9764603.24	9764603.44	0.0523	0.0295	*
Mercury	22022-07-26 18:57	G	9764637.14	9764637.29	9764637.43	0.0525	0.0219	
Moon	22023-07-29 09:07	G	9765004.71	9765004.88	9765005.06	0.0537	0.0358	
Earth	22023-07-29 12:57	G	9765004.88	9765005.04	9765005.20	0.0537	0.0389	*
Earth	22027-12-21 16:48	G	9766611.02	9766611.20	9766611.38	0.0505	0.0310	
Moon	22027-12-21 19:55	G	9766611.14	9766611.33	9766611.53	0.0505	0.0289	*

Mercury	22028-03-13 16:04 G	9766694.03	9766694.17	9766694.31	0.0502	0.0040
Moon	22029-01-21 03:50 G	9767007.47	9767007.66	9767007.86	0.0492	0.0235
Earth	22029-01-21 05:16 G	9767007.52	9767007.72	9767007.92	0.0492	0.0250 *
Mercury	22034-05-14 18:14 G	9768947.16	9768947.26	9768947.36	0.0524	0.0411
Moon	22034-06-27 10:33 G	9768990.72	9768990.94	9768991.16	0.0525	0.0187
Earth	22034-06-27 14:38 G	9768990.89	9768991.11	9768991.32	0.0525	0.0220 *
Mercury	22034-08-12 18:00 G	9769037.13	9769037.25	9769037.37	0.0527	0.0347
Earth	22035-08-03 19:12 G	9769393.20	9769393.30	9769393.40	0.0539	0.0486
Moon	22035-08-03 22:04 G	9769393.35	9769393.42	9769393.50	0.0539	0.0507 *
Venus	22039-03-10 14:38 G	9770707.91	9770708.11	9770708.31	0.0515	0.0098
Moon	22039-12-26 02:24 G	9770998.40	9770998.60	9770998.80	0.0503	0.0245
Earth	22039-12-26 06:14 G	9770998.56	9770998.76	9770998.97	0.0503	0.0227 *
Mercury	22039-12-31 19:26 G	9771004.17	9771004.31	9771004.45	0.0503	0.0099
Mercury	22040-03-30 05:45 G	9771093.71	9771093.74	9771093.78	0.0500	0.0481
Earth	22041-01-25 12:43 G	9771394.86	9771395.03	9771395.21	0.0491	0.0321
Moon	22041-01-25 15:07 G	9771394.97	9771395.13	9771395.31	0.0491	0.0344 *
Venus	22045-08-27 14:09 G	9773069.96	9773070.09	9773070.22	0.0515	0.0397
Mercury	22046-05-31 17:31 G	9773347.08	9773347.23	9773347.39	0.0527	0.0159
Earth	22046-07-02 15:07 G	9773378.90	9773379.13	9773379.36	0.0528	0.0124
Moon	22046-07-02 18:43 G	9773379.06	9773379.28	9773379.51	0.0528	0.0133 *
Venus	22050-11-13 11:45 G	9774973.86	9774973.99	9774974.12	0.0518	0.0390
Mercury	22051-10-19 23:02 G	9775314.34	9775314.46	9775314.59	0.0504	0.0235
Earth	22051-12-30 19:12 G	9775386.08	9775386.30	9775386.52	0.0501	0.0144
Moon	22051-12-30 23:02 G	9775386.25	9775386.46	9775386.68	0.0501	0.0174 *
Mercury	22052-01-17 09:07 G	9775403.77	9775403.88	9775403.98	0.0500	0.0341
Moon	22053-01-29 16:04 G	9775782.06	9775782.17	9775782.30	0.0489	0.0413
Earth	22053-01-29 19:40 G	9775782.19	9775782.32	9775782.46	0.0489	0.0392 *
Venus	22057-05-02 11:16 G	9777335.77	9777335.97	9777336.17	0.0512	0.0088
Mercury	22058-03-19 18:00 G	9777657.09	9777657.25	9777657.41	0.0526	0.0026
Moon	22058-07-07 18:28 G	9777767.03	9777767.27	9777767.51	0.0530	0.0051

Earth	22058-07-07 20:24 G	9777767.12	9777767.35	9777767.58	0.0530	0.0023	*
Mercury	22063-08-08 02:24 G	9779624.51	9779624.60	9779624.69	0.0504	0.0376	
Mercury	22063-11-05 12:00 G	9779713.87	9779714.00	9779714.13	0.0501	0.0196	
Moon	22064-01-04 01:55 G	9779773.34	9779773.58	9779773.81	0.0499	0.0061	
Earth	22064-01-04 05:02 G	9779773.48	9779773.71	9779773.94	0.0499	0.0064	*
Earth	22065-02-03 00:14 G	9780169.43	9780169.51	9780169.59	0.0488	0.0458	
Moon	22065-02-03 04:04 G	9780169.57	9780169.67	9780169.77	0.0488	0.0437	*
Mercury	22070-01-05 18:00 G	9781967.10	9781967.25	9781967.40	0.0525	0.0203	
Moon	22070-07-13 01:40 G	9782155.35	9782155.57	9782155.79	0.0532	0.0096	
Earth	22070-07-13 02:24 G	9782155.36	9782155.60	9782155.83	0.0532	0.0079	*
Venus	22074-11-16 05:45 G	9783742.62	9783742.74	9783742.88	0.0513	0.0394	
Mercury	22075-08-24 15:07 G	9784023.99	9784024.13	9784024.28	0.0502	0.0055	
Earth	22076-01-08 14:38 G	9784160.88	9784161.11	9784161.34	0.0497	0.0016	
Moon	22076-01-08 16:04 G	9784160.95	9784161.17	9784161.40	0.0497	0.0044	*
Earth	22081-06-11 22:48 G	9786142.38	9786142.45	9786142.53	0.0518	0.0489	
Moon	22081-06-11 22:19 G	9786142.39	9786142.43	9786142.48	0.0518	0.0506	*
Mercury	22081-10-24 17:02 G	9786277.11	9786277.21	9786277.32	0.0524	0.0397	
Mercury	22082-01-22 16:48 G	9786367.09	9786367.20	9786367.32	0.0527	0.0361	
Earth	22082-07-18 04:19 G	9786543.46	9786543.68	9786543.90	0.0534	0.0173	
Moon	22082-07-18 06:43 G	9786543.56	9786543.78	9786544.01	0.0534	0.0203	*
Mars	22084-07-29 12:57 G	9787285.83	9787286.04	9787286.26	0.0541	0.0292	
Venus	22086-07-22 00:14 G	9788008.31	9788008.51	9788008.71	0.0516	0.0106	
Moon	22086-12-11 19:12 G	9788151.25	9788151.30	9788151.35	0.0510	0.0497	
Earth	22086-12-11 19:55 G	9788151.26	9788151.33	9788151.41	0.0510	0.0479	*
Mercury	22087-06-12 18:00 G	9788334.11	9788334.25	9788334.39	0.0503	0.0094	
Mercury	22087-09-10 04:19 G	9788423.66	9788423.68	9788423.71	0.0500	0.0488	
Earth	22088-01-12 22:33 G	9788548.21	9788548.44	9788548.67	0.0496	0.0090	
Moon	22088-01-12 22:48 G	9788548.21	9788548.45	9788548.69	0.0496	0.0087	*
Venus	22093-01-08 01:40 G	9790370.39	9790370.57	9790370.76	0.0513	0.0206	
Earth	22093-06-16 20:24 G	9790530.21	9790530.35	9790530.50	0.0520	0.0406	

Moon	22093-06-16 23:16 G	9790530.34	9790530.47	9790530.61	0.0520	0.0429 *
Mercury	22093-11-10 16:33 G	9790677.05	9790677.19	9790677.35	0.0526	0.0175
Moon	22094-07-23 05:16 G	9790931.53	9790931.72	9790931.93	0.0535	0.0261
Earth	22094-07-23 09:07 G	9790931.68	9790931.88	9790932.08	0.0535	0.0275 *
Earth	22098-12-16 11:31 G	9792538.84	9792538.98	9792539.13	0.0508	0.0398
Moon	22098-12-16 14:38 G	9792538.95	9792539.11	9792539.28	0.0508	0.0370 *
Mercury	22099-03-31 21:36 G	9792644.27	9792644.40	9792644.52	0.0504	0.0231
Mercury	22099-06-29 07:40 G	9792733.71	9792733.82	9792733.92	0.0501	0.0347
Moon	22100-01-17 06:28 G	9792935.55	9792935.77	9792935.98	0.0494	0.0138
Earth	22100-01-17 07:55 G	9792935.61	9792935.83	9792936.05	0.0494	0.0168 *
Mars	22102-07-03 18:14 G	9793833.01	9793833.26	9793833.54	0.0487	0.0230
Venus	22104-09-13 21:21 G	9794636.23	9794636.39	9794636.57	0.0511	0.0286
Moon	22105-06-22 14:09 G	9794917.90	9794918.09	9794918.28	0.0523	0.0304
Earth	22105-06-22 18:00 G	9794918.07	9794918.25	9794918.43	0.0523	0.0320 *
Mercury	22105-08-30 16:04 G	9794987.01	9794987.17	9794987.33	0.0526	0.0019
Earth	22106-07-29 14:52 G	9795319.96	9795320.12	9795320.29	0.0537	0.0375
Moon	22106-07-29 18:14 G	9795320.09	9795320.26	9795320.44	0.0537	0.0351 *
Moon	22110-12-21 23:31 G	9796926.29	9796926.48	9796926.67	0.0506	0.0295
Earth	22110-12-22 03:21 G	9796926.46	9796926.64	9796926.83	0.0506	0.0314 *
Mercury	22111-01-19 01:12 G	9796954.46	9796954.55	9796954.65	0.0505	0.0366
Mercury	22111-04-18 11:02 G	9797043.83	9797043.96	9797044.09	0.0501	0.0208
Earth	22112-01-22 16:19 G	9797322.98	9797323.18	9797323.39	0.0492	0.0244
Moon	22112-01-22 18:57 G	9797323.09	9797323.29	9797323.51	0.0492	0.0235 *
Mercury	22117-06-18 16:04 G	9799297.03	9799297.17	9799297.32	0.0525	0.0201
Earth	22117-06-27 19:55 G	9799306.13	9799306.33	9799306.55	0.0525	0.0227
Moon	22117-06-28 00:00 G	9799306.28	9799306.50	9799306.71	0.0525	0.0196 *
Moon	22118-08-03 23:02 G	9799708.38	9799708.46	9799708.56	0.0539	0.0498
Earth	22118-08-04 00:57 G	9799708.44	9799708.54	9799708.66	0.0539	0.0476 *
Venus	22122-03-30 16:48 G	9801043.01	9801043.20	9801043.39	0.0514	0.0199
Mercury	22122-11-07 04:48 G	9801264.69	9801264.70	9801264.70	0.0505	0.0504

Earth	22122-12-26 16:04 G	9801313.97	9801314.17	9801314.38	0.0503	0.0232
Moon	22122-12-26 19:55 G	9801314.14	9801314.33	9801314.53	0.0503	0.0253 *
Mercury	22123-02-04 14:09 G	9801353.95	9801354.09	9801354.23	0.0502	0.0065
Moon	22124-01-26 19:12 G	9801710.14	9801710.30	9801710.47	0.0491	0.0341
Earth	22124-01-26 22:48 G	9801710.27	9801710.45	9801710.63	0.0491	0.0314 *
Venus	22128-09-16 16:19 G	9803405.14	9803405.18	9803405.24	0.0516	0.0500
Mercury	22129-04-06 16:04 G	9803607.07	9803607.17	9803607.29	0.0524	0.0383
Moon	22129-07-02 21:07 G	9803694.15	9803694.38	9803694.61	0.0528	0.0145
Earth	22129-07-02 23:45 G	9803694.26	9803694.49	9803694.72	0.0528	0.0131 *
Mercury	22129-07-05 16:04 G	9803697.06	9803697.17	9803697.28	0.0528	0.0378
Venus	22133-12-03 12:57 G	9805308.87	9805309.04	9805309.21	0.0517	0.0295
Mercury	22134-11-23 17:31 G	9805664.09	9805664.23	9805664.37	0.0503	0.0077
Moon	22134-12-31 00:43 G	9805701.31	9805701.53	9805701.75	0.0501	0.0177
Earth	22134-12-31 03:50 G	9805701.44	9805701.66	9805701.89	0.0501	0.0151 *
Earth	22136-01-31 05:16 G	9806097.58	9806097.72	9806097.87	0.0490	0.0385
Moon	22136-01-31 08:52 G	9806097.75	9806097.87	9806098.02	0.0490	0.0399 *
Venus	22140-05-22 12:57 G	9807670.84	9807671.04	9807671.25	0.0512	0.0018
Mercury	22141-04-23 15:50 G	9808007.01	9808007.16	9808007.30	0.0526	0.0191
Earth	22141-07-08 01:12 G	9808082.32	9808082.55	9808082.79	0.0529	0.0038
Moon	22141-07-08 01:26 G	9808082.33	9808082.56	9808082.78	0.0529	0.0063 *
Mercury	22146-09-11 20:09 G	9809974.22	9809974.34	9809974.47	0.0504	0.0225
Mercury	22146-12-10 06:14 G	9810063.66	9810063.76	9810063.86	0.0501	0.0354
Earth	22147-01-04 12:28 G	9810088.79	9810089.02	9810089.25	0.0500	0.0075
Moon	22147-01-04 14:09 G	9810088.86	9810089.09	9810089.31	0.0500	0.0062 *
Moon	22148-02-04 07:40 G	9810484.72	9810484.82	9810484.94	0.0489	0.0426
Earth	22148-02-04 11:02 G	9810484.89	9810484.96	9810485.06	0.0489	0.0451 *
Venus	22152-01-26 10:19 G	9811936.85	9811936.93	9811937.01	0.0509	0.0466
Mercury	22153-02-09 15:21 G	9812316.98	9812317.14	9812317.30	0.0525	0.0006
Earth	22153-07-13 03:50 G	9812470.43	9812470.66	9812470.89	0.0531	0.0061
Moon	22153-07-13 05:45 G	9812470.50	9812470.74	9812470.98	0.0531	0.0082 *

Venus	22157-12-06 04:33 G	9814077.62	9814077.69	9814077.77	0.0513	0.0476
Mercury	22158-06-30 23:45 G	9814284.39	9814284.49	9814284.59	0.0505	0.0362
Mercury	22158-09-28 09:21 G	9814373.77	9814373.89	9814374.03	0.0502	0.0214
Earth	22159-01-08 23:31 G	9814476.25	9814476.48	9814476.72	0.0498	0.0008
Moon	22159-01-09 00:00 G	9814476.26	9814476.50	9814476.74	0.0498	0.0033 *
Earth	22164-06-12 03:21 G	9816457.58	9816457.64	9816457.71	0.0517	0.0493
Moon	22164-06-12 06:00 G	9816457.73	9816457.75	9816457.76	0.0517	0.0516
Mercury	22164-11-28 14:38 G	9816626.96	9816627.11	9816627.26	0.0525	0.0193
Moon	22165-07-18 03:50 G	9816858.44	9816858.66	9816858.87	0.0533	0.0190
Earth	22165-07-18 06:57 G	9816858.57	9816858.79	9816859.02	0.0533	0.0161 *
Venus	22169-08-11 02:24 G	9818343.40	9818343.60	9818343.81	0.0516	0.0009
Earth	22169-12-12 06:14 G	9818466.69	9818466.76	9818466.84	0.0511	0.0482
Moon	22169-12-12 09:07 G	9818466.82	9818466.88	9818466.96	0.0511	0.0487 *
Mercury	22170-04-19 03:36 G	9818594.62	9818594.65	9818594.67	0.0506	0.0496
Mercury	22170-07-17 12:57 G	9818683.90	9818684.04	9818684.18	0.0502	0.0075
Moon	22171-01-13 08:38 G	9818863.64	9818863.86	9818864.08	0.0496	0.0079
Earth	22171-01-13 10:19 G	9818863.70	9818863.93	9818864.16	0.0496	0.0086 *
Venus	22176-01-29 02:09 G	9820705.43	9820705.59	9820705.76	0.0514	0.0295
Moon	22176-06-16 22:48 G	9820845.32	9820845.45	9820845.57	0.0520	0.0437
Earth	22176-06-17 02:24 G	9820845.46	9820845.60	9820845.74	0.0520	0.0411 *
Mercury	22176-09-16 14:24 G	9820936.99	9820937.10	9820937.21	0.0524	0.0378
Mercury	22176-12-15 14:09 G	9821026.99	9821027.09	9821027.20	0.0528	0.0382
Earth	22177-07-23 14:24 G	9821246.90	9821247.10	9821247.31	0.0535	0.0266
Moon	22177-07-23 18:14 G	9821247.06	9821247.26	9821247.47	0.0535	0.0243 *
Venus	22181-04-15 23:02 G	9822609.41	9822609.46	9822609.52	0.0518	0.0498
Moon	22181-12-16 18:28 G	9822854.12	9822854.27	9822854.43	0.0508	0.0371
Earth	22181-12-16 22:19 G	9822854.29	9822854.43	9822854.57	0.0508	0.0402 *
Mercury	22182-05-05 16:19 G	9822994.04	9822994.18	9822994.32	0.0503	0.0065
Earth	22183-01-17 18:28 G	9823251.05	9823251.27	9823251.49	0.0494	0.0162
Moon	22183-01-17 21:21 G	9823251.16	9823251.39	9823251.62	0.0494	0.0131 *

Venus	22187-10-03 23:45 G	9824971.30	9824971.49	9824971.68	0.0511	0.0186
Earth	22188-06-22 03:07 G	9825233.45	9825233.63	9825233.82	0.0523	0.0325
Moon	22188-06-22 07:12 G	9825233.62	9825233.80	9825233.99	0.0523	0.0305 *
Mercury	22188-10-03 14:38 G	9825336.97	9825337.11	9825337.26	0.0527	0.0205
Moon	22189-07-28 21:07 G	9825635.20	9825635.38	9825635.57	0.0537	0.0343
Earth	22189-07-28 23:45 G	9825635.32	9825635.49	9825635.66	0.0537	0.0366 *
Earth	22193-12-21 12:14 G	9827241.84	9827242.01	9827242.20	0.0506	0.0320
Moon	22193-12-21 16:19 G	9827242.00	9827242.18	9827242.37	0.0506	0.0302 *
Mercury	22194-02-21 19:40 G	9827304.19	9827304.32	9827304.45	0.0503	0.0205
Mercury	22194-05-22 05:31 G	9827393.64	9827393.73	9827393.83	0.0500	0.0372
Moon	22195-01-21 23:02 G	9827638.26	9827638.46	9827638.66	0.0493	0.0235
Earth	22195-01-22 02:38 G	9827638.41	9827638.61	9827638.81	0.0493	0.0237 *
Moon	22200-06-28 00:43 G	9829621.31	9829621.53	9829621.75	0.0524	0.0211
Earth	22200-06-28 03:50 G	9829621.45	9829621.66	9829621.87	0.0524	0.0237 *
Mercury	22200-07-23 14:24 G	9829646.94	9829647.10	9829647.26	0.0525	0.0024
Earth	22201-08-04 04:19 G	9830023.57	9830023.68	9830023.81	0.0538	0.0458
Moon	22201-08-04 05:02 G	9830023.62	9830023.71	9830023.81	0.0538	0.0485 *
Mars	22203-01-20 21:07 G	9830558.21	9830558.38	9830558.57	0.0541	0.0370
Venus	22205-04-19 15:07 G	9831377.96	9831378.13	9831378.30	0.0514	0.0277
Mercury	22205-12-11 22:33 G	9831614.34	9831614.44	9831614.54	0.0505	0.0355
Moon	22205-12-26 18:43 G	9831629.08	9831629.28	9831629.49	0.0504	0.0264
Earth	22205-12-26 22:04 G	9831629.22	9831629.42	9831629.63	0.0504	0.0243 *
Mercury	22206-03-11 08:09 G	9831703.71	9831703.84	9831703.97	0.0502	0.0221
Earth	22207-01-27 08:38 G	9832025.68	9832025.86	9832026.04	0.0492	0.0305
Moon	22207-01-27 12:14 G	9832025.84	9832026.01	9832026.18	0.0492	0.0336 *
Mercury	22212-05-11 14:09 G	9833956.93	9833957.09	9833957.24	0.0524	0.0171
Earth	22212-07-03 04:04 G	9834009.45	9834009.67	9834009.90	0.0526	0.0143
Moon	22212-07-03 05:02 G	9834009.49	9834009.71	9834009.92	0.0526	0.0165 *
Venus	22216-12-23 11:02 G	9835643.78	9835643.96	9835644.15	0.0517	0.0217
Mercury	22217-09-30 01:55 G	9835924.56	9835924.58	9835924.61	0.0506	0.0493

Mercury	22217-12-28 11:31 G	9836013.84	9836013.98	9836014.12	0.0502	0.0080
Earth	22217-12-31 10:48 G	9836016.73	9836016.95	9836017.18	0.0502	0.0161
Moon	22217-12-31 12:28 G	9836016.81	9836017.02	9836017.23	0.0502	0.0181 *
Moon	22219-01-31 12:28 G	9836412.88	9836413.02	9836413.17	0.0490	0.0387
Earth	22219-01-31 15:50 G	9836413.02	9836413.16	9836413.31	0.0490	0.0376 *
Mars	22220-12-22 07:12 G	9837103.61	9837103.80	9837104.02	0.0486	0.0360
Venus	22223-06-12 12:57 G	9838005.84	9838006.04	9838006.24	0.0512	0.0097
Mercury	22224-02-28 12:57 G	9838266.93	9838267.04	9838267.16	0.0523	0.0369
Mercury	22224-05-28 12:43 G	9838356.93	9838357.03	9838357.14	0.0527	0.0389
Earth	22224-07-08 04:04 G	9838397.44	9838397.67	9838397.91	0.0529	0.0048
Moon	22224-07-08 05:31 G	9838397.49	9838397.73	9838397.97	0.0529	0.0071 *
Mercury	22229-10-16 15:07 G	9840323.99	9840324.13	9840324.27	0.0503	0.0058
Earth	22230-01-04 23:45 G	9840404.27	9840404.49	9840404.73	0.0500	0.0079
Moon	22230-01-05 00:14 G	9840404.27	9840404.51	9840404.75	0.0500	0.0057 *
Earth	22231-02-04 23:02 G	9840800.37	9840800.46	9840800.56	0.0489	0.0444
Moon	22231-02-05 01:26 G	9840800.45	9840800.56	9840800.67	0.0489	0.0421 *
Venus	22235-02-15 10:19 G	9842271.80	9842271.93	9842272.07	0.0510	0.0382
Mercury	22236-03-16 12:57 G	9842666.90	9842667.04	9842667.19	0.0526	0.0209
Moon	22236-07-13 06:00 G	9842785.53	9842785.75	9842785.98	0.0531	0.0075
Earth	22236-07-13 08:52 G	9842785.64	9842785.87	9842786.11	0.0531	0.0053 *
Mercury	22241-08-04 18:28 G	9844634.14	9844634.27	9844634.40	0.0504	0.0196
Mercury	22241-11-02 04:19 G	9844723.60	9844723.68	9844723.78	0.0500	0.0383
Moon	22242-01-09 08:52 G	9844791.64	9844791.87	9844792.09	0.0498	0.0026
Earth	22242-01-09 10:33 G	9844791.71	9844791.94	9844792.18	0.0498	0.0006 *
Moon	22243-02-09 03:36 G	9845187.63	9845187.65	9845187.67	0.0488	0.0485
Earth	22247-06-13 12:43 G	9846772.98	9846773.03	9846773.10	0.0517	0.0497
Mercury	22248-01-03 13:26 G	9846976.90	9846977.06	9846977.22	0.0526	0.0033
Earth	22248-07-18 15:50 G	9847173.93	9847174.16	9847174.38	0.0533	0.0153
Moon	22248-07-18 19:26 G	9847174.10	9847174.31	9847174.54	0.0533	0.0176 *
Venus	22252-08-31 04:19 G	9848678.48	9848678.68	9848678.88	0.0515	0.0093

Moon	22252-12-12 11:45 G	9848781.92	9848781.99	9848782.05	0.0511	0.0488
Earth	22252-12-12 15:21 G	9848782.08	9848782.14	9848782.21	0.0511	0.0486
Mercury	22253-05-23 21:50 G	9848944.31	9848944.41	9848944.52	0.0504	0.0335
Mercury	22253-08-21 07:40 G	9849033.69	9849033.82	9849033.94	0.0501	0.0240
Earth	22254-01-13 20:09 G	9849179.11	9849179.34	9849179.57	0.0496	0.0080
Moon	22254-01-13 23:02 G	9849179.23	9849179.46	9849179.70	0.0496	0.0068 *
Venus	22259-02-18 05:02 G	9851040.59	9851040.71	9851040.84	0.0514	0.0401
Earth	22259-06-18 11:31 G	9851160.85	9851160.98	9851161.13	0.0519	0.0417
Moon	22259-06-18 15:36 G	9851161.04	9851161.15	9851161.28	0.0519	0.0439 *
Mercury	22259-10-22 13:12 G	9851286.89	9851287.05	9851287.20	0.0524	0.0154
Moon	22260-07-23 17:16 G	9851562.01	9851562.22	9851562.44	0.0534	0.0223
Earth	22260-07-23 20:24 G	9851562.15	9851562.35	9851562.56	0.0534	0.0251 *
Venus	22264-05-05 21:07 G	9852944.26	9852944.38	9852944.49	0.0518	0.0422
Earth	22264-12-17 02:24 G	9853169.47	9853169.60	9853169.74	0.0509	0.0412
Moon	22264-12-17 06:28 G	9853169.62	9853169.77	9853169.92	0.0509	0.0379 *
Mercury	22265-03-12 00:43 G	9853254.50	9853254.53	9853254.57	0.0506	0.0485
Mercury	22265-06-09 10:04 G	9853343.78	9853343.92	9853344.06	0.0502	0.0088
Moon	22266-01-17 23:02 G	9853566.24	9853566.46	9853566.68	0.0495	0.0123
Earth	22266-01-18 02:38 G	9853566.39	9853566.61	9853566.83	0.0495	0.0152 *
Venus	22270-10-24 01:55 G	9855306.38	9855306.58	9855306.78	0.0511	0.0086
Moon	22271-06-23 06:28 G	9855548.59	9855548.77	9855548.97	0.0521	0.0311
Earth	22271-06-23 10:04 G	9855548.74	9855548.92	9855549.10	0.0521	0.0332 *
Mercury	22271-08-10 12:28 G	9855596.90	9855597.02	9855597.15	0.0523	0.0345
Mercury	22271-11-08 12:14 G	9855686.92	9855687.01	9855687.11	0.0527	0.0411
Earth	22272-07-29 01:12 G	9855950.38	9855950.55	9855950.73	0.0536	0.0349
Moon	22272-07-29 02:38 G	9855950.43	9855950.61	9855950.79	0.0536	0.0331 *
Moon	22276-12-21 13:40 G	9857556.88	9857557.07	9857557.26	0.0507	0.0313
Earth	22276-12-21 17:02 G	9857557.04	9857557.21	9857557.39	0.0507	0.0330 *
Mercury	22277-03-28 13:26 G	9857653.92	9857654.06	9857654.20	0.0503	0.0055
Earth	22278-01-22 11:02 G	9857953.76	9857953.96	9857954.17	0.0494	0.0228

Moon	22278-01-22 14:38 G	9857953.91	9857954.11	9857954.31	0.0494	0.0236 *
Earth	22283-06-28 06:43 G	9859936.58	9859936.78	9859936.99	0.0524	0.0245
Moon	22283-06-28 08:09 G	9859936.64	9859936.84	9859937.04	0.0524	0.0227 *
Mercury	22283-08-27 11:31 G	9859996.84	9859996.98	9859997.13	0.0526	0.0218
Earth	22284-08-03 05:45 G	9860338.62	9860338.74	9860338.88	0.0538	0.0445
Moon	22284-08-03 06:28 G	9860338.66	9860338.77	9860338.89	0.0538	0.0470 *
Venus	22288-05-08 16:48 G	9861713.06	9861713.20	9861713.34	0.0514	0.0374
Earth	22288-12-26 08:24 G	9861944.65	9861944.85	9861945.05	0.0505	0.0246
Moon	22288-12-26 09:50 G	9861944.73	9861944.91	9861945.11	0.0505	0.0273 *
Mercury	22289-01-14 17:02 G	9861964.08	9861964.21	9861964.34	0.0504	0.0191
Mercury	22289-04-14 03:07 G	9862053.54	9862053.63	9862053.72	0.0501	0.0389
Moon	22290-01-26 16:48 G	9862341.03	9862341.20	9862341.38	0.0492	0.0331
Earth	22290-01-26 19:55 G	9862341.15	9862341.33	9862341.52	0.0492	0.0300 *
Mercury	22295-06-15 11:31 G	9864306.82	9864306.98	9864307.14	0.0525	0.0035
Earth	22295-07-03 08:24 G	9864324.62	9864324.85	9864325.07	0.0526	0.0150
Moon	22295-07-03 09:07 G	9864324.65	9864324.88	9864325.11	0.0526	0.0177 *
Venus	22300-01-12 13:55 G	9865978.88	9865979.08	9865979.28	0.0517	0.0112
Mercury	22300-11-03 20:38 G	9866274.26	9866274.36	9866274.47	0.0505	0.0327
Earth	22300-12-31 21:36 G	9866332.19	9866332.40	9866332.62	0.0502	0.0166
Moon	22300-12-31 22:04 G	9866332.20	9866332.42	9866332.65	0.0502	0.0178 *
Mercury	22301-02-01 06:14 G	9866363.64	9866363.76	9866363.89	0.0501	0.0248
Earth	22302-02-01 02:24 G	9866728.46	9866728.60	9866728.76	0.0490	0.0369
Moon	22302-02-01 04:33 G	9866728.55	9866728.69	9866728.84	0.0490	0.0377 *
Venus	22306-07-02 14:38 G	9868340.93	9868341.11	9868341.30	0.0513	0.0195
Mercury	22307-04-04 11:45 G	9868616.83	9868616.99	9868617.14	0.0525	0.0147
Moon	22307-07-09 10:04 G	9868712.69	9868712.92	9868713.14	0.0529	0.0077
Earth	22307-07-09 12:28 G	9868712.79	9868713.02	9868713.25	0.0529	0.0054 *
Mercury	22312-08-23 00:14 G	9870584.46	9870584.51	9870584.56	0.0505	0.0466
Mercury	22312-11-20 09:36 G	9870673.76	9870673.90	9870674.04	0.0502	0.0106
Moon	22313-01-05 07:26 G	9870719.59	9870719.81	9870720.04	0.0500	0.0060

Earth	22313-01-05 09:21 G	9870719.66	9870719.89	9870720.12	0.0500	0.0085 *
Moon	22314-02-05 08:38 G	9871115.74	9871115.86	9871116.00	0.0489	0.0410
Earth	22314-02-05 09:21 G	9871115.79	9871115.89	9871115.99	0.0489	0.0437 *
Venus	22318-03-07 12:57 G	9872606.87	9872607.04	9872607.21	0.0510	0.0279
Mercury	22319-01-21 11:31 G	9872926.85	9872926.98	9872927.11	0.0523	0.0330
Mercury	22319-04-21 11:16 G	9873016.88	9873016.97	9873017.06	0.0527	0.0426
Earth	22319-07-14 16:04 G	9873100.94	9873101.17	9873101.41	0.0530	0.0043
Moon	22319-07-14 19:55 G	9873101.10	9873101.33	9873101.56	0.0530	0.0068 *
Mercury	22324-09-08 12:00 G	9874983.86	9874984.00	9874984.15	0.0503	0.0051
Earth	22325-01-09 16:19 G	9875106.95	9875107.18	9875107.41	0.0499	0.0009
Moon	22325-01-09 19:12 G	9875107.06	9875107.30	9875107.54	0.0499	0.0015 *
Moon	22326-02-09 12:14 G	9875503.00	9875503.01	9875503.02	0.0489	0.0488
Earth	22330-06-13 20:52 G	9877088.32	9877088.37	9877088.43	0.0516	0.0500
Mercury	22330-11-09 10:48 G	9877236.95	9877236.95	9877236.96	0.0522	0.0521
Mercury	22331-02-07 11:02 G	9877326.82	9877326.96	9877327.10	0.0526	0.0240
Moon	22331-07-19 15:50 G	9877488.93	9877489.16	9877489.39	0.0532	0.0156
Earth	22331-07-19 19:26 G	9877489.08	9877489.31	9877489.53	0.0532	0.0140 *
Venus	22335-09-21 01:26 G	9879013.36	9879013.56	9879013.75	0.0516	0.0163
Earth	22335-12-13 17:16 G	9879097.17	9879097.22	9879097.28	0.0512	0.0496
Moon	22335-12-13 21:21 G	9879097.34	9879097.39	9879097.45	0.0512	0.0495
Mercury	22336-06-27 15:21 G	9879294.01	9879294.14	9879294.27	0.0504	0.0190
Mercury	22336-09-25 01:26 G	9879383.47	9879383.56	9879383.65	0.0501	0.0390
Moon	22337-01-13 22:48 G	9879494.22	9879494.45	9879494.68	0.0497	0.0054
Earth	22337-01-14 02:24 G	9879494.37	9879494.60	9879494.83	0.0497	0.0070 *
Venus	22342-03-10 04:04 G	9881375.61	9881375.67	9881375.74	0.0514	0.0481
Moon	22342-06-18 11:02 G	9881475.84	9881475.96	9881476.08	0.0518	0.0443
Earth	22342-06-18 14:38 G	9881475.98	9881476.11	9881476.25	0.0518	0.0422 *
Mercury	22342-11-26 10:04 G	9881636.76	9881636.92	9881637.08	0.0525	0.0042
Earth	22343-07-24 20:52 G	9881877.16	9881877.37	9881877.58	0.0534	0.0238
Moon	22343-07-24 22:48 G	9881877.25	9881877.45	9881877.67	0.0534	0.0209 *

Venus	22347-05-26 22:04 G	9883279.26	9883279.42	9883279.58	0.0518	0.0329
Moon	22347-12-18 07:40 G	9883484.67	9883484.82	9883484.98	0.0510	0.0384
Earth	22347-12-18 11:02 G	9883484.84	9883484.96	9883485.10	0.0510	0.0416 *
Mercury	22348-04-15 19:12 G	9883604.19	9883604.30	9883604.40	0.0505	0.0325
Mercury	22348-07-14 04:48 G	9883693.58	9883693.70	9883693.83	0.0502	0.0251
Earth	22349-01-18 12:43 G	9883881.81	9883882.03	9883882.26	0.0495	0.0148
Moon	22349-01-18 16:19 G	9883881.96	9883882.18	9883882.40	0.0495	0.0123 *
Venus	22353-11-13 00:43 G	9885641.33	9885641.53	9885641.74	0.0511	0.0010
Earth	22354-06-23 12:57 G	9885863.86	9885864.04	9885864.22	0.0521	0.0339
Moon	22354-06-23 14:52 G	9885863.94	9885864.12	9885864.30	0.0521	0.0313 *
Mercury	22354-09-14 09:50 G	9885946.76	9885946.91	9885947.07	0.0524	0.0145
Moon	22355-07-30 03:36 G	9886265.46	9886265.65	9886265.84	0.0536	0.0319
Earth	22355-07-30 03:36 G	9886265.48	9886265.65	9886265.84	0.0536	0.0338 *
Mars	22357-04-17 07:55 G	9886892.58	9886892.83	9886893.08	0.0542	0.0055
Earth	22359-12-23 02:52 G	9887872.46	9887872.62	9887872.80	0.0507	0.0335
Moon	22359-12-23 04:48 G	9887872.53	9887872.70	9887872.87	0.0507	0.0329 *
Mercury	22360-02-02 22:48 G	9887914.40	9887914.45	9887914.50	0.0506	0.0461
Mercury	22360-05-02 08:09 G	9888003.70	9888003.84	9888003.98	0.0502	0.0111
Moon	22361-01-22 18:14 G	9888269.05	9888269.26	9888269.47	0.0494	0.0232
Earth	22361-01-22 21:21 G	9888269.18	9888269.39	9888269.60	0.0494	0.0221 *
Venus	22365-07-18 22:33 G	9889907.38	9889907.44	9889907.50	0.0509	0.0481
Earth	22366-06-28 13:55 G	9890251.87	9890252.08	9890252.28	0.0523	0.0251
Moon	22366-06-28 14:09 G	9890251.87	9890252.09	9890252.31	0.0523	0.0236 *
Mercury	22366-07-03 09:50 G	9890256.78	9890256.91	9890257.03	0.0524	0.0328
Mercury	22366-10-01 09:36 G	9890346.81	9890346.90	9890346.99	0.0527	0.0430
Moon	22367-08-04 10:19 G	9890653.82	9890653.93	9890654.05	0.0538	0.0465
Earth	22367-08-04 12:43 G	9890653.90	9890654.03	9890654.17	0.0538	0.0435 *
Venus	22371-05-29 17:45 G	9892048.16	9892048.24	9892048.33	0.0514	0.0467
Earth	22371-12-27 16:48 G	9892260.01	9892260.20	9892260.41	0.0505	0.0252
Moon	22371-12-27 17:16 G	9892260.02	9892260.22	9892260.42	0.0505	0.0280 *

Mercury	22372-02-19 11:31 G	9892313.84	9892313.98	9892314.12	0.0503	0.0030
Earth	22373-01-27 05:02 G	9892656.53	9892656.71	9892656.90	0.0492	0.0293
Moon	22373-01-27 06:57 G	9892656.62	9892656.79	9892656.96	0.0492	0.0324 *
Mars	22375-03-19 17:16 G	9893437.92	9893438.22	9893438.53	0.0487	0.0039
Mercury	22378-04-21 09:36 G	9894566.87	9894566.90	9894566.93	0.0522	0.0510
Moon	22378-07-03 14:24 G	9894639.88	9894640.10	9894640.31	0.0525	0.0188
Earth	22378-07-03 16:19 G	9894639.96	9894640.18	9894640.40	0.0525	0.0158 *
Mercury	22378-07-20 09:50 G	9894656.77	9894656.91	9894657.05	0.0526	0.0252
Earth	22379-08-09 19:55 G	9895042.29	9895042.33	9895042.38	0.0538	0.0527
Moon	22379-08-10 00:00 G	9895042.46	9895042.50	9895042.53	0.0538	0.0532
Venus	22383-02-01 11:02 G	9896313.76	9896313.96	9896314.16	0.0517	0.0041
Mercury	22383-12-08 13:55 G	9896623.95	9896624.08	9896624.21	0.0504	0.0185
Moon	22383-12-31 23:16 G	9896647.27	9896647.47	9896647.68	0.0503	0.0187
Earth	22384-01-01 01:12 G	9896647.33	9896647.55	9896647.77	0.0503	0.0175 *
Mercury	22384-03-07 00:00 G	9896713.41	9896713.50	9896713.59	0.0501	0.0395
Moon	22385-01-31 08:38 G	9897043.70	9897043.86	9897044.03	0.0491	0.0362
Earth	22385-01-31 09:21 G	9897043.73	9897043.89	9897044.05	0.0491	0.0360 *
Venus	22389-07-21 16:19 G	9898676.01	9898676.18	9898676.35	0.0513	0.0291
Mercury	22390-05-08 09:36 G	9898966.74	9898966.90	9898967.06	0.0525	0.0064
Earth	22390-07-08 17:02 G	9899027.98	9899028.21	9899028.45	0.0527	0.0064
Moon	22390-07-08 20:38 G	9899028.12	9899028.36	9899028.59	0.0527	0.0079 *
Mercury	22395-09-26 17:16 G	9900934.12	9900934.22	9900934.33	0.0505	0.0327
Mercury	22395-12-25 02:52 G	9901023.50	9901023.62	9901023.75	0.0502	0.0250
Earth	22396-01-05 12:28 G	9901034.80	9901035.02	9901035.25	0.0501	0.0096
Moon	22396-01-05 15:36 G	9901034.91	9901035.15	9901035.38	0.0501	0.0068 *
Moon	22397-02-04 14:38 G	9901430.99	9901431.11	9901431.24	0.0490	0.0402
Earth	22397-02-04 15:50 G	9901431.06	9901431.16	9901431.28	0.0490	0.0429 *
Venus	22401-03-26 11:16 G	9902941.79	9902941.97	9902942.16	0.0510	0.0204
Mercury	22402-02-24 08:09 G	9903276.69	9903276.84	9903277.00	0.0524	0.0139
Moon	22402-07-13 12:00 G	9903415.77	9903416.00	9903416.24	0.0529	0.0058

Earth	22402-07-13 15:50 G	9903415.93	9903416.16	9903416.39	0.0529	0.0029	*
Mercury	22407-07-15 20:52 G	9905244.32	9905244.37	9905244.43	0.0506	0.0462	
Mercury	22407-10-13 06:28 G	9905333.63	9905333.77	9905333.91	0.0503	0.0112	
Moon	22408-01-09 21:21 G	9905422.16	9905422.39	9905422.63	0.0499	0.0011	
Earth	22408-01-10 00:57 G	9905422.31	9905422.54	9905422.78	0.0499	0.0017	*
Moon	22409-02-09 01:55 G	9905818.58	9905818.58	9905818.60	0.0489	0.0488	
Earth	22413-06-12 22:33 G	9907403.41	9907403.44	9907403.50	0.0516	0.0506	
Mercury	22413-12-13 07:40 G	9907586.70	9907586.82	9907586.95	0.0523	0.0328	
Mercury	22414-03-13 07:26 G	9907676.73	9907676.81	9907676.91	0.0527	0.0429	
Earth	22414-07-18 19:26 G	9907804.09	9907804.31	9907804.54	0.0532	0.0128	
Moon	22414-07-18 22:04 G	9907804.20	9907804.42	9907804.64	0.0532	0.0141	*
Venus	22418-10-10 02:38 G	9909348.44	9909348.61	9909348.79	0.0515	0.0260	
Moon	22418-12-12 22:33 G	9909412.39	9909412.44	9909412.49	0.0512	0.0499	
Earth	22418-12-13 02:09 G	9909412.55	9909412.59	9909412.64	0.0512	0.0500	
Mercury	22419-08-01 09:50 G	9909643.77	9909643.91	9909644.05	0.0503	0.0028	
Earth	22420-01-14 11:31 G	9909809.75	9909809.98	9909810.21	0.0497	0.0063	
Moon	22420-01-14 15:07 G	9909809.90	9909810.13	9909810.36	0.0497	0.0039	*
Earth	22425-06-17 20:09 G	9911791.22	9911791.34	9911791.48	0.0518	0.0428	
Moon	22425-06-17 22:33 G	9911791.33	9911791.44	9911791.57	0.0518	0.0440	*
Mercury	22425-10-01 07:26 G	9911896.78	9911896.81	9911896.84	0.0523	0.0514	
Mercury	22425-12-30 07:55 G	9911986.69	9911986.83	9911986.97	0.0526	0.0250	
Moon	22426-07-24 01:12 G	9912192.33	9912192.55	9912192.78	0.0534	0.0197	
Earth	22426-07-24 02:09 G	9912192.38	9912192.59	9912192.80	0.0534	0.0228	*
Venus	22430-06-14 22:48 G	9913614.27	9913614.45	9913614.64	0.0518	0.0235	
Earth	22430-12-17 18:28 G	9913800.14	9913800.27	9913800.40	0.0510	0.0420	
Moon	22430-12-17 20:24 G	9913800.21	9913800.35	9913800.50	0.0510	0.0392	*
Mercury	22431-05-20 13:12 G	9913953.92	9913954.05	9913954.18	0.0504	0.0169	
Mercury	22431-08-17 23:02 G	9914043.38	9914043.46	9914043.55	0.0501	0.0411	
Moon	22432-01-18 18:00 G	9914197.02	9914197.25	9914197.48	0.0496	0.0117	
Earth	22432-01-18 20:52 G	9914197.15	9914197.37	9914197.59	0.0496	0.0140	*

Venus	22436-12-02 02:09 G	9915976.39	9915976.59	9915976.79	0.0512	0.0088
Moon	22437-06-22 20:24 G	9916179.16	9916179.35	9916179.55	0.0520	0.0313
Earth	22437-06-22 20:38 G	9916179.19	9916179.36	9916179.54	0.0520	0.0344 *
Mercury	22437-10-18 08:09 G	9916296.68	9916296.84	9916297.00	0.0525	0.0072
Moon	22438-07-29 07:12 G	9916580.63	9916580.80	9916580.99	0.0535	0.0315
Earth	22438-07-29 08:52 G	9916580.69	9916580.87	9916581.06	0.0535	0.0325 *
Moon	22442-12-22 04:19 G	9918187.51	9918187.68	9918187.87	0.0508	0.0344
Earth	22442-12-22 04:33 G	9918187.52	9918187.69	9918187.86	0.0508	0.0343 *
Mercury	22443-03-08 15:50 G	9918264.05	9918264.16	9918264.27	0.0505	0.0323
Mercury	22443-06-06 01:26 G	9918353.44	9918353.56	9918353.68	0.0502	0.0253
Earth	22444-01-23 01:26 G	9918584.36	9918584.56	9918584.78	0.0494	0.0211
Moon	22444-01-23 03:21 G	9918584.44	9918584.64	9918584.84	0.0494	0.0226 *
Venus	22448-08-06 23:16 G	9920242.35	9920242.47	9920242.61	0.0509	0.0391
Moon	22449-06-27 17:31 G	9920567.04	9920567.23	9920567.44	0.0522	0.0246
Earth	22449-06-27 19:12 G	9920567.10	9920567.30	9920567.51	0.0522	0.0256 *
Mercury	22449-08-06 07:40 G	9920606.66	9920606.82	9920606.97	0.0524	0.0119
Earth	22450-08-03 13:40 G	9920968.93	9920969.07	9920969.22	0.0536	0.0420
Moon	22450-08-03 17:16 G	9920969.10	9920969.22	9920969.35	0.0536	0.0453 *
Mercury	22454-12-25 18:57 G	9922574.24	9922574.29	9922574.35	0.0506	0.0466
Moon	22454-12-26 16:04 G	9922574.98	9922575.17	9922575.35	0.0506	0.0294
Earth	22454-12-26 17:31 G	9922575.04	9922575.23	9922575.43	0.0506	0.0262 *
Mercury	22455-03-25 04:33 G	9922663.55	9922663.69	9922663.83	0.0503	0.0108
Moon	22456-01-27 08:38 G	9922971.67	9922971.86	9922972.05	0.0493	0.0310
Earth	22456-01-27 09:07 G	9922971.69	9922971.88	9922972.07	0.0493	0.0284 *
Mercury	22461-05-25 06:00 G	9924916.63	9924916.75	9924916.88	0.0523	0.0323
Earth	22461-07-02 14:52 G	9924954.90	9924955.12	9924955.34	0.0525	0.0170
Moon	22461-07-02 18:00 G	9924955.03	9924955.25	9924955.47	0.0525	0.0199 *
Mercury	22461-08-23 05:45 G	9925006.66	9925006.74	9925006.83	0.0527	0.0433
Moon	22462-08-08 12:14 G	9925356.96	9925357.01	9925357.08	0.0538	0.0518
Earth	22462-08-08 16:04 G	9925357.12	9925357.17	9925357.25	0.0538	0.0513

Venus	22466-02-20 10:19 G	9926648.72	9926648.93	9926649.13	0.0517	0.0042
Earth	22466-12-31 07:55 G	9926962.61	9926962.83	9926963.04	0.0504	0.0181
Moon	22466-12-31 10:48 G	9926962.73	9926962.95	9926963.17	0.0504	0.0188 *
Mercury	22467-01-11 07:55 G	9926973.69	9926973.83	9926973.98	0.0504	0.0033
Moon	22468-01-31 16:04 G	9927359.01	9927359.17	9927359.33	0.0492	0.0348
Earth	22468-01-31 17:31 G	9927359.07	9927359.23	9927359.39	0.0492	0.0354 *
Venus	22472-08-09 13:12 G	9929010.91	9929011.05	9929011.20	0.0513	0.0359
Mercury	22473-03-13 05:16 G	9929226.70	9929226.72	9929226.74	0.0522	0.0516
Mercury	22473-06-11 05:45 G	9929316.60	9929316.74	9929316.88	0.0526	0.0247
Moon	22473-07-07 11:45 G	9929342.77	9929342.99	9929343.23	0.0527	0.0089
Earth	22473-07-07 15:36 G	9929342.92	9929343.15	9929343.39	0.0527	0.0076 *
Venus	22477-10-26 06:28 G	9930914.68	9930914.77	9930914.87	0.0519	0.0455
Mercury	22478-10-30 11:31 G	9931283.85	9931283.98	9931284.11	0.0504	0.0169
Moon	22479-01-04 17:16 G	9931349.99	9931350.22	9931350.45	0.0502	0.0074
Earth	22479-01-04 20:52 G	9931350.14	9931350.37	9931350.60	0.0502	0.0102 *
Mercury	22479-01-27 21:21 G	9931373.31	9931373.39	9931373.47	0.0501	0.0410
Earth	22480-02-05 00:00 G	9931746.39	9931746.50	9931746.62	0.0490	0.0420
Moon	22480-02-05 03:07 G	9931746.49	9931746.63	9931746.78	0.0490	0.0390 *
Venus	22484-04-14 10:19 G	9933276.73	9933276.93	9933277.13	0.0511	0.0125
Mercury	22485-03-30 05:45 G	9933626.58	9933626.74	9933626.90	0.0525	0.0065
Earth	22485-07-12 19:12 G	9933731.07	9933731.30	9933731.53	0.0529	0.0019
Moon	22485-07-12 22:19 G	9933731.20	9933731.43	9933731.65	0.0529	0.0052 *
Mercury	22490-08-18 14:52 G	9935594.01	9935594.12	9935594.23	0.0505	0.0309
Mercury	22490-11-16 00:28 G	9935683.40	9935683.52	9935683.64	0.0502	0.0267
Earth	22491-01-09 07:40 G	9935737.59	9935737.82	9935738.06	0.0500	0.0023
Moon	22491-01-09 11:16 G	9935737.74	9935737.97	9935738.20	0.0500	0.0012 *
Moon	22492-02-09 02:24 G	9936133.57	9936133.60	9936133.64	0.0489	0.0480
Earth	22492-02-09 06:00 G	9936133.73	9936133.75	9936133.79	0.0489	0.0485
Earth	22496-06-12 05:31 G	9937718.70	9937718.73	9937718.77	0.0515	0.0508
Mercury	22497-01-16 05:45 G	9937936.59	9937936.74	9937936.90	0.0524	0.0116

Moon	22497-07-17 23:02 G	9938119.22	9938119.46	9938119.69	0.0531	0.0129
Earth	22497-07-18 00:43 G	9938119.30	9938119.53	9938119.75	0.0531	0.0119 *
Venus	22501-10-29 22:48 G	9939683.30	9939683.45	9939683.61	0.0515	0.0323
Earth	22501-12-13 01:55 G	9939727.56	9939727.58	9939727.61	0.0513	0.0508
Moon	22501-12-13 04:33 G	9939727.65	9939727.69	9939727.73	0.0513	0.0503
Mercury	22502-06-07 17:31 G	9939904.18	9939904.23	9939904.29	0.0506	0.0463
Mercury	22502-09-05 02:52 G	9939993.48	9939993.62	9939993.76	0.0503	0.0109
Moon	22503-01-14 10:48 G	9940124.71	9940124.95	9940125.19	0.0498	0.0027
Earth	22503-01-14 13:40 G	9940124.84	9940125.07	9940125.30	0.0498	0.0054 *
Moon	22508-06-18 00:57 G	9942106.41	9942106.54	9942106.67	0.0517	0.0434
Earth	22508-06-18 01:40 G	9942106.45	9942106.57	9942106.70	0.0517	0.0431 *
Mercury	22508-11-05 05:16 G	9942246.59	9942246.72	9942246.85	0.0523	0.0306
Mercury	22509-02-03 05:02 G	9942336.63	9942336.71	9942336.79	0.0527	0.0449
Moon	22509-07-24 03:07 G	9942507.43	9942507.63	9942507.85	0.0533	0.0187
Earth	22509-07-24 03:50 G	9942507.45	9942507.66	9942507.88	0.0533	0.0216 *
Mars	22511-07-13 04:33 G	9943226.46	9943226.69	9943226.92	0.0541	0.0199
Venus	22513-07-04 17:45 G	9943949.05	9943949.24	9943949.43	0.0518	0.0179
Moon	22513-12-17 16:19 G	9944115.04	9944115.18	9944115.34	0.0511	0.0401
Earth	22513-12-17 16:48 G	9944115.09	9944115.20	9944115.33	0.0511	0.0430 *
Mercury	22514-06-24 06:00 G	9944303.61	9944303.75	9944303.89	0.0504	0.0036
Earth	22515-01-18 22:19 G	9944512.21	9944512.43	9944512.66	0.0497	0.0130
Moon	22515-01-19 00:14 G	9944512.29	9944512.51	9944512.73	0.0497	0.0109 *
Venus	22519-12-22 22:48 G	9946311.26	9946311.45	9946311.64	0.0512	0.0155
Moon	22520-06-22 18:00 G	9946494.08	9946494.25	9946494.43	0.0519	0.0323
Earth	22520-06-22 18:57 G	9946494.12	9946494.29	9946494.46	0.0519	0.0354 *
Mercury	22520-08-24 03:21 G	9946556.62	9946556.64	9946556.67	0.0522	0.0514
Mercury	22520-11-22 03:50 G	9946646.52	9946646.66	9946646.80	0.0526	0.0248
Earth	22521-07-29 03:50 G	9946895.47	9946895.66	9946895.85	0.0534	0.0309
Moon	22521-07-29 06:43 G	9946895.59	9946895.78	9946895.98	0.0534	0.0305 *
Moon	22525-12-22 07:26 G	9948502.66	9948502.81	9948502.97	0.0509	0.0358

Earth	22525-12-22 08:52 G	9948502.71	9948502.87	9948503.05	0.0509	0.0351	*
Mercury	22526-04-12 09:36 G	9948613.76	9948613.90	9948614.03	0.0504	0.0175	
Mercury	22526-07-10 19:26 G	9948703.23	9948703.31	9948703.39	0.0501	0.0406	
Moon	22527-01-23 07:40 G	9948899.61	9948899.82	9948900.04	0.0495	0.0220	
Earth	22527-01-23 08:24 G	9948899.64	9948899.85	9948900.06	0.0495	0.0204	*
Mars	22529-06-13 09:50 G	9949771.65	9949771.91	9949772.18	0.0487	0.0231	
Venus	22531-08-27 19:26 G	9950577.16	9950577.31	9950577.47	0.0509	0.0329	
Earth	22532-06-27 16:19 G	9950881.99	9950882.18	9950882.39	0.0522	0.0269	
Moon	22532-06-27 18:57 G	9950882.09	9950882.29	9950882.50	0.0522	0.0258	*
Mercury	22532-09-10 03:21 G	9950956.48	9950956.64	9950956.80	0.0525	0.0059	
Moon	22533-08-03 05:31 G	9951283.60	9951283.73	9951283.86	0.0536	0.0439	
Earth	22533-08-03 09:21 G	9951283.74	9951283.89	9951284.05	0.0536	0.0404	*
Earth	22537-12-27 00:14 G	9952890.32	9952890.51	9952890.71	0.0506	0.0270	
Moon	22537-12-27 03:21 G	9952890.45	9952890.64	9952890.83	0.0506	0.0301	*
Mercury	22538-01-29 12:57 G	9952923.94	9952924.04	9952924.15	0.0505	0.0312	
Mercury	22538-04-28 22:33 G	9953013.32	9953013.44	9953013.57	0.0502	0.0265	
Moon	22539-01-27 14:52 G	9953286.95	9953287.12	9953287.30	0.0493	0.0299	
Earth	22539-01-27 16:33 G	9953286.99	9953287.19	9953287.38	0.0493	0.0275	*
Mercury	22544-06-29 03:07 G	9955266.47	9955266.63	9955266.79	0.0524	0.0127	
Moon	22544-07-02 13:12 G	9955269.84	9955270.05	9955270.26	0.0524	0.0210	
Earth	22544-07-02 16:48 G	9955269.98	9955270.20	9955270.42	0.0524	0.0179	*
Earth	22545-08-08 17:45 G	9955672.16	9955672.24	9955672.33	0.0538	0.0499	
Moon	22545-08-08 21:21 G	9955672.32	9955672.39	9955672.47	0.0538	0.0505	*
Venus	22549-03-12 09:50 G	9956983.71	9956983.91	9956984.10	0.0516	0.0125	
Mercury	22549-11-17 16:33 G	9957234.13	9957234.19	9957234.25	0.0506	0.0451	
Moon	22549-12-31 10:04 G	9957277.71	9957277.92	9957278.13	0.0504	0.0193	
Earth	22549-12-31 13:40 G	9957277.85	9957278.07	9957278.28	0.0504	0.0188	*
Mercury	22550-02-15 01:55 G	9957323.44	9957323.58	9957323.72	0.0502	0.0121	
Earth	22551-01-31 23:31 G	9957674.32	9957674.48	9957674.65	0.0492	0.0346	
Moon	22551-02-01 02:52 G	9957674.44	9957674.62	9957674.79	0.0492	0.0329	*

Venus	22555-08-30 12:57 G	9959345.94	9959346.04	9959346.14	0.0514	0.0445
Mercury	22556-04-17 03:07 G	9959576.50	9959576.63	9959576.76	0.0523	0.0308
Earth	22556-07-07 19:55 G	9959658.10	9959658.33	9959658.56	0.0526	0.0085
Moon	22556-07-07 23:16 G	9959658.25	9959658.47	9959658.70	0.0526	0.0089 *
Mercury	22556-07-16 03:07 G	9959666.55	9959666.63	9959666.71	0.0527	0.0449
Venus	22560-11-15 02:38 G	9961249.48	9961249.61	9961249.75	0.0519	0.0390
Mercury	22561-12-04 04:19 G	9961633.54	9961633.68	9961633.82	0.0503	0.0035
Earth	22562-01-04 21:21 G	9961665.16	9961665.39	9961665.61	0.0502	0.0111
Moon	22562-01-05 00:57 G	9961665.31	9961665.54	9961665.77	0.0502	0.0081 *
Moon	22563-02-04 22:48 G	9962061.32	9962061.45	9962061.60	0.0491	0.0381
Earth	22563-02-05 02:52 G	9962061.49	9962061.62	9962061.74	0.0491	0.0411 *
Venus	22567-05-05 09:50 G	9963611.71	9963611.91	9963612.11	0.0511	0.0042
Mercury	22568-02-04 02:24 G	9963886.56	9963886.60	9963886.64	0.0522	0.0500
Mercury	22568-05-04 02:52 G	9963976.48	9963976.62	9963976.76	0.0526	0.0263
Moon	22568-07-12 19:12 G	9964046.06	9964046.30	9964046.54	0.0528	0.0043
Earth	22568-07-12 21:36 G	9964046.16	9964046.40	9964046.63	0.0528	0.0012 *
Mercury	22573-09-22 07:26 G	9965943.68	9965943.81	9965943.94	0.0504	0.0181
Mercury	22573-12-20 17:16 G	9966033.13	9966033.22	9966033.31	0.0501	0.0398
Moon	22574-01-09 04:33 G	9966052.45	9966052.69	9966052.92	0.0500	0.0026
Earth	22574-01-09 07:26 G	9966052.58	9966052.81	9966053.04	0.0500	0.0032 *
Earth	22575-02-09 08:38 G	9966448.81	9966448.86	9966448.91	0.0490	0.0475
Moon	22575-02-09 12:28 G	9966448.97	9966449.02	9966449.08	0.0490	0.0474
Mercury	22580-02-21 01:26 G	9968286.40	9968286.56	9968286.72	0.0525	0.0059
Earth	22580-07-17 18:57 G	9968434.06	9968434.29	9968434.52	0.0530	0.0101
Moon	22580-07-17 19:26 G	9968434.09	9968434.31	9968434.53	0.0530	0.0112 *
Venus	22584-11-17 20:09 G	9970018.22	9970018.34	9970018.48	0.0515	0.0396
Moon	22584-12-12 03:21 G	9970042.60	9970042.64	9970042.69	0.0514	0.0503
Mercury	22585-07-11 10:48 G	9970253.85	9970253.95	9970254.06	0.0505	0.0320
Mercury	22585-10-08 20:38 G	9970343.23	9970343.36	9970343.48	0.0502	0.0258
Earth	22586-01-13 18:57 G	9970440.06	9970440.29	9970440.52	0.0499	0.0046

Moon	22586-01-13 20:52 G	9970440.14	9970440.37	9970440.59	0.0499	0.0020	*
Moon	22591-06-17 22:04 G	9972421.31	9972421.42	9972421.54	0.0516	0.0446	
Earth	22591-06-17 22:19 G	9972421.32	9972421.43	9972421.56	0.0516	0.0443	*
Mercury	22591-12-10 00:43 G	9972596.37	9972596.53	9972596.69	0.0524	0.0133	
Earth	22592-07-22 21:50 G	9972822.20	9972822.41	9972822.63	0.0532	0.0198	
Moon	22592-07-23 00:00 G	9972822.27	9972822.50	9972822.73	0.0532	0.0167	*
Venus	22596-07-23 16:48 G	9974284.00	9974284.20	9974284.40	0.0518	0.0096	
Moon	22596-12-16 20:52 G	9974430.23	9974430.37	9974430.50	0.0512	0.0412	
Earth	22596-12-16 21:50 G	9974430.30	9974430.41	9974430.54	0.0512	0.0439	*
Mercury	22597-04-29 14:24 G	9974564.05	9974564.10	9974564.17	0.0506	0.0456	
Mercury	22597-07-28 00:00 G	9974653.36	9974653.50	9974653.63	0.0503	0.0118	
Moon	22598-01-18 04:33 G	9974827.45	9974827.69	9974827.92	0.0497	0.0103	
Earth	22598-01-18 04:48 G	9974827.48	9974827.70	9974827.93	0.0497	0.0122	*
Venus	22603-01-11 19:55 G	9976646.15	9976646.33	9976646.51	0.0512	0.0224	
Earth	22603-06-23 19:26 G	9976809.15	9976809.31	9976809.48	0.0519	0.0363	
Moon	22603-06-23 21:36 G	9976809.21	9976809.40	9976809.58	0.0519	0.0330	*
Mercury	22603-09-29 00:14 G	9976906.38	9976906.51	9976906.64	0.0523	0.0323	
Mercury	22603-12-28 00:14 G	9976996.42	9976996.51	9976996.60	0.0527	0.0435	
Moon	22604-07-29 00:00 G	9977210.31	9977210.50	9977210.69	0.0534	0.0294	
Earth	22604-07-29 03:36 G	9977210.46	9977210.65	9977210.85	0.0534	0.0296	*
Earth	22608-12-22 13:40 G	9978817.91	9978818.07	9978818.24	0.0509	0.0357	
Moon	22608-12-22 16:33 G	9978818.03	9978818.19	9978818.36	0.0509	0.0365	*
Mercury	22609-05-17 03:07 G	9978963.49	9978963.63	9978963.77	0.0503	0.0027	
Moon	22610-01-23 12:14 G	9979214.81	9979215.01	9979215.22	0.0495	0.0217	
Earth	22610-01-23 13:40 G	9979214.86	9979215.07	9979215.29	0.0495	0.0196	*
Venus	22614-09-16 18:14 G	9980912.08	9980912.26	9980912.43	0.0510	0.0252	
Moon	22615-06-28 16:33 G	9981197.00	9981197.19	9981197.39	0.0521	0.0271	
Earth	22615-06-28 19:55 G	9981197.14	9981197.33	9981197.54	0.0521	0.0276	*
Mercury	22615-07-18 00:00 G	9981216.47	9981216.50	9981216.54	0.0522	0.0505	
Mercury	22615-10-16 00:43 G	9981306.39	9981306.53	9981306.67	0.0526	0.0259	

Earth	22616-08-03 11:45 G	9981598.84	9981598.99	9981599.15	0.0536	0.0392
Moon	22616-08-03 15:36 G	9981599.02	9981599.15	9981599.29	0.0536	0.0429 *
Moon	22620-12-26 20:52 G	9983205.19	9983205.37	9983205.55	0.0507	0.0311
Earth	22620-12-27 00:14 G	9983205.32	9983205.51	9983205.70	0.0507	0.0279 *
Mercury	22621-03-05 05:45 G	9983273.61	9983273.74	9983273.87	0.0504	0.0179
Mercury	22621-06-02 15:36 G	9983363.06	9983363.15	9983363.23	0.0501	0.0399
Earth	22622-01-27 17:45 G	9983602.05	9983602.24	9983602.44	0.0494	0.0266
Moon	22622-01-27 20:52 G	9983602.18	9983602.37	9983602.57	0.0494	0.0285 *
Earth	22627-07-03 19:26 G	9985585.09	9985585.31	9985585.53	0.0524	0.0186
Moon	22627-07-03 23:02 G	9985585.25	9985585.46	9985585.68	0.0524	0.0219 *
Mercury	22627-08-04 00:14 G	9985616.35	9985616.51	9985616.67	0.0525	0.0072
Moon	22628-08-08 14:24 G	9985987.01	9985987.10	9985987.20	0.0537	0.0490
Earth	22628-08-08 17:31 G	9985987.13	9985987.23	9985987.32	0.0537	0.0486 *
Mars	22630-01-02 01:40 G	9986498.50	9986498.57	9986498.66	0.0541	0.0513
Venus	22632-04-01 04:19 G	9987318.49	9987318.68	9987318.87	0.0516	0.0179
Mercury	22632-12-22 08:52 G	9987583.77	9987583.87	9987583.98	0.0505	0.0325
Earth	22632-12-31 12:00 G	9987592.79	9987593.00	9987593.21	0.0505	0.0199
Moon	22632-12-31 15:36 G	9987592.94	9987593.15	9987593.37	0.0505	0.0196 *
Mercury	22633-03-21 18:28 G	9987673.15	9987673.27	9987673.39	0.0502	0.0251
Moon	22634-01-31 20:52 G	9987989.20	9987989.37	9987989.55	0.0492	0.0320
Earth	22634-02-01 00:43 G	9987989.36	9987989.53	9987989.70	0.0492	0.0336 *
Venus	22638-09-19 08:24 G	9989680.83	9989680.85	9989680.89	0.0513	0.0506
Mercury	22639-05-22 22:48 G	9989926.29	9989926.45	9989926.60	0.0524	0.0135
Moon	22639-07-08 12:00 G	9989972.76	9989973.00	9989973.23	0.0525	0.0106
Earth	22639-07-08 14:52 G	9989972.89	9989973.12	9989973.35	0.0525	0.0101 *
Venus	22643-12-05 23:16 G	9991584.32	9991584.47	9991584.63	0.0519	0.0322
Mercury	22644-10-10 12:28 G	9991893.97	9991894.02	9991894.07	0.0506	0.0463
Moon	22645-01-04 22:04 G	9991980.18	9991980.42	9991980.65	0.0503	0.0090
Earth	22645-01-05 00:57 G	9991980.32	9991980.54	9991980.77	0.0503	0.0122 *
Mercury	22645-01-07 21:50 G	9991983.27	9991983.41	9991983.55	0.0503	0.0111

Earth	22646-02-05 08:24 G	9992376.73	9992376.85	9992376.99	0.0491	0.0403
Moon	22646-02-05 12:28 G	9992376.87	9992377.02	9992377.17	0.0491	0.0373 *
Mars	22647-12-01 21:36 G	9993041.27	9993041.40	9993041.53	0.0486	0.0439
Venus	22650-05-25 04:48 G	9993946.49	9993946.70	9993946.90	0.0511	0.0018
Mercury	22651-03-10 21:50 G	9994236.28	9994236.41	9994236.53	0.0523	0.0329
Mercury	22651-06-08 21:50 G	9994326.32	9994326.41	9994326.50	0.0526	0.0428
Earth	22651-07-13 15:07 G	9994360.89	9994361.13	9994361.36	0.0528	0.0010
Moon	22651-07-13 16:19 G	9994360.96	9994361.18	9994361.41	0.0528	0.0024 *
Mercury	22656-10-27 01:12 G	9996293.41	9996293.55	9996293.69	0.0504	0.0030
Earth	22657-01-09 13:12 G	9996367.82	9996368.05	9996368.28	0.0501	0.0042
Moon	22657-01-09 15:07 G	9996367.91	9996368.13	9996368.36	0.0501	0.0037 *
Moon	22658-02-09 11:16 G	9996763.91	9996763.97	9996764.05	0.0490	0.0466
Earth	22658-02-09 14:52 G	9996764.06	9996764.12	9996764.20	0.0490	0.0466
Venus	22662-01-28 01:40 G	9998212.49	9998212.57	9998212.65	0.0508	0.0463
Mercury	22662-12-27 20:52 G	9998546.37	9998546.37	9998546.38	0.0522	0.0521
Mercury	22663-03-27 21:36 G	9998636.26	9998636.40	9998636.54	0.0526	0.0244
Earth	22663-07-18 17:45 G	9998749.01	9998749.24	9998749.48	0.0530	0.0088
Moon	22663-07-18 18:57 G	9998749.05	9998749.29	9998749.53	0.0530	0.0092 *
Mars	22665-10-06 20:52 G	9999560.23	9999560.37	9999560.51	0.0541	0.0443
Venus	22667-12-08 19:12 G	10000353.22	10000353.30	10000353.38	0.0514	0.0475
Moon	22667-12-13 07:26 G	10000357.77	10000357.81	10000357.85	0.0514	0.0505
Mercury	22668-08-15 04:33 G	10000603.56	10000603.69	10000603.82	0.0504	0.0171
Mercury	22668-11-12 14:24 G	10000693.02	10000693.10	10000693.18	0.0501	0.0408
Moon	22669-01-13 23:31 G	10000755.24	10000755.48	10000755.72	0.0499	0.0010
Earth	22669-01-14 00:00 G	10000755.27	10000755.50	10000755.73	0.0499	0.0038 *
Earth	22674-06-18 01:12 G	10002736.45	10002736.55	10002736.67	0.0516	0.0449
Moon	22674-06-18 03:07 G	10002736.51	10002736.63	10002736.75	0.0516	0.0446 *
Mercury	22675-01-13 21:50 G	10002946.25	10002946.41	10002946.57	0.0525	0.0065
Moon	22675-07-23 20:52 G	10003137.15	10003137.37	10003137.59	0.0532	0.0155
Earth	22675-07-24 00:14 G	10003137.29	10003137.51	10003137.73	0.0532	0.0187 *

Venus	22679-08-13 13:26 G	10004618.85	10004619.06	10004619.26	0.0517	0.0031
Earth	22679-12-17 21:50 G	10004745.30	10004745.41	10004745.52	0.0512	0.0447
Moon	22679-12-18 00:14 G	10004745.38	10004745.51	10004745.65	0.0512	0.0417 *
Mercury	22680-06-03 07:12 G	10004913.70	10004913.80	10004913.91	0.0505	0.0323
Mercury	22680-08-31 16:48 G	10005003.08	10005003.20	10005003.32	0.0502	0.0252
Moon	22681-01-18 04:48 G	10005142.48	10005142.70	10005142.92	0.0497	0.0100
Earth	22681-01-18 06:00 G	10005142.53	10005142.75	10005142.98	0.0497	0.0112 *
Mars	22683-09-07 14:52 G	10006105.04	10006105.12	10006105.22	0.0487	0.0466
Venus	22686-01-30 18:43 G	10006981.12	10006981.28	10006981.44	0.0513	0.0304
Moon	22686-06-22 19:26 G	10007124.14	10007124.31	10007124.49	0.0519	0.0339
Earth	22686-06-22 22:33 G	10007124.28	10007124.44	10007124.61	0.0519	0.0369 *
Mercury	22686-11-01 21:21 G	10007256.24	10007256.39	10007256.55	0.0524	0.0124
Earth	22687-07-29 04:19 G	10007525.49	10007525.68	10007525.88	0.0534	0.0283
Moon	22687-07-29 08:24 G	10007525.66	10007525.85	10007526.05	0.0534	0.0286 *
Moon	22691-12-22 08:38 G	10009132.71	10009132.86	10009133.01	0.0510	0.0377
Earth	22691-12-22 11:45 G	10009132.84	10009132.99	10009133.16	0.0510	0.0368 *
Mercury	22692-03-22 10:33 G	10009223.89	10009223.94	10009223.99	0.0506	0.0467
Mercury	22692-06-19 19:40 G	10009313.18	10009313.32	10009313.46	0.0503	0.0106
Earth	22693-01-22 14:09 G	10009529.87	10009530.09	10009530.30	0.0496	0.0185
Moon	22693-01-22 17:02 G	10009530.00	10009530.21	10009530.43	0.0496	0.0212 *
Venus	22697-10-05 13:55 G	10011246.89	10011247.08	10011247.27	0.0509	0.0188
Earth	22698-06-27 16:04 G	10011511.98	10011512.17	10011512.37	0.0520	0.0290
Moon	22698-06-27 19:55 G	10011512.14	10011512.33	10011512.53	0.0520	0.0293 *
Mercury	22698-08-20 19:40 G	10011566.20	10011566.32	10011566.45	0.0523	0.0330
Mercury	22698-11-18 19:55 G	10011656.24	10011656.33	10011656.42	0.0526	0.0428
Moon	22699-08-03 00:28 G	10011913.36	10011913.52	10011913.67	0.0535	0.0405
Earth	22699-08-03 04:04 G	10011913.50	10011913.67	10011913.84	0.0535	0.0372 *
Earth	22703-12-28 02:09 G	10013520.41	10013520.59	10013520.79	0.0508	0.0291
Moon	22703-12-28 06:00 G	10013520.57	10013520.75	10013520.93	0.0508	0.0319 *
Mercury	22704-04-08 23:02 G	10013623.32	10013623.46	10013623.60	0.0504	0.0037

Moon	22705-01-27 19:26 G	10013917.12	10013917.31	10013917.50	0.0494	0.0277
Earth	22705-01-27 23:16 G	10013917.27	10013917.47	10013917.67	0.0494	0.0257 *
Moon	22710-07-03 10:33 G	10015899.73	10015899.94	10015900.15	0.0523	0.0237
Earth	22710-07-03 13:55 G	10015899.87	10015900.08	10015900.30	0.0523	0.0203 *
Mercury	22710-09-07 19:12 G	10015966.16	10015966.30	10015966.45	0.0525	0.0239
Earth	22711-08-09 08:52 G	10016301.76	10016301.87	10016301.99	0.0537	0.0465
Moon	22711-08-09 10:19 G	10016301.83	10016301.93	10016302.04	0.0537	0.0468 *
Venus	22715-04-22 02:24 G	10017653.43	10017653.60	10017653.78	0.0516	0.0258
Moon	22716-01-01 13:40 G	10017907.86	10017908.07	10017908.29	0.0506	0.0202
Earth	22716-01-01 17:02 G	10017908.00	10017908.21	10017908.42	0.0506	0.0210 *
Mercury	22716-01-27 02:38 G	10017933.48	10017933.61	10017933.74	0.0505	0.0176
Mercury	22716-04-25 12:14 G	10018022.93	10018023.01	10018023.10	0.0501	0.0405
Earth	22717-02-01 07:12 G	10018304.63	10018304.80	10018304.98	0.0493	0.0326
Moon	22717-02-01 11:16 G	10018304.79	10018304.97	10018305.15	0.0493	0.0308 *
Mercury	22722-06-26 18:57 G	10020276.13	10020276.29	10020276.45	0.0525	0.0050
Earth	22722-07-08 13:26 G	10020287.83	10020288.06	10020288.29	0.0525	0.0113
Moon	22722-07-08 15:21 G	10020287.92	10020288.14	10020288.36	0.0525	0.0118 *
Moon	22723-08-14 18:00 G	10020690.21	10020690.25	10020690.31	0.0539	0.0525
Venus	22726-12-25 22:33 G	10021919.26	10021919.44	10021919.62	0.0519	0.0239
Mercury	22727-11-15 06:00 G	10022243.65	10022243.75	10022243.86	0.0505	0.0315
Earth	22728-01-06 06:14 G	10022295.53	10022295.76	10022295.98	0.0503	0.0129
Moon	22728-01-06 08:09 G	10022295.62	10022295.84	10022296.06	0.0503	0.0098 *
Mercury	22728-02-12 15:36 G	10022333.03	10022333.15	10022333.27	0.0502	0.0261
Moon	22729-02-05 10:48 G	10022691.79	10022691.95	10022692.10	0.0491	0.0365
Earth	22729-02-05 14:09 G	10022691.96	10022692.09	10022692.23	0.0491	0.0394 *
Venus	22733-06-14 02:38 G	10024281.41	10024281.61	10024281.81	0.0511	0.0090
Mercury	22734-04-14 18:57 G	10024586.13	10024586.29	10024586.45	0.0524	0.0131
Earth	22734-07-13 17:16 G	10024675.98	10024676.22	10024676.45	0.0528	0.0020
Moon	22734-07-13 17:31 G	10024675.98	10024676.23	10024676.47	0.0528	0.0013 *
Mercury	22739-09-03 09:07 G	10026553.82	10026553.88	10026553.93	0.0506	0.0463

Mercury	22739-12-01 18:14 G	10026643.12	10026643.26	10026643.40	0.0503	0.0108
Moon	22740-01-10 13:55 G	10026682.84	10026683.08	10026683.33	0.0501	0.0049
Earth	22740-01-10 14:52 G	10026682.89	10026683.12	10026683.35	0.0501	0.0051 *
Earth	22741-02-09 17:31 G	10027079.16	10027079.23	10027079.32	0.0490	0.0457
Moon	22741-02-09 19:40 G	10027079.26	10027079.32	10027079.39	0.0490	0.0467 *
Venus	22745-02-17 00:14 G	10028547.38	10028547.51	10028547.65	0.0509	0.0386
Mercury	22746-01-31 18:28 G	10028896.14	10028896.27	10028896.40	0.0523	0.0320
Mercury	22746-05-01 18:43 G	10028986.19	10028986.28	10028986.36	0.0527	0.0439
Moon	22746-07-18 17:16 G	10029063.99	10029064.22	10029064.44	0.0529	0.0075
Earth	22746-07-18 19:55 G	10029064.10	10029064.33	10029064.56	0.0529	0.0078 *
Moon	22750-12-13 08:52 G	10030672.85	10030672.87	10030672.91	0.0515	0.0510
Mercury	22751-09-19 21:21 G	10030953.25	10030953.39	10030953.53	0.0504	0.0039
Moon	22752-01-14 23:31 G	10031070.26	10031070.48	10031070.71	0.0499	0.0006
Earth	22752-01-15 00:43 G	10031070.29	10031070.53	10031070.76	0.0499	0.0028 *
Moon	22757-06-17 21:21 G	10033051.29	10033051.39	10033051.49	0.0515	0.0461
Earth	22757-06-17 23:45 G	10033051.39	10033051.49	10033051.60	0.0515	0.0461 *
Mercury	22758-02-17 17:16 G	10033296.08	10033296.22	10033296.37	0.0525	0.0239
Earth	22758-07-23 18:00 G	10033452.03	10033452.25	10033452.48	0.0531	0.0167
Moon	22758-07-23 22:04 G	10033452.20	10033452.42	10033452.65	0.0531	0.0133 *
Venus	22762-09-02 09:36 G	10034953.70	10034953.90	10034954.11	0.0517	0.0040
Moon	22762-12-17 19:26 G	10035060.20	10035060.31	10035060.44	0.0513	0.0433
Earth	22762-12-17 22:33 G	10035060.35	10035060.44	10035060.55	0.0513	0.0460 *
Mercury	22763-07-09 00:28 G	10035263.39	10035263.52	10035263.66	0.0505	0.0181
Mercury	22763-10-06 10:19 G	10035352.85	10035352.93	10035353.02	0.0502	0.0400
Earth	22764-01-19 10:48 G	10035457.72	10035457.95	10035458.18	0.0498	0.0101
Moon	22764-01-19 13:40 G	10035457.84	10035458.07	10035458.31	0.0498	0.0098 *
Venus	22769-02-19 14:09 G	10037315.95	10037316.09	10037316.23	0.0512	0.0365
Earth	22769-06-22 18:43 G	10037439.13	10037439.28	10037439.45	0.0517	0.0384
Moon	22769-06-22 22:33 G	10037439.28	10037439.44	10037439.62	0.0517	0.0352 *
Mercury	22769-12-06 16:48 G	10037606.04	10037606.20	10037606.36	0.0524	0.0047

Moon	22770-07-28 16:48 G	10037840.00	10037840.20	10037840.41	0.0533	0.0259
Earth	22770-07-28 20:52 G	10037840.17	10037840.37	10037840.58	0.0533	0.0262 *
Venus	22774-05-08 05:02 G	10039219.63	10039219.71	10039219.81	0.0520	0.0464
Earth	22774-12-22 15:50 G	10039448.01	10039448.16	10039448.31	0.0511	0.0379
Moon	22774-12-22 19:26 G	10039448.17	10039448.31	10039448.46	0.0511	0.0395 *
Mercury	22775-04-27 04:04 G	10039573.57	10039573.67	10039573.78	0.0506	0.0318
Mercury	22775-07-25 13:40 G	10039662.95	10039663.07	10039663.19	0.0502	0.0258
Moon	22776-01-23 17:02 G	10039845.00	10039845.21	10039845.42	0.0496	0.0205
Earth	22776-01-23 20:52 G	10039845.15	10039845.37	10039845.59	0.0496	0.0175 *
Venus	22780-10-25 10:33 G	10041581.74	10041581.94	10041582.14	0.0510	0.0122
Moon	22781-06-27 11:45 G	10041826.80	10041826.99	10041827.18	0.0520	0.0305
Earth	22781-06-27 15:21 G	10041826.96	10041827.14	10041827.34	0.0520	0.0301 *
Mercury	22781-09-24 16:04 G	10041916.02	10041916.17	10041916.33	0.0524	0.0144
Earth	22782-08-03 02:09 G	10042228.42	10042228.59	10042228.77	0.0535	0.0357
Moon	22782-08-03 04:33 G	10042228.55	10042228.69	10042228.85	0.0535	0.0390 *
Mars	22784-03-28 14:09 G	10042831.88	10042832.09	10042832.30	0.0542	0.0291
Moon	22786-12-27 04:33 G	10043835.51	10043835.69	10043835.88	0.0508	0.0324
Earth	22786-12-27 07:40 G	10043835.64	10043835.82	10043836.02	0.0508	0.0298 *
Mercury	22787-02-13 07:40 G	10043883.77	10043883.82	10043883.88	0.0506	0.0456
Mercury	22787-05-13 17:02 G	10043973.07	10043973.21	10043973.35	0.0503	0.0117
Earth	22788-01-28 05:31 G	10044232.53	10044232.73	10044232.93	0.0494	0.0248
Moon	22788-01-28 09:36 G	10044232.70	10044232.90	10044233.09	0.0494	0.0267 *
Earth	22793-07-02 16:04 G	10046214.96	10046215.17	10046215.39	0.0522	0.0212
Moon	22793-07-02 18:28 G	10046215.07	10046215.27	10046215.47	0.0522	0.0246 *
Mercury	22793-07-13 16:04 G	10046226.04	10046226.17	10046226.29	0.0523	0.0327
Mercury	22793-10-11 16:04 G	10046316.09	10046316.17	10046316.27	0.0527	0.0434
Earth	22794-08-08 10:48 G	10046616.84	10046616.95	10046617.09	0.0537	0.0455
Moon	22794-08-08 11:16 G	10046616.85	10046616.97	10046617.11	0.0537	0.0446 *
Venus	22798-05-11 00:28 G	10047988.36	10047988.52	10047988.67	0.0515	0.0333
Earth	22798-12-31 19:40 G	10048223.11	10048223.32	10048223.53	0.0506	0.0219

Moon	22798-12-31 21:50 G	10048223.20	10048223.41	10048223.61	0.0506	0.0207	*
Mercury	22799-03-01 19:55 G	10048283.19	10048283.33	10048283.47	0.0504	0.0036	
Moon	22800-02-01 07:12 G	10048619.62	10048619.80	10048619.99	0.0493	0.0299	
Earth	22800-02-01 10:48 G	10048619.77	10048619.95	10048620.13	0.0493	0.0317	*
Mars	22802-02-25 03:21 G	10049374.37	10049374.64	10049374.93	0.0486	0.0202	
Mercury	22805-05-01 15:21 G	10050536.12	10050536.14	10050536.17	0.0522	0.0515	
Moon	22805-07-07 16:19 G	10050602.95	10050603.18	10050603.42	0.0525	0.0122	
Earth	22805-07-07 17:02 G	10050602.98	10050603.21	10050603.44	0.0525	0.0122	*
Mercury	22805-07-30 16:19 G	10050626.04	10050626.18	10050626.32	0.0526	0.0251	
Moon	22806-08-13 15:36 G	10051005.10	10051005.15	10051005.22	0.0538	0.0514	
Venus	22810-01-13 19:12 G	10052254.11	10052254.30	10052254.49	0.0518	0.0170	
Mercury	22810-12-18 23:02 G	10052593.33	10052593.46	10052593.59	0.0505	0.0178	
Moon	22811-01-05 06:28 G	10052610.54	10052610.77	10052611.01	0.0504	0.0109	
Earth	22811-01-05 07:26 G	10052610.59	10052610.81	10052611.04	0.0504	0.0140	*
Mercury	22811-03-18 08:38 G	10052682.78	10052682.86	10052682.95	0.0501	0.0400	
Earth	22812-02-05 17:16 G	10053007.08	10053007.22	10053007.37	0.0492	0.0386	
Moon	22812-02-05 19:26 G	10053007.17	10053007.31	10053007.47	0.0492	0.0365	*
Venus	22816-07-02 23:45 G	10054616.30	10054616.49	10054616.68	0.0511	0.0162	
Mercury	22817-05-18 14:52 G	10054935.96	10054936.12	10054936.29	0.0524	0.0053	
Moon	22817-07-12 12:14 G	10054990.78	10054991.01	10054991.23	0.0526	0.0009	
Earth	22817-07-12 13:55 G	10054990.85	10054991.08	10054991.32	0.0526	0.0038	*
Mercury	22822-10-07 02:09 G	10056903.49	10056903.59	10056903.70	0.0506	0.0321	
Mercury	22823-01-04 11:45 G	10056992.87	10056992.99	10056993.11	0.0503	0.0256	
Moon	22823-01-09 18:14 G	10056998.03	10056998.26	10056998.48	0.0502	0.0066	
Earth	22823-01-09 18:57 G	10056998.06	10056998.29	10056998.53	0.0502	0.0064	*
Moon	22824-02-10 00:14 G	10057394.44	10057394.51	10057394.60	0.0491	0.0463	
Earth	22824-02-10 00:57 G	10057394.45	10057394.54	10057394.64	0.0491	0.0448	*
Venus	22828-03-07 20:52 G	10058882.22	10058882.37	10058882.53	0.0508	0.0318	
Mercury	22829-03-06 14:09 G	10059245.94	10059246.09	10059246.25	0.0523	0.0142	
Earth	22829-07-17 14:38 G	10059378.87	10059379.11	10059379.34	0.0528	0.0058	

Moon	22829-07-17 18:14 G	10059379.03	10059379.26	10059379.50	0.0528	0.0050	*
Mercury	22834-07-26 06:00 G	10061213.69	10061213.75	10061213.80	0.0507	0.0458	
Mercury	22834-10-23 15:07 G	10061302.99	10061303.13	10061303.27	0.0503	0.0116	
Earth	22835-01-14 07:12 G	10061385.56	10061385.80	10061386.03	0.0500	0.0018	
Moon	22835-01-14 10:04 G	10061385.68	10061385.92	10061386.16	0.0500	0.0014	*
Earth	22840-06-17 00:14 G	10063366.42	10063366.51	10063366.61	0.0515	0.0469	
Moon	22840-06-17 03:50 G	10063366.56	10063366.66	10063366.77	0.0515	0.0458	*
Mercury	22840-12-23 13:26 G	10063555.93	10063556.06	10063556.18	0.0522	0.0335	
Mercury	22841-03-23 13:40 G	10063645.98	10063646.07	10063646.16	0.0526	0.0423	
Moon	22841-07-22 12:57 G	10063766.81	10063767.04	10063767.27	0.0531	0.0117	
Earth	22841-07-22 17:16 G	10063766.99	10063767.22	10063767.44	0.0531	0.0153	*
Venus	22845-09-21 09:36 G	10065288.71	10065288.90	10065289.10	0.0517	0.0128	
Earth	22845-12-17 04:33 G	10065375.60	10065375.69	10065375.79	0.0514	0.0465	
Moon	22845-12-17 08:24 G	10065375.74	10065375.85	10065375.97	0.0514	0.0442	*
Mercury	22846-08-11 18:43 G	10065613.13	10065613.28	10065613.42	0.0504	0.0029	
Moon	22847-01-18 14:24 G	10065772.87	10065773.10	10065773.33	0.0498	0.0093	
Earth	22847-01-18 18:14 G	10065773.03	10065773.26	10065773.49	0.0498	0.0093	*
Venus	22852-03-10 12:43 G	10067650.93	10067651.03	10067651.13	0.0513	0.0443	
Moon	22852-06-21 18:14 G	10067754.09	10067754.26	10067754.43	0.0517	0.0358	
Earth	22852-06-21 21:50 G	10067754.27	10067754.41	10067754.57	0.0517	0.0390	*
Mercury	22852-10-11 12:57 G	10067866.04	10067866.04	10067866.06	0.0522	0.0520	
Mercury	22853-01-09 13:55 G	10067955.94	10067956.08	10067956.22	0.0526	0.0246	
Earth	22853-07-27 23:45 G	10068155.28	10068155.49	10068155.70	0.0533	0.0251	
Moon	22853-07-28 02:52 G	10068155.42	10068155.62	10068155.82	0.0533	0.0254	*
Venus	22857-05-27 04:33 G	10069554.55	10069554.69	10069554.83	0.0520	0.0378	
Moon	22857-12-21 16:48 G	10069763.06	10069763.20	10069763.34	0.0511	0.0407	
Earth	22857-12-21 20:09 G	10069763.20	10069763.34	10069763.50	0.0511	0.0387	*
Mercury	22858-05-30 21:36 G	10069923.27	10069923.40	10069923.54	0.0505	0.0171	
Mercury	22858-08-28 07:26 G	10070012.73	10070012.81	10070012.89	0.0501	0.0407	
Earth	22859-01-23 01:40 G	10070160.35	10070160.57	10070160.79	0.0496	0.0166	

Moon	22859-01-23 05:31 G	10070160.52	10070160.73	10070160.95	0.0496	0.0198	*
Venus	22863-11-14 10:19 G	10071916.72	10071916.93	10071917.13	0.0510	0.0038	
Earth	22864-06-26 20:24 G	10072142.16	10072142.35	10072142.54	0.0520	0.0308	
Moon	22864-06-26 23:16 G	10072142.29	10072142.47	10072142.65	0.0520	0.0317	*
Mercury	22864-10-28 13:55 G	10072265.92	10072266.08	10072266.24	0.0525	0.0064	
Moon	22865-08-02 05:16 G	10072543.55	10072543.72	10072543.89	0.0535	0.0375	
Earth	22865-08-02 06:00 G	10072543.57	10072543.75	10072543.93	0.0535	0.0346	*
Earth	22869-12-26 10:33 G	10074150.76	10074150.94	10074151.13	0.0509	0.0306	
Moon	22869-12-26 12:43 G	10074150.87	10074151.03	10074151.21	0.0509	0.0332	*
Mercury	22870-03-19 00:57 G	10074233.43	10074233.54	10074233.65	0.0505	0.0314	
Mercury	22870-06-16 10:19 G	10074322.81	10074322.93	10074323.06	0.0502	0.0262	
Moon	22871-01-27 06:28 G	10074547.56	10074547.77	10074547.97	0.0495	0.0256	
Earth	22871-01-27 09:50 G	10074547.71	10074547.91	10074548.12	0.0495	0.0240	*
Moon	22876-07-01 14:52 G	10076529.92	10076530.12	10076530.34	0.0521	0.0258	
Earth	22876-07-01 16:19 G	10076529.97	10076530.18	10076530.39	0.0521	0.0227	*
Mercury	22876-08-16 12:43 G	10076575.87	10076576.03	10076576.19	0.0523	0.0135	
Moon	22877-08-07 05:16 G	10076931.59	10076931.72	10076931.86	0.0536	0.0424	
Earth	22877-08-07 06:57 G	10076931.66	10076931.79	10076931.93	0.0536	0.0434	*
Venus	22881-05-29 21:21 G	10078323.27	10078323.39	10078323.51	0.0516	0.0405	
Moon	22881-12-30 22:04 G	10078538.21	10078538.42	10078538.64	0.0507	0.0218	
Earth	22881-12-30 23:16 G	10078538.26	10078538.47	10078538.68	0.0507	0.0232	*
Mercury	22882-01-05 04:04 G	10078543.62	10078543.67	10078543.73	0.0507	0.0458	
Mercury	22882-04-04 13:26 G	10078632.92	10078633.06	10078633.20	0.0504	0.0116	
Earth	22883-01-31 18:00 G	10078935.08	10078935.25	10078935.44	0.0494	0.0308	
Moon	22883-01-31 20:09 G	10078935.16	10078935.34	10078935.53	0.0494	0.0286	*
Mercury	22888-06-04 11:45 G	10080885.87	10080885.99	10080886.12	0.0522	0.0328	
Moon	22888-07-06 13:40 G	10080917.86	10080918.07	10080918.29	0.0523	0.0135	
Earth	22888-07-06 14:52 G	10080917.89	10080918.12	10080918.35	0.0523	0.0139	*
Mercury	22888-09-02 12:00 G	10080975.91	10080976.00	10080976.09	0.0526	0.0430	
Earth	22889-08-12 12:00 G	10081319.96	10081320.00	10081320.06	0.0537	0.0524	

Moon	22889-08-12 15:36 G	10081320.06	10081320.15	10081320.25	0.0537	0.0489	*
Venus	22893-02-01 17:16 G	10082589.02	10082589.22	10082589.42	0.0519	0.0091	
Moon	22894-01-04 12:43 G	10082925.82	10082926.03	10082926.25	0.0505	0.0124	
Earth	22894-01-04 13:40 G	10082925.85	10082926.07	10082926.29	0.0505	0.0150	*
Mercury	22894-01-21 16:48 G	10082943.06	10082943.20	10082943.35	0.0504	0.0029	
Moon	22895-02-05 01:40 G	10083322.42	10083322.57	10083322.75	0.0492	0.0359	
Earth	22895-02-05 02:09 G	10083322.45	10083322.59	10083322.75	0.0492	0.0376	*
Venus	22899-07-22 21:36 G	10084951.22	10084951.40	10084951.58	0.0511	0.0236	
Mercury	22900-06-22 11:31 G	10085285.84	10085285.98	10085286.13	0.0525	0.0241	
Earth	22900-07-12 14:09 G	10085305.86	10085306.09	10085306.33	0.0526	0.0049	
Moon	22900-07-12 17:31 G	10085305.99	10085306.23	10085306.47	0.0526	0.0019	*
Mercury	22905-11-10 20:24 G	10087253.22	10087253.35	10087253.49	0.0505	0.0163	
Earth	22906-01-10 03:21 G	10087313.41	10087313.64	10087313.87	0.0503	0.0069	
Moon	22906-01-10 06:00 G	10087313.52	10087313.75	10087313.99	0.0503	0.0083	*
Mercury	22906-02-08 06:14 G	10087342.68	10087342.76	10087342.84	0.0502	0.0418	
Moon	22907-02-10 08:38 G	10087709.79	10087709.86	10087709.94	0.0491	0.0463	
Earth	22907-02-10 09:36 G	10087709.81	10087709.90	10087710.01	0.0491	0.0441	*
Venus	22911-03-28 19:40 G	10089217.15	10089217.32	10089217.51	0.0509	0.0240	
Mercury	22912-04-10 11:45 G	10089595.83	10089595.99	10089596.15	0.0524	0.0061	
Moon	22912-07-17 14:09 G	10089693.86	10089694.09	10089694.32	0.0528	0.0040	
Earth	22912-07-17 18:14 G	10089694.03	10089694.26	10089694.50	0.0528	0.0048	*
Mercury	22917-08-29 23:45 G	10091563.38	10091563.49	10091563.60	0.0505	0.0305	
Mercury	22917-11-27 09:07 G	10091652.76	10091652.88	10091653.00	0.0502	0.0270	
Moon	22918-01-14 09:50 G	10091700.68	10091700.91	10091701.14	0.0500	0.0024	
Earth	22918-01-14 13:40 G	10091700.84	10091701.07	10091701.30	0.0500	0.0009	*
Moon	22923-06-18 03:21 G	10093681.53	10093681.64	10093681.74	0.0514	0.0458	
Earth	22923-06-18 07:12 G	10093681.71	10093681.80	10093681.89	0.0514	0.0474	*
Mercury	22924-01-28 11:31 G	10093905.83	10093905.98	10093906.14	0.0524	0.0122	
Earth	22924-07-22 22:33 G	10094082.22	10094082.44	10094082.67	0.0530	0.0145	
Moon	22924-07-23 02:09 G	10094082.37	10094082.59	10094082.82	0.0530	0.0112	*

Venus	22928-10-11 08:52 G	10095623.68	10095623.87	10095624.05	0.0517	0.0209
Moon	22928-12-17 05:31 G	10095690.63	10095690.73	10095690.84	0.0514	0.0454
Earth	22928-12-17 09:07 G	10095690.80	10095690.88	10095690.97	0.0514	0.0473 *
Mercury	22929-06-18 03:07 G	10095873.57	10095873.63	10095873.70	0.0506	0.0447
Mercury	22929-09-15 12:14 G	10095962.88	10095963.01	10095963.15	0.0503	0.0127
Earth	22930-01-18 23:45 G	10096088.26	10096088.49	10096088.72	0.0499	0.0085
Moon	22930-01-19 03:50 G	10096088.43	10096088.66	10096088.89	0.0499	0.0088 *
Earth	22935-06-23 01:40 G	10098069.43	10098069.57	10098069.72	0.0516	0.0401
Moon	22935-06-23 04:48 G	10098069.55	10098069.70	10098069.87	0.0516	0.0371 *
Mercury	22935-11-16 10:33 G	10098215.81	10098215.94	10098216.07	0.0522	0.0317
Mercury	22936-02-14 10:48 G	10098305.86	10098305.95	10098306.03	0.0526	0.0440
Moon	22936-07-27 21:21 G	10098470.17	10098470.39	10098470.61	0.0532	0.0237
Earth	22936-07-27 23:16 G	10098470.26	10098470.47	10098470.68	0.0532	0.0232 *
Mars	22938-06-23 08:09 G	10099165.59	10099165.84	10099166.09	0.0542	0.0044
Venus	22940-06-16 01:40 G	10099889.41	10099889.57	10099889.74	0.0520	0.0305
Earth	22940-12-21 23:02 G	10100078.32	10100078.46	10100078.61	0.0512	0.0399
Moon	22940-12-22 01:26 G	10100078.44	10100078.56	10100078.69	0.0512	0.0426 *
Mercury	22941-07-04 15:21 G	10100273.00	10100273.14	10100273.28	0.0504	0.0021
Moon	22942-01-23 05:16 G	10100475.50	10100475.72	10100475.94	0.0497	0.0186
Earth	22942-01-23 08:52 G	10100475.65	10100475.87	10100476.09	0.0497	0.0156 *
Venus	22946-12-04 09:07 G	10102251.68	10102251.88	10102252.09	0.0510	0.0046
Moon	22947-06-27 20:09 G	10102457.16	10102457.34	10102457.53	0.0518	0.0327
Earth	22947-06-27 22:19 G	10102457.24	10102457.43	10102457.61	0.0518	0.0320 *
Mercury	22947-09-04 09:36 G	10102525.87	10102525.90	10102525.93	0.0521	0.0510
Mercury	22947-12-03 10:19 G	10102615.79	10102615.93	10102616.07	0.0525	0.0252
Moon	22948-08-02 01:55 G	10102858.42	10102858.58	10102858.75	0.0534	0.0356
Earth	22948-08-02 02:38 G	10102858.43	10102858.61	10102858.80	0.0534	0.0327 *
Moon	22952-12-26 14:24 G	10104465.93	10104466.10	10104466.29	0.0510	0.0341
Earth	22952-12-26 15:36 G	10104465.98	10104466.15	10104466.34	0.0510	0.0318 *
Mercury	22953-04-22 18:43 G	10104583.15	10104583.28	10104583.42	0.0505	0.0161

Mercury	22953-07-21 04:33 G	10104672.62	10104672.69	10104672.77	0.0502	0.0421
Earth	22954-01-27 18:43 G	10104863.08	10104863.28	10104863.49	0.0496	0.0230
Moon	22954-01-27 20:52 G	10104863.17	10104863.37	10104863.57	0.0496	0.0238 *
Mars	22956-05-22 06:57 G	10105708.50	10105708.79	10105709.09	0.0486	0.0105
Venus	22958-08-09 06:00 G	10106517.65	10106517.75	10106517.86	0.0507	0.0434
Moon	22959-07-02 18:00 G	10106845.07	10106845.25	10106845.45	0.0521	0.0265
Earth	22959-07-02 18:28 G	10106845.07	10106845.27	10106845.48	0.0521	0.0236 *
Mercury	22959-09-21 09:36 G	10106925.74	10106925.90	10106926.07	0.0524	0.0063
Earth	22960-08-07 07:40 G	10107246.68	10107246.82	10107246.97	0.0536	0.0421
Moon	22960-08-07 10:33 G	10107246.79	10107246.94	10107247.10	0.0536	0.0406 *
Venus	22964-06-18 22:33 G	10108658.40	10108658.44	10108658.49	0.0516	0.0500
Moon	22964-12-31 07:40 G	10108853.62	10108853.82	10108854.03	0.0508	0.0219
Earth	22964-12-31 08:24 G	10108853.65	10108853.85	10108854.06	0.0508	0.0236 *
Mercury	22965-02-08 22:33 G	10108893.33	10108893.44	10108893.55	0.0506	0.0297
Mercury	22965-05-09 07:55 G	10108982.72	10108982.83	10108982.95	0.0503	0.0281
Moon	22966-02-01 03:50 G	10109250.46	10109250.66	10109250.86	0.0494	0.0274
Earth	22966-02-01 04:04 G	10109250.49	10109250.67	10109250.86	0.0494	0.0302 *
Earth	22971-07-07 19:26 G	10111233.09	10111233.31	10111233.53	0.0523	0.0147
Moon	22971-07-07 22:19 G	10111233.20	10111233.43	10111233.66	0.0523	0.0131 *
Mercury	22971-07-10 09:36 G	10111235.74	10111235.90	10111236.06	0.0523	0.0121
Moon	22972-08-12 13:12 G	10111634.96	10111635.05	10111635.16	0.0537	0.0482
Earth	22972-08-12 17:02 G	10111635.15	10111635.21	10111635.28	0.0537	0.0514 *
Venus	22976-02-22 18:43 G	10112924.08	10112924.28	10112924.49	0.0518	0.0008
Mercury	22976-11-28 01:55 G	10113203.52	10113203.58	10113203.65	0.0507	0.0437
Earth	22977-01-04 21:50 G	10113241.19	10113241.41	10113241.63	0.0505	0.0157
Moon	22977-01-05 00:28 G	10113241.29	10113241.52	10113241.75	0.0505	0.0135 *
Mercury	22977-02-25 11:16 G	10113292.83	10113292.97	10113293.10	0.0503	0.0137
Moon	22978-02-05 09:36 G	10113637.74	10113637.90	10113638.05	0.0492	0.0356
Earth	22978-02-05 10:33 G	10113637.80	10113637.94	10113638.10	0.0492	0.0369 *
Venus	22982-08-11 22:48 G	10115286.29	10115286.45	10115286.60	0.0512	0.0331

Mercury	22983-04-28 09:21 G	10115545.76	10115545.89	10115546.03	0.0523	0.0304
Moon	22983-07-12 17:45 G	10115621.01	10115621.24	10115621.47	0.0526	0.0025
Earth	22983-07-12 21:36 G	10115621.17	10115621.40	10115621.64	0.0526	0.0056 *
Mercury	22983-07-27 09:50 G	10115635.83	10115635.91	10115635.99	0.0526	0.0455
Venus	22987-10-28 13:26 G	10117190.02	10117190.06	10117190.12	0.0521	0.0501
Mercury	22988-12-14 14:24 G	10117602.96	10117603.10	10117603.25	0.0504	0.0016
Moon	22989-01-09 06:43 G	10117628.55	10117628.78	10117629.00	0.0503	0.0095
Earth	22989-01-09 10:19 G	10117628.70	10117628.93	10117629.16	0.0503	0.0077 *
Earth	22990-02-09 17:45 G	10118025.14	10118025.24	10118025.35	0.0491	0.0434
Moon	22990-02-09 20:09 G	10118025.26	10118025.34	10118025.43	0.0491	0.0456 *
Venus	22994-04-16 20:24 G	10119552.16	10119552.35	10119552.55	0.0509	0.0147
Mercury	22995-02-14 08:24 G	10119855.81	10119855.85	10119855.90	0.0521	0.0497
Mercury	22995-05-15 09:07 G	10119945.75	10119945.88	10119946.02	0.0525	0.0267
Earth	22995-07-17 21:21 G	10120009.16	10120009.39	10120009.63	0.0527	0.0034
Moon	22995-07-18 01:26 G	10120009.33	10120009.56	10120009.79	0.0527	0.0024 *
Mercury	23000-10-03 17:31 G	10121913.09	10121913.23	10121913.36	0.0505	0.0155

24TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 24th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	23001-01-01 03:07 G	10122002.56	10122002.63	10122002.71	0.0502	0.0427		
Earth	23001-01-14 20:09 G	10122016.11	10122016.34	10122016.57	0.0502	0.0005		
Moon	23001-01-15 00:14 G	10122016.27	10122016.51	10122016.74	0.0502	0.0033 *		

Earth	23006-06-18 12:28 G	10123996.95	10123997.02	10123997.11	0.0513	0.0480
Moon	23006-06-18 16:04 G	10123997.07	10123997.17	10123997.27	0.0513	0.0459 *
Mercury	23007-03-04 08:52 G	10124255.71	10124255.87	10124256.03	0.0524	0.0079
Moon	23007-07-23 20:38 G	10124397.12	10124397.36	10124397.59	0.0529	0.0097
Earth	23007-07-23 23:02 G	10124397.24	10124397.46	10124397.69	0.0529	0.0128 *
Venus	23011-11-01 07:12 G	10125958.64	10125958.80	10125958.97	0.0517	0.0291
Earth	23011-12-18 12:57 G	10126005.97	10126006.04	10126006.12	0.0515	0.0483
Moon	23011-12-18 15:36 G	10126006.06	10126006.15	10126006.24	0.0515	0.0472 *
Mercury	23012-07-22 21:07 G	10126223.26	10126223.38	10126223.49	0.0506	0.0294
Mercury	23012-10-20 06:28 G	10126312.66	10126312.77	10126312.89	0.0503	0.0285
Moon	23013-01-19 04:33 G	10126403.46	10126403.69	10126403.92	0.0500	0.0078
Earth	23013-01-19 08:09 G	10126403.61	10126403.84	10126404.07	0.0500	0.0075 *
Moon	23018-06-23 03:36 G	10128384.49	10128384.65	10128384.82	0.0515	0.0376
Earth	23018-06-23 06:00 G	10128384.61	10128384.75	10128384.90	0.0515	0.0406 *
Mercury	23018-12-21 07:55 G	10128565.67	10128565.83	10128565.99	0.0523	0.0116
Earth	23019-07-29 01:12 G	10128785.34	10128785.55	10128785.77	0.0531	0.0221
Moon	23019-07-29 01:12 G	10128785.35	10128785.55	10128785.75	0.0531	0.0236 *
Venus	23023-07-07 03:36 G	10130224.47	10130224.65	10130224.84	0.0520	0.0205
Moon	23023-12-23 07:12 G	10130393.67	10130393.80	10130393.93	0.0513	0.0428
Earth	23023-12-23 08:24 G	10130393.72	10130393.85	10130394.00	0.0513	0.0402 *
Mercury	23024-05-11 00:43 G	10130533.46	10130533.53	10130533.61	0.0507	0.0429
Mercury	23024-08-08 10:04 G	10130622.78	10130622.92	10130623.05	0.0504	0.0146
Earth	23025-01-23 19:40 G	10130791.10	10130791.32	10130791.54	0.0498	0.0152
Moon	23025-01-23 21:36 G	10130791.19	10130791.40	10130791.61	0.0498	0.0180 *
Venus	23029-12-24 09:07 G	10132586.68	10132586.88	10132587.08	0.0510	0.0131
Earth	23030-06-28 03:50 G	10132772.48	10132772.66	10132772.84	0.0518	0.0324
Moon	23030-06-28 03:50 G	10132772.49	10132772.66	10132772.83	0.0518	0.0338 *
Mercury	23030-10-09 07:40 G	10132875.69	10132875.82	10132875.95	0.0522	0.0300
Mercury	23031-01-07 07:55 G	10132965.76	10132965.83	10132965.91	0.0526	0.0458
Earth	23031-08-03 07:55 G	10133173.64	10133173.83	10133174.02	0.0534	0.0318

Moon	23031-08-03 10:19 G	10133173.75	10133173.93	10133174.12	0.0534	0.0346 *
Moon	23035-12-28 00:57 G	10134781.38	10134781.54	10134781.71	0.0510	0.0342
Earth	23035-12-28 01:26 G	10134781.38	10134781.56	10134781.74	0.0510	0.0322 *
Mercury	23036-05-27 13:26 G	10134932.92	10134933.06	10134933.20	0.0504	0.0007
Moon	23037-01-28 04:19 G	10135178.47	10135178.68	10135178.90	0.0496	0.0221
Earth	23037-01-28 04:33 G	10135178.48	10135178.69	10135178.90	0.0496	0.0224 *
Venus	23041-08-29 07:26 G	10136852.66	10136852.81	10136852.96	0.0508	0.0340
Earth	23042-07-03 03:21 G	10137160.43	10137160.64	10137160.84	0.0521	0.0241
Moon	23042-07-03 05:45 G	10137160.53	10137160.74	10137160.95	0.0521	0.0264 *
Mercury	23042-07-28 07:12 G	10137185.75	10137185.80	10137185.87	0.0522	0.0484
Mercury	23042-10-26 08:09 G	10137275.71	10137275.84	10137275.98	0.0525	0.0282
Moon	23043-08-08 12:00 G	10137561.86	10137562.00	10137562.16	0.0535	0.0398
Earth	23043-08-08 15:50 G	10137562.01	10137562.16	10137562.31	0.0535	0.0412 *
Earth	23048-01-01 16:33 G	10139168.98	10139169.19	10139169.39	0.0508	0.0242
Moon	23048-01-01 18:57 G	10139169.08	10139169.29	10139169.51	0.0508	0.0217 *
Mercury	23048-03-15 16:48 G	10139243.07	10139243.20	10139243.34	0.0505	0.0137
Mercury	23048-06-13 02:24 G	10139332.54	10139332.60	10139332.67	0.0502	0.0443
Moon	23049-02-01 11:45 G	10139565.81	10139565.99	10139566.19	0.0494	0.0266
Earth	23049-02-01 13:12 G	10139565.87	10139566.05	10139566.24	0.0494	0.0295 *
Moon	23054-07-07 22:19 G	10141548.21	10141548.43	10141548.66	0.0522	0.0139
Earth	23054-07-08 02:09 G	10141548.37	10141548.59	10141548.82	0.0522	0.0157 *
Mercury	23054-08-14 07:40 G	10141585.67	10141585.82	10141585.98	0.0524	0.0095
Earth	23055-08-13 19:12 G	10141950.22	10141950.30	10141950.39	0.0536	0.0498
Moon	23055-08-13 23:02 G	10141950.35	10141950.46	10141950.57	0.0536	0.0470 *
Venus	23059-03-14 16:48 G	10143259.00	10143259.20	10143259.40	0.0518	0.0085
Mercury	23060-01-02 19:40 G	10143553.21	10143553.32	10143553.44	0.0506	0.0287
Moon	23060-01-05 23:45 G	10143556.27	10143556.49	10143556.71	0.0506	0.0148
Earth	23060-01-06 03:21 G	10143556.43	10143556.64	10143556.86	0.0506	0.0167 *
Mercury	23060-04-01 05:02 G	10143642.60	10143642.71	10143642.83	0.0503	0.0293
Earth	23061-02-05 20:09 G	10143953.18	10143953.34	10143953.50	0.0493	0.0360

Moon	23061-02-05 22:33 G	10143953.28	10143953.44	10143953.61	0.0493	0.0349 *
Venus	23065-08-31 23:45 G	10145621.39	10145621.49	10145621.61	0.0511	0.0426
Mercury	23066-06-02 07:12 G	10145895.64	10145895.80	10145895.96	0.0523	0.0095
Earth	23066-07-13 01:26 G	10145936.33	10145936.56	10145936.80	0.0524	0.0068
Moon	23066-07-13 05:31 G	10145936.50	10145936.73	10145936.97	0.0524	0.0037 *
Venus	23070-11-17 11:45 G	10147524.88	10147524.99	10147525.11	0.0521	0.0422
Mercury	23071-10-21 23:16 G	10147863.40	10147863.47	10147863.55	0.0507	0.0425
Earth	23072-01-10 17:16 G	10147943.99	10147944.22	10147944.45	0.0504	0.0086
Moon	23072-01-10 21:21 G	10147944.16	10147944.39	10147944.62	0.0504	0.0108 *
Mercury	23072-01-19 08:38 G	10147952.72	10147952.86	10147952.99	0.0504	0.0151
Moon	23073-02-10 00:57 G	10148340.46	10148340.54	10148340.63	0.0492	0.0452
Earth	23073-02-10 04:19 G	10148340.57	10148340.68	10148340.80	0.0492	0.0426 *
Venus	23077-05-06 20:24 G	10149887.14	10149887.35	10149887.55	0.0509	0.0062
Mercury	23078-03-21 06:14 G	10150205.62	10150205.76	10150205.89	0.0522	0.0292
Mercury	23078-06-19 06:28 G	10150295.70	10150295.77	10150295.84	0.0525	0.0464
Moon	23078-07-17 21:36 G	10150324.16	10150324.40	10150324.64	0.0527	0.0014
Earth	23078-07-18 00:43 G	10150324.30	10150324.53	10150324.76	0.0527	0.0024 *
Mercury	23083-11-07 12:14 G	10152262.87	10152263.01	10152263.15	0.0505	0.0014
Moon	23084-01-15 03:50 G	10152331.42	10152331.66	10152331.89	0.0502	0.0035
Earth	23084-01-15 07:26 G	10152331.57	10152331.81	10152332.04	0.0502	0.0010 *
Earth	23085-02-14 12:00 G	10152727.99	10152728.00	10152728.03	0.0490	0.0489
Moon	23089-06-17 16:33 G	10154312.09	10154312.19	10154312.29	0.0513	0.0461
Earth	23089-06-17 18:57 G	10154312.22	10154312.29	10154312.37	0.0513	0.0483 *
Mercury	23090-01-07 05:45 G	10154515.68	10154515.74	10154515.80	0.0521	0.0478
Mercury	23090-04-07 06:28 G	10154605.64	10154605.77	10154605.91	0.0525	0.0286
Earth	23090-07-23 04:33 G	10154712.46	10154712.69	10154712.92	0.0529	0.0119
Moon	23090-07-23 05:02 G	10154712.49	10154712.71	10154712.94	0.0529	0.0095 *
Mars	23092-09-17 22:19 G	10155500.22	10155500.43	10155500.64	0.0542	0.0290
Venus	23094-11-20 10:04 G	10156293.79	10156293.92	10156294.05	0.0516	0.0396
Moon	23094-12-17 22:04 G	10156321.33	10156321.42	10156321.51	0.0515	0.0475

Earth	23094-12-17 23:31 G	10156321.41	10156321.48	10156321.56	0.0515	0.0486	*
Mercury	23095-08-26 15:36 G	10156573.02	10156573.15	10156573.29	0.0505	0.0127	
Mercury	23095-11-24 01:12 G	10156662.50	10156662.55	10156662.62	0.0502	0.0455	
Earth	23096-01-19 18:43 G	10156719.06	10156719.28	10156719.52	0.0500	0.0071	
Moon	23096-01-19 20:52 G	10156719.15	10156719.37	10156719.59	0.0500	0.0081	*
Earth	23101-06-23 15:21 G	10158700.01	10158700.14	10158700.29	0.0515	0.0410	
Moon	23101-06-23 16:04 G	10158700.02	10158700.17	10158700.32	0.0515	0.0387	*
Mercury	23102-01-25 06:43 G	10158915.62	10158915.78	10158915.94	0.0524	0.0107	
Earth	23102-07-29 10:04 G	10159100.71	10159100.92	10159101.14	0.0531	0.0214	
Moon	23102-07-29 12:00 G	10159100.79	10159101.00	10159101.22	0.0531	0.0235	*
Venus	23106-07-27 05:45 G	10160559.54	10160559.74	10160559.94	0.0519	0.0104	
Earth	23106-12-23 17:31 G	10160709.09	10160709.23	10160709.37	0.0513	0.0406	
Moon	23106-12-23 17:02 G	10160709.10	10160709.21	10160709.33	0.0513	0.0436	*
Mercury	23107-06-15 19:12 G	10160883.18	10160883.30	10160883.42	0.0506	0.0267	
Mercury	23107-09-13 04:33 G	10160972.58	10160972.69	10160972.80	0.0503	0.0311	
Moon	23108-01-25 05:16 G	10161106.49	10161106.72	10161106.95	0.0498	0.0171	
Earth	23108-01-25 05:16 G	10161106.50	10161106.72	10161106.95	0.0498	0.0146	*
Mars	23110-08-18 20:38 G	10162043.25	10162043.36	10162043.49	0.0486	0.0446	
Venus	23113-01-13 11:31 G	10162921.80	10162921.98	10162922.16	0.0510	0.0234	
Earth	23113-06-28 13:12 G	10163087.87	10163088.05	10163088.23	0.0517	0.0331	
Moon	23113-06-28 15:07 G	10163087.96	10163088.13	10163088.31	0.0517	0.0352	*
Mercury	23113-11-13 06:14 G	10163225.60	10163225.76	10163225.93	0.0523	0.0080	
Moon	23114-08-03 10:19 G	10163488.75	10163488.93	10163489.11	0.0532	0.0333	
Earth	23114-08-03 13:26 G	10163488.87	10163489.06	10163489.26	0.0532	0.0303	*
Earth	23118-12-28 05:45 G	10165096.56	10165096.74	10165096.91	0.0511	0.0332	
Moon	23118-12-28 07:55 G	10165096.66	10165096.83	10165097.01	0.0511	0.0341	*
Mercury	23119-04-03 22:04 G	10165193.35	10165193.42	10165193.50	0.0507	0.0417	
Mercury	23119-07-02 07:12 G	10165282.67	10165282.80	10165282.94	0.0504	0.0160	
Moon	23120-01-29 11:16 G	10165493.77	10165493.97	10165494.18	0.0497	0.0209	
Earth	23120-01-29 12:43 G	10165493.83	10165494.03	10165494.25	0.0497	0.0216	*

Venus	23124-09-18 09:36 G	10167187.73	10167187.90	10167188.08	0.0507	0.0241
Moon	23125-07-03 06:43 G	10167475.59	10167475.78	10167475.98	0.0519	0.0271
Earth	23125-07-03 10:19 G	10167475.73	10167475.93	10167476.14	0.0519	0.0247 *
Mercury	23125-09-01 05:45 G	10167535.60	10167535.74	10167535.88	0.0522	0.0268
Mercury	23125-11-30 05:45 G	10167625.69	10167625.74	10167625.80	0.0525	0.0487
Earth	23126-08-08 17:31 G	10167877.08	10167877.23	10167877.39	0.0534	0.0396
Moon	23126-08-08 21:21 G	10167877.23	10167877.39	10167877.56	0.0534	0.0376 *
Moon	23131-01-01 18:00 G	10169484.05	10169484.25	10169484.46	0.0509	0.0223
Earth	23131-01-01 21:36 G	10169484.20	10169484.40	10169484.61	0.0509	0.0252 *
Mercury	23131-04-20 10:48 G	10169592.81	10169592.95	10169593.09	0.0505	0.0021
Earth	23132-02-02 22:19 G	10169881.25	10169881.43	10169881.62	0.0495	0.0287
Moon	23132-02-03 01:12 G	10169881.34	10169881.55	10169881.75	0.0495	0.0256 *
Mercury	23137-06-20 04:19 G	10171845.61	10171845.68	10171845.75	0.0521	0.0467
Earth	23137-07-08 06:28 G	10171863.55	10171863.77	10171863.99	0.0522	0.0164
Moon	23137-07-08 10:33 G	10171863.71	10171863.94	10171864.16	0.0522	0.0142 *
Mercury	23137-09-18 05:02 G	10171935.59	10171935.71	10171935.85	0.0524	0.0296
Moon	23138-08-13 18:43 G	10172265.17	10172265.28	10172265.41	0.0536	0.0461
Earth	23138-08-13 21:36 G	10172265.31	10172265.40	10172265.51	0.0536	0.0486 *
Venus	23142-04-03 18:57 G	10173594.11	10173594.29	10173594.49	0.0518	0.0187
Earth	23143-01-06 14:09 G	10173871.87	10173872.09	10173872.31	0.0507	0.0170
Moon	23143-01-06 18:00 G	10173872.04	10173872.25	10173872.48	0.0507	0.0154 *
Mercury	23143-02-06 14:24 G	10173902.97	10173903.10	10173903.24	0.0506	0.0119
Mercury	23143-05-07 00:14 G	10173992.45	10173992.51	10173992.56	0.0502	0.0463
Moon	23144-02-07 04:33 G	10174268.54	10174268.69	10174268.86	0.0493	0.0351
Earth	23144-02-07 08:09 G	10174268.68	10174268.84	10174269.00	0.0493	0.0356 *
Mercury	23149-07-07 05:02 G	10176245.56	10176245.71	10176245.87	0.0524	0.0113
Moon	23149-07-13 03:36 G	10176251.41	10176251.65	10176251.89	0.0524	0.0046
Earth	23149-07-13 06:57 G	10176251.56	10176251.79	10176252.03	0.0524	0.0074 *
Venus	23153-12-07 15:07 G	10177859.97	10177860.13	10177860.30	0.0521	0.0313
Mercury	23154-11-25 18:00 G	10178213.13	10178213.25	10178213.37	0.0506	0.0257

Moon	23155-01-11 00:57 G	10178259.31	10178259.54	10178259.78	0.0504	0.0113
Earth	23155-01-11 04:48 G	10178259.47	10178259.70	10178259.92	0.0504	0.0091 *
Mercury	23155-02-23 03:21 G	10178302.54	10178302.64	10178302.75	0.0503	0.0322
Earth	23156-02-11 15:21 G	10178656.03	10178656.14	10178656.26	0.0492	0.0420
Moon	23156-02-11 19:12 G	10178656.21	10178656.30	10178656.39	0.0492	0.0449 *
Venus	23160-05-26 22:19 G	10180222.22	10180222.43	10180222.63	0.0509	0.0037
Mercury	23161-04-25 05:02 G	10180555.55	10180555.71	10180555.87	0.0523	0.0068
Earth	23161-07-18 10:04 G	10180639.68	10180639.92	10180640.15	0.0527	0.0019
Moon	23161-07-18 11:16 G	10180639.75	10180639.97	10180640.20	0.0527	0.0002 *
Mercury	23166-09-13 21:36 G	10182523.32	10182523.40	10182523.49	0.0507	0.0396
Mercury	23166-12-12 06:43 G	10182612.65	10182612.78	10182612.92	0.0504	0.0180
Earth	23167-01-15 17:16 G	10182646.98	10182647.22	10182647.45	0.0502	0.0013
Moon	23167-01-15 19:12 G	10182647.08	10182647.30	10182647.53	0.0502	0.0033 *
Earth	23168-02-15 23:02 G	10183043.42	10183043.46	10183043.50	0.0491	0.0482
Venus	23172-01-30 21:36 G	10184488.29	10184488.40	10184488.51	0.0507	0.0427
Earth	23172-06-18 05:45 G	10184627.67	10184627.74	10184627.82	0.0512	0.0486
Moon	23172-06-18 06:43 G	10184627.69	10184627.78	10184627.87	0.0512	0.0463 *
Mercury	23173-02-11 04:48 G	10184865.56	10184865.70	10184865.84	0.0522	0.0251
Mercury	23173-05-12 04:48 G	10184955.67	10184955.70	10184955.75	0.0525	0.0505
Earth	23173-07-23 12:28 G	10185027.79	10185028.02	10185028.25	0.0528	0.0109
Moon	23173-07-23 13:40 G	10185027.83	10185028.07	10185028.31	0.0528	0.0087 *
Venus	23177-12-10 08:24 G	10186628.77	10186628.85	10186628.93	0.0516	0.0473
Earth	23177-12-18 02:24 G	10186636.54	10186636.60	10186636.67	0.0516	0.0494
Moon	23177-12-18 02:24 G	10186636.54	10186636.60	10186636.68	0.0516	0.0489 *
Mercury	23178-09-30 09:21 G	10186922.75	10186922.89	10186923.03	0.0505	0.0027
Moon	23179-01-20 01:12 G	10187034.32	10187034.55	10187034.79	0.0501	0.0080
Earth	23179-01-20 01:26 G	10187034.33	10187034.56	10187034.79	0.0501	0.0062 *
Earth	23184-06-23 00:43 G	10189015.40	10189015.53	10189015.68	0.0514	0.0411
Moon	23184-06-23 02:24 G	10189015.45	10189015.60	10189015.76	0.0514	0.0395 *
Mercury	23184-11-30 04:04 G	10189175.58	10189175.67	10189175.75	0.0521	0.0442

Mercury	23185-02-28 04:48 G	10189265.57	10189265.70	10189265.83	0.0524	0.0319
Moon	23185-07-28 11:45 G	10189415.79	10189415.99	10189416.20	0.0530	0.0225
Earth	23185-07-28 14:38 G	10189415.90	10189416.11	10189416.33	0.0530	0.0202 *
Venus	23189-08-15 03:21 G	10190894.44	10190894.64	10190894.85	0.0519	0.0032
Earth	23189-12-22 20:09 G	10191024.21	10191024.34	10191024.48	0.0514	0.0415
Moon	23189-12-22 22:19 G	10191024.31	10191024.43	10191024.55	0.0514	0.0443 *
Mercury	23190-07-19 12:57 G	10191232.90	10191233.04	10191233.17	0.0506	0.0117
Mercury	23190-10-16 22:33 G	10191322.39	10191322.44	10191322.49	0.0502	0.0466
Moon	23191-01-24 11:02 G	10191421.75	10191421.96	10191422.17	0.0499	0.0163
Earth	23191-01-24 12:28 G	10191421.80	10191422.02	10191422.25	0.0499	0.0138 *
Venus	23196-02-02 11:31 G	10193256.82	10193256.98	10193257.14	0.0510	0.0319
Moon	23196-06-27 14:38 G	10193402.95	10193403.11	10193403.28	0.0516	0.0363
Earth	23196-06-27 18:00 G	10193403.08	10193403.25	10193403.43	0.0516	0.0335 *
Mercury	23196-12-17 03:50 G	10193575.50	10193575.66	10193575.82	0.0523	0.0124
Earth	23197-08-02 15:50 G	10193803.97	10193804.16	10193804.35	0.0532	0.0293
Moon	23197-08-02 19:40 G	10193804.13	10193804.32	10193804.51	0.0532	0.0318 *
Moon	23201-12-27 11:45 G	10195411.83	10195411.99	10195412.17	0.0512	0.0339
Earth	23201-12-27 15:21 G	10195411.97	10195412.14	10195412.32	0.0512	0.0335 *
Mercury	23202-05-07 16:33 G	10195543.07	10195543.19	10195543.31	0.0507	0.0253
Mercury	23202-08-05 02:09 G	10195632.48	10195632.59	10195632.70	0.0503	0.0328
Earth	23203-01-29 00:14 G	10195809.30	10195809.51	10195809.72	0.0497	0.0212
Moon	23203-01-29 03:07 G	10195809.41	10195809.63	10195809.85	0.0497	0.0199 *
Venus	23207-10-08 09:21 G	10197522.70	10197522.89	10197523.09	0.0508	0.0158
Earth	23208-07-02 15:21 G	10197790.94	10197791.14	10197791.34	0.0519	0.0253
Moon	23208-07-02 19:26 G	10197791.11	10197791.31	10197791.51	0.0519	0.0274 *
Mercury	23208-10-05 03:21 G	10197885.48	10197885.64	10197885.81	0.0523	0.0064
Moon	23209-08-07 18:43 G	10198192.10	10198192.28	10198192.45	0.0534	0.0362
Earth	23209-08-07 21:50 G	10198192.26	10198192.41	10198192.58	0.0534	0.0388 *
Mars	23211-03-11 07:12 G	10198772.63	10198772.80	10198772.98	0.0542	0.0389
Earth	23214-01-01 08:38 G	10199799.66	10199799.86	10199800.06	0.0509	0.0255

Moon	23214-01-01 12:43 G	10199799.82	10199800.03	10199800.24	0.0509	0.0222	*
Mercury	23214-02-23 20:24 G	10199853.26	10199853.35	10199853.44	0.0507	0.0388	
Mercury	23214-05-24 05:31 G	10199942.60	10199942.73	10199942.86	0.0504	0.0188	
Moon	23215-02-02 06:14 G	10200196.56	10200196.76	10200196.96	0.0495	0.0252	
Earth	23215-02-02 09:36 G	10200196.71	10200196.90	10200197.09	0.0495	0.0282	*
Moon	23220-07-07 11:31 G	10202178.76	10202178.98	10202179.21	0.0521	0.0148	
Earth	23220-07-07 15:21 G	10202178.92	10202179.14	10202179.36	0.0521	0.0168	*
Mercury	23220-07-24 03:21 G	10202195.49	10202195.64	10202195.78	0.0522	0.0244	
Mercury	23220-10-22 03:36 G	10202285.62	10202285.65	10202285.68	0.0526	0.0513	
Earth	23221-08-13 06:00 G	10202580.66	10202580.75	10202580.86	0.0536	0.0478	
Moon	23221-08-13 07:26 G	10202580.71	10202580.81	10202580.93	0.0536	0.0461	*
Venus	23225-04-22 21:21 G	10203929.22	10203929.39	10203929.56	0.0517	0.0287	
Moon	23226-01-05 20:09 G	10204187.11	10204187.34	10204187.56	0.0507	0.0158	
Earth	23226-01-05 23:45 G	10204187.27	10204187.49	10204187.71	0.0507	0.0174	*
Mercury	23226-03-12 08:52 G	10204252.73	10204252.87	10204253.01	0.0504	0.0047	
Earth	23227-02-06 18:14 G	10204584.10	10204584.26	10204584.43	0.0494	0.0350	
Moon	23227-02-06 21:50 G	10204584.26	10204584.41	10204584.58	0.0494	0.0356	*
Mars	23229-02-05 06:14 G	10205313.47	10205313.76	10205314.05	0.0486	0.0161	
Mercury	23232-05-12 02:52 G	10206505.53	10206505.62	10206505.72	0.0521	0.0427	
Earth	23232-07-12 16:19 G	10206566.95	10206567.18	10206567.41	0.0523	0.0080	
Moon	23232-07-12 18:14 G	10206567.03	10206567.26	10206567.48	0.0523	0.0061	*
Mercury	23232-08-10 03:50 G	10206595.54	10206595.66	10206595.78	0.0524	0.0334	
Venus	23236-12-26 13:12 G	10208194.87	10208195.05	10208195.23	0.0520	0.0237	
Mercury	23237-12-29 11:31 G	10208562.85	10208562.98	10208563.12	0.0506	0.0110	
Earth	23238-01-10 09:07 G	10208574.65	10208574.88	10208575.11	0.0505	0.0099	
Moon	23238-01-10 11:31 G	10208574.76	10208574.98	10208575.20	0.0505	0.0123	*
Mercury	23238-03-28 21:21 G	10208652.34	10208652.39	10208652.43	0.0502	0.0474	
Moon	23239-02-10 20:24 G	10208971.25	10208971.35	10208971.45	0.0493	0.0442	
Earth	23239-02-10 23:31 G	10208971.36	10208971.48	10208971.61	0.0493	0.0412	*
Venus	23243-06-16 00:43 G	10210557.33	10210557.53	10210557.73	0.0509	0.0136	

Mercury	23244-05-29 03:21 G	10210905.49	10210905.64	10210905.80	0.0523	0.0148
Earth	23244-07-17 16:33 G	10210954.95	10210955.19	10210955.42	0.0525	0.0012
Moon	23244-07-17 17:02 G	10210954.97	10210955.21	10210955.46	0.0525	0.0017 *
Mercury	23249-10-17 15:07 G	10212873.01	10212873.13	10212873.25	0.0507	0.0252
Moon	23250-01-14 21:50 G	10212962.16	10212962.41	10212962.65	0.0503	0.0035
Earth	23250-01-14 22:04 G	10212962.18	10212962.42	10212962.65	0.0503	0.0021 *
Mercury	23250-01-15 00:28 G	10212962.41	10212962.52	10212962.63	0.0503	0.0329 *
Earth	23251-02-15 07:12 G	10213358.75	10213358.80	10213358.86	0.0491	0.0476
Moon	23251-02-15 09:21 G	10213358.86	10213358.89	10213358.93	0.0491	0.0483 *
Venus	23255-02-18 21:21 G	10214823.24	10214823.39	10214823.54	0.0506	0.0345
Earth	23255-06-18 10:48 G	10214942.89	10214942.95	10214943.02	0.0511	0.0488
Moon	23255-06-18 12:00 G	10214942.90	10214943.00	10214943.11	0.0511	0.0460 *
Mercury	23256-03-17 02:09 G	10215215.43	10215215.59	10215215.75	0.0522	0.0051
Moon	23256-07-22 12:14 G	10215342.79	10215343.01	10215343.24	0.0527	0.0078
Earth	23256-07-22 14:38 G	10215342.88	10215343.11	10215343.34	0.0527	0.0100 *
Earth	23260-12-17 10:19 G	10216951.87	10216951.93	10216951.99	0.0517	0.0497
Moon	23260-12-17 11:45 G	10216951.94	10216951.99	10216952.06	0.0517	0.0498 *
Mercury	23261-08-05 18:57 G	10217183.20	10217183.29	10217183.37	0.0508	0.0387
Mercury	23261-11-03 04:04 G	10217272.54	10217272.67	10217272.80	0.0504	0.0191
Moon	23262-01-19 10:04 G	10217349.70	10217349.92	10217350.14	0.0501	0.0083
Earth	23262-01-19 11:45 G	10217349.75	10217349.99	10217350.22	0.0501	0.0058 *
Moon	23267-06-23 02:09 G	10219330.45	10219330.59	10219330.73	0.0514	0.0405
Earth	23267-06-23 05:16 G	10219330.59	10219330.72	10219330.86	0.0514	0.0415 *
Mercury	23268-01-04 01:40 G	10219525.42	10219525.57	10219525.71	0.0522	0.0239
Mercury	23268-04-03 01:55 G	10219615.56	10219615.58	10219615.61	0.0525	0.0516
Earth	23268-07-27 17:31 G	10219731.02	10219731.23	10219731.45	0.0530	0.0193
Moon	23268-07-27 21:07 G	10219731.17	10219731.38	10219731.60	0.0530	0.0218 *
Venus	23272-09-03 06:14 G	10221229.56	10221229.76	10221229.96	0.0519	0.0076
Moon	23272-12-22 03:07 G	10221339.52	10221339.63	10221339.74	0.0514	0.0450
Earth	23272-12-22 06:28 G	10221339.64	10221339.77	10221339.91	0.0514	0.0418 *

Mercury	23273-08-22 07:40 G	10221582.68	10221582.82	10221582.96	0.0505	0.0053
Earth	23274-01-23 23:16 G	10221737.25	10221737.47	10221737.69	0.0499	0.0132
Moon	23274-01-24 02:09 G	10221737.36	10221737.59	10221737.82	0.0499	0.0156 *
Venus	23279-02-21 12:28 G	10223591.91	10223592.02	10223592.15	0.0511	0.0413
Earth	23279-06-28 01:55 G	10223718.40	10223718.58	10223718.75	0.0516	0.0339
Moon	23279-06-28 05:45 G	10223718.58	10223718.74	10223718.91	0.0516	0.0370 *
Mercury	23279-10-23 01:12 G	10223835.46	10223835.55	10223835.65	0.0521	0.0424
Mercury	23280-01-21 02:09 G	10223925.47	10223925.59	10223925.71	0.0525	0.0339
Moon	23280-08-01 19:40 G	10224119.13	10224119.32	10224119.51	0.0532	0.0305
Earth	23280-08-01 23:31 G	10224119.28	10224119.48	10224119.67	0.0532	0.0285 *
Venus	23284-05-09 01:12 G	10225495.44	10225495.55	10225495.67	0.0522	0.0432
Earth	23284-12-27 00:00 G	10225727.33	10225727.50	10225727.68	0.0512	0.0339
Moon	23284-12-27 04:04 G	10225727.50	10225727.67	10225727.85	0.0512	0.0335 *
Mercury	23285-06-10 11:02 G	10225892.82	10225892.96	10225893.10	0.0505	0.0090
Mercury	23285-09-07 20:38 G	10225982.34	10225982.36	10225982.39	0.0502	0.0493
Moon	23286-01-28 06:14 G	10226124.55	10226124.76	10226124.97	0.0497	0.0191
Earth	23286-01-28 09:36 G	10226124.69	10226124.90	10226125.12	0.0497	0.0206 *
Venus	23290-10-27 11:45 G	10227857.79	10227857.99	10227858.19	0.0508	0.0058
Moon	23291-07-02 21:07 G	10228106.18	10228106.38	10228106.58	0.0518	0.0277
Earth	23291-07-03 00:57 G	10228106.34	10228106.54	10228106.75	0.0518	0.0257 *
Mercury	23291-11-09 02:09 G	10228235.44	10228235.59	10228235.75	0.0523	0.0160
Earth	23292-08-07 05:02 G	10228507.55	10228507.71	10228507.87	0.0533	0.0377
Moon	23292-08-07 06:57 G	10228507.63	10228507.79	10228507.97	0.0533	0.0348 *
Moon	23296-12-31 07:26 G	10230114.61	10230114.81	10230115.03	0.0510	0.0231
Earth	23296-12-31 11:16 G	10230114.78	10230114.97	10230115.17	0.0510	0.0263 *
Mercury	23297-03-29 13:40 G	10230202.95	10230203.07	10230203.19	0.0507	0.0245
Mercury	23297-06-26 23:02 G	10230292.36	10230292.46	10230292.57	0.0503	0.0335
Earth	23298-02-01 15:21 G	10230511.95	10230512.14	10230512.33	0.0496	0.0274
Moon	23298-02-01 18:57 G	10230512.09	10230512.29	10230512.49	0.0496	0.0249 *
Earth	23303-07-08 22:48 G	10232494.23	10232494.45	10232494.67	0.0520	0.0173

Moon	23303-07-09 01:12 G	10232494.33	10232494.55	10232494.77	0.0520	0.0148	*
Mercury	23303-08-29 01:40 G	10232545.41	10232545.57	10232545.73	0.0522	0.0028	
Moon	23304-08-13 08:52 G	10232895.74	10232895.87	10232896.00	0.0535	0.0446	
Earth	23304-08-13 09:07 G	10232895.77	10232895.88	10232896.00	0.0535	0.0465	*
Venus	23308-05-12 17:45 G	10234264.10	10234264.24	10234264.39	0.0518	0.0353	
Earth	23309-01-06 01:40 G	10234502.36	10234502.57	10234502.79	0.0508	0.0183	
Moon	23309-01-06 04:04 G	10234502.46	10234502.67	10234502.89	0.0508	0.0173	*
Mercury	23309-01-16 17:02 G	10234513.13	10234513.21	10234513.30	0.0508	0.0388	
Mercury	23309-04-16 02:09 G	10234602.46	10234602.59	10234602.73	0.0504	0.0190	
Moon	23310-02-06 20:52 G	10234899.21	10234899.37	10234899.54	0.0495	0.0353	
Earth	23310-02-07 00:00 G	10234899.34	10234899.50	10234899.67	0.0495	0.0343	*
Mercury	23315-06-17 00:14 G	10236855.36	10236855.51	10236855.65	0.0521	0.0230	
Moon	23315-07-13 17:45 G	10236882.00	10236882.24	10236882.49	0.0522	0.0075	
Earth	23315-07-13 18:00 G	10236882.02	10236882.25	10236882.48	0.0522	0.0089	*
Mercury	23315-09-15 00:28 G	10236945.51	10236945.52	10236945.53	0.0525	0.0524	
Venus	23320-01-16 13:40 G	10238529.87	10238530.07	10238530.26	0.0520	0.0147	
Moon	23321-01-10 17:02 G	10238889.98	10238890.21	10238890.45	0.0506	0.0129	
Earth	23321-01-10 17:31 G	10238890.00	10238890.23	10238890.46	0.0506	0.0103	*
Mercury	23321-02-02 06:00 G	10238912.61	10238912.75	10238912.89	0.0505	0.0054	
Earth	23322-02-11 09:21 G	10239286.76	10239286.89	10239287.02	0.0493	0.0408	
Moon	23322-02-11 11:16 G	10239286.88	10239286.97	10239287.07	0.0493	0.0440	*
Venus	23326-07-05 23:02 G	10240892.27	10240892.46	10240892.64	0.0509	0.0212	
Mercury	23327-04-04 23:16 G	10241165.38	10241165.47	10241165.57	0.0521	0.0422	
Mercury	23327-07-04 00:14 G	10241255.39	10241255.51	10241255.63	0.0524	0.0340	
Moon	23327-07-18 16:04 G	10241269.94	10241270.17	10241270.40	0.0525	0.0028	
Earth	23327-07-18 18:00 G	10241270.01	10241270.25	10241270.48	0.0525	0.0006	*
Mercury	23332-11-21 09:21 G	10243222.76	10243222.89	10243223.03	0.0506	0.0089	
Moon	23333-01-15 06:00 G	10243277.53	10243277.75	10243277.98	0.0504	0.0034	
Earth	23333-01-15 07:40 G	10243277.59	10243277.82	10243278.05	0.0504	0.0025	*
Mercury	23333-02-18 19:12 G	10243312.28	10243312.30	10243312.32	0.0502	0.0496	

Moon	23334-02-15 15:50 G	10243674.11	10243674.16	10243674.24	0.0491	0.0471
Earth	23334-02-15 16:48 G	10243674.14	10243674.20	10243674.27	0.0491	0.0469 *
Venus	23338-03-10 21:07 G	10245158.21	10245158.38	10245158.56	0.0507	0.0261
Moon	23338-06-18 14:38 G	10245258.02	10245258.11	10245258.21	0.0511	0.0461
Earth	23338-06-18 17:16 G	10245258.17	10245258.22	10245258.29	0.0511	0.0491 *
Mercury	23339-04-22 00:14 G	10245565.35	10245565.51	10245565.66	0.0524	0.0159
Earth	23339-07-23 20:38 G	10245658.13	10245658.36	10245658.59	0.0527	0.0092
Moon	23339-07-24 00:00 G	10245658.26	10245658.50	10245658.73	0.0527	0.0074 *
Moon	23343-12-18 14:52 G	10247267.09	10247267.12	10247267.15	0.0517	0.0511
Earth	23343-12-18 18:00 G	10247267.20	10247267.25	10247267.31	0.0517	0.0500
Mercury	23344-09-09 12:57 G	10247532.92	10247533.04	10247533.17	0.0506	0.0228
Mercury	23344-12-07 22:19 G	10247622.33	10247622.43	10247622.53	0.0503	0.0352
Earth	23345-01-19 19:55 G	10247665.10	10247665.33	10247665.56	0.0501	0.0052
Moon	23345-01-19 22:48 G	10247665.21	10247665.45	10247665.69	0.0501	0.0081 *
Earth	23350-06-23 13:55 G	10249645.95	10249646.08	10249646.22	0.0513	0.0418
Moon	23350-06-23 18:00 G	10249646.12	10249646.25	10249646.39	0.0513	0.0411 *
Mercury	23351-02-08 00:14 G	10249875.35	10249875.51	10249875.67	0.0523	0.0020
Moon	23351-07-28 21:07 G	10250046.17	10250046.38	10250046.60	0.0529	0.0211
Earth	23351-07-29 00:57 G	10250046.32	10250046.54	10250046.76	0.0529	0.0184 *
Venus	23355-09-24 03:21 G	10251564.44	10251564.64	10251564.83	0.0519	0.0146
Earth	23355-12-23 07:12 G	10251654.68	10251654.80	10251654.93	0.0515	0.0425
Moon	23355-12-23 11:16 G	10251654.87	10251654.97	10251655.08	0.0515	0.0457 *
Mercury	23356-06-28 15:36 G	10251843.06	10251843.15	10251843.24	0.0507	0.0383
Mercury	23356-09-26 00:43 G	10251932.40	10251932.53	10251932.66	0.0504	0.0195
Moon	23357-01-23 23:16 G	10252052.25	10252052.47	10252052.69	0.0500	0.0147
Earth	23357-01-24 02:38 G	10252052.39	10252052.61	10252052.84	0.0500	0.0125 *
Venus	23362-03-13 13:55 G	10253927.07	10253927.08	10253927.11	0.0511	0.0508
Moon	23362-06-28 05:31 G	10254033.57	10254033.73	10254033.90	0.0515	0.0370
Earth	23362-06-28 09:36 G	10254033.73	10254033.90	10254034.08	0.0515	0.0340 *
Mercury	23362-11-26 23:31 G	10254185.33	10254185.48	10254185.63	0.0521	0.0210

Earth	23363-08-03 03:07 G	10254434.44	10254434.63	10254434.83	0.0531	0.0276
Moon	23363-08-03 06:00 G	10254434.56	10254434.75	10254434.94	0.0531	0.0288 *
Mars	23365-06-05 09:07 G	10255106.64	10255106.88	10255107.12	0.0541	0.0109
Venus	23367-05-29 21:07 G	10255830.24	10255830.38	10255830.52	0.0521	0.0369
Moon	23367-12-27 19:40 G	10256042.15	10256042.32	10256042.50	0.0513	0.0348
Earth	23367-12-27 23:45 G	10256042.32	10256042.49	10256042.66	0.0513	0.0347 *
Mercury	23368-07-15 04:04 G	10256242.53	10256242.67	10256242.81	0.0505	0.0049
Earth	23369-01-28 12:28 G	10256439.81	10256440.02	10256440.24	0.0498	0.0198
Moon	23369-01-28 16:19 G	10256439.96	10256440.18	10256440.39	0.0498	0.0177 *
Venus	23373-11-16 09:50 G	10258192.71	10258192.91	10258193.12	0.0508	0.0017
Earth	23374-07-03 02:09 G	10258421.39	10258421.59	10258421.79	0.0517	0.0265
Moon	23374-07-03 04:48 G	10258421.52	10258421.70	10258421.90	0.0517	0.0279 *
Mercury	23374-09-14 21:50 G	10258495.31	10258495.41	10258495.51	0.0520	0.0415
Mercury	23374-12-13 22:33 G	10258585.33	10258585.44	10258585.56	0.0524	0.0346
Moon	23375-08-08 01:55 G	10258822.39	10258822.58	10258822.77	0.0533	0.0332
Earth	23375-08-08 02:52 G	10258822.46	10258822.62	10258822.80	0.0533	0.0364 *
Earth	23380-01-01 17:02 G	10260430.02	10260430.21	10260430.41	0.0511	0.0269
Moon	23380-01-01 19:40 G	10260430.13	10260430.32	10260430.53	0.0511	0.0239 *
Mercury	23380-05-03 07:40 G	10260552.68	10260552.82	10260552.96	0.0506	0.0090
Mercury	23380-07-31 17:16 G	10260642.20	10260642.22	10260642.25	0.0503	0.0494
Moon	23381-02-01 20:24 G	10260827.15	10260827.35	10260827.56	0.0497	0.0245
Earth	23381-02-01 23:31 G	10260827.29	10260827.48	10260827.68	0.0497	0.0269 *
Mars	23383-05-03 07:12 G	10261647.51	10261647.80	10261648.09	0.0486	0.0142
Venus	23385-07-22 07:55 G	10262458.74	10262458.83	10262458.91	0.0506	0.0455
Moon	23386-07-07 22:04 G	10262809.19	10262809.42	10262809.65	0.0520	0.0153
Earth	23386-07-07 22:48 G	10262809.23	10262809.45	10262809.67	0.0520	0.0182 *
Mercury	23386-10-01 22:04 G	10262895.27	10262895.42	10262895.58	0.0523	0.0159
Moon	23387-08-13 06:57 G	10263210.67	10263210.79	10263210.92	0.0535	0.0439
Earth	23387-08-13 07:55 G	10263210.71	10263210.83	10263210.95	0.0535	0.0453 *
Venus	23391-06-01 18:43 G	10264599.18	10264599.28	10264599.38	0.0517	0.0447

Moon	23392-01-06 09:07 G	10264817.66	10264817.88	10264818.11	0.0508	0.0188
Earth	23392-01-06 09:50 G	10264817.70	10264817.91	10264818.13	0.0508	0.0189 *
Mercury	23392-02-20 11:16 G	10264862.85	10264862.97	10264863.10	0.0507	0.0228
Mercury	23392-05-19 20:38 G	10264952.26	10264952.36	10264952.46	0.0503	0.0352
Earth	23393-02-06 08:38 G	10265214.70	10265214.86	10265215.04	0.0495	0.0336
Moon	23393-02-06 10:33 G	10265214.79	10265214.94	10265215.10	0.0495	0.0353 *
Moon	23398-07-12 20:52 G	10267197.14	10267197.37	10267197.59	0.0522	0.0086
Earth	23398-07-12 22:04 G	10267197.19	10267197.42	10267197.66	0.0522	0.0097 *
Mercury	23398-07-20 21:50 G	10267205.25	10267205.41	10267205.57	0.0523	0.0026
Venus	23403-02-05 14:09 G	10268864.89	10268865.09	10268865.30	0.0520	0.0055
Mercury	23403-12-10 14:52 G	10269173.03	10269173.12	10269173.21	0.0507	0.0368
Moon	23404-01-11 23:02 G	10269205.24	10269205.46	10269205.67	0.0506	0.0139
Earth	23404-01-12 00:28 G	10269205.29	10269205.52	10269205.75	0.0506	0.0108 *
Mercury	23404-03-09 00:00 G	10269262.37	10269262.50	10269262.63	0.0504	0.0209
Moon	23405-02-11 15:50 G	10269602.06	10269602.16	10269602.29	0.0493	0.0430
Earth	23405-02-11 16:48 G	10269602.07	10269602.20	10269602.34	0.0493	0.0401 *
Venus	23409-07-25 23:31 G	10271227.32	10271227.48	10271227.65	0.0510	0.0302
Mercury	23410-05-09 21:50 G	10271515.26	10271515.41	10271515.56	0.0522	0.0207
Earth	23410-07-19 00:14 G	10271585.28	10271585.51	10271585.75	0.0524	0.0008
Moon	23410-07-19 03:21 G	10271585.40	10271585.64	10271585.88	0.0524	0.0036 *
Mercury	23415-12-27 02:24 G	10273572.46	10273572.60	10273572.74	0.0505	0.0052
Earth	23416-01-16 08:52 G	10273592.64	10273592.87	10273593.10	0.0504	0.0034
Moon	23416-01-16 11:45 G	10273592.75	10273592.99	10273593.23	0.0504	0.0041 *
Moon	23417-02-15 19:55 G	10273989.26	10273989.33	10273989.41	0.0492	0.0460
Earth	23417-02-15 20:38 G	10273989.29	10273989.36	10273989.45	0.0492	0.0462 *
Venus	23421-03-30 21:50 G	10275493.22	10275493.41	10275493.60	0.0507	0.0173
Earth	23421-06-19 00:28 G	10275573.47	10275573.52	10275573.59	0.0510	0.0492
Moon	23421-06-19 04:33 G	10275573.59	10275573.69	10275573.79	0.0510	0.0458 *
Mercury	23422-02-25 20:52 G	10275825.27	10275825.37	10275825.48	0.0521	0.0398
Mercury	23422-05-26 21:50 G	10275915.30	10275915.41	10275915.53	0.0524	0.0363

Moon	23422-07-23 21:07 G	10275973.15	10275973.38	10275973.61	0.0526	0.0070
Earth	23422-07-24 00:43 G	10275973.31	10275973.53	10275973.77	0.0526	0.0086 *
Earth	23426-12-18 15:07 G	10277582.10	10277582.13	10277582.18	0.0518	0.0509
Mercury	23427-10-15 05:45 G	10277882.60	10277882.74	10277882.87	0.0506	0.0096
Mercury	23428-01-12 15:21 G	10277972.11	10277972.14	10277972.17	0.0503	0.0488
Moon	23428-01-20 16:48 G	10277979.98	10277980.20	10277980.43	0.0502	0.0071
Earth	23428-01-20 20:09 G	10277980.11	10277980.34	10277980.58	0.0502	0.0045 *
Moon	23433-06-23 10:48 G	10279960.82	10279960.95	10279961.09	0.0512	0.0416
Earth	23433-06-23 14:52 G	10279960.99	10279961.12	10279961.25	0.0512	0.0425 *
Mercury	23434-03-14 20:24 G	10280225.20	10280225.35	10280225.50	0.0523	0.0162
Earth	23434-07-28 21:50 G	10280361.19	10280361.41	10280361.63	0.0528	0.0170
Moon	23434-07-29 00:57 G	10280361.34	10280361.54	10280361.76	0.0528	0.0203 *
Venus	23438-10-14 01:40 G	10281899.39	10281899.57	10281899.75	0.0519	0.0224
Moon	23438-12-23 06:43 G	10281969.68	10281969.78	10281969.88	0.0516	0.0466
Earth	23438-12-23 10:33 G	10281969.82	10281969.94	10281970.07	0.0516	0.0433 *
Mercury	23439-08-03 09:21 G	10282192.76	10282192.89	10282193.01	0.0507	0.0234
Mercury	23439-10-31 18:43 G	10282282.18	10282282.28	10282282.38	0.0504	0.0347
Earth	23440-01-25 08:52 G	10282367.64	10282367.87	10282368.09	0.0501	0.0118
Moon	23440-01-25 12:28 G	10282367.80	10282368.02	10282368.25	0.0501	0.0133 *
Earth	23445-06-28 08:24 G	10284348.69	10284348.85	10284349.03	0.0515	0.0350
Moon	23445-06-28 11:45 G	10284348.84	10284348.99	10284349.15	0.0515	0.0379 *
Mercury	23445-12-31 19:40 G	10284535.16	10284535.32	10284535.48	0.0522	0.0030
Moon	23446-08-02 22:04 G	10284749.21	10284749.42	10284749.63	0.0530	0.0272
Earth	23446-08-03 00:00 G	10284749.30	10284749.50	10284749.70	0.0530	0.0262 *
Venus	23450-06-18 21:07 G	10286165.21	10286165.38	10286165.55	0.0521	0.0279
Earth	23450-12-28 05:45 G	10286357.58	10286357.74	10286357.91	0.0513	0.0354
Moon	23450-12-28 08:52 G	10286357.70	10286357.87	10286358.03	0.0513	0.0351 *
Mercury	23451-05-22 12:57 G	10286502.95	10286503.04	10286503.13	0.0508	0.0371
Mercury	23451-08-19 22:04 G	10286592.29	10286592.42	10286592.55	0.0504	0.0206
Moon	23452-01-29 17:02 G	10286754.99	10286755.21	10286755.44	0.0498	0.0165

Earth	23452-01-29 20:09 G	10286755.13	10286755.34	10286755.55	0.0498	0.0191	*
Venus	23456-12-06 07:40 G	10288527.62	10288527.82	10288528.02	0.0509	0.0090	
Moon	23457-07-03 03:07 G	10288736.43	10288736.63	10288736.84	0.0517	0.0278	
Earth	23457-07-03 04:33 G	10288736.49	10288736.69	10288736.89	0.0517	0.0272	*
Mercury	23457-10-19 19:12 G	10288845.15	10288845.30	10288845.44	0.0522	0.0218	
Moon	23458-08-08 04:48 G	10289137.52	10289137.70	10289137.88	0.0533	0.0323	
Earth	23458-08-08 04:48 G	10289137.53	10289137.70	10289137.88	0.0533	0.0353	*
Moon	23463-01-01 21:50 G	10290745.20	10290745.41	10290745.62	0.0511	0.0245	
Earth	23463-01-01 22:48 G	10290745.26	10290745.45	10290745.65	0.0511	0.0274	*
Mercury	23463-06-08 01:26 G	10290902.42	10290902.56	10290902.70	0.0505	0.0064	
Earth	23464-02-03 05:45 G	10291142.54	10291142.74	10291142.94	0.0497	0.0262	
Moon	23464-02-03 07:40 G	10291142.62	10291142.82	10291143.02	0.0497	0.0242	*
Venus	23468-08-11 06:57 G	10292793.66	10292793.79	10292793.93	0.0506	0.0375	
Moon	23469-07-08 03:07 G	10293124.42	10293124.63	10293124.85	0.0519	0.0157	
Earth	23469-07-08 04:04 G	10293124.45	10293124.67	10293124.89	0.0519	0.0187	*
Mercury	23469-08-07 18:43 G	10293155.18	10293155.28	10293155.39	0.0521	0.0400	
Mercury	23469-11-05 19:55 G	10293245.21	10293245.33	10293245.44	0.0524	0.0363	
Earth	23470-08-13 11:45 G	10293525.87	10293525.99	10293526.12	0.0534	0.0443	
Moon	23470-08-13 14:09 G	10293525.96	10293526.09	10293526.24	0.0534	0.0436	*
Venus	23474-06-21 14:52 G	10294934.10	10294934.12	10294934.15	0.0517	0.0511	
Moon	23475-01-06 08:52 G	10295132.66	10295132.87	10295133.07	0.0509	0.0203	
Earth	23475-01-06 09:50 G	10295132.70	10295132.91	10295133.13	0.0509	0.0197	*
Mercury	23475-03-27 04:04 G	10295212.53	10295212.67	10295212.81	0.0506	0.0093	
Mercury	23475-06-24 13:40 G	10295302.04	10295302.07	10295302.10	0.0502	0.0489	
Moon	23476-02-07 09:36 G	10295529.73	10295529.90	10295530.08	0.0495	0.0343	
Earth	23476-02-07 10:33 G	10295529.77	10295529.94	10295530.12	0.0495	0.0328	*
Earth	23481-07-13 02:24 G	10297512.37	10297512.60	10297512.83	0.0522	0.0102	
Moon	23481-07-13 05:02 G	10297512.47	10297512.71	10297512.94	0.0522	0.0093	*
Mercury	23481-08-24 19:26 G	10297555.16	10297555.31	10297555.46	0.0523	0.0176	
Earth	23482-08-18 16:33 G	10297914.16	10297914.19	10297914.23	0.0535	0.0528	

Venus	23486-02-24 09:07 G	10299199.67	10299199.88	10299200.08	0.0520	0.0007
Earth	23487-01-10 22:48 G	10299520.22	10299520.45	10299520.68	0.0507	0.0118
Moon	23487-01-11 01:26 G	10299520.33	10299520.56	10299520.79	0.0507	0.0150 *
Mercury	23487-01-13 07:12 G	10299522.68	10299522.80	10299522.93	0.0507	0.0240
Mercury	23487-04-12 16:33 G	10299612.09	10299612.19	10299612.30	0.0503	0.0341
Moon	23488-02-11 17:16 G	10299917.11	10299917.22	10299917.34	0.0494	0.0420
Earth	23488-02-11 18:14 G	10299917.12	10299917.26	10299917.40	0.0494	0.0393 *
Venus	23492-08-13 19:55 G	10301562.19	10301562.33	10301562.47	0.0510	0.0368
Mercury	23493-06-12 17:45 G	10301865.08	10301865.24	10301865.40	0.0522	0.0028
Moon	23493-07-17 17:31 G	10301900.00	10301900.23	10301900.46	0.0523	0.0049
Earth	23493-07-17 21:07 G	10301900.14	10301900.38	10301900.61	0.0523	0.0020 *
Venus	23497-10-30 02:52 G	10303465.59	10303465.62	10303465.67	0.0523	0.0512
Mercury	23498-11-01 10:48 G	10303832.87	10303832.95	10303833.05	0.0508	0.0379
Moon	23499-01-15 09:36 G	10303907.68	10303907.90	10303908.13	0.0505	0.0051
Earth	23499-01-15 13:12 G	10303907.82	10303908.05	10303908.28	0.0505	0.0042 *
Mercury	23499-01-29 19:55 G	10303922.21	10303922.33	10303922.46	0.0504	0.0200
Earth	23500-02-16 02:52 G	10304304.54	10304304.62	10304304.71	0.0493	0.0456
Moon	23500-02-16 05:31 G	10304304.64	10304304.73	10304304.84	0.0493	0.0442 *
Venus	23504-04-19 17:16 G	10305828.03	10305828.22	10305828.42	0.0507	0.0112
Moon	23504-06-18 19:12 G	10305888.22	10305888.30	10305888.40	0.0509	0.0467
Earth	23504-06-18 23:31 G	10305888.44	10305888.48	10305888.52	0.0509	0.0500
Mercury	23505-04-01 16:48 G	10306175.05	10306175.20	10306175.35	0.0521	0.0222
Earth	23505-07-23 20:09 G	10306288.11	10306288.34	10306288.57	0.0526	0.0069
Moon	23505-07-23 23:45 G	10306288.26	10306288.49	10306288.72	0.0526	0.0062 *
Earth	23509-12-18 19:26 G	10307897.29	10307897.31	10307897.32	0.0519	0.0517
Mercury	23510-11-18 23:31 G	10308232.34	10308232.48	10308232.62	0.0505	0.0059
Earth	23511-01-21 02:24 G	10308295.37	10308295.60	10308295.83	0.0503	0.0035
Moon	23511-01-21 06:00 G	10308295.52	10308295.75	10308295.99	0.0503	0.0065 *
Moon	23512-02-21 06:28 G	10308691.74	10308691.77	10308691.81	0.0491	0.0484
Earth	23516-06-23 15:50 G	10310276.04	10310276.16	10310276.29	0.0512	0.0431

Moon	23516-06-23 19:26 G	10310276.19	10310276.31	10310276.44	0.0512	0.0427	*
Mercury	23517-01-18 15:50 G	10310485.07	10310485.16	10310485.26	0.0521	0.0414	
Mercury	23517-04-18 17:02 G	10310575.09	10310575.21	10310575.33	0.0524	0.0349	
Moon	23517-07-28 19:26 G	10310676.09	10310676.31	10310676.54	0.0528	0.0191	
Earth	23517-07-28 22:04 G	10310676.19	10310676.42	10310676.64	0.0528	0.0159	*
Mars	23519-09-01 05:02 G	10311440.47	10311440.71	10311440.95	0.0542	0.0152	
Venus	23521-11-03 00:43 G	10312234.38	10312234.53	10312234.70	0.0518	0.0309	
Earth	23521-12-23 14:52 G	10312285.01	10312285.12	10312285.25	0.0516	0.0439	
Moon	23521-12-23 18:14 G	10312285.17	10312285.26	10312285.35	0.0516	0.0469	*
Mercury	23522-09-07 02:52 G	10312542.49	10312542.62	10312542.76	0.0506	0.0084	
Mercury	23522-12-05 12:28 G	10312632.01	10312632.02	10312632.03	0.0503	0.0499	
Moon	23523-01-25 11:02 G	10312682.73	10312682.96	10312683.19	0.0501	0.0119	
Earth	23523-01-25 14:09 G	10312682.87	10312683.09	10312683.32	0.0501	0.0110	*
Moon	23528-06-28 10:33 G	10314663.78	10314663.94	10314664.11	0.0514	0.0383	
Earth	23528-06-28 12:28 G	10314663.86	10314664.02	10314664.19	0.0514	0.0355	*
Mercury	23529-02-04 17:02 G	10314885.06	10314885.21	10314885.37	0.0523	0.0172	
Earth	23529-08-03 03:07 G	10315064.42	10315064.63	10315064.84	0.0530	0.0252	
Moon	23529-08-03 03:50 G	10315064.46	10315064.66	10315064.85	0.0530	0.0262	*
Venus	23533-07-08 17:31 G	10316500.05	10316500.23	10316500.42	0.0521	0.0212	
Moon	23533-12-28 03:21 G	10316672.48	10316672.64	10316672.82	0.0514	0.0355	
Earth	23533-12-28 05:02 G	10316672.56	10316672.71	10316672.88	0.0514	0.0363	*
Mercury	23534-06-26 05:45 G	10316852.61	10316852.74	10316852.86	0.0507	0.0238	
Mercury	23534-09-23 14:52 G	10316942.02	10316942.12	10316942.23	0.0503	0.0341	
Earth	23535-01-29 20:38 G	10317070.14	10317070.36	10317070.58	0.0499	0.0182	
Moon	23535-01-29 22:33 G	10317070.23	10317070.44	10317070.66	0.0499	0.0155	*
Mars	23537-07-28 14:09 G	10317980.91	10317981.09	10317981.27	0.0487	0.0391	
Venus	23539-12-27 06:43 G	10318862.59	10318862.78	10318862.97	0.0509	0.0170	
Moon	23540-07-03 08:09 G	10319051.65	10319051.84	10319052.03	0.0517	0.0278	
Earth	23540-07-03 08:38 G	10319051.66	10319051.86	10319052.05	0.0517	0.0277	*
Mercury	23540-11-23 16:33 G	10319195.03	10319195.19	10319195.35	0.0522	0.0017	

Earth	23541-08-08 06:00 G	10319452.58	10319452.75	10319452.94	0.0532	0.0343
Moon	23541-08-08 07:40 G	10319452.63	10319452.82	10319453.02	0.0532	0.0312 *
Moon	23546-01-01 19:26 G	10321060.12	10321060.31	10321060.51	0.0512	0.0258
Earth	23546-01-01 20:09 G	10321060.15	10321060.34	10321060.53	0.0512	0.0285 *
Mercury	23546-04-14 08:52 G	10321162.78	10321162.87	10321162.96	0.0508	0.0384
Mercury	23546-07-12 18:00 G	10321252.12	10321252.25	10321252.38	0.0504	0.0193
Moon	23547-02-03 04:33 G	10321457.48	10321457.69	10321457.91	0.0497	0.0232
Earth	23547-02-03 05:31 G	10321457.53	10321457.73	10321457.93	0.0497	0.0252 *
Venus	23551-09-01 02:52 G	10323128.47	10323128.62	10323128.79	0.0506	0.0311
Earth	23552-07-08 00:57 G	10323439.33	10323439.54	10323439.76	0.0518	0.0201
Moon	23552-07-08 02:52 G	10323439.40	10323439.62	10323439.86	0.0518	0.0168 *
Mercury	23552-09-11 14:38 G	10323504.97	10323505.11	10323505.26	0.0521	0.0223
Moon	23553-08-13 01:40 G	10323840.43	10323840.57	10323840.71	0.0533	0.0421
Earth	23553-08-13 04:48 G	10323840.57	10323840.70	10323840.85	0.0533	0.0426 *
Earth	23558-01-06 11:45 G	10325447.78	10325447.99	10325448.21	0.0510	0.0208
Moon	23558-01-06 14:24 G	10325447.88	10325448.10	10325448.31	0.0510	0.0216 *
Mercury	23558-04-30 21:21 G	10325562.25	10325562.39	10325562.53	0.0505	0.0051
Moon	23559-02-07 14:38 G	10325844.96	10325845.11	10325845.28	0.0496	0.0340
Earth	23559-02-07 15:21 G	10325844.97	10325845.14	10325845.33	0.0496	0.0320 *
Mercury	23564-06-30 13:26 G	10327814.97	10327815.06	10327815.16	0.0520	0.0419
Moon	23564-07-12 18:28 G	10327827.04	10327827.27	10327827.49	0.0521	0.0109
Earth	23564-07-12 21:36 G	10327827.17	10327827.40	10327827.63	0.0521	0.0117 *
Mercury	23564-09-28 14:38 G	10327904.99	10327905.11	10327905.23	0.0524	0.0343
Earth	23565-08-18 08:38 G	10328228.81	10328228.86	10328228.94	0.0535	0.0511
Venus	23569-03-16 07:12 G	10329534.60	10329534.80	10329535.00	0.0520	0.0083
Moon	23570-01-11 00:14 G	10329835.30	10329835.51	10329835.73	0.0508	0.0161
Earth	23570-01-11 03:36 G	10329835.43	10329835.65	10329835.88	0.0508	0.0128 *
Mercury	23570-02-17 00:57 G	10329872.40	10329872.54	10329872.67	0.0506	0.0090
Mercury	23570-05-17 10:19 G	10329961.91	10329961.93	10329961.96	0.0503	0.0494
Earth	23571-02-12 00:14 G	10330232.37	10330232.51	10330232.66	0.0494	0.0385

Moon	23571-02-12 02:52 G	10330232.49	10330232.62	10330232.76	0.0494	0.0404	*
Venus	23575-09-03 16:04 G	10331897.08	10331897.17	10331897.29	0.0510	0.0434	
Mercury	23576-07-17 14:09 G	10332214.93	10332215.09	10332215.24	0.0523	0.0156	
Earth	23576-07-17 19:55 G	10332215.10	10332215.33	10332215.57	0.0523	0.0031	*
Moon	23576-07-17 23:45 G	10332215.26	10332215.49	10332215.72	0.0523	0.0062	*
Venus	23580-11-19 02:09 G	10333800.48	10333800.59	10333800.71	0.0522	0.0428	
Mercury	23581-12-06 04:19 G	10334182.56	10334182.68	10334182.81	0.0507	0.0231	
Earth	23582-01-15 17:45 G	10334223.01	10334223.24	10334223.47	0.0505	0.0049	
Moon	23582-01-15 21:36 G	10334223.16	10334223.40	10334223.63	0.0505	0.0050	*
Mercury	23582-03-05 13:40 G	10334271.97	10334272.07	10334272.17	0.0503	0.0350	
Moon	23583-02-16 04:19 G	10334619.58	10334619.68	10334619.80	0.0493	0.0431	
Earth	23583-02-16 08:09 G	10334619.75	10334619.84	10334619.93	0.0493	0.0448	*
Venus	23587-05-09 15:07 G	10336162.93	10336163.13	10336163.33	0.0508	0.0040	
Earth	23587-06-19 02:09 G	10336203.57	10336203.59	10336203.63	0.0509	0.0504	
Moon	23587-06-19 06:00 G	10336203.67	10336203.75	10336203.84	0.0509	0.0472	
Mercury	23588-05-05 14:09 G	10336524.92	10336525.09	10336525.25	0.0522	0.0027	
Moon	23588-07-22 19:26 G	10336603.08	10336603.31	10336603.55	0.0525	0.0057	
Earth	23588-07-22 22:33 G	10336603.21	10336603.44	10336603.67	0.0525	0.0060	*
Mercury	23593-09-24 07:12 G	10338492.72	10338492.80	10338492.89	0.0507	0.0382	
Mercury	23593-12-22 16:19 G	10338582.05	10338582.18	10338582.31	0.0504	0.0194	
Moon	23594-01-19 23:31 G	10338610.24	10338610.48	10338610.71	0.0503	0.0056	
Earth	23594-01-20 02:38 G	10338610.38	10338610.61	10338610.85	0.0503	0.0027	*
Moon	23595-02-20 15:36 G	10339007.10	10339007.15	10339007.21	0.0491	0.0476	
Moon	23599-06-23 17:16 G	10340591.10	10340591.22	10340591.35	0.0512	0.0436	
Earth	23599-06-23 19:40 G	10340591.21	10340591.32	10340591.45	0.0512	0.0436	*
Mercury	23600-02-22 13:26 G	10340834.91	10340835.06	10340835.21	0.0521	0.0213	
Earth	23600-07-27 23:45 G	10340991.27	10340991.49	10340991.72	0.0527	0.0150	
Moon	23600-07-28 01:12 G	10340991.34	10340991.55	10340991.76	0.0527	0.0183	*
Venus	23604-11-21 19:40 G	10342569.18	10342569.32	10342569.47	0.0518	0.0365	
Moon	23604-12-22 09:50 G	10342599.83	10342599.91	10342600.01	0.0517	0.0475	

Earth	23604-12-22 12:00 G	10342599.89	10342600.00	10342600.12	0.0517	0.0449	*
Mercury	23605-10-10 19:26 G	10342892.17	10342892.31	10342892.45	0.0505	0.0047	
Earth	23606-01-24 13:12 G	10342997.82	10342998.05	10342998.28	0.0501	0.0100	
Moon	23606-01-24 15:21 G	10342997.92	10342998.14	10342998.36	0.0501	0.0106	*
Earth	23611-06-28 10:33 G	10344978.78	10344978.94	10344979.11	0.0513	0.0367	
Moon	23611-06-28 10:48 G	10344978.82	10344978.95	10344979.10	0.0513	0.0399	*
Mercury	23611-12-11 11:31 G	10345144.88	10345144.98	10345145.08	0.0520	0.0419	
Mercury	23612-03-10 12:28 G	10345234.90	10345235.02	10345235.15	0.0524	0.0343	
Earth	23612-08-01 20:52 G	10345379.16	10345379.37	10345379.58	0.0529	0.0234	
Moon	23612-08-01 21:21 G	10345379.18	10345379.39	10345379.61	0.0529	0.0241	*
Venus	23616-07-27 13:26 G	10346834.87	10346835.06	10346835.26	0.0521	0.0146	
Moon	23616-12-27 04:48 G	10346987.55	10346987.70	10346987.87	0.0515	0.0362	
Earth	23616-12-27 05:02 G	10346987.56	10346987.71	10346987.88	0.0515	0.0376	*
Mercury	23617-07-29 22:48 G	10347202.31	10347202.45	10347202.59	0.0506	0.0096	
Mercury	23617-10-27 08:24 G	10347291.82	10347291.85	10347291.88	0.0503	0.0487	
Moon	23618-01-28 23:31 G	10347385.25	10347385.48	10347385.71	0.0500	0.0143	
Earth	23618-01-29 00:28 G	10347385.30	10347385.52	10347385.74	0.0500	0.0172	*
Venus	23623-01-15 01:40 G	10349197.39	10349197.57	10349197.75	0.0509	0.0228	
Earth	23623-07-03 04:48 G	10349366.50	10349366.70	10349366.89	0.0515	0.0291	
Moon	23623-07-03 06:14 G	10349366.56	10349366.76	10349366.96	0.0515	0.0289	*
Mercury	23623-12-28 11:45 G	10349544.84	10349544.99	10349545.15	0.0523	0.0151	
Moon	23624-08-06 19:40 G	10349767.14	10349767.32	10349767.52	0.0531	0.0293	
Earth	23624-08-06 22:33 G	10349767.26	10349767.44	10349767.63	0.0531	0.0323	*
Earth	23628-12-31 23:16 G	10351375.28	10351375.47	10351375.66	0.0513	0.0296	
Moon	23629-01-01 01:26 G	10351375.36	10351375.56	10351375.77	0.0513	0.0267	*
Mercury	23629-05-18 02:24 G	10351512.48	10351512.60	10351512.72	0.0507	0.0236	
Mercury	23629-08-15 11:31 G	10351601.88	10351601.98	10351602.09	0.0504	0.0345	
Moon	23630-02-02 10:33 G	10351772.75	10351772.94	10351773.14	0.0498	0.0229	
Earth	23630-02-02 11:16 G	10351772.77	10351772.97	10351773.18	0.0498	0.0243	*
Venus	23634-09-19 23:02 G	10353463.28	10353463.46	10353463.64	0.0506	0.0249	

Moon	23635-07-07 21:07 G	10353754.17	10353754.38	10353754.60	0.0518	0.0180
Earth	23635-07-08 00:00 G	10353754.28	10353754.50	10353754.71	0.0518	0.0211 *
Mercury	23635-10-16 11:02 G	10353854.80	10353854.96	10353855.12	0.0522	0.0040
Earth	23636-08-12 02:38 G	10354155.47	10354155.61	10354155.76	0.0533	0.0412
Moon	23636-08-12 06:43 G	10354155.64	10354155.78	10354155.93	0.0533	0.0413 *
Moon	23641-01-05 13:12 G	10355762.84	10355763.05	10355763.25	0.0510	0.0224
Earth	23641-01-05 16:19 G	10355762.97	10355763.18	10355763.39	0.0510	0.0215 *
Mercury	23641-03-06 06:00 G	10355822.66	10355822.75	10355822.84	0.0508	0.0375
Mercury	23641-06-03 14:52 G	10355912.00	10355912.12	10355912.25	0.0504	0.0202
Earth	23642-02-06 20:38 G	10356160.18	10356160.36	10356160.54	0.0496	0.0312
Moon	23642-02-06 23:02 G	10356160.29	10356160.46	10356160.65	0.0496	0.0336 *
Earth	23647-07-12 23:16 G	10358142.25	10358142.47	10358142.70	0.0520	0.0126
Moon	23647-07-13 03:07 G	10358142.40	10358142.63	10358142.86	0.0520	0.0124 *
Mercury	23647-08-04 10:48 G	10358164.80	10358164.95	10358165.10	0.0521	0.0222
Moon	23648-08-17 06:43 G	10358543.78	10358543.78	10358543.78	0.0535	0.0535
Earth	23648-08-17 10:19 G	10358543.86	10358543.93	10358544.02	0.0535	0.0501
Venus	23652-04-04 04:19 G	10359869.49	10359869.68	10359869.88	0.0519	0.0154
Earth	23653-01-10 04:19 G	10360150.46	10360150.68	10360150.90	0.0508	0.0137
Moon	23653-01-10 08:09 G	10360150.62	10360150.84	10360151.06	0.0508	0.0168 *
Mercury	23653-03-22 17:45 G	10360222.10	10360222.24	10360222.38	0.0505	0.0049
Moon	23654-02-10 22:19 G	10360547.30	10360547.43	10360547.58	0.0494	0.0396
Earth	23654-02-11 02:09 G	10360547.44	10360547.59	10360547.74	0.0494	0.0376 *
Mars	23656-01-14 18:28 G	10361250.04	10361250.27	10361250.52	0.0486	0.0306
Mercury	23659-05-23 10:04 G	10362474.82	10362474.92	10362475.02	0.0520	0.0412
Moon	23659-07-17 19:12 G	10362530.07	10362530.30	10362530.54	0.0523	0.0072
Earth	23659-07-17 22:33 G	10362530.21	10362530.44	10362530.68	0.0523	0.0040 *
Mercury	23659-08-21 11:16 G	10362564.85	10362564.97	10362565.09	0.0524	0.0352
Venus	23663-12-08 21:50 G	10364135.27	10364135.41	10364135.56	0.0522	0.0364
Mercury	23665-01-08 20:52 G	10364532.24	10364532.37	10364532.51	0.0506	0.0100
Moon	23665-01-14 13:26 G	10364537.83	10364538.06	10364538.30	0.0506	0.0057

Earth	23665-01-14 17:02 G	10364537.98	10364538.21	10364538.44	0.0506	0.0060	*
Mercury	23665-04-08 06:28 G	10364621.73	10364621.77	10364621.80	0.0503	0.0483	
Earth	23666-02-15 09:07 G	10364934.78	10364934.88	10364934.99	0.0493	0.0439	
Moon	23666-02-15 13:12 G	10364934.93	10364935.05	10364935.17	0.0493	0.0419	*
Venus	23670-05-28 11:16 G	10366497.77	10366497.97	10366498.17	0.0507	0.0027	
Moon	23670-06-17 23:16 G	10366518.41	10366518.47	10366518.55	0.0508	0.0485	
Mercury	23671-06-09 09:50 G	10366874.75	10366874.91	10366875.06	0.0523	0.0151	
Earth	23671-07-22 18:14 G	10366918.03	10366918.26	10366918.49	0.0524	0.0042	
Moon	23671-07-22 20:24 G	10366918.12	10366918.35	10366918.57	0.0524	0.0040	*
Mars	23673-11-24 09:21 G	10367773.70	10367773.89	10367774.08	0.0541	0.0354	
Mercury	23676-10-28 00:14 G	10368842.39	10368842.51	10368842.64	0.0507	0.0242	
Earth	23677-01-19 05:31 G	10368925.49	10368925.73	10368925.96	0.0504	0.0014	
Moon	23677-01-19 07:40 G	10368925.60	10368925.82	10368926.05	0.0504	0.0045	*
Mercury	23677-01-25 09:36 G	10368931.80	10368931.90	10368932.00	0.0504	0.0339	
Moon	23678-02-19 13:40 G	10369322.00	10369322.07	10369322.14	0.0492	0.0467	
Venus	23682-01-31 09:07 G	10370763.80	10370763.88	10370763.99	0.0505	0.0444	
Earth	23682-06-22 18:00 G	10370906.14	10370906.25	10370906.37	0.0510	0.0446	
Moon	23682-06-22 18:43 G	10370906.19	10370906.28	10370906.39	0.0510	0.0457	*
Mercury	23683-03-28 08:52 G	10371184.71	10371184.87	10371185.03	0.0522	0.0042	
Moon	23683-07-27 17:02 G	10371305.98	10371306.21	10371306.45	0.0526	0.0162	
Earth	23683-07-27 17:31 G	10371306.00	10371306.23	10371306.46	0.0526	0.0130	*
Venus	23687-12-11 17:16 G	10372904.11	10372904.22	10372904.32	0.0518	0.0440	
Earth	23687-12-22 13:26 G	10372914.96	10372915.06	10372915.17	0.0518	0.0461	
Moon	23687-12-22 13:55 G	10372915.00	10372915.08	10372915.16	0.0518	0.0484	*
Mercury	23688-08-16 03:50 G	10373152.58	10373152.66	10373152.76	0.0508	0.0382	
Mercury	23688-11-13 12:57 G	10373241.91	10373242.04	10373242.17	0.0505	0.0197	
Moon	23689-01-23 17:31 G	10373312.99	10373313.23	10373313.47	0.0502	0.0093	
Earth	23689-01-23 18:28 G	10373313.04	10373313.27	10373313.50	0.0502	0.0090	*
Earth	23694-06-27 10:04 G	10375293.77	10375293.92	10375294.09	0.0513	0.0375	
Moon	23694-06-27 11:16 G	10375293.82	10375293.97	10375294.12	0.0513	0.0405	*

Mercury	23695-01-14 07:55 G	10375494.68	10375494.83	10375494.97	0.0521	0.0236
Mercury	23695-04-14 08:38 G	10375584.85	10375584.86	10375584.87	0.0525	0.0522
Moon	23695-08-01 16:48 G	10375694.00	10375694.20	10375694.41	0.0529	0.0224
Earth	23695-08-01 18:43 G	10375694.07	10375694.28	10375694.50	0.0529	0.0221 *
Venus	23699-08-16 12:43 G	10377169.83	10377170.03	10377170.23	0.0521	0.0062
Earth	23699-12-27 09:36 G	10377302.74	10377302.90	10377303.05	0.0515	0.0382
Moon	23699-12-27 11:16 G	10377302.81	10377302.97	10377303.15	0.0515	0.0359 *
Mercury	23700-09-02 16:33 G	10377552.05	10377552.19	10377552.33	0.0505	0.0057
Moon	23701-01-29 05:31 G	10377700.52	10377700.73	10377700.95	0.0500	0.0137
Earth	23701-01-29 06:00 G	10377700.54	10377700.75	10377700.98	0.0500	0.0165 *
Venus	23706-02-03 23:02 G	10379532.30	10379532.46	10379532.63	0.0509	0.0300
Moon	23706-07-03 04:19 G	10379681.50	10379681.68	10379681.87	0.0515	0.0297
Earth	23706-07-03 06:43 G	10379681.59	10379681.78	10379681.97	0.0515	0.0298 *
Mercury	23706-11-03 07:26 G	10379804.72	10379804.81	10379804.91	0.0520	0.0420
Mercury	23707-02-01 08:38 G	10379894.74	10379894.86	10379894.98	0.0524	0.0344
Earth	23707-08-08 00:00 G	10380082.32	10380082.50	10380082.69	0.0531	0.0313
Moon	23707-08-08 03:50 G	10380082.46	10380082.66	10380082.86	0.0531	0.0280 *
Moon	23712-01-01 22:19 G	10381690.24	10381690.43	10381690.62	0.0513	0.0276
Earth	23712-01-02 01:12 G	10381690.37	10381690.55	10381690.74	0.0513	0.0305 *
Mercury	23712-06-21 19:26 G	10381862.17	10381862.31	10381862.45	0.0506	0.0094
Mercury	23712-09-19 04:48 G	10381951.67	10381951.70	10381951.74	0.0503	0.0487
Earth	23713-02-02 13:55 G	10382087.87	10382088.08	10382088.28	0.0498	0.0234
Moon	23713-02-02 16:19 G	10382087.97	10382088.18	10382088.39	0.0498	0.0226 *
Venus	23717-10-09 21:36 G	10383798.21	10383798.40	10383798.59	0.0507	0.0172
Earth	23718-07-08 03:36 G	10384069.44	10384069.65	10384069.86	0.0518	0.0219
Moon	23718-07-08 07:12 G	10384069.58	10384069.80	10384070.02	0.0518	0.0187 *
Mercury	23718-11-20 08:24 G	10384204.70	10384204.85	10384205.01	0.0523	0.0161
Moon	23719-08-13 00:43 G	10384470.38	10384470.53	10384470.69	0.0533	0.0401
Earth	23719-08-13 04:48 G	10384470.55	10384470.70	10384470.86	0.0533	0.0401 *
Earth	23724-01-06 16:19 G	10386077.97	10386078.18	10386078.39	0.0511	0.0225

Moon	23724-01-06 19:55 G	10386078.13	10386078.33	10386078.55	0.0511	0.0238	*
Mercury	23724-04-09 22:48 G	10386172.33	10386172.45	10386172.57	0.0507	0.0240	
Mercury	23724-07-08 07:55 G	10386261.73	10386261.83	10386261.93	0.0504	0.0339	
Moon	23725-02-06 18:57 G	10386475.12	10386475.29	10386475.46	0.0497	0.0331	
Earth	23725-02-06 22:33 G	10386475.26	10386475.44	10386475.63	0.0497	0.0302	*
Moon	23730-07-12 18:14 G	10388457.04	10388457.26	10388457.49	0.0519	0.0144	
Earth	23730-07-12 22:04 G	10388457.19	10388457.42	10388457.64	0.0519	0.0141	*
Mercury	23730-09-08 06:57 G	10388514.63	10388514.79	10388514.96	0.0522	0.0040	
Earth	23731-08-18 04:19 G	10388858.59	10388858.68	10388858.79	0.0534	0.0480	
Moon	23731-08-18 07:12 G	10388858.75	10388858.80	10388858.87	0.0534	0.0515	*
Venus	23735-04-25 00:28 G	10390204.34	10390204.52	10390204.71	0.0520	0.0221	
Moon	23736-01-11 02:38 G	10390465.39	10390465.61	10390465.83	0.0509	0.0179	
Earth	23736-01-11 06:14 G	10390465.54	10390465.76	10390465.98	0.0509	0.0150	*
Mercury	23736-01-28 02:09 G	10390482.50	10390482.59	10390482.68	0.0508	0.0384	
Mercury	23736-04-26 11:02 G	10390571.83	10390571.96	10390572.09	0.0505	0.0194	
Earth	23737-02-11 07:40 G	10390862.66	10390862.82	10390862.98	0.0495	0.0366	
Moon	23737-02-11 11:45 G	10390862.84	10390862.99	10390863.14	0.0495	0.0384	*
Mercury	23742-06-27 06:00 G	10392824.60	10392824.75	10392824.90	0.0521	0.0233	
Earth	23742-07-17 18:57 G	10392845.05	10392845.29	10392845.52	0.0521	0.0056	
Moon	23742-07-17 21:36 G	10392845.17	10392845.40	10392845.62	0.0521	0.0090	*
Mercury	23742-09-25 06:43 G	10392914.77	10392914.78	10392914.79	0.0524	0.0522	
Venus	23746-12-28 19:12 G	10394470.13	10394470.30	10394470.47	0.0522	0.0291	
Earth	23748-01-15 21:36 G	10394853.17	10394853.40	10394853.63	0.0507	0.0072	
Moon	23748-01-15 23:45 G	10394853.27	10394853.49	10394853.72	0.0507	0.0061	*
Mercury	23748-02-13 14:38 G	10394881.97	10394882.11	10394882.25	0.0506	0.0053	
Moon	23749-02-15 12:28 G	10395249.90	10395250.02	10395250.16	0.0494	0.0411	
Earth	23749-02-15 16:33 G	10395250.08	10395250.19	10395250.30	0.0494	0.0430	*
Venus	23753-06-17 07:55 G	10396832.63	10396832.83	10396833.03	0.0508	0.0093	
Moon	23753-06-18 04:19 G	10396833.65	10396833.68	10396833.74	0.0508	0.0496	
Mercury	23754-04-15 04:48 G	10397134.61	10397134.70	10397134.79	0.0520	0.0430	

Mercury	23754-07-14 06:00 G	10397224.63	10397224.75	10397224.88	0.0524	0.0334
Moon	23754-07-22 16:04 G	10397232.93	10397233.17	10397233.41	0.0524	0.0028
Earth	23754-07-22 17:16 G	10397232.98	10397233.22	10397233.45	0.0524	0.0032 *
Mercury	23759-12-02 18:14 G	10399192.12	10399192.26	10399192.40	0.0506	0.0088
Moon	23760-01-20 10:48 G	10399240.71	10399240.95	10399241.19	0.0505	0.0038
Earth	23760-01-20 11:45 G	10399240.76	10399240.99	10399241.23	0.0505	0.0012 *
Mercury	23760-03-01 03:36 G	10399281.63	10399281.65	10399281.67	0.0503	0.0495
Earth	23761-02-20 00:14 G	10399637.50	10399637.51	10399637.53	0.0492	0.0491
Moon	23761-02-20 02:52 G	10399637.56	10399637.62	10399637.69	0.0492	0.0467
Venus	23765-02-20 06:57 G	10401098.66	10401098.79	10401098.93	0.0505	0.0373
Earth	23765-06-22 20:52 G	10401221.26	10401221.37	10401221.48	0.0510	0.0451
Moon	23765-06-22 21:36 G	10401221.30	10401221.40	10401221.50	0.0510	0.0463 *
Mercury	23766-05-02 06:00 G	10401534.60	10401534.75	10401534.91	0.0523	0.0155
Moon	23766-07-27 18:28 G	10401621.06	10401621.27	10401621.49	0.0526	0.0152
Earth	23766-07-27 19:40 G	10401621.10	10401621.32	10401621.55	0.0526	0.0121 *
Earth	23770-12-22 17:16 G	10403230.13	10403230.22	10403230.32	0.0518	0.0468
Moon	23770-12-22 18:43 G	10403230.20	10403230.28	10403230.37	0.0518	0.0485 *
Mercury	23771-09-20 21:21 G	10403502.27	10403502.39	10403502.52	0.0507	0.0234
Mercury	23771-12-19 06:28 G	10403591.67	10403591.77	10403591.88	0.0504	0.0345
Moon	23772-01-24 22:19 G	10403628.20	10403628.43	10403628.65	0.0502	0.0082
Earth	23772-01-24 22:33 G	10403628.21	10403628.44	10403628.67	0.0502	0.0081 *
Moon	23777-06-27 12:57 G	10405608.92	10405609.04	10405609.18	0.0512	0.0414
Earth	23777-06-27 15:21 G	10405608.98	10405609.14	10405609.29	0.0512	0.0381 *
Mercury	23778-02-18 05:45 G	10405844.57	10405844.74	10405844.90	0.0522	0.0032
Earth	23778-08-01 22:33 G	10406009.23	10406009.44	10406009.66	0.0528	0.0211
Moon	23778-08-02 02:09 G	10406009.37	10406009.59	10406009.81	0.0528	0.0203 *
Venus	23782-09-05 10:33 G	10407504.74	10407504.94	10407505.15	0.0520	0.0018
Moon	23782-12-27 08:24 G	10407617.70	10407617.85	10407618.01	0.0516	0.0369
Earth	23782-12-27 11:02 G	10407617.82	10407617.96	10407618.12	0.0516	0.0391 *
Mercury	23783-07-10 00:43 G	10407812.44	10407812.53	10407812.63	0.0508	0.0378

Mercury	23783-10-07 09:36 G	10407901.78	10407901.90	10407902.03	0.0504	0.0199
Earth	23784-01-29 09:07 G	10408015.66	10408015.88	10408016.10	0.0500	0.0156
Moon	23784-01-29 11:31 G	10408015.75	10408015.98	10408016.21	0.0500	0.0127 *
Venus	23789-02-22 21:07 G	10409867.25	10409867.38	10409867.52	0.0509	0.0377
Earth	23789-07-02 08:24 G	10409996.66	10409996.85	10409997.04	0.0514	0.0310
Moon	23789-07-02 11:45 G	10409996.80	10409996.99	10409997.18	0.0514	0.0303 *
Mercury	23789-12-07 04:19 G	10410154.53	10410154.68	10410154.83	0.0521	0.0228
Moon	23790-08-06 17:31 G	10410397.02	10410397.23	10410397.43	0.0530	0.0259
Earth	23790-08-06 21:36 G	10410397.20	10410397.40	10410397.59	0.0530	0.0294 *
Mars	23792-05-16 09:07 G	10411045.70	10411045.88	10411046.06	0.0542	0.0370
Venus	23794-05-11 02:24 G	10411770.57	10411770.60	10411770.64	0.0524	0.0514
Earth	23795-01-01 02:09 G	10412005.41	10412005.59	10412005.78	0.0514	0.0318
Moon	23795-01-01 05:45 G	10412005.55	10412005.74	10412005.94	0.0514	0.0290 *
Mercury	23795-07-26 12:43 G	10412211.89	10412212.03	10412212.17	0.0506	0.0053
Moon	23796-02-02 15:36 G	10412402.95	10412403.15	10412403.36	0.0499	0.0222
Earth	23796-02-02 19:12 G	10412403.10	10412403.30	10412403.51	0.0499	0.0224 *
Venus	23800-10-29 19:12 G	10414133.10	10414133.30	10414133.50	0.0506	0.0098
Moon	23801-07-07 23:31 G	10414384.27	10414384.48	10414384.70	0.0516	0.0201
Earth	23801-07-08 03:21 G	10414384.43	10414384.64	10414384.85	0.0516	0.0232 *
Mercury	23801-09-26 03:07 G	10414464.54	10414464.63	10414464.73	0.0519	0.0422
Mercury	23801-12-25 04:33 G	10414554.56	10414554.69	10414554.81	0.0523	0.0341
Earth	23802-08-12 23:45 G	10414785.33	10414785.49	10414785.65	0.0532	0.0381
Moon	23802-08-13 03:21 G	10414785.48	10414785.64	10414785.80	0.0532	0.0382 *
Moon	23807-01-06 16:19 G	10416392.98	10416393.18	10416393.38	0.0512	0.0253
Earth	23807-01-06 19:55 G	10416393.13	10416393.33	10416393.54	0.0512	0.0237 *
Mercury	23807-05-15 16:19 G	10416522.05	10416522.18	10416522.32	0.0507	0.0089
Mercury	23807-08-13 01:40 G	10416611.56	10416611.57	10416611.60	0.0503	0.0496
Earth	23808-02-08 05:45 G	10416790.56	10416790.74	10416790.93	0.0497	0.0293
Moon	23808-02-08 09:50 G	10416790.74	10416790.91	10416791.09	0.0497	0.0325 *
Mars	23810-04-11 12:43 G	10417583.72	10417584.03	10417584.34	0.0486	0.0021

Earth	23813-07-12 22:33 G	10418772.22	10418772.44	10418772.66	0.0519	0.0150
Moon	23813-07-13 01:26 G	10418772.35	10418772.56	10418772.78	0.0519	0.0159 *
Mercury	23813-10-13 03:36 G	10418864.50	10418864.65	10418864.81	0.0522	0.0149
Moon	23814-08-18 01:55 G	10419173.50	10419173.58	10419173.67	0.0534	0.0497
Earth	23814-08-18 03:36 G	10419173.54	10419173.65	10419173.77	0.0534	0.0468 *
Venus	23818-05-15 00:57 G	10420539.38	10420539.54	10420539.70	0.0519	0.0311
Earth	23819-01-11 13:12 G	10420780.83	10420781.05	10420781.27	0.0509	0.0156
Moon	23819-01-11 15:36 G	10420780.95	10420781.15	10420781.37	0.0509	0.0182 *
Mercury	23819-03-03 20:09 G	10420832.21	10420832.34	10420832.46	0.0507	0.0227
Mercury	23819-06-01 05:16 G	10420921.62	10420921.72	10420921.82	0.0504	0.0353
Moon	23820-02-12 12:00 G	10421177.86	10421178.00	10421178.16	0.0496	0.0377
Earth	23820-02-12 15:50 G	10421178.01	10421178.16	10421178.32	0.0495	0.0360 *
Moon	23825-07-17 20:24 G	10423160.12	10423160.35	10423160.59	0.0521	0.0097
Earth	23825-07-17 22:04 G	10423160.19	10423160.42	10423160.66	0.0521	0.0064 *
Mercury	23825-08-01 03:21 G	10423174.48	10423174.64	10423174.81	0.0522	0.0035
Venus	23830-01-17 19:40 G	10424805.13	10424805.32	10424805.51	0.0522	0.0197
Mercury	23830-12-20 23:31 G	10425142.39	10425142.48	10425142.57	0.0508	0.0370
Moon	23831-01-16 02:09 G	10425168.35	10425168.59	10425168.83	0.0507	0.0065
Earth	23831-01-16 03:21 G	10425168.41	10425168.64	10425168.87	0.0507	0.0079 *
Mercury	23831-03-20 08:24 G	10425231.72	10425231.85	10425231.98	0.0505	0.0207
Earth	23832-02-16 22:33 G	10425565.33	10425565.44	10425565.56	0.0494	0.0422
Moon	23832-02-17 01:12 G	10425565.43	10425565.55	10425565.69	0.0494	0.0402 *
Moon	23836-06-18 10:04 G	10427148.88	10427148.92	10427148.97	0.0507	0.0498
Venus	23836-07-07 07:40 G	10427167.63	10427167.82	10427168.01	0.0508	0.0179
Mercury	23837-05-20 02:52 G	10427484.48	10427484.62	10427484.78	0.0521	0.0218
Moon	23837-07-22 22:19 G	10427548.20	10427548.43	10427548.65	0.0524	0.0026
Earth	23837-07-22 22:48 G	10427548.22	10427548.45	10427548.68	0.0524	0.0022 *
Mercury	23843-01-06 11:45 G	10429541.85	10429541.99	10429542.13	0.0505	0.0062
Moon	23843-01-20 16:04 G	10429555.95	10429556.17	10429556.40	0.0505	0.0028
Earth	23843-01-20 16:19 G	10429555.95	10429556.18	10429556.42	0.0505	0.0010 *

Moon	23844-02-21 05:02 G	10429952.64	10429952.71	10429952.80	0.0493	0.0464
Earth	23844-02-21 06:14 G	10429952.72	10429952.76	10429952.81	0.0493	0.0483 *
Venus	23848-03-12 06:14 G	10431433.60	10431433.76	10431433.93	0.0505	0.0289
Moon	23848-06-22 23:45 G	10431536.42	10431536.49	10431536.58	0.0509	0.0477
Earth	23848-06-23 01:55 G	10431536.48	10431536.58	10431536.68	0.0509	0.0460 *
Mercury	23849-03-08 01:40 G	10431794.47	10431794.57	10431794.67	0.0520	0.0413
Mercury	23849-06-06 02:52 G	10431884.51	10431884.62	10431884.75	0.0523	0.0350
Earth	23849-07-27 20:52 G	10431936.14	10431936.37	10431936.60	0.0525	0.0105
Moon	23849-07-27 23:45 G	10431936.26	10431936.49	10431936.72	0.0525	0.0135 *
Moon	23853-12-22 15:07 G	10433545.08	10433545.13	10433545.19	0.0519	0.0501
Earth	23853-12-22 17:31 G	10433545.15	10433545.23	10433545.32	0.0519	0.0480 *
Mercury	23854-10-25 14:52 G	10433851.98	10433852.12	10433852.25	0.0507	0.0088
Mercury	23855-01-23 00:14 G	10433941.49	10433941.51	10433941.53	0.0504	0.0497
Earth	23855-01-25 03:21 G	10433943.41	10433943.64	10433943.87	0.0503	0.0071
Moon	23855-01-25 05:31 G	10433943.49	10433943.73	10433943.97	0.0503	0.0063 *
Earth	23860-06-27 18:43 G	10435924.14	10435924.28	10435924.44	0.0511	0.0389
Moon	23860-06-27 21:50 G	10435924.28	10435924.41	10435924.56	0.0511	0.0417 *
Mercury	23861-03-25 02:24 G	10436194.45	10436194.60	10436194.75	0.0522	0.0161
Moon	23861-08-01 17:16 G	10436324.01	10436324.22	10436324.44	0.0527	0.0185
Earth	23861-08-01 21:21 G	10436324.17	10436324.39	10436324.61	0.0527	0.0194 *
Venus	23865-09-25 08:24 G	10437839.65	10437839.85	10437840.05	0.0521	0.0091
Earth	23865-12-27 13:26 G	10437932.92	10437933.06	10437933.21	0.0517	0.0402
Moon	23865-12-27 17:02 G	10437933.05	10437933.21	10437933.38	0.0517	0.0377 *
Mercury	23866-08-13 18:28 G	10438162.14	10438162.27	10438162.39	0.0508	0.0227
Mercury	23866-11-11 03:36 G	10438251.55	10438251.65	10438251.75	0.0504	0.0355
Moon	23867-01-29 12:43 G	10438330.81	10438331.03	10438331.26	0.0502	0.0117
Earth	23867-01-29 16:19 G	10438330.96	10438331.18	10438331.40	0.0502	0.0146 *
Venus	23872-03-14 19:40 G	10440202.23	10440202.32	10440202.41	0.0509	0.0453
Moon	23872-07-02 07:26 G	10440311.62	10440311.81	10440312.00	0.0513	0.0304
Earth	23872-07-02 11:02 G	10440311.79	10440311.96	10440312.15	0.0513	0.0317 *

Mercury	23873-01-11 01:26 G	10440504.40	10440504.56	10440504.72	0.0521	0.0033
Earth	23873-08-06 22:19 G	10440712.23	10440712.43	10440712.62	0.0529	0.0283
Moon	23873-08-07 02:09 G	10440712.38	10440712.59	10440712.79	0.0529	0.0249 *
Venus	23877-05-31 03:21 G	10442105.53	10442105.64	10442105.77	0.0523	0.0419
Moon	23878-01-01 06:14 G	10442320.58	10442320.76	10442320.95	0.0515	0.0300
Earth	23878-01-01 10:04 G	10442320.74	10442320.92	10442321.10	0.0515	0.0322 *
Mercury	23878-06-01 22:19 G	10442472.33	10442472.43	10442472.52	0.0508	0.0363
Mercury	23878-08-30 07:12 G	10442561.67	10442561.80	10442561.93	0.0505	0.0215
Earth	23879-02-03 04:19 G	10442718.48	10442718.68	10442718.90	0.0499	0.0219
Moon	23879-02-03 08:38 G	10442718.65	10442718.86	10442719.06	0.0499	0.0223 *
Venus	23883-11-18 18:14 G	10444468.06	10444468.26	10444468.46	0.0507	0.0019
Earth	23884-07-07 07:40 G	10444699.61	10444699.82	10444700.03	0.0516	0.0238
Moon	23884-07-07 10:48 G	10444699.74	10444699.95	10444700.16	0.0516	0.0209 *
Mercury	23884-10-30 00:57 G	10444814.39	10444814.54	10444814.69	0.0521	0.0217
Moon	23885-08-12 01:12 G	10445100.39	10445100.55	10445100.73	0.0532	0.0374
Earth	23885-08-12 03:50 G	10445100.50	10445100.66	10445100.83	0.0532	0.0372 *
Earth	23890-01-06 03:36 G	10446708.45	10446708.65	10446708.86	0.0512	0.0242
Moon	23890-01-06 06:14 G	10446708.57	10446708.76	10446708.96	0.0512	0.0267 *
Mercury	23890-03-21 01:55 G	10446782.56	10446782.58	10446782.60	0.0509	0.0503
Mercury	23890-06-18 10:33 G	10446871.80	10446871.94	10446872.08	0.0506	0.0071
Moon	23891-02-07 10:04 G	10447105.74	10447105.92	10447106.10	0.0497	0.0317
Earth	23891-02-07 13:55 G	10447105.89	10447106.08	10447106.27	0.0497	0.0286 *
Venus	23895-07-24 17:16 G	10448734.17	10448734.22	10448734.29	0.0504	0.0480
Moon	23896-07-12 03:50 G	10449087.43	10449087.66	10449087.89	0.0519	0.0166
Earth	23896-07-12 05:45 G	10449087.52	10449087.74	10449087.97	0.0519	0.0157 *
Mercury	23896-08-18 00:28 G	10449124.42	10449124.52	10449124.63	0.0520	0.0402
Mercury	23896-11-16 01:55 G	10449214.46	10449214.58	10449214.70	0.0524	0.0363
Earth	23897-08-17 10:04 G	10449488.81	10449488.92	10449489.04	0.0534	0.0459
Moon	23897-08-17 09:36 G	10449488.82	10449488.90	10449488.99	0.0534	0.0489 *
Venus	23901-06-04 01:12 G	10450874.42	10450874.55	10450874.68	0.0519	0.0401

Moon	23902-01-11 18:00 G	10451096.03	10451096.25	10451096.48	0.0510	0.0187
Earth	23902-01-11 19:26 G	10451096.09	10451096.31	10451096.53	0.0510	0.0163 *
Mercury	23902-04-07 13:55 G	10451181.94	10451182.08	10451182.22	0.0506	0.0072
Earth	23903-02-12 23:02 G	10451493.30	10451493.46	10451493.63	0.0496	0.0353
Moon	23903-02-13 01:40 G	10451493.42	10451493.57	10451493.73	0.0496	0.0364 *
Earth	23908-07-18 03:07 G	10453475.39	10453475.63	10453475.86	0.0520	0.0076
Moon	23908-07-18 03:07 G	10453475.41	10453475.63	10453475.85	0.0520	0.0106 *
Mercury	23908-09-05 01:12 G	10453524.40	10453524.55	10453524.70	0.0522	0.0173
Moon	23909-08-23 15:07 G	10453877.09	10453877.13	10453877.19	0.0535	0.0521
Venus	23913-02-06 17:02 G	10455140.01	10455140.21	10455140.41	0.0522	0.0123
Earth	23914-01-16 07:40 G	10455483.59	10455483.82	10455484.05	0.0508	0.0090
Moon	23914-01-16 07:26 G	10455483.59	10455483.81	10455484.04	0.0508	0.0074 *
Mercury	23914-01-24 17:02 G	10455492.08	10455492.21	10455492.33	0.0508	0.0222
Mercury	23914-04-24 02:09 G	10455581.49	10455581.59	10455581.69	0.0504	0.0360
Moon	23915-02-17 06:00 G	10455880.61	10455880.75	10455880.91	0.0495	0.0388
Earth	23915-02-17 06:57 G	10455880.67	10455880.79	10455880.92	0.0495	0.0415 *
Moon	23919-06-19 15:21 G	10457464.14	10457464.14	10457464.16	0.0506	0.0506
Venus	23919-07-28 07:55 G	10457502.66	10457502.83	10457503.01	0.0508	0.0268
Mercury	23920-06-24 00:28 G	10457834.36	10457834.52	10457834.68	0.0521	0.0016
Earth	23920-07-23 01:12 G	10457863.32	10457863.55	10457863.79	0.0522	0.0012
Moon	23920-07-23 03:36 G	10457863.41	10457863.65	10457863.89	0.0522	0.0023 *
Mercury	23925-11-12 20:38 G	10459802.27	10459802.36	10459802.46	0.0509	0.0362
Earth	23926-01-20 22:33 G	10459871.21	10459871.44	10459871.67	0.0506	0.0012
Moon	23926-01-21 00:28 G	10459871.28	10459871.52	10459871.77	0.0506	0.0017 *
Mercury	23926-02-10 05:31 G	10459891.61	10459891.73	10459891.86	0.0505	0.0219
Moon	23927-02-21 14:52 G	10460268.06	10460268.12	10460268.20	0.0493	0.0464
Earth	23927-02-21 16:04 G	10460268.11	10460268.17	10460268.23	0.0493	0.0475 *
Venus	23931-04-02 05:31 G	10461768.55	10461768.73	10461768.92	0.0505	0.0208
Earth	23931-06-24 06:43 G	10461851.70	10461851.78	10461851.88	0.0508	0.0463
Moon	23931-06-24 09:50 G	10461851.84	10461851.91	10461851.99	0.0508	0.0480 *

Mercury	23932-04-11 23:16 G	10462144.32	10462144.47	10462144.62	0.0520	0.0212
Moon	23932-07-27 19:40 G	10462251.10	10462251.32	10462251.54	0.0525	0.0127
Earth	23932-07-27 23:31 G	10462251.25	10462251.48	10462251.71	0.0525	0.0096 *
Earth	23936-12-23 01:26 G	10463860.49	10463860.56	10463860.65	0.0520	0.0483
Moon	23936-12-23 05:02 G	10463860.65	10463860.71	10463860.78	0.0520	0.0498 *
Mercury	23937-09-01 00:28 G	10464112.50	10464112.52	10464112.55	0.0510	0.0497
Mercury	23937-11-29 09:21 G	10464201.75	10464201.89	10464202.03	0.0506	0.0080
Moon	23938-01-25 10:04 G	10464258.69	10464258.92	10464259.15	0.0504	0.0051
Earth	23938-01-25 13:26 G	10464258.83	10464259.06	10464259.29	0.0504	0.0067 *
Moon	23943-06-28 20:52 G	10466239.24	10466239.37	10466239.50	0.0511	0.0418
Earth	23943-06-29 00:28 G	10466239.38	10466239.52	10466239.68	0.0511	0.0393 *
Mercury	23944-01-29 22:48 G	10466454.34	10466454.45	10466454.55	0.0520	0.0398
Mercury	23944-04-29 00:00 G	10466544.39	10466544.50	10466544.62	0.0523	0.0366
Earth	23944-08-02 01:55 G	10466639.36	10466639.58	10466639.80	0.0527	0.0186
Moon	23944-08-02 06:00 G	10466639.53	10466639.75	10466639.97	0.0527	0.0175 *
Mars	23946-08-12 18:14 G	10467380.01	10467380.26	10467380.51	0.0542	0.0054
Venus	23948-10-15 10:48 G	10468174.77	10468174.95	10468175.14	0.0520	0.0196
Moon	23948-12-27 18:57 G	10468248.14	10468248.29	10468248.46	0.0517	0.0381
Earth	23948-12-27 22:48 G	10468248.32	10468248.45	10468248.60	0.0517	0.0406 *
Mercury	23949-09-17 12:43 G	10468511.90	10468512.03	10468512.17	0.0507	0.0064
Earth	23950-01-30 01:40 G	10468646.35	10468646.57	10468646.79	0.0502	0.0140
Moon	23950-01-30 05:45 G	10468646.51	10468646.74	10468646.96	0.0502	0.0111 *
Earth	23955-07-03 19:40 G	10470627.15	10470627.32	10470627.51	0.0513	0.0321
Moon	23955-07-03 23:16 G	10470627.28	10470627.47	10470627.65	0.0513	0.0300 *
Mercury	23956-02-16 00:00 G	10470854.35	10470854.50	10470854.66	0.0523	0.0187
Moon	23956-08-07 03:21 G	10471027.43	10471027.64	10471027.86	0.0529	0.0243
Earth	23956-08-07 06:28 G	10471027.57	10471027.77	10471027.97	0.0529	0.0275 *
Venus	23960-06-20 05:02 G	10472440.55	10472440.71	10472440.87	0.0523	0.0318
Earth	23961-01-01 17:31 G	10472636.06	10472636.23	10472636.42	0.0515	0.0327
Moon	23961-01-01 20:24 G	10472636.18	10472636.35	10472636.53	0.0515	0.0314 *

Mercury	23961-07-06 16:19 G	10472822.06	10472822.18	10472822.31	0.0507	0.0204
Mercury	23961-10-04 01:26 G	10472911.47	10472911.56	10472911.66	0.0504	0.0377
Moon	23962-02-03 09:21 G	10473033.67	10473033.89	10473034.10	0.0500	0.0215
Earth	23962-02-03 12:57 G	10473033.84	10473034.04	10473034.26	0.0500	0.0212 *
Mars	23964-07-06 19:26 G	10473918.08	10473918.31	10473918.56	0.0486	0.0306
Venus	23966-12-08 19:40 G	10474803.12	10474803.32	10474803.53	0.0507	0.0080
Moon	23967-07-08 13:26 G	10475014.85	10475015.06	10475015.29	0.0515	0.0216
Earth	23967-07-08 15:50 G	10475014.96	10475015.16	10475015.37	0.0515	0.0245 *
Mercury	23967-12-04 23:31 G	10475164.31	10475164.48	10475164.64	0.0521	0.0008
Earth	23968-08-12 08:09 G	10475415.67	10475415.84	10475416.01	0.0531	0.0358
Moon	23968-08-12 08:38 G	10475415.71	10475415.86	10475416.02	0.0531	0.0371 *
Moon	23973-01-06 05:31 G	10477023.53	10477023.73	10477023.93	0.0513	0.0278
Earth	23973-01-06 07:12 G	10477023.60	10477023.80	10477024.00	0.0513	0.0252 *
Mercury	23973-04-24 19:26 G	10477132.21	10477132.31	10477132.40	0.0509	0.0355
Mercury	23973-07-23 04:19 G	10477221.55	10477221.68	10477221.80	0.0505	0.0225
Earth	23974-02-07 21:36 G	10477421.21	10477421.40	10477421.59	0.0499	0.0278
Moon	23974-02-08 00:14 G	10477421.33	10477421.51	10477421.69	0.0499	0.0308 *
Venus	23978-08-13 18:57 G	10479069.16	10479069.29	10479069.42	0.0504	0.0385
Earth	23979-07-13 12:00 G	10479402.78	10479403.00	10479403.23	0.0517	0.0164
Moon	23979-07-13 12:28 G	10479402.81	10479403.02	10479403.24	0.0517	0.0177 *
Mercury	23979-09-22 22:33 G	10479474.29	10479474.44	10479474.60	0.0520	0.0191
Earth	23980-08-17 11:16 G	10479803.85	10479803.97	10479804.10	0.0532	0.0443
Moon	23980-08-17 13:26 G	10479803.95	10479804.06	10479804.17	0.0532	0.0470 *
Venus	23984-06-22 23:16 G	10481209.40	10481209.47	10481209.55	0.0519	0.0480
Earth	23985-01-11 00:14 G	10481411.29	10481411.51	10481411.73	0.0511	0.0172
Moon	23985-01-11 00:28 G	10481411.31	10481411.52	10481411.72	0.0511	0.0194 *
Mercury	23985-02-10 23:02 G	10481442.43	10481442.46	10481442.49	0.0510	0.0494
Mercury	23985-05-11 07:55 G	10481531.69	10481531.83	10481531.96	0.0506	0.0085
Moon	23986-02-12 07:12 G	10481808.64	10481808.80	10481808.98	0.0497	0.0347
Earth	23986-02-12 08:09 G	10481808.68	10481808.84	10481809.01	0.0497	0.0346 *

Mercury	23991-07-11 21:21 G	10483784.28	10483784.39	10483784.50	0.0519	0.0388
Earth	23991-07-18 07:12 G	10483790.57	10483790.80	10483791.03	0.0519	0.0082
Moon	23991-07-18 09:07 G	10483790.64	10483790.88	10483791.11	0.0519	0.0108 *
Mercury	23991-10-09 22:33 G	10483874.33	10483874.44	10483874.56	0.0523	0.0373
Moon	23992-08-22 11:16 G	10484191.91	10484191.97	10484192.03	0.0534	0.0514
Earth	23992-08-22 14:38 G	10484192.08	10484192.11	10484192.15	0.0534	0.0527
Venus	23996-02-26 19:12 G	10485475.09	10485475.30	10485475.50	0.0522	0.0024
Earth	23997-01-15 17:45 G	10485799.01	10485799.24	10485799.47	0.0509	0.0093
Moon	23997-01-15 19:40 G	10485799.08	10485799.32	10485799.56	0.0509	0.0071 *
Mercury	23997-02-27 11:31 G	10485841.85	10485841.98	10485842.12	0.0507	0.0056
Moon	23998-02-16 17:31 G	10486196.09	10486196.23	10486196.37	0.0495	0.0383
Earth	23998-02-16 18:28 G	10486196.15	10486196.27	10486196.41	0.0495	0.0411 *

25TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 25th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	24002-08-16 07:55 G		10487837.69	10487837.83	10487837.98	0.0508	0.0354	
Moon	24003-07-23 03:21 G		10488178.41	10488178.64	10488178.87	0.0522	0.0022	
Earth	24003-07-23 06:57 G		10488178.55	10488178.79	10488179.02	0.0522	0.0008	*
Mercury	24003-07-28 22:33 G		10488184.28	10488184.44	10488184.59	0.0522	0.0192	
Mercury	24008-12-16 15:21 G		10490152.01	10490152.14	10490152.26	0.0508	0.0193	
Moon	24009-01-20 06:00 G		10490186.52	10490186.75	10490186.98	0.0506	0.0005	
Earth	24009-01-20 09:21 G		10490186.66	10490186.89	10490187.12	0.0506	0.0016	*

Mercury	24009-03-16 00:28 G	10490241.43	10490241.52	10490241.61	0.0504	0.0388
Earth	24010-02-21 02:38 G	10490583.55	10490583.61	10490583.68	0.0493	0.0470
Moon	24010-02-21 05:02 G	10490583.63	10490583.71	10490583.80	0.0493	0.0460 *
Venus	24014-04-21 07:12 G	10492103.60	10492103.80	10492104.00	0.0506	0.0114
Moon	24014-06-23 12:57 G	10492166.98	10492167.04	10492167.11	0.0508	0.0488
Earth	24014-06-23 16:33 G	10492167.10	10492167.19	10492167.29	0.0508	0.0464 *
Mercury	24015-05-16 22:19 G	10492494.27	10492494.43	10492494.59	0.0522	0.0012
Earth	24015-07-28 08:24 G	10492566.62	10492566.85	10492567.09	0.0524	0.0091
Moon	24015-07-28 12:43 G	10492566.80	10492567.03	10492567.25	0.0524	0.0121 *
Moon	24019-12-23 06:43 G	10494175.72	10494175.78	10494175.84	0.0520	0.0498
Earth	24019-12-23 10:19 G	10494175.86	10494175.93	10494176.02	0.0520	0.0486
Mercury	24020-10-04 18:57 G	10494462.19	10494462.29	10494462.39	0.0508	0.0334
Mercury	24021-01-02 03:50 G	10494551.54	10494551.66	10494551.78	0.0505	0.0245
Earth	24021-01-24 22:48 G	10494574.22	10494574.45	10494574.68	0.0504	0.0062
Moon	24021-01-25 02:52 G	10494574.39	10494574.62	10494574.85	0.0504	0.0039 *
Earth	24026-06-28 11:02 G	10496554.82	10496554.96	10496555.11	0.0510	0.0395
Moon	24026-06-28 14:24 G	10496554.97	10496555.10	10496555.24	0.0510	0.0414 *
Mercury	24027-03-04 21:50 G	10496804.25	10496804.41	10496804.56	0.0520	0.0174
Moon	24027-08-02 06:00 G	10496954.53	10496954.75	10496954.98	0.0526	0.0165
Earth	24027-08-02 09:36 G	10496954.68	10496954.90	10496955.12	0.0526	0.0176 *
Venus	24031-11-04 09:07 G	10498509.71	10498509.88	10498510.05	0.0520	0.0274
Earth	24031-12-28 01:26 G	10498563.43	10498563.56	10498563.71	0.0518	0.0414
Moon	24031-12-28 04:48 G	10498563.55	10498563.70	10498563.85	0.0518	0.0384 *
Mercury	24032-07-23 21:50 G	10498772.37	10498772.41	10498772.45	0.0510	0.0486
Mercury	24032-10-21 06:28 G	10498861.64	10498861.77	10498861.91	0.0506	0.0093
Moon	24033-01-29 04:33 G	10498961.46	10498961.69	10498961.92	0.0503	0.0102
Earth	24033-01-29 08:24 G	10498961.62	10498961.85	10498962.07	0.0503	0.0132 *
Moon	24038-07-03 02:38 G	10500942.42	10500942.61	10500942.81	0.0512	0.0299
Earth	24038-07-03 05:02 G	10500942.54	10500942.71	10500942.90	0.0512	0.0323 *
Mercury	24038-12-21 20:52 G	10501114.25	10501114.37	10501114.49	0.0519	0.0363

Mercury	24039-03-21 22:04 G	10501204.32	10501204.42	10501204.53	0.0523	0.0397
Earth	24039-08-07 10:48 G	10501342.75	10501342.95	10501343.15	0.0528	0.0264
Moon	24039-08-07 12:00 G	10501342.80	10501343.00	10501343.20	0.0528	0.0238 *
Venus	24043-07-10 03:07 G	10502775.45	10502775.63	10502775.81	0.0523	0.0241
Moon	24044-01-01 18:57 G	10502951.11	10502951.29	10502951.48	0.0516	0.0323
Earth	24044-01-01 20:52 G	10502951.20	10502951.37	10502951.55	0.0516	0.0335 *
Mercury	24044-08-09 10:04 G	10503171.78	10503171.92	10503172.06	0.0507	0.0051
Earth	24045-02-02 20:38 G	10503349.15	10503349.36	10503349.57	0.0501	0.0205
Moon	24045-02-02 23:16 G	10503349.26	10503349.47	10503349.67	0.0501	0.0214 *
Venus	24049-12-27 19:55 G	10505138.14	10505138.33	10505138.53	0.0507	0.0166
Earth	24050-07-07 21:36 G	10505330.20	10505330.40	10505330.61	0.0514	0.0249
Moon	24050-07-07 22:33 G	10505330.24	10505330.44	10505330.64	0.0514	0.0224 *
Mercury	24051-01-07 21:07 G	10505514.23	10505514.38	10505514.53	0.0522	0.0203
Earth	24051-08-12 11:16 G	10505730.80	10505730.97	10505731.15	0.0530	0.0349
Moon	24051-08-12 12:28 G	10505730.86	10505731.02	10505731.21	0.0530	0.0369 *
Earth	24056-01-06 17:02 G	10507339.01	10507339.21	10507339.41	0.0514	0.0254
Moon	24056-01-06 17:16 G	10507339.03	10507339.22	10507339.41	0.0514	0.0284 *
Mercury	24056-05-28 13:55 G	10507481.95	10507482.08	10507482.21	0.0508	0.0187
Mercury	24056-08-25 23:02 G	10507571.38	10507571.46	10507571.55	0.0505	0.0396
Moon	24057-02-07 08:24 G	10507736.66	10507736.85	10507737.05	0.0499	0.0301
Earth	24057-02-07 09:07 G	10507736.69	10507736.88	10507737.08	0.0499	0.0275 *
Venus	24061-09-01 18:57 G	10509404.13	10509404.29	10509404.46	0.0504	0.0300
Earth	24062-07-12 18:00 G	10509718.03	10509718.25	10509718.48	0.0517	0.0168
Moon	24062-07-12 19:26 G	10509718.08	10509718.31	10509718.54	0.0517	0.0186 *
Mercury	24062-10-26 20:52 G	10509824.20	10509824.37	10509824.53	0.0521	0.0022
Moon	24063-08-17 13:40 G	10510118.96	10510119.07	10510119.18	0.0532	0.0466
Earth	24063-08-17 16:48 G	10510119.07	10510119.20	10510119.33	0.0532	0.0436 *
Earth	24068-01-11 11:45 G	10511726.77	10511726.99	10511727.21	0.0511	0.0175
Moon	24068-01-11 13:26 G	10511726.84	10511727.06	10511727.28	0.0511	0.0189 *
Mercury	24068-03-16 17:45 G	10511792.14	10511792.24	10511792.35	0.0509	0.0324

Mercury	24068-06-14 02:38 G	10511881.49	10511881.61	10511881.73	0.0505	0.0255
Moon	24069-02-11 18:28 G	10512124.10	10512124.27	10512124.43	0.0497	0.0334
Earth	24069-02-11 19:40 G	10512124.15	10512124.32	10512124.49	0.0497	0.0341 *
Moon	24074-07-17 13:40 G	10514105.84	10514106.07	10514106.29	0.0519	0.0109
Earth	24074-07-17 16:48 G	10514105.97	10514106.20	10514106.44	0.0519	0.0087 *
Mercury	24074-08-14 20:24 G	10514134.20	10514134.35	10514134.51	0.0521	0.0163
Earth	24075-08-22 23:45 G	10514507.45	10514507.49	10514507.55	0.0534	0.0521
Moon	24075-08-23 03:50 G	10514507.59	10514507.66	10514507.74	0.0534	0.0502
Venus	24079-03-17 21:50 G	10515810.21	10515810.41	10515810.61	0.0521	0.0084
Mercury	24080-01-03 21:21 G	10516102.34	10516102.39	10516102.45	0.0509	0.0464
Moon	24080-01-16 00:28 G	10516114.30	10516114.52	10516114.75	0.0509	0.0070
Earth	24080-01-16 03:50 G	10516114.43	10516114.66	10516114.89	0.0509	0.0097 *
Mercury	24080-04-02 06:14 G	10516191.62	10516191.76	10516191.89	0.0506	0.0114
Earth	24081-02-16 05:02 G	10516511.58	10516511.71	10516511.85	0.0495	0.0406
Moon	24081-02-16 07:40 G	10516511.67	10516511.82	10516511.98	0.0495	0.0373 *
Mars	24082-12-25 04:33 G	10517188.45	10517188.69	10517188.93	0.0486	0.0308
Venus	24085-09-04 10:48 G	10518172.87	10518172.95	10518173.04	0.0508	0.0458
Mercury	24086-06-02 19:55 G	10518444.21	10518444.33	10518444.46	0.0519	0.0347
Earth	24086-07-22 16:33 G	10518493.95	10518494.19	10518494.42	0.0521	0.0005
Moon	24086-07-22 20:38 G	10518494.13	10518494.36	10518494.59	0.0521	0.0022 *
Mercury	24086-08-31 21:21 G	10518534.29	10518534.39	10518534.48	0.0523	0.0414
Venus	24090-11-20 12:43 G	10520075.93	10520076.03	10520076.13	0.0524	0.0452
Mercury	24092-01-20 08:52 G	10520501.73	10520501.87	10520502.01	0.0507	0.0042
Earth	24092-01-20 14:24 G	10520501.87	10520502.10	10520502.33	0.0507	0.0023 *
Moon	24092-01-20 18:28 G	10520502.03	10520502.27	10520502.50	0.0507	0.0009 *
Moon	24093-02-20 08:09 G	10520898.76	10520898.84	10520898.93	0.0494	0.0458
Earth	24093-02-20 11:31 G	10520898.91	10520898.98	10520899.06	0.0494	0.0464 *
Venus	24097-05-10 09:50 G	10522438.71	10522438.91	10522439.12	0.0506	0.0016
Earth	24097-06-23 04:04 G	10522482.58	10522482.67	10522482.76	0.0507	0.0463
Moon	24097-06-23 07:26 G	10522482.76	10522482.81	10522482.87	0.0507	0.0493 *

Mercury	24098-06-19 20:52 G	10522844.22	10522844.37	10522844.51	0.0522	0.0229
Moon	24098-07-27 12:14 G	10522881.77	10522882.01	10522882.24	0.0523	0.0113
Earth	24098-07-27 15:50 G	10522881.93	10522882.16	10522882.39	0.0523	0.0083 *
Mars	24100-11-06 21:21 G	10523714.17	10523714.39	10523714.62	0.0541	0.0237
Earth	24102-12-23 11:45 G	10524490.92	10524490.99	10524491.06	0.0521	0.0493
Moon	24102-12-23 15:07 G	10524491.07	10524491.13	10524491.20	0.0521	0.0497
Mercury	24103-11-09 12:28 G	10524811.89	10524812.02	10524812.15	0.0508	0.0184
Moon	24104-01-26 00:43 G	10524889.30	10524889.53	10524889.77	0.0505	0.0032
Earth	24104-01-26 04:33 G	10524889.46	10524889.69	10524889.92	0.0505	0.0054 *
Mercury	24104-02-06 21:36 G	10524901.32	10524901.40	10524901.49	0.0505	0.0400
Venus	24109-01-14 07:40 G	10526704.77	10526704.82	10526704.88	0.0503	0.0481
Moon	24109-06-28 15:21 G	10526870.00	10526870.14	10526870.28	0.0509	0.0413
Earth	24109-06-28 18:00 G	10526870.11	10526870.25	10526870.40	0.0509	0.0397 *
Mercury	24110-04-08 19:40 G	10527154.15	10527154.32	10527154.48	0.0521	0.0032
Earth	24110-08-02 13:26 G	10527269.84	10527270.06	10527270.28	0.0525	0.0169
Moon	24110-08-02 15:21 G	10527269.92	10527270.14	10527270.35	0.0525	0.0153 *
Venus	24114-11-24 11:02 G	10528844.82	10528844.96	10528845.10	0.0520	0.0375
Moon	24114-12-28 08:24 G	10528878.69	10528878.85	10528879.01	0.0519	0.0383
Earth	24114-12-28 10:33 G	10528878.80	10528878.94	10528879.07	0.0519	0.0416 *
Mercury	24115-08-28 16:19 G	10529122.08	10529122.18	10529122.29	0.0509	0.0320
Mercury	24115-11-26 01:12 G	10529211.44	10529211.55	10529211.68	0.0506	0.0262
Earth	24116-01-30 19:12 G	10529277.08	10529277.30	10529277.53	0.0503	0.0131
Moon	24116-01-30 22:04 G	10529277.20	10529277.42	10529277.64	0.0503	0.0105 *
Earth	24121-07-03 11:16 G	10531257.80	10531257.97	10531258.16	0.0512	0.0326
Moon	24121-07-03 12:28 G	10531257.84	10531258.02	10531258.21	0.0512	0.0303 *
Mercury	24122-01-25 18:57 G	10531464.14	10531464.29	10531464.45	0.0520	0.0155
Earth	24122-08-07 15:36 G	10531657.95	10531658.15	10531658.36	0.0528	0.0256
Moon	24122-08-07 16:19 G	10531657.96	10531658.18	10531658.40	0.0528	0.0234 *
Venus	24126-07-30 06:43 G	10533110.58	10533110.78	10533110.98	0.0523	0.0129
Earth	24127-01-02 07:55 G	10533266.66	10533266.83	10533267.01	0.0516	0.0338

Moon	24127-01-02 08:24 G	10533266.68	10533266.85	10533267.02	0.0516	0.0332	*
Mercury	24127-06-16 20:09 G	10533432.29	10533432.34	10533432.40	0.0510	0.0456	
Mercury	24127-09-14 05:02 G	10533521.57	10533521.71	10533521.84	0.0506	0.0122	
Moon	24128-02-04 07:26 G	10533664.59	10533664.81	10533665.03	0.0501	0.0215	
Earth	24128-02-04 08:09 G	10533664.63	10533664.84	10533665.06	0.0501	0.0201	*
Venus	24133-01-16 21:36 G	10535473.23	10535473.40	10535473.58	0.0507	0.0261	
Earth	24133-07-08 06:57 G	10535645.59	10535645.79	10535646.00	0.0514	0.0251	
Moon	24133-07-08 07:55 G	10535645.62	10535645.83	10535646.06	0.0514	0.0233	*
Mercury	24133-11-13 18:28 G	10535774.15	10535774.27	10535774.40	0.0520	0.0339	
Mercury	24134-02-11 19:55 G	10535864.24	10535864.33	10535864.42	0.0523	0.0423	
Moon	24134-08-12 17:45 G	10536046.07	10536046.24	10536046.40	0.0530	0.0368	
Earth	24134-08-12 20:24 G	10536046.17	10536046.35	10536046.53	0.0530	0.0343	*
Earth	24139-01-07 02:52 G	10537654.42	10537654.62	10537654.82	0.0514	0.0257	
Moon	24139-01-07 04:19 G	10537654.48	10537654.68	10537654.88	0.0514	0.0286	*
Mercury	24139-07-03 08:24 G	10537831.72	10537831.85	10537831.99	0.0507	0.0027	
Moon	24140-02-08 18:14 G	10538052.09	10538052.26	10538052.45	0.0499	0.0295	
Earth	24140-02-08 19:40 G	10538052.13	10538052.32	10538052.52	0.0499	0.0270	*
Venus	24144-09-21 21:50 G	10539739.22	10539739.41	10539739.60	0.0505	0.0199	
Moon	24145-07-13 01:55 G	10540033.37	10540033.58	10540033.80	0.0516	0.0198	
Earth	24145-07-13 05:02 G	10540033.49	10540033.71	10540033.93	0.0516	0.0171	*
Mercury	24145-11-30 19:55 G	10540174.19	10540174.33	10540174.47	0.0522	0.0245	
Earth	24146-08-18 00:43 G	10540434.40	10540434.53	10540434.67	0.0531	0.0427	
Moon	24146-08-18 04:33 G	10540434.57	10540434.69	10540434.81	0.0531	0.0453	*
Moon	24151-01-11 12:14 G	10542041.80	10542042.01	10542042.22	0.0512	0.0191	
Earth	24151-01-11 15:21 G	10542041.92	10542042.14	10542042.36	0.0512	0.0182	*
Mercury	24151-04-21 11:16 G	10542141.84	10542141.97	10542142.10	0.0508	0.0176	
Mercury	24151-07-19 20:24 G	10542231.27	10542231.35	10542231.43	0.0505	0.0408	
Earth	24152-02-13 02:24 G	10542439.43	10542439.60	10542439.77	0.0498	0.0335	
Moon	24152-02-13 05:02 G	10542439.53	10542439.71	10542439.90	0.0498	0.0322	*
Earth	24157-07-18 01:55 G	10544421.35	10544421.58	10544421.82	0.0518	0.0090	

Moon	24157-07-18 06:00 G	10544421.53	10544421.75	10544421.98	0.0518	0.0108	*
Mercury	24157-09-18 19:12 G	10544484.14	10544484.30	10544484.47	0.0521	0.0060	
Moon	24158-08-23 00:43 G	10544822.44	10544822.53	10544822.63	0.0533	0.0488	
Earth	24158-08-23 04:19 G	10544822.62	10544822.68	10544822.75	0.0533	0.0510	*
Venus	24162-04-06 19:12 G	10546145.11	10546145.30	10546145.50	0.0521	0.0157	
Earth	24163-01-16 07:12 G	10546429.57	10546429.80	10546430.02	0.0510	0.0104	
Moon	24163-01-16 11:02 G	10546429.73	10546429.96	10546430.19	0.0510	0.0072	*
Mercury	24163-02-07 14:38 G	10546452.01	10546452.11	10546452.22	0.0509	0.0319	
Mercury	24163-05-07 23:45 G	10546541.37	10546541.49	10546541.61	0.0506	0.0263	
Moon	24164-02-17 09:07 G	10546826.73	10546826.88	10546827.03	0.0496	0.0369	
Earth	24164-02-17 12:28 G	10546826.88	10546827.02	10546827.16	0.0496	0.0400	*
Mercury	24169-07-07 17:45 G	10548794.09	10548794.24	10548794.40	0.0520	0.0143	
Moon	24169-07-22 16:48 G	10548808.96	10548809.20	10548809.44	0.0520	0.0013	
Earth	24169-07-22 20:38 G	10548809.13	10548809.36	10548809.60	0.0520	0.0012	*
Venus	24173-12-10 13:55 G	10550410.94	10550411.08	10550411.24	0.0524	0.0355	
Mercury	24174-11-26 18:43 G	10550762.22	10550762.28	10550762.34	0.0510	0.0454	
Moon	24175-01-20 20:24 G	10550817.12	10550817.35	10550817.59	0.0508	0.0011	
Earth	24175-01-21 00:14 G	10550817.28	10550817.51	10550817.74	0.0508	0.0026	*
Mercury	24175-02-24 03:21 G	10550851.51	10550851.64	10550851.78	0.0507	0.0125	
Earth	24176-02-21 22:48 G	10551214.36	10551214.45	10551214.53	0.0495	0.0461	
Moon	24176-02-22 02:24 G	10551214.52	10551214.60	10551214.68	0.0495	0.0463	*
Venus	24180-05-30 09:21 G	10552773.69	10552773.89	10552774.09	0.0506	0.0071	
Moon	24180-06-23 07:12 G	10552797.76	10552797.80	10552797.86	0.0507	0.0495	
Earth	24180-06-23 10:04 G	10552797.83	10552797.92	10552798.01	0.0507	0.0465	*
Mercury	24181-04-25 17:02 G	10553104.08	10553104.21	10553104.34	0.0519	0.0332	
Mercury	24181-07-24 18:14 G	10553194.17	10553194.26	10553194.35	0.0523	0.0429	
Earth	24181-07-27 19:40 G	10553197.09	10553197.32	10553197.56	0.0523	0.0077	
Moon	24181-07-27 22:19 G	10553197.20	10553197.43	10553197.65	0.0523	0.0100	*
Moon	24185-12-22 19:40 G	10554806.24	10554806.32	10554806.40	0.0521	0.0491	
Earth	24185-12-22 21:50 G	10554806.35	10554806.41	10554806.48	0.0521	0.0496	*

Mercury	24186-12-13 07:12 G	10555161.66	10555161.80	10555161.94	0.0507	0.0015
Earth	24187-01-25 15:36 G	10555204.92	10555205.15	10555205.38	0.0505	0.0051
Moon	24187-01-25 18:14 G	10555205.04	10555205.26	10555205.49	0.0505	0.0028 *
Venus	24192-02-03 08:38 G	10557039.73	10557039.86	10557039.99	0.0504	0.0392
Earth	24192-06-28 02:38 G	10557185.47	10557185.61	10557185.76	0.0509	0.0399
Moon	24192-06-28 03:50 G	10557185.54	10557185.66	10557185.80	0.0509	0.0413 *
Mercury	24193-02-11 16:19 G	10557414.18	10557414.18	10557414.18	0.0518	0.0518
Mercury	24193-05-12 18:14 G	10557504.12	10557504.26	10557504.40	0.0522	0.0249
Moon	24193-08-01 21:36 G	10557585.16	10557585.40	10557585.63	0.0525	0.0139
Earth	24193-08-01 21:36 G	10557585.18	10557585.40	10557585.62	0.0525	0.0163 *
Venus	24197-12-13 13:26 G	10559179.99	10559180.06	10559180.14	0.0520	0.0477
Earth	24197-12-27 19:26 G	10559194.18	10559194.31	10559194.45	0.0519	0.0418
Moon	24197-12-27 20:09 G	10559194.19	10559194.34	10559194.49	0.0519	0.0387 *
Mercury	24198-10-01 10:48 G	10559471.82	10559471.95	10559472.08	0.0508	0.0155
Mercury	24198-12-29 19:55 G	10559561.26	10559561.33	10559561.40	0.0504	0.0428
Moon	24199-01-30 04:19 G	10559592.44	10559592.68	10559592.92	0.0503	0.0108
Earth	24199-01-30 05:16 G	10559592.49	10559592.72	10559592.94	0.0503	0.0126 *
Earth	24204-07-03 22:19 G	10561573.25	10561573.43	10561573.61	0.0511	0.0326
Moon	24204-07-03 22:48 G	10561573.26	10561573.45	10561573.66	0.0511	0.0300 *
Mercury	24205-03-01 18:14 G	10561814.09	10561814.26	10561814.42	0.0521	0.0071
Moon	24205-08-07 22:19 G	10561973.23	10561973.43	10561973.64	0.0527	0.0232
Earth	24205-08-08 00:43 G	10561973.33	10561973.53	10561973.74	0.0527	0.0251 *
Venus	24209-08-19 04:48 G	10563445.50	10563445.70	10563445.90	0.0522	0.0053
Earth	24210-01-02 10:04 G	10563581.75	10563581.92	10563582.10	0.0517	0.0344
Moon	24210-01-02 11:02 G	10563581.79	10563581.96	10563582.15	0.0517	0.0340 *
Mercury	24210-07-21 13:26 G	10563781.96	10563782.06	10563782.17	0.0509	0.0311
Mercury	24210-10-18 22:19 G	10563871.32	10563871.43	10563871.55	0.0506	0.0270
Moon	24211-02-04 11:45 G	10563979.80	10563979.99	10563980.20	0.0502	0.0218
Earth	24211-02-04 12:57 G	10563979.83	10563980.04	10563980.26	0.0502	0.0194 *
Venus	24216-02-07 00:00 G	10565808.36	10565808.50	10565808.65	0.0507	0.0361

Moon	24216-07-08 14:24 G	10565960.90	10565961.10	10565961.30	0.0513	0.0242
Earth	24216-07-08 17:02 G	10565961.01	10565961.21	10565961.42	0.0513	0.0251 *
Mercury	24216-12-18 17:31 G	10566124.07	10566124.23	10566124.39	0.0520	0.0118
Earth	24217-08-13 02:09 G	10566361.42	10566361.59	10566361.78	0.0529	0.0335
Moon	24217-08-13 05:45 G	10566361.57	10566361.74	10566361.92	0.0529	0.0362 *
Mars	24219-04-30 11:45 G	10566986.85	10566986.99	10566987.15	0.0541	0.0431
Moon	24222-01-07 00:57 G	10567969.36	10567969.54	10567969.73	0.0515	0.0295
Earth	24222-01-07 03:50 G	10567969.46	10567969.66	10567969.86	0.0515	0.0264 *
Mercury	24222-05-09 17:02 G	10568092.15	10568092.21	10568092.27	0.0510	0.0454
Mercury	24222-08-07 01:40 G	10568181.44	10568181.57	10568181.71	0.0507	0.0125
Earth	24223-02-09 00:14 G	10568367.32	10568367.51	10568367.71	0.0500	0.0265
Moon	24223-02-09 02:52 G	10568367.43	10568367.62	10568367.82	0.0500	0.0287 *
Venus	24227-10-12 21:21 G	10570074.19	10570074.39	10570074.59	0.0505	0.0116
Earth	24228-07-13 08:52 G	10570348.65	10570348.87	10570349.09	0.0515	0.0176
Moon	24228-07-13 12:57 G	10570348.82	10570349.04	10570349.26	0.0515	0.0207 *
Mercury	24228-10-06 15:50 G	10570434.03	10570434.16	10570434.29	0.0519	0.0320
Mercury	24229-01-04 17:02 G	10570524.13	10570524.21	10570524.30	0.0522	0.0439
Moon	24229-08-17 21:50 G	10570749.29	10570749.41	10570749.54	0.0531	0.0441
Earth	24229-08-18 01:55 G	10570749.43	10570749.58	10570749.72	0.0531	0.0417 *
Earth	24234-01-11 22:48 G	10572357.24	10572357.45	10572357.67	0.0513	0.0187
Moon	24234-01-12 02:52 G	10572357.40	10572357.62	10572357.84	0.0513	0.0185 *
Mercury	24234-05-26 05:31 G	10572491.59	10572491.73	10572491.87	0.0507	0.0014
Moon	24235-02-13 08:52 G	10572754.70	10572754.87	10572755.05	0.0498	0.0318
Earth	24235-02-13 12:14 G	10572754.84	10572755.01	10572755.19	0.0498	0.0332 *
Mars	24237-03-22 14:38 G	10573522.81	10573523.11	10573523.42	0.0486	0.0030
Moon	24240-07-18 01:12 G	10574736.32	10574736.55	10574736.78	0.0518	0.0117
Earth	24240-07-18 05:02 G	10574736.49	10574736.71	10574736.95	0.0518	0.0097 *
Mercury	24240-07-25 14:38 G	10574744.09	10574744.11	10574744.13	0.0518	0.0512
Mercury	24240-10-23 16:33 G	10574834.05	10574834.19	10574834.33	0.0522	0.0253
Earth	24241-08-23 05:45 G	10575137.67	10575137.74	10575137.83	0.0533	0.0501

Moon	24241-08-23 08:24 G	10575137.76	10575137.85	10575137.96	0.0533	0.0475	*
Venus	24245-04-26 21:36 G	10576480.23	10576480.40	10576480.58	0.0521	0.0261	
Moon	24246-01-16 13:12 G	10576744.82	10576745.05	10576745.29	0.0510	0.0075	
Earth	24246-01-16 17:02 G	10576744.99	10576745.21	10576745.44	0.0510	0.0108	*
Mercury	24246-03-14 09:21 G	10576801.76	10576801.89	10576802.02	0.0508	0.0152	
Mercury	24246-06-11 18:28 G	10576891.20	10576891.27	10576891.34	0.0505	0.0432	
Earth	24247-02-17 22:33 G	10577142.31	10577142.44	10577142.59	0.0496	0.0396	
Moon	24247-02-18 02:24 G	10577142.45	10577142.60	10577142.76	0.0496	0.0367	*
Earth	24252-07-23 03:21 G	10579124.41	10579124.64	10579124.88	0.0520	0.0016	
Moon	24252-07-23 06:14 G	10579124.54	10579124.76	10579124.99	0.0520	0.0014	*
Mercury	24252-08-11 16:19 G	10579144.01	10579144.18	10579144.34	0.0521	0.0072	
Venus	24256-12-30 16:19 G	10580746.00	10580746.18	10580746.36	0.0523	0.0253	
Mercury	24257-12-31 12:57 G	10581111.93	10581112.04	10581112.15	0.0509	0.0292	
Earth	24258-01-21 08:52 G	10581132.64	10581132.87	10581133.10	0.0508	0.0030	
Moon	24258-01-21 11:45 G	10581132.76	10581132.99	10581133.22	0.0508	0.0018	*
Mercury	24258-03-30 21:50 G	10581201.30	10581201.41	10581201.53	0.0505	0.0289	
Moon	24259-02-22 04:33 G	10581529.62	10581529.69	10581529.78	0.0495	0.0463	
Earth	24259-02-22 07:55 G	10581529.75	10581529.83	10581529.92	0.0495	0.0456	*
Venus	24263-06-20 11:02 G	10583108.77	10583108.96	10583109.15	0.0506	0.0166	
Earth	24263-06-24 19:55 G	10583113.24	10583113.33	10583113.42	0.0507	0.0465	
Moon	24263-06-24 21:21 G	10583113.35	10583113.39	10583113.43	0.0507	0.0498	*
Mercury	24264-05-30 16:04 G	10583454.01	10583454.17	10583454.33	0.0520	0.0109	
Moon	24264-07-28 04:04 G	10583512.43	10583512.67	10583512.91	0.0522	0.0087	
Earth	24264-07-28 04:48 G	10583512.47	10583512.70	10583512.93	0.0522	0.0073	*
Earth	24268-12-22 22:33 G	10585121.38	10585121.44	10585121.51	0.0522	0.0501	
Moon	24268-12-22 23:45 G	10585121.43	10585121.49	10585121.56	0.0522	0.0495	*
Mercury	24269-10-19 15:50 G	10585422.09	10585422.16	10585422.22	0.0510	0.0448	
Mercury	24270-01-17 00:28 G	10585511.38	10585511.52	10585511.65	0.0506	0.0130	
Moon	24270-01-25 17:02 G	10585519.97	10585520.21	10585520.46	0.0506	0.0020	
Earth	24270-01-25 18:28 G	10585520.03	10585520.27	10585520.50	0.0506	0.0045	*

Venus	24275-02-23 10:19 G	10587374.77	10587374.93	10587375.10	0.0504	0.0298
Earth	24275-06-29 12:14 G	10587500.87	10587501.01	10587501.16	0.0509	0.0398
Moon	24275-06-29 12:43 G	10587500.88	10587501.03	10587501.18	0.0509	0.0404 *
Mercury	24276-03-18 15:07 G	10587764.00	10587764.13	10587764.27	0.0519	0.0299
Mercury	24276-06-16 16:33 G	10587854.11	10587854.19	10587854.26	0.0522	0.0461
Moon	24276-08-02 02:24 G	10587900.38	10587900.60	10587900.82	0.0524	0.0130
Earth	24276-08-02 04:19 G	10587900.45	10587900.68	10587900.90	0.0524	0.0159 *
Earth	24280-12-27 18:14 G	10589509.13	10589509.26	10589509.39	0.0520	0.0426
Moon	24280-12-27 18:43 G	10589509.13	10589509.28	10589509.44	0.0520	0.0393 *
Mercury	24281-11-05 03:36 G	10589821.52	10589821.65	10589821.79	0.0507	0.0023
Moon	24282-01-30 06:00 G	10589907.54	10589907.75	10589907.97	0.0504	0.0107
Earth	24282-01-30 06:57 G	10589907.57	10589907.79	10589908.02	0.0504	0.0119 *
Moon	24287-07-03 23:31 G	10591888.31	10591888.48	10591888.67	0.0510	0.0304
Earth	24287-07-04 01:55 G	10591888.41	10591888.58	10591888.76	0.0510	0.0332 *
Mercury	24288-01-05 13:12 G	10592074.02	10592074.05	10592074.09	0.0518	0.0503
Mercury	24288-04-04 15:07 G	10592163.99	10592164.13	10592164.27	0.0521	0.0262
Earth	24288-08-07 00:57 G	10592288.33	10592288.54	10592288.75	0.0526	0.0240
Moon	24288-08-07 04:04 G	10592288.46	10592288.67	10592288.89	0.0526	0.0221 *
Venus	24292-09-07 04:33 G	10593780.49	10593780.69	10593780.89	0.0522	0.0035
Moon	24293-01-01 12:43 G	10593896.87	10593897.03	10593897.19	0.0518	0.0354
Earth	24293-01-01 15:07 G	10593896.96	10593897.13	10593897.30	0.0518	0.0349 *
Mercury	24293-08-24 07:26 G	10594131.68	10594131.81	10594131.94	0.0508	0.0155
Mercury	24293-11-21 16:33 G	10594221.12	10594221.19	10594221.26	0.0505	0.0430
Earth	24294-02-03 20:52 G	10594295.16	10594295.37	10594295.59	0.0502	0.0190
Moon	24294-02-03 23:31 G	10594295.27	10594295.48	10594295.70	0.0502	0.0218 *
Venus	24299-02-25 21:50 G	10596143.31	10596143.41	10596143.52	0.0507	0.0434
Earth	24299-07-08 18:57 G	10596276.09	10596276.29	10596276.49	0.0513	0.0258
Moon	24299-07-08 22:48 G	10596276.25	10596276.45	10596276.66	0.0513	0.0253 *
Mercury	24300-01-22 14:24 G	10596473.93	10596474.10	10596474.26	0.0521	0.0073
Moon	24300-08-12 22:19 G	10596676.26	10596676.43	10596676.60	0.0528	0.0350

Earth	24300-08-13 02:09 G	10596676.41	10596676.59	10596676.78	0.0528	0.0325	*
Venus	24304-05-13 23:16 G	10598046.39	10598046.47	10598046.55	0.0525	0.0480	
Earth	24305-01-07 11:45 G	10598284.80	10598284.99	10598285.19	0.0515	0.0270	
Moon	24305-01-07 15:36 G	10598284.96	10598285.15	10598285.34	0.0515	0.0300	*
Mercury	24305-06-13 11:16 G	10598441.86	10598441.97	10598442.08	0.0509	0.0292	
Mercury	24305-09-10 20:09 G	10598531.23	10598531.34	10598531.45	0.0506	0.0289	
Moon	24306-02-09 06:00 G	10598682.57	10598682.75	10598682.94	0.0500	0.0282	
Earth	24306-02-09 09:21 G	10598682.70	10598682.89	10598683.10	0.0500	0.0260	*
Venus	24310-11-01 20:24 G	10600409.15	10600409.35	10600409.56	0.0505	0.0039	
Moon	24311-07-14 10:04 G	10600663.71	10600663.92	10600664.13	0.0515	0.0212	
Earth	24311-07-14 14:09 G	10600663.87	10600664.09	10600664.31	0.0515	0.0181	*
Mercury	24311-11-11 13:40 G	10600783.91	10600784.07	10600784.23	0.0520	0.0114	
Earth	24312-08-18 06:14 G	10601064.62	10601064.76	10601064.91	0.0531	0.0410	
Moon	24312-08-18 09:21 G	10601064.76	10601064.89	10601065.03	0.0531	0.0425	*
Moon	24317-01-12 02:24 G	10602672.38	10602672.60	10602672.82	0.0513	0.0188	
Earth	24317-01-12 06:14 G	10602672.55	10602672.76	10602672.98	0.0513	0.0190	*
Mercury	24317-04-01 15:07 G	10602752.05	10602752.13	10602752.20	0.0510	0.0432	
Mercury	24317-06-29 23:31 G	10602841.35	10602841.48	10602841.62	0.0506	0.0147	
Earth	24318-02-13 19:55 G	10603070.17	10603070.33	10603070.52	0.0498	0.0328	
Moon	24318-02-13 23:45 G	10603070.32	10603070.49	10603070.68	0.0498	0.0309	*
Venus	24322-07-07 20:52 G	10604675.34	10604675.37	10604675.42	0.0503	0.0492	
Earth	24323-07-19 12:43 G	10605051.80	10605052.03	10605052.26	0.0517	0.0099	
Moon	24323-07-19 15:50 G	10605051.94	10605052.16	10605052.39	0.0517	0.0115	*
Mercury	24323-08-30 13:26 G	10605093.93	10605094.06	10605094.20	0.0519	0.0295	
Mercury	24323-11-28 14:52 G	10605184.05	10605184.12	10605184.19	0.0523	0.0466	
Moon	24324-08-23 10:48 G	10605452.84	10605452.95	10605453.08	0.0532	0.0462	
Earth	24324-08-23 12:14 G	10605452.92	10605453.01	10605453.09	0.0532	0.0494	*
Venus	24328-05-16 18:57 G	10606815.13	10606815.29	10606815.45	0.0520	0.0331	
Earth	24329-01-16 17:45 G	10607060.02	10607060.24	10607060.47	0.0511	0.0116	
Moon	24329-01-16 21:07 G	10607060.15	10607060.38	10607060.60	0.0511	0.0084	*

Mercury	24329-04-18 02:09 G	10607151.45	10607151.59	10607151.73	0.0507	0.0017
Moon	24330-02-17 22:33 G	10607457.28	10607457.44	10607457.60	0.0497	0.0363
Earth	24330-02-18 01:55 G	10607457.44	10607457.58	10607457.73	0.0497	0.0389 *
Mercury	24335-06-18 12:28 G	10609403.96	10609404.02	10609404.08	0.0518	0.0485
Moon	24335-07-24 08:52 G	10609439.63	10609439.87	10609440.11	0.0519	0.0009
Earth	24335-07-24 10:04 G	10609439.69	10609439.92	10609440.16	0.0519	0.0018 *
Mercury	24335-09-16 14:24 G	10609493.96	10609494.10	10609494.23	0.0522	0.0280
Venus	24340-01-20 12:00 G	10611080.81	10611081.00	10611081.19	0.0523	0.0191
Moon	24341-01-21 06:43 G	10611447.54	10611447.78	10611448.02	0.0509	0.0030
Earth	24341-01-21 08:24 G	10611447.62	10611447.85	10611448.08	0.0509	0.0038 *
Mercury	24341-02-04 05:31 G	10611461.60	10611461.73	10611461.86	0.0508	0.0159
Mercury	24341-05-04 14:38 G	10611551.04	10611551.11	10611551.19	0.0505	0.0425
Earth	24342-02-22 10:33 G	10611844.84	10611844.94	10611845.03	0.0496	0.0450
Moon	24342-02-22 12:28 G	10611844.95	10611845.02	10611845.10	0.0496	0.0466 *
Earth	24346-06-24 22:48 G	10613428.38	10613428.45	10613428.54	0.0506	0.0471
Moon	24346-06-24 22:48 G	10613428.42	10613428.45	10613428.50	0.0506	0.0499 *
Venus	24346-07-10 08:38 G	10613443.69	10613443.86	10613444.04	0.0506	0.0239
Mercury	24347-07-05 12:43 G	10613803.87	10613804.03	10613804.19	0.0520	0.0078
Moon	24347-07-29 03:07 G	10613827.41	10613827.63	10613827.86	0.0521	0.0072
Earth	24347-07-29 04:19 G	10613827.44	10613827.68	10613827.91	0.0521	0.0062 *
Moon	24351-12-24 00:57 G	10615436.47	10615436.54	10615436.60	0.0523	0.0499
Earth	24351-12-24 00:43 G	10615436.48	10615436.53	10615436.58	0.0523	0.0509 *
Mercury	24352-11-23 09:21 G	10615771.78	10615771.89	10615772.00	0.0509	0.0298
Moon	24353-01-25 23:02 G	10615835.24	10615835.46	10615835.69	0.0507	0.0012
Earth	24353-01-26 00:00 G	10615835.26	10615835.50	10615835.73	0.0507	0.0039 *
Mercury	24353-02-20 18:14 G	10615861.14	10615861.26	10615861.37	0.0506	0.0284
Venus	24358-03-15 07:12 G	10617709.62	10617709.80	10617709.99	0.0504	0.0230
Moon	24358-06-29 11:16 G	10617815.84	10617815.97	10617816.11	0.0508	0.0406
Earth	24358-06-29 13:26 G	10617815.92	10617816.06	10617816.20	0.0508	0.0405 *
Mercury	24359-04-23 11:45 G	10618113.83	10618113.99	10618114.15	0.0520	0.0115

Earth	24359-08-03 02:24 G	10618215.38	10618215.60	10618215.83	0.0524	0.0147
Moon	24359-08-03 05:16 G	10618215.49	10618215.72	10618215.95	0.0524	0.0115 *
Moon	24363-12-28 21:36 G	10619824.27	10619824.40	10619824.55	0.0520	0.0405
Earth	24363-12-28 23:45 G	10619824.37	10619824.49	10619824.62	0.0520	0.0433 *
Mercury	24364-09-11 13:12 G	10620081.98	10620082.05	10620082.12	0.0510	0.0435
Mercury	24364-12-09 21:50 G	10620171.27	10620171.41	10620171.54	0.0507	0.0144
Earth	24365-01-30 14:38 G	10620222.88	10620223.11	10620223.34	0.0505	0.0112
Moon	24365-01-30 17:16 G	10620222.99	10620223.22	10620223.45	0.0505	0.0105 *
Earth	24370-07-04 05:02 G	10622203.55	10622203.71	10622203.89	0.0510	0.0337
Moon	24370-07-04 08:52 G	10622203.68	10622203.87	10622204.06	0.0510	0.0304 *
Mercury	24371-02-09 10:48 G	10622423.82	10622423.95	10622424.09	0.0519	0.0304
Mercury	24371-05-10 12:14 G	10622513.94	10622514.01	10622514.09	0.0523	0.0457
Moon	24371-08-07 23:45 G	10622603.28	10622603.49	10622603.70	0.0526	0.0213
Earth	24371-08-08 03:36 G	10622603.44	10622603.65	10622603.85	0.0526	0.0232 *
Mars	24373-07-25 14:52 G	10623320.89	10623321.12	10623321.37	0.0542	0.0140
Venus	24375-09-28 05:02 G	10624115.51	10624115.71	10624115.91	0.0522	0.0126
Earth	24376-01-02 20:38 G	10624212.20	10624212.36	10624212.54	0.0518	0.0353
Moon	24376-01-03 00:28 G	10624212.36	10624212.52	10624212.69	0.0518	0.0367 *
Mercury	24376-09-28 01:26 G	10624481.42	10624481.56	10624481.69	0.0507	0.0014
Moon	24377-02-04 00:00 G	10624610.29	10624610.50	10624610.71	0.0503	0.0213
Earth	24377-02-04 03:21 G	10624610.43	10624610.64	10624610.86	0.0503	0.0184 *
Moon	24382-07-08 21:07 G	10626591.17	10626591.38	10626591.58	0.0512	0.0256
Earth	24382-07-09 00:57 G	10626591.35	10626591.54	10626591.75	0.0512	0.0262 *
Mercury	24382-11-28 10:19 G	10626733.88	10626733.93	10626733.99	0.0518	0.0487
Mercury	24383-02-26 12:14 G	10626823.88	10626824.01	10626824.15	0.0522	0.0280
Earth	24383-08-13 07:26 G	10626991.62	10626991.81	10626991.99	0.0528	0.0318
Moon	24383-08-13 10:48 G	10626991.78	10626991.95	10626992.12	0.0528	0.0348 *
Venus	24387-06-02 20:24 G	10628381.22	10628381.35	10628381.47	0.0524	0.0408
Moon	24388-01-07 07:26 G	10628599.63	10628599.81	10628600.00	0.0516	0.0311
Earth	24388-01-07 11:31 G	10628599.79	10628599.98	10628600.18	0.0516	0.0278 *

Mercury	24388-07-17 04:04 G	10628791.54	10628791.67	10628791.80	0.0508	0.0156
Mercury	24388-10-14 13:12 G	10628880.97	10628881.05	10628881.12	0.0505	0.0427
Earth	24389-02-08 10:33 G	10628997.74	10628997.94	10628998.14	0.0501	0.0252
Moon	24389-02-08 14:24 G	10628997.91	10628998.10	10628998.30	0.0501	0.0271 *
Mars	24391-06-17 05:31 G	10629856.50	10629856.73	10629856.97	0.0487	0.0309
Venus	24393-11-20 20:24 G	10630744.15	10630744.35	10630744.55	0.0506	0.0047
Earth	24394-07-13 19:55 G	10630979.12	10630979.33	10630979.55	0.0515	0.0185
Moon	24394-07-13 23:31 G	10630979.27	10630979.48	10630979.69	0.0515	0.0216 *
Mercury	24394-12-15 11:45 G	10631133.83	10631133.99	10631134.15	0.0521	0.0093
Moon	24395-08-18 07:40 G	10631379.67	10631379.82	10631379.97	0.0530	0.0411
Earth	24395-08-18 09:36 G	10631379.75	10631379.90	10631380.05	0.0530	0.0402 *
Earth	24400-01-12 03:36 G	10632987.44	10632987.65	10632987.87	0.0513	0.0200
Moon	24400-01-12 06:57 G	10632987.59	10632987.79	10632988.01	0.0513	0.0198 *
Mercury	24400-05-05 07:26 G	10633101.70	10633101.81	10633101.92	0.0509	0.0303
Mercury	24400-08-02 16:04 G	10633191.06	10633191.17	10633191.29	0.0506	0.0279
Moon	24401-02-12 17:02 G	10633385.02	10633385.21	10633385.40	0.0499	0.0297
Earth	24401-02-12 20:24 G	10633385.18	10633385.35	10633385.53	0.0499	0.0320 *
Venus	24405-07-26 17:45 G	10635010.14	10635010.24	10635010.36	0.0503	0.0423
Moon	24406-07-18 09:50 G	10635366.68	10635366.91	10635367.15	0.0516	0.0121
Earth	24406-07-18 11:45 G	10635366.77	10635366.99	10635367.22	0.0516	0.0111 *
Mercury	24406-10-03 09:50 G	10635443.75	10635443.91	10635444.07	0.0519	0.0112
Moon	24407-08-23 07:55 G	10635767.71	10635767.83	10635767.95	0.0531	0.0450
Earth	24407-08-23 07:40 G	10635767.72	10635767.82	10635767.92	0.0531	0.0479 *
Venus	24411-06-05 16:19 G	10637150.06	10637150.18	10637150.31	0.0521	0.0405
Moon	24412-01-16 18:57 G	10637375.05	10637375.29	10637375.53	0.0512	0.0095
Earth	24412-01-16 20:52 G	10637375.14	10637375.37	10637375.60	0.0512	0.0124 *
Mercury	24412-02-22 11:02 G	10637411.90	10637411.96	10637412.03	0.0510	0.0442
Mercury	24412-05-21 19:40 G	10637501.19	10637501.32	10637501.46	0.0507	0.0137
Earth	24413-02-17 07:26 G	10637772.67	10637772.81	10637772.97	0.0498	0.0383
Moon	24413-02-17 09:50 G	10637772.75	10637772.91	10637773.06	0.0498	0.0363 *

Mercury	24418-07-22 08:38 G	10639753.73	10639753.86	10639753.99	0.0519	0.0307
Moon	24418-07-23 06:57 G	10639754.56	10639754.79	10639755.01	0.0519	0.0010
Earth	24418-07-23 07:12 G	10639754.57	10639754.80	10639755.04	0.0519	0.0031 *
Mercury	24418-10-20 10:04 G	10639843.84	10639843.92	10639844.00	0.0522	0.0453
Venus	24423-02-08 11:02 G	10641415.76	10641415.96	10641416.16	0.0523	0.0105
Moon	24424-01-21 13:26 G	10641762.84	10641763.06	10641763.28	0.0509	0.0048
Earth	24424-01-21 13:55 G	10641762.85	10641763.08	10641763.31	0.0509	0.0046 *
Mercury	24424-03-09 23:16 G	10641811.33	10641811.47	10641811.61	0.0508	0.0011
Moon	24425-02-21 16:19 G	10642160.09	10642160.18	10642160.27	0.0496	0.0459
Earth	24425-02-21 17:16 G	10642160.13	10642160.22	10642160.33	0.0496	0.0443 *
Moon	24429-06-23 23:16 G	10643743.47	10643743.47	10643743.49	0.0505	0.0504
Earth	24429-06-24 01:12 G	10643743.47	10643743.55	10643743.62	0.0505	0.0475 *
Venus	24429-07-29 05:45 G	10643778.58	10643778.74	10643778.90	0.0507	0.0307
Mercury	24430-05-10 07:26 G	10644063.77	10644063.81	10644063.85	0.0518	0.0500
Earth	24430-07-28 04:48 G	10644142.47	10644142.70	10644142.94	0.0521	0.0053
Moon	24430-07-28 07:12 G	10644142.56	10644142.80	10644143.04	0.0521	0.0062 *
Mercury	24430-08-08 09:21 G	10644153.76	10644153.89	10644154.03	0.0522	0.0268
Moon	24434-12-23 03:21 G	10645751.58	10645751.64	10645751.70	0.0523	0.0502
Earth	24434-12-23 05:02 G	10645751.67	10645751.71	10645751.75	0.0523	0.0513 *
Mercury	24435-12-28 02:52 G	10646121.49	10646121.62	10646121.75	0.0508	0.0146
Earth	24436-01-26 05:02 G	10646150.48	10646150.71	10646150.94	0.0507	0.0031
Moon	24436-01-26 07:26 G	10646150.57	10646150.81	10646151.05	0.0507	0.0008 *
Mercury	24436-03-26 12:00 G	10646210.93	10646211.00	10646211.07	0.0505	0.0438
Venus	24441-04-03 05:31 G	10648044.54	10648044.73	10648044.93	0.0504	0.0156
Earth	24441-06-28 17:45 G	10648131.10	10648131.24	10648131.38	0.0508	0.0408
Moon	24441-06-28 21:07 G	10648131.24	10648131.38	10648131.53	0.0508	0.0399 *
Mercury	24442-05-27 09:21 G	10648463.73	10648463.89	10648464.05	0.0521	0.0088
Moon	24442-08-02 02:52 G	10648530.40	10648530.62	10648530.85	0.0523	0.0109
Earth	24442-08-02 06:28 G	10648530.54	10648530.77	10648530.99	0.0523	0.0140 *
Earth	24446-12-27 22:48 G	10650139.34	10650139.45	10650139.58	0.0520	0.0441

Moon	24446-12-28 02:24 G	10650139.46	10650139.60	10650139.75	0.0520	0.0413	*
Mercury	24447-10-16 05:45 G	10650431.63	10650431.74	10650431.85	0.0509	0.0301	
Mercury	24448-01-13 14:38 G	10650520.99	10650521.11	10650521.22	0.0506	0.0280	
Moon	24448-01-30 11:16 G	10650537.75	10650537.97	10650538.20	0.0505	0.0095	
Earth	24448-01-30 14:38 G	10650537.88	10650538.11	10650538.34	0.0505	0.0103	*
Moon	24453-07-03 06:14 G	10652518.58	10652518.76	10652518.95	0.0510	0.0308	
Earth	24453-07-03 10:19 G	10652518.76	10652518.93	10652519.11	0.0510	0.0341	*
Mercury	24454-03-15 08:38 G	10652773.70	10652773.86	10652774.02	0.0520	0.0101	
Earth	24454-08-07 06:28 G	10652918.56	10652918.77	10652918.98	0.0525	0.0224	
Moon	24454-08-07 10:04 G	10652918.71	10652918.92	10652919.14	0.0525	0.0214	*
Venus	24458-10-17 00:00 G	10654450.31	10654450.50	10654450.69	0.0521	0.0183	
Moon	24459-01-01 13:12 G	10654526.90	10654527.05	10654527.22	0.0518	0.0378	
Earth	24459-01-01 17:16 G	10654527.06	10654527.22	10654527.39	0.0518	0.0363	*
Mercury	24459-08-04 09:07 G	10654741.82	10654741.88	10654741.95	0.0510	0.0447	
Mercury	24459-11-01 17:45 G	10654831.10	10654831.24	10654831.37	0.0507	0.0131	
Earth	24460-02-04 01:55 G	10654925.36	10654925.58	10654925.80	0.0503	0.0175	
Moon	24460-02-04 05:45 G	10654925.53	10654925.74	10654925.95	0.0503	0.0204	*
Earth	24465-07-08 00:00 G	10656906.31	10656906.50	10656906.70	0.0511	0.0273	
Moon	24465-07-08 03:50 G	10656906.47	10656906.66	10656906.86	0.0511	0.0268	*
Mercury	24466-01-01 06:28 G	10657083.64	10657083.77	10657083.91	0.0519	0.0307	
Mercury	24466-04-01 07:55 G	10657173.76	10657173.83	10657173.91	0.0522	0.0454	
Moon	24466-08-11 23:45 G	10657306.31	10657306.49	10657306.68	0.0527	0.0332	
Earth	24466-08-12 02:38 G	10657306.42	10657306.61	10657306.80	0.0527	0.0302	*
Venus	24470-06-21 16:33 G	10658716.04	10658716.19	10658716.35	0.0524	0.0340	
Earth	24471-01-06 11:45 G	10658914.80	10658914.99	10658915.18	0.0517	0.0289	
Moon	24471-01-06 15:21 G	10658914.96	10658915.14	10658915.32	0.0517	0.0321	*
Mercury	24471-08-20 21:07 G	10659141.24	10659141.38	10659141.52	0.0508	0.0016	
Moon	24472-02-08 10:48 G	10659312.76	10659312.95	10659313.16	0.0502	0.0258	
Earth	24472-02-08 14:24 G	10659312.90	10659313.10	10659313.31	0.0502	0.0244	*
Venus	24476-12-09 15:36 G	10661078.96	10661079.15	10661079.36	0.0505	0.0108	

Moon	24477-07-12 14:24 G	10661293.89	10661294.10	10661294.32	0.0514	0.0227
Earth	24477-07-12 17:02 G	10661294.00	10661294.21	10661294.43	0.0514	0.0198 *
Mercury	24477-10-20 05:02 G	10661393.68	10661393.71	10661393.75	0.0518	0.0504
Mercury	24478-01-18 07:12 G	10661483.66	10661483.80	10661483.94	0.0521	0.0263
Earth	24478-08-17 03:07 G	10661694.48	10661694.63	10661694.80	0.0529	0.0385
Moon	24478-08-17 04:04 G	10661694.53	10661694.67	10661694.82	0.0529	0.0396 *
Moon	24483-01-11 04:48 G	10663302.48	10663302.70	10663302.92	0.0514	0.0206
Earth	24483-01-11 07:12 G	10663302.59	10663302.80	10663303.01	0.0514	0.0210 *
Mercury	24483-06-09 00:57 G	10663451.41	10663451.54	10663451.67	0.0509	0.0153
Mercury	24483-09-06 09:50 G	10663540.84	10663540.91	10663540.99	0.0505	0.0432
Earth	24484-02-13 02:09 G	10663700.41	10663700.59	10663700.78	0.0500	0.0311
Moon	24484-02-13 04:33 G	10663700.50	10663700.69	10663700.87	0.0500	0.0285 *
Venus	24488-08-14 14:09 G	10665344.95	10665345.09	10665345.23	0.0503	0.0360
Earth	24489-07-17 11:16 G	10665681.75	10665681.97	10665682.20	0.0516	0.0120
Moon	24489-07-17 11:31 G	10665681.77	10665681.98	10665682.20	0.0516	0.0123 *
Mercury	24489-11-06 06:14 G	10665793.60	10665793.76	10665793.93	0.0521	0.0075
Earth	24490-08-22 06:14 G	10666082.66	10666082.76	10666082.88	0.0531	0.0468
Moon	24490-08-22 07:26 G	10666082.67	10666082.81	10666082.95	0.0531	0.0436 *
Venus	24494-06-24 15:21 G	10667485.08	10667485.14	10667485.21	0.0520	0.0488
Earth	24495-01-16 00:57 G	10667690.32	10667690.54	10667690.77	0.0512	0.0131
Moon	24495-01-16 00:57 G	10667690.32	10667690.54	10667690.76	0.0512	0.0104 *
Mercury	24495-03-28 04:33 G	10667761.58	10667761.69	10667761.80	0.0509	0.0293
Mercury	24495-06-25 13:26 G	10667850.94	10667851.06	10667851.17	0.0506	0.0288
Moon	24496-02-17 11:31 G	10668087.81	10668087.98	10668088.15	0.0498	0.0355
Earth	24496-02-17 12:28 G	10668087.88	10668088.02	10668088.18	0.0498	0.0376 *
Earth	24501-07-23 09:50 G	10670069.68	10670069.91	10670070.14	0.0518	0.0038
Moon	24501-07-23 11:45 G	10670069.75	10670069.99	10670070.23	0.0518	0.0005 *
Mercury	24501-08-26 06:00 G	10670103.59	10670103.75	10670103.91	0.0520	0.0109
Venus	24506-02-28 07:55 G	10671750.63	10671750.83	10671751.03	0.0522	0.0034
Mercury	24507-01-15 07:40 G	10672071.75	10672071.82	10672071.88	0.0510	0.0445

Earth	24507-01-21 13:26 G	10672077.83	10672078.06	10672078.29	0.0510	0.0055
Moon	24507-01-21 15:36 G	10672077.91	10672078.15	10672078.39	0.0510	0.0063 *
Mercury	24507-04-14 16:04 G	10672161.04	10672161.17	10672161.30	0.0506	0.0132
Earth	24508-02-22 18:00 G	10672475.15	10672475.25	10672475.37	0.0496	0.0435
Moon	24508-02-22 18:00 G	10672475.16	10672475.25	10672475.34	0.0496	0.0454 *
Mars	24509-12-04 08:38 G	10673125.70	10673125.86	10673126.04	0.0487	0.0402
Earth	24512-06-24 05:02 G	10674058.65	10674058.71	10674058.79	0.0505	0.0479
Moon	24512-06-24 08:38 G	10674058.85	10674058.86	10674058.86	0.0505	0.0505
Venus	24512-08-18 04:04 G	10674113.54	10674113.67	10674113.80	0.0507	0.0384
Mercury	24513-06-14 05:02 G	10674413.58	10674413.71	10674413.85	0.0519	0.0299
Moon	24513-07-28 04:33 G	10674457.47	10674457.69	10674457.92	0.0521	0.0055
Earth	24513-07-28 07:40 G	10674457.59	10674457.82	10674458.06	0.0521	0.0046 *
Mercury	24513-09-12 06:43 G	10674503.71	10674503.78	10674503.85	0.0522	0.0463
Moon	24517-12-23 04:04 G	10676066.61	10676066.67	10676066.74	0.0523	0.0503
Moon	24519-01-25 23:45 G	10676465.26	10676465.49	10676465.72	0.0508	0.0012
Earth	24519-01-26 02:52 G	10676465.39	10676465.62	10676465.85	0.0508	0.0021 *
Mercury	24519-01-31 19:12 G	10676471.17	10676471.30	10676471.44	0.0507	0.0022
Earth	24520-02-27 01:55 G	10676862.57	10676862.58	10676862.60	0.0495	0.0493
Venus	24524-04-23 01:40 G	10678379.37	10678379.57	10678379.77	0.0504	0.0091
Moon	24524-06-28 13:40 G	10678445.94	10678446.07	10678446.21	0.0507	0.0411
Earth	24524-06-28 17:31 G	10678446.11	10678446.23	10678446.37	0.0507	0.0420 *
Mercury	24525-04-02 02:52 G	10678723.59	10678723.62	10678723.66	0.0518	0.0505
Mercury	24525-07-01 05:02 G	10678813.57	10678813.71	10678813.85	0.0521	0.0262
Earth	24525-08-02 02:09 G	10678845.36	10678845.59	10678845.82	0.0522	0.0123
Moon	24525-08-02 06:00 G	10678845.52	10678845.75	10678845.98	0.0522	0.0092 *
Mars	24527-10-19 22:04 G	10679654.18	10679654.42	10679654.67	0.0541	0.0072
Moon	24529-12-27 17:02 G	10680454.08	10680454.21	10680454.34	0.0522	0.0426
Earth	24529-12-27 20:38 G	10680454.26	10680454.36	10680454.49	0.0522	0.0454 *
Mercury	24530-11-19 22:48 G	10680781.32	10680781.45	10680781.58	0.0509	0.0160
Earth	24531-01-30 16:33 G	10680852.96	10680853.19	10680853.42	0.0506	0.0092

Moon	24531-01-30 20:24 G	10680853.12	10680853.35	10680853.58	0.0506	0.0088	*
Mercury	24531-02-17 07:40 G	10680870.75	10680870.82	10680870.90	0.0505	0.0424	
Earth	24536-07-03 08:09 G	10682833.68	10682833.84	10682834.01	0.0509	0.0352	
Moon	24536-07-03 12:14 G	10682833.83	10682834.01	10682834.19	0.0509	0.0319	*
Mercury	24537-04-19 04:04 G	10683123.51	10683123.67	10683123.83	0.0520	0.0069	
Moon	24537-08-06 20:52 G	10683233.15	10683233.37	10683233.60	0.0524	0.0199	
Earth	24537-08-07 00:14 G	10683233.30	10683233.51	10683233.73	0.0524	0.0207	*
Venus	24541-11-05 21:21 G	10684785.21	10684785.39	10684785.56	0.0522	0.0259	
Earth	24542-01-01 18:28 G	10684842.11	10684842.27	10684842.43	0.0520	0.0375	
Moon	24542-01-01 22:04 G	10684842.28	10684842.42	10684842.58	0.0520	0.0392	*
Mercury	24542-09-08 02:24 G	10685091.49	10685091.60	10685091.71	0.0510	0.0300	
Mercury	24542-12-06 11:16 G	10685180.85	10685180.97	10685181.08	0.0506	0.0281	
Moon	24543-02-04 03:07 G	10685240.41	10685240.63	10685240.85	0.0504	0.0194	
Earth	24543-02-04 06:43 G	10685240.56	10685240.78	10685241.00	0.0504	0.0165	*
Moon	24548-07-07 20:24 G	10687221.15	10687221.35	10687221.56	0.0511	0.0277	
Earth	24548-07-07 23:31 G	10687221.29	10687221.48	10687221.68	0.0511	0.0281	*
Mercury	24549-02-05 02:52 G	10687433.46	10687433.62	10687433.78	0.0520	0.0125	
Earth	24549-08-12 00:14 G	10687621.32	10687621.51	10687621.71	0.0527	0.0290	
Moon	24549-08-12 01:55 G	10687621.41	10687621.58	10687621.76	0.0527	0.0324	*
Venus	24553-07-11 15:36 G	10689050.97	10689051.15	10689051.33	0.0524	0.0257	
Moon	24554-01-06 12:28 G	10689229.84	10689230.02	10689230.21	0.0517	0.0325	
Earth	24554-01-06 15:21 G	10689229.95	10689230.14	10689230.33	0.0517	0.0295	*
Mercury	24554-06-27 06:14 G	10689401.69	10689401.76	10689401.83	0.0510	0.0440	
Mercury	24554-09-24 14:38 G	10689490.98	10689491.11	10689491.25	0.0507	0.0139	
Earth	24555-02-08 18:57 G	10689628.09	10689628.29	10689628.50	0.0502	0.0237	
Moon	24555-02-08 21:21 G	10689628.20	10689628.39	10689628.59	0.0502	0.0243	*
Venus	24559-12-30 12:43 G	10691413.84	10691414.03	10691414.22	0.0506	0.0176	
Earth	24560-07-12 18:43 G	10691609.07	10691609.28	10691609.50	0.0513	0.0205	
Moon	24560-07-12 19:40 G	10691609.12	10691609.32	10691609.52	0.0513	0.0234	*
Mercury	24560-11-24 02:24 G	10691743.47	10691743.60	10691743.74	0.0519	0.0309	

Mercury	24561-02-22 04:04 G	10691833.59	10691833.67	10691833.75	0.0522	0.0454
Earth	24561-08-17 04:33 G	10692009.53	10692009.69	10692009.85	0.0529	0.0376
Moon	24561-08-17 04:33 G	10692009.53	10692009.69	10692009.87	0.0529	0.0384 *
Earth	24566-01-11 07:12 G	10693617.60	10693617.80	10693618.02	0.0514	0.0220
Moon	24566-01-11 07:55 G	10693617.63	10693617.83	10693618.03	0.0514	0.0209 *
Mercury	24566-07-13 17:45 G	10693801.10	10693801.24	10693801.38	0.0507	0.0019
Moon	24567-02-13 01:40 G	10694015.37	10694015.57	10694015.78	0.0500	0.0273
Earth	24567-02-13 03:07 G	10694015.44	10694015.63	10694015.81	0.0500	0.0302 *
Venus	24571-09-04 11:45 G	10695679.83	10695679.99	10695680.16	0.0504	0.0288
Earth	24572-07-17 14:24 G	10695996.87	10695997.10	10695997.33	0.0516	0.0127
Moon	24572-07-17 15:50 G	10695996.92	10695997.16	10695997.40	0.0516	0.0124 *
Mercury	24572-09-12 01:26 G	10696053.52	10696053.56	10696053.60	0.0518	0.0499
Mercury	24572-12-11 03:36 G	10696143.51	10696143.65	10696143.79	0.0522	0.0270
Moon	24573-08-22 05:16 G	10696397.60	10696397.72	10696397.86	0.0531	0.0429
Earth	24573-08-22 07:40 G	10696397.71	10696397.82	10696397.94	0.0531	0.0458 *
Earth	24578-01-15 23:02 G	10698005.24	10698005.46	10698005.68	0.0512	0.0142
Moon	24578-01-16 00:43 G	10698005.30	10698005.53	10698005.77	0.0512	0.0114 *
Mercury	24578-05-01 20:52 G	10698111.24	10698111.37	10698111.50	0.0508	0.0163
Mercury	24578-07-30 06:00 G	10698200.67	10698200.75	10698200.82	0.0505	0.0420
Moon	24579-02-17 12:00 G	10698402.85	10698403.00	10698403.17	0.0498	0.0350
Earth	24579-02-17 12:14 G	10698402.86	10698403.01	10698403.17	0.0498	0.0367 *
Moon	24584-07-22 04:48 G	10700384.47	10700384.70	10700384.92	0.0517	0.0022
Earth	24584-07-22 07:26 G	10700384.57	10700384.81	10700385.04	0.0517	0.0054 *
Mercury	24584-09-29 01:55 G	10700453.42	10700453.58	10700453.75	0.0520	0.0069
Earth	24585-08-27 06:00 G	10700785.75	10700785.75	10700785.77	0.0532	0.0531
Moon	24585-08-27 09:50 G	10700785.90	10700785.91	10700785.93	0.0532	0.0530
Venus	24589-03-19 03:21 G	10702085.44	10702085.64	10702085.84	0.0523	0.0029
Moon	24590-01-20 11:02 G	10702392.74	10702392.96	10702393.19	0.0511	0.0076
Earth	24590-01-20 14:09 G	10702392.86	10702393.09	10702393.32	0.0511	0.0068 *
Mercury	24590-02-18 00:14 G	10702421.41	10702421.51	10702421.62	0.0510	0.0308

Mercury	24590-05-18 09:07 G	10702510.76	10702510.88	10702511.00	0.0506	0.0275
Earth	24591-02-21 22:19 G	10702790.31	10702790.43	10702790.55	0.0497	0.0426
Moon	24591-02-22 00:00 G	10702790.40	10702790.50	10702790.61	0.0497	0.0447 *
Earth	24595-06-24 05:16 G	10704373.67	10704373.72	10704373.78	0.0504	0.0487
Venus	24595-09-06 23:31 G	10704448.39	10704448.48	10704448.58	0.0507	0.0444
Mercury	24596-07-18 00:43 G	10704763.37	10704763.53	10704763.69	0.0519	0.0126
Earth	24596-07-27 02:52 G	10704772.39	10704772.62	10704772.86	0.0519	0.0031
Moon	24596-07-27 06:43 G	10704772.54	10704772.78	10704773.02	0.0519	0.0034 *
Venus	24600-11-22 20:52 G	10706351.30	10706351.37	10706351.44	0.0526	0.0494
Moon	24600-12-22 20:09 G	10706381.31	10706381.34	10706381.39	0.0525	0.0514
Mercury	24601-12-08 04:04 G	10706731.61	10706731.67	10706731.74	0.0511	0.0447
Earth	24602-01-26 06:14 G	10706780.53	10706780.76	10706780.99	0.0509	0.0010
Moon	24602-01-26 10:04 G	10706780.68	10706780.92	10706781.15	0.0509	0.0023 *
Mercury	24602-03-07 12:43 G	10706820.89	10706821.03	10706821.16	0.0507	0.0132
Earth	24603-02-27 07:40 G	10707177.79	10707177.82	10707177.87	0.0495	0.0485
Venus	24607-05-13 21:21 G	10708714.19	10708714.39	10708714.60	0.0504	0.0032
Earth	24607-06-29 17:31 G	10708761.11	10708761.23	10708761.36	0.0506	0.0425
Moon	24607-06-29 21:36 G	10708761.28	10708761.40	10708761.54	0.0506	0.0415 *
Mercury	24608-05-06 23:31 G	10709073.35	10709073.48	10709073.61	0.0518	0.0322
Moon	24608-08-01 20:24 G	10709160.12	10709160.35	10709160.59	0.0522	0.0080
Earth	24608-08-02 00:00 G	10709160.28	10709160.50	10709160.73	0.0522	0.0112 *
Mercury	24608-08-05 01:12 G	10709163.46	10709163.55	10709163.63	0.0522	0.0440
Earth	24612-12-27 23:45 G	10710769.39	10710769.49	10710769.60	0.0522	0.0459
Moon	24612-12-28 03:36 G	10710769.53	10710769.65	10710769.78	0.0522	0.0433 *
Mercury	24613-12-24 16:19 G	10711131.04	10711131.18	10711131.32	0.0508	0.0011
Moon	24614-01-30 17:45 G	10711168.01	10711168.24	10711168.47	0.0506	0.0084
Earth	24614-01-30 21:21 G	10711168.16	10711168.39	10711168.62	0.0506	0.0085 *
Venus	24619-01-16 21:21 G	10712980.34	10712980.39	10712980.44	0.0502	0.0487
Moon	24619-07-04 06:43 G	10713148.61	10713148.78	10713148.97	0.0508	0.0327
Earth	24619-07-04 10:04 G	10713148.76	10713148.92	10713149.09	0.0508	0.0358 *

Mercury	24620-02-23 22:48 G	10713383.42	10713383.45	10713383.48	0.0518	0.0509
Mercury	24620-05-24 00:57 G	10713473.40	10713473.54	10713473.68	0.0521	0.0260
Earth	24620-08-07 01:26 G	10713548.34	10713548.56	10713548.77	0.0524	0.0197
Moon	24620-08-07 03:36 G	10713548.44	10713548.65	10713548.86	0.0524	0.0196 *
Venus	24624-11-25 19:12 G	10715120.15	10715120.30	10715120.46	0.0521	0.0336
Moon	24625-01-01 16:33 G	10715157.04	10715157.19	10715157.35	0.0520	0.0397
Earth	24625-01-01 19:40 G	10715157.18	10715157.32	10715157.49	0.0520	0.0384 *
Mercury	24625-10-12 19:26 G	10715441.18	10715441.31	10715441.44	0.0508	0.0159
Mercury	24626-01-10 04:19 G	10715530.61	10715530.68	10715530.76	0.0505	0.0423
Earth	24626-02-04 08:09 G	10715555.62	10715555.84	10715556.07	0.0504	0.0156
Moon	24626-02-04 10:48 G	10715555.74	10715555.95	10715556.16	0.0504	0.0186 *
Earth	24631-07-09 03:07 G	10717536.44	10717536.63	10717536.82	0.0511	0.0287
Moon	24631-07-09 04:19 G	10717536.50	10717536.68	10717536.87	0.0511	0.0295 *
Mercury	24632-03-12 00:28 G	10717783.36	10717783.52	10717783.68	0.0521	0.0075
Moon	24632-08-12 02:09 G	10717936.40	10717936.59	10717936.79	0.0526	0.0312
Earth	24632-08-12 02:38 G	10717936.42	10717936.61	10717936.81	0.0526	0.0280 *
Venus	24636-07-31 12:14 G	10719385.82	10719386.01	10719386.20	0.0524	0.0186
Earth	24637-01-06 14:24 G	10719544.91	10719545.10	10719545.29	0.0517	0.0306
Moon	24637-01-06 15:36 G	10719544.98	10719545.15	10719545.32	0.0517	0.0332 *
Mercury	24637-07-31 22:48 G	10719751.34	10719751.45	10719751.56	0.0509	0.0305
Mercury	24637-10-29 07:26 G	10719840.70	10719840.81	10719840.93	0.0506	0.0275
Moon	24638-02-08 18:00 G	10719943.04	10719943.25	10719943.47	0.0502	0.0230
Earth	24638-02-08 19:26 G	10719943.11	10719943.31	10719943.52	0.0502	0.0226 *
Venus	24643-01-19 09:21 G	10721748.71	10721748.89	10721749.07	0.0506	0.0246
Earth	24643-07-13 18:43 G	10721924.07	10721924.28	10721924.50	0.0512	0.0218
Moon	24643-07-13 19:40 G	10721924.11	10721924.32	10721924.53	0.0512	0.0247 *
Mercury	24643-12-29 22:48 G	10722093.29	10722093.45	10722093.61	0.0519	0.0125
Moon	24644-08-16 22:48 G	10722324.29	10722324.45	10722324.61	0.0528	0.0365
Earth	24644-08-17 00:00 G	10722324.34	10722324.50	10722324.68	0.0528	0.0358 *
Earth	24649-01-11 06:28 G	10723932.57	10723932.77	10723932.98	0.0516	0.0233

Moon	24649-01-11 07:40 G	10723932.60	10723932.82	10723933.04	0.0516	0.0214	*
Mercury	24649-05-20 02:09 G	10724061.53	10724061.59	10724061.65	0.0511	0.0451	
Mercury	24649-08-17 10:48 G	10724150.81	10724150.95	10724151.08	0.0507	0.0128	
Moon	24650-02-13 06:28 G	10724330.58	10724330.77	10724330.96	0.0501	0.0264	
Earth	24650-02-13 06:28 G	10724330.59	10724330.77	10724330.96	0.0501	0.0292	*
Venus	24654-09-24 08:24 G	10726014.66	10726014.85	10726015.03	0.0503	0.0221	
Moon	24655-07-18 10:04 G	10726311.70	10726311.92	10726312.14	0.0514	0.0140	
Earth	24655-07-18 12:28 G	10726311.79	10726312.02	10726312.24	0.0514	0.0141	*
Mercury	24655-10-17 21:36 G	10726403.27	10726403.40	10726403.53	0.0518	0.0320	
Mercury	24656-01-15 23:16 G	10726493.38	10726493.47	10726493.55	0.0522	0.0441	
Earth	24656-08-22 00:57 G	10726712.41	10726712.54	10726712.67	0.0530	0.0439	
Moon	24656-08-22 04:19 G	10726712.54	10726712.68	10726712.84	0.0530	0.0407	*
Moon	24661-01-15 22:19 G	10728320.21	10728320.43	10728320.65	0.0514	0.0125	
Earth	24661-01-16 01:12 G	10728320.33	10728320.55	10728320.77	0.0514	0.0154	*
Mercury	24661-06-05 14:24 G	10728460.96	10728461.10	10728461.23	0.0508	0.0020	
Earth	24662-02-17 17:45 G	10728718.09	10728718.24	10728718.41	0.0499	0.0358	
Moon	24662-02-17 19:40 G	10728718.15	10728718.32	10728718.50	0.0499	0.0345	*
Mars	24664-02-28 20:38 G	10729459.06	10729459.36	10729459.65	0.0486	0.0136	
Earth	24667-07-23 06:28 G	10730699.54	10730699.77	10730700.00	0.0517	0.0063	
Moon	24667-07-23 09:50 G	10730699.67	10730699.91	10730700.15	0.0517	0.0031	*
Mercury	24667-11-03 22:19 G	10730803.28	10730803.43	10730803.57	0.0521	0.0250	
Moon	24668-08-26 23:45 G	10731100.44	10731100.49	10731100.54	0.0532	0.0517	
Earth	24668-08-27 03:36 G	10731100.61	10731100.65	10731100.71	0.0532	0.0519	
Venus	24672-04-08 02:52 G	10732420.42	10732420.62	10732420.82	0.0523	0.0115	
Earth	24673-01-20 19:12 G	10732708.06	10732708.30	10732708.53	0.0511	0.0075	
Moon	24673-01-20 22:48 G	10732708.22	10732708.45	10732708.68	0.0511	0.0085	*
Mercury	24673-03-24 18:00 G	10732771.12	10732771.25	10732771.38	0.0509	0.0155	
Mercury	24673-06-22 02:52 G	10732860.55	10732860.62	10732860.70	0.0505	0.0429	
Moon	24674-02-22 01:26 G	10733105.46	10733105.56	10733105.66	0.0497	0.0446	
Earth	24674-02-22 04:33 G	10733105.57	10733105.69	10733105.81	0.0497	0.0419	*

Earth	24678-06-24 07:40 G	10734688.78	10734688.82	10734688.88	0.0504	0.0492
Moon	24679-07-28 00:57 G	10735087.31	10735087.54	10735087.78	0.0519	0.0021
Earth	24679-07-28 04:48 G	10735087.46	10735087.70	10735087.93	0.0519	0.0020 *
Mercury	24679-08-22 21:50 G	10735113.25	10735113.41	10735113.58	0.0520	0.0068
Mars	24682-01-13 19:26 G	10735988.12	10735988.31	10735988.51	0.0541	0.0342
Venus	24683-12-12 20:09 G	10736686.22	10736686.34	10736686.47	0.0525	0.0406
Moon	24683-12-23 06:57 G	10736696.76	10736696.79	10736696.84	0.0525	0.0516
Mercury	24685-01-10 21:21 G	10737081.28	10737081.39	10737081.50	0.0509	0.0300
Moon	24685-01-25 06:00 G	10737095.51	10737095.75	10737095.98	0.0509	0.0031
Earth	24685-01-25 09:36 G	10737095.67	10737095.90	10737096.14	0.0509	0.0007 *
Mercury	24685-04-10 06:00 G	10737170.64	10737170.75	10737170.87	0.0506	0.0280
Earth	24686-02-26 11:16 G	10737492.92	10737492.97	10737493.04	0.0495	0.0477
Moon	24686-02-26 15:07 G	10737493.12	10737493.13	10737493.16	0.0495	0.0494
Venus	24690-06-01 19:55 G	10739049.12	10739049.33	10739049.53	0.0505	0.0049
Moon	24690-06-28 18:43 G	10739076.16	10739076.28	10739076.42	0.0506	0.0421
Earth	24690-06-28 22:19 G	10739076.31	10739076.43	10739076.55	0.0506	0.0431 *
Mercury	24691-06-10 21:21 G	10739423.22	10739423.39	10739423.55	0.0520	0.0119
Earth	24691-08-02 03:50 G	10739475.43	10739475.66	10739475.89	0.0522	0.0103
Moon	24691-08-02 06:28 G	10739475.54	10739475.77	10739476.00	0.0522	0.0071 *
Moon	24695-12-27 20:52 G	10741084.25	10741084.37	10741084.50	0.0522	0.0441
Earth	24695-12-28 00:28 G	10741084.43	10741084.52	10741084.63	0.0522	0.0468 *
Mercury	24696-10-30 00:57 G	10741391.47	10741391.54	10741391.60	0.0510	0.0445
Mercury	24697-01-27 09:21 G	10741480.75	10741480.89	10741481.02	0.0507	0.0133
Earth	24697-01-29 23:02 G	10741483.23	10741483.46	10741483.69	0.0507	0.0076
Moon	24697-01-30 01:55 G	10741483.35	10741483.58	10741483.80	0.0507	0.0084 *
Venus	24702-02-05 18:57 G	10743315.18	10743315.29	10743315.41	0.0502	0.0412
Earth	24702-07-04 12:43 G	10743463.88	10743464.03	10743464.20	0.0508	0.0368
Moon	24702-07-04 14:38 G	10743463.94	10743464.11	10743464.28	0.0508	0.0342 *
Mercury	24703-03-30 19:40 G	10743733.19	10743733.32	10743733.45	0.0518	0.0316
Mercury	24703-06-28 21:21 G	10743823.31	10743823.39	10743823.48	0.0522	0.0445

Moon	24703-08-07 22:48 G	10743863.23	10743863.45	10743863.68	0.0523	0.0178
Earth	24703-08-08 00:14 G	10743863.29	10743863.51	10743863.73	0.0523	0.0180 *
Venus	24707-12-16 15:07 G	10745455.01	10745455.13	10745455.26	0.0521	0.0402
Earth	24708-01-02 18:00 G	10745472.10	10745472.25	10745472.40	0.0521	0.0396
Moon	24708-01-02 19:40 G	10745472.20	10745472.32	10745472.46	0.0521	0.0415 *
Mercury	24708-11-16 12:28 G	10745790.88	10745791.02	10745791.16	0.0508	0.0016
Moon	24709-02-04 09:50 G	10745870.68	10745870.91	10745871.13	0.0505	0.0176
Earth	24709-02-04 11:16 G	10745870.75	10745870.97	10745871.19	0.0505	0.0145 *
Earth	24714-07-09 04:33 G	10747851.50	10747851.69	10747851.88	0.0509	0.0297
Moon	24714-07-09 04:48 G	10747851.52	10747851.70	10747851.90	0.0509	0.0309 *
Mercury	24715-01-16 18:14 G	10748043.24	10748043.26	10748043.29	0.0517	0.0511
Mercury	24715-04-16 20:38 G	10748133.22	10748133.36	10748133.50	0.0521	0.0256
Moon	24715-08-12 22:33 G	10748251.26	10748251.44	10748251.63	0.0525	0.0295
Earth	24715-08-12 23:02 G	10748251.27	10748251.46	10748251.67	0.0525	0.0264 *
Venus	24719-08-21 08:52 G	10749720.68	10749720.87	10749721.07	0.0524	0.0116
Earth	24720-01-07 14:52 G	10749859.94	10749860.12	10749860.31	0.0519	0.0318
Moon	24720-01-07 15:36 G	10749859.97	10749860.15	10749860.34	0.0519	0.0338 *
Mercury	24720-09-04 16:04 G	10750101.04	10750101.17	10750101.30	0.0509	0.0158
Mercury	24720-12-03 00:57 G	10750190.47	10750190.54	10750190.62	0.0506	0.0428
Earth	24721-02-09 00:43 G	10750258.32	10750258.53	10750258.74	0.0503	0.0217
Moon	24721-02-09 00:43 G	10750258.33	10750258.53	10750258.74	0.0503	0.0219 *
Venus	24726-02-08 06:28 G	10752083.61	10752083.77	10752083.93	0.0506	0.0314
Moon	24726-07-13 18:00 G	10752239.06	10752239.25	10752239.45	0.0512	0.0257
Earth	24726-07-13 19:55 G	10752239.12	10752239.33	10752239.54	0.0512	0.0225 *
Mercury	24727-02-02 19:26 G	10752443.15	10752443.31	10752443.48	0.0520	0.0062
Earth	24727-08-17 22:48 G	10752639.28	10752639.45	10752639.63	0.0528	0.0347
Moon	24727-08-18 01:55 G	10752639.40	10752639.58	10752639.76	0.0528	0.0344 *
Moon	24732-01-12 09:36 G	10754247.70	10754247.90	10754248.11	0.0516	0.0217
Earth	24732-01-12 12:00 G	10754247.80	10754248.00	10754248.21	0.0516	0.0238 *
Mercury	24732-06-23 19:55 G	10754411.22	10754411.33	10754411.44	0.0510	0.0296

Mercury	24732-09-21 04:33 G	10754500.58	10754500.69	10754500.81	0.0506	0.0286
Earth	24733-02-13 13:55 G	10754645.89	10754646.08	10754646.27	0.0501	0.0287
Moon	24733-02-13 15:21 G	10754645.94	10754646.14	10754646.35	0.0501	0.0257 *
Venus	24737-10-14 06:00 G	10756349.56	10756349.75	10756349.95	0.0503	0.0150
Earth	24738-07-18 15:07 G	10756626.91	10756627.13	10756627.36	0.0514	0.0148
Moon	24738-07-18 18:28 G	10756627.04	10756627.27	10756627.50	0.0514	0.0142 *
Mercury	24738-11-21 18:57 G	10756753.13	10756753.29	10756753.45	0.0519	0.0123
Moon	24739-08-22 23:16 G	10757027.32	10757027.47	10757027.63	0.0530	0.0396
Earth	24739-08-23 03:21 G	10757027.51	10757027.64	10757027.78	0.0530	0.0430 *
Earth	24744-01-17 06:14 G	10758635.54	10758635.76	10758635.98	0.0514	0.0161
Moon	24744-01-17 09:50 G	10758635.69	10758635.91	10758636.14	0.0514	0.0133 *
Mercury	24744-04-11 23:31 G	10758721.42	10758721.48	10758721.55	0.0510	0.0438
Mercury	24744-07-10 07:55 G	10758810.70	10758810.83	10758810.97	0.0507	0.0140
Moon	24745-02-17 20:09 G	10759033.18	10759033.34	10759033.51	0.0499	0.0346
Earth	24745-02-17 23:16 G	10759033.31	10759033.47	10759033.64	0.0499	0.0350 *
Moon	24750-07-23 08:09 G	10761014.60	10761014.84	10761015.07	0.0517	0.0040
Earth	24750-07-23 11:45 G	10761014.76	10761014.99	10761015.23	0.0517	0.0071 *
Mercury	24750-09-09 18:14 G	10761063.13	10761063.26	10761063.39	0.0519	0.0309
Mercury	24750-12-08 19:55 G	10761153.26	10761153.33	10761153.42	0.0522	0.0456
Earth	24751-08-28 07:55 G	10761415.77	10761415.83	10761415.90	0.0532	0.0509
Moon	24751-08-28 11:31 G	10761415.93	10761415.98	10761416.04	0.0532	0.0513
Venus	24755-04-29 01:55 G	10762755.39	10762755.58	10762755.77	0.0522	0.0199
Moon	24756-01-21 18:43 G	10763023.06	10763023.28	10763023.51	0.0512	0.0096
Earth	24756-01-21 22:33 G	10763023.22	10763023.44	10763023.67	0.0512	0.0083 *
Mercury	24756-04-28 11:31 G	10763120.84	10763120.98	10763121.11	0.0508	0.0015
Earth	24757-02-22 09:07 G	10763420.75	10763420.88	10763421.01	0.0497	0.0412
Moon	24757-02-22 12:57 G	10763420.94	10763421.04	10763421.15	0.0497	0.0443 *
Earth	24761-06-24 13:26 G	10765004.04	10765004.06	10765004.10	0.0503	0.0498
Mercury	24762-06-28 16:48 G	10765373.17	10765373.20	10765373.23	0.0517	0.0504
Earth	24762-07-28 07:12 G	10765402.57	10765402.80	10765403.03	0.0518	0.0007

Moon	24762-07-28 10:19 G	10765402.70	10765402.93	10765403.16	0.0518	0.0006 *
Mercury	24762-09-26 18:57 G	10765463.15	10765463.29	10765463.44	0.0521	0.0264
Venus	24767-01-01 16:19 G	10767021.04	10767021.18	10767021.34	0.0525	0.0340
Earth	24768-01-26 11:45 G	10767410.76	10767410.99	10767411.23	0.0510	0.0015
Moon	24768-01-26 14:52 G	10767410.89	10767411.12	10767411.35	0.0510	0.0037 *
Mercury	24768-02-15 14:38 G	10767430.98	10767431.11	10767431.24	0.0509	0.0157
Mercury	24768-05-14 23:31 G	10767520.41	10767520.48	10767520.55	0.0506	0.0429
Moon	24769-02-26 13:55 G	10767808.04	10767808.08	10767808.13	0.0496	0.0485
Earth	24769-02-26 18:00 G	10767808.18	10767808.25	10767808.32	0.0496	0.0469
Venus	24773-06-21 18:43 G	10769384.08	10769384.28	10769384.48	0.0504	0.0128
Earth	24773-06-29 03:21 G	10769391.53	10769391.64	10769391.77	0.0505	0.0436
Moon	24773-06-29 05:31 G	10769391.61	10769391.73	10769391.86	0.0505	0.0420 *
Mercury	24774-07-15 18:14 G	10769773.10	10769773.26	10769773.42	0.0520	0.0073
Moon	24774-08-02 02:24 G	10769790.36	10769790.60	10769790.84	0.0520	0.0056
Earth	24774-08-02 04:19 G	10769790.45	10769790.68	10769790.91	0.0520	0.0089 *
Earth	24778-12-27 23:45 G	10771399.41	10771399.49	10771399.59	0.0524	0.0479
Moon	24778-12-28 02:09 G	10771399.49	10771399.59	10771399.71	0.0524	0.0458 *
Mercury	24779-12-04 18:14 G	10771741.15	10771741.26	10771741.37	0.0510	0.0297
Moon	24780-01-31 02:09 G	10771798.35	10771798.59	10771798.83	0.0508	0.0078
Earth	24780-01-31 03:50 G	10771798.43	10771798.66	10771798.89	0.0508	0.0066 *
Mercury	24780-03-03 02:52 G	10771830.51	10771830.62	10771830.74	0.0507	0.0286
Venus	24785-02-24 17:02 G	10773650.07	10773650.21	10773650.37	0.0502	0.0339
Moon	24785-07-03 16:19 G	10773779.01	10773779.18	10773779.36	0.0507	0.0347
Earth	24785-07-03 16:19 G	10773779.03	10773779.18	10773779.34	0.0507	0.0372 *
Mercury	24786-05-03 16:48 G	10774083.04	10774083.20	10774083.37	0.0519	0.0123
Earth	24786-08-07 00:57 G	10774178.32	10774178.54	10774178.77	0.0523	0.0171
Moon	24786-08-07 01:12 G	10774178.33	10774178.55	10774178.76	0.0523	0.0172 *
Earth	24791-01-02 00:00 G	10775787.36	10775787.50	10775787.65	0.0522	0.0401
Moon	24791-01-02 00:14 G	10775787.37	10775787.51	10775787.65	0.0522	0.0423 *
Venus	24791-01-04 15:50 G	10775790.10	10775790.16	10775790.22	0.0521	0.0495

Mercury	24791-09-22 22:19 G	10776051.36	10776051.43	10776051.50	0.0511	0.0434
Mercury	24791-12-21 06:43 G	10776140.64	10776140.78	10776140.91	0.0507	0.0146
Earth	24792-02-04 19:26 G	10776186.09	10776186.31	10776186.53	0.0506	0.0140
Moon	24792-02-04 19:26 G	10776186.10	10776186.31	10776186.52	0.0506	0.0171 *
Moon	24797-07-08 06:57 G	10778166.62	10778166.79	10778166.98	0.0509	0.0319
Earth	24797-07-08 08:52 G	10778166.69	10778166.87	10778167.06	0.0509	0.0301 *
Mercury	24798-02-19 16:04 G	10778393.04	10778393.17	10778393.31	0.0518	0.0309
Mercury	24798-05-20 18:00 G	10778483.17	10778483.25	10778483.33	0.0522	0.0454
Earth	24798-08-12 02:24 G	10778566.40	10778566.60	10778566.81	0.0525	0.0256
Moon	24798-08-12 04:48 G	10778566.50	10778566.70	10778566.91	0.0525	0.0285 *
Mars	24800-07-05 23:31 G	10779260.31	10779260.48	10779260.66	0.0541	0.0381
Venus	24802-09-09 10:33 G	10780055.74	10780055.94	10780056.14	0.0524	0.0015
Moon	24803-01-06 19:40 G	10780175.16	10780175.32	10780175.50	0.0519	0.0343
Earth	24803-01-06 22:04 G	10780175.24	10780175.42	10780175.60	0.0519	0.0323 *
Mercury	24803-10-09 10:04 G	10780450.79	10780450.92	10780451.06	0.0508	0.0014
Earth	24804-02-09 08:09 G	10780573.63	10780573.84	10780574.05	0.0503	0.0210
Moon	24804-02-09 09:36 G	10780573.68	10780573.90	10780574.12	0.0503	0.0206 *
Venus	24809-02-27 06:28 G	10782418.65	10782418.77	10782418.90	0.0506	0.0401
Earth	24809-07-13 02:52 G	10782554.41	10782554.62	10782554.83	0.0512	0.0230
Moon	24809-07-13 05:45 G	10782554.54	10782554.74	10782554.95	0.0512	0.0260 *
Mercury	24809-12-08 15:21 G	10782703.10	10782703.14	10782703.19	0.0518	0.0496
Mercury	24810-03-08 17:45 G	10782793.10	10782793.24	10782793.38	0.0521	0.0274
Moon	24810-08-17 01:26 G	10782954.38	10782954.56	10782954.74	0.0527	0.0330
Earth	24810-08-17 05:16 G	10782954.54	10782954.72	10782954.90	0.0527	0.0338 *
Earth	24815-01-11 17:16 G	10784563.02	10784563.22	10784563.43	0.0517	0.0245
Moon	24815-01-11 20:52 G	10784563.16	10784563.37	10784563.59	0.0517	0.0220 *
Mercury	24815-07-28 13:40 G	10784760.94	10784761.07	10784761.20	0.0509	0.0142
Mercury	24815-10-25 22:33 G	10784850.37	10784850.44	10784850.51	0.0505	0.0442
Moon	24816-02-13 17:02 G	10784961.02	10784961.21	10784961.41	0.0501	0.0250
Earth	24816-02-13 19:55 G	10784961.15	10784961.33	10784961.53	0.0501	0.0280 *

Mars	24818-05-25 18:28 G	10785792.98	10785793.27	10785793.56	0.0486	0.0165
Venus	24820-11-02 06:14 G	10786684.56	10786684.76	10786684.96	0.0504	0.0061
Moon	24821-07-17 17:31 G	10786942.01	10786942.23	10786942.46	0.0513	0.0147
Earth	24821-07-17 21:21 G	10786942.17	10786942.39	10786942.61	0.0513	0.0156 *
Mercury	24821-12-25 16:48 G	10787103.04	10787103.20	10787103.37	0.0520	0.0085
Earth	24822-08-22 05:31 G	10787342.59	10787342.73	10787342.87	0.0529	0.0416
Moon	24822-08-22 09:21 G	10787342.73	10787342.89	10787343.05	0.0529	0.0382 *
Moon	24827-01-16 04:19 G	10788950.46	10788950.68	10788950.90	0.0515	0.0145
Earth	24827-01-16 08:09 G	10788950.62	10788950.84	10788951.06	0.0515	0.0171 *
Mercury	24827-05-16 16:48 G	10789071.09	10789071.20	10789071.31	0.0510	0.0293
Mercury	24827-08-14 01:26 G	10789160.45	10789160.56	10789160.68	0.0507	0.0290
Earth	24828-02-18 05:31 G	10789348.56	10789348.73	10789348.90	0.0500	0.0342
Moon	24828-02-18 09:21 G	10789348.73	10789348.89	10789349.06	0.0500	0.0345 *
Earth	24833-07-22 16:19 G	10791329.94	10791330.18	10791330.41	0.0515	0.0079
Moon	24833-07-22 19:26 G	10791330.08	10791330.31	10791330.54	0.0515	0.0050 *
Mercury	24833-10-13 15:50 G	10791413.00	10791413.16	10791413.33	0.0519	0.0107
Moon	24834-08-27 04:33 G	10791730.60	10791730.69	10791730.77	0.0530	0.0493
Earth	24834-08-27 07:26 G	10791730.73	10791730.81	10791730.89	0.0530	0.0494 *
Venus	24838-05-17 23:16 G	10793090.30	10793090.47	10793090.65	0.0523	0.0274
Earth	24839-01-21 02:09 G	10793338.36	10793338.59	10793338.82	0.0513	0.0092
Moon	24839-01-21 05:16 G	10793338.50	10793338.72	10793338.94	0.0513	0.0112 *
Mercury	24839-03-04 20:24 G	10793381.29	10793381.35	10793381.43	0.0511	0.0434
Mercury	24839-06-02 05:02 G	10793470.58	10793470.71	10793470.84	0.0508	0.0147
Moon	24840-02-22 13:12 G	10793735.94	10793736.05	10793736.17	0.0498	0.0437
Earth	24840-02-22 17:02 G	10793736.08	10793736.21	10793736.35	0.0498	0.0405 *
Earth	24844-06-23 19:26 G	10795319.29	10795319.31	10795319.34	0.0502	0.0498
Moon	24845-07-27 08:09 G	10795717.60	10795717.84	10795718.08	0.0518	0.0010
Earth	24845-07-27 10:19 G	10795717.70	10795717.93	10795718.17	0.0518	0.0004 *
Mercury	24845-08-01 14:24 G	10795722.97	10795723.10	10795723.24	0.0518	0.0304
Mercury	24845-10-30 16:19 G	10795813.10	10795813.18	10795813.25	0.0521	0.0458

Venus	24850-01-20 18:00 G	10797356.07	10797356.25	10797356.43	0.0525	0.0242
Moon	24851-01-25 18:57 G	10797726.05	10797726.29	10797726.53	0.0511	0.0038
Earth	24851-01-25 20:38 G	10797726.13	10797726.36	10797726.60	0.0511	0.0015 *
Mercury	24851-03-21 08:52 G	10797780.73	10797780.87	10797781.01	0.0508	0.0009
Earth	24852-02-27 04:04 G	10798123.59	10798123.67	10798123.75	0.0497	0.0465
Moon	24852-02-27 06:57 G	10798123.74	10798123.79	10798123.86	0.0497	0.0479 *
Moon	24856-06-28 09:21 G	10799706.75	10799706.89	10799707.03	0.0504	0.0414
Earth	24856-06-28 09:36 G	10799706.78	10799706.90	10799707.01	0.0504	0.0438 *
Venus	24856-07-10 18:00 G	10799719.06	10799719.25	10799719.43	0.0505	0.0208
Mercury	24857-05-20 13:40 G	10800033.02	10800033.07	10800033.12	0.0517	0.0491
Earth	24857-08-01 08:52 G	10800105.64	10800105.87	10800106.10	0.0520	0.0083
Moon	24857-08-01 09:21 G	10800105.66	10800105.89	10800106.11	0.0520	0.0052 *
Mercury	24857-08-18 16:04 G	10800123.03	10800123.17	10800123.30	0.0521	0.0277
Moon	24861-12-27 07:55 G	10801714.73	10801714.83	10801714.95	0.0524	0.0467
Earth	24861-12-27 08:24 G	10801714.77	10801714.85	10801714.95	0.0524	0.0482 *
Mercury	24863-01-07 12:28 G	10802090.89	10802091.02	10802091.16	0.0509	0.0133
Earth	24863-01-30 12:43 G	10802113.80	10802114.03	10802114.27	0.0508	0.0061
Moon	24863-01-30 12:57 G	10802113.82	10802114.04	10802114.26	0.0508	0.0077 *
Mercury	24863-04-06 21:21 G	10802180.33	10802180.39	10802180.45	0.0506	0.0452
Moon	24864-03-02 11:02 G	10802510.96	10802510.96	10802510.97	0.0495	0.0495
Venus	24868-03-15 17:45 G	10803985.06	10803985.24	10803985.41	0.0503	0.0251
Moon	24868-07-02 23:02 G	10804094.31	10804094.46	10804094.63	0.0507	0.0354
Earth	24868-07-03 00:43 G	10804094.38	10804094.53	10804094.69	0.0507	0.0374 *
Mercury	24869-06-06 15:36 G	10804432.99	10804433.15	10804433.31	0.0520	0.0096
Earth	24869-08-06 08:52 G	10804493.65	10804493.87	10804494.10	0.0523	0.0166
Moon	24869-08-06 10:48 G	10804493.72	10804493.95	10804494.18	0.0523	0.0173 *
Moon	24874-01-01 05:16 G	10806102.60	10806102.72	10806102.84	0.0522	0.0435
Earth	24874-01-01 07:12 G	10806102.66	10806102.80	10806102.95	0.0522	0.0405 *
Mercury	24874-10-26 16:19 G	10806401.06	10806401.18	10806401.29	0.0510	0.0275
Mercury	24875-01-24 00:43 G	10806490.43	10806490.53	10806490.65	0.0506	0.0308

Earth	24875-02-04 03:07 G	10806501.41	10806501.63	10806501.86	0.0506	0.0134
Moon	24875-02-04 04:33 G	10806501.47	10806501.69	10806501.92	0.0506	0.0162 *
Earth	24880-07-07 17:45 G	10808482.06	10808482.24	10808482.43	0.0508	0.0306
Moon	24880-07-07 20:52 G	10808482.19	10808482.37	10808482.55	0.0508	0.0324 *
Mercury	24881-03-25 14:52 G	10808742.96	10808743.12	10808743.28	0.0519	0.0092
Moon	24881-08-11 05:02 G	10808881.52	10808881.71	10808881.91	0.0524	0.0274
Earth	24881-08-11 08:38 G	10808881.65	10808881.86	10808882.06	0.0524	0.0245 *
Venus	24885-09-28 08:24 G	10810390.64	10810390.85	10810391.05	0.0524	0.0061
Earth	24886-01-05 23:16 G	10810490.30	10810490.47	10810490.65	0.0520	0.0332
Moon	24886-01-06 02:38 G	10810490.44	10810490.61	10810490.79	0.0520	0.0349 *
Mercury	24886-08-14 19:12 G	10810711.23	10810711.30	10810711.38	0.0511	0.0427
Mercury	24886-11-12 03:36 G	10810800.52	10810800.65	10810800.79	0.0508	0.0154
Moon	24887-02-08 10:48 G	10810888.74	10810888.95	10810889.16	0.0505	0.0192
Earth	24887-02-08 13:40 G	10810888.86	10810889.07	10810889.29	0.0505	0.0203 *
Venus	24892-03-18 07:55 G	10812753.80	10812753.83	10812753.88	0.0506	0.0495
Moon	24892-07-12 07:26 G	10812869.61	10812869.81	10812870.01	0.0510	0.0261
Earth	24892-07-12 10:48 G	10812869.75	10812869.95	10812870.17	0.0510	0.0234 *
Mercury	24893-01-11 13:55 G	10813052.94	10813053.08	10813053.22	0.0518	0.0282
Mercury	24893-04-11 15:36 G	10813143.09	10813143.15	10813143.21	0.0521	0.0478
Earth	24893-08-16 08:24 G	10813269.67	10813269.85	10813270.04	0.0526	0.0327
Moon	24893-08-16 12:28 G	10813269.84	10813270.02	10813270.21	0.0526	0.0315 *
Venus	24897-06-03 00:57 G	10814656.46	10814656.54	10814656.64	0.0526	0.0469
Moon	24898-01-10 16:04 G	10814877.96	10814878.17	10814878.37	0.0518	0.0230
Earth	24898-01-10 19:40 G	10814878.12	10814878.32	10814878.53	0.0518	0.0254 *
Mercury	24898-08-31 07:26 G	10815110.67	10815110.81	10815110.94	0.0509	0.0019
Earth	24899-02-13 03:07 G	10815276.43	10815276.63	10815276.82	0.0503	0.0273
Moon	24899-02-13 06:57 G	10815276.59	10815276.79	10815276.99	0.0503	0.0244 *
Venus	24903-11-23 06:14 G	10817019.55	10817019.76	10817019.96	0.0503	0.0024
Earth	24904-07-18 02:38 G	10817257.38	10817257.61	10817257.83	0.0512	0.0161
Moon	24904-07-18 06:00 G	10817257.53	10817257.75	10817257.97	0.0512	0.0142 *

Mercury	24904-10-31 12:14 G	10817362.95	10817363.01	10817363.07	0.0517	0.0481
Mercury	24905-01-29 14:38 G	10817452.97	10817453.11	10817453.24	0.0520	0.0286
Moon	24905-08-22 04:48 G	10817657.54	10817657.70	10817657.87	0.0528	0.0373
Earth	24905-08-22 08:24 G	10817657.70	10817657.85	10817658.00	0.0528	0.0407 *
Earth	24910-01-16 17:02 G	10819265.99	10819266.21	10819266.43	0.0516	0.0174
Moon	24910-01-16 20:09 G	10819266.13	10819266.34	10819266.56	0.0516	0.0156 *
Mercury	24910-06-20 11:16 G	10819420.84	10819420.97	10819421.10	0.0509	0.0127
Mercury	24910-09-17 20:09 G	10819510.28	10819510.34	10819510.40	0.0506	0.0459
Moon	24911-02-18 12:28 G	10819663.86	10819664.02	10819664.20	0.0501	0.0344
Earth	24911-02-18 16:19 G	10819664.02	10819664.18	10819664.36	0.0501	0.0340 *
Venus	24915-07-29 06:00 G	10821285.66	10821285.75	10821285.86	0.0501	0.0434
Moon	24916-07-22 19:40 G	10821645.08	10821645.32	10821645.56	0.0515	0.0055
Earth	24916-07-22 22:04 G	10821645.19	10821645.42	10821645.65	0.0515	0.0083 *
Mercury	24916-11-17 13:55 G	10821762.92	10821763.08	10821763.25	0.0520	0.0103
Earth	24917-08-27 12:14 G	10822045.93	10822046.01	10822046.11	0.0530	0.0488
Moon	24917-08-27 13:40 G	10822046.00	10822046.07	10822046.15	0.0530	0.0496 *
Venus	24921-06-07 02:38 G	10823425.47	10823425.61	10823425.75	0.0522	0.0383
Moon	24922-01-21 10:33 G	10823653.71	10823653.94	10823654.18	0.0513	0.0121
Earth	24922-01-21 12:28 G	10823653.80	10823654.02	10823654.25	0.0513	0.0096 *
Mercury	24922-04-08 15:07 G	10823731.01	10823731.13	10823731.24	0.0510	0.0265
Mercury	24922-07-06 23:45 G	10823820.38	10823820.49	10823820.60	0.0507	0.0318
Earth	24923-02-23 03:36 G	10824051.52	10824051.65	10824051.79	0.0498	0.0400
Moon	24923-02-23 06:43 G	10824051.67	10824051.78	10824051.89	0.0498	0.0432 *
Earth	24927-06-25 05:02 G	10825634.69	10825634.71	10825634.73	0.0502	0.0499
Earth	24928-07-27 19:26 G	10826033.08	10826033.31	10826033.55	0.0517	0.0006
Moon	24928-07-27 20:24 G	10826033.12	10826033.35	10826033.57	0.0517	0.0020 *
Mercury	24928-09-05 13:40 G	10826072.90	10826073.07	10826073.23	0.0519	0.0081
Venus	24933-02-09 20:24 G	10827691.16	10827691.35	10827691.55	0.0525	0.0135
Mercury	24934-01-25 18:43 G	10828041.20	10828041.28	10828041.37	0.0511	0.0406
Earth	24934-01-26 05:45 G	10828041.50	10828041.74	10828041.97	0.0511	0.0019

Moon	24934-01-26 06:00 G	10828041.52	10828041.75	10828041.97	0.0511	0.0040	*
Mercury	24934-04-25 03:07 G	10828130.50	10828130.63	10828130.76	0.0507	0.0175	
Moon	24935-02-27 12:14 G	10828438.94	10828439.01	10828439.10	0.0497	0.0465	
Earth	24935-02-27 13:55 G	10828439.00	10828439.08	10828439.17	0.0497	0.0460	*
Mars	24936-11-13 00:14 G	10829063.44	10829063.51	10829063.61	0.0487	0.0468	
Moon	24939-06-29 18:43 G	10830022.17	10830022.28	10830022.42	0.0504	0.0413	
Earth	24939-06-29 20:24 G	10830022.25	10830022.35	10830022.47	0.0504	0.0439	*
Venus	24939-07-31 20:09 G	10830054.18	10830054.34	10830054.50	0.0505	0.0307	
Mercury	24940-06-24 12:57 G	10830382.89	10830383.04	10830383.18	0.0518	0.0266	
Earth	24940-08-01 17:45 G	10830421.01	10830421.24	10830421.47	0.0519	0.0076	
Moon	24940-08-01 18:57 G	10830421.05	10830421.29	10830421.54	0.0519	0.0050	*
Mercury	24940-09-22 14:38 G	10830473.06	10830473.11	10830473.16	0.0521	0.0494	
Moon	24944-12-27 08:24 G	10832029.77	10832029.85	10832029.94	0.0525	0.0481	
Earth	24944-12-27 09:50 G	10832029.83	10832029.91	10832029.99	0.0525	0.0488	*
Earth	24946-01-30 17:31 G	10832429.00	10832429.23	10832429.46	0.0509	0.0054	
Moon	24946-01-30 18:43 G	10832429.04	10832429.28	10832429.52	0.0509	0.0072	*
Mercury	24946-02-11 06:00 G	10832440.62	10832440.75	10832440.89	0.0509	0.0023	
Moon	24947-03-03 20:38 G	10832826.34	10832826.36	10832826.41	0.0496	0.0489	
Venus	24951-04-05 20:09 G	10834320.15	10834320.34	10834320.54	0.0503	0.0152	
Earth	24951-07-04 11:45 G	10834409.84	10834409.99	10834410.15	0.0506	0.0373	
Moon	24951-07-04 14:38 G	10834409.94	10834410.11	10834410.29	0.0506	0.0354	*
Mercury	24952-04-12 11:45 G	10834692.92	10834692.99	10834693.07	0.0517	0.0456	
Mercury	24952-07-11 14:09 G	10834782.96	10834783.09	10834783.22	0.0520	0.0309	
Moon	24952-08-06 12:43 G	10834808.82	10834809.03	10834809.25	0.0521	0.0174	
Earth	24952-08-06 15:50 G	10834808.94	10834809.16	10834809.39	0.0521	0.0158	*
Mars	24954-10-01 01:40 G	10835594.33	10835594.57	10835594.81	0.0541	0.0098	
Earth	24957-01-01 08:09 G	10836417.70	10836417.84	10836417.99	0.0523	0.0412	
Moon	24957-01-01 11:16 G	10836417.85	10836417.97	10836418.10	0.0523	0.0443	*
Mercury	24957-11-30 09:36 G	10836750.77	10836750.90	10836751.04	0.0510	0.0125	
Moon	24958-02-04 06:00 G	10836816.53	10836816.75	10836816.97	0.0507	0.0152	

Earth	24958-02-04 08:52 G	10836816.64	10836816.87	10836817.09	0.0507	0.0128	*
Mercury	24958-02-27 18:43 G	10836840.22	10836840.28	10836840.33	0.0506	0.0463	
Moon	24963-07-08 21:21 G	10838797.22	10838797.39	10838797.57	0.0508	0.0330	
Earth	24963-07-09 00:57 G	10838797.36	10838797.54	10838797.73	0.0508	0.0308	*
Mercury	24964-04-29 12:43 G	10839092.87	10839093.03	10839093.20	0.0519	0.0115	
Earth	24964-08-11 12:43 G	10839196.82	10839197.03	10839197.24	0.0523	0.0238	
Moon	24964-08-11 16:48 G	10839197.00	10839197.20	10839197.40	0.0523	0.0267	*
Venus	24968-10-18 10:19 G	10840725.74	10840725.93	10840726.13	0.0524	0.0163	
Moon	24969-01-06 04:04 G	10840805.51	10840805.67	10840805.85	0.0521	0.0352	
Earth	24969-01-06 08:09 G	10840805.66	10840805.84	10840806.01	0.0521	0.0334	*
Mercury	24969-09-18 13:40 G	10841060.95	10841061.07	10841061.19	0.0510	0.0260	
Mercury	24969-12-16 22:19 G	10841150.33	10841150.43	10841150.54	0.0507	0.0324	
Earth	24970-02-09 00:28 G	10841204.31	10841204.52	10841204.74	0.0505	0.0201	
Moon	24970-02-09 04:33 G	10841204.47	10841204.69	10841204.90	0.0505	0.0180	*
Earth	24975-07-13 17:31 G	10843185.03	10843185.23	10843185.44	0.0510	0.0236	
Moon	24975-07-13 21:07 G	10843185.19	10843185.38	10843185.58	0.0510	0.0256	*
Mercury	24976-02-16 12:14 G	10843402.84	10843403.01	10843403.17	0.0519	0.0072	
Moon	24976-08-16 10:19 G	10843584.74	10843584.93	10843585.13	0.0526	0.0309	
Earth	24976-08-16 14:09 G	10843584.90	10843585.09	10843585.27	0.0526	0.0321	*
Venus	24980-06-23 05:02 G	10844991.56	10844991.71	10844991.86	0.0526	0.0353	
Earth	24981-01-11 06:43 G	10845193.58	10845193.78	10845193.99	0.0518	0.0256	
Moon	24981-01-11 10:19 G	10845193.72	10845193.93	10845194.13	0.0518	0.0228	*
Mercury	24981-07-07 17:45 G	10845371.15	10845371.24	10845371.32	0.0511	0.0397	
Mercury	24981-10-05 02:09 G	10845460.46	10845460.59	10845460.72	0.0508	0.0184	
Moon	24982-02-13 10:33 G	10845591.74	10845591.94	10845592.16	0.0503	0.0240	
Earth	24982-02-13 14:38 G	10845591.91	10845592.11	10845592.31	0.0503	0.0269	*
Venus	24986-12-12 07:40 G	10847354.62	10847354.82	10847355.02	0.0504	0.0117	
Moon	24987-07-18 09:36 G	10847572.67	10847572.90	10847573.14	0.0512	0.0140	
Earth	24987-07-18 12:14 G	10847572.79	10847573.01	10847573.23	0.0512	0.0163	*
Mercury	24987-12-05 11:31 G	10847712.84	10847712.98	10847713.13	0.0518	0.0256	

Mercury	24988-03-04 13:26 G	10847803.02	10847803.06	10847803.10	0.0522	0.0506
Earth	24988-08-21 17:31 G	10847973.09	10847973.23	10847973.39	0.0528	0.0402
Moon	24988-08-21 19:26 G	10847973.16	10847973.31	10847973.47	0.0528	0.0374 *
Moon	24993-01-16 00:43 G	10849581.30	10849581.53	10849581.75	0.0516	0.0164
Earth	24993-01-16 02:38 G	10849581.40	10849581.61	10849581.83	0.0516	0.0177 *
Mercury	24993-07-24 05:45 G	10849770.60	10849770.74	10849770.88	0.0508	0.0042
Earth	24994-02-18 02:52 G	10849979.45	10849979.62	10849979.79	0.0501	0.0335
Moon	24994-02-18 05:45 G	10849979.58	10849979.74	10849979.91	0.0501	0.0344 *
Venus	24998-08-17 08:38 G	10851620.71	10851620.86	10851621.01	0.0502	0.0334
Earth	24999-07-23 08:52 G	10851960.64	10851960.87	10851961.10	0.0514	0.0086
Moon	24999-07-23 09:50 G	10851960.69	10851960.91	10851961.14	0.0514	0.0062 *
Mercury	24999-09-23 10:48 G	10852022.87	10852022.95	10852023.04	0.0517	0.0440
Mercury	24999-12-22 13:12 G	10852112.92	10852113.05	10852113.18	0.0520	0.0326
Earth	25000-08-27 20:24 G	10852361.26	10852361.35	10852361.46	0.0529	0.0480
Moon	25000-08-27 21:21 G	10852361.31	10852361.39	10852361.48	0.0529	0.0495 *

26TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 26th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	25004-06-27 00:57 G	10853760.45	10853760.54	10853760.64	0.0522	0.0462		
Earth	25005-01-21 16:19 G	10853968.95	10853969.18	10853969.41	0.0514	0.0102		
Moon	25005-01-21 16:48 G	10853968.98	10853969.20	10853969.42	0.0514	0.0130 *		
Mercury	25005-05-13 08:38 G	10854080.72	10854080.86	10854080.99	0.0510	0.0115		

Mercury	25005-08-10 17:31 G	10854170.18	10854170.23	10854170.28	0.0506	0.0472
Moon	25006-02-23 09:07 G	10854366.76	10854366.88	10854367.02	0.0500	0.0423
Earth	25006-02-23 10:48 G	10854366.82	10854366.95	10854367.10	0.0500	0.0396 *
Earth	25010-06-25 17:45 G	10855950.22	10855950.24	10855950.28	0.0502	0.0497
Earth	25011-07-29 05:02 G	10856348.48	10856348.71	10856348.95	0.0516	0.0007
Moon	25011-07-29 06:00 G	10856348.51	10856348.75	10856348.99	0.0516	0.0024 *
Mercury	25011-10-11 12:28 G	10856422.87	10856423.02	10856423.18	0.0519	0.0141
Venus	25016-03-01 18:14 G	10858026.06	10858026.26	10858026.46	0.0525	0.0060
Earth	25017-01-26 09:21 G	10858356.66	10858356.89	10858357.13	0.0512	0.0025
Moon	25017-01-26 10:33 G	10858356.70	10858356.94	10858357.18	0.0512	0.0043 *
Mercury	25017-03-01 12:14 G	10858390.89	10858391.01	10858391.13	0.0511	0.0257
Mercury	25017-05-29 20:52 G	10858480.27	10858480.37	10858480.48	0.0507	0.0328
Moon	25018-02-27 21:21 G	10858754.30	10858754.39	10858754.48	0.0498	0.0453
Earth	25018-02-27 21:36 G	10858754.32	10858754.40	10858754.51	0.0498	0.0457 *
Earth	25022-06-30 05:02 G	10860337.60	10860337.71	10860337.83	0.0503	0.0439
Moon	25022-06-30 07:55 G	10860337.70	10860337.83	10860337.97	0.0503	0.0407 *
Venus	25022-08-20 20:38 G	10860389.24	10860389.36	10860389.49	0.0505	0.0396
Mercury	25023-07-30 11:02 G	10860732.80	10860732.96	10860733.13	0.0518	0.0058
Moon	25023-08-02 20:24 G	10860736.12	10860736.35	10860736.57	0.0518	0.0049
Earth	25023-08-02 23:02 G	10860736.23	10860736.46	10860736.70	0.0518	0.0073 *
Earth	25027-12-28 17:16 G	10862345.15	10862345.22	10862345.31	0.0525	0.0491
Moon	25027-12-28 20:09 G	10862345.25	10862345.34	10862345.43	0.0525	0.0486 *
Mercury	25028-12-18 16:19 G	10862701.09	10862701.18	10862701.26	0.0511	0.0393
Moon	25029-01-31 00:57 G	10862744.32	10862744.54	10862744.77	0.0510	0.0075
Earth	25029-01-31 03:50 G	10862744.43	10862744.66	10862744.89	0.0510	0.0052 *
Mercury	25029-03-18 00:43 G	10862790.40	10862790.53	10862790.66	0.0508	0.0189
Moon	25030-03-04 11:31 G	10863141.93	10863141.98	10863142.04	0.0496	0.0481
Venus	25034-04-25 20:24 G	10864655.14	10864655.35	10864655.55	0.0503	0.0067
Moon	25034-07-04 15:36 G	10864724.99	10864725.15	10864725.31	0.0505	0.0359
Earth	25034-07-04 18:57 G	10864725.14	10864725.29	10864725.46	0.0505	0.0376 *

Mercury	25035-05-18 10:19 G	10865042.78	10865042.93	10865043.07	0.0518	0.0246
Earth	25035-08-07 21:21 G	10865124.16	10865124.39	10865124.61	0.0521	0.0152
Moon	25035-08-08 01:12 G	10865124.33	10865124.55	10865124.78	0.0521	0.0176 *
Mercury	25035-08-16 12:00 G	10865132.98	10865133.00	10865133.02	0.0521	0.0514
Moon	25040-01-02 15:21 G	10866733.03	10866733.14	10866733.27	0.0523	0.0447
Earth	25040-01-02 19:12 G	10866733.16	10866733.30	10866733.44	0.0523	0.0414 *
Mercury	25041-01-04 04:33 G	10867100.55	10867100.69	10867100.83	0.0508	0.0050
Earth	25041-02-04 20:24 G	10867132.12	10867132.35	10867132.58	0.0507	0.0125
Moon	25041-02-05 00:14 G	10867132.29	10867132.51	10867132.73	0.0507	0.0142 *
Earth	25046-07-09 10:48 G	10869112.77	10869112.95	10869113.14	0.0508	0.0308
Moon	25046-07-09 14:24 G	10869112.93	10869113.10	10869113.27	0.0508	0.0336 *
Mercury	25047-03-06 09:21 G	10869352.80	10869352.89	10869352.99	0.0517	0.0432
Mercury	25047-06-04 11:45 G	10869442.87	10869442.99	10869443.12	0.0521	0.0335
Moon	25047-08-12 18:14 G	10869512.06	10869512.26	10869512.46	0.0523	0.0263
Earth	25047-08-12 22:04 G	10869512.21	10869512.42	10869512.63	0.0523	0.0234 *
Venus	25051-11-08 13:40 G	10871060.90	10871061.07	10871061.24	0.0523	0.0270
Earth	25052-01-07 17:45 G	10871121.07	10871121.24	10871121.43	0.0521	0.0336
Moon	25052-01-07 21:36 G	10871121.23	10871121.40	10871121.57	0.0521	0.0343 *
Mercury	25052-10-23 08:09 G	10871410.71	10871410.84	10871410.98	0.0509	0.0092
Mercury	25053-01-20 17:02 G	10871500.19	10871500.21	10871500.24	0.0506	0.0495
Moon	25053-02-09 07:12 G	10871519.58	10871519.80	10871520.03	0.0505	0.0174
Earth	25053-02-09 11:02 G	10871519.75	10871519.96	10871520.18	0.0505	0.0198 *
Moon	25058-07-14 02:52 G	10873500.41	10873500.62	10873500.83	0.0510	0.0251
Earth	25058-07-14 05:31 G	10873500.53	10873500.73	10873500.94	0.0510	0.0236 *
Mercury	25059-03-23 11:31 G	10873752.83	10873752.98	10873753.14	0.0519	0.0157
Earth	25059-08-17 23:45 G	10873900.31	10873900.49	10873900.68	0.0525	0.0316
Moon	25059-08-18 02:09 G	10873900.41	10873900.59	10873900.78	0.0525	0.0301 *
Venus	25063-07-14 03:36 G	10875326.48	10875326.65	10875326.83	0.0526	0.0273
Moon	25064-01-12 06:57 G	10875508.58	10875508.79	10875509.01	0.0519	0.0231
Earth	25064-01-12 09:36 G	10875508.70	10875508.90	10875509.10	0.0519	0.0261 *

Mercury	25064-08-11 11:02 G	10875720.84	10875720.96	10875721.08	0.0510	0.0248
Mercury	25064-11-08 19:40 G	10875810.22	10875810.32	10875810.43	0.0507	0.0336
Earth	25065-02-13 19:55 G	10875907.14	10875907.33	10875907.54	0.0504	0.0265
Moon	25065-02-13 23:02 G	10875907.27	10875907.46	10875907.67	0.0504	0.0239 *
Venus	25070-01-01 10:48 G	10877689.77	10877689.95	10877690.13	0.0504	0.0219
Earth	25070-07-18 23:31 G	10877888.26	10877888.48	10877888.70	0.0512	0.0163
Moon	25070-07-19 00:43 G	10877888.31	10877888.53	10877888.75	0.0512	0.0137 *
Mercury	25071-01-09 10:48 G	10878062.79	10878062.95	10878063.12	0.0518	0.0032
Moon	25071-08-23 00:57 G	10878288.37	10878288.54	10878288.71	0.0527	0.0372
Earth	25071-08-23 00:43 G	10878288.38	10878288.53	10878288.69	0.0527	0.0396 *
Earth	25076-01-17 04:33 G	10879896.48	10879896.69	10879896.91	0.0517	0.0183
Moon	25076-01-17 05:31 G	10879896.52	10879896.73	10879896.94	0.0517	0.0175 *
Mercury	25076-05-30 14:38 G	10880031.03	10880031.11	10880031.20	0.0511	0.0392
Mercury	25076-08-27 23:02 G	10880120.34	10880120.46	10880120.59	0.0508	0.0192
Moon	25077-02-18 06:43 G	10880294.61	10880294.78	10880294.97	0.0502	0.0341
Earth	25077-02-18 08:38 G	10880294.69	10880294.86	10880295.04	0.0502	0.0330 *
Venus	25081-09-06 09:07 G	10881955.71	10881955.88	10881956.06	0.0502	0.0246
Earth	25082-07-23 14:52 G	10882275.89	10882276.12	10882276.35	0.0513	0.0090
Moon	25082-07-23 15:21 G	10882275.90	10882276.14	10882276.39	0.0513	0.0069 *
Mercury	25082-10-28 09:07 G	10882372.73	10882372.88	10882373.03	0.0517	0.0231
Moon	25083-08-27 21:21 G	10882676.32	10882676.39	10882676.47	0.0529	0.0495
Earth	25083-08-27 23:45 G	10882676.39	10882676.49	10882676.60	0.0529	0.0471 *
Earth	25088-01-22 01:12 G	10884284.32	10884284.55	10884284.78	0.0515	0.0104
Moon	25088-01-22 01:55 G	10884284.35	10884284.58	10884284.82	0.0515	0.0134 *
Mercury	25088-06-16 03:07 G	10884430.49	10884430.63	10884430.76	0.0509	0.0054
Moon	25089-02-22 21:21 G	10884682.27	10884682.39	10884682.51	0.0500	0.0419
Earth	25089-02-22 21:50 G	10884682.27	10884682.41	10884682.55	0.0500	0.0394 *
Mars	25091-02-08 16:19 G	10885397.89	10885398.18	10885398.48	0.0487	0.0105
Earth	25093-06-25 01:26 G	10886265.54	10886265.56	10886265.58	0.0501	0.0497
Moon	25093-06-25 04:04 G	10886265.65	10886265.67	10886265.71	0.0501	0.0497

Moon	25094-07-28 07:40 G	10886663.60	10886663.82	10886664.05	0.0516	0.0036
Earth	25094-07-28 10:19 G	10886663.69	10886663.93	10886664.16	0.0516	0.0012 *
Mercury	25094-08-16 08:09 G	10886682.74	10886682.84	10886682.93	0.0517	0.0422
Mercury	25094-11-14 10:19 G	10886772.81	10886772.93	10886773.05	0.0520	0.0343
Venus	25099-03-21 21:50 G	10888361.20	10888361.41	10888361.61	0.0525	0.0052
Moon	25100-01-26 18:00 G	10888672.03	10888672.25	10888672.48	0.0512	0.0040
Earth	25100-01-26 20:38 G	10888672.13	10888672.36	10888672.59	0.0512	0.0027 *
Mercury	25100-04-05 06:57 G	10888740.65	10888740.79	10888740.92	0.0509	0.0086
Mercury	25100-07-03 15:50 G	10888830.15	10888830.16	10888830.17	0.0506	0.0501
Earth	25101-02-28 09:07 G	10889069.80	10889069.88	10889069.99	0.0498	0.0453
Moon	25101-02-28 11:45 G	10889069.89	10889069.99	10889070.11	0.0498	0.0438 *
Moon	25105-06-30 10:48 G	10890652.82	10890652.95	10890653.09	0.0503	0.0409
Earth	25105-06-30 14:24 G	10890652.99	10890653.10	10890653.22	0.0503	0.0439 *
Venus	25105-09-09 21:50 G	10890724.36	10890724.41	10890724.46	0.0506	0.0488
Earth	25106-08-03 07:40 G	10891051.59	10891051.82	10891052.05	0.0518	0.0068
Moon	25106-08-03 11:45 G	10891051.75	10891051.99	10891052.22	0.0518	0.0051 *
Mercury	25106-09-03 09:50 G	10891082.76	10891082.91	10891083.07	0.0520	0.0163
Mars	25108-12-27 18:43 G	10891929.06	10891929.28	10891929.50	0.0541	0.0262
Venus	25110-11-25 15:21 G	10892627.06	10892627.14	10892627.23	0.0527	0.0472
Moon	25110-12-28 23:16 G	10892660.40	10892660.47	10892660.56	0.0526	0.0489
Earth	25110-12-29 02:52 G	10892660.54	10892660.62	10892660.71	0.0526	0.0491 *
Mercury	25112-01-23 10:33 G	10893050.82	10893050.94	10893051.07	0.0510	0.0227
Earth	25112-02-01 13:40 G	10893059.84	10893060.07	10893060.30	0.0510	0.0049
Moon	25112-02-01 17:31 G	10893060.00	10893060.23	10893060.46	0.0510	0.0079 *
Mercury	25112-04-21 19:26 G	10893140.21	10893140.31	10893140.40	0.0507	0.0358
Moon	25113-03-04 16:19 G	10893457.13	10893457.18	10893457.24	0.0496	0.0478
Venus	25117-05-15 22:48 G	10894990.24	10894990.45	10894990.65	0.0503	0.0033
Earth	25117-07-05 06:28 G	10895040.62	10895040.77	10895040.94	0.0505	0.0375
Moon	25117-07-05 10:04 G	10895040.77	10895040.92	10895041.09	0.0505	0.0369 *
Mercury	25118-06-22 09:50 G	10895392.74	10895392.91	10895393.07	0.0518	0.0020

Moon	25118-08-08 03:50 G	10895439.44	10895439.66	10895439.89	0.0520	0.0174
Earth	25118-08-08 07:55 G	10895439.61	10895439.83	10895440.05	0.0520	0.0150 *
Earth	25123-01-02 20:52 G	10897048.24	10897048.37	10897048.51	0.0523	0.0418
Moon	25123-01-03 00:43 G	10897048.42	10897048.53	10897048.65	0.0523	0.0450 *
Mercury	25123-11-11 13:26 G	10897360.98	10897361.06	10897361.15	0.0511	0.0383
Moon	25124-02-05 20:24 G	10897447.13	10897447.35	10897447.58	0.0508	0.0136
Earth	25124-02-06 00:14 G	10897447.29	10897447.51	10897447.74	0.0508	0.0120 *
Mercury	25124-02-08 21:50 G	10897450.29	10897450.41	10897450.54	0.0508	0.0200
Venus	25129-01-18 23:02 G	10899256.36	10899256.46	10899256.57	0.0501	0.0421
Moon	25129-07-09 19:55 G	10899428.15	10899428.33	10899428.51	0.0507	0.0336
Earth	25129-07-09 22:33 G	10899428.26	10899428.44	10899428.63	0.0507	0.0306 *
Mercury	25130-04-10 08:52 G	10899702.72	10899702.87	10899703.02	0.0517	0.0205
Earth	25130-08-13 06:28 G	10899827.57	10899827.77	10899827.99	0.0522	0.0231
Moon	25130-08-13 09:21 G	10899827.69	10899827.89	10899828.09	0.0522	0.0256 *
Venus	25134-11-28 10:48 G	10901395.80	10901395.95	10901396.10	0.0523	0.0341
Moon	25135-01-07 15:07 G	10901435.95	10901436.13	10901436.31	0.0521	0.0343
Earth	25135-01-07 18:00 G	10901436.08	10901436.25	10901436.43	0.0521	0.0342 *
Mercury	25135-11-28 01:26 G	10901760.42	10901760.56	10901760.70	0.0509	0.0053
Earth	25136-02-10 14:24 G	10901834.88	10901835.10	10901835.31	0.0506	0.0192
Moon	25136-02-10 17:31 G	10901835.02	10901835.23	10901835.44	0.0506	0.0168 *
Earth	25141-07-14 11:45 G	10903815.79	10903815.99	10903816.20	0.0509	0.0240
Moon	25141-07-14 13:12 G	10903815.86	10903816.05	10903816.25	0.0509	0.0252 *
Mercury	25142-01-27 06:57 G	10904012.69	10904012.79	10904012.89	0.0516	0.0408
Mercury	25142-04-27 09:07 G	10904102.77	10904102.88	10904103.00	0.0520	0.0356
Moon	25142-08-18 02:09 G	10904215.39	10904215.59	10904215.79	0.0524	0.0287
Earth	25142-08-18 02:52 G	10904215.43	10904215.62	10904215.81	0.0524	0.0308 *
Venus	25146-08-03 04:33 G	10905661.50	10905661.69	10905661.88	0.0526	0.0177
Earth	25147-01-12 16:19 G	10905823.98	10905824.18	10905824.38	0.0520	0.0266
Moon	25147-01-12 17:31 G	10905824.03	10905824.23	10905824.43	0.0520	0.0234 *
Mercury	25147-09-16 05:16 G	10906070.58	10906070.72	10906070.86	0.0510	0.0085

Mercury	25147-12-14 14:09 G	10906160.08	10906160.09	10906160.11	0.0506	0.0503
Moon	25148-02-15 03:50 G	10906222.45	10906222.66	10906222.87	0.0504	0.0238
Earth	25148-02-15 05:31 G	10906222.53	10906222.73	10906222.93	0.0504	0.0261 *
Venus	25153-01-21 09:50 G	10908024.74	10908024.91	10908025.07	0.0504	0.0300
Moon	25153-07-19 04:19 G	10908203.45	10908203.68	10908203.92	0.0511	0.0141
Earth	25153-07-19 04:04 G	10908203.46	10908203.67	10908203.90	0.0511	0.0168 *
Mercury	25154-02-13 08:24 G	10908412.70	10908412.85	10908413.01	0.0519	0.0169
Moon	25154-08-23 01:40 G	10908603.41	10908603.57	10908603.73	0.0527	0.0370
Earth	25154-08-23 03:21 G	10908603.49	10908603.64	10908603.80	0.0527	0.0388 *
Earth	25159-01-17 14:24 G	10910211.89	10910212.10	10910212.32	0.0517	0.0186
Moon	25159-01-17 15:07 G	10910211.90	10910212.13	10910212.36	0.0517	0.0181 *
Mercury	25159-07-05 09:07 G	10910380.76	10910380.88	10910381.01	0.0510	0.0223
Mercury	25159-10-02 17:45 G	10910470.15	10910470.24	10910470.34	0.0507	0.0362
Moon	25160-02-19 18:57 G	10910610.13	10910610.29	10910610.45	0.0502	0.0347
Earth	25160-02-19 19:12 G	10910610.13	10910610.30	10910610.49	0.0502	0.0327 *
Venus	25164-09-26 09:21 G	10912290.69	10912290.89	10912291.08	0.0502	0.0162
Moon	25165-07-23 20:24 G	10912591.12	10912591.35	10912591.57	0.0513	0.0080
Earth	25165-07-23 22:33 G	10912591.21	10912591.44	10912591.67	0.0513	0.0093 *
Mercury	25165-12-02 07:55 G	10912722.66	10912722.83	10912722.99	0.0519	0.0020
Earth	25166-08-28 06:43 G	10912991.68	10912991.78	10912991.89	0.0529	0.0466
Moon	25166-08-28 10:19 G	10912991.85	10912991.93	10912992.02	0.0529	0.0492 *
Moon	25171-01-22 07:55 G	10914599.61	10914599.83	10914600.05	0.0515	0.0137
Earth	25171-01-22 10:19 G	10914599.70	10914599.93	10914600.16	0.0515	0.0106 *
Mercury	25171-04-23 12:57 G	10914690.95	10914691.04	10914691.14	0.0511	0.0363
Mercury	25171-07-21 21:21 G	10914780.27	10914780.39	10914780.52	0.0508	0.0219
Earth	25172-02-24 07:12 G	10914997.66	10914997.80	10914997.95	0.0500	0.0390
Moon	25172-02-24 09:50 G	10914997.78	10914997.91	10914998.05	0.0500	0.0411 *
Moon	25176-06-25 08:24 G	10916580.82	10916580.85	10916580.88	0.0501	0.0495
Earth	25176-06-25 11:45 G	10916580.97	10916580.99	10916581.03	0.0501	0.0496
Earth	25177-07-28 20:09 G	10916979.11	10916979.34	10916979.58	0.0516	0.0013

Moon	25177-07-29 00:00 G	10916979.27	10916979.50	10916979.74	0.0516	0.0043	*
Mercury	25177-09-20 07:26 G	10917032.66	10917032.81	10917032.97	0.0518	0.0196	
Venus	25182-04-10 19:55 G	10918696.14	10918696.33	10918696.53	0.0524	0.0130	
Earth	25183-01-26 22:48 G	10918987.22	10918987.45	10918987.68	0.0513	0.0033	
Moon	25183-01-27 02:24 G	10918987.37	10918987.60	10918987.84	0.0513	0.0037	*
Mercury	25183-05-10 00:00 G	10919090.37	10919090.50	10919090.64	0.0509	0.0062	
Moon	25184-02-28 10:33 G	10919384.84	10919384.94	10919385.06	0.0499	0.0436	
Earth	25184-02-28 13:55 G	10919384.99	10919385.08	10919385.19	0.0499	0.0449	*
Earth	25188-06-30 01:26 G	10920968.45	10920968.56	10920968.68	0.0503	0.0438	
Moon	25188-06-30 05:02 G	10920968.58	10920968.71	10920968.85	0.0503	0.0408	*
Mercury	25189-07-09 06:28 G	10921342.66	10921342.77	10921342.88	0.0517	0.0386	
Moon	25189-08-02 12:43 G	10921366.80	10921367.03	10921367.27	0.0517	0.0048	
Earth	25189-08-02 16:48 G	10921366.97	10921367.20	10921367.43	0.0518	0.0066	*
Mercury	25189-10-07 08:38 G	10921432.75	10921432.86	10921432.98	0.0520	0.0379	
Venus	25193-12-14 12:14 G	10922961.88	10922962.01	10922962.14	0.0526	0.0403	
Earth	25193-12-28 01:12 G	10922975.48	10922975.55	10922975.62	0.0526	0.0497	
Moon	25193-12-28 04:48 G	10922975.64	10922975.70	10922975.78	0.0526	0.0498	
Moon	25195-01-31 10:48 G	10923374.72	10923374.95	10923375.18	0.0511	0.0074	
Earth	25195-01-31 14:38 G	10923374.88	10923375.11	10923375.34	0.0511	0.0042	*
Mercury	25195-02-26 03:36 G	10923400.51	10923400.65	10923400.78	0.0510	0.0087	
Mercury	25195-05-26 12:28 G	10923490.00	10923490.02	10923490.03	0.0506	0.0501	
Moon	25196-03-04 03:21 G	10923772.59	10923772.64	10923772.72	0.0497	0.0476	
Venus	25200-06-03 21:50 G	10925325.21	10925325.41	10925325.61	0.0503	0.0113	
Moon	25200-07-04 09:36 G	10925355.75	10925355.90	10925356.07	0.0504	0.0377	
Earth	25200-07-04 12:43 G	10925355.88	10925356.03	10925356.19	0.0504	0.0377	*
Mercury	25201-07-26 07:12 G	10925742.64	10925742.80	10925742.95	0.0519	0.0179	
Earth	25201-08-07 10:19 G	10925754.71	10925754.93	10925755.16	0.0519	0.0142	
Moon	25201-08-07 13:40 G	10925754.85	10925755.07	10925755.28	0.0519	0.0167	*
Moon	25206-01-01 21:50 G	10927363.30	10927363.41	10927363.53	0.0524	0.0456	
Earth	25206-01-02 01:12 G	10927363.41	10927363.55	10927363.68	0.0524	0.0425	*

Mercury	25206-12-15 07:26 G	10927710.69	10927710.81	10927710.93	0.0511	0.0226
Earth	25207-02-05 07:26 G	10927762.59	10927762.81	10927763.04	0.0509	0.0116
Moon	25207-02-05 10:48 G	10927762.73	10927762.95	10927763.17	0.0509	0.0129 *
Mercury	25207-03-14 16:04 G	10927800.07	10927800.17	10927800.27	0.0507	0.0360
Venus	25212-02-07 21:21 G	10929591.25	10929591.39	10929591.54	0.0501	0.0346
Earth	25212-07-09 02:24 G	10929743.42	10929743.60	10929743.79	0.0506	0.0312
Moon	25212-07-09 04:04 G	10929743.51	10929743.67	10929743.84	0.0506	0.0344 *
Mercury	25213-05-14 06:00 G	10930052.59	10930052.75	10930052.92	0.0518	0.0018
Moon	25213-08-12 06:28 G	10930142.56	10930142.77	10930142.99	0.0522	0.0240
Earth	25213-08-12 07:55 G	10930142.62	10930142.83	10930143.04	0.0522	0.0222 *
Venus	25217-12-17 12:28 G	10931730.91	10931731.02	10931731.13	0.0523	0.0441
Earth	25218-01-07 01:26 G	10931751.39	10931751.56	10931751.74	0.0522	0.0347
Moon	25218-01-07 02:52 G	10931751.45	10931751.62	10931751.79	0.0522	0.0342 *
Mercury	25218-10-03 11:16 G	10932020.88	10932020.97	10932021.07	0.0511	0.0363
Mercury	25218-12-31 19:55 G	10932110.20	10932110.33	10932110.45	0.0508	0.0220
Moon	25219-02-09 21:50 G	10932150.18	10932150.41	10932150.64	0.0506	0.0163
Earth	25219-02-09 23:45 G	10932150.28	10932150.49	10932150.71	0.0506	0.0188 *
Moon	25224-07-13 17:31 G	10934131.02	10934131.23	10934131.45	0.0509	0.0251
Earth	25224-07-13 17:45 G	10934131.03	10934131.24	10934131.44	0.0509	0.0243 *
Mercury	25225-03-02 05:02 G	10934362.56	10934362.71	10934362.87	0.0518	0.0201
Moon	25225-08-17 06:43 G	10934530.60	10934530.78	10934530.98	0.0524	0.0277
Earth	25225-08-17 08:09 G	10934530.65	10934530.84	10934531.03	0.0524	0.0303 *
Mars	25227-06-19 03:50 G	10935201.52	10935201.66	10935201.81	0.0541	0.0436
Venus	25229-08-22 06:28 G	10935996.57	10935996.77	10935996.97	0.0525	0.0077
Moon	25230-01-12 00:14 G	10936139.29	10936139.51	10936139.72	0.0520	0.0235
Earth	25230-01-12 00:00 G	10936139.30	10936139.50	10936139.70	0.0520	0.0268 *
Mercury	25230-07-22 15:21 G	10936331.11	10936331.14	10936331.16	0.0512	0.0502
Mercury	25230-10-19 23:31 G	10936420.34	10936420.48	10936420.61	0.0509	0.0078
Moon	25231-02-14 13:26 G	10936537.86	10936538.06	10936538.25	0.0504	0.0244
Earth	25231-02-14 13:40 G	10936537.87	10936538.07	10936538.27	0.0504	0.0258 *

Venus	25236-02-10 10:33 G	10938359.81	10938359.94	10938360.07	0.0505	0.0389
Moon	25236-07-18 10:48 G	10938518.74	10938518.95	10938519.17	0.0511	0.0142
Earth	25236-07-18 12:57 G	10938518.82	10938519.04	10938519.26	0.0511	0.0169 *
Mercury	25236-12-19 04:33 G	10938672.59	10938672.69	10938672.81	0.0517	0.0382
Mercury	25237-03-19 06:57 G	10938762.69	10938762.79	10938762.91	0.0520	0.0385
Earth	25237-08-22 11:02 G	10938918.80	10938918.96	10938919.12	0.0526	0.0384
Moon	25237-08-22 14:09 G	10938918.93	10938919.09	10938919.27	0.0526	0.0367 *
Moon	25242-01-16 13:26 G	10940526.85	10940527.06	10940527.27	0.0517	0.0191
Earth	25242-01-16 15:21 G	10940526.92	10940527.14	10940527.35	0.0517	0.0192 *
Mercury	25242-08-08 02:09 G	10940730.46	10940730.59	10940730.73	0.0510	0.0082
Mercury	25242-11-05 11:02 G	10940819.95	10940819.96	10940819.96	0.0506	0.0505
Earth	25243-02-18 21:50 G	10940925.23	10940925.41	10940925.59	0.0503	0.0321
Moon	25243-02-19 00:00 G	10940925.33	10940925.50	10940925.68	0.0503	0.0347 *
Mars	25245-05-05 15:36 G	10941731.87	10941732.15	10941732.43	0.0487	0.0208
Venus	25247-10-16 10:19 G	10942625.73	10942625.93	10942626.14	0.0503	0.0072
Earth	25248-07-23 06:57 G	10942906.56	10942906.79	10942907.02	0.0513	0.0094
Moon	25248-07-23 10:33 G	10942906.71	10942906.94	10942907.18	0.0513	0.0090 *
Mercury	25249-01-05 06:28 G	10943072.62	10943072.77	10943072.92	0.0519	0.0198
Moon	25249-08-27 08:24 G	10943306.77	10943306.85	10943306.94	0.0528	0.0487
Earth	25249-08-27 12:14 G	10943306.91	10943307.01	10943307.13	0.0528	0.0461 *
Earth	25254-01-21 08:52 G	10944914.64	10944914.87	10944915.10	0.0515	0.0115
Moon	25254-01-21 12:14 G	10944914.79	10944915.01	10944915.24	0.0515	0.0146 *
Mercury	25254-05-27 05:31 G	10945040.61	10945040.73	10945040.86	0.0511	0.0229
Mercury	25254-08-24 14:09 G	10945130.00	10945130.09	10945130.19	0.0507	0.0357
Moon	25255-02-23 05:31 G	10945312.61	10945312.73	10945312.87	0.0501	0.0409
Earth	25255-02-23 08:52 G	10945312.73	10945312.87	10945313.02	0.0501	0.0385 *
Moon	25259-06-25 20:38 G	10946896.33	10946896.36	10946896.41	0.0500	0.0492
Moon	25260-07-27 18:14 G	10947294.03	10947294.26	10947294.50	0.0515	0.0053
Earth	25260-07-27 22:19 G	10947294.20	10947294.43	10947294.67	0.0515	0.0022 *
Mercury	25260-10-24 04:33 G	10947382.52	10947382.69	10947382.86	0.0518	0.0005

Mars	25263-03-23 14:24 G	10948263.05	10948263.10	10948263.15	0.0541	0.0529
Venus	25265-04-29 18:43 G	10949031.10	10949031.28	10949031.47	0.0524	0.0212
Moon	25266-01-25 23:31 G	10949302.25	10949302.48	10949302.72	0.0514	0.0040
Earth	25266-01-26 03:36 G	10949302.41	10949302.65	10949302.88	0.0514	0.0041 *
Mercury	25266-03-15 09:21 G	10949350.80	10949350.89	10949350.99	0.0512	0.0368
Mercury	25266-06-12 17:45 G	10949440.12	10949440.24	10949440.37	0.0508	0.0216
Earth	25267-02-27 21:07 G	10949700.28	10949700.38	10949700.49	0.0499	0.0445
Moon	25267-02-28 00:57 G	10949700.43	10949700.54	10949700.67	0.0499	0.0427 *
Moon	25271-06-30 01:26 G	10951283.43	10951283.56	10951283.70	0.0502	0.0413
Earth	25271-06-30 04:33 G	10951283.59	10951283.69	10951283.80	0.0502	0.0443 *
Earth	25272-08-01 16:48 G	10951681.97	10951682.20	10951682.43	0.0517	0.0056
Moon	25272-08-01 20:24 G	10951682.12	10951682.35	10951682.58	0.0517	0.0041 *
Mercury	25272-08-12 03:21 G	10951692.48	10951692.64	10951692.79	0.0517	0.0198
Moon	25276-12-27 02:09 G	10953290.54	10953290.59	10953290.65	0.0527	0.0510
Earth	25276-12-27 05:31 G	10953290.68	10953290.73	10953290.80	0.0527	0.0505
Venus	25277-01-02 12:28 G	10953296.86	10953297.02	10953297.19	0.0527	0.0310
Mercury	25278-01-01 13:26 G	10953661.04	10953661.06	10953661.08	0.0512	0.0505
Earth	25278-01-30 21:50 G	10953690.18	10953690.41	10953690.64	0.0511	0.0036
Moon	25278-01-31 01:12 G	10953690.32	10953690.55	10953690.78	0.0511	0.0069 *
Mercury	25278-03-31 21:36 G	10953750.26	10953750.40	10953750.54	0.0509	0.0075
Moon	25279-03-04 04:33 G	10954087.62	10954087.69	10954087.76	0.0497	0.0472
Venus	25283-06-23 19:55 G	10955660.14	10955660.33	10955660.52	0.0504	0.0187
Earth	25283-07-04 17:02 G	10955671.06	10955671.21	10955671.36	0.0504	0.0380
Moon	25283-07-04 18:43 G	10955671.14	10955671.28	10955671.43	0.0504	0.0387 *
Mercury	25284-05-31 02:09 G	10956002.48	10956002.59	10956002.70	0.0517	0.0390
Moon	25284-08-06 11:45 G	10956069.76	10956069.99	10956070.22	0.0519	0.0160
Earth	25284-08-06 13:40 G	10956069.85	10956070.07	10956070.30	0.0519	0.0135 *
Mercury	25284-08-29 04:33 G	10956092.58	10956092.69	10956092.80	0.0520	0.0376
Earth	25289-01-01 06:43 G	10957678.65	10957678.78	10957678.92	0.0525	0.0427
Moon	25289-01-01 08:38 G	10957678.75	10957678.86	10957678.97	0.0525	0.0459 *

Mercury	25290-01-18 01:12 G	10958060.42	10958060.55	10958060.69	0.0510	0.0070
Moon	25290-02-04 12:14 G	10958077.77	10958078.01	10958078.24	0.0509	0.0122
Earth	25290-02-04 14:09 G	10958077.87	10958078.09	10958078.32	0.0509	0.0112 *
Venus	25295-02-26 20:38 G	10959926.19	10959926.36	10959926.54	0.0501	0.0266
Moon	25295-07-09 08:52 G	10960058.70	10960058.87	10960059.05	0.0506	0.0343
Earth	25295-07-09 09:21 G	10960058.70	10960058.89	10960059.07	0.0506	0.0313 *
Mercury	25296-06-17 04:19 G	10960402.53	10960402.68	10960402.84	0.0519	0.0199
Moon	25296-08-11 13:26 G	10960457.86	10960458.06	10960458.27	0.0521	0.0229
Earth	25296-08-11 14:09 G	10960457.88	10960458.09	10960458.30	0.0521	0.0218 *
Venus	25301-01-06 09:36 G	10962065.87	10962065.90	10962065.94	0.0522	0.0512
Moon	25301-01-07 00:57 G	10962066.37	10962066.54	10962066.73	0.0522	0.0346
Earth	25301-01-07 01:26 G	10962066.39	10962066.56	10962066.73	0.0522	0.0354 *
Mercury	25301-11-07 04:04 G	10962370.55	10962370.67	10962370.80	0.0510	0.0225
Mercury	25302-02-04 12:43 G	10962459.93	10962460.03	10962460.13	0.0507	0.0359
Earth	25302-02-10 00:28 G	10962465.31	10962465.52	10962465.74	0.0507	0.0181
Moon	25302-02-10 00:43 G	10962465.32	10962465.53	10962465.74	0.0507	0.0155 *
Moon	25307-07-14 23:31 G	10964446.28	10964446.48	10964446.68	0.0508	0.0248
Earth	25307-07-15 00:57 G	10964446.34	10964446.54	10964446.75	0.0508	0.0245 *
Mercury	25308-04-06 03:36 G	10964712.48	10964712.65	10964712.82	0.0518	0.0011
Earth	25308-08-17 13:26 G	10964845.87	10964846.06	10964846.25	0.0523	0.0298
Moon	25308-08-17 16:04 G	10964845.97	10964846.17	10964846.38	0.0523	0.0266 *
Venus	25312-09-11 02:09 G	10966331.39	10966331.59	10966331.79	0.0525	0.0014
Moon	25313-01-11 19:40 G	10966454.12	10966454.32	10966454.52	0.0520	0.0247
Earth	25313-01-11 20:52 G	10966454.18	10966454.37	10966454.57	0.0520	0.0278 *
Mercury	25313-08-26 07:40 G	10966680.73	10966680.82	10966680.91	0.0511	0.0372
Mercury	25313-11-23 15:50 G	10966770.04	10966770.16	10966770.29	0.0508	0.0210
Earth	25314-02-14 12:57 G	10966852.84	10966853.04	10966853.25	0.0505	0.0250
Moon	25314-02-14 15:07 G	10966852.92	10966853.13	10966853.34	0.0505	0.0241 *
Venus	25319-03-02 07:55 G	10968694.75	10968694.83	10968694.91	0.0505	0.0460
Earth	25319-07-19 14:09 G	10968833.88	10968834.09	10968834.31	0.0510	0.0179

Moon	25319-07-19 17:31 G	10968834.01	10968834.23	10968834.46	0.0510	0.0148	*
Mercury	25320-01-24 01:26 G	10969022.41	10969022.56	10969022.72	0.0517	0.0194	
Moon	25320-08-22 05:02 G	10969233.55	10969233.71	10969233.89	0.0525	0.0352	
Earth	25320-08-22 08:52 G	10969233.71	10969233.87	10969234.03	0.0525	0.0371	*
Earth	25325-01-16 16:48 G	10970841.99	10970842.20	10970842.42	0.0518	0.0202	
Moon	25325-01-16 19:55 G	10970842.12	10970842.33	10970842.55	0.0518	0.0209	*
Mercury	25325-06-14 11:31 G	10970990.98	10970990.98	10970990.98	0.0513	0.0512	
Mercury	25325-09-11 19:26 G	10971080.18	10971080.31	10971080.45	0.0509	0.0070	
Moon	25326-02-18 23:31 G	10971240.32	10971240.48	10971240.65	0.0503	0.0344	
Earth	25326-02-19 02:52 G	10971240.44	10971240.62	10971240.80	0.0503	0.0315	*
Venus	25330-11-05 06:57 G	10972960.58	10972960.79	10972960.99	0.0502	0.0013	
Moon	25331-07-24 02:09 G	10973221.37	10973221.59	10973221.82	0.0512	0.0100	
Earth	25331-07-24 06:14 G	10973221.53	10973221.76	10973221.99	0.0512	0.0105	*
Mercury	25331-11-12 00:00 G	10973332.39	10973332.50	10973332.61	0.0516	0.0390	
Mercury	25332-02-10 02:24 G	10973422.49	10973422.60	10973422.71	0.0520	0.0375	
Earth	25332-08-27 08:24 G	10973621.74	10973621.85	10973621.98	0.0527	0.0448	
Moon	25332-08-27 12:14 G	10973621.92	10973622.01	10973622.11	0.0527	0.0475	*
Moon	25337-01-21 09:36 G	10975229.68	10975229.90	10975230.13	0.0516	0.0155	
Earth	25337-01-21 13:40 G	10975229.84	10975230.07	10975230.29	0.0516	0.0123	*
Mercury	25337-06-30 23:16 G	10975390.34	10975390.47	10975390.61	0.0510	0.0073	
Earth	25338-02-23 15:36 G	10975628.00	10975628.15	10975628.31	0.0501	0.0379	
Moon	25338-02-23 19:26 G	10975628.18	10975628.31	10975628.46	0.0501	0.0400	*
Moon	25342-06-25 16:48 G	10977211.16	10977211.20	10977211.25	0.0500	0.0489	
Venus	25342-07-11 06:00 G	10977226.69	10977226.75	10977226.83	0.0500	0.0464	
Earth	25343-07-28 23:45 G	10977609.26	10977609.49	10977609.73	0.0514	0.0029	
Moon	25343-07-29 03:36 G	10977609.42	10977609.65	10977609.88	0.0514	0.0060	*
Mercury	25343-11-29 01:26 G	10977732.41	10977732.56	10977732.72	0.0519	0.0187	
Earth	25344-09-01 10:48 G	10978009.92	10978009.95	10978009.99	0.0530	0.0523	
Venus	25348-05-19 18:43 G	10979366.12	10979366.28	10979366.45	0.0524	0.0301	
Earth	25349-01-26 08:38 G	10979617.62	10979617.86	10979618.09	0.0514	0.0045	

Moon	25349-01-26 12:00 G	10979617.77	10979618.00	10979618.23	0.0514	0.0042	*
Mercury	25349-04-19 03:07 G	10979700.50	10979700.63	10979700.75	0.0511	0.0215	
Mercury	25349-07-17 11:31 G	10979789.89	10979789.98	10979790.08	0.0507	0.0370	
Moon	25350-02-27 23:16 G	10980015.36	10980015.47	10980015.61	0.0499	0.0421	
Earth	25350-02-28 03:07 G	10980015.53	10980015.63	10980015.74	0.0499	0.0439	*
Earth	25354-06-30 09:21 G	10981598.79	10981598.89	10981599.00	0.0502	0.0445	
Moon	25354-06-30 11:16 G	10981598.85	10981598.97	10981599.10	0.0502	0.0418	*
Moon	25355-08-02 18:57 G	10981997.05	10981997.29	10981997.53	0.0517	0.0038	
Earth	25355-08-02 21:21 G	10981997.16	10981997.39	10981997.63	0.0517	0.0052	*
Mercury	25355-09-17 01:12 G	10982042.38	10982042.55	10982042.72	0.0518	0.0007	
Earth	25359-12-28 05:16 G	10983605.67	10983605.72	10983605.78	0.0527	0.0512	
Venus	25360-01-23 10:04 G	10983631.74	10983631.92	10983632.10	0.0526	0.0235	
Moon	25361-01-30 18:57 G	10984005.06	10984005.29	10984005.53	0.0511	0.0060	
Earth	25361-01-30 21:36 G	10984005.17	10984005.40	10984005.64	0.0511	0.0029	*
Mercury	25361-02-05 06:00 G	10984010.66	10984010.75	10984010.85	0.0511	0.0369	
Mercury	25361-05-05 14:24 G	10984099.97	10984100.10	10984100.22	0.0508	0.0212	
Earth	25362-03-04 08:52 G	10984402.86	10984402.87	10984402.91	0.0498	0.0495	
Moon	25362-03-04 11:45 G	10984402.92	10984402.99	10984403.06	0.0498	0.0473	
Moon	25366-07-04 22:04 G	10985986.27	10985986.42	10985986.58	0.0504	0.0390	
Earth	25366-07-04 22:33 G	10985986.30	10985986.44	10985986.60	0.0504	0.0385	*
Venus	25366-07-13 18:57 G	10985995.12	10985995.29	10985995.46	0.0504	0.0266	
Mercury	25367-07-06 00:14 G	10986352.35	10986352.51	10986352.67	0.0517	0.0184	
Earth	25367-08-07 18:14 G	10986385.04	10986385.26	10986385.49	0.0519	0.0129	
Moon	25367-08-07 18:14 G	10986385.05	10986385.26	10986385.48	0.0519	0.0158	*
Moon	25372-01-02 01:55 G	10987993.48	10987993.58	10987993.69	0.0525	0.0467	
Earth	25372-01-02 02:52 G	10987993.50	10987993.62	10987993.75	0.0525	0.0437	*
Earth	25373-02-04 12:00 G	10988392.77	10988393.00	10988393.23	0.0509	0.0102	
Moon	25373-02-04 12:28 G	10988392.80	10988393.02	10988393.24	0.0509	0.0107	*
Mercury	25373-02-21 17:31 G	10988410.10	10988410.23	10988410.37	0.0509	0.0065	
Venus	25378-03-18 17:16 G	10990261.04	10990261.22	10990261.41	0.0501	0.0198	

Moon	25378-07-09 09:07 G	10990373.73	10990373.88	10990374.05	0.0505	0.0353
Earth	25378-07-09 10:19 G	10990373.76	10990373.93	10990374.11	0.0505	0.0323 *
Mercury	25379-04-23 22:04 G	10990662.31	10990662.42	10990662.53	0.0516	0.0389
Mercury	25379-07-23 00:28 G	10990752.41	10990752.52	10990752.63	0.0520	0.0376
Earth	25379-08-12 11:45 G	10990772.77	10990772.99	10990773.20	0.0520	0.0204
Moon	25379-08-12 13:40 G	10990772.86	10990773.07	10990773.30	0.0520	0.0212 *
Mars	25381-09-12 15:36 G	10991534.92	10991535.15	10991535.38	0.0540	0.0203
Moon	25384-01-06 23:16 G	10992381.31	10992381.47	10992381.63	0.0523	0.0360
Earth	25384-01-07 00:00 G	10992381.34	10992381.50	10992381.67	0.0523	0.0366 *
Mercury	25384-12-10 21:07 G	10992720.25	10992720.38	10992720.52	0.0510	0.0082
Earth	25385-02-09 03:07 G	10992780.41	10992780.63	10992780.85	0.0508	0.0172
Moon	25385-02-09 04:48 G	10992780.47	10992780.70	10992780.94	0.0508	0.0142 *
Mercury	25385-03-10 06:00 G	10992809.75	10992809.75	10992809.75	0.0507	0.0506
Earth	25390-07-14 00:00 G	10994761.31	10994761.50	10994761.71	0.0507	0.0256
Moon	25390-07-14 03:07 G	10994761.43	10994761.63	10994761.84	0.0507	0.0249 *
Mercury	25391-05-10 23:16 G	10995062.32	10995062.47	10995062.63	0.0519	0.0184
Moon	25391-08-17 05:31 G	10995160.53	10995160.73	10995160.93	0.0523	0.0252
Earth	25391-08-17 08:52 G	10995160.68	10995160.87	10995161.07	0.0523	0.0283 *
Venus	25395-10-01 00:14 G	10996666.31	10996666.51	10996666.71	0.0525	0.0066
Earth	25396-01-11 22:48 G	10996769.26	10996769.45	10996769.64	0.0521	0.0287
Moon	25396-01-12 01:26 G	10996769.36	10996769.56	10996769.77	0.0521	0.0258 *
Mercury	25396-09-29 00:57 G	10997030.42	10997030.54	10997030.67	0.0511	0.0222
Mercury	25396-12-27 09:36 G	10997119.80	10997119.90	10997120.00	0.0507	0.0364
Moon	25397-02-13 15:07 G	10997167.93	10997168.13	10997168.33	0.0506	0.0235
Earth	25397-02-13 18:00 G	10997168.06	10997168.25	10997168.46	0.0506	0.0243 *
Mars	25399-07-31 02:38 G	10998065.57	10998065.61	10998065.66	0.0487	0.0481
Moon	25402-07-19 10:48 G	10999148.73	10999148.95	10999149.17	0.0509	0.0153
Earth	25402-07-19 14:38 G	10999148.90	10999149.11	10999149.33	0.0509	0.0186 *
Mercury	25403-02-27 22:19 G	10999372.26	10999372.43	10999372.59	0.0518	0.0015
Earth	25403-08-23 07:40 G	10999548.66	10999548.82	10999549.00	0.0525	0.0362

Moon	25403-08-23 11:45 G	10999548.82	10999548.99	10999549.16	0.0525	0.0346	*
Venus	25407-06-06 17:31 G	11000932.14	11000932.23	11000932.33	0.0527	0.0461	
Moon	25408-01-17 16:33 G	11001156.99	11001157.19	11001157.41	0.0519	0.0221	
Earth	25408-01-17 20:38 G	11001157.15	11001157.36	11001157.57	0.0519	0.0208	*
Mercury	25408-07-19 04:48 G	11001340.61	11001340.70	11001340.80	0.0512	0.0363	
Mercury	25408-10-16 13:12 G	11001429.92	11001430.05	11001430.17	0.0508	0.0220	
Earth	25409-02-19 07:40 G	11001555.64	11001555.82	11001556.00	0.0504	0.0309	
Moon	25409-02-19 11:16 G	11001555.81	11001555.97	11001556.15	0.0504	0.0339	*
Venus	25413-11-25 04:19 G	11003295.47	11003295.68	11003295.88	0.0503	0.0064	
Earth	25414-07-24 09:07 G	11003536.65	11003536.88	11003537.11	0.0512	0.0110	
Moon	25414-07-24 12:57 G	11003536.82	11003537.04	11003537.27	0.0512	0.0108	*
Mercury	25414-12-16 21:36 G	11003682.25	11003682.40	11003682.56	0.0517	0.0192	
Moon	25415-08-28 07:55 G	11003936.73	11003936.83	11003936.94	0.0527	0.0469	
Earth	25415-08-28 11:02 G	11003936.84	11003936.96	11003937.09	0.0527	0.0441	*
Earth	25420-01-22 12:57 G	11005544.82	11005545.04	11005545.27	0.0516	0.0132	
Moon	25420-01-22 16:33 G	11005544.98	11005545.19	11005545.41	0.0516	0.0165	*
Mercury	25420-08-04 16:04 G	11005740.03	11005740.17	11005740.30	0.0509	0.0064	
Moon	25421-02-23 12:14 G	11005942.86	11005943.01	11005943.16	0.0502	0.0390	
Earth	25421-02-23 15:50 G	11005943.01	11005943.16	11005943.32	0.0502	0.0371	*
Moon	25425-06-26 02:24 G	11007526.56	11007526.60	11007526.65	0.0500	0.0490	
Venus	25425-07-31 03:50 G	11007561.54	11007561.66	11007561.79	0.0501	0.0392	
Moon	25426-07-29 00:43 G	11007924.29	11007924.53	11007924.77	0.0514	0.0065	
Earth	25426-07-29 03:36 G	11007924.42	11007924.65	11007924.88	0.0514	0.0035	*
Mercury	25426-10-04 20:24 G	11007992.24	11007992.35	11007992.47	0.0517	0.0383	
Mercury	25427-01-02 23:02 G	11008082.35	11008082.46	11008082.57	0.0520	0.0384	
Earth	25427-09-02 12:43 G	11008324.99	11008325.03	11008325.09	0.0529	0.0516	
Moon	25427-09-02 13:55 G	11008325.06	11008325.08	11008325.10	0.0529	0.0526	*
Venus	25431-06-09 13:55 G	11009700.94	11009701.08	11009701.23	0.0523	0.0361	
Moon	25432-01-27 02:38 G	11009932.37	11009932.61	11009932.85	0.0514	0.0056	
Earth	25432-01-27 05:31 G	11009932.50	11009932.73	11009932.96	0.0514	0.0056	*

Mercury	25432-05-23 19:26 G	11010050.17	11010050.31	11010050.44	0.0510	0.0087
Mercury	25432-08-21 04:04 G	11010139.65	11010139.67	11010139.69	0.0506	0.0501
Earth	25433-02-28 01:55 G	11010330.47	11010330.58	11010330.70	0.0500	0.0431
Moon	25433-02-28 04:48 G	11010330.57	11010330.70	11010330.83	0.0500	0.0408 *
Moon	25437-06-30 09:50 G	11011913.79	11011913.91	11011914.04	0.0501	0.0425
Earth	25437-06-30 10:48 G	11011913.86	11011913.95	11011914.05	0.0501	0.0454 *
Earth	25438-08-02 19:26 G	11012312.07	11012312.31	11012312.54	0.0516	0.0037
Moon	25438-08-02 20:09 G	11012312.12	11012312.34	11012312.57	0.0516	0.0032 *
Mercury	25438-10-21 21:07 G	11012392.23	11012392.38	11012392.54	0.0519	0.0184
Earth	25442-12-28 01:12 G	11013920.53	11013920.55	11013920.58	0.0528	0.0524
Venus	25443-02-12 05:31 G	11013966.54	11013966.73	11013966.92	0.0526	0.0171
Earth	25444-01-31 21:50 G	11014320.18	11014320.41	11014320.64	0.0513	0.0017
Moon	25444-01-31 22:48 G	11014320.23	11014320.45	11014320.68	0.0513	0.0046 *
Mercury	25444-03-11 22:48 G	11014360.33	11014360.45	11014360.57	0.0511	0.0230
Mercury	25444-06-09 07:26 G	11014449.71	11014449.81	11014449.91	0.0508	0.0355
Moon	25445-03-04 11:31 G	11014717.90	11014717.98	11014718.07	0.0499	0.0465
Earth	25445-03-04 12:57 G	11014718.00	11014718.04	11014718.09	0.0499	0.0487 *
Moon	25449-07-04 21:50 G	11016301.28	11016301.41	11016301.55	0.0503	0.0403
Earth	25449-07-04 22:48 G	11016301.30	11016301.45	11016301.59	0.0503	0.0393 *
Venus	25449-08-02 14:09 G	11016329.94	11016330.09	11016330.25	0.0504	0.0327
Earth	25450-08-07 13:55 G	11016699.85	11016700.08	11016700.31	0.0518	0.0114
Moon	25450-08-07 15:36 G	11016699.91	11016700.15	11016700.38	0.0518	0.0145 *
Mercury	25450-08-09 19:55 G	11016702.16	11016702.33	11016702.50	0.0518	0.0012
Earth	25455-01-02 01:55 G	11018308.46	11018308.58	11018308.70	0.0526	0.0449
Moon	25455-01-02 01:40 G	11018308.49	11018308.57	11018308.66	0.0526	0.0481 *
Mercury	25455-12-30 02:38 G	11018670.52	11018670.61	11018670.70	0.0512	0.0371
Earth	25456-02-05 15:07 G	11018707.90	11018708.13	11018708.36	0.0510	0.0092
Moon	25456-02-05 16:33 G	11018707.95	11018708.19	11018708.43	0.0510	0.0088 *
Mercury	25456-03-28 11:02 G	11018759.83	11018759.96	11018760.08	0.0508	0.0212
Venus	25461-04-07 13:12 G	11020595.85	11020596.05	11020596.24	0.0501	0.0139

Earth	25461-07-09 10:33 G	11020688.76	11020688.94	11020689.11	0.0505	0.0329
Moon	25461-07-09 12:57 G	11020688.88	11020689.04	11020689.22	0.0505	0.0356 *
Mercury	25462-05-28 18:28 G	11021012.12	11021012.27	11021012.43	0.0517	0.0207
Moon	25462-08-12 06:57 G	11021087.58	11021087.79	11021088.00	0.0520	0.0203
Earth	25462-08-12 10:04 G	11021087.70	11021087.92	11021088.13	0.0520	0.0194 *
Earth	25467-01-07 02:24 G	11022696.44	11022696.60	11022696.77	0.0524	0.0372
Moon	25467-01-07 04:48 G	11022696.53	11022696.70	11022696.88	0.0524	0.0358 *
Mercury	25467-10-18 06:28 G	11022980.77	11022980.77	11022980.78	0.0513	0.0511
Mercury	25468-01-15 14:38 G	11023069.97	11023070.11	11023070.25	0.0509	0.0069
Moon	25468-02-10 04:04 G	11023095.46	11023095.67	11023095.89	0.0508	0.0134
Earth	25468-02-10 07:12 G	11023095.58	11023095.80	11023096.02	0.0508	0.0166 *
Moon	25473-07-13 22:19 G	11025076.23	11025076.43	11025076.63	0.0507	0.0252
Earth	25473-07-14 02:09 G	11025076.39	11025076.59	11025076.79	0.0507	0.0261 *
Mercury	25474-03-16 17:45 G	11025322.13	11025322.24	11025322.35	0.0516	0.0393
Mercury	25474-06-14 20:24 G	11025412.24	11025412.35	11025412.46	0.0520	0.0374
Earth	25474-08-17 10:04 G	11025475.73	11025475.92	11025476.12	0.0522	0.0275
Moon	25474-08-17 13:55 G	11025475.88	11025476.08	11025476.29	0.0522	0.0243 *
Venus	25478-10-20 21:50 G	11027001.21	11027001.41	11027001.60	0.0524	0.0141
Moon	25479-01-11 18:57 G	11027084.10	11027084.29	11027084.49	0.0521	0.0270
Earth	25479-01-11 22:48 G	11027084.26	11027084.45	11027084.64	0.0521	0.0297 *
Mercury	25479-11-03 17:45 G	11027380.10	11027380.24	11027380.37	0.0510	0.0084
Mercury	25480-02-01 02:24 G	11027469.59	11027469.60	11027469.62	0.0506	0.0502
Earth	25480-02-14 18:14 G	11027483.06	11027483.26	11027483.47	0.0506	0.0233
Moon	25480-02-14 22:04 G	11027483.21	11027483.42	11027483.63	0.0506	0.0226 *
Earth	25485-07-18 17:45 G	11029464.03	11029464.24	11029464.46	0.0509	0.0193
Moon	25485-07-18 21:50 G	11029464.19	11029464.41	11029464.63	0.0509	0.0159 *
Mercury	25486-04-02 19:40 G	11029722.16	11029722.32	11029722.47	0.0519	0.0188
Moon	25486-08-22 06:28 G	11029863.60	11029863.77	11029863.95	0.0524	0.0342
Earth	25486-08-22 10:04 G	11029863.75	11029863.92	11029864.10	0.0525	0.0353 *
Venus	25490-06-25 13:26 G	11031266.93	11031267.06	11031267.20	0.0527	0.0394

Earth	25491-01-16 17:45 G	11031472.03	11031472.24	11031472.45	0.0519	0.0219
Moon	25491-01-16 21:36 G	11031472.20	11031472.40	11031472.61	0.0519	0.0235 *
Mercury	25491-08-22 21:07 G	11031690.26	11031690.38	11031690.50	0.0511	0.0232
Mercury	25491-11-20 05:31 G	11031779.63	11031779.73	11031779.83	0.0507	0.0352
Moon	25492-02-19 02:24 G	11031870.43	11031870.60	11031870.78	0.0504	0.0327
Earth	25492-02-19 06:14 G	11031870.58	11031870.76	11031870.95	0.0504	0.0299 *
Venus	25496-12-14 00:14 G	11033630.31	11033630.51	11033630.71	0.0503	0.0129
Moon	25497-07-23 05:02 G	11033851.48	11033851.71	11033851.94	0.0511	0.0119
Earth	25497-07-23 08:24 G	11033851.62	11033851.85	11033852.08	0.0511	0.0124 *
Mercury	25498-01-19 17:45 G	11034032.07	11034032.24	11034032.41	0.0518	0.0014
Earth	25498-08-27 06:14 G	11034251.62	11034251.76	11034251.90	0.0526	0.0423
Moon	25498-08-27 08:09 G	11034251.73	11034251.84	11034251.95	0.0526	0.0456 *
Moon	25503-01-22 07:55 G	11035859.61	11035859.83	11035860.06	0.0517	0.0178
Earth	25503-01-22 11:16 G	11035859.75	11035859.97	11035860.19	0.0517	0.0145 *
Mercury	25503-06-12 00:43 G	11036000.44	11036000.53	11036000.62	0.0512	0.0378
Mercury	25503-09-09 08:52 G	11036089.74	11036089.87	11036090.00	0.0509	0.0204
Earth	25504-02-24 18:14 G	11036258.10	11036258.26	11036258.43	0.0503	0.0361
Moon	25504-02-24 21:21 G	11036258.24	11036258.39	11036258.54	0.0503	0.0373 *
Moon	25508-06-26 00:57 G	11037841.51	11037841.54	11037841.58	0.0499	0.0492
Venus	25508-08-19 23:45 G	11037896.34	11037896.49	11037896.65	0.0500	0.0329
Earth	25509-07-29 00:43 G	11038239.30	11038239.53	11038239.76	0.0513	0.0049
Moon	25509-07-29 02:09 G	11038239.37	11038239.59	11038239.81	0.0513	0.0077 *
Mercury	25509-11-08 16:19 G	11038342.03	11038342.18	11038342.34	0.0517	0.0209
Moon	25510-09-02 05:31 G	11038639.67	11038639.73	11038639.80	0.0528	0.0507
Earth	25510-09-02 05:45 G	11038639.67	11038639.74	11038639.82	0.0528	0.0498 *
Venus	25514-06-29 10:33 G	11040035.83	11040035.94	11040036.05	0.0524	0.0431
Earth	25515-01-27 06:43 G	11040247.55	11040247.78	11040248.01	0.0515	0.0068
Moon	25515-01-27 08:09 G	11040247.62	11040247.84	11040248.07	0.0515	0.0063 *
Mercury	25515-06-28 12:28 G	11040399.89	11040400.02	11040400.16	0.0509	0.0063
Moon	25516-02-29 05:02 G	11040645.57	11040645.71	11040645.86	0.0501	0.0395

Earth	25516-02-29 06:28 G	11040645.66	11040645.77	11040645.91	0.0501	0.0424	*
Mars	25518-01-18 04:33 G	11041334.43	11041334.69	11041334.96	0.0487	0.0243	
Moon	25520-06-30 11:02 G	11042228.86	11042228.96	11042229.07	0.0500	0.0435	
Earth	25520-06-30 11:45 G	11042228.89	11042228.99	11042229.08	0.0500	0.0459	*
Earth	25521-08-02 17:45 G	11042627.00	11042627.24	11042627.47	0.0515	0.0027	
Moon	25521-08-02 18:28 G	11042627.03	11042627.27	11042627.52	0.0515	0.0028	*
Mercury	25521-08-27 14:38 G	11042652.01	11042652.11	11042652.22	0.0516	0.0407	
Mercury	25521-11-25 17:16 G	11042742.11	11042742.22	11042742.34	0.0520	0.0360	
Venus	25526-03-04 04:19 G	11044301.48	11044301.68	11044301.88	0.0526	0.0088	
Earth	25527-02-01 01:26 G	11044635.33	11044635.56	11044635.80	0.0513	0.0012	
Moon	25527-02-01 02:24 G	11044635.36	11044635.60	11044635.84	0.0513	0.0038	*
Mercury	25527-04-16 16:19 G	11044710.04	11044710.18	11044710.31	0.0510	0.0081	
Mercury	25527-07-15 00:57 G	11044799.54	11044799.54	11044799.54	0.0507	0.0507	
Moon	25528-03-04 17:45 G	11045033.17	11045033.24	11045033.33	0.0499	0.0464	
Earth	25528-03-04 17:45 G	11045033.19	11045033.24	11045033.30	0.0499	0.0481	*
Earth	25532-07-05 00:28 G	11046616.38	11046616.52	11046616.67	0.0502	0.0398	
Moon	25532-07-05 03:07 G	11046616.49	11046616.63	11046616.76	0.0502	0.0413	*
Venus	25532-08-22 10:48 G	11046664.83	11046664.95	11046665.08	0.0504	0.0392	
Moon	25533-08-07 12:28 G	11047014.80	11047015.02	11047015.24	0.0517	0.0139	
Earth	25533-08-07 14:52 G	11047014.90	11047015.12	11047015.35	0.0517	0.0107	*
Mercury	25533-09-13 16:48 G	11047052.05	11047052.20	11047052.36	0.0519	0.0179	
Mars	25535-12-09 09:07 G	11047868.63	11047868.88	11047869.12	0.0540	0.0061	
Earth	25538-01-02 02:52 G	11048623.52	11048623.62	11048623.74	0.0526	0.0458	
Moon	25538-01-02 04:33 G	11048623.60	11048623.69	11048623.79	0.0526	0.0483	*
Mercury	25539-02-02 19:40 G	11049020.20	11049020.32	11049020.44	0.0511	0.0230	
Moon	25539-02-05 13:40 G	11049022.84	11049023.07	11049023.29	0.0510	0.0075	
Earth	25539-02-05 16:19 G	11049022.95	11049023.18	11049023.41	0.0510	0.0082	*
Mercury	25539-05-03 03:50 G	11049109.57	11049109.66	11049109.76	0.0507	0.0354	
Venus	25544-04-27 10:33 G	11050930.73	11050930.94	11050931.14	0.0502	0.0068	
Moon	25544-07-09 10:04 G	11051003.77	11051003.92	11051004.09	0.0505	0.0364	

Earth	25544-07-09 13:55 G	11051003.91	11051004.08	11051004.25	0.0505	0.0336	*
Mercury	25545-07-02 16:04 G	11051362.00	11051362.17	11051362.34	0.0518	0.0009	
Earth	25545-08-12 12:28 G	11051402.80	11051403.02	11051403.24	0.0520	0.0184	
Moon	25545-08-12 16:19 G	11051402.96	11051403.18	11051403.40	0.0520	0.0191	*
Moon	25550-01-06 21:36 G	11053011.24	11053011.40	11053011.57	0.0524	0.0365	
Earth	25550-01-07 00:43 G	11053011.38	11053011.53	11053011.70	0.0524	0.0383	*
Mercury	25550-11-21 23:02 G	11053330.37	11053330.46	11053330.55	0.0511	0.0376	
Earth	25551-02-10 06:14 G	11053410.54	11053410.76	11053410.99	0.0508	0.0156	
Moon	25551-02-10 10:04 G	11053410.69	11053410.92	11053411.15	0.0508	0.0122	*
Mercury	25551-02-19 07:12 G	11053419.68	11053419.80	11053419.93	0.0508	0.0205	
Earth	25556-07-14 02:52 G	11055391.43	11055391.62	11055391.83	0.0506	0.0273	
Moon	25556-07-14 07:12 G	11055391.60	11055391.80	11055392.00	0.0506	0.0260	*
Mercury	25557-04-20 14:09 G	11055671.94	11055672.09	11055672.25	0.0517	0.0209	
Moon	25557-08-17 03:36 G	11055790.44	11055790.65	11055790.87	0.0521	0.0228	
Earth	25557-08-17 07:26 G	11055790.61	11055790.81	11055791.01	0.0521	0.0258	*
Venus	25561-11-09 16:48 G	11057336.01	11057336.20	11057336.39	0.0525	0.0202	
Earth	25562-01-11 19:26 G	11057399.12	11057399.31	11057399.50	0.0522	0.0310	
Moon	25562-01-11 23:16 G	11057399.28	11057399.47	11057399.67	0.0522	0.0283	*
Mercury	25562-12-08 10:33 G	11057729.80	11057729.94	11057730.07	0.0510	0.0056	
Moon	25563-02-14 15:50 G	11057797.95	11057798.16	11057798.37	0.0507	0.0215	
Earth	25563-02-14 19:40 G	11057798.11	11057798.32	11057798.53	0.0507	0.0222	*
Moon	25568-07-18 14:09 G	11059778.86	11059779.09	11059779.31	0.0508	0.0171	
Earth	25568-07-18 17:45 G	11059779.02	11059779.24	11059779.45	0.0508	0.0203	*
Mercury	25569-02-06 12:43 G	11059981.93	11059982.03	11059982.13	0.0516	0.0405	
Mercury	25569-05-07 15:21 G	11060072.02	11060072.14	11060072.26	0.0519	0.0361	
Earth	25569-08-22 05:02 G	11060178.53	11060178.71	11060178.89	0.0523	0.0335	
Moon	25569-08-22 07:26 G	11060178.64	11060178.81	11060178.99	0.0523	0.0333	*
Venus	25573-07-15 09:21 G	11061601.73	11061601.89	11061602.05	0.0527	0.0327	
Moon	25574-01-16 13:26 G	11061786.86	11061787.06	11061787.28	0.0520	0.0245	
Earth	25574-01-16 17:16 G	11061787.01	11061787.22	11061787.43	0.0520	0.0231	*

Mercury	25574-09-26 14:09 G	11062039.96	11062040.09	11062040.23	0.0510	0.0087
Mercury	25574-12-24 22:48 G	11062129.44	11062129.45	11062129.47	0.0507	0.0501
Earth	25575-02-19 10:04 G	11062185.73	11062185.92	11062186.11	0.0505	0.0290
Moon	25575-02-19 13:12 G	11062185.87	11062186.05	11062186.22	0.0505	0.0320 *
Venus	25580-01-03 20:09 G	11063965.16	11063965.34	11063965.54	0.0503	0.0192
Earth	25580-07-23 07:55 G	11064166.61	11064166.83	11064167.06	0.0510	0.0132
Moon	25580-07-23 09:50 G	11064166.70	11064166.91	11064167.13	0.0510	0.0134 *
Mercury	25581-02-23 14:09 G	11064381.93	11064382.09	11064382.25	0.0519	0.0167
Moon	25581-08-27 02:38 G	11064566.49	11064566.61	11064566.74	0.0526	0.0444
Earth	25581-08-27 03:36 G	11064566.51	11064566.65	11064566.80	0.0526	0.0412 *
Earth	25586-01-21 14:52 G	11066174.90	11066175.12	11066175.34	0.0518	0.0152
Moon	25586-01-21 16:48 G	11066174.99	11066175.20	11066175.41	0.0518	0.0181 *
Mercury	25586-07-15 18:00 G	11066350.13	11066350.25	11066350.37	0.0511	0.0227
Mercury	25586-10-13 02:24 G	11066439.51	11066439.60	11066439.70	0.0508	0.0358
Moon	25587-02-23 21:50 G	11066573.25	11066573.41	11066573.59	0.0503	0.0360
Earth	25587-02-23 23:45 G	11066573.33	11066573.49	11066573.65	0.0503	0.0355 *
Moon	25591-06-26 04:33 G	11068156.68	11068156.69	11068156.70	0.0498	0.0497
Venus	25591-09-08 20:24 G	11068231.18	11068231.35	11068231.53	0.0501	0.0264
Earth	25592-07-28 02:09 G	11068554.36	11068554.59	11068554.82	0.0512	0.0056
Moon	25592-07-28 02:24 G	11068554.36	11068554.60	11068554.85	0.0512	0.0085 *
Mercury	25592-12-12 13:26 G	11068691.89	11068692.06	11068692.23	0.0518	0.0018
Moon	25593-09-01 05:45 G	11068954.67	11068954.74	11068954.81	0.0528	0.0500
Earth	25593-09-01 06:43 G	11068954.70	11068954.78	11068954.87	0.0528	0.0490 *
Venus	25597-07-18 09:21 G	11070370.86	11070370.89	11070370.93	0.0523	0.0515
Earth	25598-01-26 09:36 G	11070562.67	11070562.90	11070563.13	0.0515	0.0077
Moon	25598-01-26 09:50 G	11070562.67	11070562.91	11070563.15	0.0515	0.0064 *
Mercury	25598-05-03 21:36 G	11070660.31	11070660.40	11070660.49	0.0512	0.0372
Mercury	25598-08-01 05:45 G	11070749.61	11070749.74	11070749.87	0.0508	0.0208
Earth	25599-02-28 09:36 G	11070960.77	11070960.90	11070961.03	0.0501	0.0415
Moon	25599-02-28 09:50 G	11070960.77	11070960.91	11070961.05	0.0501	0.0387 *

Earth	25603-06-30 15:36 G	11072544.07	11072544.15	11072544.24	0.0500	0.0464
Moon	25603-06-30 17:45 G	11072544.14	11072544.24	11072544.36	0.0500	0.0443 *
Moon	25604-08-01 19:12 G	11072942.07	11072942.30	11072942.52	0.0515	0.0023
Earth	25604-08-01 21:21 G	11072942.15	11072942.39	11072942.62	0.0515	0.0019 *
Mercury	25604-09-30 12:28 G	11073001.87	11073002.02	11073002.18	0.0517	0.0205
Venus	25609-03-23 02:09 G	11074636.38	11074636.59	11074636.79	0.0525	0.0012
Moon	25610-01-31 00:00 G	11074950.27	11074950.50	11074950.72	0.0513	0.0029
Earth	25610-01-31 02:24 G	11074950.36	11074950.60	11074950.83	0.0513	0.0008 *
Mercury	25610-05-20 09:07 G	11075059.74	11075059.88	11075060.02	0.0509	0.0061
Earth	25611-03-04 19:40 G	11075348.25	11075348.32	11075348.40	0.0499	0.0472
Moon	25611-03-04 20:52 G	11075348.28	11075348.37	11075348.47	0.0499	0.0455 *
Moon	25615-07-05 00:28 G	11076931.40	11076931.52	11076931.64	0.0502	0.0428
Earth	25615-07-05 03:50 G	11076931.53	11076931.66	11076931.80	0.0502	0.0406 *
Venus	25615-09-11 08:09 G	11076999.77	11076999.84	11076999.92	0.0504	0.0465
Mercury	25616-07-19 10:48 G	11077311.85	11077311.95	11077312.05	0.0516	0.0403
Earth	25616-08-06 15:07 G	11077329.90	11077330.13	11077330.36	0.0516	0.0092
Moon	25616-08-06 18:28 G	11077330.04	11077330.27	11077330.50	0.0516	0.0126 *
Mercury	25616-10-17 13:26 G	11077401.95	11077402.06	11077402.18	0.0519	0.0364
Moon	25620-12-31 19:55 G	11078938.26	11078938.33	11078938.41	0.0527	0.0495
Earth	25620-12-31 22:33 G	11078938.35	11078938.44	11078938.56	0.0527	0.0470 *
Earth	25622-02-04 16:33 G	11079337.96	11079338.19	11079338.42	0.0512	0.0071
Moon	25622-02-04 20:09 G	11079338.11	11079338.34	11079338.58	0.0512	0.0062 *
Mercury	25622-03-08 12:28 G	11079369.88	11079370.02	11079370.15	0.0511	0.0091
Mercury	25622-06-05 21:07 G	11079459.36	11079459.38	11079459.40	0.0507	0.0498
Venus	25627-05-17 07:55 G	11081265.63	11081265.83	11081266.04	0.0502	0.0010
Earth	25627-07-09 16:48 G	11081319.03	11081319.20	11081319.38	0.0503	0.0342
Moon	25627-07-09 20:52 G	11081319.22	11081319.37	11081319.53	0.0503	0.0369 *
Mercury	25628-08-05 12:28 G	11081711.86	11081712.02	11081712.18	0.0518	0.0173
Moon	25628-08-11 06:57 G	11081717.57	11081717.79	11081718.01	0.0518	0.0175
Earth	25628-08-11 10:48 G	11081717.73	11081717.95	11081718.17	0.0518	0.0170 *

Earth	25633-01-05 22:33 G	11083326.30	11083326.44	11083326.60	0.0525	0.0395
Moon	25633-01-06 02:38 G	11083326.45	11083326.61	11083326.78	0.0525	0.0370 *
Mercury	25633-12-25 16:04 G	11083680.05	11083680.17	11083680.29	0.0511	0.0232
Moon	25634-02-09 05:31 G	11083725.50	11083725.73	11083725.96	0.0510	0.0113
Earth	25634-02-09 09:21 G	11083725.67	11083725.89	11083726.11	0.0510	0.0145 *
Mercury	25634-03-25 00:43 G	11083769.43	11083769.53	11083769.62	0.0508	0.0354
Venus	25639-01-20 07:12 G	11085531.72	11085531.80	11085531.88	0.0499	0.0453
Moon	25639-07-14 01:12 G	11085706.35	11085706.55	11085706.75	0.0505	0.0268
Earth	25639-07-14 05:02 G	11085706.52	11085706.71	11085706.91	0.0505	0.0278 *
Mercury	25640-05-24 11:02 G	11086021.79	11086021.96	11086022.13	0.0517	0.0024
Earth	25640-08-16 06:28 G	11086105.57	11086105.77	11086105.98	0.0521	0.0248
Moon	25640-08-16 09:21 G	11086105.69	11086105.89	11086106.10	0.0521	0.0218 *
Venus	25644-11-28 16:19 G	11087671.02	11087671.18	11087671.35	0.0525	0.0290
Moon	25645-01-10 19:40 G	11087714.12	11087714.32	11087714.52	0.0523	0.0287
Earth	25645-01-10 23:16 G	11087714.29	11087714.47	11087714.66	0.0523	0.0316 *
Mercury	25645-10-13 20:09 G	11087990.25	11087990.34	11087990.43	0.0512	0.0371
Mercury	25646-01-11 04:19 G	11088079.55	11088079.68	11088079.80	0.0509	0.0212
Earth	25646-02-14 01:40 G	11088113.36	11088113.57	11088113.78	0.0507	0.0216
Moon	25646-02-14 04:48 G	11088113.50	11088113.70	11088113.91	0.0507	0.0220 *
Earth	25651-07-18 20:24 G	11090094.14	11090094.35	11090094.56	0.0508	0.0209
Moon	25651-07-18 22:33 G	11090094.23	11090094.44	11090094.66	0.0508	0.0181 *
Mercury	25652-03-12 10:04 G	11090331.77	11090331.92	11090332.08	0.0517	0.0210
Moon	25652-08-21 05:16 G	11090493.53	11090493.72	11090493.91	0.0523	0.0325
Earth	25652-08-21 06:43 G	11090493.60	11090493.78	11090493.96	0.0523	0.0327 *
Venus	25656-08-03 09:36 G	11091936.73	11091936.90	11091937.09	0.0527	0.0234
Earth	25657-01-15 21:50 G	11092102.20	11092102.41	11092102.62	0.0520	0.0238
Moon	25657-01-16 00:14 G	11092102.31	11092102.51	11092102.71	0.0520	0.0254 *
Mercury	25657-08-01 23:45 G	11092300.49	11092300.49	11092300.50	0.0513	0.0512
Mercury	25657-10-30 07:40 G	11092389.69	11092389.82	11092389.96	0.0509	0.0068
Moon	25658-02-18 12:57 G	11092500.85	11092501.04	11092501.23	0.0505	0.0312

Earth	25658-02-18 14:52 G	11092500.93	11092501.12	11092501.31	0.0505	0.0282	*
Venus	25663-01-22 18:43 G	11094300.11	11094300.28	11094300.45	0.0503	0.0269	
Moon	25663-07-23 12:43 G	11094481.80	11094482.03	11094482.27	0.0510	0.0148	
Earth	25663-07-23 12:57 G	11094481.82	11094482.04	11094482.27	0.0510	0.0138	*
Mercury	25663-12-30 09:07 G	11094641.77	11094641.88	11094641.99	0.0516	0.0398	
Mercury	25664-03-29 12:00 G	11094731.89	11094732.00	11094732.11	0.0520	0.0371	
Earth	25664-08-26 07:55 G	11094881.68	11094881.83	11094881.98	0.0525	0.0404	
Moon	25664-08-26 07:26 G	11094881.69	11094881.81	11094881.94	0.0525	0.0438	*
Moon	25669-01-20 17:16 G	11096490.00	11096490.22	11096490.45	0.0518	0.0184	
Earth	25669-01-20 17:31 G	11096490.01	11096490.23	11096490.46	0.0518	0.0160	*
Mercury	25669-08-18 11:16 G	11096699.84	11096699.97	11096700.11	0.0510	0.0080	
Mercury	25669-11-15 19:55 G	11096789.33	11096789.33	11096789.33	0.0507	0.0506	
Earth	25670-02-23 03:07 G	11096888.47	11096888.63	11096888.80	0.0503	0.0347	
Moon	25670-02-23 03:36 G	11096888.49	11096888.65	11096888.81	0.0503	0.0350	*
Mars	25672-04-12 14:52 G	11097667.81	11097668.12	11097668.43	0.0487	0.0026	
Moon	25674-06-25 12:43 G	11098472.01	11098472.03	11098472.05	0.0498	0.0496	
Venus	25674-09-27 18:57 G	11098566.10	11098566.29	11098566.48	0.0501	0.0186	
Moon	25675-07-28 03:50 G	11098869.44	11098869.66	11098869.89	0.0512	0.0097	
Earth	25675-07-28 05:45 G	11098869.51	11098869.74	11098869.97	0.0512	0.0066	*
Mercury	25676-01-16 10:48 G	11099041.79	11099041.95	11099042.10	0.0518	0.0179	
Earth	25676-08-31 06:14 G	11099269.67	11099269.76	11099269.87	0.0527	0.0475	
Moon	25676-08-31 08:52 G	11099269.77	11099269.87	11099269.97	0.0527	0.0476	*
Moon	25681-01-25 07:26 G	11100877.59	11100877.81	11100878.03	0.0517	0.0069	
Earth	25681-01-25 09:21 G	11100877.66	11100877.89	11100878.12	0.0517	0.0087	*
Mercury	25681-06-06 14:24 G	11101009.98	11101010.10	11101010.22	0.0512	0.0232	
Mercury	25681-09-03 22:48 G	11101099.36	11101099.45	11101099.55	0.0508	0.0355	
Earth	25682-02-27 13:55 G	11101275.94	11101276.08	11101276.21	0.0502	0.0407	
Moon	25682-02-27 14:38 G	11101275.96	11101276.11	11101276.28	0.0502	0.0377	*
Moon	25686-06-29 18:57 G	11102859.19	11102859.29	11102859.38	0.0499	0.0452	
Earth	25686-06-29 22:04 G	11102859.35	11102859.42	11102859.51	0.0499	0.0467	*

Earth	25687-08-01 23:31 G	11103257.25	11103257.48	11103257.71	0.0514	0.0009
Moon	25687-08-02 02:38 G	11103257.37	11103257.61	11103257.85	0.0514	0.0017 *
Mercury	25687-11-04 09:36 G	11103351.73	11103351.90	11103352.07	0.0517	0.0014
Moon	25688-09-05 03:21 G	11103657.60	11103657.64	11103657.69	0.0529	0.0515
Mars	25690-03-03 17:31 G	11104202.02	11104202.23	11104202.45	0.0540	0.0271
Venus	25692-04-10 22:33 G	11104971.24	11104971.44	11104971.64	0.0526	0.0058
Earth	25693-01-30 04:19 G	11105265.44	11105265.68	11105265.91	0.0515	0.0014
Moon	25693-01-30 07:40 G	11105265.58	11105265.82	11105266.06	0.0515	0.0019 *
Mercury	25693-03-25 18:14 G	11105320.17	11105320.26	11105320.35	0.0512	0.0373
Mercury	25693-06-23 02:24 G	11105409.48	11105409.60	11105409.73	0.0509	0.0211
Moon	25694-03-03 23:31 G	11105663.40	11105663.48	11105663.57	0.0500	0.0457
Earth	25694-03-04 01:55 G	11105663.51	11105663.58	11105663.67	0.0500	0.0467 *
Earth	25698-07-04 08:24 G	11107246.72	11107246.85	11107246.98	0.0501	0.0408
Moon	25698-07-04 12:28 G	11107246.90	11107247.02	11107247.13	0.0501	0.0434 *
Moon	25699-08-06 12:43 G	11107644.81	11107645.03	11107645.26	0.0516	0.0117
Earth	25699-08-06 16:33 G	11107644.96	11107645.19	11107645.42	0.0516	0.0084 *
Mercury	25699-08-23 07:55 G	11107661.68	11107661.83	11107661.99	0.0516	0.0211
Venus	25703-12-16 16:04 G	11109237.08	11109237.17	11109237.26	0.0528	0.0468
Earth	25704-01-02 02:52 G	11109253.52	11109253.62	11109253.72	0.0528	0.0474
Moon	25704-01-02 06:43 G	11109253.70	11109253.78	11109253.87	0.0528	0.0493 *
Mercury	25705-01-12 22:19 G	11109630.42	11109630.43	11109630.44	0.0513	0.0510
Moon	25705-02-04 19:40 G	11109653.09	11109653.32	11109653.55	0.0512	0.0057
Earth	25705-02-04 23:31 G	11109653.25	11109653.48	11109653.71	0.0512	0.0067 *
Mercury	25705-04-12 06:14 G	11109719.63	11109719.76	11109719.90	0.0510	0.0072
Venus	25710-06-06 06:00 G	11111600.55	11111600.75	11111600.95	0.0502	0.0078
Moon	25710-07-09 17:31 G	11111634.08	11111634.23	11111634.39	0.0503	0.0372
Earth	25710-07-09 21:21 G	11111634.23	11111634.39	11111634.56	0.0503	0.0345 *
Mercury	25711-06-12 06:57 G	11111971.69	11111971.79	11111971.90	0.0516	0.0399
Earth	25711-08-12 13:40 G	11112032.85	11112033.07	11112033.30	0.0518	0.0164
Moon	25711-08-12 17:02 G	11112033.00	11112033.21	11112033.43	0.0518	0.0160 *

Mercury	25711-09-10 09:50 G	11112061.80	11112061.91	11112062.03	0.0519	0.0369
Moon	25716-01-07 01:12 G	11113641.39	11113641.55	11113641.72	0.0525	0.0375
Earth	25716-01-07 05:16 G	11113641.57	11113641.72	11113641.87	0.0525	0.0400 *
Mercury	25717-01-29 10:04 G	11114029.78	11114029.92	11114030.05	0.0510	0.0074
Earth	25717-02-09 16:04 G	11114040.95	11114041.17	11114041.40	0.0510	0.0139
Moon	25717-02-09 19:26 G	11114041.09	11114041.31	11114041.54	0.0510	0.0110 *
Venus	25722-02-09 06:14 G	11115866.63	11115866.76	11115866.89	0.0500	0.0375
Earth	25722-07-14 11:31 G	11116021.79	11116021.98	11116022.17	0.0505	0.0282
Moon	25722-07-14 14:09 G	11116021.90	11116022.09	11116022.28	0.0505	0.0269 *
Mercury	25723-06-29 09:21 G	11116371.73	11116371.89	11116372.04	0.0519	0.0187
Moon	25723-08-17 10:33 G	11116420.72	11116420.94	11116421.16	0.0521	0.0208
Earth	25723-08-17 12:28 G	11116420.82	11116421.02	11116421.23	0.0521	0.0241 *
Venus	25727-12-19 16:33 G	11118006.06	11118006.19	11118006.33	0.0524	0.0381
Earth	25728-01-12 04:04 G	11118029.49	11118029.67	11118029.85	0.0523	0.0321
Moon	25728-01-12 06:57 G	11118029.60	11118029.79	11118029.97	0.0523	0.0297 *
Mercury	25728-11-17 13:40 G	11118339.95	11118340.07	11118340.19	0.0511	0.0217
Moon	25729-02-14 05:02 G	11118428.50	11118428.71	11118428.93	0.0508	0.0218
Earth	25729-02-14 07:12 G	11118428.59	11118428.80	11118429.01	0.0508	0.0209 *
Mercury	25729-02-14 22:04 G	11118429.32	11118429.42	11118429.51	0.0508	0.0368
Moon	25734-07-19 02:38 G	11120409.39	11120409.61	11120409.84	0.0507	0.0190
Earth	25734-07-19 03:07 G	11120409.42	11120409.63	11120409.84	0.0507	0.0215 *
Mercury	25735-04-17 08:09 G	11120681.68	11120681.84	11120682.01	0.0517	0.0011
Earth	25735-08-22 10:19 G	11120808.75	11120808.93	11120809.12	0.0522	0.0316
Moon	25735-08-22 10:33 G	11120808.76	11120808.94	11120809.12	0.0522	0.0318 *
Venus	25739-08-24 06:28 G	11122271.58	11122271.77	11122271.96	0.0527	0.0164
Moon	25740-01-16 20:24 G	11122417.14	11122417.35	11122417.56	0.0521	0.0265
Earth	25740-01-16 21:21 G	11122417.19	11122417.39	11122417.60	0.0521	0.0248 *
Mercury	25740-09-05 16:48 G	11122650.11	11122650.20	11122650.29	0.0512	0.0370
Mercury	25740-12-04 00:57 G	11122739.42	11122739.54	11122739.67	0.0509	0.0214
Earth	25741-02-18 18:43 G	11122816.09	11122816.28	11122816.48	0.0506	0.0274

Moon	25741-02-18 19:12 G	11122816.13	11122816.30	11122816.48	0.0506	0.0306	*
Venus	25746-02-11 18:57 G	11124635.15	11124635.29	11124635.43	0.0503	0.0355	
Moon	25746-07-23 17:45 G	11124797.02	11124797.24	11124797.45	0.0509	0.0160	
Earth	25746-07-23 19:12 G	11124797.08	11124797.30	11124797.53	0.0509	0.0143	*
Mercury	25747-02-03 06:57 G	11124991.64	11124991.79	11124991.95	0.0516	0.0194	
Earth	25747-08-27 09:07 G	11125196.73	11125196.88	11125197.04	0.0524	0.0392	
Moon	25747-08-27 10:48 G	11125196.82	11125196.95	11125197.10	0.0524	0.0422	*
Moon	25752-01-21 17:02 G	11126805.00	11126805.21	11126805.42	0.0520	0.0190	
Earth	25752-01-21 18:28 G	11126805.05	11126805.27	11126805.49	0.0520	0.0169	*
Mercury	25752-06-24 20:38 G	11126960.35	11126960.36	11126960.37	0.0513	0.0511	
Mercury	25752-09-22 04:33 G	11127049.56	11127049.69	11127049.83	0.0510	0.0073	
Earth	25753-02-23 08:52 G	11127203.71	11127203.87	11127204.05	0.0504	0.0342	
Moon	25753-02-23 10:04 G	11127203.74	11127203.92	11127204.10	0.0504	0.0340	*
Moon	25757-06-25 14:24 G	11128787.08	11128787.10	11128787.12	0.0497	0.0495	
Venus	25757-10-17 18:00 G	11128901.05	11128901.25	11128901.45	0.0501	0.0108	
Earth	25758-07-28 09:50 G	11129184.68	11129184.91	11129185.14	0.0511	0.0071	
Moon	25758-07-28 12:43 G	11129184.80	11129185.03	11129185.27	0.0511	0.0101	*
Mercury	25758-11-22 05:16 G	11129301.61	11129301.72	11129301.83	0.0515	0.0393	
Mercury	25759-02-20 08:09 G	11129391.72	11129391.84	11129391.95	0.0519	0.0373	
Moon	25759-09-01 04:19 G	11129584.58	11129584.68	11129584.79	0.0526	0.0464	
Earth	25759-09-01 07:40 G	11129584.72	11129584.82	11129584.93	0.0526	0.0467	*
Earth	25764-01-26 16:33 G	11131192.96	11131193.19	11131193.42	0.0517	0.0091	
Moon	25764-01-26 19:55 G	11131193.10	11131193.33	11131193.57	0.0517	0.0067	*
Mercury	25764-07-11 08:38 G	11131359.72	11131359.86	11131359.99	0.0511	0.0068	
Moon	25765-02-27 20:38 G	11131591.22	11131591.36	11131591.51	0.0502	0.0375	
Earth	25765-02-27 23:02 G	11131591.33	11131591.46	11131591.60	0.0502	0.0404	*
Earth	25769-06-30 04:33 G	11133174.62	11133174.69	11133174.77	0.0499	0.0467	
Moon	25769-06-30 08:38 G	11133174.77	11133174.86	11133174.95	0.0499	0.0457	*
Moon	25770-08-02 00:43 G	11133572.30	11133572.53	11133572.76	0.0513	0.0011	
Earth	25770-08-02 04:19 G	11133572.45	11133572.68	11133572.91	0.0513	0.0004	*

Mercury	25770-12-09 07:26 G	11133701.66	11133701.81	11133701.97	0.0518	0.0190
Moon	25771-09-06 14:38 G	11133973.06	11133973.11	11133973.18	0.0529	0.0508
Venus	25775-05-02 01:12 G	11135306.36	11135306.55	11135306.74	0.0525	0.0164
Moon	25776-01-31 09:07 G	11135580.65	11135580.88	11135581.11	0.0515	0.0014
Earth	25776-01-31 12:57 G	11135580.81	11135581.04	11135581.27	0.0515	0.0015 *
Mercury	25776-04-29 12:28 G	11135669.90	11135670.02	11135670.14	0.0511	0.0208
Mercury	25776-07-27 20:52 G	11135759.28	11135759.37	11135759.46	0.0508	0.0377
Earth	25777-03-04 10:48 G	11135978.87	11135978.95	11135979.04	0.0500	0.0461
Moon	25777-03-04 14:24 G	11135979.02	11135979.10	11135979.20	0.0500	0.0461 *
Moon	25781-07-04 12:28 G	11137561.91	11137562.02	11137562.14	0.0501	0.0436
Earth	25781-07-04 16:33 G	11137562.06	11137562.19	11137562.32	0.0501	0.0410 *
Earth	25782-08-07 00:14 G	11137960.28	11137960.51	11137960.74	0.0516	0.0079
Moon	25782-08-07 03:50 G	11137960.43	11137960.66	11137960.88	0.0516	0.0109 *
Mercury	25782-09-27 06:57 G	11138011.62	11138011.79	11138011.95	0.0518	0.0014
Moon	25787-01-01 05:31 G	11139568.66	11139568.73	11139568.81	0.0528	0.0497
Earth	25787-01-01 09:50 G	11139568.81	11139568.91	11139569.00	0.0528	0.0477 *
Venus	25787-01-04 18:00 G	11139572.10	11139572.25	11139572.39	0.0528	0.0366
Earth	25788-02-05 06:43 G	11139968.55	11139968.78	11139969.01	0.0512	0.0062
Moon	25788-02-05 10:19 G	11139968.70	11139968.93	11139969.16	0.0512	0.0046 *
Mercury	25788-02-16 16:19 G	11139980.08	11139980.18	11139980.27	0.0512	0.0351
Mercury	25788-05-16 00:29 G	11140069.39	11140069.52	11140069.64	0.0509	0.0232
Venus	25793-06-25 06:57 G	11141935.60	11141935.79	11141935.98	0.0502	0.0169
Earth	25793-07-09 06:43 G	11141949.62	11141949.78	11141949.95	0.0503	0.0348
Moon	25793-07-09 09:21 G	11141949.74	11141949.89	11141950.05	0.0503	0.0370 *
Mercury	25794-07-16 05:45 G	11142321.59	11142321.74	11142321.90	0.0516	0.0182
Moon	25794-08-11 18:43 G	11142348.05	11142348.28	11142348.51	0.0517	0.0146
Earth	25794-08-11 21:07 G	11142348.16	11142348.38	11142348.60	0.0517	0.0156 *
Earth	25799-01-06 04:48 G	11143956.55	11143956.70	11143956.85	0.0526	0.0407
Moon	25799-01-06 08:09 G	11143956.68	11143956.84	11143956.99	0.0526	0.0382 *
Mercury	25799-12-05 19:26 G	11144290.29	11144290.31	11144290.33	0.0513	0.0505

Moon	25800-02-09 17:17 G	11144355.99	11144356.22	11144356.46	0.0511	0.0105
Earth	25800-02-09 19:41 G	11144356.09	11144356.32	11144356.54	0.0511	0.0132 *
Mercury	25800-03-05 03:21 G	11144379.50	11144379.64	11144379.77	0.0510	0.0077
Venus	25805-03-01 07:55 G	11146201.66	11146201.83	11146202.00	0.0500	0.0281
Moon	25805-07-14 20:38 G	11146337.15	11146337.36	11146337.57	0.0504	0.0262
Earth	25805-07-14 21:07 G	11146337.20	11146337.38	11146337.58	0.0504	0.0284 *
Mercury	25806-05-05 04:48 G	11146631.58	11146631.70	11146631.81	0.0515	0.0371
Mercury	25806-08-03 07:26 G	11146721.71	11146721.81	11146721.92	0.0519	0.0394
Earth	25806-08-17 18:00 G	11146736.04	11146736.25	11146736.46	0.0519	0.0234
Moon	25806-08-17 18:29 G	11146736.07	11146736.27	11146736.48	0.0519	0.0203 *
Mars	25808-08-25 04:33 G	11147474.55	11147474.69	11147474.85	0.0540	0.0425
Venus	25811-01-08 14:09 G	11148340.99	11148341.09	11148341.19	0.0524	0.0454
Moon	25811-01-12 02:24 G	11148344.41	11148344.60	11148344.80	0.0524	0.0308
Earth	25811-01-12 04:05 G	11148344.49	11148344.67	11148344.85	0.0524	0.0330 *
Mercury	25811-12-23 06:57 G	11148689.66	11148689.79	11148689.93	0.0511	0.0068
Earth	25812-02-15 12:00 G	11148743.79	11148744.00	11148744.21	0.0509	0.0203
Moon	25812-02-15 12:29 G	11148743.82	11148744.02	11148744.23	0.0509	0.0219 *
Moon	25817-07-19 08:24 G	11150724.65	11150724.85	11150725.06	0.0506	0.0197
Earth	25817-07-19 09:50 G	11150724.70	11150724.91	11150725.12	0.0506	0.0217 *
Mercury	25818-05-22 06:00 G	11151031.60	11151031.75	11151031.91	0.0518	0.0200
Earth	25818-08-22 13:55 G	11151123.90	11151124.08	11151124.27	0.0521	0.0309
Moon	25818-08-22 15:07 G	11151123.94	11151124.13	11151124.33	0.0521	0.0313 *
Venus	25822-09-13 08:09 G	11152606.64	11152606.84	11152607.04	0.0527	0.0064
Moon	25823-01-17 03:36 G	11152732.47	11152732.65	11152732.85	0.0522	0.0277
Earth	25823-01-17 04:48 G	11152732.50	11152732.70	11152732.91	0.0522	0.0251 *
Mercury	25823-10-11 11:02 G	11152999.84	11152999.96	11153000.09	0.0512	0.0204
Mercury	25824-01-08 19:26 G	11153089.22	11153089.31	11153089.40	0.0508	0.0383
Earth	25824-02-20 04:33 G	11153131.50	11153131.69	11153131.89	0.0507	0.0273
Moon	25824-02-20 05:31 G	11153131.54	11153131.73	11153131.93	0.0507	0.0302 *
Mars	25826-07-10 02:09 G	11154002.40	11154002.59	11154002.79	0.0487	0.0377

Venus	25829-03-03 18:29 G	11154970.18	11154970.27	11154970.37	0.0503	0.0438
Earth	25829-07-24 01:26 G	11155112.34	11155112.56	11155112.79	0.0508	0.0146
Moon	25829-07-24 04:19 G	11155112.46	11155112.68	11155112.91	0.0508	0.0166 *
Mercury	25830-03-10 05:17 G	11155341.55	11155341.72	11155341.89	0.0517	0.0014
Moon	25830-08-27 11:02 G	11155511.83	11155511.96	11155512.10	0.0524	0.0417
Earth	25830-08-27 14:09 G	11155511.94	11155512.09	11155512.25	0.0524	0.0386 *
Earth	25835-01-22 04:33 G	11157120.47	11157120.69	11157120.91	0.0520	0.0172
Moon	25835-01-22 07:41 G	11157120.60	11157120.82	11157121.04	0.0520	0.0189 *
Mercury	25835-07-30 15:07 G	11157310.03	11157310.13	11157310.23	0.0512	0.0342
Mercury	25835-10-27 23:17 G	11157399.35	11157399.47	11157399.59	0.0509	0.0242
Moon	25836-02-24 17:02 G	11157519.05	11157519.21	11157519.39	0.0504	0.0332
Earth	25836-02-24 19:26 G	11157519.14	11157519.31	11157519.49	0.0504	0.0338 *
Moon	25840-06-26 06:57 G	11159102.76	11159102.79	11159102.83	0.0497	0.0490
Venus	25840-11-06 18:43 G	11159236.08	11159236.28	11159236.49	0.0501	0.0021
Moon	25841-07-28 15:21 G	11159499.91	11159500.14	11159500.36	0.0511	0.0103
Earth	25841-07-28 18:57 G	11159500.06	11159500.29	11159500.52	0.0511	0.0074 *
Mercury	25841-12-27 04:33 G	11159651.53	11159651.69	11159651.85	0.0517	0.0171
Earth	25842-09-01 16:33 G	11159900.08	11159900.19	11159900.30	0.0526	0.0462
Moon	25842-09-01 20:24 G	11159900.23	11159900.35	11159900.47	0.0526	0.0449 *
Moon	25847-01-26 21:36 G	11161508.17	11161508.40	11161508.63	0.0517	0.0071
Earth	25847-01-27 01:26 G	11161508.33	11161508.56	11161508.79	0.0517	0.0094 *
Mercury	25847-05-18 18:57 G	11161620.25	11161620.29	11161620.33	0.0513	0.0483
Mercury	25847-08-16 02:53 G	11161709.49	11161709.62	11161709.76	0.0510	0.0098
Earth	25848-02-29 08:38 G	11161906.72	11161906.86	11161907.00	0.0502	0.0400
Moon	25848-02-29 12:14 G	11161906.85	11161907.01	11161907.17	0.0502	0.0371 *
Moon	25852-06-30 12:00 G	11163489.92	11163490.00	11163490.10	0.0499	0.0457
Earth	25852-06-30 16:05 G	11163490.09	11163490.17	11163490.25	0.0499	0.0467 *
Venus	25852-07-12 20:38 G	11163502.28	11163502.36	11163502.43	0.0499	0.0461
Earth	25853-08-02 14:09 G	11163887.86	11163888.09	11163888.33	0.0513	0.0007
Moon	25853-08-02 17:45 G	11163888.01	11163888.24	11163888.48	0.0513	0.0019 *

Mercury	25853-10-15 03:36 G	11163961.53	11163961.65	11163961.78	0.0515	0.0356
Mercury	25854-01-13 06:29 G	11164051.67	11164051.77	11164051.87	0.0519	0.0409
Moon	25854-09-06 14:24 G	11164288.03	11164288.10	11164288.18	0.0528	0.0497
Venus	25858-05-21 23:31 G	11165641.30	11165641.48	11165641.66	0.0525	0.0242
Earth	25859-01-31 15:50 G	11165895.93	11165896.16	11165896.39	0.0516	0.0021
Moon	25859-01-31 19:41 G	11165896.09	11165896.32	11165896.55	0.0516	0.0008 *
Mercury	25859-06-04 05:45 G	11166019.61	11166019.74	11166019.88	0.0511	0.0060
Moon	25860-03-04 13:55 G	11166293.99	11166294.08	11166294.17	0.0501	0.0460
Earth	25860-03-04 18:00 G	11166294.15	11166294.25	11166294.34	0.0501	0.0457 *
Earth	25864-07-05 04:48 G	11167877.57	11167877.70	11167877.84	0.0500	0.0408
Moon	25864-07-05 07:26 G	11167877.70	11167877.81	11167877.92	0.0500	0.0435 *
Moon	25865-08-07 06:57 G	11168275.55	11168275.79	11168276.02	0.0514	0.0104
Earth	25865-08-07 09:21 G	11168275.66	11168275.89	11168276.12	0.0514	0.0077 *
Mercury	25865-11-01 05:45 G	11168361.59	11168361.74	11168361.89	0.0518	0.0224
Earth	25870-01-01 09:07 G	11169883.79	11169883.88	11169883.97	0.0529	0.0484
Moon	25870-01-01 12:43 G	11169883.97	11169884.03	11169884.10	0.0529	0.0502 *
Venus	25870-01-24 15:36 G	11169906.98	11169907.15	11169907.32	0.0528	0.0291
Moon	25871-02-05 07:41 G	11170283.58	11170283.82	11170284.06	0.0514	0.0036
Earth	25871-02-05 10:19 G	11170283.70	11170283.93	11170284.16	0.0514	0.0056 *
Mercury	25871-03-23 09:36 G	11170329.78	11170329.90	11170330.02	0.0512	0.0202
Mercury	25871-06-20 18:00 G	11170419.16	11170419.25	11170419.34	0.0509	0.0386
Moon	25876-07-09 14:38 G	11172264.95	11172265.11	11172265.28	0.0502	0.0361
Earth	25876-07-09 15:36 G	11172264.98	11172265.15	11172265.32	0.0502	0.0349 *
Venus	25876-07-15 07:26 G	11172270.64	11172270.81	11172270.99	0.0502	0.0257
Earth	25877-08-12 02:38 G	11172663.39	11172663.61	11172663.84	0.0517	0.0152
Moon	25877-08-12 03:50 G	11172663.44	11172663.66	11172663.88	0.0517	0.0138 *
Mercury	25877-08-20 04:05 G	11172671.51	11172671.67	11172671.84	0.0517	0.0031
Moon	25882-01-06 09:50 G	11174271.75	11174271.91	11174272.08	0.0527	0.0383
Earth	25882-01-06 12:00 G	11174271.86	11174272.00	11174272.15	0.0527	0.0409 *
Mercury	25883-01-09 13:41 G	11174639.97	11174640.07	11174640.17	0.0513	0.0338

Earth	25883-02-10 05:31 G	11174671.51	11174671.73	11174671.96	0.0512	0.0131
Moon	25883-02-10 06:14 G	11174671.54	11174671.76	11174671.98	0.0512	0.0109 *
Mercury	25883-04-08 21:50 G	11174729.29	11174729.41	11174729.53	0.0509	0.0247
Venus	25888-03-20 07:55 G	11176536.65	11176536.83	11176537.02	0.0500	0.0197
Moon	25888-07-14 03:36 G	11176652.46	11176652.65	11176652.85	0.0504	0.0259
Earth	25888-07-14 04:48 G	11176652.51	11176652.70	11176652.90	0.0504	0.0285 *
Mercury	25889-06-08 03:07 G	11176981.48	11176981.63	11176981.80	0.0516	0.0161
Earth	25889-08-17 00:00 G	11177051.29	11177051.50	11177051.71	0.0519	0.0229
Moon	25889-08-17 00:43 G	11177051.31	11177051.53	11177051.76	0.0519	0.0199 *
Moon	25894-01-11 14:09 G	11178659.91	11178660.09	11178660.27	0.0525	0.0321
Earth	25894-01-11 14:38 G	11178659.94	11178660.11	11178660.30	0.0525	0.0332 *
Mercury	25894-10-28 17:45 G	11178950.19	11178950.24	11178950.29	0.0513	0.0474
Mercury	25895-01-26 01:41 G	11179039.44	11179039.57	11179039.71	0.0510	0.0109
Earth	25895-02-14 23:31 G	11179059.27	11179059.48	11179059.69	0.0509	0.0201
Moon	25895-02-15 00:14 G	11179059.30	11179059.51	11179059.73	0.0509	0.0219 *
Earth	25900-07-19 19:41 G	11181040.11	11181040.32	11181040.53	0.0506	0.0218
Moon	25900-07-19 22:19 G	11181040.22	11181040.43	11181040.66	0.0506	0.0200 *
Mercury	25901-03-28 02:24 G	11181291.47	11181291.60	11181291.72	0.0516	0.0346
Mercury	25901-06-26 05:17 G	11181381.62	11181381.72	11181381.81	0.0519	0.0421
Moon	25901-08-22 20:38 G	11181439.19	11181439.36	11181439.55	0.0521	0.0319
Earth	25901-08-22 23:31 G	11181439.30	11181439.48	11181439.67	0.0521	0.0306 *
Venus	25905-10-03 11:45 G	11182941.79	11182941.99	11182942.19	0.0526	0.0047
Earth	25906-01-17 14:38 G	11183047.90	11183048.11	11183048.31	0.0522	0.0252
Moon	25906-01-17 17:17 G	11183048.03	11183048.22	11183048.43	0.0522	0.0283 *
Mercury	25906-11-15 05:31 G	11183349.59	11183349.73	11183349.87	0.0511	0.0035
Moon	25907-02-20 12:43 G	11183446.85	11183447.03	11183447.21	0.0507	0.0297
Earth	25907-02-20 15:07 G	11183446.93	11183447.13	11183447.33	0.0507	0.0270 *
Moon	25912-07-24 09:50 G	11185427.69	11185427.91	11185428.13	0.0508	0.0168
Earth	25912-07-24 13:26 G	11185427.83	11185428.06	11185428.28	0.0508	0.0146 *
Mercury	25913-04-14 04:48 G	11185691.55	11185691.70	11185691.85	0.0518	0.0240

Earth	25913-08-27 23:45 G	11185827.34	11185827.49	11185827.66	0.0523	0.0382
Moon	25913-08-28 03:50 G	11185827.52	11185827.66	11185827.81	0.0523	0.0410 *
Venus	25917-06-08 00:43 G	11187207.48	11187207.53	11187207.59	0.0529	0.0507
Moon	25918-01-22 03:21 G	11187435.44	11187435.64	11187435.86	0.0520	0.0198
Earth	25918-01-22 07:12 G	11187435.58	11187435.80	11187436.02	0.0520	0.0177 *
Mercury	25918-09-03 08:24 G	11187659.73	11187659.85	11187659.98	0.0512	0.0193
Mercury	25918-12-01 16:48 G	11187749.12	11187749.20	11187749.29	0.0508	0.0396
Earth	25919-02-25 01:12 G	11187834.38	11187834.55	11187834.73	0.0505	0.0334
Moon	25919-02-25 04:48 G	11187834.52	11187834.70	11187834.89	0.0505	0.0318 *
Moon	25923-06-27 13:12 G	11189418.01	11189418.05	11189418.10	0.0497	0.0486
Venus	25923-11-27 22:05 G	11189571.22	11189571.42	11189571.62	0.0501	0.0084
Earth	25924-07-29 06:29 G	11189815.54	11189815.77	11189816.00	0.0510	0.0073
Moon	25924-07-29 10:05 G	11189815.70	11189815.92	11189816.15	0.0510	0.0096 *
Mercury	25925-01-31 04:05 G	11190001.50	11190001.67	11190001.83	0.0517	0.0055
Moon	25925-09-01 20:24 G	11190215.22	11190215.35	11190215.48	0.0525	0.0442
Earth	25925-09-02 00:00 G	11190215.39	11190215.50	11190215.62	0.0525	0.0456 *
Earth	25930-01-27 03:36 G	11191823.42	11191823.65	11191823.88	0.0518	0.0100
Moon	25930-01-27 07:26 G	11191823.58	11191823.81	11191824.04	0.0518	0.0074 *
Mercury	25930-06-22 12:14 G	11191969.91	11191970.01	11191970.11	0.0513	0.0335
Mercury	25930-09-19 20:24 G	11192059.23	11192059.35	11192059.47	0.0509	0.0250
Moon	25931-03-01 11:02 G	11192221.81	11192221.96	11192222.13	0.0504	0.0368
Earth	25931-03-01 14:53 G	11192221.99	11192222.12	11192222.27	0.0504	0.0398 *
Earth	25935-07-02 01:55 G	11193805.51	11193805.58	11193805.67	0.0498	0.0467
Moon	25935-07-02 04:48 G	11193805.62	11193805.70	11193805.78	0.0498	0.0463 *
Venus	25935-08-02 21:36 G	11193837.27	11193837.40	11193837.54	0.0499	0.0371
Moon	25936-08-02 18:43 G	11194203.04	11194203.28	11194203.52	0.0512	0.0018
Earth	25936-08-02 21:36 G	11194203.16	11194203.40	11194203.63	0.0512	0.0007 *
Mercury	25936-11-19 02:09 G	11194311.43	11194311.59	11194311.76	0.0516	0.0145
Earth	25937-09-06 22:05 G	11194603.42	11194603.42	11194603.43	0.0527	0.0527
Moon	25937-09-07 00:29 G	11194603.46	11194603.52	11194603.60	0.0527	0.0497

Venus	25941-06-11 01:26 G	11195976.41	11195976.56	11195976.72	0.0525	0.0345
Moon	25942-01-31 22:33 G	11196211.20	11196211.44	11196211.67	0.0516	0.0011
Earth	25942-02-01 01:12 G	11196211.32	11196211.55	11196211.79	0.0516	0.0024 *
Mercury	25942-04-10 16:19 G	11196280.13	11196280.18	11196280.23	0.0514	0.0471
Mercury	25942-07-09 00:14 G	11196369.38	11196369.51	11196369.65	0.0510	0.0113
Earth	25943-03-06 05:17 G	11196609.63	11196609.72	11196609.82	0.0502	0.0455
Moon	25943-03-06 08:24 G	11196609.78	11196609.85	11196609.94	0.0502	0.0465 *
Mars	25944-12-28 08:38 G	11197272.61	11197272.86	11197273.13	0.0488	0.0260
Moon	25947-07-06 12:29 G	11198192.90	11198193.02	11198193.14	0.0500	0.0434
Earth	25947-07-06 13:26 G	11198192.93	11198193.06	11198193.19	0.0500	0.0408 *
Earth	25948-08-07 15:50 G	11198590.93	11198591.16	11198591.39	0.0514	0.0073
Moon	25948-08-07 17:02 G	11198590.99	11198591.21	11198591.43	0.0514	0.0098 *
Mercury	25948-09-07 01:12 G	11198621.42	11198621.55	11198621.68	0.0515	0.0334
Mercury	25948-12-06 03:50 G	11198711.57	11198711.66	11198711.75	0.0519	0.0431
Moon	25953-01-01 16:48 G	11200199.13	11200199.20	11200199.28	0.0529	0.0499
Earth	25953-01-01 19:26 G	11200199.23	11200199.31	11200199.41	0.0529	0.0486 *
Venus	25953-02-13 19:41 G	11200242.13	11200242.32	11200242.51	0.0528	0.0175
Earth	25954-02-05 22:05 G	11200599.19	11200599.42	11200599.65	0.0514	0.0054
Moon	25954-02-05 22:48 G	11200599.23	11200599.45	11200599.68	0.0514	0.0028 *
Mercury	25954-04-27 04:19 G	11200679.54	11200679.68	11200679.82	0.0511	0.0027
Moon	25959-07-11 00:29 G	11202580.36	11202580.52	11202580.68	0.0502	0.0354
Earth	25959-07-11 01:41 G	11202580.41	11202580.57	11202580.74	0.0502	0.0349 *
Venus	25959-08-05 08:53 G	11202605.73	11202605.87	11202606.02	0.0503	0.0349
Earth	25960-08-12 12:29 G	11202978.80	11202979.02	11202979.24	0.0517	0.0149
Moon	25960-08-12 12:57 G	11202978.81	11202979.04	11202979.28	0.0517	0.0132 *
Mercury	25960-09-24 03:21 G	11203021.50	11203021.64	11203021.79	0.0518	0.0250
Mars	25962-11-20 22:19 G	11203809.19	11203809.43	11203809.68	0.0540	0.0058
Moon	25965-01-06 22:05 G	11204587.27	11204587.42	11204587.58	0.0527	0.0382
Earth	25965-01-06 22:05 G	11204587.28	11204587.42	11204587.57	0.0527	0.0409 *
Earth	25966-02-10 16:19 G	11204986.95	11204987.18	11204987.40	0.0512	0.0129

Moon	25966-02-10 17:02 G	11204986.97	11204987.21	11204987.45	0.0512	0.0108	*
Mercury	25966-02-13 08:09 G	11204989.71	11204989.84	11204989.97	0.0512	0.0168	
Mercury	25966-05-13 16:33 G	11205079.11	11205079.19	11205079.27	0.0508	0.0419	
Venus	25971-04-10 10:48 G	11206871.75	11206871.95	11206872.15	0.0500	0.0098	
Earth	25971-07-15 17:17 G	11206968.03	11206968.22	11206968.41	0.0504	0.0283	
Moon	25971-07-15 20:09 G	11206968.13	11206968.34	11206968.55	0.0504	0.0251	*
Mercury	25972-07-13 03:07 G	11207331.46	11207331.63	11207331.79	0.0517	0.0071	
Moon	25972-08-17 08:53 G	11207366.66	11207366.87	11207367.08	0.0518	0.0203	
Earth	25972-08-17 11:17 G	11207366.77	11207366.97	11207367.19	0.0518	0.0228	*
Earth	25977-01-11 17:02 G	11208975.04	11208975.21	11208975.39	0.0525	0.0336	
Moon	25977-01-11 19:26 G	11208975.13	11208975.31	11208975.50	0.0525	0.0329	*
Mercury	25977-12-02 11:02 G	11209299.86	11209299.96	11209300.07	0.0513	0.0326	
Moon	25978-02-15 01:55 G	11209374.38	11209374.58	11209374.79	0.0510	0.0218	
Earth	25978-02-15 04:05 G	11209374.46	11209374.67	11209374.89	0.0510	0.0197	*
Mercury	25978-03-01 19:12 G	11209389.19	11209389.30	11209389.42	0.0509	0.0261	
Moon	25983-07-20 05:02 G	11211355.50	11211355.71	11211355.93	0.0505	0.0200	
Earth	25983-07-20 08:38 G	11211355.65	11211355.86	11211356.07	0.0505	0.0216	*
Mercury	25984-05-01 02:09 G	11211641.42	11211641.59	11211641.75	0.0516	0.0117	
Earth	25984-08-22 09:21 G	11211754.70	11211754.89	11211755.08	0.0520	0.0303	
Moon	25984-08-22 13:12 G	11211754.87	11211755.05	11211755.23	0.0520	0.0326	*
Venus	25988-10-22 09:36 G	11213276.70	11213276.90	11213277.10	0.0526	0.0123	
Moon	25989-01-16 12:00 G	11213362.81	11213363.00	11213363.19	0.0523	0.0290	
Earth	25989-01-16 15:21 G	11213362.94	11213363.14	11213363.35	0.0523	0.0257	*
Mercury	25989-09-20 14:53 G	11213610.07	11213610.12	11213610.17	0.0514	0.0469	
Mercury	25989-12-18 22:48 G	11213699.32	11213699.45	11213699.59	0.0510	0.0115	
Earth	25990-02-19 19:26 G	11213762.11	11213762.31	11213762.51	0.0508	0.0266	
Moon	25990-02-19 22:48 G	11213762.26	11213762.45	11213762.65	0.0508	0.0287	*
Earth	25995-07-24 21:21 G	11215743.17	11215743.39	11215743.61	0.0507	0.0148	
Moon	25995-07-25 01:12 G	11215743.33	11215743.55	11215743.77	0.0507	0.0174	*
Mercury	25996-02-18 00:14 G	11215951.38	11215951.51	11215951.64	0.0515	0.0317	

Mercury	25996-05-18 02:53 G	11216041.54	11216041.62	11216041.71	0.0518	0.0446
Moon	25996-08-27 00:57 G	11216142.40	11216142.54	11216142.70	0.0522	0.0405
Earth	25996-08-27 05:02 G	11216142.55	11216142.71	11216142.87	0.0522	0.0376 *
Venus	26000-06-27 02:24 G	11217542.48	11217542.60	11217542.74	0.0529	0.0406

27TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 27th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	26001-01-21 15:07 G		11217750.91	11217751.13	11217751.35	0.0521	0.0181	
Moon	26001-01-21 18:57 G		11217751.08	11217751.29	11217751.51	0.0521	0.0194 *	
Mercury	26001-10-07 02:53 G		11218009.48	11218009.62	11218009.76	0.0511	0.0024	
Moon	26002-02-24 07:55 G		11218149.65	11218149.83	11218150.02	0.0506	0.0311	
Earth	26002-02-24 11:45 G		11218149.82	11218149.99	11218150.17	0.0506	0.0333 *	
Moon	26006-06-27 04:33 G		11219733.66	11219733.69	11219733.72	0.0496	0.0490	
Venus	26006-12-16 22:05 G		11219906.23	11219906.42	11219906.61	0.0501	0.0169	
Moon	26007-07-29 10:19 G		11220130.69	11220130.93	11220131.16	0.0509	0.0094	
Earth	26007-07-29 13:12 G		11220130.82	11220131.05	11220131.28	0.0509	0.0077 *	
Mercury	26007-12-06 22:48 G		11220261.43	11220261.45	11220261.47	0.0514	0.0509	
Mercury	26008-03-06 02:09 G		11220351.45	11220351.59	11220351.73	0.0518	0.0261	
Earth	26008-09-01 04:48 G		11220530.59	11220530.70	11220530.82	0.0525	0.0451	
Moon	26008-09-01 07:41 G		11220530.70	11220530.82	11220530.95	0.0525	0.0436 *	
Moon	26013-01-26 11:31 G		11222138.75	11222138.98	11222139.22	0.0519	0.0074	
Earth	26013-01-26 14:38 G		11222138.88	11222139.11	11222139.34	0.0519	0.0102 *	

Mercury	26013-07-26 06:57 G	11222319.66	11222319.79	11222319.92	0.0512	0.0162
Mercury	26013-10-23 15:21 G	11222409.07	11222409.14	11222409.21	0.0508	0.0426
Earth	26014-03-01 02:53 G	11222537.48	11222537.62	11222537.76	0.0504	0.0395
Moon	26014-03-01 06:00 G	11222537.60	11222537.75	11222537.91	0.0504	0.0369 *
Moon	26018-07-01 10:48 G	11224120.88	11224120.95	11224121.04	0.0498	0.0467
Earth	26018-07-01 12:00 G	11224120.92	11224121.00	11224121.08	0.0498	0.0465 *
Venus	26018-08-21 22:19 G	11224172.27	11224172.43	11224172.61	0.0499	0.0284
Earth	26019-08-03 06:43 G	11224518.55	11224518.78	11224519.01	0.0512	0.0004
Moon	26019-08-03 08:09 G	11224518.61	11224518.84	11224519.06	0.0512	0.0023 *
Mercury	26019-12-24 01:26 G	11224661.39	11224661.56	11224661.73	0.0517	0.0077
Moon	26020-09-06 06:29 G	11224918.70	11224918.77	11224918.86	0.0527	0.0496
Earth	26020-09-06 07:26 G	11224918.78	11224918.81	11224918.83	0.0527	0.0523 *
Venus	26024-06-30 05:02 G	11226311.61	11226311.71	11226311.81	0.0525	0.0454
Earth	26025-01-31 11:31 G	11226526.75	11226526.98	11226527.22	0.0517	0.0025
Moon	26025-01-31 12:43 G	11226526.80	11226527.03	11226527.25	0.0517	0.0015 *
Mercury	26025-05-14 10:48 G	11226629.84	11226629.95	11226630.06	0.0513	0.0302
Mercury	26025-08-11 18:57 G	11226719.18	11226719.29	11226719.41	0.0509	0.0283
Moon	26026-03-05 13:55 G	11226924.99	11226925.08	11226925.18	0.0502	0.0462
Earth	26026-03-05 16:19 G	11226925.08	11226925.18	11226925.27	0.0502	0.0453 *
Moon	26030-07-06 00:14 G	11228508.41	11228508.51	11228508.62	0.0500	0.0436
Earth	26030-07-06 01:26 G	11228508.43	11228508.56	11228508.70	0.0500	0.0406 *
Earth	26031-08-08 03:36 G	11228906.42	11228906.65	11228906.88	0.0514	0.0073
Moon	26031-08-08 03:50 G	11228906.42	11228906.66	11228906.90	0.0514	0.0094 *
Mercury	26031-10-12 00:57 G	11228971.38	11228971.54	11228971.71	0.0516	0.0103
Earth	26036-01-01 21:36 G	11230514.32	11230514.40	11230514.50	0.0529	0.0489
Moon	26036-01-01 22:33 G	11230514.37	11230514.44	11230514.52	0.0529	0.0496 *
Venus	26036-03-04 18:57 G	11230577.09	11230577.29	11230577.49	0.0527	0.0091
Earth	26037-02-05 01:12 G	11230914.32	11230914.55	11230914.79	0.0514	0.0051
Moon	26037-02-05 01:41 G	11230914.33	11230914.57	11230914.81	0.0514	0.0021 *
Mercury	26037-03-02 13:41 G	11230940.02	11230940.07	11230940.13	0.0513	0.0460

Mercury	26037-05-30 21:50 G	11231029.27	11231029.41	11231029.54	0.0510	0.0124
Earth	26042-07-10 14:38 G	11232895.95	11232896.11	11232896.29	0.0501	0.0346
Moon	26042-07-10 17:45 G	11232896.07	11232896.24	11232896.41	0.0501	0.0343 *
Venus	26042-08-24 12:00 G	11232940.92	11232941.00	11232941.09	0.0503	0.0452
Mercury	26043-07-31 00:00 G	11233281.36	11233281.50	11233281.64	0.0515	0.0291
Moon	26043-08-12 21:21 G	11233294.17	11233294.39	11233294.61	0.0516	0.0128
Earth	26043-08-12 23:17 G	11233294.25	11233294.47	11233294.70	0.0516	0.0150 *
Mercury	26043-10-29 02:38 G	11233371.55	11233371.61	11233371.68	0.0519	0.0473
Earth	26048-01-06 21:36 G	11234902.27	11234902.40	11234902.55	0.0527	0.0416
Moon	26048-01-06 23:31 G	11234902.32	11234902.48	11234902.65	0.0527	0.0382 *
Moon	26049-02-09 16:33 G	11235301.97	11235302.19	11235302.41	0.0513	0.0106
Earth	26049-02-09 18:29 G	11235302.04	11235302.27	11235302.50	0.0513	0.0123 *
Mercury	26049-03-19 01:26 G	11235339.42	11235339.56	11235339.69	0.0511	0.0028
Venus	26054-04-29 11:17 G	11237206.77	11237206.97	11237207.17	0.0500	0.0009
Moon	26054-07-14 22:05 G	11237283.23	11237283.42	11237283.63	0.0503	0.0255
Earth	26054-07-15 01:41 G	11237283.38	11237283.57	11237283.77	0.0503	0.0286 *
Mercury	26055-05-18 21:50 G	11237591.37	11237591.41	11237591.46	0.0514	0.0493
Mercury	26055-08-17 01:12 G	11237681.41	11237681.55	11237681.69	0.0518	0.0276
Earth	26055-08-17 16:33 G	11237681.98	11237682.19	11237682.40	0.0518	0.0222
Moon	26055-08-17 20:09 G	11237682.13	11237682.34	11237682.56	0.0518	0.0203 *
Moon	26060-01-11 19:41 G	11239290.15	11239290.32	11239290.50	0.0526	0.0336
Earth	26060-01-11 23:02 G	11239290.29	11239290.46	11239290.64	0.0526	0.0340 *
Mercury	26061-01-05 05:17 G	11239649.59	11239649.72	11239649.85	0.0512	0.0161
Earth	26061-02-14 12:43 G	11239689.82	11239690.03	11239690.25	0.0511	0.0195
Moon	26061-02-14 16:05 G	11239689.96	11239690.17	11239690.39	0.0511	0.0222 *
Mercury	26061-04-04 13:41 G	11239739.00	11239739.07	11239739.15	0.0509	0.0428
Venus	26066-01-02 11:45 G	11241472.92	11241472.99	11241473.07	0.0498	0.0458
Earth	26066-07-19 15:07 G	11241670.92	11241671.13	11241671.34	0.0505	0.0219
Moon	26066-07-19 18:43 G	11241671.07	11241671.28	11241671.50	0.0505	0.0210 *
Mercury	26067-06-05 00:00 G	11241991.34	11241991.50	11241991.67	0.0517	0.0087

Moon	26067-08-22 09:36 G	11242069.71	11242069.90	11242070.08	0.0520	0.0321
Earth	26067-08-22 13:26 G	11242069.87	11242070.06	11242070.25	0.0520	0.0297 *
Venus	26071-11-11 12:43 G	11243611.85	11243612.03	11243612.21	0.0526	0.0232
Earth	26072-01-17 00:57 G	11243678.34	11243678.54	11243678.74	0.0524	0.0261
Moon	26072-01-17 04:48 G	11243678.51	11243678.70	11243678.89	0.0524	0.0293 *
Mercury	26072-10-24 09:21 G	11243959.78	11243959.89	11243960.00	0.0513	0.0298
Mercury	26073-01-21 17:31 G	11244049.12	11244049.23	11244049.34	0.0509	0.0288
Moon	26073-02-19 02:38 G	11244077.42	11244077.61	11244077.81	0.0508	0.0280
Earth	26073-02-19 06:29 G	11244077.57	11244077.77	11244077.97	0.0508	0.0263 *
Moon	26078-07-24 02:38 G	11246058.39	11246058.61	11246058.83	0.0507	0.0178
Earth	26078-07-24 05:45 G	11246058.51	11246058.74	11246058.96	0.0507	0.0150 *
Mercury	26079-03-23 23:02 G	11246301.30	11246301.46	11246301.63	0.0516	0.0101
Earth	26079-08-27 12:43 G	11246457.87	11246458.03	11246458.19	0.0522	0.0373
Moon	26079-08-27 15:50 G	11246458.02	11246458.16	11246458.31	0.0522	0.0399 *
Venus	26083-07-17 05:45 G	11247877.58	11247877.74	11247877.91	0.0528	0.0295
Moon	26084-01-21 21:21 G	11248066.17	11248066.39	11248066.61	0.0521	0.0188
Earth	26084-01-22 00:29 G	11248066.31	11248066.52	11248066.74	0.0521	0.0182 *
Mercury	26084-08-12 13:12 G	11248269.99	11248270.05	11248270.12	0.0513	0.0439
Mercury	26084-11-09 21:21 G	11248359.26	11248359.39	11248359.52	0.0510	0.0145
Earth	26085-02-23 21:36 G	11248465.23	11248465.40	11248465.58	0.0506	0.0331
Moon	26085-02-24 00:57 G	11248465.36	11248465.54	11248465.72	0.0506	0.0306 *
Moon	26089-06-26 12:00 G	11250048.97	11250049.00	11250049.03	0.0496	0.0491
Venus	26090-01-04 23:45 G	11250241.32	11250241.49	11250241.67	0.0502	0.0264
Earth	26090-07-29 00:00 G	11250446.27	11250446.50	11250446.73	0.0509	0.0077
Moon	26090-07-29 01:26 G	11250446.34	11250446.56	11250446.78	0.0509	0.0087 *
Mercury	26091-01-09 22:33 G	11250611.30	11250611.44	11250611.58	0.0515	0.0281
Mercury	26091-04-10 01:26 G	11250701.50	11250701.56	11250701.62	0.0519	0.0483
Moon	26091-09-01 13:26 G	11250845.93	11250846.06	11250846.20	0.0524	0.0429
Earth	26091-09-01 14:38 G	11250846.00	11250846.11	11250846.23	0.0524	0.0449 *
Earth	26096-01-26 16:48 G	11252453.97	11252454.20	11252454.43	0.0519	0.0107

Moon	26096-01-26 18:14 G	11252454.04	11252454.26	11252454.49	0.0519	0.0077 *
Mercury	26096-08-29 00:00 G	11252669.37	11252669.50	11252669.64	0.0511	0.0021
Moon	26097-02-28 04:19 G	11252852.52	11252852.68	11252852.85	0.0504	0.0364
Earth	26097-02-28 06:43 G	11252852.64	11252852.78	11252852.93	0.0504	0.0392 *
Mars	26099-03-24 16:19 G	11253606.88	11253607.18	11253607.49	0.0488	0.0086
Moon	26101-07-01 22:48 G	11254436.40	11254436.45	11254436.52	0.0498	0.0479
Earth	26101-07-02 00:00 G	11254436.43	11254436.50	11254436.59	0.0498	0.0464 *
Venus	26101-09-11 00:43 G	11254507.34	11254507.53	11254507.72	0.0500	0.0186
Earth	26102-08-03 17:45 G	11254834.00	11254834.24	11254834.47	0.0511	0.0008
Moon	26102-08-03 17:45 G	11254834.00	11254834.24	11254834.48	0.0511	0.0024 *
Mercury	26102-10-29 21:21 G	11254921.33	11254921.39	11254921.46	0.0514	0.0470
Mercury	26103-01-28 00:43 G	11255011.40	11255011.53	11255011.67	0.0518	0.0299
Moon	26103-09-07 13:55 G	11255234.02	11255234.08	11255234.14	0.0526	0.0502
Earth	26103-09-07 15:21 G	11255234.11	11255234.14	11255234.17	0.0526	0.0520 *
Venus	26107-07-21 02:09 G	11256646.59	11256646.59	11256646.59	0.0524	0.0524
Moon	26108-02-01 11:45 G	11256841.75	11256841.99	11256842.24	0.0517	0.0024
Earth	26108-02-01 11:45 G	11256841.76	11256841.99	11256842.22	0.0517	0.0030 *
Mercury	26108-06-18 03:36 G	11256979.52	11256979.65	11256979.78	0.0512	0.0162
Mercury	26108-09-15 12:00 G	11257068.93	11257069.00	11257069.08	0.0509	0.0427
Earth	26109-03-05 19:12 G	11257240.20	11257240.30	11257240.41	0.0503	0.0451
Moon	26109-03-05 19:41 G	11257240.24	11257240.32	11257240.40	0.0503	0.0467 *
Earth	26113-07-06 09:36 G	11258823.76	11258823.90	11258824.03	0.0499	0.0409
Moon	26113-07-06 12:14 G	11258823.90	11258824.01	11258824.13	0.0499	0.0438 *
Moon	26114-08-08 06:43 G	11259221.56	11259221.78	11259222.01	0.0513	0.0084
Earth	26114-08-08 08:38 G	11259221.62	11259221.86	11259222.09	0.0513	0.0067 *
Mercury	26114-11-15 22:48 G	11259321.29	11259321.45	11259321.62	0.0517	0.0101
Mars	26117-02-15 00:57 G	11260143.32	11260143.54	11260143.76	0.0539	0.0243
Earth	26119-01-02 00:57 G	11260829.47	11260829.54	11260829.62	0.0530	0.0496
Moon	26119-01-02 02:09 G	11260829.51	11260829.59	11260829.68	0.0530	0.0491 *
Venus	26119-03-25 18:57 G	11260912.09	11260912.29	11260912.49	0.0527	0.0004

Moon	26120-02-06 06:14 G	11261229.53	11261229.76	11261229.98	0.0515	0.0017
Earth	26120-02-06 07:55 G	11261229.59	11261229.83	11261230.06	0.0515	0.0046 *
Mercury	26120-04-06 07:41 G	11261289.71	11261289.82	11261289.93	0.0513	0.0301
Mercury	26120-07-04 15:50 G	11261379.05	11261379.16	11261379.27	0.0510	0.0286
Moon	26125-07-10 17:02 G	11263211.06	11263211.21	11263211.38	0.0501	0.0349
Earth	26125-07-10 20:38 G	11263211.20	11263211.36	11263211.53	0.0501	0.0350 *
Earth	26126-08-13 02:24 G	11263609.38	11263609.60	11263609.83	0.0515	0.0142
Moon	26126-08-13 06:00 G	11263609.52	11263609.75	11263609.98	0.0515	0.0114 *
Mercury	26126-09-03 21:36 G	11263631.24	11263631.40	11263631.57	0.0516	0.0093
Venus	26130-11-28 12:14 G	11265178.00	11265178.01	11265178.02	0.0529	0.0528
Moon	26131-01-07 01:41 G	11265217.42	11265217.57	11265217.73	0.0528	0.0387
Earth	26131-01-07 04:33 G	11265217.56	11265217.69	11265217.84	0.0528	0.0421 *
Mercury	26132-01-24 11:45 G	11265599.92	11265599.99	11265600.06	0.0514	0.0437
Earth	26132-02-11 03:36 G	11265617.43	11265617.65	11265617.88	0.0513	0.0120
Moon	26132-02-11 06:57 G	11265617.56	11265617.79	11265618.03	0.0513	0.0112 *
Mercury	26132-04-22 19:41 G	11265689.19	11265689.32	11265689.45	0.0510	0.0146
Venus	26137-05-19 10:33 G	11267541.74	11267541.94	11267542.15	0.0501	0.0072
Earth	26137-07-15 08:38 G	11267598.67	11267598.86	11267599.05	0.0503	0.0287
Moon	26137-07-15 12:29 G	11267598.82	11267599.02	11267599.22	0.0503	0.0256 *
Mercury	26138-06-22 20:24 G	11267941.21	11267941.35	11267941.49	0.0515	0.0283
Moon	26138-08-17 18:43 G	11267997.06	11267997.28	11267997.49	0.0517	0.0200
Earth	26138-08-17 22:33 G	11267997.23	11267997.44	11267997.66	0.0517	0.0218 *
Mercury	26138-09-20 23:17 G	11268031.41	11268031.47	11268031.53	0.0519	0.0482
Earth	26143-01-12 06:43 G	11269605.61	11269605.78	11269605.97	0.0526	0.0342
Moon	26143-01-12 10:48 G	11269605.77	11269605.95	11269606.13	0.0526	0.0340 *
Mercury	26144-02-09 23:31 G	11269999.34	11269999.48	11269999.62	0.0511	0.0004
Moon	26144-02-15 17:31 G	11270005.03	11270005.23	11270005.45	0.0511	0.0222
Earth	26144-02-15 21:36 G	11270005.18	11270005.40	11270005.61	0.0511	0.0192 *
Venus	26149-01-22 12:14 G	11271807.88	11271808.01	11271808.15	0.0499	0.0373
Moon	26149-07-19 21:07 G	11271986.17	11271986.38	11271986.60	0.0505	0.0217

Earth	26149-07-20 00:29 G	11271986.31	11271986.52	11271986.73	0.0505	0.0219	*
Mercury	26150-04-10 19:55 G	11272251.26	11272251.33	11272251.40	0.0514	0.0465	
Mercury	26150-07-09 23:02 G	11272341.33	11272341.46	11272341.60	0.0518	0.0306	
Earth	26150-08-22 22:19 G	11272385.24	11272385.43	11272385.62	0.0520	0.0296	
Moon	26150-08-23 01:26 G	11272385.39	11272385.56	11272385.75	0.0520	0.0324	*
Venus	26154-12-01 11:02 G	11273946.80	11273946.96	11273947.13	0.0525	0.0312	
Moon	26155-01-16 22:33 G	11273993.25	11273993.44	11273993.64	0.0524	0.0298	
Earth	26155-01-17 02:09 G	11273993.39	11273993.59	11273993.79	0.0524	0.0267	*
Mercury	26155-11-29 02:24 G	11274309.47	11274309.60	11274309.73	0.0512	0.0155	
Earth	26156-02-20 08:24 G	11274392.66	11274392.85	11274393.06	0.0509	0.0259	
Moon	26156-02-20 12:00 G	11274392.81	11274393.00	11274393.19	0.0509	0.0273	*
Mercury	26156-02-26 10:48 G	11274398.88	11274398.95	11274399.02	0.0508	0.0433	
Earth	26161-07-24 15:36 G	11276373.93	11276374.15	11276374.37	0.0507	0.0150	
Moon	26161-07-24 17:17 G	11276374.01	11276374.22	11276374.43	0.0507	0.0182	*
Mercury	26162-04-27 22:19 G	11276651.27	11276651.43	11276651.59	0.0517	0.0119	
Moon	26162-08-27 18:43 G	11276773.13	11276773.28	11276773.45	0.0521	0.0391	
Earth	26162-08-27 20:38 G	11276773.20	11276773.36	11276773.53	0.0521	0.0370	*
Venus	26166-08-06 02:38 G	11278212.43	11278212.61	11278212.79	0.0528	0.0224	
Earth	26167-01-21 23:02 G	11278381.24	11278381.46	11278381.68	0.0522	0.0189	
Moon	26167-01-22 01:12 G	11278381.34	11278381.55	11278381.76	0.0522	0.0189	*
Mercury	26167-09-17 06:00 G	11278619.64	11278619.75	11278619.86	0.0513	0.0302	
Mercury	26167-12-15 14:09 G	11278708.97	11278709.09	11278709.20	0.0509	0.0284	
Moon	26168-02-24 19:41 G	11278780.14	11278780.32	11278780.52	0.0507	0.0301	
Earth	26168-02-24 22:33 G	11278780.26	11278780.44	11278780.61	0.0507	0.0325	*
Venus	26173-01-24 22:33 G	11280576.30	11280576.44	11280576.59	0.0502	0.0344	
Moon	26173-07-29 04:05 G	11280761.44	11280761.67	11280761.91	0.0508	0.0093	
Earth	26173-07-29 04:33 G	11280761.46	11280761.69	11280761.92	0.0508	0.0084	*
Mercury	26174-02-13 20:09 G	11280961.18	11280961.34	11280961.51	0.0516	0.0084	
Moon	26174-09-01 15:07 G	11281161.00	11281161.13	11281161.26	0.0523	0.0417	
Earth	26174-09-01 15:36 G	11281161.03	11281161.15	11281161.28	0.0523	0.0440	*

Moon	26179-01-26 20:09 G	11282769.10	11282769.34	11282769.58	0.0520	0.0081
Earth	26179-01-26 20:24 G	11282769.12	11282769.35	11282769.58	0.0520	0.0114 *
Mercury	26179-07-06 09:50 G	11282929.85	11282929.91	11282929.98	0.0514	0.0442
Mercury	26179-10-03 17:45 G	11283019.11	11283019.24	11283019.37	0.0510	0.0142
Earth	26180-02-29 13:26 G	11283167.92	11283168.06	11283168.21	0.0505	0.0387
Moon	26180-02-29 13:55 G	11283167.94	11283168.08	11283168.24	0.0505	0.0369 *
Earth	26184-07-01 05:02 G	11284751.65	11284751.71	11284751.80	0.0497	0.0468
Moon	26184-07-01 07:55 G	11284751.79	11284751.83	11284751.89	0.0497	0.0486 *
Venus	26184-09-29 22:33 G	11284842.24	11284842.44	11284842.64	0.0500	0.0113
Moon	26185-08-02 18:29 G	11285149.04	11285149.27	11285149.49	0.0510	0.0016
Earth	26185-08-02 19:41 G	11285149.09	11285149.32	11285149.56	0.0510	0.0016 *
Mercury	26185-12-02 18:43 G	11285271.14	11285271.28	11285271.42	0.0515	0.0278
Mercury	26186-03-02 21:36 G	11285361.34	11285361.40	11285361.45	0.0518	0.0485
Earth	26186-09-06 14:24 G	11285549.06	11285549.10	11285549.16	0.0525	0.0511
Moon	26186-09-06 17:31 G	11285549.15	11285549.23	11285549.31	0.0525	0.0493 *
Moon	26191-01-31 17:17 G	11287156.99	11287157.22	11287157.44	0.0518	0.0031
Earth	26191-01-31 18:43 G	11287157.04	11287157.28	11287157.51	0.0518	0.0037 *
Mercury	26191-07-22 21:50 G	11287329.27	11287329.41	11287329.54	0.0511	0.0017
Earth	26192-03-05 03:50 G	11287555.56	11287555.66	11287555.77	0.0503	0.0446
Moon	26192-03-05 05:31 G	11287555.65	11287555.73	11287555.82	0.0503	0.0468 *
Moon	26196-07-05 11:31 G	11289138.88	11289138.98	11289139.08	0.0499	0.0442
Earth	26196-07-05 14:53 G	11289138.99	11289139.12	11289139.26	0.0499	0.0411 *
Earth	26197-08-07 12:43 G	11289536.80	11289537.03	11289537.26	0.0513	0.0062
Moon	26197-08-07 16:05 G	11289536.93	11289537.17	11289537.40	0.0513	0.0071 *
Mercury	26197-09-20 17:17 G	11289581.15	11289581.22	11289581.29	0.0514	0.0471
Mercury	26197-12-19 20:38 G	11289671.23	11289671.36	11289671.50	0.0518	0.0299
Moon	26202-01-02 04:19 G	11291144.61	11291144.68	11291144.77	0.0530	0.0493
Earth	26202-01-02 06:43 G	11291144.71	11291144.78	11291144.87	0.0530	0.0498 *
Venus	26202-04-14 20:24 G	11291247.16	11291247.35	11291247.55	0.0527	0.0100
Earth	26203-02-06 14:38 G	11291544.88	11291545.11	11291545.35	0.0515	0.0043

Moon	26203-02-06 17:45 G	11291545.00	11291545.24	11291545.48	0.0515	0.0013	*
Mercury	26203-05-12 01:26 G	11291639.43	11291639.56	11291639.69	0.0512	0.0141	
Mercury	26203-08-09 09:50 G	11291728.85	11291728.91	11291728.98	0.0509	0.0448	
Earth	26208-07-11 04:05 G	11293526.51	11293526.67	11293526.84	0.0501	0.0351	
Moon	26208-07-11 07:41 G	11293526.66	11293526.82	11293527.00	0.0501	0.0344	*
Moon	26209-08-13 05:31 G	11293924.51	11293924.73	11293924.96	0.0515	0.0109	
Earth	26209-08-13 09:36 G	11293924.68	11293924.90	11293925.13	0.0515	0.0140	*
Mercury	26209-10-08 20:09 G	11293981.18	11293981.34	11293981.51	0.0517	0.0121	
Venus	26213-12-18 10:48 G	11295512.84	11295512.95	11295513.06	0.0528	0.0445	
Earth	26214-01-07 05:17 G	11295532.59	11295532.72	11295532.86	0.0528	0.0427	
Moon	26214-01-07 09:07 G	11295532.73	11295532.88	11295533.04	0.0528	0.0391	*
Moon	26215-02-11 00:43 G	11295932.31	11295932.53	11295932.76	0.0513	0.0109	
Earth	26215-02-11 04:33 G	11295932.46	11295932.69	11295932.92	0.0513	0.0113	*
Mercury	26215-02-28 04:33 G	11295949.58	11295949.69	11295949.80	0.0513	0.0297	
Mercury	26215-05-28 12:29 G	11296038.91	11296039.02	11296039.14	0.0509	0.0288	
Venus	26220-06-08 10:48 G	11297876.76	11297876.95	11297877.14	0.0501	0.0157	
Moon	26220-07-15 13:26 G	11297913.86	11297914.06	11297914.27	0.0503	0.0260	
Earth	26220-07-15 16:48 G	11297914.01	11297914.20	11297914.40	0.0503	0.0289	*
Mercury	26221-07-27 19:12 G	11298291.13	11298291.30	11298291.47	0.0516	0.0068	
Earth	26221-08-18 05:31 G	11298312.52	11298312.73	11298312.95	0.0517	0.0215	
Moon	26221-08-18 09:07 G	11298312.67	11298312.88	11298313.10	0.0517	0.0201	*
Moon	26226-01-12 00:14 G	11299920.34	11299920.51	11299920.69	0.0526	0.0350	
Earth	26226-01-12 04:05 G	11299920.50	11299920.67	11299920.85	0.0526	0.0351	*
Mercury	26226-12-17 08:09 G	11300259.77	11300259.84	11300259.90	0.0513	0.0444	
Earth	26227-02-15 19:55 G	11300320.11	11300320.33	11300320.55	0.0511	0.0184	
Moon	26227-02-15 23:31 G	11300320.27	11300320.48	11300320.69	0.0511	0.0217	*
Mercury	26227-03-16 16:05 G	11300349.03	11300349.17	11300349.30	0.0510	0.0139	
Venus	26232-02-12 10:05 G	11302142.76	11302142.92	11302143.09	0.0499	0.0298	
Earth	26232-07-20 04:05 G	11302301.46	11302301.67	11302301.88	0.0504	0.0227	
Moon	26232-07-20 05:45 G	11302301.55	11302301.74	11302301.95	0.0504	0.0233	*

Mercury	26233-05-15 17:02 G	11302601.07	11302601.21	11302601.35	0.0515	0.0272
Mercury	26233-08-13 19:55 G	11302691.28	11302691.33	11302691.38	0.0518	0.0491
Moon	26233-08-22 19:41 G	11302700.14	11302700.32	11302700.52	0.0519	0.0309
Earth	26233-08-22 22:19 G	11302700.24	11302700.43	11302700.63	0.0519	0.0285 *
Mars	26235-08-08 08:09 G	11303415.72	11303415.84	11303415.96	0.0539	0.0468
Venus	26237-12-21 08:53 G	11304281.73	11304281.87	11304282.00	0.0525	0.0389
Earth	26238-01-17 02:24 G	11304308.41	11304308.60	11304308.81	0.0525	0.0277
Moon	26238-01-17 05:17 G	11304308.53	11304308.72	11304308.90	0.0525	0.0308 *
Mercury	26239-01-02 19:41 G	11304659.19	11304659.32	11304659.46	0.0511	0.0007
Moon	26239-02-20 09:50 G	11304707.71	11304707.91	11304708.12	0.0510	0.0266
Earth	26239-02-20 12:43 G	11304707.82	11304708.03	11304708.23	0.0510	0.0252 *
Moon	26244-07-24 16:33 G	11306688.96	11306689.19	11306689.41	0.0506	0.0190
Earth	26244-07-24 17:02 G	11306688.99	11306689.21	11306689.43	0.0506	0.0159 *
Mercury	26245-03-03 15:21 G	11306911.07	11306911.14	11306911.21	0.0514	0.0469
Mercury	26245-06-01 18:43 G	11307001.14	11307001.28	11307001.41	0.0517	0.0300
Earth	26245-08-27 18:29 G	11307088.11	11307088.27	11307088.45	0.0521	0.0359
Moon	26245-08-27 18:43 G	11307088.13	11307088.28	11307088.44	0.0521	0.0375 *
Venus	26249-08-26 01:55 G	11308547.38	11308547.58	11308547.77	0.0528	0.0138
Moon	26250-01-22 01:55 G	11308696.36	11308696.58	11308696.80	0.0523	0.0192
Earth	26250-01-22 02:38 G	11308696.40	11308696.61	11308696.83	0.0523	0.0198 *
Mercury	26250-10-21 23:31 G	11308969.35	11308969.48	11308969.61	0.0512	0.0146
Mercury	26251-01-19 07:55 G	11309058.77	11309058.83	11309058.90	0.0509	0.0443
Earth	26251-02-25 04:48 G	11309095.52	11309095.70	11309095.88	0.0507	0.0319
Moon	26251-02-25 05:45 G	11309095.56	11309095.74	11309095.92	0.0507	0.0295 *
Mars	26253-06-19 12:43 G	11309940.87	11309941.03	11309941.22	0.0488	0.0394
Venus	26256-02-14 19:41 G	11310911.21	11310911.32	11310911.44	0.0502	0.0412
Moon	26256-07-29 06:00 G	11311076.53	11311076.75	11311076.97	0.0508	0.0095
Earth	26256-07-29 06:57 G	11311076.56	11311076.79	11311077.02	0.0508	0.0090 *
Mercury	26257-03-20 17:31 G	11311311.07	11311311.23	11311311.39	0.0517	0.0109
Earth	26257-09-01 16:48 G	11311476.08	11311476.20	11311476.34	0.0523	0.0433

Moon	26257-09-01 19:26 G	11311476.16	11311476.31	11311476.46	0.0523	0.0402 *
Moon	26262-01-27 00:29 G	11313084.30	11313084.52	11313084.75	0.0520	0.0087
Earth	26262-01-27 01:26 G	11313084.34	11313084.56	11313084.79	0.0520	0.0119 *
Mercury	26262-08-10 03:21 G	11313279.54	11313279.64	11313279.76	0.0513	0.0288
Mercury	26262-11-07 11:31 G	11313368.87	11313368.98	11313369.09	0.0509	0.0299
Earth	26263-03-01 19:26 G	11313483.17	11313483.31	11313483.47	0.0505	0.0383
Moon	26263-03-01 21:07 G	11313483.21	11313483.38	11313483.54	0.0505	0.0371 *
Moon	26267-07-02 07:12 G	11315066.77	11315066.80	11315066.84	0.0497	0.0490
Earth	26267-07-02 10:48 G	11315066.88	11315066.95	11315067.02	0.0497	0.0469
Venus	26267-10-20 20:53 G	11315177.17	11315177.37	11315177.58	0.0500	0.0039
Earth	26268-08-03 00:43 G	11315464.30	11315464.53	11315464.77	0.0510	0.0018
Moon	26268-08-03 03:50 G	11315464.42	11315464.66	11315464.90	0.0510	0.0015 *
Mercury	26269-01-06 16:48 G	11315621.04	11315621.20	11315621.37	0.0516	0.0074
Moon	26269-09-06 15:21 G	11315864.07	11315864.14	11315864.23	0.0525	0.0490
Earth	26269-09-06 19:12 G	11315864.25	11315864.30	11315864.36	0.0525	0.0506
Earth	26274-01-31 18:29 G	11317472.04	11317472.27	11317472.50	0.0518	0.0044
Moon	26274-01-31 21:07 G	11317472.14	11317472.38	11317472.62	0.0518	0.0044 *
Mercury	26274-05-29 06:43 G	11317589.71	11317589.78	11317589.84	0.0513	0.0441
Mercury	26274-08-26 14:24 G	11317678.97	11317679.10	11317679.24	0.0510	0.0141
Moon	26275-03-06 01:12 G	11317870.48	11317870.55	11317870.64	0.0503	0.0468
Earth	26275-03-06 04:19 G	11317870.57	11317870.68	11317870.79	0.0503	0.0440 *
Venus	26279-06-25 21:36 G	11319443.36	11319443.40	11319443.44	0.0498	0.0485
Earth	26279-07-06 21:07 G	11319454.25	11319454.38	11319454.50	0.0499	0.0415
Moon	26279-07-07 00:43 G	11319454.43	11319454.53	11319454.64	0.0499	0.0443 *
Moon	26280-08-07 14:38 G	11319851.88	11319852.11	11319852.34	0.0512	0.0061
Earth	26280-08-07 18:29 G	11319852.04	11319852.27	11319852.50	0.0512	0.0058 *
Mercury	26280-10-25 15:36 G	11319931.01	11319931.15	11319931.30	0.0515	0.0263
Mercury	26281-01-23 18:29 G	11320021.24	11320021.27	11320021.31	0.0519	0.0503
Earth	26285-01-01 03:21 G	11321459.58	11321459.64	11321459.71	0.0530	0.0507
Moon	26285-01-01 06:43 G	11321459.71	11321459.78	11321459.86	0.0530	0.0499 *

Venus	26285-05-03 16:19 G	11321581.99	11321582.18	11321582.37	0.0526	0.0164
Moon	26286-02-05 08:09 G	11321859.61	11321859.84	11321860.08	0.0516	0.0008
Earth	26286-02-05 12:00 G	11321859.77	11321860.00	11321860.23	0.0516	0.0032 *
Mercury	26286-06-14 17:45 G	11321989.11	11321989.24	11321989.38	0.0511	0.0018
Earth	26287-03-10 15:21 G	11322258.11	11322258.14	11322258.17	0.0502	0.0496
Moon	26291-07-11 03:36 G	11323841.48	11323841.65	11323841.82	0.0500	0.0348
Earth	26291-07-11 06:43 G	11323841.63	11323841.78	11323841.95	0.0500	0.0360 *
Earth	26292-08-12 09:21 G	11324239.66	11324239.89	11324240.12	0.0514	0.0127
Moon	26292-08-12 13:12 G	11324239.82	11324240.05	11324240.27	0.0514	0.0095 *
Mercury	26292-08-13 13:26 G	11324240.99	11324241.06	11324241.13	0.0514	0.0467
Mercury	26292-11-11 16:48 G	11324331.07	11324331.20	11324331.33	0.0517	0.0302
Moon	26297-01-05 22:33 G	11325847.30	11325847.44	11325847.60	0.0529	0.0406
Earth	26297-01-06 02:24 G	11325847.48	11325847.60	11325847.74	0.0529	0.0439 *
Venus	26297-01-06 06:57 G	11325847.66	11325847.79	11325847.94	0.0529	0.0377 *
Earth	26298-02-10 05:31 G	11326247.51	11326247.73	11326247.96	0.0514	0.0104
Moon	26298-02-10 09:21 G	11326247.66	11326247.89	11326248.11	0.0514	0.0104 *
Mercury	26298-04-02 21:36 G	11326299.27	11326299.40	11326299.53	0.0512	0.0154
Mercury	26298-07-01 05:45 G	11326388.67	11326388.74	11326388.81	0.0509	0.0435
Venus	26303-06-29 06:43 G	11328211.60	11328211.78	11328211.97	0.0501	0.0221
Earth	26303-07-16 18:00 G	11328229.06	11328229.25	11328229.44	0.0502	0.0297
Moon	26303-07-16 20:09 G	11328229.15	11328229.34	11328229.53	0.0502	0.0270 *
Moon	26304-08-18 00:14 G	11328627.28	11328627.51	11328627.73	0.0516	0.0185
Earth	26304-08-18 03:07 G	11328627.42	11328627.63	11328627.85	0.0516	0.0202 *
Mercury	26304-08-31 15:21 G	11328640.98	11328641.14	11328641.31	0.0516	0.0109
Earth	26309-01-12 04:19 G	11330235.51	11330235.68	11330235.85	0.0527	0.0361
Moon	26309-01-12 07:26 G	11330235.65	11330235.81	11330235.97	0.0527	0.0369 *
Mercury	26310-01-21 01:26 G	11330609.45	11330609.56	11330609.67	0.0513	0.0295
Moon	26310-02-15 21:07 G	11330635.16	11330635.38	11330635.60	0.0512	0.0208
Earth	26310-02-16 00:14 G	11330635.29	11330635.51	11330635.73	0.0512	0.0176 *
Mercury	26310-04-20 09:36 G	11330698.79	11330698.90	11330699.01	0.0510	0.0292

Venus	26315-03-04 06:29 G	11332477.59	11332477.77	11332477.95	0.0499	0.0236
Moon	26315-07-21 04:33 G	11332616.48	11332616.69	11332616.90	0.0503	0.0239
Earth	26315-07-21 05:17 G	11332616.52	11332616.72	11332616.93	0.0503	0.0233 *
Mercury	26316-06-19 13:55 G	11332950.91	11332951.08	11332951.25	0.0516	0.0086
Earth	26316-08-22 22:05 G	11333015.23	11333015.42	11333015.62	0.0518	0.0276
Moon	26316-08-22 23:02 G	11333015.28	11333015.46	11333015.64	0.0518	0.0303 *
Venus	26321-01-10 08:09 G	11334616.76	11334616.84	11334616.93	0.0525	0.0474
Moon	26321-01-17 04:19 G	11334623.49	11334623.68	11334623.88	0.0525	0.0312
Earth	26321-01-17 05:45 G	11334623.54	11334623.74	11334623.94	0.0525	0.0282 *
Mercury	26321-11-09 05:17 G	11334919.65	11334919.72	11334919.79	0.0514	0.0435
Mercury	26322-02-06 13:12 G	11335008.92	11335009.05	11335009.18	0.0510	0.0148
Earth	26322-02-20 17:02 G	11335023.01	11335023.21	11335023.42	0.0510	0.0247
Moon	26322-02-20 18:14 G	11335023.07	11335023.26	11335023.46	0.0510	0.0257 *
Moon	26327-07-25 19:26 G	11337004.11	11337004.31	11337004.52	0.0506	0.0195
Earth	26327-07-25 20:09 G	11337004.13	11337004.34	11337004.57	0.0506	0.0164 *
Mercury	26328-04-07 12:57 G	11337260.90	11337261.04	11337261.19	0.0515	0.0271
Mercury	26328-07-06 16:05 G	11337351.12	11337351.17	11337351.22	0.0519	0.0495
Earth	26328-08-27 21:36 G	11337403.23	11337403.40	11337403.57	0.0521	0.0353
Moon	26328-08-27 23:17 G	11337403.30	11337403.47	11337403.65	0.0521	0.0360 *
Venus	26332-09-14 23:45 G	11338882.29	11338882.49	11338882.69	0.0527	0.0060
Moon	26333-01-22 01:55 G	11339011.37	11339011.58	11339011.79	0.0522	0.0202
Earth	26333-01-22 02:09 G	11339011.38	11339011.59	11339011.81	0.0522	0.0208 *
Mercury	26333-11-25 16:19 G	11339319.04	11339319.18	11339319.31	0.0511	0.0013
Earth	26334-02-25 04:33 G	11339410.51	11339410.69	11339410.88	0.0508	0.0311
Moon	26334-02-25 05:31 G	11339410.53	11339410.73	11339410.93	0.0508	0.0283 *
Venus	26339-03-06 17:45 G	11341246.20	11341246.24	11341246.29	0.0503	0.0487
Earth	26339-07-30 11:17 G	11341391.74	11341391.97	11341392.20	0.0508	0.0096
Moon	26339-07-30 13:55 G	11341391.85	11341392.08	11341392.32	0.0508	0.0093 *
Mercury	26340-01-25 11:45 G	11341570.91	11341570.99	11341571.06	0.0514	0.0462
Mercury	26340-04-24 15:07 G	11341661.00	11341661.13	11341661.27	0.0518	0.0310

Moon	26340-09-01 17:02 G	11341791.06	11341791.21	11341791.36	0.0523	0.0395
Earth	26340-09-01 20:09 G	11341791.21	11341791.34	11341791.48	0.0523	0.0426 *
Earth	26345-01-26 22:05 G	11343399.19	11343399.42	11343399.64	0.0520	0.0130
Moon	26345-01-27 00:14 G	11343399.27	11343399.51	11343399.74	0.0520	0.0099 *
Mercury	26345-09-13 19:41 G	11343629.19	11343629.32	11343629.45	0.0512	0.0157
Mercury	26345-12-12 03:50 G	11343718.59	11343718.66	11343718.74	0.0509	0.0430
Moon	26346-03-01 14:38 G	11343797.96	11343798.11	11343798.27	0.0506	0.0366
Earth	26346-03-01 17:31 G	11343798.07	11343798.23	11343798.39	0.0506	0.0374 *
Earth	26350-07-02 12:57 G	11345381.98	11345382.04	11345382.10	0.0497	0.0478
Venus	26350-11-09 17:02 G	11345512.01	11345512.21	11345512.42	0.0500	0.0029
Moon	26351-08-03 21:07 G	11345779.15	11345779.38	11345779.61	0.0509	0.0008
Earth	26351-08-04 00:43 G	11345779.30	11345779.53	11345779.77	0.0509	0.0029 *
Mercury	26352-02-11 13:12 G	11345970.89	11345971.05	11345971.22	0.0516	0.0108
Earth	26352-09-06 15:21 G	11346179.06	11346179.14	11346179.22	0.0524	0.0492
Moon	26352-09-06 19:12 G	11346179.21	11346179.30	11346179.40	0.0524	0.0474 *
Moon	26357-01-31 13:26 G	11347786.83	11347787.06	11347787.29	0.0519	0.0062
Earth	26357-01-31 16:48 G	11347786.97	11347787.20	11347787.44	0.0519	0.0057 *
Mercury	26357-07-02 23:17 G	11347939.36	11347939.47	11347939.58	0.0513	0.0303
Mercury	26357-09-30 07:26 G	11348028.69	11348028.81	11348028.92	0.0510	0.0283
Earth	26358-03-06 06:29 G	11348185.66	11348185.77	11348185.90	0.0504	0.0432
Moon	26358-03-06 10:33 G	11348185.84	11348185.94	11348186.03	0.0504	0.0461 *
Moon	26362-07-06 19:12 G	11349769.20	11349769.30	11349769.40	0.0498	0.0446
Earth	26362-07-06 22:48 G	11349769.33	11349769.45	11349769.57	0.0498	0.0422 *
Venus	26362-07-15 17:31 G	11349778.12	11349778.23	11349778.34	0.0498	0.0423
Earth	26363-08-08 16:05 G	11350166.94	11350167.17	11350167.41	0.0511	0.0045
Moon	26363-08-08 20:09 G	11350167.11	11350167.34	11350167.57	0.0511	0.0047 *
Mercury	26363-11-30 11:45 G	11350280.82	11350280.99	11350281.15	0.0515	0.0088
Moon	26368-01-01 20:38 G	11351774.30	11351774.36	11351774.41	0.0531	0.0515
Earth	26368-01-02 00:00 G	11351774.46	11351774.50	11351774.56	0.0531	0.0519
Venus	26368-05-23 13:12 G	11351916.87	11351917.05	11351917.23	0.0527	0.0236

Earth	26369-02-05 13:12 G	11352174.82	11352175.05	11352175.29	0.0517	0.0023
Moon	26369-02-05 17:02 G	11352174.98	11352175.21	11352175.44	0.0517	0.0011 *
Mercury	26369-04-21 03:07 G	11352249.57	11352249.63	11352249.70	0.0514	0.0445
Mercury	26369-07-19 11:02 G	11352338.83	11352338.96	11352339.09	0.0511	0.0140
Earth	26370-03-10 19:55 G	11352573.29	11352573.33	11352573.39	0.0502	0.0490
Mars	26371-12-07 16:05 G	11353209.96	11353210.17	11353210.39	0.0488	0.0340
Earth	26374-07-11 07:41 G	11354156.67	11354156.82	11354156.98	0.0499	0.0365
Moon	26374-07-11 09:50 G	11354156.76	11354156.91	11354157.08	0.0499	0.0348 *
Moon	26375-08-13 04:48 G	11354554.47	11354554.70	11354554.94	0.0513	0.0088
Earth	26375-08-13 08:09 G	11354554.62	11354554.84	11354555.07	0.0513	0.0119 *
Mercury	26375-09-18 09:50 G	11354590.78	11354590.91	11354591.06	0.0515	0.0286
Mercury	26375-12-17 12:57 G	11354680.98	11354681.04	11354681.10	0.0518	0.0480
Earth	26380-01-07 03:50 G	11356162.54	11356162.66	11356162.79	0.0529	0.0445
Moon	26380-01-07 07:26 G	11356162.67	11356162.81	11356162.95	0.0529	0.0415 *
Venus	26380-01-27 06:00 G	11356182.58	11356182.75	11356182.92	0.0529	0.0294
Moon	26381-02-10 05:45 G	11356562.51	11356562.74	11356562.97	0.0515	0.0096
Earth	26381-02-10 09:07 G	11356562.65	11356562.88	11356563.11	0.0515	0.0097 *
Mercury	26381-05-07 14:53 G	11356648.98	11356649.12	11356649.26	0.0511	0.0005
Moon	26386-07-15 19:12 G	11358544.10	11358544.30	11358544.50	0.0501	0.0273
Earth	26386-07-15 20:09 G	11358544.16	11358544.34	11358544.53	0.0501	0.0302 *
Venus	26386-07-18 03:21 G	11358546.47	11358546.64	11358546.81	0.0501	0.0285
Mercury	26387-07-07 08:53 G	11358900.81	11358900.87	11358900.93	0.0514	0.0473
Earth	26387-08-18 04:33 G	11358942.47	11358942.69	11358942.91	0.0516	0.0195
Moon	26387-08-18 06:00 G	11358942.54	11358942.75	11358942.96	0.0516	0.0186 *
Mercury	26387-10-05 12:29 G	11358990.89	11358991.02	11358991.16	0.0518	0.0299
Mars	26389-11-02 04:19 G	11359749.45	11359749.68	11359749.91	0.0539	0.0194
Moon	26392-01-12 02:09 G	11360550.43	11360550.59	11360550.75	0.0527	0.0381
Earth	26392-01-12 04:19 G	11360550.51	11360550.68	11360550.84	0.0527	0.0370 *
Earth	26393-02-15 00:00 G	11360950.28	11360950.50	11360950.72	0.0512	0.0167
Moon	26393-02-15 01:41 G	11360950.36	11360950.57	11360950.78	0.0512	0.0197 *

Mercury	26393-02-23 18:00 G	11360959.13	11360959.25	11360959.38	0.0512	0.0157
Mercury	26393-05-24 02:09 G	11361048.52	11361048.59	11361048.67	0.0508	0.0431
Venus	26398-03-23 03:21 G	11362812.45	11362812.64	11362812.84	0.0500	0.0168
Moon	26398-07-20 08:09 G	11362931.65	11362931.84	11362932.04	0.0503	0.0249
Earth	26398-07-20 08:38 G	11362931.66	11362931.86	11362932.07	0.0503	0.0240 *
Mercury	26399-07-24 11:31 G	11363300.81	11363300.98	11363301.14	0.0517	0.0111
Earth	26399-08-23 00:43 G	11363330.34	11363330.53	11363330.74	0.0518	0.0268
Moon	26399-08-23 01:41 G	11363330.38	11363330.57	11363330.78	0.0518	0.0297 *
Earth	26404-01-17 02:24 G	11364938.41	11364938.60	11364938.80	0.0525	0.0294
Moon	26404-01-17 02:53 G	11364938.44	11364938.62	11364938.79	0.0525	0.0326 *
Mercury	26404-12-12 21:36 G	11365269.29	11365269.40	11365269.51	0.0513	0.0304
Earth	26405-02-19 14:38 G	11365337.91	11365338.11	11365338.32	0.0510	0.0237
Moon	26405-02-19 15:07 G	11365337.92	11365338.13	11365338.35	0.0510	0.0238 *
Mercury	26405-03-12 05:31 G	11365358.62	11365358.73	11365358.85	0.0509	0.0280
Earth	26410-07-24 20:38 G	11367319.15	11367319.36	11367319.58	0.0505	0.0176
Moon	26410-07-24 23:02 G	11367319.24	11367319.46	11367319.68	0.0505	0.0203 *
Mercury	26411-05-12 09:36 G	11367610.73	11367610.90	11367611.06	0.0515	0.0091
Moon	26411-08-27 15:50 G	11367717.99	11367718.16	11367718.33	0.0520	0.0347
Earth	26411-08-27 18:29 G	11367718.10	11367718.27	11367718.45	0.0520	0.0338 *
Venus	26415-10-04 18:29 G	11369217.07	11369217.27	11369217.48	0.0527	0.0010
Earth	26416-01-21 22:19 G	11369326.22	11369326.43	11369326.64	0.0524	0.0221
Moon	26416-01-21 23:45 G	11369326.27	11369326.49	11369326.71	0.0524	0.0213 *
Mercury	26416-10-01 01:12 G	11369579.49	11369579.55	11369579.61	0.0514	0.0452
Mercury	26416-12-29 08:53 G	11369668.74	11369668.87	11369669.00	0.0511	0.0132
Moon	26417-02-24 02:38 G	11369725.43	11369725.61	11369725.81	0.0509	0.0272
Earth	26417-02-24 05:02 G	11369725.53	11369725.71	11369725.90	0.0509	0.0302 *
Moon	26422-07-29 06:43 G	11371706.56	11371706.78	11371707.01	0.0507	0.0100
Earth	26422-07-29 10:19 G	11371706.70	11371706.93	11371707.16	0.0507	0.0107 *
Mercury	26423-02-28 07:41 G	11371920.68	11371920.82	11371920.97	0.0514	0.0287
Mercury	26423-05-29 10:48 G	11372010.89	11372010.95	11372011.01	0.0518	0.0478

Earth	26423-09-01 14:38 G	11372105.97	11372106.11	11372106.26	0.0522	0.0410
Moon	26423-09-01 18:29 G	11372106.11	11372106.27	11372106.43	0.0522	0.0378 *
Moon	26428-01-26 17:45 G	11373714.01	11373714.24	11373714.46	0.0522	0.0113
Earth	26428-01-26 20:38 G	11373714.14	11373714.36	11373714.59	0.0522	0.0143 *
Mercury	26428-10-17 12:43 G	11373978.89	11373979.03	11373979.17	0.0512	0.0013
Earth	26429-02-28 20:24 G	11374113.20	11374113.35	11374113.51	0.0507	0.0366
Moon	26429-03-01 00:00 G	11374113.34	11374113.50	11374113.67	0.0507	0.0359 *
Earth	26433-07-01 14:24 G	11375697.05	11375697.10	11375697.16	0.0496	0.0482
Venus	26433-11-28 12:43 G	11375846.83	11375847.03	11375847.23	0.0500	0.0086
Earth	26434-08-02 23:45 G	11376094.25	11376094.49	11376094.72	0.0509	0.0037
Moon	26434-08-03 03:36 G	11376094.42	11376094.65	11376094.89	0.0509	0.0008 *
Mercury	26434-12-17 05:45 G	11376230.69	11376230.74	11376230.79	0.0514	0.0487
Mercury	26435-03-17 09:21 G	11376320.75	11376320.89	11376321.03	0.0517	0.0284
Moon	26435-09-06 08:24 G	11376493.75	11376493.85	11376493.96	0.0524	0.0465
Earth	26435-09-06 12:14 G	11376493.93	11376494.01	11376494.11	0.0524	0.0482 *
Earth	26440-01-31 19:12 G	11378102.07	11378102.30	11378102.53	0.0519	0.0063
Moon	26440-01-31 23:02 G	11378102.23	11378102.46	11378102.69	0.0519	0.0076 *
Mercury	26440-08-05 16:33 G	11378289.06	11378289.19	11378289.32	0.0512	0.0154
Mercury	26440-11-03 00:43 G	11378378.46	11378378.53	11378378.60	0.0509	0.0434
Moon	26441-03-05 06:43 G	11378500.69	11378500.78	11378500.89	0.0505	0.0455
Earth	26441-03-05 10:48 G	11378500.83	11378500.95	11378501.07	0.0505	0.0427 *
Earth	26445-07-06 00:29 G	11380084.41	11380084.52	11380084.65	0.0498	0.0427
Moon	26445-07-06 03:07 G	11380084.53	11380084.63	11380084.73	0.0498	0.0446 *
Venus	26445-08-03 13:26 G	11380112.93	11380113.06	11380113.20	0.0498	0.0363
Moon	26446-08-07 13:26 G	11380481.83	11380482.06	11380482.30	0.0511	0.0042
Earth	26446-08-07 17:02 G	11380481.98	11380482.21	11380482.45	0.0511	0.0038 *
Mercury	26447-01-03 08:38 G	11380630.70	11380630.86	11380631.03	0.0517	0.0100
Earth	26451-01-01 00:43 G	11382089.51	11382089.53	11382089.56	0.0531	0.0528
Moon	26451-01-01 04:48 G	11382089.65	11382089.70	11382089.75	0.0531	0.0516
Venus	26451-06-12 11:17 G	11382251.81	11382251.97	11382252.14	0.0526	0.0316

Moon	26452-02-05 10:33 G	11382489.70	11382489.94	11382490.17	0.0517	0.0023
Earth	26452-02-05 13:55 G	11382489.85	11382490.08	11382490.32	0.0517	0.0014 *
Mercury	26452-05-24 19:55 G	11382599.23	11382599.33	11382599.44	0.0513	0.0303
Mercury	26452-08-22 03:50 G	11382688.55	11382688.66	11382688.78	0.0509	0.0281
Earth	26453-03-09 20:53 G	11382888.31	11382888.37	11382888.44	0.0502	0.0481
Moon	26453-03-10 00:14 G	11382888.49	11382888.51	11382888.54	0.0502	0.0498
Moon	26457-07-10 09:21 G	11384471.73	11384471.89	11384472.07	0.0499	0.0350
Earth	26457-07-10 10:33 G	11384471.79	11384471.94	11384472.10	0.0499	0.0371 *
Earth	26458-08-12 10:48 G	11384869.72	11384869.95	11384870.18	0.0513	0.0110
Moon	26458-08-12 12:57 G	11384869.81	11384870.04	11384870.26	0.0513	0.0082 *
Mercury	26458-10-22 07:26 G	11384940.65	11384940.81	11384940.98	0.0516	0.0090
Moon	26463-01-05 23:02 G	11386477.32	11386477.46	11386477.61	0.0529	0.0425
Earth	26463-01-06 01:55 G	11386477.46	11386477.58	11386477.70	0.0529	0.0455 *
Venus	26463-02-15 02:38 G	11386517.43	11386517.61	11386517.80	0.0528	0.0222
Earth	26464-02-10 07:12 G	11386877.57	11386877.80	11386878.03	0.0515	0.0086
Moon	26464-02-10 09:21 G	11386877.67	11386877.89	11386878.12	0.0515	0.0088 *
Mercury	26464-03-12 23:31 G	11386909.42	11386909.48	11386909.55	0.0514	0.0450
Mercury	26464-06-10 07:12 G	11386998.67	11386998.80	11386998.94	0.0510	0.0133
Moon	26469-07-14 21:36 G	11388859.22	11388859.40	11388859.58	0.0501	0.0287
Earth	26469-07-14 21:50 G	11388859.23	11388859.41	11388859.59	0.0501	0.0312 *
Venus	26469-08-05 23:31 G	11388881.34	11388881.48	11388881.63	0.0501	0.0351
Mercury	26470-08-10 05:31 G	11389250.59	11389250.73	11389250.87	0.0515	0.0289
Earth	26470-08-17 03:21 G	11389257.42	11389257.64	11389257.85	0.0515	0.0180
Moon	26470-08-17 03:36 G	11389257.42	11389257.65	11389257.88	0.0515	0.0177 *
Mercury	26470-11-08 08:38 G	11389340.80	11389340.86	11389340.92	0.0518	0.0477
Earth	26475-01-10 22:33 G	11390865.28	11390865.44	11390865.60	0.0528	0.0383
Moon	26475-01-10 23:31 G	11390865.34	11390865.48	11390865.63	0.0528	0.0398 *
Moon	26476-02-14 22:33 G	11391265.21	11391265.44	11391265.67	0.0513	0.0183
Earth	26476-02-14 22:48 G	11391265.23	11391265.45	11391265.67	0.0513	0.0155 *
Mercury	26476-03-29 10:33 G	11391308.81	11391308.94	11391309.08	0.0512	0.0022

Venus	26481-04-11 00:00 G	11393147.30	11393147.50	11393147.70	0.0499	0.0102
Earth	26481-07-19 09:50 G	11393246.71	11393246.91	11393247.11	0.0502	0.0247
Moon	26481-07-19 11:45 G	11393246.78	11393246.99	11393247.20	0.0502	0.0259 *
Mercury	26482-05-29 03:50 G	11393560.61	11393560.66	11393560.71	0.0513	0.0485
Moon	26482-08-21 19:12 G	11393645.12	11393645.30	11393645.49	0.0517	0.0286
Earth	26482-08-21 21:36 G	11393645.20	11393645.40	11393645.60	0.0517	0.0254 *
Mercury	26482-08-27 07:26 G	11393650.67	11393650.81	11393650.95	0.0517	0.0285
Earth	26487-01-15 23:02 G	11395253.27	11395253.46	11395253.65	0.0526	0.0306
Moon	26487-01-15 23:45 G	11395253.31	11395253.49	11395253.68	0.0526	0.0336 *
Mercury	26488-01-16 14:24 G	11395618.97	11395619.10	11395619.23	0.0513	0.0163
Moon	26488-02-19 14:09 G	11395652.89	11395653.09	11395653.30	0.0511	0.0224
Earth	26488-02-19 16:19 G	11395652.97	11395653.18	11395653.39	0.0511	0.0227 *
Mercury	26488-04-14 22:33 G	11395708.37	11395708.44	11395708.52	0.0509	0.0427
Moon	26493-07-23 17:45 G	11397634.03	11397634.24	11397634.45	0.0504	0.0210
Earth	26493-07-23 21:07 G	11397634.16	11397634.38	11397634.60	0.0504	0.0182 *
Mercury	26494-06-15 05:45 G	11397960.58	11397960.74	11397960.91	0.0516	0.0089
Earth	26494-08-26 16:05 G	11398033.00	11398033.17	11398033.36	0.0519	0.0327
Moon	26494-08-26 19:41 G	11398033.15	11398033.32	11398033.51	0.0519	0.0335 *
Venus	26498-10-23 17:17 G	11399552.02	11399552.22	11399552.42	0.0527	0.0082
Moon	26499-01-20 21:36 G	11399641.19	11399641.40	11399641.60	0.0524	0.0217
Earth	26499-01-21 00:14 G	11399641.30	11399641.51	11399641.72	0.0524	0.0227 *
Mercury	26499-11-04 18:29 G	11399929.16	11399929.27	11399929.37	0.0513	0.0303
Mercury	26500-02-02 02:24 G	11400018.49	11400018.60	11400018.71	0.0510	0.0283
Earth	26500-02-24 09:07 G	11400040.70	11400040.88	11400041.07	0.0509	0.0296
Moon	26500-02-24 12:43 G	11400040.83	11400041.03	11400041.24	0.0509	0.0262 *
Earth	26505-07-29 11:31 G	11402021.75	11402021.98	11402022.21	0.0506	0.0113
Moon	26505-07-29 15:36 G	11402021.92	11402022.15	11402022.37	0.0506	0.0100 *
Mercury	26506-04-04 04:48 G	11402270.54	11402270.70	11402270.87	0.0516	0.0098
Moon	26506-09-01 11:17 G	11402420.81	11402420.97	11402421.14	0.0521	0.0372
Earth	26506-09-01 15:07 G	11402420.99	11402421.13	11402421.28	0.0521	0.0403 *

Venus	26510-06-29 09:21 G	11403817.80	11403817.89	11403818.00	0.0529	0.0452
Earth	26511-01-26 22:48 G	11404029.23	11404029.45	11404029.67	0.0522	0.0151
Moon	26511-01-27 02:38 G	11404029.38	11404029.61	11404029.84	0.0522	0.0123 *
Mercury	26511-08-24 22:05 G	11404239.36	11404239.42	11404239.48	0.0514	0.0448
Mercury	26511-11-22 05:45 G	11404328.61	11404328.74	11404328.87	0.0510	0.0134
Moon	26512-02-29 18:43 G	11404428.12	11404428.28	11404428.45	0.0507	0.0348
Earth	26512-02-29 22:48 G	11404428.28	11404428.45	11404428.61	0.0507	0.0357 *
Earth	26516-07-01 17:31 G	11406012.20	11406012.23	11406012.28	0.0496	0.0487
Venus	26516-12-18 09:50 G	11406181.72	11406181.91	11406182.10	0.0501	0.0155
Moon	26517-08-02 23:02 G	11406409.22	11406409.46	11406409.70	0.0509	0.0012
Earth	26517-08-03 02:53 G	11406409.39	11406409.62	11406409.85	0.0509	0.0045 *
Mercury	26518-01-21 03:36 G	11406580.51	11406580.65	11406580.79	0.0515	0.0288
Mercury	26518-04-21 06:43 G	11406670.73	11406670.78	11406670.85	0.0518	0.0480
Earth	26518-09-06 14:38 G	11406809.02	11406809.11	11406809.22	0.0524	0.0473
Moon	26518-09-06 17:45 G	11406809.14	11406809.24	11406809.34	0.0524	0.0466 *
Moon	26523-01-31 15:07 G	11408416.90	11408417.13	11408417.37	0.0520	0.0086
Earth	26523-01-31 18:57 G	11408417.06	11408417.29	11408417.52	0.0520	0.0073 *
Mercury	26523-09-10 09:21 G	11408638.75	11408638.89	11408639.02	0.0511	0.0018
Earth	26524-03-05 11:17 G	11408815.85	11408815.97	11408816.11	0.0505	0.0418
Moon	26524-03-05 14:53 G	11408816.02	11408816.12	11408816.23	0.0505	0.0447 *
Mars	26526-03-02 18:00 G	11409542.96	11409543.25	11409543.56	0.0488	0.0100
Moon	26528-07-06 02:38 G	11410399.52	11410399.61	11410399.72	0.0497	0.0448
Earth	26528-07-06 04:05 G	11410399.56	11410399.67	11410399.78	0.0497	0.0433 *
Venus	26528-08-23 10:19 G	11410447.77	11410447.93	11410448.10	0.0498	0.0294
Earth	26529-08-07 18:14 G	11410797.02	11410797.26	11410797.49	0.0510	0.0027
Moon	26529-08-07 20:38 G	11410797.13	11410797.36	11410797.59	0.0510	0.0027 *
Mercury	26529-11-09 01:41 G	11410890.52	11410890.57	11410890.62	0.0514	0.0486
Mercury	26530-02-07 05:17 G	11410980.59	11410980.72	11410980.86	0.0517	0.0286
Moon	26533-12-31 15:21 G	11412404.10	11412404.14	11412404.17	0.0532	0.0523
Venus	26534-07-02 06:14 G	11412586.62	11412586.76	11412586.90	0.0526	0.0375

Earth	26535-02-05 11:31 G	11412804.75	11412804.98	11412805.22	0.0518	0.0008
Moon	26535-02-05 14:24 G	11412804.87	11412805.10	11412805.32	0.0518	0.0033 *
Mercury	26535-06-29 12:29 G	11412948.90	11412949.02	11412949.15	0.0513	0.0167
Mercury	26535-09-26 20:38 G	11413038.29	11413038.36	11413038.44	0.0509	0.0423
Moon	26536-03-09 20:38 G	11413203.30	11413203.36	11413203.43	0.0504	0.0483
Earth	26536-03-09 23:02 G	11413203.39	11413203.46	11413203.54	0.0504	0.0473 *
Moon	26540-07-10 14:38 G	11414786.96	11414787.11	11414787.27	0.0498	0.0355
Earth	26540-07-10 14:38 G	11414786.97	11414787.11	11414787.27	0.0498	0.0376 *
Moon	26541-08-12 10:19 G	11415184.69	11415184.93	11415185.17	0.0512	0.0070
Earth	26541-08-12 10:48 G	11415184.72	11415184.95	11415185.18	0.0512	0.0099 *
Mercury	26541-11-26 04:05 G	11415290.50	11415290.67	11415290.84	0.0516	0.0093
Mars	26544-01-27 07:55 G	11416082.59	11416082.83	11416083.08	0.0539	0.0010
Earth	26546-01-05 20:53 G	11416792.26	11416792.37	11416792.48	0.0531	0.0466
Moon	26546-01-05 22:19 G	11416792.32	11416792.43	11416792.57	0.0531	0.0439 *
Venus	26546-03-06 22:05 G	11416852.23	11416852.42	11416852.62	0.0529	0.0159
Moon	26547-02-10 06:29 G	11417192.53	11417192.77	11417193.01	0.0516	0.0081
Earth	26547-02-10 07:26 G	11417192.58	11417192.81	11417193.04	0.0516	0.0076 *
Mercury	26547-04-17 16:19 G	11417259.08	11417259.18	11417259.29	0.0514	0.0310
Mercury	26547-07-16 00:29 G	11417348.40	11417348.52	11417348.63	0.0510	0.0277
Earth	26552-07-15 00:14 G	11419174.33	11419174.51	11419174.69	0.0500	0.0316
Moon	26552-07-15 01:55 G	11419174.38	11419174.58	11419174.77	0.0500	0.0292 *
Venus	26552-08-25 19:55 G	11419216.23	11419216.33	11419216.45	0.0501	0.0416
Moon	26553-08-17 00:57 G	11419572.33	11419572.54	11419572.75	0.0514	0.0174
Earth	26553-08-17 02:38 G	11419572.39	11419572.61	11419572.83	0.0514	0.0172 *
Mercury	26553-09-14 02:24 G	11419600.43	11419600.60	11419600.76	0.0515	0.0106
Earth	26558-01-11 00:14 G	11421180.36	11421180.51	11421180.67	0.0529	0.0390
Moon	26558-01-11 00:29 G	11421180.37	11421180.52	11421180.68	0.0529	0.0403 *
Mercury	26559-02-03 20:24 G	11421569.29	11421569.35	11421569.42	0.0514	0.0449
Moon	26559-02-15 01:26 G	11421580.35	11421580.56	11421580.78	0.0514	0.0178
Earth	26559-02-15 03:07 G	11421580.41	11421580.63	11421580.86	0.0514	0.0150 *

Mercury	26559-05-04 04:05 G	11421658.54	11421658.67	11421658.81	0.0511	0.0136
Venus	26564-04-30 20:53 G	11423482.16	11423482.37	11423482.57	0.0499	0.0038
Moon	26564-07-19 09:07 G	11423561.69	11423561.88	11423562.08	0.0502	0.0271
Earth	26564-07-19 12:14 G	11423561.81	11423562.01	11423562.22	0.0502	0.0252 *
Mercury	26565-07-03 01:12 G	11423910.41	11423910.55	11423910.69	0.0515	0.0294
Earth	26565-08-21 22:33 G	11423960.24	11423960.44	11423960.65	0.0516	0.0247
Moon	26565-08-22 01:55 G	11423960.39	11423960.58	11423960.79	0.0517	0.0280 *
Mercury	26565-10-01 04:19 G	11424000.62	11424000.68	11424000.75	0.0518	0.0473
Moon	26570-01-16 00:43 G	11425568.36	11425568.53	11425568.70	0.0526	0.0342
Earth	26570-01-16 02:38 G	11425568.43	11425568.61	11425568.81	0.0526	0.0314 *
Earth	26571-02-19 20:09 G	11425968.13	11425968.34	11425968.55	0.0511	0.0219
Moon	26571-02-19 23:31 G	11425968.27	11425968.48	11425968.70	0.0511	0.0210 *
Mercury	26571-02-20 07:55 G	11425968.69	11425968.83	11425968.96	0.0511	0.0018 *
Venus	26576-01-04 21:21 G	11427748.34	11427748.39	11427748.43	0.0498	0.0483
Earth	26576-07-24 01:12 G	11427949.34	11427949.55	11427949.77	0.0504	0.0188
Moon	26576-07-24 05:02 G	11427949.51	11427949.71	11427949.93	0.0504	0.0214 *
Mercury	26577-04-20 23:45 G	11428220.44	11428220.49	11428220.55	0.0514	0.0484
Mercury	26577-07-20 03:36 G	11428310.51	11428310.65	11428310.79	0.0517	0.0290
Moon	26577-08-26 16:05 G	11428348.00	11428348.17	11428348.36	0.0519	0.0328
Earth	26577-08-26 19:55 G	11428348.15	11428348.33	11428348.52	0.0519	0.0320 *
Venus	26581-11-12 16:05 G	11429886.98	11429887.17	11429887.37	0.0527	0.0165
Earth	26582-01-21 01:55 G	11429956.37	11429956.58	11429956.79	0.0524	0.0236
Moon	26582-01-21 05:31 G	11429956.52	11429956.73	11429956.95	0.0524	0.0215 *
Mercury	26582-12-09 11:31 G	11430278.85	11430278.98	11430279.11	0.0512	0.0157
Moon	26583-02-24 07:41 G	11430355.63	11430355.82	11430356.03	0.0509	0.0254
Earth	26583-02-24 11:31 G	11430355.80	11430355.98	11430356.18	0.0509	0.0288 *
Mercury	26583-03-08 19:41 G	11430368.24	11430368.32	11430368.39	0.0509	0.0430
Moon	26588-07-28 11:45 G	11432336.76	11432336.99	11432337.22	0.0506	0.0110
Earth	26588-07-28 15:36 G	11432336.92	11432337.15	11432337.38	0.0506	0.0121 *
Mercury	26589-05-08 02:09 G	11432620.43	11432620.59	11432620.76	0.0516	0.0098

Earth	26589-08-31 16:05 G	11432736.02	11432736.17	11432736.32	0.0520	0.0390
Moon	26589-08-31 19:26 G	11432736.14	11432736.31	11432736.47	0.0520	0.0360 *
Venus	26593-07-18 04:48 G	11434152.57	11434152.70	11434152.84	0.0529	0.0390
Moon	26594-01-25 16:19 G	11434343.95	11434344.18	11434344.40	0.0523	0.0132
Earth	26594-01-25 20:09 G	11434344.12	11434344.34	11434344.56	0.0523	0.0162 *
Mercury	26594-09-27 14:38 G	11434589.01	11434589.11	11434589.22	0.0514	0.0310
Mercury	26594-12-25 22:33 G	11434678.33	11434678.44	11434678.56	0.0510	0.0276
Earth	26595-03-01 00:14 G	11434743.34	11434743.51	11434743.68	0.0508	0.0350
Moon	26595-03-01 03:50 G	11434743.50	11434743.66	11434743.83	0.0508	0.0346 *
Earth	26599-07-02 00:57 G	11436327.51	11436327.54	11436327.58	0.0495	0.0487
Venus	26600-01-07 08:24 G	11436516.67	11436516.85	11436517.03	0.0500	0.0232
Earth	26600-08-03 06:29 G	11436724.54	11436724.77	11436725.00	0.0507	0.0051
Moon	26600-08-03 09:07 G	11436724.66	11436724.88	11436725.11	0.0507	0.0022 *
Mercury	26601-02-25 00:57 G	11436930.37	11436930.54	11436930.70	0.0515	0.0095
Moon	26601-09-06 11:31 G	11437123.87	11437123.98	11437124.11	0.0522	0.0456
Earth	26601-09-06 13:26 G	11437123.96	11437124.06	11437124.18	0.0522	0.0460 *
Earth	26606-01-31 17:45 G	11438732.01	11438732.24	11438732.47	0.0521	0.0083
Moon	26606-01-31 20:53 G	11438732.15	11438732.37	11438732.59	0.0521	0.0096 *
Mercury	26606-07-17 18:29 G	11438899.21	11438899.27	11438899.34	0.0515	0.0453
Mercury	26606-10-15 02:24 G	11438988.47	11438988.60	11438988.73	0.0511	0.0132
Moon	26607-03-06 12:29 G	11439130.92	11439131.02	11439131.15	0.0506	0.0440
Earth	26607-03-06 15:21 G	11439131.01	11439131.14	11439131.28	0.0506	0.0411 *
Earth	26611-07-07 08:53 G	11440714.77	11440714.87	11440714.99	0.0496	0.0435
Moon	26611-07-07 08:53 G	11440714.79	11440714.87	11440714.97	0.0496	0.0451 *
Venus	26611-09-13 08:09 G	11440782.66	11440782.84	11440783.02	0.0498	0.0223
Moon	26612-08-07 19:12 G	11441112.06	11441112.30	11441112.54	0.0509	0.0015
Earth	26612-08-07 20:09 G	11441112.10	11441112.34	11441112.57	0.0509	0.0020 *
Mercury	26612-12-13 22:48 G	11441240.32	11441240.45	11441240.60	0.0514	0.0295
Mercury	26613-03-14 02:09 G	11441330.53	11441330.59	11441330.66	0.0518	0.0471
Moon	26616-12-31 22:48 G	11442719.42	11442719.45	11442719.49	0.0533	0.0524

Venus	26617-07-22 06:00 G	11442921.66	11442921.75	11442921.85	0.0526	0.0464
Moon	26618-02-05 15:21 G	11443119.90	11443120.14	11443120.38	0.0519	0.0033
Earth	26618-02-05 16:33 G	11443119.96	11443120.19	11443120.43	0.0519	0.0009 *
Mercury	26618-08-03 06:14 G	11443298.63	11443298.76	11443298.90	0.0512	0.0012
Earth	26619-03-11 06:00 G	11443518.67	11443518.75	11443518.84	0.0504	0.0470
Moon	26619-03-11 06:43 G	11443518.72	11443518.78	11443518.86	0.0504	0.0476 *
Earth	26623-07-11 19:12 G	11445102.15	11445102.30	11445102.46	0.0498	0.0378
Moon	26623-07-11 20:53 G	11445102.20	11445102.37	11445102.54	0.0498	0.0353 *
Moon	26624-08-12 12:00 G	11445499.78	11445500.00	11445500.23	0.0512	0.0064
Earth	26624-08-12 13:26 G	11445499.83	11445500.06	11445500.29	0.0512	0.0093 *
Mercury	26624-10-01 21:36 G	11445550.35	11445550.40	11445550.46	0.0514	0.0485
Mercury	26624-12-31 01:26 G	11445640.42	11445640.56	11445640.70	0.0517	0.0287
Moon	26629-01-06 01:26 G	11447107.44	11447107.56	11447107.70	0.0531	0.0442
Earth	26629-01-06 02:09 G	11447107.49	11447107.59	11447107.70	0.0531	0.0471 *
Venus	26629-03-26 23:31 G	11447187.27	11447187.48	11447187.68	0.0528	0.0061
Moon	26630-02-10 12:00 G	11447507.78	11447508.00	11447508.23	0.0516	0.0084
Earth	26630-02-10 13:12 G	11447507.82	11447508.05	11447508.29	0.0516	0.0070 *
Mercury	26630-05-22 10:05 G	11447608.79	11447608.92	11447609.05	0.0512	0.0152
Mercury	26630-08-19 18:14 G	11447698.19	11447698.26	11447698.33	0.0509	0.0436
Moon	26631-03-15 18:43 G	11447906.24	11447906.28	11447906.33	0.0502	0.0491
Moon	26635-07-16 02:53 G	11449489.45	11449489.62	11449489.81	0.0500	0.0303
Earth	26635-07-16 06:00 G	11449489.58	11449489.75	11449489.93	0.0500	0.0320 *
Venus	26635-09-15 18:43 G	11449551.25	11449551.28	11449551.32	0.0502	0.0493
Earth	26636-08-17 07:55 G	11449887.62	11449887.83	11449888.06	0.0514	0.0166
Moon	26636-08-17 11:17 G	11449887.74	11449887.97	11449888.19	0.0514	0.0171 *
Mercury	26636-10-19 00:29 G	11449950.36	11449950.52	11449950.69	0.0516	0.0104
Moon	26641-01-11 02:53 G	11451495.49	11451495.62	11451495.76	0.0529	0.0413
Earth	26641-01-11 04:19 G	11451495.53	11451495.68	11451495.84	0.0529	0.0395 *
Earth	26642-02-15 07:41 G	11451895.60	11451895.82	11451896.04	0.0514	0.0143
Moon	26642-02-15 10:48 G	11451895.73	11451895.95	11451896.18	0.0514	0.0171 *

Mercury	26642-03-10 13:55 G	11451918.97	11451919.08	11451919.19	0.0513	0.0296
Mercury	26642-06-07 21:50 G	11452008.30	11452008.41	11452008.52	0.0510	0.0289
Venus	26647-05-21 19:55 G	11453817.13	11453817.33	11453817.54	0.0500	0.0045
Earth	26647-07-20 18:57 G	11453877.10	11453877.29	11453877.50	0.0501	0.0257
Moon	26647-07-20 23:02 G	11453877.27	11453877.46	11453877.65	0.0501	0.0282 *
Mercury	26648-08-06 23:17 G	11454260.31	11454260.47	11454260.64	0.0515	0.0088
Moon	26648-08-21 23:31 G	11454275.28	11454275.48	11454275.68	0.0516	0.0271
Earth	26648-08-22 03:07 G	11454275.43	11454275.63	11454275.84	0.0516	0.0238 *
Earth	26653-01-16 00:14 G	11455883.33	11455883.51	11455883.69	0.0527	0.0322
Moon	26653-01-16 03:36 G	11455883.47	11455883.65	11455883.83	0.0527	0.0344 *
Mercury	26653-12-27 17:02 G	11456229.15	11456229.21	11456229.27	0.0515	0.0451
Moon	26654-02-19 17:45 G	11456283.03	11456283.24	11456283.45	0.0513	0.0205
Earth	26654-02-19 21:36 G	11456283.19	11456283.40	11456283.61	0.0513	0.0212 *
Mercury	26654-03-27 00:43 G	11456318.40	11456318.53	11456318.67	0.0511	0.0135
Venus	26659-01-24 21:21 G	11458083.28	11458083.39	11458083.52	0.0498	0.0399
Moon	26659-07-25 04:48 G	11458264.49	11458264.70	11458264.92	0.0503	0.0217
Earth	26659-07-25 08:38 G	11458264.65	11458264.86	11458265.08	0.0503	0.0191 *
Mercury	26660-05-25 21:50 G	11458570.27	11458570.41	11458570.56	0.0514	0.0279
Mercury	26660-08-24 01:12 G	11458660.50	11458660.55	11458660.60	0.0517	0.0486
Earth	26660-08-26 22:48 G	11458663.27	11458663.45	11458663.64	0.0517	0.0311
Moon	26660-08-27 02:24 G	11458663.42	11458663.60	11458663.79	0.0517	0.0312 *
Venus	26664-12-02 12:29 G	11460221.84	11460222.02	11460222.20	0.0527	0.0233
Moon	26665-01-20 20:09 G	11460271.13	11460271.34	11460271.55	0.0526	0.0223
Earth	26665-01-21 00:00 G	11460271.30	11460271.50	11460271.71	0.0526	0.0245 *
Mercury	26666-01-13 04:33 G	11460628.55	11460628.69	11460628.83	0.0512	0.0011
Earth	26666-02-24 14:38 G	11460670.92	11460671.11	11460671.31	0.0511	0.0281
Moon	26666-02-24 18:29 G	11460671.07	11460671.27	11460671.47	0.0511	0.0250 *
Earth	26671-07-29 20:24 G	11462652.12	11462652.35	11462652.58	0.0505	0.0125
Moon	26671-07-29 23:17 G	11462652.25	11462652.47	11462652.69	0.0505	0.0112 *
Mercury	26672-03-13 19:55 G	11462880.27	11462880.33	11462880.39	0.0513	0.0480

Mercury	26672-06-11 23:31 G	11462970.35	11462970.48	11462970.62	0.0517	0.0292
Moon	26672-08-31 15:36 G	11463050.97	11463051.15	11463051.32	0.0520	0.0350
Earth	26672-08-31 17:45 G	11463051.09	11463051.24	11463051.40	0.0520	0.0383 *
Venus	26676-08-07 05:17 G	11464487.56	11464487.72	11464487.89	0.0530	0.0297
Earth	26677-01-26 01:26 G	11464659.34	11464659.56	11464659.78	0.0524	0.0166
Moon	26677-01-26 04:48 G	11464659.48	11464659.70	11464659.92	0.0524	0.0138 *
Mercury	26677-11-01 08:38 G	11464938.73	11464938.86	11464938.99	0.0513	0.0150
Mercury	26678-01-29 16:48 G	11465028.13	11465028.20	11465028.27	0.0510	0.0440
Moon	26678-03-01 05:17 G	11465058.55	11465058.72	11465058.90	0.0509	0.0349
Earth	26678-03-01 08:09 G	11465058.67	11465058.84	11465059.01	0.0509	0.0347 *
Mars	26680-05-27 21:36 G	11465877.14	11465877.40	11465877.68	0.0488	0.0228
Earth	26682-07-02 07:41 G	11466642.79	11466642.82	11466642.86	0.0495	0.0488
Venus	26683-01-27 06:57 G	11466851.63	11466851.79	11466851.95	0.0501	0.0307
Moon	26683-08-03 10:05 G	11467039.67	11467039.92	11467040.16	0.0507	0.0030
Earth	26683-08-03 11:17 G	11467039.74	11467039.97	11467040.20	0.0507	0.0055 *
Mercury	26684-03-30 22:48 G	11467280.28	11467280.45	11467280.61	0.0516	0.0105
Earth	26684-09-05 16:48 G	11467439.09	11467439.20	11467439.32	0.0522	0.0454
Moon	26684-09-05 17:17 G	11467439.12	11467439.22	11467439.33	0.0522	0.0456 *
Moon	26689-01-31 00:00 G	11469047.26	11469047.50	11469047.74	0.0521	0.0101
Earth	26689-01-31 01:55 G	11469047.35	11469047.58	11469047.81	0.0521	0.0087 *
Mercury	26689-08-20 12:29 G	11469248.92	11469249.02	11469249.14	0.0513	0.0290
Mercury	26689-11-17 20:24 G	11469338.24	11469338.35	11469338.47	0.0510	0.0297
Earth	26690-03-05 23:31 G	11469446.35	11469446.48	11469446.62	0.0506	0.0406
Moon	26690-03-06 00:14 G	11469446.41	11469446.51	11469446.63	0.0506	0.0438 *
Earth	26694-07-06 16:33 G	11471030.09	11471030.19	11471030.30	0.0496	0.0437
Moon	26694-07-06 18:00 G	11471030.15	11471030.25	11471030.36	0.0496	0.0445 *
Venus	26694-10-02 07:26 G	11471117.62	11471117.81	11471118.01	0.0499	0.0143
Moon	26695-08-08 02:09 G	11471427.37	11471427.59	11471427.82	0.0509	0.0001
Earth	26695-08-08 03:21 G	11471427.40	11471427.64	11471427.87	0.0509	0.0017 *
Mercury	26696-01-17 21:50 G	11471590.24	11471590.41	11471590.57	0.0515	0.0081

Earth	26696-09-10 17:31 G	11471827.22	11471827.23	11471827.25	0.0524	0.0523
Mars	26698-04-23 15:36 G	11472416.96	11472417.15	11472417.36	0.0539	0.0318
Moon	26700-01-01 01:26 G	11473034.52	11473034.56	11473034.61	0.0533	0.0521
Moon	26701-02-05 22:33 G	11473435.21	11473435.44	11473435.66	0.0519	0.0033
Earth	26701-02-05 23:17 G	11473435.23	11473435.47	11473435.70	0.0519	0.0011 *
Mercury	26701-06-09 16:19 G	11473559.12	11473559.18	11473559.26	0.0514	0.0432
Mercury	26701-09-07 00:14 G	11473648.38	11473648.51	11473648.64	0.0511	0.0152
Earth	26702-03-11 13:12 G	11473833.97	11473834.05	11473834.14	0.0504	0.0465
Moon	26702-03-11 13:55 G	11473833.99	11473834.08	11473834.17	0.0504	0.0465 *
Moon	26706-07-12 01:26 G	11475417.41	11475417.56	11475417.73	0.0498	0.0353
Earth	26706-07-12 04:33 G	11475417.54	11475417.69	11475417.84	0.0498	0.0379 *
Earth	26707-08-13 21:07 G	11475815.15	11475815.38	11475815.61	0.0511	0.0088
Moon	26707-08-14 00:00 G	11475815.27	11475815.50	11475815.74	0.0511	0.0060 *
Mercury	26707-11-06 20:38 G	11475900.21	11475900.36	11475900.51	0.0514	0.0268
Mercury	26708-02-04 23:45 G	11475990.45	11475990.49	11475990.54	0.0518	0.0497
Moon	26712-01-06 23:45 G	11477422.38	11477422.49	11477422.61	0.0531	0.0453
Earth	26712-01-07 00:14 G	11477422.42	11477422.51	11477422.62	0.0531	0.0477 *
Venus	26712-04-15 20:38 G	11477522.16	11477522.36	11477522.57	0.0528	0.0014
Earth	26713-02-10 14:24 G	11477822.87	11477823.10	11477823.34	0.0517	0.0063
Moon	26713-02-10 17:17 G	11477822.99	11477823.22	11477823.46	0.0517	0.0083 *
Mercury	26713-06-26 03:07 G	11477958.50	11477958.63	11477958.77	0.0512	0.0012
Moon	26714-03-15 21:36 G	11478221.35	11478221.40	11478221.45	0.0503	0.0490
Earth	26718-07-16 16:48 G	11479805.02	11479805.20	11479805.38	0.0499	0.0319
Moon	26718-07-16 20:38 G	11479805.18	11479805.36	11479805.54	0.0499	0.0309 *
Moon	26719-08-18 11:31 G	11480202.77	11480202.98	11480203.20	0.0513	0.0168
Earth	26719-08-18 15:07 G	11480202.92	11480203.13	11480203.36	0.0513	0.0162 *
Mercury	26719-08-25 19:12 G	11480210.23	11480210.30	11480210.38	0.0513	0.0459
Mercury	26719-11-23 23:02 G	11480300.33	11480300.46	11480300.59	0.0516	0.0311
Venus	26723-12-20 12:00 G	11481787.99	11481788.00	11481788.01	0.0530	0.0529
Earth	26724-01-12 02:09 G	11481810.45	11481810.59	11481810.75	0.0530	0.0402

Moon	26724-01-12 05:02 G	11481810.58	11481810.71	11481810.86	0.0530	0.0424 *
Moon	26725-02-15 06:14 G	11482210.54	11482210.76	11482210.98	0.0515	0.0168
Earth	26725-02-15 09:50 G	11482210.69	11482210.91	11482211.14	0.0515	0.0137 *
Mercury	26725-04-14 06:57 G	11482268.66	11482268.79	11482268.92	0.0513	0.0149
Mercury	26725-07-12 15:07 G	11482358.07	11482358.13	11482358.20	0.0510	0.0441
Venus	26730-06-10 19:55 G	11484152.13	11484152.33	11484152.52	0.0499	0.0128
Moon	26730-07-20 22:48 G	11484192.27	11484192.45	11484192.65	0.0501	0.0285
Earth	26730-07-21 02:53 G	11484192.42	11484192.62	11484192.82	0.0501	0.0258 *
Earth	26731-08-23 07:41 G	11484590.61	11484590.82	11484591.03	0.0515	0.0232
Moon	26731-08-23 11:17 G	11484590.78	11484590.97	11484591.18	0.0515	0.0264 *
Mercury	26731-09-11 21:21 G	11484610.22	11484610.39	11484610.55	0.0516	0.0115
Moon	26736-01-17 01:55 G	11486198.41	11486198.58	11486198.76	0.0528	0.0348
Earth	26736-01-17 05:45 G	11486198.57	11486198.74	11486198.93	0.0528	0.0326 *
Mercury	26737-01-31 11:02 G	11486578.85	11486578.96	11486579.07	0.0514	0.0287
Earth	26737-02-20 06:00 G	11486598.54	11486598.75	11486598.96	0.0513	0.0210
Moon	26737-02-20 09:50 G	11486598.70	11486598.91	11486599.13	0.0513	0.0199 *
Mercury	26737-04-30 18:57 G	11486668.19	11486668.29	11486668.41	0.0511	0.0302
Venus	26742-02-13 20:53 G	11488418.21	11488418.37	11488418.52	0.0498	0.0318
Earth	26742-07-25 15:21 G	11488579.93	11488580.14	11488580.36	0.0503	0.0193
Moon	26742-07-25 18:29 G	11488580.06	11488580.27	11488580.48	0.0503	0.0216 *
Mercury	26743-06-30 20:09 G	11488920.18	11488920.34	11488920.51	0.0515	0.0074
Moon	26743-08-28 01:12 G	11488978.36	11488978.55	11488978.75	0.0517	0.0299
Earth	26743-08-28 03:50 G	11488978.48	11488978.66	11488978.85	0.0517	0.0307 *
Venus	26747-12-23 15:36 G	11490557.00	11490557.15	11490557.31	0.0527	0.0343
Earth	26748-01-22 09:21 G	11490586.68	11490586.89	11490587.09	0.0526	0.0247
Moon	26748-01-22 12:57 G	11490586.83	11490587.04	11490587.24	0.0526	0.0222 *
Mercury	26748-11-19 15:21 G	11490889.06	11490889.14	11490889.21	0.0514	0.0425
Mercury	26749-02-16 23:02 G	11490978.33	11490978.46	11490978.59	0.0511	0.0160
Moon	26749-02-24 21:50 G	11490986.20	11490986.41	11490986.62	0.0511	0.0249
Earth	26749-02-25 00:43 G	11490986.34	11490986.53	11490986.73	0.0511	0.0278 *

Moon	26754-07-30 03:36 G	11492967.41	11492967.65	11492967.89	0.0505	0.0109
Earth	26754-07-30 05:02 G	11492967.48	11492967.71	11492967.94	0.0505	0.0127 *
Mercury	26755-04-18 19:12 G	11493230.15	11493230.30	11493230.45	0.0514	0.0260
Mercury	26755-07-17 22:33 G	11493320.41	11493320.44	11493320.47	0.0518	0.0507
Earth	26755-09-02 02:09 G	11493366.43	11493366.59	11493366.75	0.0520	0.0379
Moon	26755-09-02 02:53 G	11493366.46	11493366.62	11493366.79	0.0520	0.0348 *
Venus	26759-08-28 08:24 G	11494822.66	11494822.85	11494823.04	0.0529	0.0189
Moon	26760-01-27 07:26 G	11494974.58	11494974.81	11494975.05	0.0524	0.0143
Earth	26760-01-27 09:50 G	11494974.69	11494974.91	11494975.13	0.0524	0.0168 *
Mercury	26760-12-06 02:53 G	11495288.48	11495288.62	11495288.75	0.0512	0.0021
Earth	26761-03-01 17:02 G	11495374.04	11495374.21	11495374.38	0.0509	0.0343
Moon	26761-03-01 18:00 G	11495374.09	11495374.25	11495374.41	0.0509	0.0357 *
Earth	26765-07-02 18:43 G	11496958.24	11496958.28	11496958.32	0.0495	0.0487
Venus	26766-02-16 08:24 G	11497186.73	11497186.85	11497186.98	0.0501	0.0401
Moon	26766-08-03 20:38 G	11497355.14	11497355.36	11497355.59	0.0506	0.0036
Earth	26766-08-03 21:36 G	11497355.17	11497355.40	11497355.63	0.0506	0.0056 *
Mercury	26767-02-04 18:14 G	11497540.17	11497540.26	11497540.34	0.0513	0.0446
Mercury	26767-05-05 21:50 G	11497630.28	11497630.41	11497630.54	0.0517	0.0325
Earth	26767-09-07 00:57 G	11497754.43	11497754.54	11497754.66	0.0521	0.0449
Moon	26767-09-07 01:41 G	11497754.46	11497754.57	11497754.70	0.0521	0.0453 *
Earth	26772-02-01 03:07 G	11499362.40	11499362.63	11499362.86	0.0522	0.0092
Moon	26772-02-01 03:07 G	11499362.41	11499362.63	11499362.85	0.0522	0.0113 *
Mercury	26772-09-24 05:45 G	11499598.61	11499598.74	11499598.87	0.0513	0.0142
Mercury	26772-12-22 13:55 G	11499688.02	11499688.08	11499688.15	0.0510	0.0449
Earth	26773-03-06 04:19 G	11499761.54	11499761.68	11499761.82	0.0507	0.0403
Moon	26773-03-06 04:33 G	11499761.58	11499761.69	11499761.83	0.0507	0.0434 *
Moon	26777-07-07 02:38 G	11501345.51	11501345.61	11501345.72	0.0496	0.0435
Earth	26777-07-07 05:31 G	11501345.63	11501345.73	11501345.85	0.0496	0.0434 *
Venus	26777-10-22 10:05 G	11501452.72	11501452.92	11501453.12	0.0499	0.0045
Earth	26778-08-08 13:55 G	11501742.85	11501743.08	11501743.31	0.0508	0.0016

Moon	26778-08-08 16:48 G	11501742.96	11501743.20	11501743.44	0.0508	0.0008	*
Mercury	26779-02-21 20:53 G	11501940.21	11501940.37	11501940.54	0.0516	0.0140	
Earth	26779-09-12 00:00 G	11502142.47	11502142.50	11502142.54	0.0523	0.0517	
Moon	26783-01-01 00:57 G	11503349.52	11503349.54	11503349.56	0.0533	0.0530	
Earth	26784-02-06 00:29 G	11503750.29	11503750.52	11503750.76	0.0520	0.0017	
Moon	26784-02-06 03:07 G	11503750.39	11503750.63	11503750.87	0.0520	0.0035	*
Mercury	26784-07-13 09:36 G	11503908.79	11503908.90	11503909.01	0.0514	0.0285	
Mercury	26784-10-10 17:31 G	11503998.12	11503998.23	11503998.34	0.0511	0.0304	
Moon	26785-03-10 17:17 G	11504149.13	11504149.22	11504149.31	0.0505	0.0463	
Earth	26785-03-10 18:57 G	11504149.21	11504149.29	11504149.39	0.0505	0.0463	*
Venus	26789-06-27 10:33 G	11505718.92	11505718.94	11505718.97	0.0497	0.0490	
Earth	26789-07-11 14:24 G	11505732.95	11505733.10	11505733.25	0.0497	0.0379	
Moon	26789-07-11 18:14 G	11505733.10	11505733.26	11505733.43	0.0497	0.0348	*
Moon	26790-08-13 00:43 G	11506130.30	11506130.53	11506130.76	0.0510	0.0055	
Earth	26790-08-13 04:19 G	11506130.45	11506130.68	11506130.91	0.0510	0.0085	*
Mercury	26790-12-10 19:12 G	11506250.13	11506250.30	11506250.47	0.0515	0.0059	
Earth	26795-01-06 06:00 G	11507737.65	11507737.75	11507737.85	0.0532	0.0480	
Moon	26795-01-06 08:24 G	11507737.73	11507737.85	11507737.97	0.0532	0.0460	*
Venus	26795-05-05 22:33 G	11507857.24	11507857.44	11507857.64	0.0528	0.0113	
Moon	26796-02-10 19:26 G	11508138.09	11508138.31	11508138.54	0.0518	0.0084	
Earth	26796-02-10 23:17 G	11508138.24	11508138.47	11508138.70	0.0518	0.0061	*
Mercury	26796-05-01 13:55 G	11508219.00	11508219.08	11508219.15	0.0515	0.0422	
Mercury	26796-07-29 21:36 G	11508308.27	11508308.40	11508308.53	0.0512	0.0164	
Moon	26797-03-15 13:26 G	11508537.01	11508537.06	11508537.12	0.0503	0.0488	
Mars	26798-11-16 02:53 G	11509147.48	11509147.62	11509147.78	0.0489	0.0426	
Moon	26801-07-15 21:07 G	11510120.21	11510120.38	11510120.57	0.0499	0.0311	
Earth	26801-07-16 01:12 G	11510120.37	11510120.55	11510120.73	0.0499	0.0320	*
Earth	26802-08-17 21:36 G	11510518.18	11510518.40	11510518.62	0.0512	0.0158	
Moon	26802-08-18 01:26 G	11510518.34	11510518.56	11510518.78	0.0512	0.0170	*
Mercury	26802-09-28 18:00 G	11510560.10	11510560.25	11510560.40	0.0514	0.0248	

Mercury	26802-12-27 21:07 G	11510650.38	11510650.38	11510650.39	0.0517	0.0517
Venus	26807-01-08 15:50 G	11512123.04	11512123.16	11512123.29	0.0530	0.0414
Moon	26807-01-11 08:09 G	11512125.71	11512125.84	11512125.98	0.0530	0.0433
Earth	26807-01-11 12:00 G	11512125.85	11512126.00	11512126.15	0.0530	0.0404 *
Earth	26808-02-15 20:53 G	11512526.15	11512526.37	11512526.60	0.0516	0.0136
Moon	26808-02-16 00:57 G	11512526.32	11512526.54	11512526.76	0.0516	0.0162 *
Mercury	26808-05-18 01:41 G	11512618.43	11512618.57	11512618.70	0.0512	0.0026
Venus	26813-06-29 20:38 G	11514487.18	11514487.36	11514487.55	0.0500	0.0217
Earth	26813-07-20 12:29 G	11514507.83	11514508.02	11514508.22	0.0501	0.0258
Moon	26813-07-20 15:36 G	11514507.97	11514508.15	11514508.34	0.0501	0.0286 *
Mercury	26814-07-17 16:33 G	11514870.11	11514870.19	11514870.29	0.0513	0.0437
Moon	26814-08-22 14:09 G	11514905.89	11514906.09	11514906.30	0.0515	0.0258
Earth	26814-08-22 17:02 G	11514906.01	11514906.21	11514906.43	0.0515	0.0231 *
Mercury	26814-10-15 20:24 G	11514960.23	11514960.35	11514960.48	0.0517	0.0336
Mars	26816-10-14 05:02 G	11515689.54	11515689.71	11515689.90	0.0539	0.0372
Earth	26819-01-16 15:21 G	11516513.96	11516514.14	11516514.32	0.0528	0.0326
Moon	26819-01-16 19:12 G	11516514.13	11516514.30	11516514.47	0.0528	0.0344 *
Moon	26820-02-20 12:57 G	11516913.82	11516914.04	11516914.26	0.0513	0.0192
Earth	26820-02-20 16:05 G	11516913.96	11516914.17	11516914.39	0.0513	0.0208 *
Mercury	26820-03-06 05:31 G	11516928.60	11516928.73	11516928.86	0.0513	0.0117
Mercury	26820-06-03 13:41 G	11517018.02	11517018.07	11517018.12	0.0509	0.0472
Venus	26825-03-04 22:48 G	11518753.27	11518753.45	11518753.64	0.0498	0.0224
Moon	26825-07-25 01:55 G	11518895.36	11518895.58	11518895.81	0.0502	0.0208
Earth	26825-07-25 03:36 G	11518895.43	11518895.65	11518895.86	0.0502	0.0192 *
Mercury	26826-08-03 19:55 G	11519270.17	11519270.33	11519270.49	0.0516	0.0155
Earth	26826-08-27 14:38 G	11519293.92	11519294.11	11519294.30	0.0517	0.0305
Moon	26826-08-27 15:36 G	11519293.97	11519294.15	11519294.34	0.0517	0.0292 *
Venus	26831-01-11 14:24 G	11520891.99	11520892.10	11520892.23	0.0527	0.0424
Moon	26831-01-21 08:09 G	11520901.63	11520901.84	11520902.06	0.0526	0.0228
Earth	26831-01-21 11:02 G	11520901.76	11520901.96	11520902.17	0.0526	0.0252 *

Mercury	26831-12-24 08:24 G	11521238.74	11521238.85	11521238.97	0.0514	0.0276
Earth	26832-02-25 05:02 G	11521301.51	11521301.71	11521301.90	0.0512	0.0275
Moon	26832-02-25 06:14 G	11521301.57	11521301.76	11521301.96	0.0512	0.0251 *
Mercury	26832-03-22 16:33 G	11521328.08	11521328.19	11521328.29	0.0511	0.0313
Moon	26837-07-29 17:17 G	11523283.00	11523283.22	11523283.44	0.0504	0.0100
Earth	26837-07-29 18:14 G	11523283.03	11523283.26	11523283.48	0.0504	0.0124 *
Mercury	26838-05-22 18:57 G	11523580.12	11523580.29	11523580.46	0.0515	0.0032
Earth	26838-09-01 11:45 G	11523681.84	11523681.99	11523682.15	0.0518	0.0377
Moon	26838-09-01 12:14 G	11523681.84	11523682.01	11523682.20	0.0518	0.0346 *
Venus	26842-09-16 06:14 G	11525157.56	11525157.76	11525157.96	0.0529	0.0112
Earth	26843-01-26 10:19 G	11525289.72	11525289.93	11525290.16	0.0524	0.0174
Moon	26843-01-26 11:02 G	11525289.75	11525289.96	11525290.17	0.0524	0.0155 *
Mercury	26843-10-12 12:29 G	11525548.94	11525549.02	11525549.09	0.0515	0.0419
Mercury	26844-01-09 20:09 G	11525638.21	11525638.34	11525638.47	0.0512	0.0167
Earth	26844-02-29 21:21 G	11525689.22	11525689.39	11525689.57	0.0510	0.0341
Moon	26844-02-29 21:36 G	11525689.24	11525689.40	11525689.58	0.0510	0.0356 *
Earth	26848-07-02 06:00 G	11527273.72	11527273.75	11527273.79	0.0494	0.0487
Venus	26849-03-07 09:36 G	11527521.87	11527521.90	11527521.94	0.0501	0.0492
Earth	26849-08-03 06:29 G	11527670.54	11527670.77	11527671.00	0.0506	0.0058
Moon	26849-08-03 09:07 G	11527670.64	11527670.88	11527671.12	0.0506	0.0041 *
Mercury	26850-03-10 17:02 G	11527890.06	11527890.21	11527890.36	0.0514	0.0231
Moon	26850-09-06 04:19 G	11528069.58	11528069.68	11528069.80	0.0520	0.0454
Earth	26850-09-06 06:43 G	11528069.66	11528069.78	11528069.90	0.0520	0.0444 *
Earth	26855-01-31 11:02 G	11529677.74	11529677.96	11529678.19	0.0523	0.0096
Moon	26855-01-31 13:12 G	11529677.82	11529678.05	11529678.29	0.0523	0.0122 *
Mercury	26855-10-29 00:14 G	11529948.37	11529948.51	11529948.64	0.0513	0.0030
Moon	26856-03-05 13:12 G	11530076.94	11530077.05	11530077.17	0.0508	0.0434
Earth	26856-03-05 15:07 G	11530076.99	11530077.13	11530077.27	0.0508	0.0403 *
Earth	26860-07-06 14:53 G	11531661.02	11531661.12	11531661.24	0.0495	0.0435
Moon	26860-07-06 18:43 G	11531661.18	11531661.28	11531661.41	0.0495	0.0425 *

Venus	26860-11-10 10:33 G	11531787.73	11531787.94	11531788.14	0.0499	0.0042
Moon	26861-08-07 18:00 G	11532058.02	11532058.25	11532058.48	0.0508	0.0010
Earth	26861-08-07 21:21 G	11532058.16	11532058.39	11532058.63	0.0508	0.0017 *
Mercury	26861-12-27 15:36 G	11532200.06	11532200.15	11532200.25	0.0513	0.0422
Mercury	26862-03-27 19:26 G	11532290.18	11532290.31	11532290.43	0.0516	0.0348
Earth	26862-09-11 05:45 G	11532457.70	11532457.74	11532457.78	0.0523	0.0513
Moon	26865-12-31 12:00 G	11533664.96	11533665.00	11533665.04	0.0534	0.0525
Moon	26867-02-05 08:24 G	11534065.62	11534065.85	11534066.08	0.0520	0.0036
Earth	26867-02-05 12:00 G	11534065.77	11534066.00	11534066.23	0.0520	0.0017 *
Mercury	26867-08-17 04:19 G	11534258.55	11534258.68	11534258.81	0.0513	0.0109
Mercury	26867-11-14 12:29 G	11534347.98	11534348.02	11534348.06	0.0510	0.0481
Earth	26868-03-10 06:57 G	11534464.71	11534464.79	11534464.89	0.0505	0.0462
Moon	26868-03-10 10:19 G	11534464.83	11534464.93	11534465.04	0.0505	0.0450 *
Moon	26872-07-10 20:53 G	11536048.21	11536048.37	11536048.55	0.0497	0.0346
Earth	26872-07-11 00:57 G	11536048.39	11536048.54	11536048.69	0.0497	0.0378 *
Venus	26872-07-16 11:31 G	11536053.87	11536053.98	11536054.10	0.0497	0.0403
Earth	26873-08-12 14:09 G	11536445.86	11536446.09	11536446.32	0.0510	0.0084
Moon	26873-08-12 18:00 G	11536446.02	11536446.25	11536446.48	0.0510	0.0059 *
Mercury	26874-01-13 18:29 G	11536600.11	11536600.27	11536600.43	0.0516	0.0165
Moon	26878-01-05 12:43 G	11538052.92	11538053.03	11538053.13	0.0532	0.0467
Earth	26878-01-05 16:05 G	11538053.08	11538053.17	11538053.28	0.0532	0.0479 *
Venus	26878-05-25 02:38 G	11538192.43	11538192.61	11538192.79	0.0528	0.0228
Earth	26879-02-10 09:50 G	11538453.68	11538453.91	11538454.14	0.0518	0.0061
Moon	26879-02-10 13:55 G	11538453.85	11538454.08	11538454.31	0.0518	0.0086 *
Mercury	26879-06-05 08:24 G	11538568.73	11538568.85	11538568.96	0.0514	0.0251
Mercury	26879-09-02 16:19 G	11538658.08	11538658.18	11538658.28	0.0510	0.0338
Moon	26880-03-14 17:31 G	11538852.18	11538852.23	11538852.30	0.0504	0.0488
Earth	26884-07-15 13:41 G	11540435.89	11540436.07	11540436.25	0.0499	0.0317
Moon	26884-07-15 16:33 G	11540436.02	11540436.19	11540436.37	0.0499	0.0314 *
Moon	26885-08-17 06:43 G	11540833.56	11540833.78	11540834.01	0.0512	0.0176

Earth	26885-08-17 09:50 G	11540833.69	11540833.91	11540834.13	0.0512	0.0159	*
Mercury	26885-11-01 18:00 G	11540910.08	11540910.25	11540910.42	0.0515	0.0016	
Earth	26890-01-10 14:24 G	11542440.95	11542441.10	11542441.25	0.0530	0.0408	
Moon	26890-01-10 18:14 G	11542441.14	11542441.26	11542441.39	0.0530	0.0440	*
Venus	26890-01-27 15:36 G	11542457.99	11542458.15	11542458.31	0.0530	0.0327	
Moon	26891-02-14 21:07 G	11542841.16	11542841.38	11542841.61	0.0516	0.0155	
Earth	26891-02-15 00:43 G	11542841.30	11542841.53	11542841.75	0.0516	0.0132	*
Mercury	26891-03-24 11:17 G	11542878.89	11542878.97	11542879.05	0.0515	0.0409	
Mercury	26891-06-21 18:57 G	11542968.17	11542968.29	11542968.42	0.0511	0.0179	
Venus	26896-07-19 00:14 G	11544822.35	11544822.51	11544822.67	0.0500	0.0320	
Moon	26896-07-20 01:12 G	11544823.35	11544823.55	11544823.75	0.0500	0.0281	
Earth	26896-07-20 02:38 G	11544823.41	11544823.61	11544823.82	0.0500	0.0255	*
Mercury	26897-08-20 17:02 G	11545220.05	11545220.21	11545220.36	0.0514	0.0203	
Earth	26897-08-22 05:02 G	11545221.50	11545221.71	11545221.92	0.0514	0.0231	
Moon	26897-08-22 06:14 G	11545221.57	11545221.76	11545221.96	0.0514	0.0256	*
Moon	26902-01-16 12:14 G	11546828.84	11546829.01	11546829.19	0.0529	0.0351	
Earth	26902-01-16 15:21 G	11546828.97	11546829.14	11546829.33	0.0529	0.0332	*
Earth	26903-02-20 18:57 G	11547229.08	11547229.29	11547229.51	0.0514	0.0205	
Moon	26903-02-20 20:38 G	11547229.15	11547229.36	11547229.57	0.0514	0.0183	*
Mercury	26903-04-10 22:48 G	11547278.31	11547278.45	11547278.58	0.0512	0.0032	
Venus	26908-03-25 00:14 G	11549088.32	11549088.51	11549088.71	0.0498	0.0131	
Moon	26908-07-25 12:43 G	11549210.82	11549211.03	11549211.24	0.0502	0.0200	
Earth	26908-07-25 13:26 G	11549210.84	11549211.06	11549211.27	0.0502	0.0193	*
Mercury	26909-06-09 14:53 G	11549530.02	11549530.12	11549530.22	0.0513	0.0403	
Earth	26909-08-27 21:36 G	11549609.21	11549609.40	11549609.59	0.0516	0.0301	
Moon	26909-08-27 21:50 G	11549609.21	11549609.41	11549609.61	0.0516	0.0283	*
Mercury	26909-09-07 18:29 G	11549620.16	11549620.27	11549620.39	0.0516	0.0365	
Earth	26914-01-21 17:45 G	11551217.04	11551217.24	11551217.45	0.0527	0.0256	
Moon	26914-01-21 18:57 G	11551217.09	11551217.29	11551217.49	0.0527	0.0231	*
Venus	26914-01-31 16:19 G	11551227.17	11551227.18	11551227.20	0.0527	0.0525	

Mercury	26915-01-28 02:53 G	11551588.49	11551588.62	11551588.75	0.0513	0.0107
Moon	26915-02-25 14:53 G	11551616.91	11551617.12	11551617.33	0.0512	0.0251
Earth	26915-02-25 14:38 G	11551616.92	11551617.11	11551617.31	0.0512	0.0274 *
Mercury	26915-04-27 11:02 G	11551677.92	11551677.96	11551678.00	0.0510	0.0484
Earth	26920-07-30 02:09 G	11553598.36	11553598.59	11553598.82	0.0503	0.0127
Moon	26920-07-30 04:48 G	11553598.46	11553598.70	11553598.94	0.0503	0.0096 *
Mercury	26921-06-26 17:31 G	11553930.07	11553930.23	11553930.39	0.0515	0.0178
Moon	26921-09-01 15:50 G	11553997.00	11553997.16	11553997.33	0.0518	0.0346
Earth	26921-09-01 17:45 G	11553997.08	11553997.24	11553997.41	0.0518	0.0373 *
Venus	26925-10-06 10:19 G	11555492.73	11555492.93	11555493.13	0.0529	0.0005
Earth	26926-01-26 21:07 G	11555605.16	11555605.38	11555605.60	0.0525	0.0175
Moon	26926-01-26 22:33 G	11555605.22	11555605.44	11555605.68	0.0525	0.0166 *
Mercury	26926-11-16 06:57 G	11555898.68	11555898.79	11555898.91	0.0514	0.0244
Mercury	26927-02-13 14:53 G	11555988.02	11555988.12	11555988.22	0.0511	0.0345
Moon	26927-03-02 07:41 G	11556004.67	11556004.82	11556004.99	0.0510	0.0360
Earth	26927-03-02 09:21 G	11556004.73	11556004.89	11556005.07	0.0510	0.0340 *
Earth	26931-07-03 16:19 G	11557589.15	11557589.18	11557589.22	0.0494	0.0486
Moon	26932-08-03 12:43 G	11557985.80	11557986.03	11557986.26	0.0506	0.0042
Earth	26932-08-03 16:05 G	11557985.94	11557986.17	11557986.41	0.0506	0.0060 *
Mercury	26933-04-14 16:33 G	11558240.02	11558240.19	11558240.36	0.0515	0.0014
Earth	26933-09-06 16:05 G	11558385.05	11558385.17	11558385.29	0.0520	0.0443
Moon	26933-09-06 19:41 G	11558385.21	11558385.32	11558385.43	0.0520	0.0461 *
Moon	26938-01-31 18:29 G	11559993.05	11559993.27	11559993.49	0.0523	0.0127
Earth	26938-01-31 21:50 G	11559993.18	11559993.41	11559993.64	0.0523	0.0095 *
Mercury	26938-09-04 11:02 G	11560208.87	11560208.96	11560209.05	0.0515	0.0384
Mercury	26938-12-02 18:43 G	11560298.16	11560298.28	11560298.41	0.0511	0.0202
Earth	26939-03-07 02:09 G	11560392.45	11560392.59	11560392.73	0.0508	0.0402
Moon	26939-03-07 05:17 G	11560392.60	11560392.72	11560392.85	0.0508	0.0426 *
Moon	26943-07-07 23:45 G	11561976.37	11561976.49	11561976.62	0.0495	0.0418
Earth	26943-07-08 03:36 G	11561976.54	11561976.65	11561976.76	0.0495	0.0431 *

Venus	26943-12-01 12:57 G	11562122.84	11562123.04	11562123.24	0.0499	0.0139
Earth	26944-08-08 09:36 G	11562373.67	11562373.90	11562374.14	0.0508	0.0017
Moon	26944-08-08 13:41 G	11562373.83	11562374.07	11562374.30	0.0508	0.0013 *
Mercury	26945-01-31 15:50 G	11562550.00	11562550.16	11562550.32	0.0514	0.0189
Earth	26945-09-11 17:02 G	11562773.18	11562773.21	11562773.26	0.0522	0.0513
Moon	26948-12-31 10:05 G	11563979.90	11563979.92	11563979.96	0.0533	0.0528
Earth	26950-02-05 14:53 G	11564380.89	11564381.12	11564381.35	0.0521	0.0020
Moon	26950-02-05 18:57 G	11564381.05	11564381.29	11564381.52	0.0521	0.0039 *
Mercury	26950-09-20 21:36 G	11564608.27	11564608.40	11564608.54	0.0512	0.0044
Moon	26951-03-11 08:38 G	11564779.75	11564779.86	11564779.97	0.0506	0.0444
Earth	26951-03-11 12:14 G	11564779.92	11564780.01	11564780.11	0.0506	0.0460 *
Mars	26953-02-10 15:07 G	11565481.83	11565482.13	11565482.44	0.0490	0.0062
Earth	26955-07-12 14:24 G	11566363.96	11566364.10	11566364.26	0.0497	0.0377
Moon	26955-07-12 17:17 G	11566364.07	11566364.22	11566364.39	0.0497	0.0347 *
Venus	26955-08-06 14:38 G	11566388.95	11566389.11	11566389.28	0.0498	0.0302
Moon	26956-08-12 23:45 G	11566761.25	11566761.49	11566761.73	0.0509	0.0067
Earth	26956-08-13 02:53 G	11566761.39	11566761.62	11566761.85	0.0509	0.0086 *
Mercury	26956-11-19 14:38 G	11566860.00	11566860.11	11566860.23	0.0513	0.0376
Mercury	26957-02-17 18:14 G	11566950.16	11566950.26	11566950.37	0.0516	0.0393
Earth	26961-01-05 15:50 G	11568368.07	11568368.16	11568368.26	0.0532	0.0485
Moon	26961-01-05 19:55 G	11568368.23	11568368.33	11568368.44	0.0532	0.0476 *
Venus	26961-06-14 00:43 G	11568527.37	11568527.53	11568527.70	0.0527	0.0304
Moon	26962-02-10 07:26 G	11568768.58	11568768.81	11568769.05	0.0519	0.0080
Earth	26962-02-10 11:17 G	11568768.74	11568768.97	11568769.20	0.0519	0.0056 *
Mercury	26962-07-10 01:26 G	11568918.43	11568918.56	11568918.69	0.0513	0.0105
Mercury	26962-10-07 09:21 G	11569007.86	11569007.89	11569007.94	0.0510	0.0487
Moon	26963-03-16 05:17 G	11569167.68	11569167.72	11569167.78	0.0504	0.0489
Moon	26967-07-16 22:19 G	11570751.25	11570751.43	11570751.62	0.0498	0.0318
Earth	26967-07-17 00:00 G	11570751.32	11570751.50	11570751.68	0.0498	0.0319 *
Earth	26968-08-17 17:17 G	11571149.00	11571149.22	11571149.44	0.0511	0.0154

Moon	26968-08-17 18:57 G	11571149.08	11571149.29	11571149.50	0.0511	0.0180	*
Mercury	26968-12-06 16:33 G	11571260.04	11571260.19	11571260.35	0.0515	0.0195	
Mars	26971-01-09 11:31 G	11572023.73	11572023.98	11572024.23	0.0538	0.0047	
Moon	26973-01-10 15:50 G	11572756.03	11572756.16	11572756.29	0.0531	0.0444	
Earth	26973-01-10 19:26 G	11572756.17	11572756.31	11572756.46	0.0531	0.0413	*
Venus	26973-02-16 16:48 G	11572793.02	11572793.20	11572793.38	0.0530	0.0228	
Earth	26974-02-15 08:38 G	11573156.64	11573156.86	11573157.09	0.0517	0.0129	
Moon	26974-02-15 10:33 G	11573156.72	11573156.94	11573157.16	0.0517	0.0144	*
Mercury	26974-04-28 05:31 G	11573228.61	11573228.73	11573228.84	0.0514	0.0244	
Mercury	26974-07-26 13:26 G	11573317.96	11573318.06	11573318.16	0.0511	0.0346	
Moon	26979-07-21 10:05 G	11575138.74	11575138.92	11575139.11	0.0500	0.0286	
Earth	26979-07-21 10:48 G	11575138.75	11575138.95	11575139.15	0.0500	0.0257	*
Venus	26979-08-09 00:14 G	11575157.39	11575157.51	11575157.63	0.0500	0.0404	
Earth	26980-08-22 10:33 G	11575536.74	11575536.94	11575537.16	0.0513	0.0227	
Moon	26980-08-22 10:48 G	11575536.74	11575536.95	11575537.16	0.0513	0.0248	*
Mercury	26980-09-24 15:21 G	11575569.97	11575570.14	11575570.31	0.0515	0.0007	
Earth	26985-01-16 00:14 G	11577144.34	11577144.51	11577144.69	0.0529	0.0335	
Moon	26985-01-16 01:55 G	11577144.42	11577144.58	11577144.75	0.0529	0.0348	*
Mercury	26986-02-14 09:36 G	11577538.82	11577538.90	11577538.99	0.0515	0.0380	
Moon	26986-02-20 06:00 G	11577544.53	11577544.75	11577544.98	0.0515	0.0174	
Earth	26986-02-20 06:00 G	11577544.54	11577544.75	11577544.97	0.0515	0.0203	*
Mercury	26986-05-14 17:17 G	11577628.10	11577628.22	11577628.35	0.0512	0.0208	
Venus	26991-04-14 00:57 G	11579423.33	11579423.54	11579423.74	0.0498	0.0047	
Earth	26991-07-25 22:19 G	11579526.21	11579526.43	11579526.64	0.0501	0.0193	
Moon	26991-07-26 00:43 G	11579526.32	11579526.53	11579526.76	0.0501	0.0192	*
Mercury	26992-07-13 14:09 G	11579879.93	11579880.09	11579880.25	0.0514	0.0185	
Moon	26992-08-27 04:19 G	11579924.50	11579924.68	11579924.88	0.0516	0.0281	
Earth	26992-08-27 06:00 G	11579924.56	11579924.75	11579924.94	0.0516	0.0299	*
Earth	26997-01-21 03:36 G	11581532.45	11581532.65	11581532.86	0.0527	0.0256	
Moon	26997-01-21 04:48 G	11581532.48	11581532.70	11581532.92	0.0527	0.0225	*

Moon	26998-02-24 23:31 G	11581932.28	11581932.48	11581932.67	0.0512	0.0254
Earth	26998-02-25 00:57 G	11581932.35	11581932.54	11581932.74	0.0512	0.0273 *
Mercury	26998-03-02 21:21 G	11581938.25	11581938.39	11581938.52	0.0512	0.0065

28TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 28th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	27002-12-19 03:21 G		11583689.60	11583689.64	11583689.69	0.0497	0.0481	
Moon	27003-07-31 10:05 G		11583913.70	11583913.92	11583914.15	0.0503	0.0094	
Earth	27003-07-31 13:41 G		11583913.84	11583914.07	11583914.30	0.0503	0.0126 *	
Mercury	27004-05-02 13:12 G		11584189.94	11584190.05	11584190.18	0.0513	0.0366	
Mercury	27004-07-31 17:02 G		11584280.11	11584280.21	11584280.32	0.0517	0.0404	
Earth	27004-09-02 04:48 G		11584312.54	11584312.70	11584312.86	0.0518	0.0373	
Moon	27004-09-02 08:09 G		11584312.67	11584312.84	11584313.02	0.0518	0.0352 *	
Venus	27008-10-26 09:50 G		11585827.72	11585827.91	11585828.12	0.0528	0.0092	
Moon	27009-01-26 20:38 G		11585920.15	11585920.36	11585920.58	0.0525	0.0174	
Earth	27009-01-26 23:31 G		11585920.27	11585920.48	11585920.70	0.0525	0.0180 *	
Mercury	27009-12-21 00:14 G		11586248.38	11586248.51	11586248.64	0.0513	0.0095	
Earth	27010-03-02 12:57 G		11586319.87	11586320.04	11586320.22	0.0510	0.0336	
Moon	27010-03-02 15:50 G		11586320.00	11586320.16	11586320.34	0.0510	0.0359 *	
Mercury	27010-03-20 08:24 G		11586337.82	11586337.85	11586337.88	0.0510	0.0495	
Earth	27014-07-04 05:02 G		11587904.67	11587904.71	11587904.75	0.0494	0.0485	
Earth	27015-08-05 04:33 G		11588301.46	11588301.69	11588301.92	0.0505	0.0057	

Moon	27015-08-05 08:24 G	11588301.62	11588301.85	11588302.08	0.0505	0.0046	*
Mercury	27016-05-19 16:19 G	11588590.03	11588590.18	11588590.33	0.0516	0.0219	
Moon	27016-09-06 22:48 G	11588700.35	11588700.45	11588700.55	0.0520	0.0466	
Earth	27016-09-07 02:24 G	11588700.49	11588700.60	11588700.73	0.0520	0.0443	*
Venus	27020-07-01 00:57 G	11590093.43	11590093.54	11590093.64	0.0530	0.0452	
Earth	27021-01-31 21:36 G	11590308.17	11590308.40	11590308.63	0.0523	0.0102	
Moon	27021-02-01 01:41 G	11590308.34	11590308.57	11590308.79	0.0523	0.0134	*
Mercury	27021-10-09 04:05 G	11590558.55	11590558.67	11590558.78	0.0514	0.0242	
Mercury	27022-01-06 11:45 G	11590647.90	11590647.99	11590648.09	0.0511	0.0347	
Moon	27022-03-07 00:43 G	11590707.40	11590707.53	11590707.66	0.0509	0.0420	
Earth	27022-03-07 04:19 G	11590707.55	11590707.68	11590707.83	0.0509	0.0400	*
Earth	27026-07-08 12:57 G	11592291.94	11592292.04	11592292.15	0.0495	0.0435	
Moon	27026-07-08 15:50 G	11592292.05	11592292.16	11592292.28	0.0495	0.0420	*
Venus	27026-12-21 13:12 G	11592457.87	11592458.05	11592458.23	0.0499	0.0227	
Moon	27027-08-09 13:41 G	11592688.83	11592689.07	11592689.31	0.0507	0.0018	
Earth	27027-08-09 17:02 G	11592688.98	11592689.21	11592689.45	0.0507	0.0012	*
Mercury	27028-03-07 14:24 G	11592899.93	11592900.10	11592900.27	0.0514	0.0022	
Earth	27028-09-11 21:07 G	11593088.33	11593088.38	11593088.44	0.0521	0.0506	
Moon	27032-01-01 19:55 G	11594295.30	11594295.33	11594295.37	0.0534	0.0528	
Moon	27033-02-05 16:48 G	11594695.97	11594696.20	11594696.44	0.0522	0.0041	
Earth	27033-02-05 20:38 G	11594696.13	11594696.36	11594696.59	0.0522	0.0026	*
Mercury	27033-07-28 07:55 G	11594868.75	11594868.83	11594868.92	0.0515	0.0382	
Mercury	27033-10-25 15:50 G	11594958.03	11594958.16	11594958.28	0.0512	0.0206	
Earth	27034-03-11 20:38 G	11595095.27	11595095.36	11595095.47	0.0507	0.0459	
Moon	27034-03-12 00:14 G	11595095.40	11595095.51	11595095.63	0.0507	0.0436	*
Moon	27038-07-12 20:53 G	11596679.20	11596679.37	11596679.54	0.0496	0.0351	
Earth	27038-07-12 22:19 G	11596679.29	11596679.43	11596679.58	0.0496	0.0379	*
Venus	27038-08-26 13:55 G	11596723.90	11596724.08	11596724.27	0.0497	0.0221	
Earth	27039-08-14 07:55 G	11597076.60	11597076.83	11597077.06	0.0509	0.0080	
Moon	27039-08-14 09:36 G	11597076.68	11597076.90	11597077.13	0.0509	0.0070	*

Mercury	27039-12-25 12:43 G	11597209.87	11597210.03	11597210.19	0.0514	0.0174
Moon	27044-01-06 18:14 G	11598683.16	11598683.26	11598683.36	0.0533	0.0480
Earth	27044-01-06 22:19 G	11598683.34	11598683.43	11598683.52	0.0533	0.0490 *
Venus	27044-07-04 02:53 G	11598862.50	11598862.62	11598862.75	0.0527	0.0409
Earth	27045-02-10 20:09 G	11599084.11	11599084.34	11599084.57	0.0519	0.0052
Moon	27045-02-10 22:19 G	11599084.21	11599084.43	11599084.66	0.0519	0.0081 *
Mercury	27045-08-13 19:41 G	11599268.19	11599268.32	11599268.46	0.0512	0.0068
Moon	27046-03-16 09:50 G	11599482.85	11599482.91	11599482.98	0.0505	0.0485
Moon	27050-07-17 07:12 G	11601066.64	11601066.80	11601066.97	0.0498	0.0330
Earth	27050-07-17 07:41 G	11601066.65	11601066.82	11601067.00	0.0498	0.0320 *
Moon	27051-08-19 00:00 G	11601464.27	11601464.50	11601464.73	0.0511	0.0179
Earth	27051-08-19 00:14 G	11601464.29	11601464.51	11601464.74	0.0511	0.0152 *
Mercury	27051-10-13 11:17 G	11601519.85	11601519.97	11601520.09	0.0513	0.0366
Mercury	27052-01-11 15:07 G	11601610.03	11601610.13	11601610.23	0.0516	0.0404
Earth	27056-01-12 03:36 G	11603071.51	11603071.65	11603071.80	0.0531	0.0414
Moon	27056-01-12 06:00 G	11603071.63	11603071.75	11603071.87	0.0531	0.0445 *
Venus	27056-03-08 19:55 G	11603128.13	11603128.33	11603128.53	0.0529	0.0119
Moon	27057-02-15 17:17 G	11603471.99	11603472.22	11603472.46	0.0517	0.0137
Earth	27057-02-15 17:45 G	11603472.01	11603472.24	11603472.46	0.0517	0.0128 *
Mercury	27057-06-01 23:45 G	11603578.35	11603578.49	11603578.62	0.0513	0.0077
Earth	27062-07-21 20:38 G	11605454.16	11605454.36	11605454.56	0.0500	0.0257
Moon	27062-07-21 23:17 G	11605454.27	11605454.47	11605454.67	0.0500	0.0284 *
Venus	27062-08-29 01:12 G	11605492.52	11605492.55	11605492.58	0.0501	0.0494
Moon	27063-08-23 18:57 G	11605852.10	11605852.29	11605852.50	0.0513	0.0246
Earth	27063-08-23 20:24 G	11605852.15	11605852.35	11605852.57	0.0513	0.0227 *
Mercury	27063-10-30 14:38 G	11605919.96	11605920.11	11605920.26	0.0516	0.0227
Earth	27068-01-17 02:38 G	11607459.44	11607459.61	11607459.79	0.0529	0.0341
Moon	27068-01-17 02:53 G	11607459.44	11607459.62	11607459.80	0.0529	0.0344 *
Moon	27069-02-20 07:12 G	11607859.58	11607859.80	11607860.01	0.0515	0.0169
Earth	27069-02-20 08:09 G	11607859.63	11607859.84	11607860.06	0.0515	0.0198 *

Mercury	27069-03-21 02:38 G	11607888.50	11607888.61	11607888.73	0.0514	0.0235
Mercury	27069-06-18 10:33 G	11607977.84	11607977.94	11607978.04	0.0511	0.0354
Venus	27074-05-04 02:24 G	11609758.40	11609758.60	11609758.80	0.0499	0.0048
Moon	27074-07-26 05:45 G	11609841.53	11609841.74	11609841.96	0.0501	0.0192
Earth	27074-07-26 09:21 G	11609841.68	11609841.89	11609842.11	0.0501	0.0194 *
Mercury	27075-08-18 13:41 G	11610229.90	11610230.07	11610230.24	0.0515	0.0040
Earth	27075-08-28 15:50 G	11610239.98	11610240.16	11610240.36	0.0515	0.0299
Moon	27075-08-28 19:12 G	11610240.10	11610240.30	11610240.50	0.0515	0.0272 *
Moon	27080-01-22 00:14 G	11611847.31	11611847.51	11611847.71	0.0527	0.0232
Earth	27080-01-22 02:38 G	11611847.41	11611847.61	11611847.81	0.0527	0.0264 *
Mercury	27081-01-07 06:14 G	11612198.68	11612198.76	11612198.85	0.0515	0.0382
Earth	27081-02-25 01:12 G	11612247.35	11612247.55	11612247.75	0.0513	0.0267
Moon	27081-02-25 03:50 G	11612247.45	11612247.66	11612247.87	0.0513	0.0251 *
Mercury	27081-04-06 14:09 G	11612287.96	11612288.09	11612288.21	0.0512	0.0205
Venus	27086-01-07 02:38 G	11614024.50	11614024.61	11614024.74	0.0497	0.0398
Earth	27086-07-30 20:09 G	11614229.11	11614229.34	11614229.57	0.0503	0.0132
Moon	27086-07-31 00:00 G	11614229.27	11614229.50	11614229.73	0.0503	0.0100 *
Mercury	27087-06-06 11:31 G	11614539.82	11614539.98	11614540.14	0.0514	0.0162
Moon	27087-09-02 04:19 G	11614627.52	11614627.68	11614627.86	0.0517	0.0347
Earth	27087-09-02 08:24 G	11614627.69	11614627.85	11614628.02	0.0517	0.0365 *
Venus	27091-11-15 09:07 G	11616162.69	11616162.88	11616163.07	0.0528	0.0178
Earth	27092-01-27 02:24 G	11616235.38	11616235.60	11616235.82	0.0526	0.0188
Moon	27092-01-27 06:00 G	11616235.53	11616235.75	11616235.98	0.0526	0.0183 *
Mercury	27093-01-23 18:00 G	11616598.11	11616598.25	11616598.38	0.0513	0.0063
Moon	27093-03-01 15:21 G	11616634.98	11616635.14	11616635.31	0.0511	0.0358
Earth	27093-03-01 19:12 G	11616635.12	11616635.30	11616635.48	0.0511	0.0332 *
Earth	27097-07-03 12:00 G	11618219.97	11618220.00	11618220.03	0.0493	0.0488
Moon	27098-08-04 05:17 G	11618616.49	11618616.72	11618616.96	0.0504	0.0056
Earth	27098-08-04 08:53 G	11618616.64	11618616.87	11618617.10	0.0504	0.0063 *
Mercury	27099-03-25 09:36 G	11618849.79	11618849.90	11618850.03	0.0513	0.0358

Mercury	27099-06-23 13:26 G	11618939.96	11618940.06	11618940.16	0.0516	0.0411
Earth	27099-09-07 03:50 G	11619015.54	11619015.66	11619015.79	0.0519	0.0434
Moon	27099-09-07 07:12 G	11619015.71	11619015.80	11619015.91	0.0519	0.0462 *
Venus	27103-07-22 01:41 G	11620428.42	11620428.57	11620428.72	0.0530	0.0356
Moon	27104-02-02 00:00 G	11620623.28	11620623.50	11620623.73	0.0524	0.0139
Earth	27104-02-02 03:50 G	11620623.44	11620623.66	11620623.89	0.0524	0.0108 *
Mercury	27104-11-12 22:05 G	11620908.28	11620908.42	11620908.55	0.0513	0.0079
Earth	27105-03-07 12:57 G	11621022.90	11621023.04	11621023.19	0.0509	0.0396
Moon	27105-03-07 16:19 G	11621023.06	11621023.18	11621023.32	0.0509	0.0413 *
Mars	27107-05-09 21:36 G	11621816.17	11621816.40	11621816.66	0.0489	0.0288
Moon	27109-07-08 18:14 G	11622607.13	11622607.26	11622607.38	0.0495	0.0418
Earth	27109-07-08 19:41 G	11622607.22	11622607.32	11622607.43	0.0495	0.0436 *
Venus	27110-01-10 11:45 G	11622792.83	11622792.99	11622793.16	0.0500	0.0302
Earth	27110-08-09 22:19 G	11623004.20	11623004.43	11623004.66	0.0507	0.0006
Moon	27110-08-10 00:29 G	11623004.29	11623004.52	11623004.74	0.0507	0.0025 *
Mercury	27111-04-12 12:14 G	11623249.86	11623250.01	11623250.17	0.0516	0.0222
Earth	27111-09-13 01:41 G	11623403.51	11623403.57	11623403.63	0.0521	0.0502
Moon	27115-01-01 18:14 G	11624610.23	11624610.26	11624610.29	0.0534	0.0529
Earth	27116-02-07 03:50 G	11625011.43	11625011.66	11625011.89	0.0522	0.0028
Moon	27116-02-07 06:29 G	11625011.55	11625011.77	11625012.00	0.0522	0.0034 *
Mercury	27116-09-01 01:55 G	11625218.46	11625218.58	11625218.70	0.0514	0.0219
Mercury	27116-11-29 09:50 G	11625307.82	11625307.91	11625308.00	0.0511	0.0370
Moon	27117-03-12 01:55 G	11625410.46	11625410.58	11625410.71	0.0507	0.0431
Earth	27117-03-12 04:48 G	11625410.61	11625410.70	11625410.81	0.0507	0.0456 *
Moon	27121-07-13 05:45 G	11626994.60	11626994.74	11626994.90	0.0496	0.0360
Earth	27121-07-13 06:29 G	11626994.62	11626994.77	11626994.92	0.0496	0.0379 *
Venus	27121-09-15 13:41 G	11627058.87	11627059.07	11627059.27	0.0498	0.0140
Moon	27122-08-14 15:21 G	11627391.90	11627392.14	11627392.38	0.0509	0.0071
Earth	27122-08-14 15:50 G	11627391.93	11627392.16	11627392.39	0.0509	0.0079 *
Mercury	27123-01-29 11:45 G	11627559.82	11627559.99	11627560.16	0.0515	0.0042

Mars	27125-04-07 00:14 G	11628358.31	11628358.51	11628358.72	0.0538	0.0308
Earth	27127-01-07 00:14 G	11628998.43	11628998.51	11628998.60	0.0532	0.0496
Moon	27127-01-07 03:07 G	11628998.55	11628998.63	11628998.72	0.0532	0.0491 *
Venus	27127-07-25 01:41 G	11629197.50	11629197.57	11629197.64	0.0526	0.0491
Moon	27128-02-11 20:24 G	11629399.11	11629399.35	11629399.59	0.0519	0.0076
Earth	27128-02-11 21:21 G	11629399.16	11629399.39	11629399.62	0.0519	0.0045 *
Mercury	27128-06-20 05:02 G	11629528.62	11629528.71	11629528.80	0.0515	0.0375
Mercury	27128-09-17 12:43 G	11629617.91	11629618.03	11629618.15	0.0511	0.0210
Moon	27129-03-16 15:50 G	11629798.11	11629798.16	11629798.22	0.0505	0.0487
Earth	27133-07-17 16:33 G	11631382.02	11631382.19	11631382.37	0.0498	0.0323
Moon	27133-07-17 18:57 G	11631382.12	11631382.29	11631382.47	0.0498	0.0341 *
Moon	27134-08-19 07:41 G	11631779.61	11631779.82	11631780.03	0.0511	0.0178
Earth	27134-08-19 08:53 G	11631779.64	11631779.87	11631780.09	0.0511	0.0149 *
Mercury	27134-11-17 10:33 G	11631869.78	11631869.94	11631870.10	0.0514	0.0147
Moon	27139-01-12 00:57 G	11633386.42	11633386.54	11633386.67	0.0531	0.0451
Earth	27139-01-12 01:41 G	11633386.44	11633386.57	11633386.72	0.0531	0.0423 *
Venus	27139-03-29 16:48 G	11633463.00	11633463.20	11633463.40	0.0529	0.0047
Moon	27140-02-16 15:07 G	11633786.92	11633787.13	11633787.35	0.0517	0.0129
Earth	27140-02-16 16:05 G	11633786.94	11633787.17	11633787.40	0.0517	0.0119 *
Mercury	27140-07-06 16:19 G	11633928.04	11633928.18	11633928.31	0.0512	0.0062
Moon	27145-07-21 22:48 G	11635769.27	11635769.45	11635769.63	0.0499	0.0295
Earth	27145-07-22 02:09 G	11635769.40	11635769.59	11635769.79	0.0499	0.0264 *
Earth	27146-08-23 23:02 G	11636167.25	11636167.46	11636167.68	0.0512	0.0217
Moon	27146-08-24 01:55 G	11636167.37	11636167.58	11636167.80	0.0512	0.0229 *
Mercury	27146-09-05 08:09 G	11636179.72	11636179.84	11636179.97	0.0513	0.0350
Mercury	27146-12-04 12:00 G	11636269.90	11636270.00	11636270.10	0.0516	0.0418
Moon	27151-01-17 00:29 G	11637774.36	11637774.52	11637774.69	0.0530	0.0351
Earth	27151-01-17 02:09 G	11637774.42	11637774.59	11637774.77	0.0530	0.0351 *
Earth	27152-02-21 11:17 G	11638174.75	11638174.97	11638175.19	0.0516	0.0190
Moon	27152-02-21 13:41 G	11638174.84	11638175.07	11638175.30	0.0516	0.0160 *

Mercury	27152-04-24 19:55 G	11638238.20	11638238.33	11638238.47	0.0513	0.0085
Mercury	27152-07-23 04:05 G	11638327.67	11638327.67	11638327.68	0.0510	0.0508
Venus	27157-05-23 23:45 G	11640093.29	11640093.49	11640093.69	0.0499	0.0119
Earth	27157-07-26 12:43 G	11640156.82	11640157.03	11640157.25	0.0501	0.0201
Moon	27157-07-26 16:48 G	11640156.98	11640157.20	11640157.42	0.0501	0.0195 *
Moon	27158-08-28 12:29 G	11640554.82	11640555.02	11640555.22	0.0514	0.0259
Earth	27158-08-28 16:19 G	11640554.99	11640555.18	11640555.37	0.0514	0.0288 *
Mercury	27158-09-22 10:33 G	11640579.79	11640579.94	11640580.09	0.0515	0.0226
Earth	27163-01-22 05:17 G	11642162.52	11642162.72	11642162.92	0.0528	0.0272
Moon	27163-01-22 08:38 G	11642162.65	11642162.86	11642163.08	0.0528	0.0237 *
Mercury	27164-02-12 00:00 G	11642548.38	11642548.50	11642548.62	0.0514	0.0224
Moon	27164-02-26 03:36 G	11642562.45	11642562.65	11642562.85	0.0514	0.0251
Earth	27164-02-26 07:12 G	11642562.60	11642562.80	11642563.00	0.0514	0.0261 *
Mercury	27164-05-11 07:55 G	11642637.74	11642637.83	11642637.93	0.0511	0.0366
Venus	27169-01-27 00:00 G	11644359.36	11644359.50	11644359.66	0.0497	0.0330
Moon	27169-07-30 20:24 G	11644544.12	11644544.35	11644544.58	0.0502	0.0106
Earth	27169-07-31 00:00 G	11644544.28	11644544.50	11644544.73	0.0502	0.0136 *
Mercury	27170-07-11 09:07 G	11644889.71	11644889.88	11644890.05	0.0515	0.0033
Earth	27170-09-02 10:33 G	11644942.78	11644942.94	11644943.11	0.0517	0.0360
Moon	27170-09-02 14:24 G	11644942.93	11644943.10	11644943.27	0.0517	0.0345 *
Venus	27174-12-05 09:50 G	11646497.74	11646497.91	11646498.09	0.0528	0.0273
Moon	27175-01-27 03:36 G	11646550.43	11646550.65	11646550.87	0.0526	0.0187
Earth	27175-01-27 07:26 G	11646550.60	11646550.81	11646551.03	0.0526	0.0192 *
Mercury	27175-12-01 04:05 G	11646858.58	11646858.67	11646858.76	0.0515	0.0365
Mercury	27176-02-28 11:45 G	11646947.87	11646947.99	11646948.11	0.0512	0.0222
Earth	27176-03-02 01:12 G	11646950.38	11646950.55	11646950.73	0.0511	0.0329
Moon	27176-03-02 04:48 G	11646950.55	11646950.70	11646950.87	0.0511	0.0361 *
Earth	27180-07-03 18:00 G	11648535.24	11648535.25	11648535.28	0.0493	0.0491
Earth	27181-08-04 14:24 G	11648931.87	11648932.10	11648932.34	0.0504	0.0067
Moon	27181-08-04 16:48 G	11648931.97	11648932.20	11648932.42	0.0504	0.0070 *

Mercury	27182-04-29 08:09 G	11649199.68	11649199.84	11649200.01	0.0514	0.0151
Moon	27182-09-07 06:29 G	11649330.66	11649330.77	11649330.89	0.0519	0.0455
Earth	27182-09-07 09:21 G	11649330.76	11649330.89	11649331.02	0.0519	0.0431 *
Venus	27186-08-10 00:29 G	11650763.35	11650763.52	11650763.69	0.0529	0.0270
Earth	27187-02-01 04:19 G	11650938.46	11650938.68	11650938.91	0.0524	0.0117
Moon	27187-02-01 07:41 G	11650938.60	11650938.82	11650939.04	0.0524	0.0147 *
Mercury	27187-12-17 14:38 G	11651257.98	11651258.11	11651258.25	0.0512	0.0067
Moon	27188-03-06 10:19 G	11651337.79	11651337.93	11651338.08	0.0509	0.0405
Earth	27188-03-06 13:26 G	11651337.92	11651338.06	11651338.21	0.0509	0.0389 *
Moon	27192-07-08 01:41 G	11652922.46	11652922.57	11652922.69	0.0495	0.0421
Earth	27192-07-08 02:09 G	11652922.49	11652922.59	11652922.69	0.0495	0.0441 *
Venus	27193-01-29 10:48 G	11653127.82	11653127.95	11653128.08	0.0500	0.0383
Moon	27193-08-09 04:19 G	11653319.44	11653319.68	11653319.92	0.0506	0.0030
Earth	27193-08-09 05:02 G	11653319.48	11653319.71	11653319.94	0.0506	0.0002 *
Mercury	27194-02-15 06:43 G	11653509.66	11653509.78	11653509.91	0.0513	0.0341
Mercury	27194-05-16 10:33 G	11653599.86	11653599.94	11653600.04	0.0516	0.0430
Earth	27194-09-12 07:12 G	11653718.74	11653718.80	11653718.87	0.0521	0.0498
Moon	27194-09-12 07:55 G	11653718.81	11653718.83	11653718.85	0.0521	0.0518 *
Moon	27199-02-05 23:31 G	11655326.24	11655326.48	11655326.72	0.0522	0.0040
Earth	27199-02-06 01:12 G	11655326.31	11655326.55	11655326.78	0.0522	0.0040 *
Mercury	27199-10-05 18:14 G	11655568.13	11655568.26	11655568.39	0.0513	0.0086
Mercury	27200-01-03 02:09 G	11655657.58	11655657.59	11655657.61	0.0510	0.0504
Earth	27200-03-11 03:07 G	11655725.53	11655725.63	11655725.75	0.0507	0.0449
Moon	27200-03-11 05:02 G	11655725.59	11655725.71	11655725.83	0.0507	0.0427 *
Earth	27204-07-12 10:33 G	11657309.80	11657309.94	11657310.08	0.0496	0.0388
Moon	27204-07-12 12:43 G	11657309.88	11657310.03	11657310.20	0.0496	0.0370 *
Venus	27204-10-04 10:48 G	11657393.75	11657393.95	11657394.15	0.0498	0.0069
Moon	27205-08-13 17:02 G	11657706.99	11657707.21	11657707.43	0.0508	0.0061
Earth	27205-08-13 17:45 G	11657707.01	11657707.24	11657707.47	0.0508	0.0068 *
Mercury	27206-03-04 08:38 G	11657909.71	11657909.86	11657910.01	0.0515	0.0229

Moon	27210-01-05 18:43 G	11659313.20	11659313.28	11659313.36	0.0533	0.0502
Earth	27210-01-05 20:38 G	11659313.30	11659313.36	11659313.43	0.0533	0.0507 *
Moon	27211-02-10 21:07 G	11659714.16	11659714.38	11659714.60	0.0520	0.0067
Earth	27211-02-10 21:21 G	11659714.16	11659714.39	11659714.62	0.0520	0.0035 *
Mercury	27211-07-24 21:50 G	11659878.30	11659878.41	11659878.54	0.0514	0.0233
Mercury	27211-10-22 05:45 G	11659967.65	11659967.74	11659967.84	0.0511	0.0358
Moon	27212-03-15 18:14 G	11660113.19	11660113.26	11660113.33	0.0506	0.0484
Earth	27212-03-15 18:00 G	11660113.23	11660113.25	11660113.27	0.0506	0.0504 *
Moon	27216-07-16 16:19 G	11661697.03	11661697.18	11661697.35	0.0497	0.0350
Earth	27216-07-16 19:41 G	11661697.15	11661697.32	11661697.50	0.0497	0.0329 *
Earth	27217-08-18 08:24 G	11662094.63	11662094.85	11662095.08	0.0510	0.0138
Moon	27217-08-18 10:48 G	11662094.73	11662094.95	11662095.18	0.0510	0.0167 *
Mercury	27217-12-21 06:57 G	11662219.62	11662219.79	11662219.96	0.0514	0.0036
Moon	27222-01-10 23:45 G	11663701.38	11663701.49	11663701.60	0.0532	0.0465
Earth	27222-01-11 00:43 G	11663701.40	11663701.53	11663701.66	0.0532	0.0433 *
Venus	27222-04-17 14:38 G	11663797.91	11663798.11	11663798.32	0.0529	0.0033
Earth	27223-02-15 18:57 G	11664102.06	11664102.29	11664102.52	0.0518	0.0111
Moon	27223-02-15 21:07 G	11664102.14	11664102.38	11664102.61	0.0518	0.0116 *
Mercury	27223-05-13 01:55 G	11664188.49	11664188.58	11664188.68	0.0515	0.0373
Mercury	27223-08-10 09:36 G	11664277.78	11664277.90	11664278.03	0.0512	0.0215
Mars	27225-10-26 06:29 G	11665085.65	11665085.77	11665085.92	0.0490	0.0438
Earth	27228-07-21 04:48 G	11666084.50	11666084.70	11666084.89	0.0499	0.0269
Moon	27228-07-21 08:38 G	11666084.67	11666084.86	11666085.05	0.0499	0.0297 *
Moon	27229-08-22 20:09 G	11666482.14	11666482.34	11666482.56	0.0512	0.0218
Earth	27229-08-22 23:45 G	11666482.28	11666482.49	11666482.71	0.0512	0.0210 *
Mercury	27229-10-09 05:17 G	11666529.56	11666529.72	11666529.88	0.0514	0.0162
Venus	27233-12-21 06:57 G	11668063.73	11668063.79	11668063.85	0.0531	0.0504
Earth	27234-01-16 05:02 G	11668089.54	11668089.71	11668089.88	0.0530	0.0356
Moon	27234-01-16 08:09 G	11668089.66	11668089.84	11668090.02	0.0530	0.0350 *
Moon	27235-02-20 12:29 G	11668489.80	11668490.02	11668490.24	0.0516	0.0155

Earth	27235-02-20 15:36 G	11668489.94	11668490.15	11668490.38	0.0516	0.0187	*
Mercury	27235-03-01 06:00 G	11668498.74	11668498.75	11668498.76	0.0516	0.0513	
Mercury	27235-05-29 13:26 G	11668587.93	11668588.06	11668588.20	0.0512	0.0071	
Venus	27240-06-11 21:07 G	11670428.19	11670428.38	11670428.57	0.0499	0.0187	
Moon	27240-07-25 12:57 G	11670471.83	11670472.04	11670472.26	0.0500	0.0198	
Earth	27240-07-25 16:48 G	11670471.99	11670472.20	11670472.41	0.0500	0.0205	*
Mercury	27241-07-28 04:05 G	11670839.55	11670839.67	11670839.80	0.0513	0.0349	
Earth	27241-08-27 19:26 G	11670870.12	11670870.31	11670870.51	0.0514	0.0283	
Moon	27241-08-27 23:17 G	11670870.27	11670870.47	11670870.67	0.0514	0.0251	*
Mercury	27241-10-26 08:09 G	11670929.75	11670929.84	11670929.94	0.0516	0.0422	
Mars	27243-09-27 00:57 G	11671630.41	11671630.54	11671630.70	0.0537	0.0431	
Moon	27246-01-21 01:41 G	11672477.37	11672477.57	11672477.78	0.0528	0.0248	
Earth	27246-01-21 05:31 G	11672477.54	11672477.73	11672477.93	0.0528	0.0282	*
Earth	27247-02-25 06:57 G	11672877.59	11672877.79	11672877.99	0.0514	0.0252	
Moon	27247-02-25 10:33 G	11672877.74	11672877.94	11672878.15	0.0514	0.0250	*
Mercury	27247-03-17 16:48 G	11672898.06	11672898.20	11672898.33	0.0513	0.0085	
Mercury	27247-06-15 00:43 G	11672987.52	11672987.53	11672987.54	0.0510	0.0505	
Venus	27252-02-15 21:36 G	11674694.23	11674694.40	11674694.58	0.0498	0.0259	
Earth	27252-07-30 04:33 G	11674859.47	11674859.69	11674859.92	0.0502	0.0143	
Moon	27252-07-30 07:12 G	11674859.58	11674859.80	11674860.02	0.0502	0.0114	*
Mercury	27253-08-14 06:57 G	11675239.65	11675239.79	11675239.95	0.0516	0.0236	
Moon	27253-09-01 11:45 G	11675257.81	11675257.99	11675258.17	0.0516	0.0336	
Earth	27253-09-01 14:53 G	11675257.96	11675258.12	11675258.30	0.0516	0.0353	*
Venus	27257-12-24 06:00 G	11676832.60	11676832.75	11676832.91	0.0527	0.0339	
Earth	27258-01-26 04:19 G	11676865.47	11676865.68	11676865.90	0.0526	0.0203	
Moon	27258-01-26 07:55 G	11676865.62	11676865.83	11676866.04	0.0526	0.0203	*
Mercury	27259-01-03 20:24 G	11677208.23	11677208.35	11677208.46	0.0514	0.0234	
Moon	27259-03-01 19:26 G	11677265.14	11677265.31	11677265.49	0.0512	0.0350	
Earth	27259-03-01 22:48 G	11677265.27	11677265.45	11677265.63	0.0512	0.0319	*
Mercury	27259-04-03 04:05 G	11677297.57	11677297.67	11677297.77	0.0511	0.0354	

Moon	27264-08-03 15:07 G	11679246.89	11679247.13	11679247.37	0.0504	0.0084
Earth	27264-08-03 16:05 G	11679246.94	11679247.17	11679247.40	0.0504	0.0077 *
Mercury	27265-06-02 05:02 G	11679549.54	11679549.71	11679549.88	0.0514	0.0035
Earth	27265-09-06 07:41 G	11679645.68	11679645.82	11679645.96	0.0518	0.0417
Moon	27265-09-06 09:07 G	11679645.77	11679645.88	11679646.00	0.0518	0.0444 *
Venus	27269-08-28 19:55 G	11681098.14	11681098.33	11681098.52	0.0530	0.0207
Moon	27270-01-30 23:17 G	11681253.24	11681253.47	11681253.70	0.0525	0.0160
Earth	27270-01-31 01:26 G	11681253.34	11681253.56	11681253.79	0.0525	0.0129 *
Mercury	27270-10-23 00:00 G	11681518.41	11681518.50	11681518.59	0.0515	0.0381
Mercury	27271-01-20 07:26 G	11681607.69	11681607.81	11681607.94	0.0512	0.0207
Earth	27271-03-06 14:09 G	11681652.95	11681653.09	11681653.26	0.0510	0.0382
Moon	27271-03-06 16:33 G	11681653.05	11681653.19	11681653.33	0.0510	0.0396 *
Earth	27275-07-08 05:17 G	11683237.63	11683237.72	11683237.82	0.0494	0.0446
Moon	27275-07-08 07:26 G	11683237.69	11683237.81	11683237.94	0.0494	0.0418 *
Venus	27276-02-18 06:43 G	11683462.69	11683462.78	11683462.88	0.0500	0.0445
Moon	27276-08-08 04:19 G	11683634.46	11683634.68	11683634.91	0.0505	0.0041
Earth	27276-08-08 04:48 G	11683634.47	11683634.70	11683634.94	0.0505	0.0010 *
Mercury	27277-03-21 03:07 G	11683859.47	11683859.63	11683859.79	0.0513	0.0163
Earth	27277-09-11 02:53 G	11684033.54	11684033.62	11684033.70	0.0520	0.0485
Moon	27277-09-11 03:50 G	11684033.59	11684033.66	11684033.73	0.0520	0.0496 *
Mars	27279-07-01 07:26 G	11684691.77	11684691.81	11684691.87	0.0538	0.0527
Earth	27282-02-05 00:43 G	11685641.30	11685641.53	11685641.77	0.0523	0.0050
Moon	27282-02-05 00:57 G	11685641.32	11685641.54	11685641.77	0.0523	0.0048 *
Mercury	27282-11-08 11:17 G	11685917.84	11685917.97	11685918.11	0.0513	0.0064
Moon	27283-03-11 06:43 G	11686040.65	11686040.78	11686040.92	0.0508	0.0417
Earth	27283-03-11 06:57 G	11686040.68	11686040.79	11686040.90	0.0508	0.0443 *
Moon	27287-07-12 09:21 G	11687624.74	11687624.89	11687625.04	0.0495	0.0375
Earth	27287-07-12 12:43 G	11687624.89	11687625.03	11687625.17	0.0495	0.0392 *
Venus	27287-10-24 06:43 G	11687728.57	11687728.78	11687728.98	0.0498	0.0014
Earth	27288-08-12 17:31 G	11688022.00	11688022.23	11688022.46	0.0507	0.0060

Moon	27288-08-12 19:41 G	11688022.08	11688022.32	11688022.56	0.0507	0.0058	*
Mercury	27289-01-07 00:57 G	11688169.43	11688169.54	11688169.67	0.0513	0.0363	
Mercury	27289-04-07 05:02 G	11688259.61	11688259.71	11688259.82	0.0516	0.0408	
Earth	27293-01-04 21:07 G	11689628.32	11689628.38	11689628.44	0.0534	0.0514	
Moon	27293-01-04 21:07 G	11689628.34	11689628.38	11689628.43	0.0534	0.0520	*
Earth	27294-02-10 00:00 G	11690029.27	11690029.50	11690029.74	0.0521	0.0029	
Moon	27294-02-10 01:41 G	11690029.33	11690029.57	11690029.81	0.0521	0.0061	*
Mercury	27294-08-27 15:21 G	11690228.00	11690228.14	11690228.27	0.0513	0.0082	
Mercury	27294-11-24 23:17 G	11690317.47	11690317.47	11690317.47	0.0510	0.0510	
Moon	27295-03-15 19:55 G	11690428.28	11690428.33	11690428.39	0.0506	0.0488	
Earth	27295-03-15 22:05 G	11690428.39	11690428.42	11690428.46	0.0506	0.0499	*
Venus	27299-06-29 08:09 G	11691994.76	11691994.84	11691994.93	0.0496	0.0449	
Earth	27299-07-16 22:33 G	11692012.26	11692012.44	11692012.61	0.0497	0.0333	
Moon	27299-07-17 02:09 G	11692012.44	11692012.59	11692012.76	0.0497	0.0355	*
Moon	27300-08-18 06:57 G	11692409.57	11692409.79	11692410.01	0.0510	0.0162	
Earth	27300-08-18 10:19 G	11692409.71	11692409.93	11692410.16	0.0510	0.0132	*
Mercury	27301-01-25 04:19 G	11692569.53	11692569.68	11692569.83	0.0515	0.0225	
Earth	27305-01-11 00:43 G	11694016.42	11694016.53	11694016.67	0.0532	0.0443	
Moon	27305-01-11 03:21 G	11694016.54	11694016.64	11694016.75	0.0532	0.0474	*
Venus	27305-05-07 12:57 G	11694132.84	11694133.04	11694133.24	0.0528	0.0113	
Moon	27306-02-15 16:05 G	11694416.94	11694417.17	11694417.39	0.0518	0.0104	
Earth	27306-02-15 18:57 G	11694417.06	11694417.29	11694417.52	0.0518	0.0101	*
Mercury	27306-06-16 18:43 G	11694538.16	11694538.28	11694538.40	0.0514	0.0233	
Mercury	27306-09-14 02:24 G	11694627.50	11694627.60	11694627.70	0.0511	0.0354	
Moon	27311-07-22 04:05 G	11696399.49	11696399.67	11696399.86	0.0499	0.0304	
Earth	27311-07-22 08:09 G	11696399.64	11696399.84	11696400.03	0.0499	0.0276	*
Earth	27312-08-23 03:07 G	11696797.41	11696797.63	11696797.84	0.0512	0.0202	
Moon	27312-08-23 06:57 G	11696797.58	11696797.79	11696798.00	0.0512	0.0204	*
Mercury	27312-11-13 03:07 G	11696879.46	11696879.63	11696879.80	0.0515	0.0037	
Venus	27317-01-10 03:36 G	11698398.54	11698398.65	11698398.77	0.0530	0.0432	

Moon	27317-01-15 22:33 G	11698404.28	11698404.44	11698404.61	0.0530	0.0366
Earth	27317-01-16 02:09 G	11698404.42	11698404.59	11698404.76	0.0530	0.0367 *
Earth	27318-02-20 12:57 G	11698804.82	11698805.04	11698805.26	0.0516	0.0174
Moon	27318-02-20 16:48 G	11698804.97	11698805.20	11698805.42	0.0516	0.0143 *
Mercury	27318-04-04 22:19 G	11698848.34	11698848.43	11698848.52	0.0515	0.0381
Mercury	27318-07-03 05:45 G	11698937.62	11698937.74	11698937.87	0.0511	0.0203
Venus	27323-07-02 17:02 G	11700763.03	11700763.21	11700763.38	0.0499	0.0251
Earth	27323-07-26 18:14 G	11700787.05	11700787.26	11700787.47	0.0500	0.0215
Moon	27323-07-26 20:53 G	11700787.16	11700787.37	11700787.58	0.0500	0.0201 *
Moon	27324-08-27 14:53 G	11701184.91	11701185.12	11701185.33	0.0513	0.0238
Earth	27324-08-27 18:14 G	11701185.07	11701185.26	11701185.47	0.0513	0.0270 *
Mercury	27324-09-01 00:57 G	11701189.37	11701189.54	11701189.70	0.0513	0.0166
Earth	27329-01-20 23:45 G	11702792.30	11702792.49	11702792.69	0.0529	0.0295
Moon	27329-01-21 03:36 G	11702792.45	11702792.65	11702792.86	0.0529	0.0262 *
Moon	27330-02-25 01:55 G	11703192.38	11703192.58	11703192.80	0.0515	0.0238
Earth	27330-02-25 05:45 G	11703192.53	11703192.74	11703192.94	0.0515	0.0242 *
Mercury	27330-04-21 09:21 G	11703247.75	11703247.89	11703248.02	0.0513	0.0056
Venus	27335-03-07 17:45 G	11705029.05	11705029.24	11705029.43	0.0497	0.0196
Moon	27335-07-31 04:19 G	11705174.44	11705174.68	11705174.91	0.0501	0.0123
Earth	27335-07-31 05:31 G	11705174.51	11705174.73	11705174.95	0.0501	0.0151 *
Mercury	27336-06-19 22:48 G	11705499.34	11705499.45	11705499.58	0.0512	0.0364
Earth	27336-09-01 11:31 G	11705572.80	11705572.98	11705573.15	0.0515	0.0340
Moon	27336-09-01 13:26 G	11705572.89	11705573.06	11705573.24	0.0515	0.0327 *
Mercury	27336-09-18 02:53 G	11705589.52	11705589.62	11705589.72	0.0516	0.0406
Venus	27341-01-13 01:41 G	11707167.45	11707167.57	11707167.71	0.0528	0.0405
Moon	27341-01-25 22:05 G	11707180.20	11707180.42	11707180.64	0.0527	0.0219
Earth	27341-01-26 00:57 G	11707180.33	11707180.54	11707180.75	0.0527	0.0215 *
Mercury	27342-02-07 13:12 G	11707557.91	11707558.05	11707558.18	0.0514	0.0092
Earth	27342-03-02 00:00 G	11707580.32	11707580.50	11707580.69	0.0513	0.0311
Moon	27342-03-02 02:24 G	11707580.44	11707580.60	11707580.77	0.0513	0.0343 *

Mercury	27342-05-07 21:07 G	11707647.36	11707647.38	11707647.40	0.0510	0.0501
Moon	27347-08-04 15:50 G	11709561.94	11709562.16	11709562.38	0.0503	0.0092
Earth	27347-08-04 16:05 G	11709561.94	11709562.17	11709562.40	0.0503	0.0084 *
Mercury	27348-07-07 01:12 G	11709899.40	11709899.55	11709899.71	0.0515	0.0211
Earth	27348-09-06 05:17 G	11709960.58	11709960.72	11709960.86	0.0517	0.0408
Moon	27348-09-06 05:17 G	11709960.59	11709960.72	11709960.85	0.0517	0.0434 *
Venus	27352-09-17 18:14 G	11711433.07	11711433.26	11711433.46	0.0530	0.0127
Earth	27353-01-31 02:38 G	11711568.39	11711568.61	11711568.84	0.0525	0.0136
Moon	27353-01-31 03:21 G	11711568.43	11711568.64	11711568.86	0.0525	0.0169 *
Mercury	27353-11-26 17:02 G	11711868.09	11711868.21	11711868.33	0.0514	0.0233
Mercury	27354-02-24 00:43 G	11711957.44	11711957.53	11711957.63	0.0511	0.0357
Moon	27354-03-06 17:02 G	11711968.06	11711968.21	11711968.38	0.0511	0.0385
Earth	27354-03-06 17:45 G	11711968.09	11711968.24	11711968.40	0.0511	0.0376 *
Moon	27358-07-08 04:19 G	11713552.57	11713552.68	11713552.81	0.0494	0.0422
Earth	27358-07-08 07:26 G	11713552.73	11713552.81	11713552.92	0.0494	0.0451 *
Earth	27359-08-09 06:00 G	11713949.52	11713949.75	11713949.98	0.0505	0.0015
Moon	27359-08-09 07:41 G	11713949.58	11713949.82	11713950.06	0.0505	0.0046 *
Mercury	27360-04-25 00:14 G	11714209.34	11714209.51	11714209.68	0.0514	0.0025
Moon	27360-09-11 00:43 G	11714348.46	11714348.53	11714348.61	0.0520	0.0488
Earth	27360-09-11 03:07 G	11714348.55	11714348.63	11714348.73	0.0520	0.0478 *
Earth	27365-02-05 01:26 G	11715956.33	11715956.56	11715956.79	0.0523	0.0060
Moon	27365-02-05 02:24 G	11715956.36	11715956.60	11715956.84	0.0523	0.0056 *
Mercury	27365-09-14 20:38 G	11716178.27	11716178.36	11716178.45	0.0515	0.0381
Mercury	27365-12-13 04:05 G	11716267.55	11716267.67	11716267.80	0.0511	0.0204
Moon	27366-03-11 05:45 G	11716355.61	11716355.74	11716355.88	0.0508	0.0408
Earth	27366-03-11 07:26 G	11716355.69	11716355.81	11716355.93	0.0508	0.0434 *
Earth	27370-07-12 15:07 G	11717939.99	11717940.13	11717940.26	0.0495	0.0399
Moon	27370-07-12 18:57 G	11717940.14	11717940.29	11717940.44	0.0495	0.0381 *
Venus	27370-11-13 03:07 G	11718063.43	11718063.63	11718063.83	0.0499	0.0056
Moon	27371-08-13 17:02 G	11718336.98	11718337.21	11718337.44	0.0507	0.0055

Earth	27371-08-13 20:09 G	11718337.11	11718337.34	11718337.57	0.0507	0.0052	*
Mercury	27372-02-11 22:48 G	11718519.29	11718519.45	11718519.61	0.0514	0.0166	
Moon	27372-09-16 05:17 G	11718736.68	11718736.72	11718736.77	0.0522	0.0511	
Earth	27376-01-05 19:12 G	11719943.26	11719943.30	11719943.34	0.0533	0.0523	
Moon	27376-01-05 20:38 G	11719943.34	11719943.36	11719943.38	0.0533	0.0531	*
Moon	27377-02-09 19:26 G	11720344.08	11720344.31	11720344.54	0.0521	0.0048	
Earth	27377-02-09 21:50 G	11720344.18	11720344.41	11720344.65	0.0521	0.0020	*
Mercury	27377-10-01 07:41 G	11720577.69	11720577.82	11720577.95	0.0512	0.0054	
Earth	27378-03-15 20:38 G	11720743.31	11720743.36	11720743.42	0.0506	0.0490	
Moon	27378-03-16 00:00 G	11720743.43	11720743.50	11720743.57	0.0506	0.0481	
Mars	27380-01-20 03:36 G	11721418.38	11721418.65	11721418.93	0.0490	0.0209	
Moon	27382-07-16 20:38 G	11722327.20	11722327.36	11722327.52	0.0497	0.0363	
Earth	27382-07-17 00:29 G	11722327.35	11722327.52	11722327.69	0.0497	0.0342	*
Venus	27382-07-19 04:05 G	11722329.55	11722329.67	11722329.80	0.0497	0.0387	
Earth	27383-08-18 10:19 G	11722724.70	11722724.93	11722725.16	0.0509	0.0120	
Moon	27383-08-18 14:09 G	11722724.87	11722725.09	11722725.31	0.0509	0.0152	*
Mercury	27383-11-30 20:38 G	11722829.24	11722829.36	11722829.48	0.0513	0.0366	
Mercury	27384-02-29 00:43 G	11722919.43	11722919.53	11722919.63	0.0516	0.0404	
Moon	27388-01-10 14:38 G	11724331.03	11724331.11	11724331.20	0.0532	0.0490	
Earth	27388-01-10 17:45 G	11724331.12	11724331.24	11724331.36	0.0532	0.0454	*
Venus	27388-05-26 07:26 G	11724467.62	11724467.81	11724468.00	0.0529	0.0169	
Earth	27389-02-14 15:36 G	11724731.92	11724732.15	11724732.38	0.0519	0.0090	
Moon	27389-02-14 19:26 G	11724732.07	11724732.31	11724732.54	0.0519	0.0085	*
Mercury	27389-07-20 11:02 G	11724887.83	11724887.96	11724888.09	0.0514	0.0098	
Mercury	27389-10-17 18:57 G	11724977.26	11724977.29	11724977.33	0.0511	0.0493	
Earth	27394-07-21 10:33 G	11726714.75	11726714.94	11726715.13	0.0498	0.0282	
Moon	27394-07-21 13:26 G	11726714.88	11726715.06	11726715.24	0.0498	0.0303	*
Moon	27395-08-22 21:50 G	11727112.20	11727112.41	11727112.63	0.0511	0.0195	
Earth	27395-08-23 01:41 G	11727112.35	11727112.57	11727112.79	0.0511	0.0191	*
Mercury	27395-12-17 23:17 G	11727229.31	11727229.47	11727229.62	0.0515	0.0211	

Mars	27397-12-21 01:41 G	11727963.35	11727963.57	11727963.80	0.0537	0.0244
Earth	27400-01-15 20:09 G	11728719.18	11728719.34	11728719.51	0.0531	0.0380
Moon	27400-01-16 00:00 G	11728719.34	11728719.50	11728719.67	0.0531	0.0376 *
Venus	27400-01-29 22:33 G	11728733.30	11728733.44	11728733.58	0.0531	0.0374
Moon	27401-02-20 08:24 G	11729119.62	11729119.85	11729120.08	0.0518	0.0131
Earth	27401-02-20 12:14 G	11729119.79	11729120.01	11729120.23	0.0518	0.0165 *
Mercury	27401-05-09 14:53 G	11729198.01	11729198.12	11729198.24	0.0515	0.0242
Mercury	27401-08-06 22:48 G	11729287.35	11729287.45	11729287.55	0.0511	0.0348
Venus	27406-07-22 12:43 G	11731097.87	11731098.03	11731098.19	0.0499	0.0310
Moon	27406-07-26 17:45 G	11731102.02	11731102.24	11731102.47	0.0499	0.0202
Earth	27406-07-26 19:26 G	11731102.10	11731102.31	11731102.52	0.0499	0.0221 *
Earth	27407-08-28 16:48 G	11731500.00	11731500.20	11731500.40	0.0513	0.0261
Moon	27407-08-28 19:12 G	11731500.10	11731500.30	11731500.51	0.0513	0.0232 *
Mercury	27407-10-06 21:21 G	11731539.22	11731539.39	11731539.56	0.0514	0.0014
Moon	27412-01-21 20:38 G	11733107.16	11733107.36	11733107.57	0.0530	0.0271
Earth	27412-01-22 00:14 G	11733107.32	11733107.51	11733107.70	0.0530	0.0302 *
Earth	27413-02-25 08:24 G	11733507.65	11733507.85	11733508.06	0.0515	0.0237
Moon	27413-02-25 11:17 G	11733507.77	11733507.97	11733508.17	0.0515	0.0236 *
Mercury	27413-02-25 18:57 G	11733508.20	11733508.29	11733508.38	0.0515	0.0383
Mercury	27413-05-26 02:38 G	11733597.48	11733597.61	11733597.73	0.0512	0.0204
Venus	27418-03-27 13:41 G	11735363.88	11735364.07	11735364.27	0.0497	0.0136
Earth	27418-07-31 06:57 G	11735489.57	11735489.79	11735490.01	0.0501	0.0157
Moon	27418-07-31 06:57 G	11735489.57	11735489.79	11735490.01	0.0501	0.0130 *
Mercury	27419-07-25 19:55 G	11735849.17	11735849.33	11735849.50	0.0513	0.0177
Moon	27419-09-02 11:02 G	11735887.78	11735887.96	11735888.15	0.0515	0.0323
Earth	27419-09-02 11:45 G	11735887.81	11735887.99	11735888.17	0.0515	0.0332 *
Earth	27424-01-27 02:24 G	11737495.39	11737495.60	11737495.81	0.0527	0.0225
Moon	27424-01-27 03:50 G	11737495.47	11737495.66	11737495.87	0.0527	0.0236 *
Venus	27424-02-03 00:43 G	11737502.46	11737502.53	11737502.60	0.0527	0.0488
Moon	27425-03-02 00:29 G	11737895.34	11737895.52	11737895.71	0.0513	0.0330

Earth	27425-03-02 01:41 G	11737895.39	11737895.57	11737895.76	0.0513	0.0302	*
Mercury	27425-03-14 06:00 G	11737907.62	11737907.75	11737907.89	0.0512	0.0057	
Earth	27430-08-04 18:43 G	11739877.05	11739877.28	11739877.51	0.0503	0.0092	
Moon	27430-08-04 20:09 G	11739877.10	11739877.34	11739877.58	0.0503	0.0102	*
Mercury	27431-05-13 18:29 G	11740159.15	11740159.27	11740159.39	0.0513	0.0368	
Mercury	27431-08-11 22:33 G	11740249.34	11740249.44	11740249.55	0.0516	0.0405	
Moon	27431-09-07 05:45 G	11740275.62	11740275.74	11740275.87	0.0517	0.0431	
Earth	27431-09-07 07:41 G	11740275.67	11740275.82	11740275.97	0.0517	0.0400	*
Venus	27435-10-08 16:05 G	11741767.97	11741768.17	11741768.37	0.0529	0.0049	
Earth	27436-02-01 01:55 G	11741883.35	11741883.58	11741883.80	0.0525	0.0145	
Moon	27436-02-01 02:09 G	11741883.36	11741883.59	11741883.82	0.0525	0.0177	*
Mercury	27436-12-31 09:36 G	11742217.77	11742217.90	11742218.04	0.0513	0.0094	
Moon	27437-03-06 16:19 G	11742283.03	11742283.18	11742283.34	0.0511	0.0371	
Earth	27437-03-06 17:31 G	11742283.07	11742283.23	11742283.40	0.0511	0.0367	*
Mercury	27437-03-30 17:31 G	11742307.20	11742307.23	11742307.26	0.0510	0.0496	
Earth	27441-07-08 10:33 G	11743867.86	11743867.94	11743868.04	0.0494	0.0457	
Moon	27441-07-08 14:38 G	11743868.00	11743868.11	11743868.23	0.0494	0.0425	*
Moon	27442-08-09 05:02 G	11744264.48	11744264.71	11744264.93	0.0504	0.0054	
Earth	27442-08-09 07:55 G	11744264.59	11744264.83	11744265.06	0.0504	0.0026	*
Mercury	27443-05-30 21:07 G	11744559.22	11744559.38	11744559.53	0.0515	0.0210	
Earth	27443-09-12 01:55 G	11744663.48	11744663.58	11744663.69	0.0519	0.0465	
Moon	27443-09-12 05:31 G	11744663.64	11744663.73	11744663.83	0.0519	0.0472	*
Moon	27448-02-05 18:57 G	11746271.07	11746271.29	11746271.51	0.0524	0.0068	
Earth	27448-02-05 20:53 G	11746271.14	11746271.37	11746271.60	0.0524	0.0071	*
Mercury	27448-10-19 12:57 G	11746527.93	11746528.04	11746528.16	0.0515	0.0247	
Mercury	27449-01-16 20:38 G	11746617.26	11746617.36	11746617.46	0.0511	0.0343	
Earth	27449-03-11 07:12 G	11746670.68	11746670.80	11746670.93	0.0510	0.0427	
Moon	27449-03-11 10:19 G	11746670.79	11746670.93	11746671.08	0.0510	0.0394	*
Moon	27453-07-12 16:05 G	11748255.03	11748255.17	11748255.32	0.0495	0.0385	
Earth	27453-07-12 19:55 G	11748255.20	11748255.33	11748255.47	0.0495	0.0402	*

Venus	27453-12-03 00:29 G	11748398.32	11748398.52	11748398.72	0.0498	0.0125
Earth	27454-08-13 21:36 G	11748652.17	11748652.40	11748652.63	0.0506	0.0044
Moon	27454-08-14 01:26 G	11748652.33	11748652.56	11748652.79	0.0506	0.0056 *
Mercury	27455-03-18 19:26 G	11748869.14	11748869.31	11748869.48	0.0514	0.0017
Moon	27455-09-16 18:29 G	11749051.21	11749051.27	11749051.33	0.0521	0.0501
Earth	27459-01-05 11:45 G	11750257.99	11750257.99	11750258.01	0.0534	0.0534
Earth	27460-02-10 19:12 G	11750659.07	11750659.30	11750659.53	0.0522	0.0007
Moon	27460-02-10 22:48 G	11750659.21	11750659.45	11750659.68	0.0522	0.0037 *
Mercury	27460-08-07 16:48 G	11750838.12	11750838.20	11750838.29	0.0516	0.0391
Mercury	27460-11-05 00:29 G	11750927.39	11750927.52	11750927.64	0.0512	0.0197
Moon	27461-03-15 19:12 G	11751058.22	11751058.30	11751058.38	0.0508	0.0474
Earth	27461-03-15 23:02 G	11751058.40	11751058.46	11751058.53	0.0508	0.0485
Earth	27465-07-17 03:36 G	11752642.48	11752642.65	11752642.82	0.0496	0.0346
Moon	27465-07-17 06:29 G	11752642.63	11752642.77	11752642.93	0.0496	0.0371 *
Venus	27465-08-08 00:29 G	11752664.37	11752664.52	11752664.68	0.0496	0.0324
Moon	27466-08-18 06:43 G	11753039.55	11753039.78	11753040.01	0.0508	0.0145
Earth	27466-08-18 10:33 G	11753039.71	11753039.94	11753040.17	0.0508	0.0112 *
Mercury	27467-01-04 17:17 G	11753179.06	11753179.22	11753179.39	0.0513	0.0184
Earth	27471-01-10 17:17 G	11754646.11	11754646.22	11754646.34	0.0533	0.0461
Moon	27471-01-10 20:53 G	11754646.30	11754646.37	11754646.47	0.0533	0.0495 *
Venus	27471-06-16 06:00 G	11754802.58	11754802.75	11754802.93	0.0529	0.0251
Moon	27472-02-15 14:38 G	11755046.88	11755047.11	11755047.34	0.0520	0.0075
Earth	27472-02-15 18:29 G	11755047.04	11755047.27	11755047.50	0.0520	0.0084 *
Mercury	27472-08-24 04:19 G	11755237.55	11755237.68	11755237.82	0.0513	0.0055
Moon	27477-07-21 11:31 G	11757029.79	11757029.98	11757030.17	0.0497	0.0303
Earth	27477-07-21 13:12 G	11757029.86	11757030.05	11757030.24	0.0497	0.0286 *
Earth	27478-08-23 02:38 G	11757427.40	11757427.61	11757427.83	0.0510	0.0184
Moon	27478-08-23 05:31 G	11757427.52	11757427.73	11757427.95	0.0510	0.0187 *
Mercury	27478-10-23 15:50 G	11757489.05	11757489.16	11757489.28	0.0512	0.0375
Mercury	27479-01-21 20:09 G	11757579.23	11757579.34	11757579.45	0.0516	0.0397

Moon	27483-01-15 19:26 G	11759034.15	11759034.31	11759034.48	0.0531	0.0379
Earth	27483-01-15 23:02 G	11759034.31	11759034.46	11759034.62	0.0531	0.0387 *
Venus	27483-02-18 22:33 G	11759068.27	11759068.44	11759068.61	0.0530	0.0282
Earth	27484-02-20 15:21 G	11759434.92	11759435.14	11759435.36	0.0518	0.0157
Moon	27484-02-20 18:29 G	11759435.05	11759435.27	11759435.49	0.0518	0.0124 *
Mercury	27484-06-12 08:09 G	11759547.71	11759547.84	11759547.97	0.0513	0.0091
Mercury	27484-09-09 16:05 G	11759637.14	11759637.17	11759637.19	0.0510	0.0498
Earth	27489-07-25 22:48 G	11761417.25	11761417.45	11761417.67	0.0499	0.0228
Moon	27489-07-25 23:02 G	11761417.26	11761417.46	11761417.67	0.0499	0.0206 *
Venus	27489-08-10 09:50 G	11761432.78	11761432.91	11761433.04	0.0500	0.0379
Moon	27490-08-27 18:57 G	11761815.07	11761815.29	11761815.51	0.0513	0.0224
Earth	27490-08-27 20:09 G	11761815.14	11761815.34	11761815.54	0.0513	0.0254 *
Mercury	27490-11-09 18:57 G	11761889.14	11761889.29	11761889.45	0.0515	0.0211
Earth	27495-01-21 01:12 G	11763422.37	11763422.55	11763422.74	0.0530	0.0309
Moon	27495-01-21 03:21 G	11763422.45	11763422.64	11763422.84	0.0530	0.0281 *
Moon	27496-02-25 08:24 G	11763822.63	11763822.85	11763823.07	0.0516	0.0227
Earth	27496-02-25 10:05 G	11763822.71	11763822.92	11763823.13	0.0516	0.0228 *
Mercury	27496-03-31 11:45 G	11763857.88	11763857.99	11763858.11	0.0514	0.0239
Mercury	27496-06-28 19:26 G	11763947.22	11763947.31	11763947.41	0.0511	0.0350
Venus	27501-04-16 11:17 G	11765698.77	11765698.97	11765699.17	0.0498	0.0065
Earth	27501-07-31 11:02 G	11765804.74	11765804.96	11765805.18	0.0501	0.0163
Moon	27501-07-31 12:14 G	11765804.78	11765805.01	11765805.24	0.0501	0.0137 *
Mercury	27502-08-29 17:31 G	11766199.06	11766199.23	11766199.40	0.0514	0.0018
Moon	27502-09-02 12:14 G	11766202.84	11766203.01	11766203.19	0.0514	0.0323
Earth	27502-09-02 13:41 G	11766202.89	11766203.07	11766203.25	0.0514	0.0322 *
Moon	27507-01-26 21:07 G	11767810.17	11767810.38	11767810.59	0.0528	0.0245
Earth	27507-01-26 21:36 G	11767810.20	11767810.40	11767810.61	0.0528	0.0235 *
Mercury	27508-01-19 15:07 G	11768168.05	11768168.13	11768168.22	0.0516	0.0393
Moon	27508-03-02 00:29 G	11768210.34	11768210.52	11768210.69	0.0514	0.0323
Earth	27508-03-02 00:57 G	11768210.35	11768210.54	11768210.73	0.0514	0.0294 *

Mercury	27508-04-17 22:48 G	11768257.32	11768257.45	11768257.57	0.0512	0.0195
Moon	27513-08-04 20:53 G	11770192.15	11770192.37	11770192.59	0.0502	0.0111
Earth	27513-08-04 23:31 G	11770192.26	11770192.48	11770192.71	0.0502	0.0097 *
Mercury	27514-06-17 15:50 G	11770509.00	11770509.16	11770509.33	0.0513	0.0175
Earth	27514-09-07 07:55 G	11770590.69	11770590.83	11770590.99	0.0516	0.0391
Moon	27514-09-07 11:17 G	11770590.84	11770590.97	11770591.11	0.0516	0.0423 *
Venus	27518-10-28 11:31 G	11772102.77	11772102.98	11772103.18	0.0530	0.0016
Moon	27519-01-31 20:38 G	11772198.16	11772198.36	11772198.58	0.0527	0.0188
Earth	27519-01-31 22:05 G	11772198.20	11772198.42	11772198.64	0.0527	0.0155 *
Mercury	27520-02-05 02:24 G	11772567.47	11772567.60	11772567.74	0.0513	0.0051
Earth	27520-03-06 18:43 G	11772598.12	11772598.28	11772598.45	0.0512	0.0361
Moon	27520-03-06 21:21 G	11772598.23	11772598.39	11772598.57	0.0512	0.0357 *
Moon	27524-07-08 12:29 G	11774182.92	11774183.02	11774183.14	0.0493	0.0428
Earth	27524-07-08 16:33 G	11774183.11	11774183.19	11774183.28	0.0493	0.0458 *
Earth	27525-08-09 10:33 G	11774579.70	11774579.94	11774580.17	0.0504	0.0031
Moon	27525-08-09 14:09 G	11774579.86	11774580.09	11774580.33	0.0504	0.0057 *
Mercury	27526-04-05 13:41 G	11774818.96	11774819.07	11774819.19	0.0512	0.0376
Mercury	27526-07-04 18:00 G	11774909.14	11774909.25	11774909.35	0.0515	0.0395
Moon	27526-09-11 22:05 G	11774978.32	11774978.42	11774978.52	0.0518	0.0468
Earth	27526-09-12 01:41 G	11774978.47	11774978.57	11774978.69	0.0518	0.0458 *
Venus	27530-07-03 03:21 G	11776368.62	11776368.64	11776368.67	0.0532	0.0526
Earth	27531-02-05 23:45 G	11776586.26	11776586.49	11776586.72	0.0525	0.0077
Moon	27531-02-06 02:53 G	11776586.39	11776586.62	11776586.86	0.0525	0.0065 *
Mercury	27531-11-24 06:29 G	11776877.64	11776877.77	11776877.90	0.0514	0.0092
Mercury	27532-02-21 14:24 G	11776967.08	11776967.10	11776967.13	0.0511	0.0500
Moon	27532-03-11 09:07 G	11776985.74	11776985.88	11776986.03	0.0510	0.0390
Earth	27532-03-11 12:57 G	11776985.91	11776986.04	11776986.17	0.0510	0.0423 *
Mars	27534-04-16 21:21 G	11777752.09	11777752.39	11777752.69	0.0490	0.0090
Earth	27536-07-13 00:29 G	11778570.39	11778570.52	11778570.66	0.0494	0.0404
Moon	27536-07-13 03:36 G	11778570.52	11778570.65	11778570.79	0.0494	0.0397 *

Venus	27536-12-22 21:36 G	11778733.21	11778733.40	11778733.59	0.0498	0.0192
Moon	27537-08-13 20:38 G	11778967.12	11778967.36	11778967.59	0.0506	0.0050
Earth	27537-08-14 00:29 G	11778967.29	11778967.52	11778967.75	0.0506	0.0038 *
Mercury	27538-04-22 16:48 G	11779219.05	11779219.20	11779219.36	0.0515	0.0208
Moon	27538-09-17 03:21 G	11779366.58	11779366.64	11779366.71	0.0520	0.0495
Moon	27543-02-10 20:38 G	11780974.12	11780974.36	11780974.59	0.0522	0.0031
Earth	27543-02-11 00:29 G	11780974.29	11780974.52	11780974.75	0.0522	0.0002 *
Mercury	27543-09-12 10:33 G	11781187.82	11781187.94	11781188.06	0.0514	0.0234
Mercury	27543-12-10 18:14 G	11781277.16	11781277.26	11781277.35	0.0511	0.0354
Earth	27544-03-16 04:33 G	11781373.62	11781373.69	11781373.76	0.0508	0.0479
Moon	27544-03-16 08:24 G	11781373.77	11781373.85	11781373.94	0.0508	0.0471
Moon	27548-07-17 06:57 G	11782957.64	11782957.79	11782957.95	0.0496	0.0376
Earth	27548-07-17 08:38 G	11782957.70	11782957.86	11782958.03	0.0496	0.0349 *
Venus	27548-08-27 22:19 G	11782999.26	11782999.43	11782999.61	0.0497	0.0253
Earth	27549-08-18 15:21 G	11783354.91	11783355.14	11783355.36	0.0508	0.0107
Moon	27549-08-18 18:14 G	11783355.05	11783355.26	11783355.48	0.0508	0.0139 *
Mercury	27550-02-08 15:36 G	11783528.98	11783529.15	11783529.32	0.0514	0.0021
Mars	27552-03-18 01:12 G	11784297.30	11784297.55	11784297.80	0.0537	0.0047
Moon	27554-01-10 17:02 G	11784961.14	11784961.21	11784961.30	0.0533	0.0498
Earth	27554-01-10 20:53 G	11784961.27	11784961.37	11784961.49	0.0533	0.0466 *
Venus	27554-07-06 06:00 G	11785137.60	11785137.75	11785137.91	0.0528	0.0341
Earth	27555-02-15 22:05 G	11785362.19	11785362.42	11785362.65	0.0520	0.0078
Moon	27555-02-16 01:26 G	11785362.33	11785362.56	11785362.79	0.0520	0.0066 *
Mercury	27555-07-01 14:24 G	11785498.01	11785498.10	11785498.19	0.0515	0.0379
Mercury	27555-09-28 21:50 G	11785587.28	11785587.41	11785587.53	0.0512	0.0207
Earth	27560-07-21 19:41 G	11787345.13	11787345.32	11787345.51	0.0497	0.0289
Moon	27560-07-21 19:55 G	11787345.15	11787345.33	11787345.51	0.0497	0.0304 *
Moon	27561-08-23 06:14 G	11787742.53	11787742.76	11787742.99	0.0510	0.0176
Earth	27561-08-23 07:41 G	11787742.61	11787742.82	11787743.04	0.0510	0.0178 *
Mercury	27561-11-27 14:09 G	11787838.93	11787839.09	11787839.25	0.0513	0.0170

Earth	27566-01-15 18:43 G	11789349.14	11789349.28	11789349.45	0.0532	0.0395
Moon	27566-01-15 21:50 G	11789349.25	11789349.41	11789349.57	0.0532	0.0381 *
Venus	27566-03-10 18:29 G	11789403.08	11789403.27	11789403.45	0.0530	0.0217
Moon	27567-02-20 12:00 G	11789749.77	11789750.00	11789750.24	0.0519	0.0118
Earth	27567-02-20 14:24 G	11789749.88	11789750.10	11789750.32	0.0519	0.0150 *
Mercury	27567-07-18 00:57 G	11789897.40	11789897.54	11789897.67	0.0513	0.0050
Earth	27572-07-26 07:12 G	11791732.59	11791732.80	11791733.01	0.0498	0.0228
Moon	27572-07-26 08:24 G	11791732.63	11791732.85	11791733.07	0.0498	0.0203 *
Venus	27572-08-30 09:36 G	11791767.83	11791767.90	11791767.98	0.0499	0.0461
Moon	27573-08-27 23:45 G	11792130.29	11792130.49	11792130.70	0.0511	0.0221
Earth	27573-08-28 00:43 G	11792130.33	11792130.53	11792130.73	0.0511	0.0248 *
Mercury	27573-09-15 12:43 G	11792148.90	11792149.03	11792149.15	0.0512	0.0362
Mercury	27573-12-14 16:48 G	11792239.10	11792239.20	11792239.30	0.0515	0.0408
Moon	27578-01-20 19:55 G	11793737.13	11793737.33	11793737.53	0.0531	0.0287
Earth	27578-01-20 21:07 G	11793737.20	11793737.38	11793737.57	0.0531	0.0318 *
Earth	27579-02-25 10:19 G	11794137.72	11794137.93	11794138.14	0.0517	0.0222
Moon	27579-02-25 10:19 G	11794137.73	11794137.93	11794138.13	0.0517	0.0228 *
Mercury	27579-05-06 04:48 G	11794207.57	11794207.70	11794207.83	0.0514	0.0096
Mercury	27579-08-03 12:43 G	11794297.00	11794297.03	11794297.06	0.0511	0.0497
Venus	27584-05-05 09:50 G	11796033.71	11796033.91	11796034.12	0.0497	0.0016
Moon	27584-07-30 14:09 G	11796119.87	11796120.09	11796120.31	0.0500	0.0145
Earth	27584-07-30 16:48 G	11796119.98	11796120.20	11796120.42	0.0500	0.0166 *
Earth	27585-09-01 16:05 G	11796517.99	11796518.17	11796518.36	0.0513	0.0316
Moon	27585-09-01 18:57 G	11796518.11	11796518.29	11796518.48	0.0513	0.0321 *
Mercury	27585-10-02 14:53 G	11796548.97	11796549.12	11796549.28	0.0514	0.0212
Moon	27590-01-26 00:14 G	11798125.32	11798125.51	11798125.71	0.0529	0.0253
Earth	27590-01-26 00:57 G	11798125.34	11798125.54	11798125.75	0.0529	0.0240 *
Mercury	27591-02-22 08:53 G	11798517.75	11798517.87	11798517.99	0.0515	0.0235
Earth	27591-03-02 07:12 G	11798525.61	11798525.80	11798525.99	0.0515	0.0291
Moon	27591-03-02 09:36 G	11798525.72	11798525.90	11798526.09	0.0515	0.0320 *

Mercury	27591-05-22 16:33 G	11798607.09	11798607.19	11798607.29	0.0512	0.0356
Venus	27596-01-09 11:17 G	11800299.88	11800299.97	11800300.08	0.0496	0.0429
Earth	27596-08-04 04:33 G	11800507.46	11800507.69	11800507.92	0.0502	0.0100
Moon	27596-08-04 08:09 G	11800507.61	11800507.84	11800508.07	0.0502	0.0122 *
Mercury	27597-07-21 13:41 G	11800858.90	11800859.07	11800859.24	0.0514	0.0025
Moon	27597-09-06 07:41 G	11800905.69	11800905.82	11800905.95	0.0516	0.0419
Earth	27597-09-06 11:17 G	11800905.82	11800905.97	11800906.13	0.0516	0.0385 *
Venus	27601-11-16 13:26 G	11802437.86	11802438.06	11802438.26	0.0529	0.0115
Earth	27602-01-31 04:48 G	11802513.48	11802513.70	11802513.93	0.0527	0.0160
Moon	27602-01-31 07:41 G	11802513.60	11802513.82	11802514.05	0.0527	0.0187 *
Mercury	27602-12-11 12:57 G	11802827.95	11802828.04	11802828.13	0.0516	0.0374
Moon	27603-03-06 22:48 G	11802913.28	11802913.45	11802913.62	0.0512	0.0351
Earth	27603-03-07 02:24 G	11802913.44	11802913.60	11802913.77	0.0512	0.0356 *
Mercury	27603-03-10 20:24 G	11802917.23	11802917.35	11802917.48	0.0512	0.0213
Earth	27607-07-08 23:17 G	11804498.40	11804498.47	11804498.56	0.0493	0.0459
Moon	27607-07-09 02:24 G	11804498.50	11804498.60	11804498.72	0.0493	0.0431 *
Moon	27608-08-08 13:12 G	11804894.82	11804895.05	11804895.28	0.0504	0.0060
Earth	27608-08-08 17:02 G	11804894.98	11804895.21	11804895.45	0.0504	0.0034 *
Mercury	27609-05-09 12:29 G	11805168.86	11805169.02	11805169.18	0.0513	0.0165
Earth	27609-09-11 07:55 G	11805293.73	11805293.83	11805293.95	0.0518	0.0453
Moon	27609-09-11 12:00 G	11805293.89	11805294.00	11805294.10	0.0518	0.0458 *
Venus	27613-07-22 05:02 G	11806703.59	11806703.71	11806703.83	0.0531	0.0425
Moon	27614-02-05 01:55 G	11806901.35	11806901.58	11806901.81	0.0525	0.0063
Earth	27614-02-05 05:45 G	11806901.51	11806901.74	11806901.97	0.0525	0.0081 *
Mercury	27614-12-28 00:14 G	11807227.38	11807227.51	11807227.64	0.0513	0.0068
Earth	27615-03-11 19:12 G	11807301.17	11807301.30	11807301.43	0.0510	0.0419
Moon	27615-03-11 23:17 G	11807301.32	11807301.47	11807301.62	0.0510	0.0386 *
Moon	27619-07-13 07:26 G	11808885.68	11808885.81	11808885.96	0.0494	0.0403
Earth	27619-07-13 09:21 G	11808885.76	11808885.89	11808886.02	0.0494	0.0404 *
Venus	27620-01-11 21:36 G	11809068.23	11809068.40	11809068.57	0.0499	0.0276

Earth	27620-08-13 08:24 G	11809282.61	11809282.85	11809283.08	0.0505	0.0036
Moon	27620-08-13 11:31 G	11809282.75	11809282.98	11809283.21	0.0505	0.0050 *
Mercury	27621-02-25 11:02 G	11809478.84	11809478.96	11809479.09	0.0512	0.0354
Mercury	27621-05-26 15:21 G	11809569.04	11809569.14	11809569.24	0.0515	0.0417
Moon	27621-09-16 02:38 G	11809681.53	11809681.61	11809681.69	0.0519	0.0487
Earth	27621-09-16 05:31 G	11809681.72	11809681.73	11809681.74	0.0519	0.0519
Earth	27626-02-09 23:31 G	11811289.25	11811289.48	11811289.72	0.0523	0.0010
Moon	27626-02-10 03:07 G	11811289.41	11811289.63	11811289.86	0.0523	0.0026 *
Mercury	27626-10-16 03:21 G	11811537.51	11811537.64	11811537.77	0.0514	0.0090
Mercury	27627-01-13 11:17 G	11811626.95	11811626.97	11811626.99	0.0511	0.0502
Moon	27627-03-16 03:50 G	11811688.58	11811688.66	11811688.76	0.0509	0.0470
Earth	27627-03-16 07:26 G	11811688.74	11811688.81	11811688.90	0.0509	0.0476 *
Earth	27631-07-17 19:41 G	11813273.17	11813273.32	11813273.50	0.0495	0.0348
Moon	27631-07-17 19:55 G	11813273.19	11813273.33	11813273.48	0.0495	0.0379 *
Venus	27631-09-16 23:45 G	11813334.29	11813334.49	11813334.68	0.0497	0.0163
Moon	27632-08-17 22:05 G	11813670.18	11813670.42	11813670.65	0.0507	0.0134
Earth	27632-08-17 23:45 G	11813670.26	11813670.49	11813670.72	0.0507	0.0106 *
Mercury	27633-03-14 14:09 G	11813878.94	11813879.09	11813879.25	0.0514	0.0231
Earth	27637-01-09 17:02 G	11815276.12	11815276.21	11815276.33	0.0534	0.0473
Moon	27637-01-09 20:38 G	11815276.29	11815276.36	11815276.44	0.0534	0.0501 *
Venus	27637-07-25 02:38 G	11815472.49	11815472.61	11815472.74	0.0528	0.0409
Moon	27638-02-14 19:12 G	11815677.06	11815677.30	11815677.54	0.0521	0.0061
Earth	27638-02-14 21:50 G	11815677.18	11815677.41	11815677.64	0.0521	0.0072 *
Mercury	27638-08-04 07:12 G	11815847.68	11815847.80	11815847.92	0.0515	0.0235
Mercury	27638-11-01 14:53 G	11815937.03	11815937.12	11815937.22	0.0512	0.0356
Earth	27643-07-22 04:19 G	11817660.49	11817660.68	11817660.87	0.0496	0.0291
Moon	27643-07-22 05:31 G	11817660.54	11817660.73	11817660.92	0.0496	0.0300 *
Moon	27644-08-22 12:57 G	11818057.82	11818058.04	11818058.25	0.0509	0.0164
Earth	27644-08-22 13:12 G	11818057.83	11818058.05	11818058.27	0.0509	0.0174 *
Mercury	27644-12-31 12:29 G	11818188.84	11818189.02	11818189.19	0.0513	0.0036

Moon	27649-01-14 20:53 G	11819664.21	11819664.37	11819664.54	0.0533	0.0381
Earth	27649-01-14 22:48 G	11819664.30	11819664.45	11819664.61	0.0533	0.0400 *
Venus	27649-03-29 19:12 G	11819738.10	11819738.30	11819738.50	0.0531	0.0122
Earth	27650-02-19 21:07 G	11820065.16	11820065.38	11820065.61	0.0519	0.0147
Moon	27650-02-19 21:36 G	11820065.18	11820065.40	11820065.62	0.0519	0.0120 *
Mercury	27650-05-23 11:31 G	11820157.89	11820157.98	11820158.07	0.0516	0.0373
Mercury	27650-08-20 18:57 G	11820247.17	11820247.29	11820247.41	0.0513	0.0215
Moon	27655-07-26 11:45 G	11822047.79	11822047.99	11822048.20	0.0498	0.0205
Earth	27655-07-26 14:24 G	11822047.89	11822048.10	11822048.31	0.0498	0.0229 *
Earth	27656-08-27 05:45 G	11822445.54	11822445.74	11822445.95	0.0511	0.0244
Moon	27656-08-27 08:24 G	11822445.63	11822445.85	11822446.07	0.0511	0.0215 *
Mercury	27656-10-19 11:02 G	11822498.79	11822498.96	11822499.12	0.0513	0.0157
Earth	27661-01-20 05:17 G	11824052.53	11824052.72	11824052.90	0.0531	0.0321
Moon	27661-01-20 05:02 G	11824052.53	11824052.71	11824052.90	0.0531	0.0294 *
Earth	27662-02-24 19:41 G	11824453.11	11824453.32	11824453.53	0.0517	0.0219
Moon	27662-02-24 21:50 G	11824453.20	11824453.41	11824453.63	0.0517	0.0235 *
Mercury	27662-03-11 15:36 G	11824468.14	11824468.15	11824468.17	0.0517	0.0511
Mercury	27662-06-08 23:02 G	11824557.33	11824557.46	11824557.59	0.0513	0.0075
Venus	27667-05-25 09:50 G	11826368.71	11826368.91	11826369.11	0.0498	0.0093
Earth	27667-07-31 00:57 G	11826435.32	11826435.54	11826435.76	0.0500	0.0167
Moon	27667-07-31 04:33 G	11826435.47	11826435.69	11826435.91	0.0500	0.0154 *
Mercury	27668-08-07 09:36 G	11826808.77	11826808.90	11826809.03	0.0512	0.0347
Moon	27668-08-31 20:24 G	11826833.17	11826833.35	11826833.53	0.0513	0.0319
Earth	27668-09-01 00:00 G	11826833.32	11826833.50	11826833.69	0.0513	0.0313 *
Mercury	27668-11-05 13:55 G	11826898.99	11826899.08	11826899.17	0.0516	0.0426
Earth	27673-01-25 08:53 G	11828440.67	11828440.87	11828441.08	0.0529	0.0241
Moon	27673-01-25 11:17 G	11828440.76	11828440.97	11828441.18	0.0529	0.0258 *
Moon	27674-03-01 12:00 G	11828840.82	11828841.00	11828841.18	0.0515	0.0319
Earth	27674-03-01 15:21 G	11828840.95	11828841.14	11828841.34	0.0515	0.0289 *
Mercury	27674-03-28 02:53 G	11828867.49	11828867.62	11828867.76	0.0514	0.0070

Venus	27679-01-28 12:14 G	11830634.87	11830635.01	11830635.16	0.0496	0.0341
Moon	27679-08-04 11:02 G	11830822.73	11830822.96	11830823.19	0.0501	0.0126
Earth	27679-08-04 14:53 G	11830822.89	11830823.12	11830823.35	0.0501	0.0099 *
Mercury	27680-08-24 12:57 G	11831208.90	11831209.04	11831209.19	0.0514	0.0243
Earth	27680-09-05 20:09 G	11831221.19	11831221.34	11831221.50	0.0515	0.0383
Moon	27680-09-06 00:00 G	11831221.37	11831221.50	11831221.64	0.0515	0.0416 *
Venus	27684-12-05 11:31 G	11832772.79	11832772.98	11832773.17	0.0529	0.0191
Moon	27685-01-30 01:26 G	11832828.35	11832828.56	11832828.78	0.0527	0.0191
Earth	27685-01-30 05:02 G	11832828.49	11832828.71	11832828.93	0.0527	0.0165 *
Mercury	27686-01-14 06:00 G	11833177.63	11833177.75	11833177.87	0.0515	0.0228
Earth	27686-03-06 05:02 G	11833228.55	11833228.71	11833228.89	0.0513	0.0354
Moon	27686-03-06 09:21 G	11833228.71	11833228.89	11833229.06	0.0513	0.0346 *
Mercury	27686-04-13 13:41 G	11833266.98	11833267.07	11833267.17	0.0512	0.0363
Mars	27688-07-11 01:26 G	11834086.43	11834086.56	11834086.72	0.0490	0.0430
Moon	27690-07-08 11:02 G	11834813.85	11834813.96	11834814.08	0.0493	0.0429
Earth	27690-07-08 12:29 G	11834813.94	11834814.02	11834814.11	0.0493	0.0457 *
Earth	27691-08-09 04:48 G	11835210.46	11835210.70	11835210.93	0.0503	0.0032
Moon	27691-08-09 07:55 G	11835210.60	11835210.83	11835211.06	0.0503	0.0055 *
Mercury	27692-06-12 12:00 G	11835518.83	11835519.00	11835519.17	0.0513	0.0057
Moon	27692-09-10 12:57 G	11835608.94	11835609.04	11835609.17	0.0517	0.0449
Earth	27692-09-10 16:19 G	11835609.07	11835609.18	11835609.30	0.0517	0.0451 *
Venus	27696-08-10 02:24 G	11837038.45	11837038.60	11837038.75	0.0531	0.0352
Earth	27697-02-04 05:17 G	11837216.49	11837216.72	11837216.95	0.0526	0.0087
Moon	27697-02-04 09:07 G	11837216.65	11837216.88	11837217.11	0.0526	0.0064 *
Mercury	27697-11-02 09:50 G	11837487.82	11837487.91	11837488.01	0.0516	0.0372
Mercury	27698-01-30 17:31 G	11837577.11	11837577.23	11837577.35	0.0513	0.0217
Moon	27698-03-10 19:12 G	11837616.15	11837616.30	11837616.46	0.0511	0.0386
Earth	27698-03-10 22:48 G	11837616.32	11837616.45	11837616.59	0.0511	0.0417 *
Earth	27702-07-13 20:09 G	11839201.21	11839201.34	11839201.47	0.0494	0.0404
Moon	27702-07-13 19:55 G	11839201.22	11839201.33	11839201.46	0.0494	0.0413 *

Venus	27703-01-31 22:05 G	11839403.29	11839403.42	11839403.57	0.0498	0.0365
Moon	27703-08-14 14:24 G	11839597.86	11839598.10	11839598.35	0.0504	0.0050
Earth	27703-08-14 16:33 G	11839597.96	11839598.19	11839598.42	0.0504	0.0033 *
Mercury	27704-04-01 09:50 G	11839828.75	11839828.91	11839829.08	0.0513	0.0143
Earth	27704-09-16 10:19 G	11839996.91	11839996.93	11839996.96	0.0519	0.0515
Moon	27704-09-16 11:45 G	11839996.91	11839996.99	11839997.07	0.0519	0.0485 *
Mars	27706-06-12 22:33 G	11840631.25	11840631.44	11840631.64	0.0537	0.0331
Moon	27709-02-10 03:36 G	11841604.42	11841604.65	11841604.89	0.0524	0.0023
Earth	27709-02-10 06:43 G	11841604.55	11841604.78	11841605.01	0.0524	0.0009 *
Mercury	27709-08-22 14:09 G	11841798.07	11841798.09	11841798.11	0.0517	0.0509
Mercury	27709-11-19 21:36 G	11841887.27	11841887.40	11841887.53	0.0514	0.0078
Earth	27710-03-16 17:02 G	11842004.14	11842004.21	11842004.30	0.0509	0.0476
Moon	27710-03-16 18:57 G	11842004.23	11842004.29	11842004.36	0.0509	0.0482 *
Earth	27714-07-18 05:02 G	11843588.54	11843588.71	11843588.87	0.0495	0.0348
Moon	27714-07-18 06:14 G	11843588.61	11843588.76	11843588.92	0.0495	0.0378 *
Venus	27714-10-06 23:31 G	11843669.28	11843669.48	11843669.69	0.0497	0.0080
Earth	27715-08-19 06:43 G	11843985.55	11843985.78	11843986.01	0.0506	0.0103
Moon	27715-08-19 06:29 G	11843985.56	11843985.77	11843985.99	0.0506	0.0126 *
Mercury	27716-01-19 08:24 G	11844138.72	11844138.85	11844138.98	0.0512	0.0334
Mercury	27716-04-18 12:29 G	11844228.94	11844229.02	11844229.11	0.0515	0.0437
Moon	27720-01-10 23:31 G	11845591.40	11845591.48	11845591.56	0.0534	0.0499
Earth	27720-01-11 01:41 G	11845591.47	11845591.57	11845591.68	0.0534	0.0475 *
Venus	27720-08-14 06:29 G	11845807.74	11845807.77	11845807.80	0.0528	0.0522
Earth	27721-02-15 08:09 G	11845992.61	11845992.84	11845993.08	0.0522	0.0071
Moon	27721-02-15 09:07 G	11845992.66	11845992.88	11845993.10	0.0522	0.0055 *
Mercury	27721-09-08 01:41 G	11846197.44	11846197.57	11846197.71	0.0514	0.0062
Moon	27726-07-22 11:31 G	11847975.79	11847975.98	11847976.16	0.0496	0.0297
Earth	27726-07-22 13:55 G	11847975.89	11847976.08	11847976.27	0.0496	0.0290 *
Earth	27727-08-23 22:19 G	11848373.22	11848373.43	11848373.65	0.0509	0.0173
Moon	27727-08-24 00:43 G	11848373.31	11848373.53	11848373.77	0.0509	0.0154 *

Mercury	27728-02-05 11:31 G	11848538.84	11848538.98	11848539.13	0.0515	0.0253
Earth	27732-01-16 07:55 G	11849979.69	11849979.83	11849979.99	0.0533	0.0400
Moon	27732-01-16 08:38 G	11849979.70	11849979.86	11849980.02	0.0533	0.0379 *
Venus	27732-04-18 23:02 G	11850073.26	11850073.46	11850073.66	0.0530	0.0009
Earth	27733-02-20 06:57 G	11850380.57	11850380.79	11850381.01	0.0520	0.0146
Moon	27733-02-20 08:38 G	11850380.63	11850380.86	11850381.10	0.0520	0.0124 *
Mercury	27733-06-27 05:45 G	11850507.62	11850507.74	11850507.86	0.0515	0.0204
Mercury	27733-09-24 13:26 G	11850596.97	11850597.06	11850597.15	0.0512	0.0387
Earth	27738-07-27 02:09 G	11852363.39	11852363.59	11852363.80	0.0498	0.0228
Moon	27738-07-27 06:00 G	11852363.53	11852363.75	11852363.96	0.0498	0.0198 *
Moon	27739-08-28 13:26 G	11852760.86	11852761.06	11852761.27	0.0510	0.0216
Earth	27739-08-28 17:02 G	11852761.01	11852761.21	11852761.42	0.0510	0.0245 *
Mercury	27739-11-24 10:48 G	11852848.78	11852848.95	11852849.12	0.0514	0.0072
Earth	27744-01-21 06:29 G	11854367.60	11854367.77	11854367.96	0.0531	0.0326
Moon	27744-01-21 08:09 G	11854367.64	11854367.84	11854368.04	0.0531	0.0300 *
Moon	27745-02-24 19:12 G	11854768.11	11854768.30	11854768.51	0.0518	0.0236
Earth	27745-02-24 22:33 G	11854768.23	11854768.44	11854768.66	0.0518	0.0216 *
Mercury	27745-04-15 08:53 G	11854817.78	11854817.87	11854817.96	0.0516	0.0362
Mercury	27745-07-13 16:19 G	11854907.06	11854907.18	11854907.30	0.0513	0.0227
Venus	27750-06-14 12:57 G	11856703.85	11856704.04	11856704.23	0.0498	0.0194
Moon	27750-07-31 11:02 G	11856750.73	11856750.96	11856751.18	0.0499	0.0155
Earth	27750-07-31 14:38 G	11856750.90	11856751.11	11856751.34	0.0499	0.0164 *
Earth	27751-09-02 11:17 G	11857148.79	11857148.97	11857149.16	0.0512	0.0314
Moon	27751-09-02 15:21 G	11857148.96	11857149.14	11857149.32	0.0512	0.0325 *
Mercury	27751-09-12 09:36 G	11857158.74	11857158.90	11857159.07	0.0513	0.0117
Moon	27756-01-26 05:17 G	11858755.53	11858755.72	11858755.92	0.0530	0.0270
Earth	27756-01-26 08:38 G	11858755.66	11858755.86	11858756.07	0.0530	0.0247 *
Mercury	27757-02-01 12:43 G	11859128.01	11859128.03	11859128.06	0.0517	0.0506
Earth	27757-03-01 18:00 G	11859156.06	11859156.25	11859156.44	0.0516	0.0286
Moon	27757-03-01 22:05 G	11859156.23	11859156.42	11859156.60	0.0516	0.0316 *

Mercury	27757-05-01 20:09 G	11859217.21	11859217.34	11859217.47	0.0514	0.0080
Moon	27761-07-04 13:55 G	11860742.05	11860742.08	11860742.11	0.0491	0.0488
Venus	27762-02-17 13:41 G	11860969.90	11860970.07	11860970.25	0.0496	0.0249
Earth	27762-08-05 00:57 G	11861138.32	11861138.54	11861138.77	0.0501	0.0101
Moon	27762-08-05 04:19 G	11861138.46	11861138.68	11861138.90	0.0501	0.0130 *
Mercury	27763-07-01 07:26 G	11861468.68	11861468.81	11861468.95	0.0512	0.0316
Moon	27763-09-07 00:00 G	11861536.36	11861536.50	11861536.65	0.0514	0.0409
Earth	27763-09-07 03:21 G	11861536.49	11861536.64	11861536.80	0.0514	0.0380 *
Mercury	27763-09-29 11:45 G	11861558.91	11861558.99	11861559.07	0.0515	0.0453
Venus	27767-12-26 13:12 G	11863107.89	11863108.05	11863108.22	0.0529	0.0294
Earth	27768-01-31 11:31 G	11863143.77	11863143.98	11863144.21	0.0528	0.0169
Moon	27768-01-31 15:36 G	11863143.93	11863144.15	11863144.37	0.0528	0.0190 *
Mercury	27769-02-18 00:14 G	11863527.38	11863527.51	11863527.65	0.0515	0.0059
Moon	27769-03-06 11:02 G	11863543.79	11863543.96	11863544.14	0.0514	0.0343
Earth	27769-03-06 14:38 G	11863543.95	11863544.11	11863544.29	0.0514	0.0353 *
Moon	27773-07-08 22:48 G	11865129.35	11865129.45	11865129.56	0.0492	0.0434
Earth	27773-07-08 23:02 G	11865129.38	11865129.46	11865129.55	0.0492	0.0457 *
Moon	27774-08-09 11:17 G	11865525.73	11865525.97	11865526.21	0.0502	0.0055
Earth	27774-08-09 13:12 G	11865525.82	11865526.05	11865526.29	0.0502	0.0035 *
Mercury	27775-04-19 05:45 G	11865778.73	11865778.74	11865778.76	0.0511	0.0508
Mercury	27775-07-18 10:33 G	11865868.80	11865868.94	11865869.09	0.0514	0.0266
Earth	27775-09-11 22:33 G	11865924.33	11865924.44	11865924.56	0.0516	0.0447
Moon	27775-09-12 00:14 G	11865924.40	11865924.51	11865924.63	0.0516	0.0437 *
Venus	27779-08-31 06:29 G	11867373.59	11867373.77	11867373.95	0.0531	0.0236
Moon	27780-02-05 12:43 G	11867531.79	11867532.03	11867532.26	0.0526	0.0066
Earth	27780-02-05 15:50 G	11867531.93	11867532.16	11867532.39	0.0526	0.0089 *
Mercury	27780-12-07 04:33 G	11867837.57	11867837.69	11867837.81	0.0515	0.0196
Mercury	27781-03-06 12:14 G	11867926.93	11867927.01	11867927.10	0.0512	0.0395
Earth	27781-03-11 10:33 G	11867931.81	11867931.94	11867932.08	0.0512	0.0417
Moon	27781-03-11 12:43 G	11867931.89	11867932.03	11867932.18	0.0512	0.0391 *

Earth	27785-07-13 06:29 G	11869516.65	11869516.77	11869516.91	0.0493	0.0404
Moon	27785-07-13 08:09 G	11869516.71	11869516.84	11869516.97	0.0493	0.0412 *
Venus	27786-02-19 23:17 G	11869738.39	11869738.47	11869738.55	0.0499	0.0453
Earth	27786-08-14 02:38 G	11869913.37	11869913.61	11869913.84	0.0504	0.0034
Moon	27786-08-14 02:24 G	11869913.38	11869913.60	11869913.83	0.0504	0.0056 *
Mercury	27787-05-06 09:21 G	11870178.73	11870178.89	11870179.06	0.0514	0.0082
Moon	27787-09-16 20:24 G	11870312.26	11870312.35	11870312.44	0.0519	0.0481
Earth	27787-09-16 19:55 G	11870312.31	11870312.33	11870312.37	0.0519	0.0514 *
Earth	27792-02-10 17:17 G	11871919.99	11871920.22	11871920.46	0.0524	0.0012
Moon	27792-02-10 18:43 G	11871920.05	11871920.28	11871920.50	0.0524	0.0015 *
Mercury	27792-09-25 08:38 G	11872147.76	11872147.86	11872147.96	0.0516	0.0337
Mercury	27792-12-23 16:05 G	11872237.06	11872237.17	11872237.29	0.0513	0.0252
Earth	27793-03-16 04:05 G	11872319.60	11872319.67	11872319.76	0.0510	0.0476
Moon	27793-03-16 04:05 G	11872319.61	11872319.67	11872319.74	0.0510	0.0487 *
Moon	27797-07-17 14:53 G	11873903.98	11873904.12	11873904.27	0.0495	0.0376
Earth	27797-07-17 17:31 G	11873904.07	11873904.23	11873904.40	0.0495	0.0346 *
Venus	27797-10-26 01:55 G	11874004.38	11874004.58	11874004.78	0.0497	0.0016
Earth	27798-08-18 19:12 G	11874301.07	11874301.30	11874301.53	0.0506	0.0105
Moon	27798-08-18 21:36 G	11874301.17	11874301.40	11874301.64	0.0506	0.0121 *
Mercury	27799-02-22 08:38 G	11874488.69	11874488.86	11874489.03	0.0513	0.0101
Earth	27803-01-11 04:33 G	11875906.60	11875906.69	11875906.80	0.0534	0.0479
Moon	27803-01-11 05:45 G	11875906.68	11875906.74	11875906.82	0.0534	0.0504 *
Earth	27804-02-16 11:17 G	11876307.74	11876307.97	11876308.20	0.0522	0.0066
Moon	27804-02-16 12:29 G	11876307.77	11876308.02	11876308.26	0.0522	0.0046 *
Mercury	27804-07-15 11:45 G	11876457.96	11876457.99	11876458.03	0.0517	0.0495
Mercury	27804-10-12 19:12 G	11876547.16	11876547.30	11876547.43	0.0514	0.0092
Mars	27806-12-31 09:50 G	11877356.65	11877356.91	11877357.18	0.0491	0.0225
Venus	27809-07-02 04:33 G	11878270.58	11878270.69	11878270.80	0.0496	0.0416
Earth	27809-07-23 04:33 G	11878291.50	11878291.69	11878291.88	0.0496	0.0288
Moon	27809-07-23 07:55 G	11878291.65	11878291.83	11878292.03	0.0496	0.0282 *

Moon	27810-08-24 08:24 G	11878688.63	11878688.85	11878689.07	0.0508	0.0152
Earth	27810-08-24 12:00 G	11878688.78	11878689.00	11878689.22	0.0508	0.0175 *
Mercury	27810-12-12 07:26 G	11878798.67	11878798.81	11878798.96	0.0512	0.0288
Mercury	27811-03-12 11:31 G	11878888.93	11878888.98	11878889.04	0.0515	0.0481
Earth	27815-01-16 07:55 G	11880294.69	11880294.83	11880294.99	0.0533	0.0406
Moon	27815-01-16 08:53 G	11880294.71	11880294.87	11880295.04	0.0533	0.0382 *
Venus	27815-05-09 21:21 G	11880408.19	11880408.39	11880408.59	0.0530	0.0071
Moon	27816-02-21 05:31 G	11880695.51	11880695.73	11880695.96	0.0520	0.0121
Earth	27816-02-21 08:38 G	11880695.64	11880695.86	11880696.09	0.0520	0.0142 *
Mercury	27816-07-31 22:48 G	11880857.32	11880857.45	11880857.59	0.0514	0.0057
Moon	27821-07-27 09:50 G	11882678.70	11882678.91	11882679.13	0.0497	0.0198
Earth	27821-07-27 13:41 G	11882678.87	11882679.07	11882679.28	0.0497	0.0230 *
Earth	27822-08-29 01:41 G	11883076.37	11883076.57	11883076.78	0.0510	0.0242
Moon	27822-08-29 05:31 G	11883076.53	11883076.73	11883076.95	0.0510	0.0215 *
Mercury	27822-09-30 05:17 G	11883108.67	11883108.72	11883108.76	0.0511	0.0488
Mercury	27822-12-29 09:50 G	11883198.77	11883198.91	11883199.05	0.0514	0.0285
Mars	27824-12-03 15:21 G	11883903.94	11883904.14	11883904.33	0.0536	0.0335
Venus	27827-01-12 12:57 G	11884673.95	11884674.04	11884674.14	0.0532	0.0468
Moon	27827-01-21 09:21 G	11884682.71	11884682.89	11884683.08	0.0532	0.0312
Earth	27827-01-21 12:14 G	11884682.84	11884683.01	11884683.20	0.0532	0.0331 *
Earth	27828-02-26 07:12 G	11885083.59	11885083.80	11885084.02	0.0519	0.0214
Moon	27828-02-26 11:17 G	11885083.76	11885083.97	11885084.18	0.0519	0.0237 *
Mercury	27828-05-20 03:07 G	11885167.50	11885167.63	11885167.75	0.0515	0.0194
Mercury	27828-08-17 10:48 G	11885256.87	11885256.95	11885257.03	0.0512	0.0398
Venus	27833-07-04 13:26 G	11887038.89	11887039.06	11887039.23	0.0498	0.0282
Earth	27833-08-01 00:00 G	11887066.28	11887066.50	11887066.72	0.0499	0.0166
Moon	27833-08-01 03:07 G	11887066.42	11887066.63	11887066.85	0.0499	0.0162 *
Moon	27834-09-02 14:53 G	11887463.95	11887464.12	11887464.31	0.0512	0.0324
Earth	27834-09-02 18:29 G	11887464.09	11887464.27	11887464.46	0.0512	0.0311 *
Mercury	27834-10-17 08:24 G	11887508.69	11887508.85	11887509.02	0.0513	0.0097

Earth	27839-01-26 18:29 G	11889071.06	11889071.27	11889071.47	0.0530	0.0250
Moon	27839-01-26 22:19 G	11889071.23	11889071.43	11889071.63	0.0530	0.0280 *
Moon	27840-03-02 01:55 G	11889471.40	11889471.58	11889471.78	0.0516	0.0314
Earth	27840-03-02 06:00 G	11889471.56	11889471.75	11889471.94	0.0516	0.0285 *
Mercury	27840-03-08 07:26 G	11889477.71	11889477.81	11889477.91	0.0516	0.0331
Mercury	27840-06-05 14:53 G	11889567.00	11889567.12	11889567.24	0.0513	0.0259
Moon	27844-07-05 01:41 G	11891057.54	11891057.57	11891057.61	0.0491	0.0483
Venus	27845-03-09 14:38 G	11891304.92	11891305.11	11891305.30	0.0496	0.0161
Moon	27845-08-05 09:07 G	11891453.65	11891453.88	11891454.12	0.0500	0.0128
Earth	27845-08-05 11:17 G	11891453.74	11891453.97	11891454.20	0.0500	0.0100 *
Mercury	27846-08-05 07:12 G	11891818.63	11891818.80	11891818.97	0.0513	0.0092
Earth	27846-09-07 12:57 G	11891851.89	11891852.04	11891852.20	0.0514	0.0379
Moon	27846-09-07 14:53 G	11891851.98	11891852.12	11891852.26	0.0514	0.0405 *
Venus	27851-01-15 17:45 G	11893443.11	11893443.24	11893443.37	0.0529	0.0409
Moon	27851-01-31 18:57 G	11893459.07	11893459.29	11893459.51	0.0528	0.0189
Earth	27851-01-31 22:33 G	11893459.22	11893459.44	11893459.66	0.0528	0.0168 *
Mercury	27851-12-26 11:31 G	11893787.93	11893787.98	11893788.03	0.0517	0.0471
Earth	27852-03-07 01:55 G	11893859.42	11893859.58	11893859.75	0.0514	0.0354
Moon	27852-03-07 04:19 G	11893859.51	11893859.68	11893859.85	0.0514	0.0336 *
Mercury	27852-03-24 18:57 G	11893877.15	11893877.29	11893877.42	0.0513	0.0117
Earth	27856-07-09 11:31 G	11895444.89	11895444.98	11895445.07	0.0492	0.0455
Moon	27856-07-09 13:12 G	11895444.94	11895445.05	11895445.17	0.0492	0.0430 *
Earth	27857-08-10 01:55 G	11895841.35	11895841.58	11895841.81	0.0502	0.0032
Moon	27857-08-10 01:55 G	11895841.35	11895841.58	11895841.80	0.0502	0.0042 *
Mercury	27858-05-24 06:14 G	11896128.62	11896128.76	11896128.91	0.0512	0.0274
Mercury	27858-08-22 10:33 G	11896218.90	11896218.94	11896218.99	0.0515	0.0496
Moon	27858-09-12 10:48 G	11896239.83	11896239.95	11896240.09	0.0516	0.0431
Earth	27858-09-12 10:48 G	11896239.84	11896239.95	11896240.07	0.0516	0.0449 *
Venus	27862-09-20 06:43 G	11897708.59	11897708.78	11897708.98	0.0530	0.0144
Earth	27863-02-05 18:57 G	11897847.06	11897847.29	11897847.52	0.0526	0.0093

Moon	27863-02-05 21:07 G	11897847.15	11897847.38	11897847.60	0.0526	0.0070	*
Mercury	27864-01-11 21:50 G	11898187.28	11898187.41	11898187.55	0.0514	0.0045	
Moon	27864-03-11 14:24 G	11898246.95	11898247.10	11898247.26	0.0512	0.0389	
Earth	27864-03-11 14:53 G	11898246.99	11898247.12	11898247.26	0.0512	0.0415	*
Moon	27868-07-13 18:00 G	11899832.14	11899832.25	11899832.37	0.0494	0.0418	
Earth	27868-07-13 20:38 G	11899832.24	11899832.36	11899832.50	0.0494	0.0403	*
Earth	27869-08-14 16:33 G	11900228.96	11900229.19	11900229.42	0.0504	0.0036	
Moon	27869-08-14 18:57 G	11900229.05	11900229.29	11900229.53	0.0504	0.0065	*
Mercury	27870-03-12 05:02 G	11900438.64	11900438.71	11900438.78	0.0511	0.0461	
Mercury	27870-06-10 09:36 G	11900528.77	11900528.90	11900529.04	0.0514	0.0313	
Moon	27870-09-17 06:14 G	11900627.69	11900627.76	11900627.84	0.0518	0.0486	
Earth	27870-09-17 07:41 G	11900627.81	11900627.82	11900627.85	0.0518	0.0515	*
Earth	27875-02-10 18:14 G	11902235.03	11902235.26	11902235.49	0.0524	0.0014	
Moon	27875-02-10 18:43 G	11902235.03	11902235.28	11902235.52	0.0524	0.0005	*
Mercury	27875-10-31 01:41 G	11902497.45	11902497.57	11902497.69	0.0515	0.0191	
Mercury	27876-01-28 09:21 G	11902586.81	11902586.89	11902586.97	0.0512	0.0401	
Moon	27876-03-16 06:29 G	11902634.72	11902634.77	11902634.83	0.0510	0.0492	
Earth	27876-03-16 07:26 G	11902634.74	11902634.81	11902634.91	0.0510	0.0475	*
Earth	27880-07-18 04:48 G	11904219.54	11904219.70	11904219.87	0.0495	0.0349	
Moon	27880-07-18 08:38 G	11904219.71	11904219.86	11904220.01	0.0495	0.0373	*
Venus	27880-11-15 03:21 G	11904339.44	11904339.64	11904339.84	0.0497	0.0110	
Moon	27881-08-19 01:12 G	11904616.33	11904616.55	11904616.78	0.0505	0.0118	
Earth	27881-08-19 04:48 G	11904616.47	11904616.70	11904616.93	0.0505	0.0102	*
Mercury	27882-03-29 07:41 G	11904838.66	11904838.82	11904838.99	0.0513	0.0116	
Earth	27886-01-10 09:07 G	11906221.78	11906221.88	11906221.97	0.0535	0.0485	
Moon	27886-01-10 09:07 G	11906221.81	11906221.88	11906221.96	0.0535	0.0505	*
Moon	27887-02-15 15:50 G	11906622.93	11906623.16	11906623.38	0.0523	0.0035	
Earth	27887-02-15 18:29 G	11906623.04	11906623.27	11906623.50	0.0523	0.0063	*
Mercury	27887-08-19 05:45 G	11906807.64	11906807.74	11906807.85	0.0516	0.0330	
Mercury	27887-11-16 13:26 G	11906896.94	11906897.06	11906897.17	0.0513	0.0260	

Venus	27892-07-21 04:48 G	11908605.56	11908605.70	11908605.86	0.0496	0.0330
Moon	27892-07-22 10:19 G	11908606.74	11908606.93	11908607.13	0.0496	0.0278
Earth	27892-07-22 14:09 G	11908606.90	11908607.09	11908607.28	0.0496	0.0290 *
Earth	27893-08-23 18:57 G	11909004.08	11909004.29	11909004.52	0.0507	0.0172
Moon	27893-08-23 23:02 G	11909004.24	11909004.46	11909004.69	0.0507	0.0146 *
Mercury	27894-01-15 06:14 G	11909148.59	11909148.76	11909148.93	0.0512	0.0077
Moon	27898-01-15 13:41 G	11910609.92	11910610.07	11910610.23	0.0533	0.0384
Earth	27898-01-15 16:05 G	11910610.03	11910610.17	11910610.32	0.0533	0.0409 *
Venus	27898-05-29 00:57 G	11910743.35	11910743.54	11910743.73	0.0530	0.0183
Earth	27899-02-20 19:12 G	11911011.08	11911011.30	11911011.53	0.0521	0.0141
Moon	27899-02-20 23:17 G	11911011.24	11911011.47	11911011.70	0.0521	0.0122 *
Mercury	27899-06-07 10:05 G	11911117.87	11911117.92	11911117.98	0.0517	0.0467
Mercury	27899-09-04 17:31 G	11911207.10	11911207.23	11911207.36	0.0514	0.0121
Earth	27904-07-27 23:17 G	11912994.26	11912994.47	11912994.68	0.0497	0.0229
Moon	27904-07-28 02:24 G	11912994.39	11912994.60	11912994.81	0.0497	0.0198 *
Moon	27905-08-29 07:12 G	11913391.59	11913391.80	11913392.01	0.0510	0.0217
Earth	27905-08-29 10:48 G	11913391.75	11913391.95	11913392.16	0.0510	0.0241 *
Mercury	27905-11-04 04:48 G	11913458.55	11913458.70	11913458.84	0.0512	0.0268
Mercury	27906-02-02 08:53 G	11913548.84	11913548.87	11913548.91	0.0515	0.0502
Earth	27910-01-21 22:19 G	11914998.25	11914998.43	11914998.61	0.0532	0.0330
Moon	27910-01-22 02:09 G	11914998.41	11914998.59	11914998.78	0.0532	0.0319 *
Venus	27910-02-01 17:17 G	11915009.07	11915009.22	11915009.37	0.0532	0.0352
Moon	27911-02-26 14:09 G	11915398.88	11915399.09	11915399.30	0.0519	0.0237
Earth	27911-02-26 18:00 G	11915399.04	11915399.25	11915399.47	0.0519	0.0214 *
Mercury	27911-06-24 21:36 G	11915517.26	11915517.40	11915517.53	0.0514	0.0022
Venus	27916-07-24 15:21 G	11917374.01	11917374.14	11917374.28	0.0498	0.0376
Moon	27916-08-01 09:50 G	11917381.69	11917381.91	11917382.14	0.0499	0.0162
Earth	27916-08-01 12:00 G	11917381.78	11917382.00	11917382.22	0.0499	0.0164 *
Mercury	27917-08-23 03:36 G	11917768.58	11917768.65	11917768.74	0.0511	0.0450
Earth	27917-09-03 06:14 G	11917779.58	11917779.76	11917779.95	0.0512	0.0313

Moon	27917-09-03 08:24 G	11917779.68	11917779.85	11917780.02	0.0512	0.0336 *
Mercury	27917-11-21 08:24 G	11917858.72	11917858.85	11917858.99	0.0514	0.0325
Moon	27922-01-26 18:00 G	11919386.05	11919386.25	11919386.45	0.0530	0.0285
Earth	27922-01-26 21:50 G	11919386.21	11919386.41	11919386.62	0.0530	0.0255 *
Earth	27923-03-03 09:07 G	11919786.69	11919786.88	11919787.08	0.0516	0.0283
Moon	27923-03-03 12:00 G	11919786.82	11919787.00	11919787.19	0.0516	0.0304 *
Mercury	27923-04-13 00:43 G	11919827.40	11919827.53	11919827.65	0.0515	0.0180
Mercury	27923-07-11 08:24 G	11919916.77	11919916.85	11919916.93	0.0512	0.0411
Moon	27927-07-06 16:19 G	11921373.14	11921373.18	11921373.25	0.0492	0.0479
Venus	27928-03-29 17:17 G	11921640.02	11921640.22	11921640.43	0.0497	0.0063
Earth	27928-08-06 00:29 G	11921769.29	11921769.52	11921769.75	0.0500	0.0100
Moon	27928-08-06 00:29 G	11921769.31	11921769.52	11921769.74	0.0500	0.0128 *
Moon	27929-09-08 01:12 G	11922167.40	11922167.55	11922167.70	0.0513	0.0401
Earth	27929-09-08 01:12 G	11922167.40	11922167.55	11922167.71	0.0513	0.0381 *
Mercury	27929-09-09 07:26 G	11922168.65	11922168.81	11922168.98	0.0514	0.0141
Earth	27934-01-31 22:33 G	11923774.23	11923774.44	11923774.67	0.0528	0.0176
Moon	27934-02-01 01:12 G	11923774.34	11923774.55	11923774.76	0.0528	0.0194 *
Venus	27934-02-04 15:50 G	11923778.09	11923778.16	11923778.24	0.0528	0.0487
Mercury	27935-01-30 04:33 G	11924137.58	11924137.69	11924137.79	0.0516	0.0327
Moon	27935-03-08 02:38 G	11924174.43	11924174.61	11924174.81	0.0515	0.0326
Earth	27935-03-08 03:36 G	11924174.48	11924174.65	11924174.82	0.0515	0.0350 *
Mercury	27935-04-29 11:45 G	11924226.88	11924226.99	11924227.11	0.0513	0.0263
Moon	27939-07-10 18:57 G	11925760.20	11925760.29	11925760.40	0.0492	0.0441
Earth	27939-07-10 22:05 G	11925760.34	11925760.42	11925760.50	0.0492	0.0459 *
Earth	27940-08-10 11:02 G	11926156.73	11926156.96	11926157.20	0.0502	0.0037
Moon	27940-08-10 13:12 G	11926156.81	11926157.05	11926157.30	0.0502	0.0037 *
Mercury	27941-06-28 05:17 G	11926478.55	11926478.72	11926478.89	0.0512	0.0060
Moon	27941-09-12 16:05 G	11926555.05	11926555.17	11926555.29	0.0515	0.0426
Earth	27941-09-12 17:17 G	11926555.11	11926555.22	11926555.34	0.0515	0.0444 *
Venus	27945-10-10 07:26 G	11928043.61	11928043.81	11928044.01	0.0531	0.0048

Moon	27946-02-05 23:31 G	11928162.24	11928162.48	11928162.72	0.0527	0.0073
Earth	27946-02-06 00:00 G	11928162.27	11928162.50	11928162.73	0.0527	0.0099 *
Mercury	27946-11-18 08:38 G	11928447.80	11928447.86	11928447.91	0.0517	0.0467
Mercury	27947-02-15 15:50 G	11928537.03	11928537.16	11928537.29	0.0514	0.0121
Moon	27947-03-12 22:05 G	11928562.27	11928562.42	11928562.56	0.0513	0.0391
Earth	27947-03-12 22:48 G	11928562.32	11928562.45	11928562.60	0.0513	0.0413 *
Earth	27951-07-15 06:00 G	11930147.62	11930147.75	11930147.88	0.0493	0.0405
Moon	27951-07-15 09:36 G	11930147.79	11930147.90	11930148.02	0.0493	0.0427 *
Moon	27952-08-14 20:09 G	11930544.11	11930544.34	11930544.57	0.0503	0.0062
Earth	27952-08-14 23:31 G	11930544.25	11930544.48	11930544.71	0.0503	0.0031 *
Mercury	27953-04-16 03:36 G	11930788.50	11930788.65	11930788.80	0.0512	0.0254
Mercury	27953-07-15 07:41 G	11930878.82	11930878.82	11930878.83	0.0515	0.0514
Earth	27953-09-17 12:14 G	11930942.97	11930943.01	11930943.05	0.0517	0.0509
Moon	27953-09-17 15:07 G	11930943.05	11930943.13	11930943.22	0.0517	0.0482 *
Moon	27958-02-11 00:14 G	11932550.29	11932550.51	11932550.74	0.0525	0.0010
Earth	27958-02-11 02:38 G	11932550.38	11932550.61	11932550.84	0.0525	0.0018 *
Mercury	27958-12-04 19:55 G	11932847.20	11932847.33	11932847.47	0.0515	0.0025
Earth	27959-03-17 18:14 G	11932950.18	11932950.26	11932950.35	0.0511	0.0473
Moon	27959-03-17 20:38 G	11932950.31	11932950.36	11932950.43	0.0511	0.0492 *
Mars	27961-03-28 01:26 G	11933691.28	11933691.56	11933691.85	0.0491	0.0159
Moon	27963-07-19 10:05 G	11934534.77	11934534.92	11934535.08	0.0494	0.0372
Earth	27963-07-19 13:55 G	11934534.91	11934535.08	11934535.24	0.0494	0.0349 *
Venus	27963-12-06 03:07 G	11934674.45	11934674.63	11934674.83	0.0498	0.0193
Earth	27964-08-19 12:29 G	11934931.79	11934932.02	11934932.25	0.0505	0.0100
Moon	27964-08-19 16:33 G	11934931.96	11934932.19	11934932.42	0.0505	0.0114 *
Mercury	27965-02-02 01:41 G	11935098.50	11935098.57	11935098.66	0.0511	0.0448
Mercury	27965-05-03 06:29 G	11935188.64	11935188.77	11935188.90	0.0514	0.0327
Moon	27969-01-10 15:36 G	11936537.09	11936537.15	11936537.24	0.0535	0.0503
Earth	27969-01-10 17:31 G	11936537.14	11936537.23	11936537.33	0.0535	0.0486 *
Earth	27970-02-16 03:36 G	11936938.42	11936938.65	11936938.89	0.0523	0.0063

Moon	27970-02-16 07:26 G	11936938.58	11936938.81	11936939.05	0.0523	0.0032	*
Mercury	27970-09-23 00:00 G	11937157.38	11937157.50	11937157.63	0.0515	0.0161	
Mercury	27970-12-21 07:41 G	11937246.75	11937246.82	11937246.90	0.0512	0.0432	
Earth	27975-07-24 00:29 G	11938922.33	11938922.52	11938922.71	0.0496	0.0290	
Moon	27975-07-24 03:21 G	11938922.45	11938922.64	11938922.83	0.0496	0.0273	*
Venus	27975-08-11 05:45 G	11938940.57	11938940.74	11938940.92	0.0496	0.0243	
Moon	27976-08-24 01:55 G	11939319.36	11939319.58	11939319.81	0.0507	0.0146	
Earth	27976-08-24 05:31 G	11939319.52	11939319.73	11939319.96	0.0507	0.0172	*
Mercury	27977-02-19 06:00 G	11939498.58	11939498.75	11939498.91	0.0514	0.0148	
Mars	27979-03-01 10:48 G	11940238.71	11940238.95	11940239.20	0.0536	0.0055	
Earth	27981-01-15 19:55 G	11940925.18	11940925.33	11940925.47	0.0533	0.0415	
Moon	27981-01-15 23:31 G	11940925.32	11940925.48	11940925.64	0.0533	0.0383	*
Venus	27981-06-18 00:57 G	11941078.37	11941078.54	11941078.71	0.0529	0.0273	
Moon	27982-02-20 18:00 G	11941326.02	11941326.25	11941326.48	0.0521	0.0114	
Earth	27982-02-20 22:05 G	11941326.19	11941326.42	11941326.64	0.0521	0.0135	*
Mercury	27982-07-12 03:21 G	11941467.53	11941467.64	11941467.74	0.0516	0.0318	
Mercury	27982-10-09 10:48 G	11941556.83	11941556.95	11941557.06	0.0513	0.0271	
Moon	27987-07-28 08:53 G	11943309.65	11943309.87	11943310.09	0.0497	0.0201	
Earth	27987-07-28 10:48 G	11943309.74	11943309.95	11943310.16	0.0497	0.0231	*
Earth	27988-08-28 22:05 G	11943707.22	11943707.42	11943707.63	0.0509	0.0241	
Moon	27988-08-29 00:14 G	11943707.31	11943707.51	11943707.72	0.0509	0.0228	*
Mercury	27988-12-08 04:48 G	11943808.53	11943808.70	11943808.87	0.0513	0.0039	
Moon	27993-01-20 18:14 G	11945313.08	11945313.26	11945313.44	0.0532	0.0326	
Earth	27993-01-20 22:19 G	11945313.25	11945313.43	11945313.61	0.0532	0.0339	*
Venus	27993-02-20 15:36 G	11945343.98	11945344.15	11945344.32	0.0531	0.0271	
Earth	27994-02-25 17:45 G	11945714.03	11945714.24	11945714.46	0.0519	0.0208	
Moon	27994-02-25 21:07 G	11945714.17	11945714.38	11945714.58	0.0519	0.0233	*
Mercury	27994-04-30 06:57 G	11945777.74	11945777.79	11945777.85	0.0517	0.0465	
Mercury	27994-07-28 14:24 G	11945866.97	11945867.10	11945867.23	0.0513	0.0122	
Earth	27999-08-01 20:09 G	11947697.12	11947697.34	11947697.56	0.0498	0.0170	

Moon	27999-08-01 20:09 G	11947697.14	11947697.34	11947697.56	0.0498	0.0177	*
Venus	27999-08-13 15:21 G	11947709.06	11947709.14	11947709.21	0.0499	0.0461	
Moon	28000-09-02 11:45 G	11948094.81	11948094.99	11948095.18	0.0511	0.0331	
Earth	28000-09-02 12:14 G	11948094.83	11948095.01	11948095.20	0.0511	0.0305	*
Mercury	28000-09-26 02:24 G	11948118.45	11948118.60	11948118.76	0.0512	0.0240	

29TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 29th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	28005-01-25 23:45 G		11949701.29	11949701.49	11949701.70	0.0531	0.0263	
Moon	28005-01-26 02:53 G		11949701.43	11949701.62	11949701.81	0.0531	0.0294	*
Moon	28006-03-02 13:12 G		11950101.86	11950102.05	11950102.26	0.0517	0.0292	
Earth	28006-03-02 14:38 G		11950101.91	11950102.11	11950102.31	0.0517	0.0277	*
Mercury	28006-05-16 18:14 G		11950177.13	11950177.26	11950177.40	0.0515	0.0023	
Moon	28010-07-05 20:09 G		11951688.31	11951688.34	11951688.39	0.0491	0.0484	
Venus	28011-04-18 16:19 G		11951974.98	11951975.18	11951975.39	0.0497	0.0017	
Earth	28011-08-06 06:43 G		11952084.55	11952084.78	11952085.01	0.0500	0.0105	
Moon	28011-08-06 08:38 G		11952084.63	11952084.86	11952085.10	0.0500	0.0132	*
Mercury	28012-07-15 00:29 G		11952428.43	11952428.52	11952428.61	0.0511	0.0436	
Moon	28012-09-07 03:36 G		11952482.51	11952482.65	11952482.80	0.0513	0.0396	
Earth	28012-09-07 04:33 G		11952482.54	11952482.69	11952482.86	0.0513	0.0374	*
Mercury	28012-10-13 05:02 G		11952518.59	11952518.71	11952518.84	0.0514	0.0337	
Moon	28017-01-31 02:53 G		11954089.40	11954089.62	11954089.85	0.0529	0.0195	

Earth	28017-01-31 03:50 G	11954089.45	11954089.66	11954089.88	0.0529	0.0183	*
Mercury	28018-03-04 22:33 G	11954487.31	11954487.44	11954487.56	0.0515	0.0162	
Moon	28018-03-07 11:02 G	11954489.79	11954489.96	11954490.14	0.0515	0.0321	
Earth	28018-03-07 12:00 G	11954489.83	11954490.00	11954490.17	0.0515	0.0347	*
Mercury	28018-06-02 06:00 G	11954576.69	11954576.75	11954576.83	0.0512	0.0431	
Earth	28022-07-10 05:31 G	11956075.66	11956075.73	11956075.82	0.0492	0.0460	
Moon	28022-07-10 09:07 G	11956075.80	11956075.88	11956075.99	0.0492	0.0448	*
Venus	28022-12-22 17:17 G	11956241.13	11956241.22	11956241.34	0.0495	0.0425	
Moon	28023-08-10 14:09 G	11956471.87	11956472.09	11956472.32	0.0501	0.0037	
Earth	28023-08-10 17:31 G	11956472.00	11956472.23	11956472.46	0.0501	0.0039	*
Mercury	28024-08-01 03:36 G	11956828.49	11956828.65	11956828.82	0.0513	0.0147	
Earth	28024-09-11 22:33 G	11956870.33	11956870.44	11956870.56	0.0515	0.0441	
Moon	28024-09-12 01:26 G	11956870.42	11956870.56	11956870.70	0.0515	0.0417	*
Venus	28028-10-29 10:05 G	11958378.71	11958378.92	11958379.12	0.0530	0.0058	
Moon	28029-02-05 05:31 G	11958477.51	11958477.73	11958477.96	0.0527	0.0072	
Earth	28029-02-05 07:26 G	11958477.58	11958477.81	11958478.04	0.0527	0.0101	*
Mercury	28029-12-22 02:38 G	11958797.50	11958797.61	11958797.71	0.0516	0.0303	
Earth	28030-03-12 07:26 G	11958877.67	11958877.81	11958877.95	0.0513	0.0412	
Moon	28030-03-12 09:36 G	11958877.75	11958877.90	11958878.06	0.0513	0.0391	*
Mercury	28030-03-21 10:05 G	11958886.81	11958886.92	11958887.03	0.0513	0.0287	
Moon	28034-07-14 11:02 G	11960462.85	11960462.96	11960463.08	0.0493	0.0432	
Earth	28034-07-14 14:53 G	11960462.99	11960463.12	11960463.25	0.0493	0.0405	*
Earth	28035-08-15 07:55 G	11960859.59	11960859.83	11960860.06	0.0503	0.0031	
Moon	28035-08-15 11:45 G	11960859.76	11960859.99	11960860.23	0.0503	0.0064	*
Mercury	28036-05-20 02:53 G	11961138.45	11961138.62	11961138.79	0.0513	0.0036	
Moon	28036-09-16 16:48 G	11961258.13	11961258.20	11961258.28	0.0517	0.0488	
Earth	28036-09-16 20:38 G	11961258.32	11961258.36	11961258.40	0.0517	0.0509	
Venus	28040-07-03 23:45 G	11962644.42	11962644.49	11962644.56	0.0531	0.0492	
Earth	28041-02-10 04:33 G	11962865.46	11962865.69	11962865.92	0.0525	0.0026	
Moon	28041-02-10 08:09 G	11962865.60	11962865.84	11962866.08	0.0525	0.0019	*

Mercury	28041-10-10 05:45 G	11963107.69	11963107.74	11963107.80	0.0516	0.0458
Mercury	28042-01-07 12:57 G	11963196.91	11963197.04	11963197.17	0.0513	0.0129
Moon	28042-03-16 16:48 G	11963265.15	11963265.20	11963265.27	0.0511	0.0490
Earth	28042-03-16 20:09 G	11963265.26	11963265.34	11963265.44	0.0511	0.0468 *
Earth	28046-07-18 22:48 G	11964850.29	11964850.45	11964850.61	0.0495	0.0353
Moon	28046-07-19 01:26 G	11964850.42	11964850.56	11964850.72	0.0495	0.0374 *
Venus	28046-12-25 03:36 G	11965009.49	11965009.65	11965009.82	0.0498	0.0280
Moon	28047-08-19 18:29 G	11965247.04	11965247.27	11965247.50	0.0505	0.0109
Earth	28047-08-19 22:05 G	11965247.19	11965247.42	11965247.65	0.0505	0.0098 *
Mercury	28048-03-08 01:26 G	11965448.41	11965448.56	11965448.72	0.0512	0.0225
Earth	28052-01-10 16:48 G	11966852.13	11966852.20	11966852.30	0.0534	0.0495
Moon	28052-01-10 20:09 G	11966852.27	11966852.34	11966852.43	0.0534	0.0501 *
Moon	28053-02-14 22:19 G	11967253.20	11967253.43	11967253.67	0.0523	0.0024
Earth	28053-02-15 02:24 G	11967253.37	11967253.60	11967253.83	0.0523	0.0053 *
Mercury	28053-10-26 16:48 G	11967507.06	11967507.20	11967507.33	0.0514	0.0028
Moon	28058-07-23 05:02 G	11969237.52	11969237.71	11969237.91	0.0495	0.0280
Earth	28058-07-23 07:12 G	11969237.61	11969237.80	11969237.99	0.0495	0.0297 *
Venus	28058-08-30 04:33 G	11969275.49	11969275.69	11969275.88	0.0496	0.0164
Earth	28059-08-24 10:33 G	11969634.72	11969634.94	11969635.16	0.0507	0.0164
Moon	28059-08-24 12:57 G	11969634.82	11969635.04	11969635.26	0.0507	0.0136 *
Mercury	28059-12-25 23:02 G	11969758.37	11969758.46	11969758.55	0.0511	0.0427
Mercury	28060-03-25 03:36 G	11969848.53	11969848.65	11969848.78	0.0514	0.0347
Moon	28064-01-15 14:53 G	11971239.96	11971240.12	11971240.28	0.0534	0.0392
Earth	28064-01-15 18:43 G	11971240.15	11971240.28	11971240.43	0.0534	0.0426 *
Venus	28064-07-06 23:17 G	11971413.32	11971413.47	11971413.62	0.0529	0.0353
Earth	28065-02-20 00:00 G	11971641.27	11971641.50	11971641.73	0.0522	0.0126
Moon	28065-02-20 03:36 G	11971641.42	11971641.65	11971641.87	0.0522	0.0113 *
Mercury	28065-08-14 20:38 G	11971817.23	11971817.36	11971817.48	0.0515	0.0167
Mercury	28065-11-12 04:05 G	11971906.60	11971906.67	11971906.75	0.0512	0.0426
Earth	28070-07-27 16:19 G	11973624.97	11973625.18	11973625.38	0.0497	0.0236

Moon	28070-07-27 16:33 G	11973624.99	11973625.19	11973625.39	0.0497	0.0212	*
Moon	28071-08-28 23:45 G	11974022.28	11974022.49	11974022.71	0.0508	0.0222	
Earth	28071-08-29 00:43 G	11974022.32	11974022.53	11974022.74	0.0508	0.0232	*
Mercury	28072-01-12 02:09 G	11974158.42	11974158.59	11974158.75	0.0513	0.0153	
Earth	28076-01-20 23:45 G	11975628.32	11975628.49	11975628.67	0.0532	0.0347	
Moon	28076-01-21 03:21 G	11975628.46	11975628.64	11975628.81	0.0532	0.0337	*
Venus	28076-03-11 14:53 G	11975678.94	11975679.12	11975679.32	0.0531	0.0183	
Moon	28077-02-24 21:21 G	11976029.17	11976029.39	11976029.61	0.0520	0.0230	
Earth	28077-02-24 23:02 G	11976029.25	11976029.46	11976029.68	0.0520	0.0202	*
Mercury	28077-06-03 00:43 G	11976127.42	11976127.53	11976127.63	0.0516	0.0307	
Mercury	28077-08-31 08:09 G	11976216.73	11976216.84	11976216.95	0.0513	0.0283	
Earth	28082-08-01 00:57 G	11978012.33	11978012.54	11978012.76	0.0498	0.0174	
Moon	28082-08-01 02:53 G	11978012.40	11978012.62	11978012.85	0.0498	0.0187	*
Moon	28083-09-02 14:53 G	11978409.95	11978410.12	11978410.29	0.0510	0.0330	
Earth	28083-09-02 15:36 G	11978409.97	11978410.15	11978410.34	0.0510	0.0301	*
Mercury	28083-10-31 00:14 G	11978468.34	11978468.51	11978468.69	0.0513	0.0044	
Moon	28088-01-26 02:53 G	11980016.43	11980016.62	11980016.83	0.0531	0.0296	
Earth	28088-01-26 05:02 G	11980016.51	11980016.71	11980016.91	0.0531	0.0267	*
Moon	28089-03-01 20:38 G	11980417.17	11980417.36	11980417.55	0.0518	0.0286	
Earth	28089-03-01 20:53 G	11980417.18	11980417.37	11980417.57	0.0518	0.0274	*
Mercury	28089-03-22 04:48 G	11980437.64	11980437.70	11980437.77	0.0517	0.0448	
Mercury	28089-06-19 12:00 G	11980526.87	11980527.00	11980527.13	0.0514	0.0140	
Moon	28093-07-05 09:36 G	11982003.86	11982003.90	11982003.94	0.0491	0.0482	
Venus	28094-05-07 14:53 G	11982309.92	11982310.12	11982310.33	0.0497	0.0093	
Moon	28094-08-05 09:50 G	11982399.69	11982399.91	11982400.13	0.0500	0.0137	
Earth	28094-08-05 12:57 G	11982399.82	11982400.04	11982400.27	0.0500	0.0107	*
Mercury	28095-08-18 23:17 G	11982778.31	11982778.47	11982778.62	0.0512	0.0227	
Earth	28095-09-07 10:48 G	11982797.79	11982797.95	11982798.11	0.0513	0.0371	
Moon	28095-09-07 13:12 G	11982797.89	11982798.05	11982798.21	0.0513	0.0387	*
Moon	28100-01-31 04:48 G	11984404.49	11984404.70	11984404.91	0.0529	0.0196	

Earth	28100-01-31 05:31 G	11984404.52	11984404.73	11984404.95	0.0529	0.0191	*
Earth	28101-03-07 12:43 G	11984804.86	11984805.03	11984805.20	0.0515	0.0339	
Moon	28101-03-07 14:24 G	11984804.92	11984805.10	11984805.30	0.0515	0.0310	*
Mercury	28101-04-08 15:21 G	11984837.00	11984837.14	11984837.27	0.0514	0.0023	
Moon	28105-07-10 08:24 G	11986390.77	11986390.85	11986390.93	0.0492	0.0459	
Earth	28105-07-10 12:00 G	11986390.93	11986391.00	11986391.08	0.0492	0.0466	*
Venus	28106-01-11 16:05 G	11986576.03	11986576.17	11986576.32	0.0496	0.0347	
Earth	28106-08-11 00:43 G	11986787.29	11986787.53	11986787.76	0.0501	0.0045	
Moon	28106-08-11 04:33 G	11986787.46	11986787.69	11986787.93	0.0502	0.0038	*
Mercury	28107-06-07 21:36 G	11987088.30	11987088.40	11987088.50	0.0511	0.0418	
Mercury	28107-09-06 02:24 G	11987178.48	11987178.60	11987178.72	0.0514	0.0357	
Moon	28107-09-13 02:09 G	11987185.45	11987185.59	11987185.72	0.0515	0.0411	
Earth	28107-09-13 05:31 G	11987185.61	11987185.73	11987185.86	0.0515	0.0437	*
Venus	28111-11-19 06:57 G	11988713.60	11988713.79	11988713.99	0.0529	0.0131	
Earth	28112-02-06 05:02 G	11988792.48	11988792.71	11988792.94	0.0527	0.0112	
Moon	28112-02-06 08:09 G	11988792.60	11988792.84	11988793.08	0.0527	0.0078	*
Mercury	28113-01-25 18:57 G	11989147.16	11989147.29	11989147.41	0.0515	0.0168	
Moon	28113-03-12 02:24 G	11989192.45	11989192.60	11989192.75	0.0513	0.0386	
Earth	28113-03-12 05:31 G	11989192.59	11989192.73	11989192.88	0.0513	0.0403	*
Mercury	28113-04-25 02:24 G	11989236.53	11989236.60	11989236.68	0.0512	0.0423	
Mars	28115-06-22 13:26 G	11990024.96	11990025.06	11990025.19	0.0491	0.0450	
Earth	28117-07-14 19:26 G	11990778.19	11990778.31	11990778.44	0.0493	0.0414	
Moon	28117-07-14 22:19 G	11990778.34	11990778.43	11990778.53	0.0493	0.0444	*
Moon	28118-08-15 07:41 G	11991174.59	11991174.82	11991175.06	0.0503	0.0053	
Earth	28118-08-15 11:45 G	11991174.75	11991174.99	11991175.22	0.0503	0.0023	*
Mercury	28119-06-25 00:14 G	11991488.35	11991488.51	11991488.68	0.0513	0.0157	
Earth	28119-09-17 21:21 G	11991573.34	11991573.39	11991573.46	0.0516	0.0498	
Moon	28119-09-18 01:12 G	11991573.48	11991573.55	11991573.63	0.0516	0.0483	
Venus	28123-07-24 20:24 G	11992979.23	11992979.35	11992979.47	0.0532	0.0420	
Moon	28124-02-10 23:45 G	11993180.26	11993180.49	11993180.72	0.0526	0.0026	

Earth	28124-02-11 03:36 G	11993180.42	11993180.65	11993180.88	0.0526	0.0036	*
Mercury	28124-11-13 22:33 G	11993457.34	11993457.44	11993457.55	0.0516	0.0315	
Mercury	28125-02-11 06:14 G	11993546.64	11993546.76	11993546.87	0.0513	0.0277	
Earth	28125-03-16 22:33 G	11993580.35	11993580.44	11993580.54	0.0512	0.0462	
Moon	28125-03-17 02:24 G	11993580.54	11993580.60	11993580.67	0.0512	0.0490	*
Moon	28129-07-19 01:26 G	11995165.41	11995165.56	11995165.72	0.0494	0.0376	
Earth	28129-07-19 03:36 G	11995165.49	11995165.65	11995165.81	0.0494	0.0358	*
Venus	28130-01-14 00:43 G	11995344.39	11995344.53	11995344.68	0.0498	0.0348	
Earth	28130-08-19 23:45 G	11995562.26	11995562.49	11995562.72	0.0504	0.0089	
Moon	28130-08-20 02:38 G	11995562.39	11995562.61	11995562.83	0.0504	0.0091	*
Mercury	28131-04-12 22:19 G	11995798.26	11995798.43	11995798.61	0.0512	0.0042	
Mars	28133-05-26 02:53 G	11996572.42	11996572.62	11996572.82	0.0536	0.0314	
Moon	28135-01-10 10:48 G	11997166.89	11997166.95	11997167.02	0.0535	0.0511	
Earth	28135-01-10 14:38 G	11997167.04	11997167.11	11997167.19	0.0535	0.0505	
Earth	28136-02-16 03:50 G	11997568.43	11997568.66	11997568.90	0.0524	0.0045	
Moon	28136-02-16 07:41 G	11997568.59	11997568.82	11997569.05	0.0524	0.0014	*
Mercury	28136-09-02 02:53 G	11997767.56	11997767.62	11997767.68	0.0517	0.0455	
Mercury	28136-11-30 10:05 G	11997856.79	11997856.92	11997857.05	0.0514	0.0133	
Earth	28141-07-23 10:48 G	11999552.77	11999552.95	11999553.14	0.0495	0.0301	
Moon	28141-07-23 11:17 G	11999552.79	11999552.97	11999553.16	0.0495	0.0283	*
Venus	28141-09-19 01:12 G	11999610.35	11999610.55	11999610.75	0.0496	0.0098	
Moon	28142-08-24 11:02 G	11999949.72	11999949.96	11999950.19	0.0506	0.0127	
Earth	28142-08-24 12:14 G	11999949.79	11999950.01	11999950.23	0.0506	0.0158	*
Mercury	28143-01-29 20:24 G	12000108.20	12000108.35	12000108.50	0.0512	0.0238	
Earth	28147-01-15 21:07 G	12001555.25	12001555.38	12001555.52	0.0534	0.0431	
Moon	28147-01-16 00:57 G	12001555.39	12001555.54	12001555.70	0.0534	0.0397	*
Venus	28147-07-27 23:17 G	12001748.36	12001748.47	12001748.58	0.0529	0.0443	
Moon	28148-02-21 01:41 G	12001956.34	12001956.57	12001956.81	0.0522	0.0114	
Earth	28148-02-21 04:05 G	12001956.45	12001956.67	12001956.90	0.0522	0.0122	*
Mercury	28148-09-18 14:09 G	12002166.95	12002167.09	12002167.22	0.0514	0.0021	

Earth	28153-07-27 20:38 G	12003940.16	12003940.36	12003940.56	0.0496	0.0240
Moon	28153-07-27 22:19 G	12003940.21	12003940.43	12003940.65	0.0496	0.0220 *
Moon	28154-08-29 03:50 G	12004337.46	12004337.66	12004337.87	0.0508	0.0221
Earth	28154-08-29 04:33 G	12004337.48	12004337.69	12004337.90	0.0508	0.0228 *
Mercury	28154-11-17 18:57 G	12004418.20	12004418.29	12004418.39	0.0511	0.0426
Mercury	28155-02-16 00:00 G	12004508.37	12004508.50	12004508.62	0.0514	0.0350
Moon	28159-01-20 22:19 G	12005943.25	12005943.43	12005943.61	0.0532	0.0345
Earth	28159-01-21 00:57 G	12005943.37	12005943.54	12005943.72	0.0532	0.0357 *
Venus	28159-04-01 13:55 G	12006013.88	12006014.08	12006014.28	0.0530	0.0096
Earth	28160-02-25 23:17 G	12006344.25	12006344.47	12006344.69	0.0520	0.0192
Moon	28160-02-25 23:31 G	12006344.28	12006344.48	12006344.69	0.0520	0.0224 *
Mercury	28160-07-07 17:17 G	12006477.10	12006477.22	12006477.35	0.0515	0.0166
Mercury	28160-10-05 00:57 G	12006566.47	12006566.54	12006566.61	0.0512	0.0425
Moon	28165-08-01 02:53 G	12008327.41	12008327.62	12008327.83	0.0498	0.0199
Earth	28165-08-01 06:00 G	12008327.53	12008327.75	12008327.97	0.0498	0.0180 *
Earth	28166-09-02 20:38 G	12008725.17	12008725.36	12008725.55	0.0510	0.0295
Moon	28166-09-02 22:33 G	12008725.26	12008725.44	12008725.63	0.0510	0.0324 *
Mercury	28166-12-04 22:33 G	12008818.28	12008818.44	12008818.61	0.0514	0.0162
Earth	28171-01-26 02:24 G	12010331.41	12010331.60	12010331.80	0.0531	0.0279
Moon	28171-01-26 02:38 G	12010331.43	12010331.61	12010331.79	0.0531	0.0308 *
Earth	28172-03-01 18:00 G	12010732.06	12010732.25	12010732.46	0.0518	0.0264
Moon	28172-03-01 19:41 G	12010732.11	12010732.32	12010732.52	0.0518	0.0273 *
Mercury	28172-04-25 21:07 G	12010787.27	12010787.38	12010787.48	0.0516	0.0315
Mercury	28172-07-24 04:19 G	12010876.57	12010876.68	12010876.80	0.0513	0.0274
Moon	28176-07-05 05:17 G	12012318.72	12012318.72	12012318.74	0.0491	0.0491
Venus	28177-05-27 11:31 G	12012644.78	12012644.98	12012645.17	0.0497	0.0159
Earth	28177-08-05 15:36 G	12012714.92	12012715.15	12012715.38	0.0499	0.0117
Moon	28177-08-05 19:26 G	12012715.09	12012715.31	12012715.54	0.0499	0.0147 *
Moon	28178-09-07 07:41 G	12013112.67	12013112.82	12013112.98	0.0512	0.0372
Earth	28178-09-07 11:02 G	12013112.80	12013112.96	12013113.13	0.0512	0.0359 *

Mercury	28178-09-22 20:24 G	12013128.17	12013128.35	12013128.52	0.0512	0.0040
Earth	28183-01-31 01:12 G	12014719.34	12014719.55	12014719.77	0.0530	0.0203
Moon	28183-01-31 03:36 G	12014719.43	12014719.65	12014719.88	0.0530	0.0203 *
Mercury	28184-02-13 00:43 G	12015097.48	12015097.53	12015097.59	0.0517	0.0463
Moon	28184-03-06 09:21 G	12015119.71	12015119.89	12015120.08	0.0516	0.0303
Earth	28184-03-06 12:14 G	12015119.83	12015120.01	12015120.19	0.0516	0.0331 *
Mercury	28184-05-12 07:55 G	12015186.70	12015186.83	12015186.96	0.0514	0.0125
Earth	28188-07-09 16:33 G	12016706.12	12016706.19	12016706.25	0.0492	0.0469
Moon	28188-07-09 19:12 G	12016706.24	12016706.30	12016706.37	0.0492	0.0469 *
Venus	28189-01-30 12:43 G	12016910.86	12016911.03	12016911.20	0.0496	0.0282
Moon	28189-08-09 22:19 G	12017102.20	12017102.43	12017102.67	0.0501	0.0049
Earth	28189-08-10 02:24 G	12017102.37	12017102.60	12017102.83	0.0501	0.0052 *
Mercury	28190-07-11 18:14 G	12017438.11	12017438.26	12017438.42	0.0511	0.0237
Earth	28190-09-12 03:21 G	12017500.51	12017500.64	12017500.77	0.0514	0.0426
Moon	28190-09-12 07:12 G	12017500.65	12017500.80	12017500.94	0.0514	0.0396 *
Venus	28194-12-08 03:36 G	12019048.46	12019048.65	12019048.84	0.0530	0.0201
Moon	28195-02-04 23:31 G	12019107.25	12019107.48	12019107.71	0.0528	0.0089
Earth	28195-02-05 03:07 G	12019107.40	12019107.63	12019107.86	0.0528	0.0123 *
Mercury	28196-02-29 12:00 G	12019496.86	12019497.00	12019497.13	0.0515	0.0025
Earth	28196-03-11 07:41 G	12019507.67	12019507.82	12019507.97	0.0514	0.0396
Moon	28196-03-11 11:17 G	12019507.82	12019507.97	12019508.13	0.0514	0.0386 *
Moon	28200-07-14 20:24 G	12021093.26	12021093.35	12021093.46	0.0492	0.0445
Earth	28200-07-14 22:48 G	12021093.33	12021093.45	12021093.57	0.0492	0.0417 *
Earth	28201-08-15 12:29 G	12021489.78	12021490.02	12021490.25	0.0502	0.0015
Moon	28201-08-15 15:21 G	12021489.92	12021490.14	12021490.37	0.0502	0.0044 *
Mercury	28202-04-30 15:50 G	12021748.08	12021748.16	12021748.25	0.0511	0.0439
Mercury	28202-07-29 20:53 G	12021838.24	12021838.37	12021838.50	0.0514	0.0337
Moon	28202-09-17 17:02 G	12021888.12	12021888.21	12021888.30	0.0516	0.0472
Earth	28202-09-17 20:09 G	12021888.28	12021888.34	12021888.42	0.0516	0.0491 *
Venus	28206-08-13 19:26 G	12023314.15	12023314.31	12023314.46	0.0532	0.0336

Earth	28207-02-11 05:31 G	12023495.49	12023495.73	12023495.96	0.0526	0.0043
Moon	28207-02-11 09:21 G	12023495.66	12023495.89	12023496.12	0.0526	0.0035 *
Mercury	28207-12-19 15:50 G	12023807.04	12023807.16	12023807.29	0.0515	0.0163
Moon	28208-03-16 22:33 G	12023895.38	12023895.44	12023895.52	0.0512	0.0488
Earth	28208-03-17 02:09 G	12023895.50	12023895.59	12023895.70	0.0512	0.0458 *
Mercury	28208-03-17 23:31 G	12023896.41	12023896.48	12023896.55	0.0512	0.0429
Earth	28212-07-19 06:43 G	12025480.62	12025480.78	12025480.94	0.0494	0.0362
Moon	28212-07-19 07:12 G	12025480.66	12025480.80	12025480.95	0.0494	0.0378 *
Venus	28213-02-02 21:07 G	12025679.27	12025679.38	12025679.50	0.0498	0.0411
Moon	28213-08-20 00:29 G	12025877.28	12025877.52	12025877.76	0.0504	0.0080
Earth	28213-08-20 01:55 G	12025877.35	12025877.58	12025877.82	0.0504	0.0084 *
Mercury	28214-05-17 19:41 G	12026148.16	12026148.32	12026148.49	0.0513	0.0152
Earth	28218-01-10 15:36 G	12027482.09	12027482.15	12027482.21	0.0535	0.0514
Moon	28218-01-10 19:41 G	12027482.27	12027482.32	12027482.38	0.0535	0.0517
Moon	28219-02-16 01:12 G	12027883.31	12027883.55	12027883.79	0.0524	0.0005
Earth	28219-02-16 04:19 G	12027883.44	12027883.68	12027883.91	0.0524	0.0035 *
Mercury	28219-10-07 19:26 G	12028117.21	12028117.31	12028117.41	0.0516	0.0314
Mercury	28220-01-05 02:38 G	12028206.50	12028206.61	12028206.73	0.0513	0.0274
Earth	28224-07-23 13:41 G	12029867.89	12029868.07	12029868.26	0.0495	0.0308
Moon	28224-07-23 15:07 G	12029867.94	12029868.13	12029868.33	0.0495	0.0284 *
Venus	28224-10-08 21:36 G	12029945.20	12029945.40	12029945.61	0.0497	0.0035
Earth	28225-08-24 15:21 G	12030264.92	12030265.14	12030265.37	0.0506	0.0151
Moon	28225-08-24 15:21 G	12030264.92	12030265.14	12030265.36	0.0506	0.0119 *
Mercury	28226-03-05 18:14 G	12030458.09	12030458.26	12030458.43	0.0513	0.0039
Moon	28230-01-15 15:36 G	12031870.00	12031870.15	12031870.30	0.0534	0.0408
Earth	28230-01-15 18:57 G	12031870.16	12031870.29	12031870.42	0.0534	0.0441 *
Venus	28230-08-16 19:26 G	12032083.27	12032083.31	12032083.36	0.0528	0.0512
Earth	28231-02-21 01:12 G	12032271.32	12032271.55	12032271.78	0.0522	0.0110
Moon	28231-02-21 02:09 G	12032271.37	12032271.59	12032271.81	0.0522	0.0108 *
Mercury	28231-07-26 23:02 G	12032427.41	12032427.46	12032427.52	0.0517	0.0463

Mercury	28231-10-24 06:14 G	12032516.63	12032516.76	12032516.89	0.0513	0.0123
Mars	28233-12-09 20:09 G	12033294.12	12033294.34	12033294.59	0.0492	0.0309
Venus	28236-06-13 23:17 G	12034211.41	12034211.47	12034211.53	0.0495	0.0470
Moon	28236-07-27 19:26 G	12034255.12	12034255.31	12034255.52	0.0496	0.0232
Earth	28236-07-27 22:33 G	12034255.24	12034255.44	12034255.64	0.0496	0.0249 *
Earth	28237-08-29 04:33 G	12034652.48	12034652.69	12034652.90	0.0508	0.0216
Moon	28237-08-29 06:14 G	12034652.54	12034652.76	12034652.98	0.0508	0.0210 *
Mercury	28237-12-22 15:50 G	12034768.01	12034768.16	12034768.32	0.0512	0.0241
Earth	28242-01-20 18:14 G	12036258.09	12036258.26	12036258.42	0.0533	0.0369
Moon	28242-01-20 19:26 G	12036258.15	12036258.31	12036258.47	0.0533	0.0364 *
Venus	28242-04-21 08:38 G	12036348.66	12036348.86	12036349.06	0.0531	0.0038
Earth	28243-02-25 19:55 G	12036659.12	12036659.33	12036659.56	0.0521	0.0182
Moon	28243-02-25 20:53 G	12036659.15	12036659.37	12036659.59	0.0521	0.0213 *
Mercury	28243-08-12 09:50 G	12036826.77	12036826.91	12036827.04	0.0515	0.0029
Earth	28248-08-01 08:09 G	12038642.62	12038642.84	12038643.06	0.0497	0.0186
Moon	28248-08-01 12:00 G	12038642.79	12038643.00	12038643.22	0.0497	0.0208 *
Moon	28249-09-02 16:05 G	12039039.99	12039040.17	12039040.35	0.0509	0.0313
Earth	28249-09-02 18:57 G	12039040.10	12039040.29	12039040.49	0.0509	0.0284 *
Mercury	28249-10-10 13:41 G	12039077.99	12039078.07	12039078.16	0.0511	0.0439
Mercury	28250-01-08 18:43 G	12039168.15	12039168.28	12039168.41	0.0514	0.0336
Mars	28251-11-15 21:07 G	12039844.25	12039844.38	12039844.51	0.0535	0.0455
Earth	28254-01-25 20:53 G	12040646.18	12040646.37	12040646.57	0.0532	0.0291
Moon	28254-01-25 22:33 G	12040646.25	12040646.44	12040646.63	0.0532	0.0321 *
Moon	28255-03-02 15:07 G	12041046.94	12041047.13	12041047.32	0.0519	0.0265
Earth	28255-03-02 17:31 G	12041047.02	12041047.23	12041047.43	0.0519	0.0255 *
Mercury	28255-05-31 13:41 G	12041136.95	12041137.07	12041137.20	0.0516	0.0174
Mercury	28255-08-28 21:21 G	12041226.31	12041226.39	12041226.46	0.0512	0.0419
Venus	28260-06-16 06:57 G	12042979.61	12042979.79	12042979.98	0.0497	0.0217
Moon	28260-08-05 12:43 G	12043029.80	12043030.03	12043030.25	0.0499	0.0154
Earth	28260-08-05 16:33 G	12043029.97	12043030.19	12043030.42	0.0499	0.0124 *

Earth	28261-09-07 09:07 G	12043427.72	12043427.88	12043428.06	0.0511	0.0352
Moon	28261-09-07 13:12 G	12043427.89	12043428.05	12043428.22	0.0511	0.0357 *
Mercury	28261-10-27 16:48 G	12043478.03	12043478.20	12043478.36	0.0513	0.0138
Moon	28266-01-30 22:05 G	12045034.22	12045034.42	12045034.64	0.0530	0.0213
Earth	28266-01-31 01:26 G	12045034.35	12045034.56	12045034.77	0.0530	0.0211 *
Earth	28267-03-07 14:24 G	12045434.92	12045435.10	12045435.28	0.0517	0.0325
Moon	28267-03-07 18:00 G	12045435.06	12045435.25	12045435.45	0.0517	0.0295 *
Mercury	28267-03-19 17:45 G	12045447.14	12045447.24	12045447.35	0.0516	0.0316
Mercury	28267-06-17 01:12 G	12045536.43	12045536.55	12045536.66	0.0513	0.0274
Moon	28271-07-10 17:02 G	12047021.14	12047021.21	12047021.28	0.0491	0.0470
Earth	28271-07-10 18:57 G	12047021.24	12047021.29	12047021.36	0.0491	0.0474 *
Venus	28272-02-20 08:24 G	12047245.67	12047245.85	12047246.04	0.0496	0.0223
Earth	28272-08-10 03:36 G	12047417.42	12047417.65	12047417.89	0.0500	0.0059
Moon	28272-08-10 06:57 G	12047417.56	12047417.79	12047418.02	0.0500	0.0048 *
Mercury	28273-08-15 15:21 G	12047787.97	12047788.14	12047788.31	0.0513	0.0051
Moon	28273-09-12 00:00 G	12047815.35	12047815.50	12047815.66	0.0513	0.0387
Earth	28273-09-12 03:36 G	12047815.52	12047815.65	12047815.79	0.0514	0.0420 *
Venus	28277-12-28 02:09 G	12049383.42	12049383.59	12049383.76	0.0529	0.0283
Earth	28278-02-05 03:36 G	12049422.42	12049422.65	12049422.87	0.0528	0.0133
Moon	28278-02-05 07:26 G	12049422.58	12049422.81	12049423.04	0.0528	0.0099 *
Mercury	28279-01-05 21:36 G	12049757.34	12049757.40	12049757.45	0.0517	0.0463
Moon	28279-03-12 04:05 G	12049822.52	12049822.67	12049822.83	0.0514	0.0379
Earth	28279-03-12 07:55 G	12049822.68	12049822.83	12049822.98	0.0514	0.0387 *
Mercury	28279-04-05 04:33 G	12049846.56	12049846.69	12049846.82	0.0513	0.0123
Earth	28283-07-15 00:29 G	12051408.41	12051408.52	12051408.64	0.0493	0.0424
Moon	28283-07-15 01:12 G	12051408.47	12051408.55	12051408.64	0.0493	0.0453 *
Moon	28284-08-14 12:57 G	12051804.80	12051805.04	12051805.28	0.0502	0.0034
Earth	28284-08-14 14:38 G	12051804.88	12051805.11	12051805.35	0.0502	0.0008 *
Mercury	28285-06-03 13:41 G	12052097.92	12052098.07	12052098.22	0.0512	0.0244
Earth	28285-09-16 22:19 G	12052203.35	12052203.43	12052203.51	0.0516	0.0483

Moon	28285-09-17 00:43 G	12052203.44	12052203.53	12052203.63	0.0516	0.0469 *
Venus	28289-09-01 16:33 G	12053649.01	12053649.19	12053649.37	0.0531	0.0262
Moon	28290-02-09 23:45 G	12053810.25	12053810.49	12053810.72	0.0526	0.0049
Earth	28290-02-10 03:07 G	12053810.40	12053810.63	12053810.87	0.0526	0.0054 *
Mercury	28291-01-22 08:09 G	12054156.71	12054156.84	12054156.98	0.0514	0.0031
Earth	28291-03-17 00:00 G	12054210.40	12054210.50	12054210.62	0.0512	0.0448
Moon	28291-03-17 02:53 G	12054210.55	12054210.62	12054210.70	0.0512	0.0481 *
Earth	28295-07-19 08:38 G	12055795.70	12055795.86	12055796.01	0.0493	0.0370
Moon	28295-07-19 09:36 G	12055795.76	12055795.90	12055796.07	0.0493	0.0377 *
Venus	28296-02-22 16:48 G	12056014.14	12056014.20	12056014.27	0.0498	0.0473
Earth	28296-08-19 02:38 G	12056192.39	12056192.61	12056192.85	0.0504	0.0074
Moon	28296-08-19 02:53 G	12056192.40	12056192.62	12056192.85	0.0504	0.0066 *
Mercury	28297-03-22 11:17 G	12056407.89	12056407.97	12056408.06	0.0511	0.0444
Mercury	28297-06-20 16:19 G	12056498.05	12056498.18	12056498.31	0.0514	0.0332
Moon	28301-01-10 03:07 G	12057796.62	12057796.63	12057796.65	0.0535	0.0534
Earth	28301-01-10 07:12 G	12057796.76	12057796.80	12057796.85	0.0535	0.0525
Earth	28302-02-15 22:48 G	12058198.22	12058198.45	12058198.68	0.0525	0.0023
Moon	28302-02-16 00:29 G	12058198.30	12058198.52	12058198.75	0.0525	0.0011 *
Mercury	28302-11-11 11:45 G	12058466.86	12058466.99	12058467.11	0.0516	0.0181
Mercury	28303-02-08 19:12 G	12058556.22	12058556.30	12058556.38	0.0512	0.0410
Earth	28303-03-22 14:53 G	12058598.10	12058598.12	12058598.16	0.0511	0.0505
Moon	28307-07-24 14:24 G	12060182.92	12060183.10	12060183.29	0.0494	0.0286
Earth	28307-07-24 17:31 G	12060183.05	12060183.23	12060183.41	0.0494	0.0313 *
Venus	28307-10-29 18:14 G	12060280.05	12060280.26	12060280.46	0.0497	0.0031
Earth	28308-08-24 15:36 G	12060579.93	12060580.15	12060580.38	0.0505	0.0141
Moon	28308-08-24 16:48 G	12060579.97	12060580.20	12060580.44	0.0505	0.0110 *
Mercury	28309-04-09 14:38 G	12060807.95	12060808.11	12060808.28	0.0513	0.0138
Earth	28313-01-15 11:02 G	12062184.84	12062184.96	12062185.08	0.0535	0.0453
Moon	28313-01-15 13:26 G	12062184.92	12062185.06	12062185.19	0.0535	0.0423 *
Earth	28314-02-20 21:50 G	12062586.19	12062586.41	12062586.64	0.0523	0.0101

Moon	28314-02-20 22:05 G	12062586.19	12062586.42	12062586.66	0.0523	0.0098	*
Mercury	28314-08-30 15:36 G	12062777.05	12062777.15	12062777.25	0.0517	0.0326	
Mercury	28314-11-27 23:02 G	12062866.34	12062866.46	12062866.57	0.0513	0.0264	
Venus	28319-07-04 18:57 G	12064546.18	12064546.29	12064546.40	0.0495	0.0411	
Earth	28319-07-29 00:14 G	12064570.32	12064570.51	12064570.72	0.0495	0.0255	
Moon	28319-07-29 04:19 G	12064570.47	12064570.68	12064570.89	0.0495	0.0237	*
Moon	28320-08-29 01:12 G	12064967.34	12064967.55	12064967.75	0.0507	0.0205	
Earth	28320-08-29 03:50 G	12064967.45	12064967.66	12064967.87	0.0507	0.0208	*
Mercury	28321-01-26 12:29 G	12065117.85	12065118.02	12065118.19	0.0512	0.0063	
Earth	28325-01-20 16:33 G	12066573.04	12066573.19	12066573.36	0.0534	0.0378	
Moon	28325-01-20 17:02 G	12066573.05	12066573.21	12066573.39	0.0534	0.0378	*
Venus	28325-05-11 06:43 G	12066683.57	12066683.78	12066683.98	0.0531	0.0040	
Moon	28326-02-25 19:41 G	12066974.11	12066974.32	12066974.53	0.0521	0.0208	
Earth	28326-02-25 21:36 G	12066974.18	12066974.40	12066974.62	0.0521	0.0175	*
Mercury	28326-06-18 19:41 G	12067087.27	12067087.32	12067087.38	0.0517	0.0467	
Mercury	28326-09-16 02:53 G	12067176.49	12067176.62	12067176.75	0.0514	0.0120	
Moon	28331-08-02 05:45 G	12068957.53	12068957.74	12068957.95	0.0497	0.0212	
Earth	28331-08-02 09:50 G	12068957.69	12068957.91	12068958.12	0.0497	0.0192	*
Earth	28332-09-02 18:57 G	12069355.10	12069355.29	12069355.49	0.0509	0.0277	
Moon	28332-09-02 22:48 G	12069355.27	12069355.45	12069355.64	0.0509	0.0308	*
Mercury	28332-11-14 10:48 G	12069427.80	12069427.95	12069428.10	0.0512	0.0254	
Venus	28337-01-13 22:19 G	12070949.36	12070949.43	12070949.50	0.0532	0.0498	
Moon	28337-01-25 19:26 G	12070961.14	12070961.31	12070961.49	0.0532	0.0334	
Earth	28337-01-25 22:05 G	12070961.23	12070961.42	12070961.62	0.0532	0.0299	*
Earth	28338-03-02 18:43 G	12071362.07	12071362.28	12071362.48	0.0519	0.0246	
Moon	28338-03-02 22:05 G	12071362.21	12071362.42	12071362.63	0.0519	0.0249	*
Mercury	28338-07-05 06:29 G	12071486.64	12071486.77	12071486.91	0.0514	0.0032	
Venus	28343-07-07 02:53 G	12073314.45	12073314.62	12073314.79	0.0498	0.0279	
Earth	28343-08-06 18:29 G	12073345.05	12073345.27	12073345.50	0.0499	0.0131	
Moon	28343-08-06 21:50 G	12073345.20	12073345.41	12073345.63	0.0499	0.0156	*

Mercury	28344-09-02 08:53 G	12073737.79	12073737.87	12073737.96	0.0511	0.0449
Moon	28344-09-07 07:41 G	12073742.65	12073742.82	12073742.99	0.0511	0.0348
Earth	28344-09-07 11:31 G	12073742.81	12073742.98	12073743.15	0.0511	0.0343 *
Mercury	28344-12-01 14:09 G	12073827.96	12073828.09	12073828.22	0.0514	0.0330
Earth	28349-01-31 00:14 G	12075349.30	12075349.51	12075349.72	0.0530	0.0220
Moon	28349-01-31 04:05 G	12075349.45	12075349.67	12075349.88	0.0530	0.0220 *
Moon	28350-03-07 09:50 G	12075749.71	12075749.91	12075750.10	0.0517	0.0283
Earth	28350-03-07 13:26 G	12075749.88	12075750.06	12075750.25	0.0517	0.0316 *
Mercury	28350-04-23 10:19 G	12075796.80	12075796.93	12075797.05	0.0515	0.0177
Mercury	28350-07-21 17:45 G	12075886.16	12075886.24	12075886.32	0.0512	0.0413
Earth	28354-07-10 21:36 G	12077336.35	12077336.40	12077336.45	0.0491	0.0479
Moon	28354-07-10 22:19 G	12077336.39	12077336.43	12077336.47	0.0491	0.0481 *
Venus	28355-03-12 04:33 G	12077580.49	12077580.69	12077580.88	0.0496	0.0161
Moon	28355-08-11 03:36 G	12077732.41	12077732.65	12077732.89	0.0500	0.0052
Earth	28355-08-11 05:45 G	12077732.51	12077732.74	12077732.97	0.0500	0.0067 *
Earth	28356-09-12 03:21 G	12078130.50	12078130.64	12078130.78	0.0513	0.0409
Moon	28356-09-12 06:14 G	12078130.61	12078130.76	12078130.92	0.0513	0.0379 *
Mercury	28356-09-19 12:14 G	12078137.85	12078138.01	12078138.18	0.0513	0.0135
Venus	28361-01-16 20:09 G	12079718.19	12079718.34	12079718.50	0.0529	0.0338
Moon	28361-02-04 17:17 G	12079736.99	12079737.22	12079737.45	0.0529	0.0112
Earth	28361-02-04 21:07 G	12079737.16	12079737.38	12079737.61	0.0529	0.0144 *
Mercury	28362-02-09 13:41 G	12080106.97	12080107.07	12080107.17	0.0517	0.0332
Earth	28362-03-12 05:17 G	12080137.57	12080137.72	12080137.88	0.0515	0.0380
Moon	28362-03-12 08:24 G	12080137.70	12080137.85	12080138.01	0.0515	0.0376 *
Mercury	28362-05-09 20:53 G	12080196.26	12080196.37	12080196.49	0.0513	0.0258
Earth	28366-07-15 05:45 G	12081723.63	12081723.74	12081723.86	0.0492	0.0426
Moon	28366-07-15 06:57 G	12081723.70	12081723.79	12081723.89	0.0492	0.0452 *
Earth	28367-08-15 17:17 G	12082119.99	12082120.22	12082120.46	0.0501	0.0007
Moon	28367-08-15 17:45 G	12082120.01	12082120.24	12082120.46	0.0501	0.0028 *
Mercury	28368-07-08 10:33 G	12082447.77	12082447.94	12082448.11	0.0512	0.0060

Moon	28368-09-16 19:12 G	12082518.20	12082518.30	12082518.42	0.0514	0.0458
Earth	28368-09-16 20:38 G	12082518.28	12082518.36	12082518.46	0.0514	0.0473 *
Venus	28372-09-21 10:48 G	12083983.77	12083983.95	12083984.14	0.0531	0.0208
Earth	28373-02-09 21:50 G	12084125.18	12084125.41	12084125.64	0.0527	0.0065
Moon	28373-02-10 00:14 G	12084125.28	12084125.51	12084125.73	0.0527	0.0067 *
Mercury	28373-11-28 17:45 G	12084417.19	12084417.24	12084417.28	0.0518	0.0477
Mercury	28374-02-26 00:43 G	12084506.40	12084506.53	12084506.66	0.0514	0.0112
Moon	28374-03-16 21:36 G	12084525.31	12084525.40	12084525.50	0.0514	0.0471
Earth	28374-03-16 23:45 G	12084525.38	12084525.49	12084525.61	0.0514	0.0443 *
Moon	28378-07-19 09:21 G	12086110.75	12086110.89	12086111.04	0.0493	0.0377
Earth	28378-07-19 12:14 G	12086110.86	12086111.01	12086111.17	0.0493	0.0374 *
Earth	28379-08-20 03:36 G	12086507.42	12086507.65	12086507.88	0.0503	0.0066
Moon	28379-08-20 04:33 G	12086507.45	12086507.69	12086507.94	0.0503	0.0059 *
Mercury	28380-04-26 08:09 G	12086757.69	12086757.84	12086757.99	0.0511	0.0262
Mercury	28380-07-25 12:43 G	12086848.01	12086848.03	12086848.06	0.0514	0.0508
Earth	28384-01-10 05:02 G	12088111.69	12088111.71	12088111.73	0.0536	0.0532
Moon	28385-02-14 23:17 G	12088513.23	12088513.47	12088513.71	0.0526	0.0017
Earth	28385-02-14 23:45 G	12088513.26	12088513.49	12088513.72	0.0526	0.0016 *
Mercury	28385-12-15 04:48 G	12088816.57	12088816.70	12088816.83	0.0515	0.0032
Earth	28386-03-21 18:14 G	12088913.23	12088913.26	12088913.31	0.0512	0.0502
Mars	28388-03-05 08:09 G	12089627.54	12089627.84	12089628.14	0.0492	0.0032
Earth	28390-07-23 19:55 G	12090498.16	12090498.33	12090498.51	0.0494	0.0317
Moon	28390-07-23 23:45 G	12090498.30	12090498.49	12090498.69	0.0494	0.0286 *
Venus	28390-11-17 14:09 G	12090614.89	12090615.09	12090615.30	0.0497	0.0092
Moon	28391-08-24 14:24 G	12090894.88	12090895.10	12090895.32	0.0505	0.0105
Earth	28391-08-24 16:48 G	12090894.97	12090895.20	12090895.42	0.0505	0.0135 *
Mercury	28392-02-13 06:14 G	12091067.69	12091067.76	12091067.84	0.0511	0.0456
Mercury	28392-05-13 11:31 G	12091157.85	12091157.98	12091158.12	0.0514	0.0322
Moon	28396-01-15 12:00 G	12092499.87	12092500.00	12092500.15	0.0535	0.0429
Earth	28396-01-15 12:43 G	12092499.92	12092500.03	12092500.15	0.0535	0.0461 *

Moon	28397-02-19 23:17 G	12092901.25	12092901.47	12092901.69	0.0523	0.0092
Earth	28397-02-20 00:29 G	12092901.29	12092901.52	12092901.75	0.0523	0.0092 *
Mercury	28397-10-03 08:38 G	12093126.74	12093126.86	12093126.99	0.0515	0.0177
Mercury	28397-12-31 16:05 G	12093216.10	12093216.17	12093216.25	0.0512	0.0414
Venus	28402-07-23 15:07 G	12094880.99	12094881.13	12094881.28	0.0495	0.0350
Moon	28402-07-27 23:17 G	12094885.27	12094885.47	12094885.68	0.0495	0.0241
Earth	28402-07-28 03:21 G	12094885.44	12094885.64	12094885.84	0.0495	0.0260 *
Earth	28403-08-29 06:29 G	12095282.55	12095282.77	12095282.98	0.0507	0.0201
Moon	28403-08-29 10:05 G	12095282.71	12095282.92	12095283.14	0.0507	0.0207 *
Mercury	28404-03-01 10:05 G	12095467.76	12095467.92	12095468.09	0.0513	0.0133
Mars	28406-02-09 15:07 G	12096177.90	12096178.13	12096178.37	0.0535	0.0187
Moon	28408-01-20 15:36 G	12096888.00	12096888.15	12096888.30	0.0533	0.0390
Earth	28408-01-20 17:31 G	12096888.07	12096888.23	12096888.39	0.0533	0.0383 *
Venus	28408-05-30 05:17 G	12097018.53	12097018.72	12097018.92	0.0530	0.0122
Earth	28409-02-24 22:19 G	12097289.21	12097289.43	12097289.65	0.0521	0.0167
Moon	28409-02-25 01:12 G	12097289.34	12097289.55	12097289.78	0.0521	0.0199 *
Mercury	28409-07-22 12:29 G	12097436.92	12097437.02	12097437.13	0.0516	0.0323
Mercury	28409-10-19 19:41 G	12097526.21	12097526.32	12097526.44	0.0513	0.0266
Earth	28414-08-01 13:26 G	12099272.84	12099273.06	12099273.27	0.0497	0.0198
Moon	28414-08-01 16:48 G	12099273.00	12099273.20	12099273.41	0.0497	0.0220 *
Moon	28415-09-02 17:31 G	12099670.05	12099670.23	12099670.43	0.0508	0.0301
Earth	28415-09-02 21:36 G	12099670.20	12099670.40	12099670.60	0.0508	0.0269 *
Mercury	28415-12-19 08:24 G	12099777.68	12099777.85	12099778.02	0.0512	0.0061
Earth	28420-01-25 15:21 G	12101275.96	12101276.14	12101276.34	0.0532	0.0310
Moon	28420-01-25 18:57 G	12101276.11	12101276.29	12101276.47	0.0532	0.0344 *
Venus	28420-02-02 17:02 G	12101284.10	12101284.21	12101284.32	0.0532	0.0442
Moon	28421-03-01 11:31 G	12101676.78	12101676.98	12101677.19	0.0520	0.0237
Earth	28421-03-01 15:21 G	12101676.94	12101677.14	12101677.35	0.0520	0.0238 *
Mercury	28421-05-10 15:50 G	12101747.12	12101747.16	12101747.21	0.0517	0.0480
Mercury	28421-08-07 23:02 G	12101836.33	12101836.46	12101836.59	0.0514	0.0108

Venus	28426-07-26 01:12 G	12103649.41	12103649.55	12103649.69	0.0497	0.0351
Moon	28426-08-05 21:50 G	12103660.19	12103660.41	12103660.65	0.0498	0.0154
Earth	28426-08-06 00:14 G	12103660.28	12103660.51	12103660.73	0.0498	0.0133 *
Earth	28427-09-07 13:12 G	12104057.88	12104058.05	12104058.23	0.0510	0.0337
Moon	28427-09-07 16:33 G	12104058.02	12104058.19	12104058.36	0.0510	0.0340 *
Mercury	28427-10-07 06:43 G	12104087.63	12104087.78	12104087.93	0.0511	0.0255
Moon	28432-01-30 14:09 G	12105663.88	12105664.09	12105664.29	0.0531	0.0234
Earth	28432-01-30 17:45 G	12105664.04	12105664.24	12105664.46	0.0531	0.0231 *
Earth	28433-03-06 11:45 G	12106064.81	12106064.99	12106065.18	0.0518	0.0310
Moon	28433-03-06 15:21 G	12106064.94	12106065.14	12106065.33	0.0518	0.0277 *
Mercury	28433-05-27 02:53 G	12106146.49	12106146.62	12106146.75	0.0515	0.0039
Earth	28437-07-10 03:36 G	12107651.61	12107651.65	12107651.70	0.0491	0.0481
Moon	28437-07-10 04:33 G	12107651.67	12107651.69	12107651.72	0.0491	0.0488 *
Venus	28438-03-31 01:41 G	12107915.37	12107915.57	12107915.78	0.0496	0.0094
Earth	28438-08-10 09:07 G	12108047.65	12108047.88	12108048.11	0.0499	0.0071
Moon	28438-08-10 09:36 G	12108047.68	12108047.90	12108048.13	0.0499	0.0051 *
Mercury	28439-07-26 04:05 G	12108397.60	12108397.67	12108397.75	0.0510	0.0458
Moon	28439-09-12 01:41 G	12108445.41	12108445.57	12108445.74	0.0512	0.0372
Earth	28439-09-12 03:36 G	12108445.52	12108445.65	12108445.80	0.0512	0.0402 *
Mercury	28439-10-24 09:07 G	12108487.75	12108487.88	12108488.02	0.0513	0.0318
Earth	28444-02-04 21:50 G	12110052.19	12110052.41	12110052.63	0.0530	0.0152
Moon	28444-02-05 00:43 G	12110052.31	12110052.53	12110052.76	0.0530	0.0121 *
Venus	28444-02-05 18:57 G	12110053.17	12110053.29	12110053.41	0.0530	0.0419
Moon	28445-03-11 06:43 G	12110452.62	12110452.78	12110452.95	0.0516	0.0369
Earth	28445-03-11 09:07 G	12110452.73	12110452.88	12110453.04	0.0516	0.0376 *
Mercury	28445-03-15 06:57 G	12110456.67	12110456.79	12110456.91	0.0516	0.0180
Mercury	28445-06-12 14:24 G	12110546.02	12110546.10	12110546.18	0.0513	0.0413
Moon	28449-07-14 07:41 G	12112038.75	12112038.82	12112038.91	0.0492	0.0458
Earth	28449-07-14 10:19 G	12112038.83	12112038.93	12112039.05	0.0492	0.0429 *
Earth	28450-08-14 20:09 G	12112435.11	12112435.34	12112435.57	0.0501	0.0005

Moon	28450-08-14 21:07 G	12112435.14	12112435.38	12112435.62	0.0501	0.0022	*
Mercury	28451-08-12 07:55 G	12112797.66	12112797.83	12112797.99	0.0513	0.0129	
Moon	28451-09-16 21:21 G	12112833.30	12112833.39	12112833.49	0.0514	0.0463	
Earth	28451-09-16 21:50 G	12112833.32	12112833.41	12112833.51	0.0514	0.0467	*
Venus	28455-10-11 11:31 G	12114318.78	12114318.98	12114319.18	0.0531	0.0112	
Moon	28456-02-10 00:43 G	12114440.29	12114440.53	12114440.77	0.0528	0.0077	
Earth	28456-02-10 01:55 G	12114440.35	12114440.58	12114440.81	0.0528	0.0070	*
Mercury	28457-01-01 11:02 G	12114766.86	12114766.96	12114767.06	0.0516	0.0321	
Earth	28457-03-16 04:33 G	12114840.58	12114840.69	12114840.82	0.0514	0.0437	
Moon	28457-03-16 04:48 G	12114840.62	12114840.70	12114840.80	0.0514	0.0468	*
Mercury	28457-03-31 18:14 G	12114856.15	12114856.26	12114856.38	0.0513	0.0268	
Earth	28461-07-18 16:19 G	12116426.04	12116426.18	12116426.34	0.0493	0.0377	
Moon	28461-07-18 20:24 G	12116426.20	12116426.35	12116426.50	0.0493	0.0374	*
Moon	28462-08-19 05:31 G	12116822.51	12116822.73	12116822.96	0.0503	0.0051	
Earth	28462-08-19 07:41 G	12116822.59	12116822.82	12116823.06	0.0503	0.0061	*
Mercury	28463-05-31 06:14 G	12117107.59	12117107.76	12117107.93	0.0512	0.0062	
Moon	28467-01-09 06:00 G	12118426.75	12118426.75	12118426.77	0.0536	0.0535	
Moon	28468-02-15 01:55 G	12118828.36	12118828.58	12118828.81	0.0526	0.0023	
Earth	28468-02-15 02:38 G	12118828.38	12118828.61	12118828.85	0.0526	0.0010	*
Mercury	28468-10-20 14:53 G	12119077.07	12119077.12	12119077.18	0.0517	0.0467	
Mercury	28469-01-17 22:05 G	12119166.29	12119166.42	12119166.55	0.0514	0.0120	
Earth	28469-03-20 21:50 G	12119228.36	12119228.41	12119228.47	0.0512	0.0496	
Moon	28469-03-21 00:00 G	12119228.44	12119228.50	12119228.55	0.0512	0.0497	*
Moon	28473-07-22 21:50 G	12120813.22	12120813.41	12120813.60	0.0494	0.0289	
Earth	28473-07-23 01:41 G	12120813.40	12120813.57	12120813.75	0.0494	0.0320	*
Venus	28473-12-06 12:29 G	12120949.82	12120950.02	12120950.21	0.0497	0.0164	
Earth	28474-08-23 21:36 G	12121210.18	12121210.40	12121210.63	0.0504	0.0130	
Moon	28474-08-24 01:12 G	12121210.32	12121210.55	12121210.78	0.0504	0.0103	*
Mercury	28475-03-19 04:33 G	12121417.54	12121417.69	12121417.85	0.0511	0.0253	
Moon	28479-01-14 06:43 G	12122814.66	12122814.78	12122814.91	0.0535	0.0438	

Earth	28479-01-14 07:26 G	12122814.71	12122814.81	12122814.93	0.0535	0.0468	*
Earth	28480-02-19 21:07 G	12123216.15	12123216.38	12123216.61	0.0524	0.0085	
Moon	28480-02-19 23:45 G	12123216.25	12123216.49	12123216.72	0.0524	0.0087	*
Mercury	28480-11-06 01:12 G	12123476.42	12123476.55	12123476.68	0.0515	0.0039	
Earth	28485-07-27 11:45 G	12125200.79	12125200.99	12125201.19	0.0495	0.0260	
Moon	28485-07-27 15:07 G	12125200.94	12125201.13	12125201.34	0.0495	0.0248	*
Venus	28485-08-11 14:53 G	12125215.95	12125216.12	12125216.29	0.0495	0.0269	
Moon	28486-08-28 08:24 G	12125597.64	12125597.85	12125598.07	0.0506	0.0208	
Earth	28486-08-28 12:14 G	12125597.80	12125598.01	12125598.23	0.0506	0.0198	*
Mercury	28487-01-05 02:53 G	12125727.54	12125727.62	12125727.70	0.0510	0.0446	
Mercury	28487-04-05 07:55 G	12125817.71	12125817.83	12125817.96	0.0513	0.0330	
Earth	28491-01-19 11:02 G	12127202.81	12127202.96	12127203.13	0.0534	0.0393	
Moon	28491-01-19 13:55 G	12127202.93	12127203.08	12127203.25	0.0534	0.0397	*
Venus	28491-06-19 00:43 G	12127353.34	12127353.53	12127353.72	0.0530	0.0182	
Moon	28492-02-24 16:19 G	12127603.96	12127604.18	12127604.39	0.0523	0.0192	
Earth	28492-02-24 19:55 G	12127604.11	12127604.33	12127604.55	0.0523	0.0160	*
Mercury	28492-08-25 05:02 G	12127786.59	12127786.71	12127786.84	0.0516	0.0185	
Mercury	28492-11-22 12:29 G	12127875.95	12127876.02	12127876.11	0.0513	0.0409	
Moon	28497-07-31 17:17 G	12129588.01	12129588.22	12129588.44	0.0496	0.0225	
Earth	28497-07-31 19:41 G	12129588.11	12129588.32	12129588.54	0.0496	0.0200	*
Earth	28498-09-02 00:43 G	12129985.33	12129985.53	12129985.73	0.0507	0.0264	
Moon	28498-09-02 04:05 G	12129985.49	12129985.67	12129985.86	0.0507	0.0297	*
Mercury	28499-01-22 06:00 G	12130127.58	12130127.75	12130127.92	0.0512	0.0132	
Moon	28503-01-25 12:57 G	12131590.88	12131591.04	12131591.22	0.0533	0.0352	
Earth	28503-01-25 16:48 G	12131591.02	12131591.20	12131591.39	0.0533	0.0316	*
Venus	28503-02-22 16:19 G	12131619.03	12131619.18	12131619.33	0.0532	0.0357	
Earth	28504-03-01 19:41 G	12131992.11	12131992.32	12131992.53	0.0521	0.0234	
Moon	28504-03-01 23:17 G	12131992.27	12131992.47	12131992.68	0.0521	0.0228	*
Mercury	28504-06-14 09:21 G	12132096.79	12132096.89	12132096.99	0.0517	0.0324	
Mercury	28504-09-11 16:33 G	12132186.08	12132186.19	12132186.31	0.0514	0.0267	

Earth	28509-08-06 05:17 G	12133975.50	12133975.72	12133975.94	0.0497	0.0137
Moon	28509-08-06 05:45 G	12133975.53	12133975.74	12133975.96	0.0497	0.0153 *
Venus	28509-08-14 23:02 G	12133984.35	12133984.46	12133984.57	0.0497	0.0422
Moon	28510-09-07 14:09 G	12134372.92	12134373.09	12134373.28	0.0510	0.0334
Earth	28510-09-07 16:33 G	12134373.01	12134373.19	12134373.37	0.0510	0.0331 *
Mercury	28510-11-11 04:19 G	12134437.51	12134437.68	12134437.86	0.0512	0.0060
Earth	28515-01-30 23:17 G	12135979.26	12135979.47	12135979.68	0.0532	0.0236
Moon	28515-01-31 02:38 G	12135979.41	12135979.61	12135979.82	0.0532	0.0229 *
Moon	28516-03-06 15:50 G	12136379.96	12136380.16	12136380.37	0.0518	0.0272
Earth	28516-03-06 18:43 G	12136380.09	12136380.28	12136380.47	0.0518	0.0306 *
Mercury	28516-04-02 13:26 G	12136407.01	12136407.06	12136407.12	0.0517	0.0464
Mercury	28516-06-30 20:38 G	12136496.23	12136496.36	12136496.49	0.0514	0.0125
Earth	28520-07-10 09:50 G	12137966.87	12137966.91	12137966.95	0.0491	0.0482
Venus	28521-04-20 00:00 G	12138250.30	12138250.50	12138250.71	0.0496	0.0021
Earth	28521-08-10 14:53 G	12138362.89	12138363.12	12138363.35	0.0499	0.0074
Moon	28521-08-10 15:36 G	12138362.91	12138363.15	12138363.40	0.0499	0.0052 *
Mercury	28522-08-30 02:53 G	12138747.46	12138747.62	12138747.77	0.0511	0.0251
Earth	28522-09-12 09:07 G	12138760.74	12138760.88	12138761.03	0.0512	0.0399
Moon	28522-09-12 09:21 G	12138760.74	12138760.89	12138761.04	0.0512	0.0371 *
Moon	28527-02-05 01:12 G	12140367.32	12140367.55	12140367.79	0.0530	0.0124
Earth	28527-02-05 03:07 G	12140367.41	12140367.63	12140367.85	0.0530	0.0155 *
Venus	28527-02-25 20:24 G	12140388.30	12140388.35	12140388.39	0.0529	0.0515
Earth	28528-03-11 14:38 G	12140767.96	12140768.11	12140768.28	0.0516	0.0373
Moon	28528-03-11 15:36 G	12140768.00	12140768.15	12140768.31	0.0516	0.0373 *
Mercury	28528-04-19 00:29 G	12140806.39	12140806.52	12140806.66	0.0515	0.0026
Earth	28532-07-14 18:00 G	12142354.15	12142354.25	12142354.37	0.0492	0.0430
Moon	28532-07-14 22:05 G	12142354.34	12142354.42	12142354.50	0.0492	0.0458 *
Venus	28532-12-24 02:53 G	12142516.54	12142516.62	12142516.71	0.0495	0.0450
Moon	28533-08-15 01:41 G	12142750.34	12142750.57	12142750.80	0.0500	0.0018
Earth	28533-08-15 03:50 G	12142750.43	12142750.66	12142750.89	0.0500	0.0007 *

Mercury	28534-06-18 01:12 G	12143057.47	12143057.55	12143057.64	0.0510	0.0440
Mercury	28534-09-16 06:29 G	12143147.64	12143147.77	12143147.90	0.0513	0.0337
Earth	28534-09-17 04:05 G	12143148.57	12143148.67	12143148.77	0.0513	0.0463
Moon	28534-09-17 06:29 G	12143148.67	12143148.77	12143148.87	0.0513	0.0466 *
Venus	28538-10-31 08:24 G	12144653.65	12144653.85	12144654.05	0.0531	0.0043
Earth	28539-02-09 23:31 G	12144755.25	12144755.48	12144755.71	0.0528	0.0077
Moon	28539-02-09 23:31 G	12144755.26	12144755.48	12144755.70	0.0528	0.0085 *
Mercury	28540-02-06 03:50 G	12145116.53	12145116.66	12145116.78	0.0516	0.0181
Earth	28540-03-16 05:02 G	12145155.60	12145155.71	12145155.85	0.0515	0.0435
Moon	28540-03-16 06:43 G	12145155.68	12145155.78	12145155.89	0.0515	0.0462 *
Mercury	28540-05-05 11:17 G	12145205.89	12145205.97	12145206.05	0.0513	0.0412
Mars	28542-05-31 02:38 G	12145961.37	12145961.61	12145961.87	0.0492	0.0273
Moon	28544-07-18 23:31 G	12146741.33	12146741.48	12146741.64	0.0493	0.0374
Earth	28544-07-19 03:36 G	12146741.50	12146741.65	12146741.80	0.0493	0.0376 *
Earth	28545-08-19 17:02 G	12147137.98	12147138.21	12147138.44	0.0502	0.0061
Moon	28545-08-19 20:24 G	12147138.12	12147138.35	12147138.59	0.0502	0.0044 *
Mercury	28546-07-05 05:02 G	12147457.55	12147457.71	12147457.88	0.0512	0.0150
Earth	28551-02-15 00:00 G	12149143.27	12149143.50	12149143.74	0.0527	0.0010
Moon	28551-02-15 01:55 G	12149143.34	12149143.58	12149143.82	0.0527	0.0030 *
Mercury	28551-11-25 07:41 G	12149426.72	12149426.82	12149426.92	0.0517	0.0326
Mercury	28552-02-22 14:53 G	12149516.01	12149516.12	12149516.24	0.0514	0.0266
Moon	28552-03-20 20:24 G	12149543.30	12149543.35	12149543.42	0.0513	0.0494
Earth	28552-03-20 23:45 G	12149543.43	12149543.49	12149543.55	0.0513	0.0494
Earth	28556-07-23 10:48 G	12151128.78	12151128.95	12151129.13	0.0493	0.0321
Moon	28556-07-23 14:24 G	12151128.92	12151129.10	12151129.28	0.0493	0.0291 *
Venus	28556-12-26 12:00 G	12151284.83	12151285.00	12151285.18	0.0497	0.0245
Moon	28557-08-24 00:14 G	12151525.29	12151525.51	12151525.75	0.0503	0.0101
Earth	28557-08-24 04:19 G	12151525.45	12151525.68	12151525.90	0.0503	0.0127 *
Mercury	28558-04-23 02:53 G	12151767.45	12151767.62	12151767.80	0.0512	0.0051
Mars	28560-05-06 05:45 G	12152511.49	12152511.74	12152511.99	0.0535	0.0069

Earth	28562-01-14 09:36 G	12153129.79	12153129.90	12153130.00	0.0536	0.0474
Moon	28562-01-14 11:45 G	12153129.86	12153129.99	12153130.13	0.0536	0.0440 *
Moon	28563-02-19 22:33 G	12153531.22	12153531.44	12153531.67	0.0525	0.0090
Earth	28563-02-20 02:09 G	12153531.36	12153531.59	12153531.82	0.0525	0.0081 *
Mercury	28563-09-13 12:00 G	12153736.94	12153737.00	12153737.05	0.0518	0.0465
Mercury	28563-12-11 18:57 G	12153826.17	12153826.29	12153826.43	0.0515	0.0126
Moon	28568-07-27 16:48 G	12155516.00	12155516.20	12155516.41	0.0494	0.0256
Earth	28568-07-27 19:12 G	12155516.11	12155516.30	12155516.50	0.0494	0.0262 *
Venus	28568-08-31 13:41 G	12155550.89	12155551.07	12155551.26	0.0495	0.0193
Earth	28569-08-28 17:31 G	12155913.02	12155913.23	12155913.45	0.0505	0.0194
Moon	28569-08-28 20:53 G	12155913.17	12155913.37	12155913.58	0.0505	0.0209 *
Mercury	28570-02-09 01:12 G	12156077.40	12156077.55	12156077.71	0.0511	0.0242
Moon	28574-01-19 14:09 G	12157517.95	12157518.09	12157518.25	0.0535	0.0404
Earth	28574-01-19 18:00 G	12157518.09	12157518.25	12157518.40	0.0535	0.0397 *
Venus	28574-07-09 03:21 G	12157688.47	12157688.64	12157688.81	0.0530	0.0289
Earth	28575-02-25 04:05 G	12157919.45	12157919.67	12157919.90	0.0523	0.0158
Moon	28575-02-25 07:55 G	12157919.61	12157919.83	12157920.04	0.0523	0.0189 *
Mercury	28575-09-29 23:17 G	12158136.34	12158136.47	12158136.60	0.0515	0.0016
Earth	28580-08-01 03:21 G	12159903.43	12159903.64	12159903.86	0.0496	0.0201
Moon	28580-08-01 03:50 G	12159903.47	12159903.66	12159903.87	0.0496	0.0231 *
Moon	28581-09-02 05:45 G	12160300.55	12160300.74	12160300.94	0.0507	0.0292
Earth	28581-09-02 08:09 G	12160300.64	12160300.84	12160301.04	0.0507	0.0262 *
Mercury	28581-11-27 23:31 G	12160387.39	12160387.48	12160387.57	0.0510	0.0434
Mercury	28582-02-26 04:48 G	12160477.58	12160477.70	12160477.83	0.0514	0.0344
Earth	28586-01-25 00:00 G	12161906.32	12161906.50	12161906.69	0.0533	0.0317
Moon	28586-01-25 03:50 G	12161906.49	12161906.66	12161906.83	0.0533	0.0348 *
Venus	28586-03-13 19:12 G	12161954.12	12161954.30	12161954.48	0.0532	0.0249
Moon	28587-03-02 00:14 G	12162307.30	12162307.51	12162307.73	0.0521	0.0225
Earth	28587-03-02 03:21 G	12162307.43	12162307.64	12162307.85	0.0521	0.0233 *
Mercury	28587-07-19 03:21 G	12162446.51	12162446.64	12162446.76	0.0516	0.0160

Mercury	28587-10-16 10:48 G	12162535.88	12162535.95	12162536.02	0.0513	0.0433
Earth	28592-08-05 15:07 G	12164290.91	12164291.13	12164291.35	0.0497	0.0137
Moon	28592-08-05 16:05 G	12164290.94	12164291.17	12164291.40	0.0497	0.0148 *
Earth	28593-09-07 01:41 G	12164688.39	12164688.57	12164688.75	0.0509	0.0331
Moon	28593-09-07 01:55 G	12164688.41	12164688.58	12164688.75	0.0509	0.0327 *
Mercury	28593-12-15 03:50 G	12164787.50	12164787.66	12164787.82	0.0513	0.0160
Moon	28598-01-29 20:09 G	12166294.13	12166294.34	12166294.56	0.0532	0.0230
Earth	28598-01-29 22:48 G	12166294.24	12166294.45	12166294.66	0.0532	0.0242 *
Earth	28599-03-06 19:41 G	12166695.13	12166695.32	12166695.51	0.0519	0.0302
Moon	28599-03-06 21:07 G	12166695.19	12166695.38	12166695.58	0.0519	0.0272 *
Mercury	28599-05-07 06:29 G	12166756.67	12166756.77	12166756.87	0.0517	0.0319
Mercury	28599-08-04 13:41 G	12166845.96	12166846.07	12166846.19	0.0514	0.0272
Earth	28603-07-11 22:19 G	12168282.40	12168282.43	12168282.49	0.0491	0.0481
Venus	28604-05-10 02:09 G	12168585.39	12168585.59	12168585.80	0.0496	0.0076
Moon	28604-08-11 00:57 G	12168678.32	12168678.54	12168678.77	0.0499	0.0048
Earth	28604-08-11 03:07 G	12168678.40	12168678.63	12168678.86	0.0499	0.0072 *
Earth	28605-09-12 18:57 G	12169076.15	12169076.29	12169076.44	0.0511	0.0398
Moon	28605-09-12 21:07 G	12169076.22	12169076.38	12169076.55	0.0511	0.0369 *
Mercury	28605-10-04 02:24 G	12169097.43	12169097.60	12169097.78	0.0512	0.0030
Earth	28610-02-05 01:12 G	12170682.33	12170682.55	12170682.77	0.0530	0.0162
Moon	28610-02-05 01:41 G	12170682.36	12170682.57	12170682.79	0.0530	0.0131 *
Mercury	28611-02-24 10:19 G	12171066.88	12171066.93	12171066.99	0.0518	0.0464
Earth	28611-03-12 15:50 G	12171083.01	12171083.16	12171083.33	0.0517	0.0370
Moon	28611-03-12 16:48 G	12171083.04	12171083.20	12171083.37	0.0517	0.0375 *
Mercury	28611-05-24 17:31 G	12171156.10	12171156.23	12171156.36	0.0515	0.0126
Moon	28615-07-16 01:26 G	12172669.49	12172669.56	12172669.65	0.0491	0.0461
Earth	28615-07-16 05:31 G	12172669.63	12172669.73	12172669.85	0.0491	0.0431 *
Venus	28616-01-14 03:50 G	12172851.52	12172851.66	12172851.80	0.0495	0.0362
Earth	28616-08-15 12:57 G	12173065.81	12173066.04	12173066.27	0.0500	0.0009
Moon	28616-08-15 16:19 G	12173065.95	12173066.18	12173066.42	0.0500	0.0011 *

Mercury	28617-07-23 00:14 G	12173407.35	12173407.51	12173407.67	0.0511	0.0227
Moon	28617-09-17 06:43 G	12173463.70	12173463.78	12173463.88	0.0513	0.0466
Earth	28617-09-17 10:19 G	12173463.83	12173463.93	12173464.03	0.0513	0.0460 *
Venus	28621-11-20 09:36 G	12174988.70	12174988.90	12174989.10	0.0531	0.0055
Earth	28622-02-10 04:48 G	12175070.47	12175070.70	12175070.93	0.0529	0.0082
Moon	28622-02-10 06:00 G	12175070.51	12175070.75	12175070.99	0.0529	0.0092 *
Mercury	28623-03-12 21:50 G	12175466.27	12175466.41	12175466.54	0.0516	0.0019
Moon	28623-03-17 10:33 G	12175470.85	12175470.94	12175471.04	0.0515	0.0464
Earth	28623-03-17 13:26 G	12175470.94	12175471.06	12175471.19	0.0515	0.0433 *
Earth	28627-07-20 13:12 G	12177056.90	12177057.05	12177057.20	0.0492	0.0377
Moon	28627-07-20 16:33 G	12177057.05	12177057.19	12177057.35	0.0492	0.0370 *
Moon	28628-08-19 20:53 G	12177453.14	12177453.37	12177453.60	0.0501	0.0035
Earth	28628-08-20 00:43 G	12177453.30	12177453.53	12177453.76	0.0501	0.0059 *
Mercury	28629-05-10 22:19 G	12177717.34	12177717.43	12177717.53	0.0510	0.0420
Mercury	28629-08-09 03:36 G	12177807.53	12177807.65	12177807.77	0.0513	0.0356
Moon	28633-01-09 11:45 G	12179056.97	12179056.99	12179057.03	0.0537	0.0533
Venus	28633-07-26 01:55 G	12179254.50	12179254.58	12179254.67	0.0533	0.0480
Moon	28634-02-15 06:14 G	12179458.54	12179458.76	12179458.99	0.0527	0.0030
Earth	28634-02-15 09:36 G	12179458.66	12179458.90	12179459.13	0.0527	0.0009 *
Mercury	28634-12-30 01:55 G	12179776.46	12179776.58	12179776.71	0.0516	0.0154
Earth	28635-03-22 10:05 G	12179858.87	12179858.92	12179858.99	0.0513	0.0494
Moon	28635-03-22 14:24 G	12179859.03	12179859.10	12179859.17	0.0513	0.0488
Mercury	28635-03-29 09:36 G	12179865.83	12179865.90	12179865.96	0.0513	0.0440
Moon	28639-07-24 18:00 G	12181444.06	12181444.25	12181444.44	0.0493	0.0292
Earth	28639-07-24 20:09 G	12181444.17	12181444.34	12181444.52	0.0493	0.0321 *
Venus	28640-01-16 12:14 G	12181619.86	12181620.01	12181620.17	0.0497	0.0329
Earth	28640-08-24 12:57 G	12181840.82	12181841.04	12181841.27	0.0503	0.0126
Moon	28640-08-24 16:19 G	12181840.96	12181841.18	12181841.41	0.0503	0.0103 *
Mercury	28641-05-28 02:24 G	12182117.44	12182117.60	12182117.76	0.0513	0.0169
Moon	28645-01-14 15:36 G	12183445.02	12183445.15	12183445.28	0.0536	0.0442

Earth	28645-01-14 18:43 G	12183445.17	12183445.28	12183445.39	0.0536	0.0474	*
Earth	28646-02-20 11:31 G	12183846.75	12183846.98	12183847.21	0.0525	0.0080	
Moon	28646-02-20 15:21 G	12183846.91	12183847.14	12183847.37	0.0525	0.0100	*
Mercury	28646-10-18 06:14 G	12184086.65	12184086.76	12184086.87	0.0517	0.0295	
Mercury	28647-01-15 13:26 G	12184175.95	12184176.06	12184176.17	0.0514	0.0296	
Earth	28651-07-29 06:43 G	12185831.58	12185831.78	12185831.98	0.0494	0.0260	
Moon	28651-07-29 06:57 G	12185831.61	12185831.79	12185831.99	0.0494	0.0266	*
Venus	28651-09-21 15:07 G	12185885.93	12185886.13	12185886.34	0.0496	0.0103	
Moon	28652-08-29 02:24 G	12186228.38	12186228.60	12186228.82	0.0505	0.0210	
Earth	28652-08-29 04:48 G	12186228.49	12186228.70	12186228.92	0.0505	0.0196	*
Mercury	28653-03-16 01:26 G	12186427.39	12186427.56	12186427.73	0.0512	0.0015	
Earth	28657-01-19 19:26 G	12187833.16	12187833.31	12187833.47	0.0534	0.0402	
Moon	28657-01-19 23:17 G	12187833.33	12187833.47	12187833.62	0.0534	0.0413	*
Venus	28657-07-29 02:24 G	12188023.46	12188023.60	12188023.75	0.0530	0.0371	
Moon	28658-02-25 02:38 G	12188234.39	12188234.61	12188234.83	0.0523	0.0185	
Earth	28658-02-25 06:00 G	12188234.53	12188234.75	12188234.98	0.0523	0.0154	*
Mercury	28658-08-06 09:21 G	12188396.83	12188396.89	12188396.95	0.0518	0.0454	
Mercury	28658-11-03 16:33 G	12188486.06	12188486.19	12188486.32	0.0515	0.0135	
Mars	28660-11-18 11:45 G	12189231.82	12189231.99	12189232.18	0.0493	0.0395	
Earth	28663-08-02 17:31 G	12190219.01	12190219.23	12190219.44	0.0496	0.0199	
Moon	28663-08-02 18:29 G	12190219.06	12190219.27	12190219.49	0.0496	0.0229	*
Earth	28664-09-02 20:53 G	12190616.17	12190616.37	12190616.57	0.0507	0.0264	
Moon	28664-09-02 21:21 G	12190616.20	12190616.39	12190616.57	0.0507	0.0290	*
Mercury	28665-01-02 00:00 G	12190737.34	12190737.50	12190737.66	0.0511	0.0201	
Moon	28669-01-24 20:09 G	12192221.17	12192221.34	12192221.53	0.0533	0.0353	
Earth	28669-01-24 23:17 G	12192221.29	12192221.47	12192221.66	0.0533	0.0324	*
Venus	28669-04-02 17:02 G	12192289.02	12192289.21	12192289.41	0.0532	0.0172	
Earth	28670-03-02 04:05 G	12192622.47	12192622.67	12192622.89	0.0522	0.0230	
Moon	28670-03-02 06:14 G	12192622.56	12192622.76	12192622.96	0.0522	0.0221	*
Mercury	28670-08-22 20:24 G	12192796.22	12192796.35	12192796.48	0.0516	0.0013	

Moon	28675-08-07 00:14 G	12194606.30	12194606.51	12194606.73	0.0497	0.0148
Earth	28675-08-07 02:24 G	12194606.38	12194606.60	12194606.83	0.0497	0.0138 *
Earth	28676-09-07 10:05 G	12195003.75	12195003.92	12195004.10	0.0508	0.0329
Moon	28676-09-07 12:00 G	12195003.81	12195004.00	12195004.19	0.0508	0.0313 *
Mercury	28676-10-20 21:36 G	12195047.30	12195047.40	12195047.51	0.0510	0.0401
Mercury	28677-01-19 02:53 G	12195137.50	12195137.62	12195137.73	0.0513	0.0373
Earth	28681-01-30 04:05 G	12196609.46	12196609.67	12196609.88	0.0532	0.0247
Moon	28681-01-30 05:17 G	12196609.52	12196609.72	12196609.92	0.0532	0.0230 *
Earth	28682-03-07 03:50 G	12197010.47	12197010.66	12197010.85	0.0520	0.0300
Moon	28682-03-07 04:05 G	12197010.47	12197010.67	12197010.89	0.0520	0.0273 *
Mercury	28682-06-11 00:29 G	12197106.40	12197106.52	12197106.65	0.0516	0.0152
Mercury	28682-09-08 07:55 G	12197195.77	12197195.83	12197195.90	0.0513	0.0444
Earth	28686-07-11 09:50 G	12198597.87	12198597.91	12198597.95	0.0491	0.0481
Venus	28687-05-30 02:53 G	12198920.42	12198920.62	12198920.81	0.0496	0.0161
Earth	28687-08-11 12:29 G	12198993.79	12198994.02	12198994.25	0.0498	0.0074
Moon	28687-08-11 15:50 G	12198993.93	12198994.16	12198994.40	0.0498	0.0046 *
Moon	28688-09-11 23:02 G	12199391.30	12199391.46	12199391.62	0.0510	0.0366
Earth	28688-09-12 02:09 G	12199391.45	12199391.59	12199391.74	0.0510	0.0395 *
Mercury	28688-11-07 01:26 G	12199447.40	12199447.56	12199447.72	0.0512	0.0184
Earth	28693-02-04 10:48 G	12200997.73	12200997.95	12200998.17	0.0531	0.0164
Moon	28693-02-04 11:31 G	12200997.75	12200997.98	12200998.22	0.0531	0.0134 *
Moon	28694-03-12 00:43 G	12201398.39	12201398.53	12201398.68	0.0518	0.0386
Earth	28694-03-12 03:36 G	12201398.49	12201398.65	12201398.81	0.0518	0.0370 *
Mercury	28694-03-30 05:02 G	12201416.60	12201416.71	12201416.82	0.0517	0.0288
Mercury	28694-06-27 12:14 G	12201505.90	12201506.01	12201506.12	0.0514	0.0304
Earth	28698-07-15 16:05 G	12202985.07	12202985.17	12202985.29	0.0491	0.0430
Moon	28698-07-15 19:41 G	12202985.24	12202985.32	12202985.40	0.0491	0.0455 *
Venus	28699-02-02 04:19 G	12203186.52	12203186.68	12203186.86	0.0495	0.0276
Moon	28699-08-15 19:26 G	12203381.07	12203381.31	12203381.54	0.0500	0.0011
Earth	28699-08-15 23:02 G	12203381.23	12203381.46	12203381.70	0.0500	0.0011 *

Mercury	28700-08-27 00:00 G	12203757.32	12203757.50	12203757.67	0.0512	0.0007
Earth	28700-09-17 19:41 G	12203779.23	12203779.32	12203779.43	0.0513	0.0460
Moon	28700-09-17 23:31 G	12203779.40	12203779.48	12203779.59	0.0513	0.0470 *
Venus	28704-12-10 13:55 G	12205323.89	12205324.08	12205324.28	0.0531	0.0172
Moon	28705-02-10 12:29 G	12205385.80	12205386.02	12205386.25	0.0529	0.0099
Earth	28705-02-10 15:21 G	12205385.91	12205386.14	12205386.37	0.0529	0.0081 *
Mercury	28706-01-17 09:07 G	12205726.81	12205726.88	12205726.95	0.0518	0.0429
Earth	28706-03-18 00:14 G	12205786.40	12205786.51	12205786.65	0.0516	0.0435
Moon	28706-03-18 04:19 G	12205786.59	12205786.68	12205786.79	0.0516	0.0465 *
Mercury	28706-04-16 16:19 G	12205816.05	12205816.18	12205816.30	0.0514	0.0161
Moon	28710-07-20 23:17 G	12207372.31	12207372.47	12207372.64	0.0492	0.0361
Earth	28710-07-21 01:26 G	12207372.42	12207372.56	12207372.72	0.0492	0.0375 *
Earth	28711-08-21 12:57 G	12207768.81	12207769.04	12207769.28	0.0501	0.0063
Moon	28711-08-21 16:19 G	12207768.96	12207769.18	12207769.41	0.0501	0.0034 *
Mercury	28712-06-14 23:02 G	12208067.30	12208067.46	12208067.62	0.0511	0.0186
Mars	28714-08-03 00:29 G	12208846.40	12208846.52	12208846.66	0.0535	0.0458
Venus	28716-08-15 02:24 G	12209589.46	12209589.60	12209589.74	0.0532	0.0386
Earth	28717-02-15 12:14 G	12209773.78	12209774.01	12209774.25	0.0527	0.0011
Moon	28717-02-15 16:19 G	12209773.94	12209774.18	12209774.41	0.0527	0.0030 *
Mercury	28718-02-02 19:26 G	12210126.17	12210126.31	12210126.44	0.0515	0.0016
Moon	28718-03-22 10:33 G	12210173.87	12210173.94	12210174.01	0.0514	0.0489
Earth	28718-03-22 14:24 G	12210174.04	12210174.10	12210174.17	0.0514	0.0494
Earth	28722-07-25 10:48 G	12211759.78	12211759.95	12211760.13	0.0493	0.0320
Moon	28722-07-25 11:02 G	12211759.79	12211759.96	12211760.15	0.0493	0.0296 *
Venus	28723-02-05 15:50 G	12211955.06	12211955.16	12211955.26	0.0497	0.0432
Moon	28723-08-26 00:57 G	12212156.31	12212156.54	12212156.78	0.0503	0.0107
Earth	28723-08-26 03:21 G	12212156.42	12212156.64	12212156.87	0.0503	0.0129 *
Mercury	28724-04-02 21:36 G	12212377.28	12212377.40	12212377.52	0.0510	0.0373
Mercury	28724-07-02 02:38 G	12212467.51	12212467.61	12212467.72	0.0513	0.0402
Earth	28728-01-15 19:12 G	12213760.20	12213760.30	12213760.40	0.0535	0.0481

Moon	28728-01-15 23:02 G	12213760.33	12213760.46	12213760.59	0.0535	0.0449 *
Moon	28729-02-20 08:53 G	12214161.63	12214161.87	12214162.10	0.0526	0.0094
Earth	28729-02-20 12:29 G	12214161.79	12214162.02	12214162.25	0.0526	0.0075 *
Mercury	28729-11-21 23:17 G	12214436.34	12214436.47	12214436.60	0.0516	0.0147
Mercury	28730-02-19 06:43 G	12214525.72	12214525.78	12214525.84	0.0513	0.0447
Earth	28734-07-29 19:12 G	12216147.10	12216147.30	12216147.50	0.0494	0.0262
Moon	28734-07-29 20:24 G	12216147.15	12216147.35	12216147.55	0.0494	0.0271 *
Venus	28734-10-11 17:02 G	12216221.01	12216221.21	12216221.42	0.0496	0.0010
Earth	28735-08-30 15:21 G	12216543.92	12216544.14	12216544.35	0.0504	0.0194
Moon	28735-08-30 15:50 G	12216543.96	12216544.16	12216544.37	0.0504	0.0213 *
Mercury	28736-04-20 00:43 G	12216777.37	12216777.53	12216777.69	0.0512	0.0205
Moon	28740-01-20 21:07 G	12218148.23	12218148.38	12218148.52	0.0535	0.0423
Earth	28740-01-21 00:29 G	12218148.37	12218148.52	12218148.67	0.0535	0.0407 *
Venus	28740-08-18 04:19 G	12218358.59	12218358.68	12218358.77	0.0530	0.0473
Earth	28741-02-25 13:41 G	12218549.85	12218550.07	12218550.29	0.0524	0.0151
Moon	28741-02-25 15:50 G	12218549.95	12218550.16	12218550.38	0.0524	0.0181 *
Mercury	28741-09-10 03:36 G	12218746.54	12218746.65	12218746.76	0.0517	0.0287
Mercury	28741-12-08 10:48 G	12218835.84	12218835.95	12218836.06	0.0514	0.0306
Venus	28746-06-16 19:12 G	12220487.22	12220487.30	12220487.40	0.0494	0.0439
Moon	28746-08-03 01:41 G	12220534.37	12220534.57	12220534.78	0.0495	0.0232
Earth	28746-08-03 04:05 G	12220534.46	12220534.67	12220534.88	0.0495	0.0200 *
Earth	28747-09-04 05:02 G	12220931.52	12220931.71	12220931.91	0.0506	0.0261
Moon	28747-09-04 06:43 G	12220931.58	12220931.78	12220931.99	0.0506	0.0280 *
Mercury	28748-02-06 23:17 G	12221087.29	12221087.47	12221087.64	0.0511	0.0020
Earth	28752-01-26 08:09 G	12222536.66	12222536.84	12222537.03	0.0534	0.0328
Moon	28752-01-26 09:50 G	12222536.75	12222536.91	12222537.08	0.0534	0.0355 *
Venus	28752-04-22 21:07 G	12222624.18	12222624.38	12222624.58	0.0532	0.0056
Moon	28753-03-02 15:36 G	12222937.93	12222938.15	12222938.37	0.0522	0.0213
Earth	28753-03-02 15:36 G	12222937.94	12222938.15	12222938.36	0.0522	0.0229 *
Mercury	28753-06-29 07:55 G	12223056.76	12223056.83	12223056.90	0.0518	0.0423

Mercury	28753-09-26 15:07 G	12223146.00	12223146.13	12223146.25	0.0515	0.0168
Earth	28758-08-07 12:57 G	12224921.82	12224922.04	12224922.27	0.0496	0.0138
Moon	28758-08-07 16:19 G	12224921.96	12224922.18	12224922.41	0.0496	0.0138 *
Moon	28759-09-08 17:02 G	12225319.03	12225319.21	12225319.39	0.0508	0.0309
Earth	28759-09-08 20:09 G	12225319.17	12225319.34	12225319.52	0.0508	0.0329 *
Mercury	28759-11-25 21:36 G	12225397.24	12225397.40	12225397.56	0.0511	0.0177
Earth	28764-01-31 15:07 G	12226924.92	12226925.13	12226925.33	0.0532	0.0246
Moon	28764-01-31 15:07 G	12226924.92	12226925.13	12226925.36	0.0532	0.0225 *
Moon	28765-03-07 12:57 G	12227325.85	12227326.04	12227326.23	0.0520	0.0279
Earth	28765-03-07 15:21 G	12227325.95	12227326.14	12227326.33	0.0520	0.0302 *
Mercury	28765-07-15 19:12 G	12227456.16	12227456.30	12227456.43	0.0515	0.0027
Earth	28769-07-11 22:05 G	12228913.39	12228913.42	12228913.48	0.0491	0.0481
Venus	28770-06-19 05:02 G	12229255.54	12229255.71	12229255.89	0.0497	0.0256
Moon	28770-08-11 21:36 G	12229309.17	12229309.40	12229309.64	0.0498	0.0041
Earth	28770-08-12 01:26 G	12229309.33	12229309.56	12229309.79	0.0498	0.0072 *
Earth	28771-09-13 14:53 G	12229706.98	12229707.12	12229707.27	0.0510	0.0398
Moon	28771-09-13 18:57 G	12229707.13	12229707.29	12229707.45	0.0510	0.0370 *
Mercury	28771-09-13 20:24 G	12229707.23	12229707.35	12229707.48	0.0510	0.0360 *
Mercury	28771-12-13 01:41 G	12229797.48	12229797.57	12229797.67	0.0513	0.0416
Moon	28776-02-05 12:29 G	12231312.81	12231313.02	12231313.24	0.0531	0.0145
Earth	28776-02-05 14:38 G	12231312.90	12231313.11	12231313.34	0.0531	0.0170 *
Earth	28777-03-12 07:26 G	12231713.65	12231713.81	12231713.97	0.0518	0.0367
Moon	28777-03-12 11:17 G	12231713.81	12231713.97	12231714.12	0.0518	0.0387 *
Mercury	28777-05-03 22:19 G	12231766.30	12231766.43	12231766.56	0.0516	0.0135
Mercury	28777-08-01 05:45 G	12231855.68	12231855.74	12231855.80	0.0513	0.0459
Moon	28781-07-16 04:19 G	12233300.58	12233300.68	12233300.77	0.0492	0.0448
Earth	28781-07-16 06:14 G	12233300.65	12233300.76	12233300.87	0.0492	0.0431 *
Venus	28782-02-22 07:41 G	12233521.63	12233521.82	12233522.01	0.0495	0.0174
Earth	28782-08-16 13:55 G	12233696.84	12233697.08	12233697.31	0.0500	0.0012
Moon	28782-08-16 17:02 G	12233696.98	12233697.21	12233697.44	0.0500	0.0002 *

Moon	28783-09-18 05:31 G	12234094.65	12234094.73	12234094.82	0.0512	0.0473
Earth	28783-09-18 09:21 G	12234094.80	12234094.89	12234094.99	0.0512	0.0463 *
Mercury	28783-10-01 00:43 G	12234107.38	12234107.53	12234107.68	0.0512	0.0233
Venus	28787-12-30 12:57 G	12235658.86	12235659.04	12235659.22	0.0530	0.0255
Earth	28788-02-10 16:19 G	12235700.96	12235701.18	12235701.42	0.0529	0.0088
Moon	28788-02-10 20:09 G	12235701.11	12235701.34	12235701.57	0.0529	0.0112 *
Mercury	28789-02-20 02:09 G	12236076.48	12236076.59	12236076.70	0.0517	0.0281
Moon	28789-03-16 23:02 G	12236101.36	12236101.46	12236101.56	0.0516	0.0463
Earth	28789-03-17 02:53 G	12236101.51	12236101.62	12236101.76	0.0516	0.0433 *
Mercury	28789-05-20 09:21 G	12236165.79	12236165.89	12236166.00	0.0514	0.0311
Earth	28793-07-20 13:41 G	12237687.93	12237688.07	12237688.23	0.0492	0.0379
Moon	28793-07-20 13:55 G	12237687.93	12237688.08	12237688.24	0.0492	0.0358 *
Moon	28794-08-20 21:50 G	12238084.17	12238084.41	12238084.65	0.0501	0.0030
Earth	28794-08-21 00:14 G	12238084.28	12238084.51	12238084.75	0.0501	0.0059 *
Mercury	28795-07-19 22:33 G	12238417.27	12238417.44	12238417.61	0.0511	0.0035
Venus	28799-09-04 03:50 G	12239924.49	12239924.66	12239924.83	0.0532	0.0286
Moon	28800-02-15 15:07 G	12240088.89	12240089.13	12240089.36	0.0528	0.0034
Earth	28800-02-15 18:57 G	12240089.05	12240089.29	12240089.52	0.0528	0.0013 *
Mercury	28800-12-09 06:29 G	12240386.69	12240386.77	12240386.84	0.0518	0.0421
Mercury	28801-03-08 13:26 G	12240475.94	12240476.06	12240476.19	0.0515	0.0170
Earth	28801-03-21 23:31 G	12240489.42	12240489.48	12240489.55	0.0514	0.0493
Moon	28801-03-22 02:38 G	12240489.55	12240489.61	12240489.70	0.0514	0.0484 *
Earth	28805-07-24 21:50 G	12242075.24	12242075.41	12242075.59	0.0493	0.0321
Moon	28805-07-24 23:17 G	12242075.28	12242075.47	12242075.67	0.0493	0.0297 *
Earth	28806-08-25 12:14 G	12242471.79	12242472.01	12242472.24	0.0502	0.0126
Moon	28806-08-25 12:57 G	12242471.82	12242472.04	12242472.26	0.0502	0.0111 *
Mercury	28807-05-07 20:53 G	12242727.20	12242727.37	12242727.53	0.0511	0.0159
Moon	28811-01-14 22:48 G	12244075.33	12244075.45	12244075.57	0.0536	0.0458
Earth	28811-01-15 02:38 G	12244075.51	12244075.61	12244075.70	0.0536	0.0485 *
Earth	28812-02-20 22:33 G	12244477.21	12244477.44	12244477.67	0.0526	0.0073

Moon	28812-02-21 01:12 G	12244477.33	12244477.55	12244477.77	0.0526	0.0095	*
Mercury	28812-12-25 17:45 G	12244786.11	12244786.24	12244786.38	0.0516	0.0033	
Mars	28815-02-14 08:53 G	12245566.57	12245566.87	12245567.17	0.0493	0.0012	
Moon	28817-07-29 03:21 G	12246462.45	12246462.64	12246462.83	0.0494	0.0275	
Earth	28817-07-29 05:45 G	12246462.54	12246462.74	12246462.94	0.0494	0.0262	*
Venus	28817-10-30 17:45 G	12246556.04	12246556.24	12246556.45	0.0496	0.0081	
Earth	28818-08-30 00:57 G	12246859.32	12246859.54	12246859.76	0.0504	0.0193	
Moon	28818-08-30 02:24 G	12246859.38	12246859.60	12246859.82	0.0504	0.0218	*
Mercury	28819-02-23 18:57 G	12247037.16	12247037.29	12247037.42	0.0510	0.0351	
Mercury	28819-05-25 00:00 G	12247127.41	12247127.50	12247127.60	0.0513	0.0424	
Earth	28823-01-20 10:48 G	12248463.80	12248463.95	12248464.10	0.0535	0.0407	
Moon	28823-01-20 12:57 G	12248463.91	12248464.04	12248464.17	0.0535	0.0433	*
Moon	28824-02-26 00:14 G	12248865.28	12248865.51	12248865.74	0.0524	0.0175	
Earth	28824-02-26 00:43 G	12248865.31	12248865.53	12248865.76	0.0524	0.0152	*
Mercury	28824-10-13 22:05 G	12249096.29	12249096.42	12249096.55	0.0516	0.0111	
Mercury	28825-01-11 05:31 G	12249185.69	12249185.73	12249185.77	0.0513	0.0483	
Venus	28829-07-05 21:07 G	12250822.24	12250822.38	12250822.53	0.0495	0.0347	
Earth	28829-08-02 16:19 G	12250849.97	12250850.18	12250850.39	0.0495	0.0199	
Moon	28829-08-02 19:41 G	12250850.11	12250850.32	12250850.53	0.0495	0.0226	*
Moon	28830-09-03 14:24 G	12251246.91	12251247.10	12251247.29	0.0506	0.0280	
Earth	28830-09-03 17:31 G	12251247.04	12251247.23	12251247.43	0.0506	0.0264	*
Mercury	28831-03-12 23:31 G	12251437.33	12251437.48	12251437.63	0.0513	0.0246	
Mars	28833-01-22 17:45 G	12252119.01	12252119.24	12252119.48	0.0533	0.0198	
Moon	28835-01-25 12:43 G	12252851.85	12252852.03	12252852.21	0.0533	0.0357	
Earth	28835-01-25 13:12 G	12252851.87	12252852.05	12252852.24	0.0533	0.0333	*
Venus	28835-05-12 22:19 G	12252959.22	12252959.43	12252959.63	0.0531	0.0043	
Moon	28836-03-01 17:45 G	12253253.04	12253253.24	12253253.45	0.0522	0.0203	
Earth	28836-03-01 19:41 G	12253253.11	12253253.32	12253253.53	0.0522	0.0224	*
Mercury	28836-08-02 01:12 G	12253406.44	12253406.55	12253406.66	0.0517	0.0269	
Mercury	28836-10-30 08:24 G	12253495.75	12253495.85	12253495.96	0.0514	0.0322	

Moon	28841-08-06 23:02 G	12255237.24	12255237.46	12255237.69	0.0497	0.0131
Earth	28841-08-07 02:53 G	12255237.40	12255237.62	12255237.85	0.0497	0.0138 *
Earth	28842-09-08 09:36 G	12255634.73	12255634.90	12255635.09	0.0508	0.0331
Moon	28842-09-08 13:41 G	12255634.89	12255635.07	12255635.26	0.0508	0.0305 *
Mercury	28842-12-29 22:19 G	12255747.26	12255747.43	12255747.60	0.0512	0.0061
Venus	28847-01-15 12:29 G	12257224.96	12257225.02	12257225.09	0.0532	0.0505
Moon	28847-01-30 14:53 G	12257239.92	12257240.12	12257240.32	0.0532	0.0233
Earth	28847-01-30 16:19 G	12257239.98	12257240.18	12257240.39	0.0532	0.0254 *
Earth	28848-03-06 16:48 G	12257641.01	12257641.20	12257641.39	0.0520	0.0297
Moon	28848-03-06 20:24 G	12257641.15	12257641.35	12257641.55	0.0520	0.0275 *
Mercury	28848-05-21 05:02 G	12257716.64	12257716.71	12257716.79	0.0518	0.0416
Mercury	28848-08-18 12:14 G	12257805.88	12257806.01	12257806.13	0.0515	0.0174
Earth	28852-07-11 09:21 G	12259228.87	12259228.89	12259228.93	0.0491	0.0486
Venus	28853-07-08 06:14 G	12259590.62	12259590.76	12259590.91	0.0497	0.0350
Earth	28853-08-11 12:14 G	12259624.78	12259625.01	12259625.24	0.0498	0.0076
Moon	28853-08-11 15:21 G	12259624.91	12259625.14	12259625.37	0.0498	0.0044 *
Moon	28854-09-12 19:41 G	12260022.17	12260022.32	12260022.49	0.0509	0.0367
Earth	28854-09-12 23:45 G	12260022.34	12260022.49	12260022.64	0.0509	0.0394 *
Mercury	28854-10-17 19:55 G	12260057.17	12260057.33	12260057.50	0.0511	0.0139
Earth	28859-02-04 19:12 G	12261628.08	12261628.30	12261628.52	0.0531	0.0176
Moon	28859-02-04 22:33 G	12261628.22	12261628.44	12261628.67	0.0531	0.0157 *
Moon	28860-03-11 10:48 G	12262028.80	12262028.95	12262029.11	0.0519	0.0384
Earth	28860-03-11 14:38 G	12262028.96	12262029.11	12262029.29	0.0519	0.0365 *
Mercury	28860-06-06 16:19 G	12262116.04	12262116.18	12262116.31	0.0516	0.0033
Earth	28864-07-15 16:48 G	12263616.10	12263616.20	12263616.32	0.0491	0.0433
Moon	28864-07-15 17:02 G	12263616.11	12263616.21	12263616.30	0.0491	0.0444 *
Venus	28865-03-13 08:09 G	12263856.63	12263856.84	12263857.04	0.0495	0.0088
Moon	28865-08-15 20:09 G	12264012.10	12264012.34	12264012.58	0.0499	0.0010
Earth	28865-08-15 22:33 G	12264012.21	12264012.44	12264012.68	0.0499	0.0014 *
Mercury	28866-08-05 18:00 G	12264367.12	12264367.25	12264367.38	0.0510	0.0334

Earth	28866-09-17 15:36 G	12264410.05	12264410.15	12264410.25	0.0511	0.0457
Moon	28866-09-17 18:14 G	12264410.18	12264410.26	12264410.34	0.0511	0.0476 *
Mercury	28866-11-03 23:17 G	12264457.38	12264457.47	12264457.55	0.0513	0.0439
Venus	28871-01-18 15:36 G	12265994.01	12265994.15	12265994.30	0.0531	0.0363
Moon	28871-02-09 20:24 G	12266016.12	12266016.35	12266016.58	0.0530	0.0120
Earth	28871-02-10 00:14 G	12266016.28	12266016.51	12266016.74	0.0530	0.0092 *
Earth	28872-03-16 13:26 G	12266416.94	12266417.06	12266417.19	0.0517	0.0431
Moon	28872-03-16 16:48 G	12266417.10	12266417.20	12266417.31	0.0517	0.0459 *
Mercury	28872-03-25 20:38 G	12266426.23	12266426.36	12266426.49	0.0516	0.0109
Mercury	28872-06-23 04:05 G	12266515.63	12266515.67	12266515.71	0.0513	0.0487
Earth	28876-07-19 23:45 G	12268003.35	12268003.49	12268003.64	0.0492	0.0379
Moon	28876-07-20 01:26 G	12268003.39	12268003.56	12268003.73	0.0492	0.0351 *
Earth	28877-08-20 09:07 G	12268399.65	12268399.88	12268400.11	0.0501	0.0058
Moon	28877-08-20 10:05 G	12268399.69	12268399.92	12268400.14	0.0501	0.0031 *
Mercury	28878-08-22 21:36 G	12268767.26	12268767.40	12268767.56	0.0512	0.0250
Venus	28882-09-23 07:55 G	12270259.64	12270259.83	12270260.03	0.0532	0.0171
Earth	28883-02-15 04:33 G	12270404.46	12270404.69	12270404.93	0.0528	0.0012
Moon	28883-02-15 07:41 G	12270404.59	12270404.82	12270405.05	0.0528	0.0030 *
Mercury	28884-01-13 00:43 G	12270736.42	12270736.53	12270736.65	0.0517	0.0249
Moon	28884-03-21 08:24 G	12270804.77	12270804.85	12270804.95	0.0515	0.0475
Earth	28884-03-21 10:05 G	12270804.87	12270804.92	12270804.99	0.0515	0.0494 *
Mercury	28884-04-11 07:55 G	12270825.74	12270825.83	12270825.93	0.0514	0.0344
Moon	28888-07-24 06:14 G	12272390.59	12272390.76	12272390.95	0.0493	0.0300
Earth	28888-07-24 08:53 G	12272390.70	12272390.87	12272391.05	0.0493	0.0321 *
Earth	28889-08-24 23:31 G	12272787.25	12272787.48	12272787.70	0.0502	0.0127
Moon	28889-08-25 00:57 G	12272787.30	12272787.54	12272787.77	0.0502	0.0122 *
Mercury	28890-06-10 20:53 G	12273077.20	12273077.37	12273077.54	0.0512	0.0070
Earth	28894-01-14 07:55 G	12274390.75	12274390.83	12274390.93	0.0535	0.0492
Moon	28894-01-14 11:02 G	12274390.85	12274390.96	12274391.06	0.0535	0.0472 *
Moon	28895-02-20 00:57 G	12274792.30	12274792.54	12274792.78	0.0526	0.0088

Earth	28895-02-20 02:24 G	12274792.37	12274792.60	12274792.83	0.0526	0.0067	*
Mercury	28895-11-01 04:05 G	12275046.59	12275046.67	12275046.75	0.0518	0.0406	
Mercury	28896-01-29 11:02 G	12275135.84	12275135.96	12275136.09	0.0514	0.0184	
Earth	28900-07-29 17:17 G	12276778.03	12276778.22	12276778.42	0.0494	0.0265	
Moon	28900-07-29 20:53 G	12276778.18	12276778.37	12276778.56	0.0494	0.0283	*
Venus	28900-11-19 19:55 G	12276891.14	12276891.33	12276891.52	0.0497	0.0176	
Moon	28901-08-30 10:19 G	12277174.73	12277174.93	12277175.14	0.0504	0.0224	
Earth	28901-08-30 13:26 G	12277174.85	12277175.06	12277175.28	0.0504	0.0193	*
Mercury	28902-03-30 19:26 G	12277387.14	12277387.31	12277387.48	0.0511	0.0117	
Moon	28906-01-20 11:02 G	12278778.83	12278778.96	12278779.10	0.0534	0.0440	
Earth	28906-01-20 12:14 G	12278778.87	12278779.01	12278779.16	0.0534	0.0416	*
Moon	28907-02-26 00:00 G	12279180.29	12279180.50	12279180.72	0.0524	0.0162	
Earth	28907-02-26 01:12 G	12279180.33	12279180.55	12279180.78	0.0524	0.0145	*
Mercury	28907-11-18 14:53 G	12279445.99	12279446.12	12279446.25	0.0515	0.0034	
Venus	28912-07-25 21:21 G	12281157.22	12281157.39	12281157.57	0.0495	0.0260	
Moon	28912-08-02 22:05 G	12281165.22	12281165.42	12281165.63	0.0495	0.0230	
Earth	28912-08-03 01:55 G	12281165.37	12281165.58	12281165.79	0.0495	0.0205	*
Earth	28913-09-04 01:41 G	12281562.37	12281562.57	12281562.77	0.0505	0.0258	
Moon	28913-09-04 05:31 G	12281562.54	12281562.73	12281562.94	0.0505	0.0272	*
Mercury	28914-01-16 17:02 G	12281697.08	12281697.21	12281697.35	0.0510	0.0318	
Mercury	28914-04-16 22:19 G	12281787.35	12281787.43	12281787.50	0.0513	0.0455	
Moon	28918-01-25 14:24 G	12283166.94	12283167.10	12283167.27	0.0534	0.0365	
Earth	28918-01-25 15:07 G	12283166.96	12283167.13	12283167.31	0.0534	0.0341	*
Venus	28918-06-01 22:19 G	12283294.23	12283294.43	12283294.62	0.0531	0.0133	
Earth	28919-03-03 00:14 G	12283568.30	12283568.51	12283568.72	0.0523	0.0219	
Moon	28919-03-03 03:36 G	12283568.43	12283568.65	12283568.87	0.0523	0.0190	*
Mercury	28919-09-06 18:57 G	12283756.16	12283756.29	12283756.42	0.0516	0.0110	
Mercury	28919-12-05 02:24 G	12283845.56	12283845.60	12283845.64	0.0513	0.0485	
Earth	28924-08-07 11:02 G	12285552.74	12285552.96	12285553.18	0.0496	0.0142	
Moon	28924-08-07 14:09 G	12285552.87	12285553.09	12285553.31	0.0496	0.0127	*

Moon	28925-09-08 11:31 G	12285949.80	12285949.98	12285950.17	0.0507	0.0300
Earth	28925-09-08 15:21 G	12285949.97	12285950.14	12285950.33	0.0507	0.0325 *
Mercury	28926-02-02 20:38 G	12286097.21	12286097.36	12286097.50	0.0512	0.0263
Earth	28930-01-30 20:53 G	12287555.17	12287555.37	12287555.58	0.0533	0.0261
Moon	28930-01-31 00:00 G	12287555.29	12287555.50	12287555.72	0.0533	0.0233 *
Venus	28930-02-04 13:55 G	12287559.95	12287560.08	12287560.21	0.0533	0.0406
Moon	28931-03-07 20:53 G	12287956.17	12287956.37	12287956.57	0.0521	0.0270
Earth	28931-03-08 00:43 G	12287956.35	12287956.53	12287956.73	0.0521	0.0294 *
Mercury	28931-06-25 23:17 G	12288066.35	12288066.47	12288066.58	0.0517	0.0250
Mercury	28931-09-23 06:29 G	12288155.67	12288155.77	12288155.87	0.0514	0.0344
Earth	28935-07-12 18:14 G	12289544.24	12289544.26	12289544.30	0.0490	0.0487
Venus	28936-07-28 05:45 G	12289925.64	12289925.74	12289925.84	0.0497	0.0428
Moon	28936-08-11 17:31 G	12289939.99	12289940.23	12289940.47	0.0497	0.0047
Earth	28936-08-11 19:55 G	12289940.10	12289940.33	12289940.56	0.0497	0.0078 *
Earth	28937-09-13 06:14 G	12290337.61	12290337.76	12290337.91	0.0509	0.0391
Moon	28937-09-13 08:53 G	12290337.72	12290337.87	12290338.03	0.0509	0.0373 *
Mercury	28937-11-21 18:43 G	12290407.11	12290407.28	12290407.46	0.0512	0.0071
Moon	28942-02-04 23:02 G	12291943.24	12291943.46	12291943.69	0.0532	0.0163
Earth	28942-02-05 03:07 G	12291943.41	12291943.63	12291943.85	0.0531	0.0178 *
Earth	28943-03-12 23:31 G	12292344.32	12292344.48	12292344.65	0.0519	0.0364
Moon	28943-03-13 03:21 G	12292344.49	12292344.64	12292344.79	0.0519	0.0387 *
Mercury	28943-04-14 03:21 G	12292376.56	12292376.64	12292376.73	0.0518	0.0389
Mercury	28943-07-12 10:19 G	12292465.81	12292465.93	12292466.06	0.0515	0.0202
Earth	28947-07-17 02:24 G	12293931.49	12293931.60	12293931.71	0.0491	0.0435
Moon	28947-07-17 04:05 G	12293931.57	12293931.67	12293931.78	0.0491	0.0437 *
Venus	28948-04-02 08:09 G	12294191.64	12294191.84	12294192.05	0.0496	0.0007
Earth	28948-08-16 07:55 G	12294327.59	12294327.83	12294328.06	0.0499	0.0011
Moon	28948-08-16 08:38 G	12294327.64	12294327.86	12294328.09	0.0499	0.0013 *
Mercury	28949-09-09 17:45 G	12294717.07	12294717.24	12294717.41	0.0511	0.0113
Moon	28949-09-17 23:45 G	12294725.41	12294725.49	12294725.57	0.0511	0.0480

Earth	28949-09-18 00:57 G	12294725.43	12294725.54	12294725.64	0.0511	0.0458	*
Venus	28954-02-07 16:05 G	12296329.07	12296329.17	12296329.27	0.0529	0.0456	
Earth	28954-02-10 03:50 G	12296331.43	12296331.66	12296331.89	0.0529	0.0100	
Moon	28954-02-10 07:12 G	12296331.58	12296331.80	12296332.02	0.0529	0.0130	*
Moon	28955-03-17 13:55 G	12296731.96	12296732.08	12296732.20	0.0517	0.0446	
Earth	28955-03-17 16:05 G	12296732.05	12296732.17	12296732.31	0.0517	0.0426	*
Mercury	28955-04-30 13:41 G	12296775.94	12296776.07	12296776.20	0.0515	0.0042	
Moon	28959-07-21 06:14 G	12298318.61	12298318.76	12298318.92	0.0492	0.0357	
Earth	28959-07-21 08:53 G	12298318.73	12298318.87	12298319.02	0.0492	0.0384	*
Venus	28959-12-07 10:05 G	12298457.83	12298457.92	12298458.02	0.0495	0.0436	
Earth	28960-08-20 19:26 G	12298715.08	12298715.31	12298715.55	0.0501	0.0055	
Moon	28960-08-20 20:53 G	12298715.12	12298715.37	12298715.61	0.0501	0.0028	*
Mercury	28961-06-28 16:05 G	12299027.03	12299027.17	12299027.31	0.0510	0.0302	
Mercury	28961-09-26 21:21 G	12299117.33	12299117.39	12299117.46	0.0513	0.0473	
Venus	28965-10-13 06:43 G	12300594.58	12300594.78	12300594.98	0.0531	0.0087	
Moon	28966-02-15 02:09 G	12300719.35	12300719.59	12300719.84	0.0528	0.0041	
Earth	28966-02-15 04:19 G	12300719.45	12300719.68	12300719.92	0.0528	0.0020	*
Mercury	28967-02-16 17:17 G	12301086.10	12301086.22	12301086.35	0.0516	0.0109	
Moon	28967-03-22 10:19 G	12301119.84	12301119.93	12301120.02	0.0515	0.0466	
Earth	28967-03-22 10:05 G	12301119.85	12301119.92	12301120.00	0.0515	0.0488	*
Mercury	28967-05-17 00:43 G	12301175.49	12301175.53	12301175.57	0.0513	0.0486	
Mars	28969-05-11 06:43 G	12301900.57	12301900.78	12301901.00	0.0493	0.0342	
Earth	28971-07-25 16:33 G	12302706.02	12302706.19	12302706.36	0.0493	0.0329	
Moon	28971-07-25 20:09 G	12302706.16	12302706.34	12302706.52	0.0493	0.0311	*
Moon	28972-08-25 03:21 G	12303102.42	12303102.64	12303102.87	0.0502	0.0121	
Earth	28972-08-25 06:29 G	12303102.54	12303102.77	12303102.99	0.0502	0.0119	*
Mercury	28973-04-16 13:26 G	12303337.05	12303337.06	12303337.09	0.0509	0.0504	
Mercury	28973-07-15 19:12 G	12303427.16	12303427.30	12303427.45	0.0512	0.0275	
Moon	28977-01-14 05:17 G	12304705.62	12304705.72	12304705.83	0.0536	0.0478	
Earth	28977-01-14 07:26 G	12304705.73	12304705.81	12304705.89	0.0536	0.0500	*

Moon	28978-02-20 03:36 G	12305107.43	12305107.65	12305107.87	0.0527	0.0084
Earth	28978-02-20 04:05 G	12305107.44	12305107.67	12305107.90	0.0527	0.0058 *
Mercury	28978-12-05 21:21 G	12305396.27	12305396.39	12305396.50	0.0517	0.0253
Mercury	28979-03-05 04:33 G	12305485.59	12305485.69	12305485.79	0.0514	0.0340
Moon	28983-07-29 21:07 G	12307093.19	12307093.38	12307093.57	0.0494	0.0291
Earth	28983-07-30 00:43 G	12307093.34	12307093.53	12307093.73	0.0494	0.0268 *
Venus	28983-12-09 18:29 G	12307226.10	12307226.27	12307226.45	0.0496	0.0252
Earth	28984-08-29 18:14 G	12307490.04	12307490.26	12307490.48	0.0503	0.0187
Moon	28984-08-29 22:05 G	12307490.21	12307490.42	12307490.63	0.0503	0.0219 *
Mercury	28985-05-03 17:17 G	12307737.05	12307737.22	12307737.39	0.0511	0.0080
Mars	28987-04-19 19:26 G	12308453.06	12308453.31	12308453.56	0.0534	0.0112
Earth	28989-01-19 13:12 G	12309093.92	12309094.05	12309094.20	0.0535	0.0425
Moon	28989-01-19 13:26 G	12309093.94	12309094.06	12309094.18	0.0535	0.0452 *
Earth	28990-02-25 05:45 G	12309495.52	12309495.74	12309495.97	0.0525	0.0138
Moon	28990-02-25 08:38 G	12309495.63	12309495.86	12309496.09	0.0525	0.0150 *
Mercury	28990-09-24 01:41 G	12309706.48	12309706.57	12309706.65	0.0518	0.0393
Mercury	28990-12-22 08:38 G	12309795.74	12309795.86	12309795.98	0.0515	0.0197
Earth	28995-08-03 08:09 G	12311480.63	12311480.84	12311481.05	0.0495	0.0208
Moon	28995-08-03 11:17 G	12311480.77	12311480.97	12311481.17	0.0495	0.0230 *
Venus	28995-08-14 19:41 G	12311492.13	12311492.32	12311492.51	0.0495	0.0187
Moon	28996-09-03 02:24 G	12311877.41	12311877.60	12311877.80	0.0505	0.0268
Earth	28996-09-03 06:29 G	12311877.57	12311877.77	12311877.97	0.0505	0.0254 *
Mercury	28997-02-19 15:21 G	12312046.97	12312047.14	12312047.31	0.0511	0.0117

30TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 30th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	29001-01-25 20:24	G	12313482.18	12313482.35	12313482.53	0.0534	0.0346	
Moon	29001-01-25 22:48	G	12313482.28	12313482.45	12313482.63	0.0534	0.0360	*
Venus	29001-06-22 00:00	G	12313629.32	12313629.50	12313629.69	0.0531	0.0234	
Moon	29002-03-03 03:07	G	12313883.42	12313883.63	12313883.85	0.0523	0.0187	
Earth	29002-03-03 06:57	G	12313883.58	12313883.79	12313884.01	0.0523	0.0217	*
Mercury	29002-10-11 12:43	G	12314105.90	12314106.03	12314106.16	0.0515	0.0055	
Moon	29007-08-08 15:50	G	12315867.93	12315868.16	12315868.39	0.0496	0.0128	
Earth	29007-08-08 18:14	G	12315868.04	12315868.26	12315868.48	0.0496	0.0145	*
Earth	29008-09-08 22:19	G	12316265.25	12316265.43	12316265.61	0.0507	0.0323	
Moon	29008-09-09 01:26	G	12316265.38	12316265.56	12316265.74	0.0507	0.0297	*
Mercury	29008-12-09 13:55	G	12316356.94	12316357.08	12316357.22	0.0510	0.0303	
Mercury	29009-03-09 19:12	G	12316447.24	12316447.30	12316447.37	0.0513	0.0473	
Moon	29013-01-30 20:24	G	12317870.15	12317870.35	12317870.56	0.0532	0.0240	
Earth	29013-01-31 00:14	G	12317870.31	12317870.51	12317870.71	0.0532	0.0270	*
Venus	29013-02-24 14:24	G	12317894.93	12317895.10	12317895.26	0.0532	0.0310	
Earth	29014-03-08 02:24	G	12318271.41	12318271.60	12318271.80	0.0521	0.0286	
Moon	29014-03-08 06:29	G	12318271.57	12318271.77	12318271.97	0.0521	0.0265	*
Mercury	29014-07-30 16:05	G	12318416.04	12318416.17	12318416.30	0.0516	0.0102	
Mercury	29014-10-27 23:17	G	12318505.44	12318505.47	12318505.51	0.0513	0.0491	
Earth	29019-08-13 03:21	G	12320255.41	12320255.64	12320255.87	0.0498	0.0084	
Moon	29019-08-13 04:19	G	12320255.46	12320255.68	12320255.91	0.0498	0.0056	*
Moon	29020-09-13 12:57	G	12320652.88	12320653.04	12320653.20	0.0509	0.0374	
Earth	29020-09-13 14:24	G	12320652.95	12320653.10	12320653.25	0.0509	0.0388	*
Mercury	29020-09-27 12:14	G	12320666.97	12320667.01	12320667.05	0.0510	0.0495	
Mercury	29020-12-26 18:00	G	12320757.11	12320757.25	12320757.39	0.0513	0.0286	
Earth	29025-02-05 02:09	G	12322258.38	12322258.59	12322258.81	0.0531	0.0189	

Moon	29025-02-05 06:00 G	12322258.53	12322258.75	12322258.97	0.0531	0.0175	*
Moon	29026-03-12 19:26 G	12322659.15	12322659.31	12322659.48	0.0519	0.0377	
Earth	29026-03-12 22:19 G	12322659.27	12322659.43	12322659.61	0.0519	0.0355	*
Mercury	29026-05-18 19:55 G	12322726.21	12322726.33	12322726.44	0.0517	0.0252	
Mercury	29026-08-16 02:53 G	12322815.52	12322815.62	12322815.72	0.0514	0.0340	
Moon	29030-07-17 05:02 G	12324246.62	12324246.71	12324246.80	0.0491	0.0448	
Earth	29030-07-17 07:55 G	12324246.73	12324246.83	12324246.92	0.0491	0.0443	*
Venus	29031-04-23 06:00 G	12324526.55	12324526.75	12324526.96	0.0496	0.0071	
Earth	29031-08-17 12:57 G	12324642.81	12324643.04	12324643.28	0.0499	0.0021	
Moon	29031-08-17 14:09 G	12324642.85	12324643.09	12324643.33	0.0499	0.0028	*
Earth	29032-09-18 04:05 G	12325040.57	12325040.67	12325040.79	0.0511	0.0449	
Moon	29032-09-18 03:50 G	12325040.58	12325040.66	12325040.73	0.0511	0.0478	*
Mercury	29032-10-14 15:36 G	12325066.98	12325067.15	12325067.32	0.0511	0.0086	
Moon	29037-02-09 23:31 G	12326646.24	12326646.48	12326646.71	0.0530	0.0138	
Earth	29037-02-10 02:09 G	12326646.37	12326646.59	12326646.82	0.0530	0.0111	*
Venus	29037-02-27 13:26 G	12326664.06	12326664.06	12326664.06	0.0530	0.0529	
Mercury	29038-03-06 23:45 G	12327036.41	12327036.49	12327036.57	0.0518	0.0398	
Earth	29038-03-17 17:45 G	12327047.11	12327047.24	12327047.38	0.0518	0.0420	
Moon	29038-03-17 18:29 G	12327047.16	12327047.27	12327047.39	0.0518	0.0437	*
Mercury	29038-06-04 06:43 G	12327125.66	12327125.78	12327125.90	0.0515	0.0192	
Earth	29042-07-21 15:07 G	12328633.99	12328634.13	12328634.28	0.0492	0.0388	
Moon	29042-07-21 18:29 G	12328634.12	12328634.27	12328634.44	0.0492	0.0359	*
Venus	29042-12-27 07:55 G	12328792.70	12328792.83	12328792.97	0.0494	0.0364	
Moon	29043-08-21 20:38 G	12329030.14	12329030.36	12329030.59	0.0500	0.0021	
Earth	29043-08-21 23:31 G	12329030.25	12329030.48	12329030.71	0.0500	0.0048	*
Mercury	29044-08-02 13:41 G	12329376.90	12329377.07	12329377.24	0.0511	0.0112	
Earth	29044-09-22 19:41 G	12329428.32	12329428.32	12329428.35	0.0512	0.0512	
Venus	29048-11-02 04:48 G	12330929.50	12330929.70	12330929.90	0.0532	0.0009	
Earth	29049-02-15 05:02 G	12331034.47	12331034.71	12331034.94	0.0529	0.0029	
Moon	29049-02-15 05:17 G	12331034.50	12331034.72	12331034.95	0.0529	0.0043	*

Earth	29050-03-22 14:38 G	12331435.03	12331435.11	12331435.19	0.0516	0.0484
Moon	29050-03-22 15:50 G	12331435.06	12331435.16	12331435.28	0.0516	0.0456 *
Mercury	29050-03-23 10:48 G	12331435.82	12331435.95	12331436.08	0.0516	0.0048
Moon	29054-07-25 18:00 G	12333021.08	12333021.25	12333021.43	0.0492	0.0320
Earth	29054-07-25 21:36 G	12333021.24	12333021.40	12333021.58	0.0492	0.0333 *
Earth	29055-08-26 09:21 G	12333417.67	12333417.89	12333418.12	0.0501	0.0114
Moon	29055-08-26 13:26 G	12333417.83	12333418.06	12333418.29	0.0501	0.0119 *
Mercury	29056-05-21 11:17 G	12333686.83	12333686.97	12333687.11	0.0510	0.0311
Mercury	29056-08-19 16:33 G	12333777.12	12333777.19	12333777.26	0.0513	0.0463
Earth	29060-01-15 09:36 G	12335020.83	12335020.90	12335020.98	0.0536	0.0507
Moon	29060-01-15 10:33 G	12335020.85	12335020.94	12335021.03	0.0536	0.0489 *
Earth	29061-02-20 07:55 G	12335422.60	12335422.83	12335423.07	0.0527	0.0054
Moon	29061-02-20 10:19 G	12335422.69	12335422.93	12335423.17	0.0527	0.0084 *
Mercury	29062-01-09 14:53 G	12335745.99	12335746.12	12335746.25	0.0516	0.0095
Mercury	29062-04-08 22:05 G	12335835.40	12335835.42	12335835.46	0.0513	0.0499
Earth	29066-07-30 05:45 G	12337408.55	12337408.74	12337408.94	0.0493	0.0273
Moon	29066-07-30 08:53 G	12337408.70	12337408.87	12337409.06	0.0493	0.0301 *
Venus	29066-12-29 16:05 G	12337561.02	12337561.17	12337561.33	0.0497	0.0322
Moon	29067-08-30 18:57 G	12337805.08	12337805.29	12337805.50	0.0503	0.0214
Earth	29067-08-30 23:02 G	12337805.24	12337805.46	12337805.67	0.0503	0.0182 *
Mercury	29068-03-09 09:36 G	12337996.88	12337996.90	12337996.93	0.0509	0.0501
Mercury	29068-06-07 15:21 G	12338087.00	12338087.14	12338087.29	0.0512	0.0281
Earth	29072-01-20 15:50 G	12339409.04	12339409.16	12339409.30	0.0535	0.0434
Moon	29072-01-20 17:31 G	12339409.11	12339409.23	12339409.35	0.0535	0.0460 *
Moon	29073-02-25 03:21 G	12339810.42	12339810.64	12339810.86	0.0525	0.0142
Earth	29073-02-25 07:12 G	12339810.57	12339810.80	12339811.02	0.0525	0.0129 *
Mercury	29073-10-28 18:29 G	12340056.15	12340056.27	12340056.38	0.0517	0.0249
Mercury	29074-01-26 01:26 G	12340145.46	12340145.56	12340145.66	0.0514	0.0342
Moon	29078-08-03 10:33 G	12341795.74	12341795.94	12341796.16	0.0495	0.0236
Earth	29078-08-03 13:12 G	12341795.84	12341796.05	12341796.26	0.0495	0.0215 *

Venus	29078-09-03 17:02 G	12341827.02	12341827.21	12341827.41	0.0496	0.0117
Earth	29079-09-04 12:00 G	12342192.80	12342193.00	12342193.21	0.0505	0.0248
Moon	29079-09-04 15:21 G	12342192.94	12342193.14	12342193.34	0.0505	0.0256 *
Mercury	29080-03-26 13:55 G	12342396.91	12342397.08	12342397.25	0.0512	0.0091
Moon	29084-01-25 15:50 G	12343797.01	12343797.16	12343797.33	0.0534	0.0369
Earth	29084-01-25 19:26 G	12343797.14	12343797.31	12343797.49	0.0534	0.0357 *
Venus	29084-07-10 21:21 G	12343964.23	12343964.39	12343964.56	0.0530	0.0309
Earth	29085-03-02 04:48 G	12344198.48	12344198.70	12344198.91	0.0523	0.0205
Moon	29085-03-02 08:38 G	12344198.65	12344198.86	12344199.09	0.0523	0.0176 *
Mercury	29085-08-16 22:05 G	12344366.34	12344366.42	12344366.51	0.0517	0.0398
Mercury	29085-11-14 05:02 G	12344455.59	12344455.71	12344455.84	0.0514	0.0190
Mars	29087-10-29 21:50 G	12345170.25	12345170.41	12345170.60	0.0494	0.0402
Earth	29090-08-07 21:36 G	12346183.18	12346183.40	12346183.62	0.0496	0.0154
Moon	29090-08-07 22:48 G	12346183.23	12346183.45	12346183.66	0.0496	0.0137 *
Moon	29091-09-08 22:48 G	12346580.25	12346580.45	12346580.65	0.0507	0.0284
Earth	29091-09-09 00:43 G	12346580.35	12346580.53	12346580.71	0.0507	0.0313 *
Mercury	29092-01-13 11:31 G	12346706.81	12346706.98	12346707.15	0.0511	0.0111
Earth	29096-01-30 19:26 G	12348185.12	12348185.31	12348185.51	0.0533	0.0281
Moon	29096-01-30 23:31 G	12348185.28	12348185.48	12348185.69	0.0533	0.0248 *
Venus	29096-03-15 10:05 G	12348229.74	12348229.92	12348230.10	0.0532	0.0245
Moon	29097-03-06 21:36 G	12348586.20	12348586.40	12348586.61	0.0522	0.0258
Earth	29097-03-07 00:57 G	12348586.35	12348586.54	12348586.74	0.0522	0.0277 *
Mercury	29097-09-02 08:38 G	12348765.73	12348765.86	12348766.00	0.0516	0.0042
Earth	29102-08-13 06:57 G	12350570.56	12350570.79	12350571.02	0.0497	0.0090
Moon	29102-08-13 07:41 G	12350570.58	12350570.82	12350571.06	0.0497	0.0067 *
Earth	29103-09-14 14:24 G	12350967.95	12350968.10	12350968.26	0.0508	0.0378
Moon	29103-09-14 14:24 G	12350967.95	12350968.10	12350968.25	0.0508	0.0370 *
Mercury	29103-11-02 09:07 G	12351016.75	12351016.88	12351017.03	0.0510	0.0310
Mercury	29104-01-31 14:38 G	12351107.04	12351107.11	12351107.18	0.0513	0.0465
Moon	29108-02-05 19:26 G	12352573.09	12352573.31	12352573.54	0.0532	0.0183

Earth	29108-02-05 22:48 G	12352573.24	12352573.45	12352573.67	0.0532	0.0200	*
Earth	29109-03-12 23:02 G	12352974.30	12352974.46	12352974.64	0.0520	0.0348	
Moon	29109-03-13 00:29 G	12352974.37	12352974.52	12352974.67	0.0520	0.0376	*
Mercury	29109-06-22 12:43 G	12353075.90	12353076.03	12353076.16	0.0517	0.0104	
Mercury	29109-09-19 20:09 G	12353165.30	12353165.34	12353165.38	0.0513	0.0490	
Earth	29113-07-17 11:45 G	12354561.91	12354561.99	12354562.10	0.0491	0.0447	
Moon	29113-07-17 15:21 G	12354562.06	12354562.14	12354562.25	0.0491	0.0446	*
Venus	29114-05-13 02:24 G	12354861.40	12354861.60	12354861.80	0.0496	0.0132	
Moon	29114-08-17 12:43 G	12354957.80	12354958.03	12354958.25	0.0498	0.0040	
Earth	29114-08-17 15:21 G	12354957.90	12354958.14	12354958.37	0.0498	0.0026	*
Earth	29115-09-19 04:05 G	12355355.56	12355355.67	12355355.79	0.0510	0.0442	
Moon	29115-09-19 05:45 G	12355355.65	12355355.74	12355355.84	0.0510	0.0469	*
Mercury	29115-11-19 12:29 G	12355416.88	12355417.02	12355417.17	0.0512	0.0268	
Earth	29120-02-11 03:36 G	12356961.43	12356961.65	12356961.88	0.0531	0.0118	
Moon	29120-02-11 05:02 G	12356961.49	12356961.71	12356961.93	0.0531	0.0145	*
Earth	29121-03-17 21:21 G	12357362.25	12357362.39	12357362.53	0.0518	0.0415	
Moon	29121-03-17 22:05 G	12357362.29	12357362.42	12357362.56	0.0518	0.0428	*
Mercury	29121-04-10 16:48 G	12357386.09	12357386.20	12357386.32	0.0517	0.0247	
Mercury	29121-07-09 00:00 G	12357475.40	12357475.50	12357475.60	0.0514	0.0345	
Moon	29125-07-21 15:21 G	12358948.99	12358949.14	12358949.30	0.0492	0.0364	
Earth	29125-07-21 18:57 G	12358949.16	12358949.29	12358949.44	0.0492	0.0393	*
Venus	29126-01-16 04:19 G	12359127.53	12359127.68	12359127.85	0.0495	0.0302	
Earth	29126-08-22 02:09 G	12359345.36	12359345.59	12359345.83	0.0500	0.0043	
Moon	29126-08-22 06:00 G	12359345.52	12359345.75	12359345.99	0.0500	0.0014	*
Mercury	29127-09-07 11:17 G	12359726.80	12359726.97	12359727.14	0.0512	0.0082	
Earth	29127-09-23 22:05 G	12359743.39	12359743.42	12359743.46	0.0512	0.0506	
Venus	29131-11-23 03:50 G	12361264.46	12361264.66	12361264.87	0.0531	0.0081	
Earth	29132-02-16 05:45 G	12361349.51	12361349.74	12361349.98	0.0529	0.0039	
Moon	29132-02-16 07:12 G	12361349.56	12361349.80	12361350.05	0.0529	0.0046	*
Mercury	29133-01-27 20:38 G	12361696.27	12361696.36	12361696.44	0.0517	0.0397	

Moon	29133-03-22 12:43 G	12361749.92	12361750.03	12361750.14	0.0516	0.0450
Earth	29133-03-22 14:53 G	12361750.03	12361750.12	12361750.21	0.0516	0.0475 *
Mercury	29133-04-27 03:21 G	12361785.52	12361785.64	12361785.77	0.0514	0.0192
Earth	29137-07-26 00:14 G	12363336.35	12363336.51	12363336.68	0.0493	0.0340
Moon	29137-07-26 03:36 G	12363336.48	12363336.65	12363336.81	0.0493	0.0335 *
Moon	29138-08-26 08:53 G	12363732.64	12363732.87	12363733.10	0.0502	0.0109
Earth	29138-08-26 12:57 G	12363732.81	12363733.04	12363733.27	0.0502	0.0107 *
Mercury	29139-06-26 09:21 G	12364036.72	12364036.89	12364037.06	0.0511	0.0111
Mars	29141-07-15 18:43 G	12364787.13	12364787.28	12364787.44	0.0534	0.0417
Earth	29143-01-15 08:38 G	12365335.80	12365335.86	12365335.92	0.0536	0.0515
Moon	29143-01-15 09:07 G	12365335.80	12365335.88	12365335.97	0.0536	0.0498 *
Venus	29143-07-28 18:00 G	12365530.15	12365530.25	12365530.34	0.0532	0.0469
Moon	29144-02-21 02:24 G	12365737.38	12365737.60	12365737.83	0.0527	0.0075
Earth	29144-02-21 05:45 G	12365737.51	12365737.74	12365737.97	0.0527	0.0041 *
Mercury	29145-02-13 07:12 G	12366095.66	12366095.80	12366095.93	0.0515	0.0041
Moon	29145-03-27 11:17 G	12366137.97	12366137.97	12366137.97	0.0514	0.0513
Moon	29149-07-30 05:31 G	12367723.55	12367723.73	12367723.92	0.0493	0.0309
Earth	29149-07-30 08:09 G	12367723.65	12367723.84	12367724.03	0.0493	0.0281 *
Venus	29150-01-18 12:00 G	12367895.88	12367896.00	12367896.13	0.0497	0.0384
Earth	29150-08-31 00:14 G	12368120.29	12368120.51	12368120.73	0.0503	0.0172
Moon	29150-08-31 03:36 G	12368120.45	12368120.65	12368120.87	0.0503	0.0203 *
Mercury	29151-04-14 06:57 G	12368346.65	12368346.79	12368346.93	0.0510	0.0313
Mercury	29151-07-13 12:14 G	12368436.94	12368437.01	12368437.09	0.0513	0.0463
Moon	29155-01-20 06:00 G	12369723.66	12369723.75	12369723.86	0.0535	0.0475
Earth	29155-01-20 08:53 G	12369723.74	12369723.87	12369724.00	0.0535	0.0445 *
Earth	29156-02-26 02:24 G	12370125.37	12370125.60	12370125.83	0.0526	0.0118
Moon	29156-02-26 06:29 G	12370125.54	12370125.77	12370126.00	0.0526	0.0132 *
Mercury	29156-12-02 10:48 G	12370405.82	12370405.95	12370406.08	0.0516	0.0113
Mercury	29157-03-01 18:00 G	12370495.21	12370495.25	12370495.30	0.0513	0.0481
Earth	29161-08-03 16:33 G	12372110.99	12372111.19	12372111.40	0.0494	0.0220

Moon	29161-08-03 17:45 G	12372111.05	12372111.24	12372111.44	0.0494	0.0239	*
Venus	29161-09-23 13:41 G	12372161.87	12372162.07	12372162.27	0.0495	0.0053	
Moon	29162-09-04 10:19 G	12372507.72	12372507.93	12372508.14	0.0504	0.0241	
Earth	29162-09-04 12:29 G	12372507.82	12372508.02	12372508.23	0.0504	0.0240	*
Mercury	29163-05-01 10:19 G	12372746.79	12372746.93	12372747.08	0.0512	0.0268	
Earth	29167-01-25 12:43 G	12374111.87	12374112.03	12374112.20	0.0535	0.0369	
Moon	29167-01-25 16:48 G	12374112.04	12374112.20	12374112.37	0.0535	0.0377	*
Venus	29167-07-31 16:48 G	12374299.06	12374299.20	12374299.34	0.0530	0.0370	
Moon	29168-03-01 22:33 G	12374513.22	12374513.44	12374513.67	0.0524	0.0168	
Earth	29168-03-02 02:09 G	12374513.38	12374513.59	12374513.81	0.0524	0.0196	*
Mercury	29168-09-20 14:38 G	12374716.00	12374716.11	12374716.23	0.0517	0.0258	
Mercury	29168-12-18 21:50 G	12374805.31	12374805.41	12374805.51	0.0514	0.0335	
Venus	29173-05-29 14:53 G	12376428.10	12376428.12	12376428.15	0.0494	0.0488	
Earth	29173-08-07 23:31 G	12376498.27	12376498.48	12376498.71	0.0495	0.0161	
Moon	29173-08-08 00:14 G	12376498.28	12376498.51	12376498.74	0.0495	0.0139	*
Earth	29174-09-09 00:00 G	12376895.32	12376895.50	12376895.69	0.0506	0.0305	
Moon	29174-09-09 00:14 G	12376895.33	12376895.51	12376895.71	0.0506	0.0276	*
Mercury	29175-02-17 08:09 G	12377056.67	12377056.84	12377057.01	0.0511	0.0068	
Moon	29179-01-30 14:53 G	12378499.91	12378500.12	12378500.33	0.0534	0.0258	
Earth	29179-01-30 18:43 G	12378500.08	12378500.28	12378500.47	0.0534	0.0290	*
Venus	29179-04-05 08:09 G	12378564.65	12378564.84	12378565.04	0.0532	0.0166	
Earth	29180-03-07 02:24 G	12378901.40	12378901.60	12378901.80	0.0522	0.0271	
Moon	29180-03-07 04:19 G	12378901.48	12378901.68	12378901.87	0.0522	0.0262	*
Mercury	29180-07-09 18:57 G	12379026.21	12379026.29	12379026.37	0.0518	0.0400	
Mercury	29180-10-07 01:55 G	12379115.45	12379115.58	12379115.70	0.0515	0.0191	
Moon	29185-08-12 06:29 G	12380885.54	12380885.77	12380885.99	0.0496	0.0076	
Earth	29185-08-12 08:53 G	12380885.64	12380885.87	12380886.10	0.0496	0.0096	*
Earth	29186-09-13 15:07 G	12381282.97	12381283.13	12381283.29	0.0508	0.0372	
Moon	29186-09-13 16:19 G	12381283.01	12381283.18	12381283.35	0.0508	0.0363	*
Mercury	29186-12-06 06:29 G	12381366.60	12381366.77	12381366.94	0.0511	0.0123	

Earth	29191-02-04 23:31 G	12382888.27	12382888.48	12382888.70	0.0532	0.0210
Moon	29191-02-05 01:41 G	12382888.37	12382888.57	12382888.79	0.0532	0.0198 *
Earth	29192-03-11 23:31 G	12383289.31	12383289.48	12383289.66	0.0520	0.0338
Moon	29192-03-11 23:31 G	12383289.32	12383289.48	12383289.66	0.0520	0.0368 *
Mercury	29192-07-26 05:31 G	12383425.60	12383425.73	12383425.86	0.0515	0.0040
Moon	29196-07-16 09:36 G	12384876.82	12384876.90	12384877.00	0.0491	0.0450
Earth	29196-07-16 13:26 G	12384876.98	12384877.06	12384877.15	0.0491	0.0453 *
Venus	29197-05-31 22:05 G	12385196.23	12385196.42	12385196.61	0.0496	0.0192
Earth	29197-08-16 17:02 G	12385272.98	12385273.21	12385273.44	0.0498	0.0033
Moon	29197-08-16 20:53 G	12385273.13	12385273.37	12385273.60	0.0498	0.0054 *
Moon	29198-09-18 03:50 G	12385670.57	12385670.66	12385670.75	0.0510	0.0464
Earth	29198-09-18 06:14 G	12385670.65	12385670.76	12385670.89	0.0510	0.0435 *
Mercury	29198-09-24 04:19 G	12385676.55	12385676.68	12385676.82	0.0510	0.0318
Mercury	29198-12-23 10:05 G	12385766.85	12385766.92	12385766.99	0.0513	0.0461
Earth	29203-02-10 01:41 G	12387276.35	12387276.57	12387276.80	0.0530	0.0128
Moon	29203-02-10 02:09 G	12387276.35	12387276.59	12387276.82	0.0530	0.0156 *
Moon	29204-03-16 17:02 G	12387677.09	12387677.21	12387677.35	0.0518	0.0422
Earth	29204-03-16 18:43 G	12387677.15	12387677.28	12387677.43	0.0518	0.0406 *
Mercury	29204-05-14 09:07 G	12387735.75	12387735.88	12387736.01	0.0516	0.0111
Mercury	29204-08-11 16:19 G	12387825.14	12387825.18	12387825.23	0.0513	0.0480
Earth	29208-07-20 20:38 G	12389264.22	12389264.36	12389264.49	0.0492	0.0400
Moon	29208-07-20 23:45 G	12389264.34	12389264.49	12389264.64	0.0492	0.0371 *
Venus	29209-02-03 23:45 G	12389462.32	12389462.49	12389462.67	0.0495	0.0243
Moon	29209-08-20 23:31 G	12389660.25	12389660.48	12389660.71	0.0499	0.0003
Earth	29209-08-21 03:36 G	12389660.42	12389660.65	12389660.88	0.0499	0.0033 *
Earth	29210-09-22 21:07 G	12390058.34	12390058.38	12390058.44	0.0511	0.0497
Moon	29210-09-23 00:57 G	12390058.52	12390058.54	12390058.57	0.0511	0.0507
Mercury	29210-10-11 07:55 G	12390076.68	12390076.83	12390076.98	0.0512	0.0263
Venus	29214-12-11 22:05 G	12391599.22	12391599.42	12391599.62	0.0531	0.0133
Moon	29215-02-14 20:38 G	12391664.14	12391664.36	12391664.59	0.0529	0.0057

Earth	29215-02-14 23:17 G	12391664.23	12391664.47	12391664.70	0.0529	0.0051	*
Mercury	29216-03-02 12:43 G	12392045.92	12392046.03	12392046.14	0.0517	0.0266	
Earth	29216-03-21 11:45 G	12392064.90	12392064.99	12392065.09	0.0517	0.0468	
Moon	29216-03-21 14:53 G	12392065.00	12392065.12	12392065.25	0.0517	0.0440	*
Mercury	29216-05-30 19:41 G	12392135.22	12392135.32	12392135.43	0.0514	0.0326	
Moon	29220-07-25 02:09 G	12393651.42	12393651.59	12393651.77	0.0492	0.0338	
Earth	29220-07-25 04:33 G	12393651.53	12393651.69	12393651.86	0.0492	0.0343	*
Earth	29221-08-25 14:24 G	12394047.87	12394048.10	12394048.33	0.0501	0.0100	
Moon	29221-08-25 18:00 G	12394048.03	12394048.25	12394048.48	0.0501	0.0106	*
Mercury	29222-07-30 06:00 G	12394386.58	12394386.75	12394386.92	0.0511	0.0067	
Moon	29226-01-13 21:50 G	12395650.36	12395650.41	12395650.48	0.0536	0.0516	
Earth	29226-01-13 23:45 G	12395650.45	12395650.49	12395650.53	0.0536	0.0526	*
Venus	29226-08-16 12:00 G	12395864.88	12395865.00	12395865.13	0.0533	0.0415	
Earth	29227-02-20 00:14 G	12396052.28	12396052.51	12396052.74	0.0528	0.0031	
Moon	29227-02-20 04:05 G	12396052.43	12396052.67	12396052.90	0.0528	0.0064	*
Mercury	29227-12-20 16:48 G	12396356.12	12396356.20	12396356.27	0.0518	0.0412	
Mercury	29228-03-18 23:31 G	12396445.36	12396445.48	12396445.61	0.0515	0.0180	
Moon	29228-03-26 03:21 G	12396452.62	12396452.64	12396452.66	0.0515	0.0512	
Earth	29232-07-29 10:48 G	12398038.76	12398038.95	12398039.14	0.0493	0.0286	
Moon	29232-07-29 12:00 G	12398038.83	12398039.00	12398039.18	0.0493	0.0315	*
Venus	29233-02-06 07:41 G	12398230.73	12398230.82	12398230.91	0.0497	0.0442	
Moon	29233-08-29 21:36 G	12398435.19	12398435.40	12398435.63	0.0502	0.0193	
Earth	29233-08-30 00:14 G	12398435.29	12398435.51	12398435.73	0.0502	0.0165	*
Mercury	29234-05-18 03:36 G	12398696.48	12398696.65	12398696.82	0.0510	0.0136	
Earth	29238-01-19 06:00 G	12400038.63	12400038.75	12400038.88	0.0536	0.0454	
Moon	29238-01-19 09:36 G	12400038.81	12400038.90	12400039.01	0.0536	0.0487	*
Moon	29239-02-24 22:33 G	12400440.21	12400440.44	12400440.67	0.0526	0.0124	
Earth	29239-02-25 02:24 G	12400440.38	12400440.60	12400440.83	0.0526	0.0111	*
Mercury	29240-01-06 03:36 G	12400755.52	12400755.65	12400755.79	0.0516	0.0036	
Mars	29242-01-23 07:26 G	12401503.52	12401503.81	12401504.10	0.0494	0.0128	

Earth	29244-08-02 18:29 G	12402426.07	12402426.27	12402426.48	0.0494	0.0226
Moon	29244-08-02 18:57 G	12402426.08	12402426.29	12402426.50	0.0494	0.0239 *
Venus	29244-10-12 09:07 G	12402496.68	12402496.88	12402497.09	0.0495	0.0005
Earth	29245-09-03 12:43 G	12402822.83	12402823.03	12402823.24	0.0504	0.0233
Moon	29245-09-03 13:26 G	12402822.86	12402823.06	12402823.26	0.0504	0.0230 *
Mercury	29246-03-06 01:41 G	12403006.44	12403006.57	12403006.70	0.0510	0.0329
Mercury	29246-06-04 07:12 G	12403096.72	12403096.80	12403096.88	0.0513	0.0449
Moon	29250-01-24 09:21 G	12404426.73	12404426.89	12404427.05	0.0535	0.0389
Earth	29250-01-24 13:26 G	12404426.90	12404427.06	12404427.23	0.0535	0.0377 *
Venus	29250-08-19 15:21 G	12404634.05	12404634.14	12404634.25	0.0530	0.0454
Earth	29251-03-02 03:07 G	12404828.41	12404828.63	12404828.85	0.0524	0.0187
Moon	29251-03-02 05:31 G	12404828.52	12404828.73	12404828.95	0.0524	0.0158 *
Mercury	29251-10-25 07:26 G	12405065.68	12405065.81	12405065.94	0.0516	0.0113
Mercury	29252-01-22 14:38 G	12405155.07	12405155.11	12405155.16	0.0513	0.0479
Venus	29256-06-17 10:05 G	12406762.83	12406762.92	12406763.02	0.0494	0.0433
Moon	29256-08-06 23:02 G	12406813.24	12406813.46	12406813.67	0.0495	0.0143
Earth	29256-08-07 00:57 G	12406813.33	12406813.54	12406813.77	0.0495	0.0168 *
Earth	29257-09-08 01:41 G	12407210.38	12407210.57	12407210.76	0.0506	0.0298
Moon	29257-09-08 02:38 G	12407210.40	12407210.61	12407210.81	0.0506	0.0265 *
Mercury	29258-03-23 05:31 G	12407406.58	12407406.73	12407406.88	0.0512	0.0259
Mars	29260-01-04 06:14 G	12408058.59	12408058.76	12408058.95	0.0533	0.0376
Earth	29262-01-29 17:31 G	12408815.04	12408815.23	12408815.43	0.0533	0.0299
Moon	29262-01-29 20:24 G	12408815.16	12408815.35	12408815.55	0.0533	0.0269 *
Venus	29262-04-24 06:00 G	12408899.55	12408899.75	12408899.95	0.0532	0.0089
Moon	29263-03-07 00:29 G	12409216.31	12409216.52	12409216.73	0.0522	0.0254
Earth	29263-03-07 00:57 G	12409216.34	12409216.54	12409216.75	0.0522	0.0261 *
Mercury	29263-08-13 11:17 G	12409375.86	12409375.97	12409376.08	0.0517	0.0262
Mercury	29263-11-10 18:14 G	12409465.16	12409465.26	12409465.37	0.0514	0.0329
Earth	29268-08-11 10:33 G	12411200.71	12411200.94	12411201.17	0.0496	0.0103
Moon	29268-08-11 14:09 G	12411200.86	12411201.09	12411201.33	0.0496	0.0085 *

Moon	29269-09-12 13:26 G	12411597.90	12411598.06	12411598.22	0.0507	0.0357
Earth	29269-09-12 15:36 G	12411597.99	12411598.15	12411598.31	0.0507	0.0363 *
Mercury	29270-01-09 03:36 G	12411716.48	12411716.65	12411716.82	0.0511	0.0062
Moon	29274-02-03 14:53 G	12413202.90	12413203.12	12413203.35	0.0532	0.0211
Earth	29274-02-03 15:50 G	12413202.95	12413203.16	12413203.37	0.0532	0.0221 *
Moon	29275-03-11 17:45 G	12413604.08	12413604.24	12413604.41	0.0521	0.0362
Earth	29275-03-11 18:57 G	12413604.11	12413604.29	12413604.47	0.0521	0.0330 *
Mercury	29275-06-01 14:38 G	12413686.04	12413686.11	12413686.19	0.0518	0.0418
Mercury	29275-08-29 21:36 G	12413775.28	12413775.40	12413775.53	0.0515	0.0172
Earth	29279-07-16 18:43 G	12415192.20	12415192.28	12415192.37	0.0491	0.0456
Moon	29279-07-16 21:50 G	12415192.32	12415192.41	12415192.52	0.0491	0.0444 *
Venus	29280-06-19 18:57 G	12415531.12	12415531.29	12415531.47	0.0496	0.0258
Moon	29280-08-15 16:48 G	12415587.97	12415588.20	12415588.43	0.0497	0.0057
Earth	29280-08-15 20:38 G	12415588.13	12415588.36	12415588.60	0.0497	0.0038 *
Earth	29281-09-17 06:14 G	12415985.64	12415985.76	12415985.89	0.0509	0.0427
Moon	29281-09-17 09:36 G	12415985.81	12415985.90	12415986.01	0.0509	0.0457 *
Mercury	29281-10-28 01:26 G	12416026.39	12416026.56	12416026.73	0.0510	0.0134
Moon	29286-02-08 16:33 G	12417590.98	12417591.19	12417591.41	0.0531	0.0171
Earth	29286-02-08 18:14 G	12417591.04	12417591.26	12417591.49	0.0531	0.0139 *
Earth	29287-03-16 15:50 G	12417992.02	12417992.16	12417992.31	0.0519	0.0399
Moon	29287-03-16 18:29 G	12417992.13	12417992.27	12417992.42	0.0519	0.0411 *
Mercury	29287-06-18 01:26 G	12418085.43	12418085.56	12418085.70	0.0516	0.0028
Moon	29291-07-20 22:19 G	12419579.28	12419579.43	12419579.59	0.0491	0.0372
Earth	29291-07-21 00:43 G	12419579.40	12419579.53	12419579.67	0.0491	0.0404 *
Venus	29292-02-23 19:55 G	12419797.14	12419797.33	12419797.52	0.0494	0.0182
Earth	29292-08-20 05:02 G	12419975.48	12419975.71	12419975.95	0.0499	0.0028
Moon	29292-08-20 08:53 G	12419975.64	12419975.87	12419976.10	0.0499	0.0002 *
Mercury	29293-08-15 22:48 G	12420336.32	12420336.45	12420336.59	0.0509	0.0338
Moon	29293-09-21 16:05 G	12420373.12	12420373.17	12420373.23	0.0511	0.0497
Earth	29293-09-21 19:55 G	12420373.27	12420373.33	12420373.40	0.0511	0.0489

Mercury	29293-11-14 04:33 G	12420426.60	12420426.69	12420426.77	0.0513	0.0439
Venus	29297-12-30 19:41 G	12421934.13	12421934.32	12421934.50	0.0531	0.0208
Earth	29298-02-13 22:05 G	12421979.19	12421979.42	12421979.65	0.0530	0.0058
Moon	29298-02-14 01:41 G	12421979.33	12421979.57	12421979.80	0.0530	0.0063 *
Moon	29299-03-21 09:50 G	12422379.79	12422379.91	12422380.04	0.0517	0.0435
Earth	29299-03-21 13:41 G	12422379.97	12422380.07	12422380.17	0.0517	0.0464 *
Mercury	29299-04-06 05:31 G	12422395.61	12422395.73	12422395.86	0.0517	0.0120
Mercury	29299-07-04 12:57 G	12422484.99	12422485.04	12422485.09	0.0514	0.0476
Earth	29303-07-26 07:26 G	12423966.65	12423966.81	12423966.98	0.0492	0.0348
Moon	29303-07-26 08:38 G	12423966.71	12423966.86	12423967.03	0.0492	0.0347 *
Moon	29304-08-25 12:57 G	12424362.80	12424363.04	12424363.27	0.0500	0.0101
Earth	29304-08-25 15:36 G	12424362.92	12424363.15	12424363.38	0.0500	0.0093 *
Mercury	29305-09-03 02:53 G	12424736.47	12424736.62	12424736.77	0.0512	0.0250
Earth	29309-01-14 00:14 G	12425965.50	12425965.51	12425965.54	0.0537	0.0535
Moon	29309-01-14 03:21 G	12425965.61	12425965.64	12425965.69	0.0537	0.0529
Venus	29309-09-05 11:17 G	12426199.82	12426199.97	12426200.13	0.0533	0.0328
Moon	29310-02-19 22:19 G	12426367.19	12426367.43	12426367.66	0.0528	0.0056
Earth	29310-02-20 02:09 G	12426367.36	12426367.59	12426367.82	0.0528	0.0023 *
Mercury	29311-01-24 09:36 G	12426705.79	12426705.90	12426706.02	0.0517	0.0263
Moon	29311-03-27 12:29 G	12426768.01	12426768.02	12426768.04	0.0515	0.0513
Mercury	29311-04-23 16:48 G	12426795.09	12426795.20	12426795.30	0.0514	0.0328
Earth	29315-07-30 12:57 G	12428353.85	12428354.04	12428354.22	0.0493	0.0291
Moon	29315-07-30 12:57 G	12428353.86	12428354.04	12428354.23	0.0493	0.0317 *
Earth	29316-08-30 02:09 G	12428750.37	12428750.59	12428750.82	0.0502	0.0159
Moon	29316-08-30 03:07 G	12428750.42	12428750.63	12428750.84	0.0502	0.0187 *
Mercury	29317-06-22 01:12 G	12429046.37	12429046.55	12429046.72	0.0512	0.0058
Moon	29321-01-19 02:24 G	12430353.52	12430353.60	12430353.69	0.0536	0.0495
Earth	29321-01-19 06:29 G	12430353.66	12430353.77	12430353.89	0.0536	0.0460 *
Earth	29322-02-25 02:38 G	12430755.38	12430755.61	12430755.84	0.0526	0.0103
Moon	29322-02-25 05:45 G	12430755.52	12430755.74	12430755.96	0.0526	0.0109 *

Mercury	29322-11-12 13:26 G	12431015.99	12431016.06	12431016.14	0.0518	0.0410
Mercury	29323-02-09 20:24 G	12431105.22	12431105.35	12431105.47	0.0515	0.0178
Moon	29327-08-03 19:26 G	12432741.12	12432741.31	12432741.51	0.0494	0.0239
Earth	29327-08-03 21:36 G	12432741.19	12432741.40	12432741.61	0.0494	0.0231 *
Venus	29327-11-02 05:31 G	12432831.52	12432831.73	12432831.93	0.0496	0.0067
Earth	29328-09-03 15:07 G	12433137.92	12433138.13	12433138.34	0.0503	0.0226
Moon	29328-09-03 15:36 G	12433137.94	12433138.15	12433138.38	0.0503	0.0220 *
Mercury	29329-04-09 23:02 G	12433356.30	12433356.46	12433356.63	0.0510	0.0139
Earth	29333-01-24 05:45 G	12434741.58	12434741.74	12434741.90	0.0535	0.0387
Moon	29333-01-24 09:21 G	12434741.75	12434741.89	12434742.05	0.0535	0.0400 *
Venus	29333-09-08 09:50 G	12434968.86	12434968.91	12434968.97	0.0530	0.0507
Moon	29334-03-01 20:24 G	12435143.12	12435143.35	12435143.58	0.0525	0.0146
Earth	29334-03-01 21:50 G	12435143.19	12435143.41	12435143.63	0.0525	0.0178 *
Mercury	29334-11-28 23:45 G	12435415.35	12435415.49	12435415.62	0.0516	0.0025
Venus	29339-07-08 08:09 G	12437097.70	12437097.84	12437097.98	0.0494	0.0362
Earth	29339-08-08 06:57 G	12437128.57	12437128.79	12437129.01	0.0495	0.0169
Moon	29339-08-08 10:33 G	12437128.71	12437128.94	12437129.17	0.0495	0.0139 *
Moon	29340-09-08 02:38 G	12437525.42	12437525.61	12437525.81	0.0505	0.0263
Earth	29340-09-08 04:33 G	12437525.51	12437525.69	12437525.89	0.0505	0.0294 *
Mercury	29341-01-26 21:07 G	12437666.25	12437666.38	12437666.51	0.0509	0.0333
Mercury	29341-04-27 02:38 G	12437756.53	12437756.61	12437756.70	0.0512	0.0444
Moon	29345-01-29 07:26 G	12439129.60	12439129.81	12439130.01	0.0534	0.0280
Earth	29345-01-29 09:21 G	12439129.70	12439129.89	12439130.08	0.0534	0.0310 *
Venus	29345-05-14 00:14 G	12439234.31	12439234.51	12439234.71	0.0532	0.0036
Moon	29346-03-06 20:09 G	12439531.14	12439531.34	12439531.54	0.0524	0.0248
Earth	29346-03-06 20:38 G	12439531.16	12439531.36	12439531.56	0.0524	0.0254 *
Mercury	29346-09-17 03:36 G	12439725.52	12439725.65	12439725.78	0.0517	0.0127
Mercury	29346-12-15 10:48 G	12439814.90	12439814.95	12439815.01	0.0514	0.0467
Moon	29351-08-12 10:33 G	12441515.72	12441515.94	12441516.17	0.0496	0.0089
Earth	29351-08-12 14:38 G	12441515.88	12441516.11	12441516.34	0.0496	0.0108 *

Earth	29352-09-12 16:19 G	12441913.02	12441913.18	12441913.35	0.0506	0.0357
Moon	29352-09-12 19:41 G	12441913.15	12441913.32	12441913.49	0.0506	0.0355 *
Mercury	29353-02-13 00:29 G	12442066.37	12442066.52	12442066.67	0.0512	0.0245
Moon	29357-02-03 13:55 G	12443517.87	12443518.08	12443518.28	0.0533	0.0227
Earth	29357-02-03 14:38 G	12443517.90	12443518.11	12443518.32	0.0533	0.0230 *
Earth	29358-03-11 20:38 G	12443919.18	12443919.36	12443919.55	0.0522	0.0326
Moon	29358-03-11 23:02 G	12443919.29	12443919.46	12443919.64	0.0522	0.0356 *
Mercury	29358-07-06 07:41 G	12444035.71	12444035.82	12444035.94	0.0518	0.0269
Mercury	29358-10-03 14:53 G	12444125.02	12444125.12	12444125.22	0.0515	0.0324
Moon	29362-07-16 20:53 G	12445507.27	12445507.37	12445507.47	0.0490	0.0443
Earth	29362-07-16 23:17 G	12445507.40	12445507.47	12445507.55	0.0490	0.0459 *
Venus	29363-07-10 15:21 G	12445865.99	12445866.14	12445866.30	0.0496	0.0320
Earth	29363-08-16 23:31 G	12445903.25	12445903.48	12445903.71	0.0497	0.0042
Moon	29363-08-17 03:21 G	12445903.41	12445903.64	12445903.87	0.0497	0.0062 *
Moon	29364-09-17 03:21 G	12446300.54	12446300.64	12446300.75	0.0508	0.0452
Earth	29364-09-17 07:12 G	12446300.68	12446300.80	12446300.93	0.0508	0.0421 *
Mercury	29364-12-01 22:48 G	12446376.27	12446376.45	12446376.62	0.0511	0.0053
Earth	29369-02-08 21:07 G	12447906.15	12447906.38	12447906.60	0.0532	0.0147
Moon	29369-02-09 00:00 G	12447906.28	12447906.50	12447906.73	0.0532	0.0181 *
Moon	29370-03-16 16:19 G	12448307.04	12448307.18	12448307.33	0.0519	0.0402
Earth	29370-03-16 19:55 G	12448307.18	12448307.33	12448307.48	0.0519	0.0394 *
Mercury	29370-04-24 12:00 G	12448345.92	12448346.00	12448346.08	0.0518	0.0410
Mercury	29370-07-22 18:43 G	12448435.16	12448435.28	12448435.41	0.0515	0.0180
Earth	29374-07-21 04:05 G	12449894.55	12449894.67	12449894.80	0.0491	0.0407
Moon	29374-07-21 05:17 G	12449894.59	12449894.72	12449894.87	0.0491	0.0379 *
Venus	29375-03-15 16:19 G	12450131.99	12450132.18	12450132.38	0.0495	0.0120
Moon	29375-08-21 05:31 G	12450290.49	12450290.73	12450290.97	0.0498	0.0006
Earth	29375-08-21 08:24 G	12450290.62	12450290.85	12450291.08	0.0498	0.0022 *
Mercury	29376-09-19 20:53 G	12450686.20	12450686.37	12450686.54	0.0511	0.0141
Earth	29376-09-21 22:48 G	12450688.38	12450688.45	12450688.52	0.0511	0.0484

Moon	29376-09-22 02:09 G	12450688.53	12450688.59	12450688.65	0.0511	0.0490
Venus	29381-01-19 19:12 G	12452269.14	12452269.30	12452269.47	0.0531	0.0296
Moon	29381-02-13 20:38 G	12452294.13	12452294.36	12452294.59	0.0530	0.0071
Earth	29381-02-14 00:29 G	12452294.29	12452294.52	12452294.75	0.0530	0.0064 *
Earth	29382-03-21 15:50 G	12452695.07	12452695.16	12452695.28	0.0517	0.0460
Moon	29382-03-21 19:41 G	12452695.20	12452695.32	12452695.45	0.0517	0.0427 *
Mercury	29382-05-10 22:48 G	12452745.31	12452745.45	12452745.58	0.0516	0.0035
Earth	29386-07-25 12:00 G	12454281.85	12454282.00	12454282.17	0.0492	0.0351
Moon	29386-07-25 12:14 G	12454281.85	12454282.01	12454282.18	0.0492	0.0351 *
Earth	29387-08-25 20:09 G	12454678.11	12454678.34	12454678.57	0.0500	0.0089
Moon	29387-08-25 21:07 G	12454678.17	12454678.38	12454678.61	0.0500	0.0107 *
Mercury	29388-07-08 18:57 G	12454996.16	12454996.29	12454996.43	0.0509	0.0334
Mercury	29388-10-07 00:29 G	12455086.45	12455086.52	12455086.61	0.0513	0.0445
Moon	29392-01-13 14:53 G	12456280.12	12456280.12	12456280.12	0.0536	0.0536
Venus	29392-09-24 06:43 G	12456534.61	12456534.78	12456534.95	0.0532	0.0268
Earth	29393-02-18 21:07 G	12456682.14	12456682.38	12456682.61	0.0529	0.0017
Moon	29393-02-19 00:43 G	12456682.30	12456682.53	12456682.76	0.0529	0.0046 *
Mercury	29394-02-27 01:55 G	12457055.45	12457055.58	12457055.71	0.0517	0.0128
Moon	29394-03-26 04:05 G	12457082.64	12457082.67	12457082.73	0.0516	0.0505
Mercury	29394-05-27 09:07 G	12457144.83	12457144.88	12457144.94	0.0514	0.0466
Mars	29396-04-18 13:41 G	12457836.79	12457837.07	12457837.36	0.0494	0.0135
Moon	29398-07-29 18:57 G	12458669.13	12458669.29	12458669.47	0.0493	0.0321
Earth	29398-07-29 21:07 G	12458669.20	12458669.38	12458669.57	0.0493	0.0292 *
Earth	29399-08-30 08:38 G	12459065.64	12459065.86	12459066.09	0.0501	0.0157
Moon	29399-08-30 09:21 G	12459065.66	12459065.89	12459066.11	0.0501	0.0184 *
Mercury	29400-07-26 23:02 G	12459396.31	12459396.46	12459396.61	0.0512	0.0255
Earth	29404-01-19 22:48 G	12460668.35	12460668.45	12460668.57	0.0536	0.0470
Moon	29404-01-20 03:07 G	12460668.55	12460668.63	12460668.71	0.0536	0.0504 *
Moon	29405-02-24 19:41 G	12461070.08	12461070.32	12461070.56	0.0527	0.0097
Earth	29405-02-24 21:50 G	12461070.18	12461070.41	12461070.64	0.0527	0.0095 *

Mercury	29405-12-17 06:00 G	12461365.64	12461365.75	12461365.86	0.0518	0.0275
Mercury	29406-03-16 12:57 G	12461454.94	12461455.04	12461455.14	0.0515	0.0318
Earth	29410-08-04 04:19 G	12463056.47	12463056.68	12463056.88	0.0493	0.0235
Moon	29410-08-04 07:41 G	12463056.61	12463056.82	12463057.03	0.0493	0.0234 *
Venus	29410-11-22 03:36 G	12463166.46	12463166.65	12463166.85	0.0495	0.0140
Moon	29411-09-04 17:17 G	12463453.02	12463453.22	12463453.43	0.0503	0.0215
Earth	29411-09-04 18:57 G	12463453.09	12463453.29	12463453.51	0.0503	0.0222 *
Mercury	29412-05-14 20:53 G	12463706.19	12463706.37	12463706.54	0.0511	0.0055
Mars	29414-03-31 11:31 G	12464391.74	12464391.98	12464392.23	0.0532	0.0154
Moon	29416-01-25 02:09 G	12465056.44	12465056.59	12465056.74	0.0536	0.0407
Earth	29416-01-25 05:02 G	12465056.56	12465056.71	12465056.87	0.0536	0.0396 *
Earth	29417-03-02 00:00 G	12465458.28	12465458.50	12465458.72	0.0526	0.0173
Moon	29417-03-02 00:00 G	12465458.29	12465458.50	12465458.72	0.0526	0.0141 *
Mercury	29417-10-05 10:05 G	12465675.85	12465675.92	12465676.00	0.0519	0.0416
Mercury	29418-01-02 17:02 G	12465765.09	12465765.21	12465765.34	0.0516	0.0176
Venus	29422-07-28 05:45 G	12467432.57	12467432.74	12467432.90	0.0494	0.0293
Moon	29422-08-08 08:09 G	12467443.62	12467443.84	12467444.06	0.0494	0.0142
Earth	29422-08-08 12:14 G	12467443.79	12467444.01	12467444.23	0.0494	0.0173 *
Earth	29423-09-09 07:41 G	12467840.63	12467840.82	12467841.01	0.0504	0.0288
Moon	29423-09-09 10:48 G	12467840.75	12467840.95	12467841.16	0.0504	0.0259 *
Mercury	29424-03-02 18:57 G	12468016.12	12468016.29	12468016.46	0.0510	0.0139
Earth	29428-01-30 13:12 G	12469444.86	12469445.05	12469445.24	0.0535	0.0316
Moon	29428-01-30 13:12 G	12469444.86	12469445.05	12469445.24	0.0535	0.0286 *
Venus	29428-06-03 01:26 G	12469569.35	12469569.56	12469569.76	0.0532	0.0062
Earth	29429-03-07 02:09 G	12469846.39	12469846.59	12469846.80	0.0524	0.0250
Moon	29429-03-07 03:50 G	12469846.45	12469846.66	12469846.88	0.0524	0.0246 *
Mercury	29429-10-21 21:07 G	12470075.25	12470075.38	12470075.52	0.0516	0.0038
Earth	29434-08-12 19:41 G	12471831.09	12471831.32	12471831.54	0.0495	0.0111
Moon	29434-08-12 23:31 G	12471831.25	12471831.48	12471831.70	0.0495	0.0093 *
Moon	29435-09-13 17:17 G	12472228.06	12472228.22	12472228.39	0.0506	0.0358

Earth	29435-09-13 21:07 G	12472228.22	12472228.38	12472228.55	0.0506	0.0354	*
Mercury	29435-12-20 16:48 G	12472326.07	12472326.20	12472326.34	0.0510	0.0334	
Mercury	29436-03-19 22:33 G	12472416.36	12472416.44	12472416.53	0.0513	0.0446	
Earth	29440-02-04 18:57 G	12473833.08	12473833.29	12473833.50	0.0533	0.0233	
Moon	29440-02-04 21:21 G	12473833.17	12473833.39	12473833.61	0.0533	0.0235	*
Venus	29440-02-06 16:19 G	12473835.10	12473835.18	12473835.27	0.0533	0.0481	
Moon	29441-03-11 22:19 G	12474234.26	12474234.43	12474234.60	0.0522	0.0354	
Earth	29441-03-12 01:26 G	12474234.38	12474234.56	12474234.75	0.0522	0.0323	*
Mercury	29441-08-10 01:12 G	12474385.42	12474385.55	12474385.68	0.0517	0.0112	
Mercury	29441-11-07 08:24 G	12474474.81	12474474.85	12474474.89	0.0514	0.0481	
Earth	29445-07-17 05:45 G	12475822.67	12475822.74	12475822.83	0.0490	0.0461	
Moon	29445-07-17 06:57 G	12475822.71	12475822.79	12475822.89	0.0490	0.0445	*
Venus	29446-07-30 14:09 G	12476200.97	12476201.09	12476201.22	0.0496	0.0394	
Moon	29446-08-17 03:21 G	12476218.41	12476218.64	12476218.88	0.0497	0.0065	
Earth	29446-08-17 06:29 G	12476218.54	12476218.77	12476219.00	0.0497	0.0044	*
Earth	29447-09-18 13:26 G	12476615.93	12476616.06	12476616.19	0.0508	0.0419	
Moon	29447-09-18 16:33 G	12476616.10	12476616.19	12476616.30	0.0508	0.0453	*
Mercury	29448-01-06 21:21 G	12476726.24	12476726.39	12476726.54	0.0512	0.0259	
Moon	29452-02-09 14:09 G	12478220.87	12478221.09	12478221.30	0.0532	0.0190	
Earth	29452-02-09 17:31 G	12478221.01	12478221.23	12478221.46	0.0532	0.0155	*
Earth	29453-03-16 18:14 G	12478622.11	12478622.26	12478622.42	0.0520	0.0390	
Moon	29453-03-16 22:05 G	12478622.27	12478622.42	12478622.58	0.0520	0.0391	*
Mercury	29453-05-29 04:19 G	12478695.58	12478695.68	12478695.80	0.0518	0.0273	
Mercury	29453-08-26 11:31 G	12478784.87	12478784.98	12478785.08	0.0515	0.0320	
Moon	29457-07-21 14:38 G	12480209.96	12480210.11	12480210.27	0.0491	0.0381	
Earth	29457-07-21 14:24 G	12480209.98	12480210.10	12480210.23	0.0491	0.0408	*
Venus	29458-04-04 17:02 G	12480467.00	12480467.21	12480467.41	0.0495	0.0035	
Earth	29458-08-21 18:00 G	12480606.02	12480606.25	12480606.48	0.0498	0.0022	
Moon	29458-08-21 19:12 G	12480606.07	12480606.30	12480606.52	0.0498	0.0008	*
Moon	29459-09-23 03:07 G	12481003.56	12481003.63	12481003.70	0.0510	0.0486	

Earth	29459-09-23 05:45 G	12481003.67	12481003.74	12481003.81	0.0510	0.0483	*
Mercury	29459-10-25 19:55 G	12481036.15	12481036.33	12481036.50	0.0511	0.0071	
Venus	29464-02-09 15:07 G	12482603.98	12482604.13	12482604.28	0.0531	0.0357	
Earth	29464-02-14 19:55 G	12482609.10	12482609.33	12482609.56	0.0531	0.0073	
Moon	29464-02-14 23:45 G	12482609.26	12482609.49	12482609.72	0.0531	0.0076	*
Mercury	29465-03-17 08:24 G	12483005.78	12483005.85	12483005.93	0.0519	0.0418	
Moon	29465-03-21 12:00 G	12483009.87	12483010.00	12483010.14	0.0519	0.0422	
Earth	29465-03-21 15:07 G	12483010.03	12483010.13	12483010.25	0.0519	0.0457	*
Mercury	29465-06-14 15:21 G	12483095.01	12483095.14	12483095.26	0.0516	0.0173	
Moon	29469-07-25 19:26 G	12484597.16	12484597.31	12484597.46	0.0491	0.0364	
Earth	29469-07-25 21:21 G	12484597.23	12484597.39	12484597.55	0.0491	0.0353	*
Venus	29469-12-08 18:57 G	12484733.22	12484733.29	12484733.36	0.0493	0.0465	
Earth	29470-08-26 03:21 G	12484993.41	12484993.64	12484993.87	0.0499	0.0086	
Moon	29470-08-26 03:50 G	12484993.42	12484993.66	12484993.89	0.0499	0.0108	*
Mercury	29471-08-13 17:17 G	12485346.06	12485346.22	12485346.39	0.0510	0.0132	
Venus	29475-10-15 06:14 G	12486869.57	12486869.76	12486869.95	0.0533	0.0181	
Moon	29476-02-19 20:53 G	12486997.14	12486997.37	12486997.61	0.0530	0.0041	
Earth	29476-02-19 23:45 G	12486997.26	12486997.49	12486997.72	0.0530	0.0008	*
Moon	29477-03-26 14:53 G	12487398.09	12487398.12	12487398.16	0.0517	0.0510	
Mercury	29477-04-02 19:26 G	12487405.18	12487405.31	12487405.45	0.0516	0.0033	
Earth	29481-07-30 04:33 G	12488984.51	12488984.69	12488984.88	0.0492	0.0295	
Moon	29481-07-30 07:55 G	12488984.66	12488984.83	12488985.02	0.0492	0.0323	*
Moon	29482-08-30 12:29 G	12489380.82	12489381.02	12489381.24	0.0501	0.0181	
Earth	29482-08-30 14:24 G	12489380.88	12489381.10	12489381.32	0.0501	0.0153	*
Mercury	29483-06-01 15:21 G	12489656.01	12489656.14	12489656.28	0.0509	0.0325	
Mercury	29483-08-30 21:07 G	12489746.30	12489746.38	12489746.46	0.0512	0.0452	
Moon	29487-01-19 00:00 G	12490983.44	12490983.50	12490983.59	0.0537	0.0508	
Earth	29487-01-19 03:36 G	12490983.55	12490983.65	12490983.76	0.0537	0.0476	*
Earth	29488-02-25 04:33 G	12491385.46	12491385.69	12491385.92	0.0528	0.0092	
Moon	29488-02-25 05:17 G	12491385.50	12491385.72	12491385.94	0.0528	0.0088	*

Mercury	29489-01-19 23:45 G	12491715.36	12491715.49	12491715.62	0.0517	0.0109
Mercury	29489-04-19 06:57 G	12491804.75	12491804.79	12491804.83	0.0514	0.0486
Moon	29493-08-03 07:12 G	12493371.60	12493371.80	12493372.01	0.0493	0.0236
Earth	29493-08-03 11:17 G	12493371.77	12493371.97	12493372.18	0.0493	0.0235 *
Venus	29493-12-11 02:24 G	12493501.42	12493501.60	12493501.79	0.0496	0.0214
Earth	29494-09-04 01:41 G	12493768.36	12493768.57	12493768.78	0.0502	0.0220
Moon	29494-09-04 04:48 G	12493768.48	12493768.70	12493768.92	0.0502	0.0207 *
Mercury	29495-06-18 19:26 G	12494056.17	12494056.31	12494056.46	0.0512	0.0263
Earth	29499-01-24 11:31 G	12495371.83	12495371.98	12495372.14	0.0536	0.0398
Moon	29499-01-24 12:29 G	12495371.88	12495372.02	12495372.17	0.0536	0.0400 *
Earth	29500-03-02 06:43 G	12495773.57	12495773.78	12495774.01	0.0526	0.0172
Moon	29500-03-02 08:09 G	12495773.61	12495773.84	12495774.08	0.0526	0.0138 *
Mercury	29500-11-09 03:50 G	12496025.55	12496025.66	12496025.78	0.0518	0.0253
Mercury	29501-02-06 10:48 G	12496114.86	12496114.95	12496115.06	0.0514	0.0341
Earth	29505-08-08 21:07 G	12497759.16	12497759.38	12497759.60	0.0494	0.0173
Moon	29505-08-09 00:57 G	12497759.32	12497759.54	12497759.76	0.0494	0.0142 *
Venus	29505-08-17 05:31 G	12497767.54	12497767.73	12497767.91	0.0494	0.0213
Moon	29506-09-09 12:57 G	12498155.84	12498156.04	12498156.24	0.0504	0.0260
Earth	29506-09-09 16:33 G	12498156.00	12498156.19	12498156.39	0.0504	0.0289 *
Mercury	29507-04-07 18:14 G	12498366.09	12498366.26	12498366.44	0.0511	0.0079
Earth	29511-01-30 12:00 G	12499759.82	12499760.00	12499760.19	0.0534	0.0323
Moon	29511-01-30 13:26 G	12499759.86	12499760.06	12499760.27	0.0534	0.0290 *
Venus	29511-06-23 23:17 G	12499904.27	12499904.47	12499904.66	0.0531	0.0137
Moon	29512-03-06 23:02 G	12500161.26	12500161.46	12500161.66	0.0524	0.0244
Earth	29512-03-07 01:41 G	12500161.37	12500161.57	12500161.78	0.0524	0.0245 *
Mercury	29512-08-28 07:12 G	12500335.72	12500335.80	12500335.88	0.0519	0.0412
Mercury	29512-11-25 14:09 G	12500424.96	12500425.09	12500425.21	0.0516	0.0179
Moon	29517-08-13 04:48 G	12502146.46	12502146.70	12502146.93	0.0495	0.0098
Earth	29517-08-13 07:41 G	12502146.59	12502146.82	12502147.05	0.0495	0.0109 *
Earth	29518-09-14 07:26 G	12502543.65	12502543.81	12502543.98	0.0506	0.0355

Moon	29518-09-14 11:02 G	12502543.81	12502543.96	12502544.12	0.0506	0.0368	*
Mercury	29519-01-24 16:48 G	12502676.03	12502676.20	12502676.37	0.0510	0.0110	
Moon	29523-02-04 12:57 G	12504147.84	12504148.04	12504148.24	0.0533	0.0242	
Earth	29523-02-04 15:50 G	12504147.96	12504148.16	12504148.38	0.0533	0.0242	*
Venus	29523-02-26 13:12 G	12504169.93	12504170.05	12504170.18	0.0533	0.0411	
Earth	29524-03-12 00:29 G	12504549.34	12504549.52	12504549.71	0.0523	0.0318	
Moon	29524-03-12 04:19 G	12504549.51	12504549.68	12504549.86	0.0523	0.0350	*
Mercury	29524-09-13 18:00 G	12504735.12	12504735.25	12504735.38	0.0516	0.0031	
Moon	29528-07-17 17:31 G	12506138.13	12506138.23	12506138.33	0.0490	0.0442	
Earth	29528-07-17 17:02 G	12506138.14	12506138.21	12506138.29	0.0490	0.0463	*
Earth	29529-08-17 16:19 G	12506533.95	12506534.18	12506534.41	0.0496	0.0046	
Moon	29529-08-17 17:31 G	12506534.00	12506534.23	12506534.45	0.0496	0.0073	*
Venus	29529-08-19 14:38 G	12506536.07	12506536.11	12506536.17	0.0496	0.0481	
Moon	29530-09-18 17:45 G	12506931.13	12506931.24	12506931.35	0.0507	0.0447	
Earth	29530-09-18 20:24 G	12506931.23	12506931.35	12506931.49	0.0507	0.0416	*
Mercury	29530-11-12 14:24 G	12506985.96	12506986.10	12506986.24	0.0509	0.0311	
Mercury	29531-02-10 19:55 G	12507076.26	12507076.33	12507076.40	0.0512	0.0465	
Earth	29535-02-09 20:38 G	12508536.14	12508536.36	12508536.59	0.0533	0.0161	
Moon	29535-02-10 00:43 G	12508536.31	12508536.53	12508536.74	0.0533	0.0194	*
Moon	29536-03-16 21:07 G	12508937.23	12508937.38	12508937.54	0.0521	0.0386	
Earth	29536-03-17 00:43 G	12508937.38	12508937.53	12508937.69	0.0521	0.0388	*
Mercury	29536-07-02 22:19 G	12509045.30	12509045.43	12509045.56	0.0517	0.0110	
Mercury	29536-09-30 05:31 G	12509134.69	12509134.73	12509134.77	0.0514	0.0486	
Moon	29540-07-21 22:05 G	12510525.29	12510525.42	12510525.56	0.0491	0.0390	
Earth	29540-07-22 00:00 G	12510525.39	12510525.50	12510525.64	0.0491	0.0410	*
Venus	29541-04-24 16:48 G	12510801.99	12510802.20	12510802.40	0.0495	0.0047	
Earth	29541-08-22 01:55 G	12510921.35	12510921.58	12510921.81	0.0497	0.0020	
Moon	29541-08-22 02:24 G	12510921.36	12510921.60	12510921.84	0.0497	0.0008	*
Mercury	29542-08-31 12:00 G	12511296.00	12511296.00	12511296.02	0.0508	0.0507	
Earth	29542-09-23 11:31 G	12511318.91	12511318.98	12511319.06	0.0509	0.0480	

Moon	29542-09-23 12:43 G	12511318.96	12511319.03	12511319.10	0.0509	0.0481	*
Mercury	29542-11-29 18:14 G	12511386.12	12511386.26	12511386.41	0.0511	0.0276	
Moon	29547-02-15 00:29 G	12512924.29	12512924.52	12512924.76	0.0531	0.0073	
Earth	29547-02-15 03:50 G	12512924.43	12512924.66	12512924.89	0.0531	0.0076	*
Venus	29547-03-01 18:00 G	12512939.16	12512939.25	12512939.35	0.0531	0.0465	
Earth	29548-03-22 00:43 G	12513325.43	12513325.53	12513325.65	0.0519	0.0456	
Moon	29548-03-22 03:07 G	12513325.50	12513325.63	12513325.76	0.0519	0.0424	*
Mercury	29548-04-21 02:38 G	12513355.50	12513355.61	12513355.73	0.0518	0.0247	
Mercury	29548-07-19 09:36 G	12513444.81	12513444.90	12513445.00	0.0515	0.0346	
Earth	29552-07-26 06:14 G	12514912.60	12514912.76	12514912.92	0.0491	0.0353	
Moon	29552-07-26 09:36 G	12514912.76	12514912.90	12514913.07	0.0491	0.0373	*
Venus	29552-12-28 18:29 G	12515068.15	12515068.27	12515068.40	0.0494	0.0386	
Moon	29553-08-26 10:05 G	12515308.70	12515308.92	12515309.14	0.0499	0.0109	
Earth	29553-08-26 11:45 G	12515308.76	12515308.99	12515309.22	0.0499	0.0086	*
Mercury	29554-09-17 16:48 G	12515696.03	12515696.20	12515696.37	0.0511	0.0085	
Venus	29558-11-04 10:05 G	12517204.72	12517204.92	12517205.12	0.0532	0.0068	
Earth	29559-02-20 08:38 G	12517312.62	12517312.86	12517313.09	0.0530	0.0012	
Moon	29559-02-20 09:36 G	12517312.68	12517312.90	12517313.13	0.0530	0.0041	*
Mercury	29560-02-08 06:57 G	12517665.70	12517665.79	12517665.87	0.0518	0.0389	
Moon	29560-03-26 22:05 G	12517713.41	12517713.42	12517713.45	0.0517	0.0514	
Mercury	29560-05-07 13:41 G	12517754.95	12517755.07	12517755.19	0.0515	0.0202	
Moon	29564-07-30 11:17 G	12519299.80	12519299.97	12519300.15	0.0492	0.0324	
Earth	29564-07-30 15:21 G	12519299.96	12519300.14	12519300.33	0.0492	0.0294	*
Earth	29565-08-31 01:12 G	12519696.32	12519696.55	12519696.77	0.0501	0.0155	
Moon	29565-08-31 04:05 G	12519696.45	12519696.67	12519696.90	0.0501	0.0177	*
Mercury	29566-07-06 15:36 G	12520005.98	12520006.15	12520006.32	0.0510	0.0099	
Mars	29568-06-25 23:02 G	12520726.23	12520726.46	12520726.70	0.0532	0.0210	
Earth	29570-01-19 05:31 G	12521298.64	12521298.73	12521298.84	0.0536	0.0482	
Moon	29570-01-19 07:41 G	12521298.77	12521298.82	12521298.89	0.0536	0.0514	*
Earth	29571-02-25 05:45 G	12521700.51	12521700.74	12521700.97	0.0528	0.0086	

Moon	29571-02-25 06:14 G	12521700.52	12521700.76	12521701.00	0.0528	0.0081 *
Mercury	29572-02-24 16:48 G	12522065.07	12522065.20	12522065.34	0.0516	0.0042
Earth	29576-08-04 00:43 G	12523687.33	12523687.53	12523687.74	0.0493	0.0235
Moon	29576-08-04 04:33 G	12523687.49	12523687.69	12523687.90	0.0493	0.0230 *
Venus	29576-12-31 05:17 G	12523836.56	12523836.72	12523836.88	0.0496	0.0312
Moon	29577-09-04 11:17 G	12524083.76	12524083.97	12524084.18	0.0502	0.0202
Earth	29577-09-04 14:53 G	12524083.92	12524084.12	12524084.33	0.0502	0.0222 *
Mercury	29578-04-24 13:55 G	12524315.94	12524316.08	12524316.23	0.0509	0.0287
Mercury	29578-07-23 19:41 G	12524406.27	12524406.32	12524406.37	0.0512	0.0490
Earth	29582-01-24 10:33 G	12525686.80	12525686.94	12525687.10	0.0535	0.0406
Moon	29582-01-24 11:17 G	12525686.82	12525686.97	12525687.14	0.0535	0.0399 *
Moon	29583-03-02 04:05 G	12526088.45	12526088.67	12526088.89	0.0526	0.0134
Earth	29583-03-02 06:29 G	12526088.55	12526088.77	12526088.99	0.0526	0.0166 *
Mercury	29583-12-13 20:53 G	12526375.24	12526375.37	12526375.50	0.0517	0.0107
Mercury	29584-03-12 04:05 G	12526464.63	12526464.67	12526464.71	0.0514	0.0489
Moon	29588-08-08 06:00 G	12528074.52	12528074.75	12528074.98	0.0494	0.0146
Earth	29588-08-08 08:53 G	12528074.66	12528074.87	12528075.09	0.0494	0.0176 *
Venus	29588-09-05 06:57 G	12528102.59	12528102.79	12528102.99	0.0494	0.0121
Earth	29589-09-09 02:09 G	12528471.41	12528471.59	12528471.79	0.0503	0.0287
Moon	29589-09-09 05:45 G	12528471.55	12528471.74	12528471.94	0.0503	0.0262 *
Mercury	29590-02-10 11:17 G	12528625.93	12528625.97	12528626.03	0.0508	0.0487
Mercury	29590-05-11 17:31 G	12528716.09	12528716.23	12528716.37	0.0511	0.0293
Moon	29594-01-29 13:26 G	12530074.87	12530075.06	12530075.25	0.0535	0.0296
Earth	29594-01-29 16:05 G	12530074.99	12530075.17	12530075.35	0.0535	0.0329 *
Venus	29594-07-13 00:29 G	12530239.34	12530239.52	12530239.70	0.0532	0.0235
Earth	29595-03-07 08:09 G	12530476.64	12530476.84	12530477.05	0.0525	0.0242
Moon	29595-03-07 12:00 G	12530476.79	12530477.00	12530477.20	0.0525	0.0251 *
Mercury	29595-10-02 01:12 G	12530685.43	12530685.55	12530685.66	0.0518	0.0247
Mercury	29595-12-30 08:09 G	12530774.74	12530774.84	12530774.94	0.0515	0.0347
Earth	29600-08-12 17:31 G	12532462.01	12532462.23	12532462.46	0.0495	0.0111

Moon	29600-08-12 18:43 G	12532462.06	12532462.28	12532462.50	0.0495	0.0110	*
Moon	29601-09-13 12:43 G	12532858.87	12532859.03	12532859.20	0.0505	0.0364	
Earth	29601-09-13 15:36 G	12532858.99	12532859.15	12532859.32	0.0505	0.0352	*
Mercury	29602-02-27 15:50 G	12533025.99	12533026.16	12533026.33	0.0511	0.0102	
Earth	29606-02-04 00:00 G	12534463.30	12534463.50	12534463.71	0.0534	0.0246	
Moon	29606-02-04 03:50 G	12534463.45	12534463.66	12534463.87	0.0534	0.0249	*
Venus	29606-03-17 16:48 G	12534505.03	12534505.20	12534505.37	0.0533	0.0298	
Moon	29607-03-12 07:26 G	12534864.64	12534864.81	12534864.99	0.0523	0.0350	
Earth	29607-03-12 11:02 G	12534864.78	12534864.96	12534865.15	0.0523	0.0318	*
Mercury	29607-07-21 05:31 G	12534995.65	12534995.73	12534995.82	0.0519	0.0384	
Mercury	29607-10-18 12:29 G	12535084.90	12535085.02	12535085.14	0.0516	0.0208	
Moon	29611-07-18 01:26 G	12536453.47	12536453.56	12536453.66	0.0490	0.0440	
Earth	29611-07-18 03:36 G	12536453.58	12536453.65	12536453.73	0.0490	0.0464	*
Earth	29612-08-17 02:09 G	12536849.36	12536849.59	12536849.82	0.0496	0.0046	
Moon	29612-08-17 02:38 G	12536849.37	12536849.61	12536849.85	0.0496	0.0076	*
Earth	29613-09-18 05:31 G	12537246.61	12537246.73	12537246.87	0.0507	0.0418	
Moon	29613-09-18 06:57 G	12537246.69	12537246.79	12537246.90	0.0507	0.0447	*
Mercury	29613-12-16 14:09 G	12537335.91	12537336.09	12537336.26	0.0510	0.0090	
Moon	29618-02-09 03:21 G	12538851.42	12538851.64	12538851.86	0.0533	0.0192	
Earth	29618-02-09 06:57 G	12538851.57	12538851.79	12538852.01	0.0533	0.0160	*
Earth	29619-03-17 11:02 G	12539252.82	12539252.96	12539253.13	0.0521	0.0391	
Moon	29619-03-17 13:41 G	12539252.92	12539253.07	12539253.23	0.0521	0.0385	*
Mercury	29619-08-06 16:33 G	12539395.06	12539395.19	12539395.32	0.0516	0.0067	
Earth	29623-07-22 12:00 G	12540840.88	12540841.00	12540841.13	0.0491	0.0409	
Moon	29623-07-22 15:36 G	12540841.02	12540841.15	12540841.30	0.0491	0.0394	*
Venus	29624-05-13 18:29 G	12541137.08	12541137.27	12541137.47	0.0495	0.0138	
Moon	29624-08-21 12:14 G	12541236.78	12541237.01	12541237.23	0.0497	0.0012	
Earth	29624-08-21 14:09 G	12541236.85	12541237.09	12541237.32	0.0497	0.0024	*
Earth	29625-09-22 23:31 G	12541634.42	12541634.48	12541634.56	0.0509	0.0483	
Moon	29625-09-23 00:29 G	12541634.44	12541634.52	12541634.62	0.0509	0.0472	*

Mercury	29625-10-04 12:57 G	12541645.89	12541646.04	12541646.19	0.0509	0.0273
Mercury	29626-01-02 18:29 G	12541736.25	12541736.27	12541736.30	0.0512	0.0504
Earth	29630-02-14 06:43 G	12543239.55	12543239.78	12543240.01	0.0531	0.0082
Moon	29630-02-14 08:38 G	12543239.63	12543239.86	12543240.08	0.0531	0.0071 *
Moon	29631-03-22 03:07 G	12543640.50	12543640.63	12543640.78	0.0519	0.0422
Earth	29631-03-22 04:05 G	12543640.56	12543640.67	12543640.79	0.0519	0.0454 *
Mercury	29631-05-25 19:55 G	12543705.20	12543705.33	12543705.46	0.0517	0.0096
Mercury	29631-08-23 03:07 G	12543794.60	12543794.63	12543794.66	0.0514	0.0500
Moon	29635-07-26 16:19 G	12545228.03	12545228.18	12545228.33	0.0492	0.0377
Earth	29635-07-26 20:09 G	12545228.19	12545228.34	12545228.51	0.0492	0.0355 *
Venus	29636-01-17 21:36 G	12545403.24	12545403.40	12545403.57	0.0494	0.0287
Earth	29636-08-26 02:24 G	12545624.37	12545624.60	12545624.83	0.0499	0.0087
Moon	29636-08-26 05:17 G	12545624.49	12545624.72	12545624.96	0.0499	0.0115 *
Mercury	29637-07-23 11:17 G	12545955.90	12545955.97	12545956.05	0.0508	0.0460
Mercury	29637-10-21 17:31 G	12546046.09	12546046.23	12546046.36	0.0511	0.0321
Venus	29641-11-23 08:53 G	12547539.67	12547539.87	12547540.08	0.0532	0.0016
Moon	29642-02-19 08:53 G	12547627.63	12547627.87	12547628.12	0.0530	0.0034
Earth	29642-02-19 09:07 G	12547627.64	12547627.88	12547628.11	0.0530	0.0010 *
Mercury	29643-03-13 23:45 G	12548015.38	12548015.49	12548015.61	0.0518	0.0242
Earth	29643-03-27 00:43 G	12548028.52	12548028.53	12548028.54	0.0518	0.0516
Mercury	29643-06-11 06:57 G	12548104.69	12548104.79	12548104.88	0.0515	0.0352
Earth	29647-07-31 04:05 G	12549615.49	12549615.67	12549615.86	0.0492	0.0297
Moon	29647-07-31 07:41 G	12549615.66	12549615.82	12549616.00	0.0492	0.0325 *
Moon	29648-08-30 08:53 G	12550011.66	12550011.87	12550012.09	0.0500	0.0169
Earth	29648-08-30 12:43 G	12550011.81	12550012.03	12550012.25	0.0500	0.0152 *
Mercury	29649-08-09 15:21 G	12550355.97	12550356.14	12550356.31	0.0510	0.0124
Earth	29653-01-18 09:50 G	12551613.83	12551613.91	12551614.01	0.0536	0.0488
Moon	29653-01-18 09:50 G	12551613.85	12551613.91	12551613.97	0.0536	0.0517 *
Venus	29653-07-28 23:17 G	12551805.45	12551805.47	12551805.50	0.0534	0.0529
Moon	29654-02-24 10:19 G	12552015.70	12552015.93	12552016.15	0.0529	0.0074

Earth	29654-02-24 12:00 G	12552015.77	12552016.00	12552016.23	0.0529	0.0082	*
Mercury	29654-12-31 04:05 G	12552325.59	12552325.67	12552325.76	0.0519	0.0382	
Mercury	29655-03-30 11:02 G	12552414.84	12552414.96	12552415.08	0.0516	0.0210	
Moon	29659-08-04 09:07 G	12554002.68	12554002.88	12554003.10	0.0493	0.0229	
Earth	29659-08-04 12:14 G	12554002.80	12554003.01	12554003.21	0.0493	0.0237	*
Venus	29660-01-20 06:00 G	12554171.64	12554171.75	12554171.88	0.0496	0.0401	
Earth	29660-09-04 00:14 G	12554399.30	12554399.51	12554399.72	0.0501	0.0220	
Moon	29660-09-04 03:36 G	12554399.44	12554399.65	12554399.86	0.0501	0.0194	*
Mercury	29661-05-28 13:26 G	12554665.89	12554666.06	12554666.23	0.0510	0.0070	
Moon	29665-01-23 16:19 G	12556002.04	12556002.18	12556002.33	0.0536	0.0402	
Earth	29665-01-23 18:14 G	12556002.12	12556002.26	12556002.42	0.0536	0.0411	*
Earth	29666-03-01 16:33 G	12556403.97	12556404.19	12556404.41	0.0527	0.0165	
Moon	29666-03-01 20:09 G	12556404.11	12556404.34	12556404.57	0.0527	0.0136	*
Mercury	29666-10-19 08:38 G	12556635.86	12556635.86	12556635.87	0.0520	0.0518	
Mercury	29667-01-16 15:21 G	12556725.01	12556725.14	12556725.27	0.0517	0.0072	
Mars	29669-01-02 16:19 G	12557441.90	12557442.18	12557442.46	0.0495	0.0153	
Earth	29671-08-08 19:41 G	12558390.11	12558390.32	12558390.54	0.0494	0.0175	
Moon	29671-08-08 20:53 G	12558390.15	12558390.37	12558390.58	0.0494	0.0149	*
Venus	29671-09-25 07:55 G	12558437.62	12558437.83	12558438.03	0.0495	0.0034	
Moon	29672-09-08 09:36 G	12558786.70	12558786.90	12558787.10	0.0503	0.0262	
Earth	29672-09-08 12:14 G	12558786.83	12558787.01	12558787.21	0.0503	0.0287	*
Mercury	29673-03-16 11:31 G	12558975.83	12558975.98	12558976.13	0.0509	0.0263	
Earth	29677-01-29 02:38 G	12560390.43	12560390.61	12560390.80	0.0535	0.0330	
Moon	29677-01-29 06:14 G	12560390.57	12560390.76	12560390.96	0.0535	0.0295	*
Venus	29677-08-01 05:17 G	12560574.57	12560574.72	12560574.87	0.0531	0.0354	
Moon	29678-03-06 15:50 G	12560791.95	12560792.16	12560792.36	0.0525	0.0258	
Earth	29678-03-06 19:26 G	12560792.11	12560792.31	12560792.52	0.0525	0.0243	*
Mercury	29678-11-04 19:41 G	12561035.19	12561035.32	12561035.45	0.0517	0.0070	
Venus	29683-05-31 11:31 G	12562703.90	12562703.98	12562704.06	0.0493	0.0456	
Earth	29683-08-13 06:14 G	12562777.53	12562777.76	12562777.99	0.0495	0.0109	

Moon	29683-08-13 06:57 G	12562777.56	12562777.79	12562778.03	0.0495	0.0116	*
Earth	29684-09-13 04:19 G	12563174.52	12563174.68	12563174.85	0.0505	0.0355	
Moon	29684-09-13 05:31 G	12563174.59	12563174.73	12563174.89	0.0505	0.0373	*
Mercury	29685-01-02 10:05 G	12563285.85	12563285.92	12563286.01	0.0509	0.0447	
Mercury	29685-04-02 16:19 G	12563376.05	12563376.18	12563376.31	0.0512	0.0335	
Mars	29686-12-16 13:26 G	12563998.94	12563999.06	12563999.20	0.0531	0.0450	
Moon	29689-02-03 01:12 G	12564778.35	12564778.55	12564778.76	0.0534	0.0260	
Earth	29689-02-03 05:02 G	12564778.51	12564778.71	12564778.92	0.0534	0.0252	*
Venus	29689-04-05 18:00 G	12564840.07	12564840.25	12564840.44	0.0532	0.0199	
Earth	29690-03-11 14:38 G	12565179.93	12565180.11	12565180.31	0.0523	0.0315	
Moon	29690-03-11 17:45 G	12565180.07	12565180.24	12565180.41	0.0523	0.0347	*
Mercury	29690-08-23 22:48 G	12565345.34	12565345.45	12565345.57	0.0518	0.0230	
Mercury	29690-11-21 06:00 G	12565434.65	12565434.75	12565434.84	0.0515	0.0364	
Earth	29694-07-17 16:48 G	12566769.14	12566769.20	12566769.28	0.0491	0.0467	
Moon	29694-07-17 20:38 G	12566769.26	12566769.36	12566769.47	0.0491	0.0436	*
Moon	29695-08-17 14:53 G	12567164.90	12567165.12	12567165.35	0.0496	0.0077	
Earth	29695-08-17 17:02 G	12567164.97	12567165.21	12567165.44	0.0496	0.0046	*
Earth	29696-09-17 20:09 G	12567562.22	12567562.34	12567562.48	0.0507	0.0420	
Moon	29696-09-17 21:21 G	12567562.27	12567562.39	12567562.50	0.0507	0.0441	*
Mercury	29697-01-19 15:07 G	12567685.97	12567686.13	12567686.30	0.0511	0.0151	
Earth	29701-02-09 08:38 G	12569166.64	12569166.86	12569167.08	0.0532	0.0169	
Moon	29701-02-09 11:02 G	12569166.75	12569166.96	12569167.17	0.0532	0.0198	*
Moon	29702-03-17 11:45 G	12569567.83	12569567.99	12569568.16	0.0521	0.0378	
Earth	29702-03-17 13:12 G	12569567.89	12569568.05	12569568.21	0.0521	0.0385	*
Mercury	29702-06-13 02:53 G	12569655.53	12569655.62	12569655.71	0.0519	0.0376	
Mercury	29702-09-10 09:50 G	12569744.79	12569744.91	12569745.03	0.0516	0.0216	
Moon	29706-07-22 20:38 G	12571156.23	12571156.36	12571156.50	0.0491	0.0400	
Earth	29706-07-23 00:43 G	12571156.41	12571156.53	12571156.66	0.0491	0.0413	*
Venus	29707-06-03 20:38 G	12571472.18	12571472.36	12571472.54	0.0495	0.0234	
Earth	29707-08-23 02:09 G	12571552.36	12571552.59	12571552.83	0.0497	0.0019	

Moon	29707-08-23 05:17 G	12571552.49	12571552.72	12571552.96	0.0497	0.0016	*
Moon	29708-09-23 06:57 G	12571949.71	12571949.79	12571949.89	0.0508	0.0463	
Earth	29708-09-23 09:50 G	12571949.84	12571949.91	12571949.99	0.0508	0.0480	*
Mercury	29708-11-08 12:57 G	12571995.86	12571996.04	12571996.21	0.0510	0.0048	
Moon	29713-02-14 11:31 G	12573554.75	12573554.98	12573555.23	0.0532	0.0074	
Earth	29713-02-14 12:14 G	12573554.78	12573555.01	12573555.24	0.0532	0.0088	*
Moon	29714-03-22 11:02 G	12573955.84	12573955.96	12573956.09	0.0520	0.0427	
Earth	29714-03-22 12:14 G	12573955.90	12573956.01	12573956.13	0.0520	0.0453	*
Mercury	29714-04-01 07:12 G	12573965.79	12573965.80	12573965.81	0.0520	0.0516	
Mercury	29714-06-29 13:55 G	12574054.95	12574055.08	12574055.21	0.0517	0.0074	
Earth	29718-07-27 08:09 G	12575543.69	12575543.84	12575544.01	0.0491	0.0356	
Moon	29718-07-27 12:00 G	12575543.86	12575544.00	12575544.14	0.0491	0.0381	*
Venus	29719-02-06 22:48 G	12575738.26	12575738.45	12575738.64	0.0494	0.0196	
Moon	29719-08-27 08:53 G	12575939.64	12575939.87	12575940.10	0.0498	0.0114	
Earth	29719-08-27 12:29 G	12575939.79	12575940.02	12575940.25	0.0498	0.0085	*
Mercury	29720-08-27 10:48 G	12576305.80	12576305.95	12576306.11	0.0509	0.0242	
Venus	29724-12-13 12:29 G	12577874.82	12577875.02	12577875.21	0.0532	0.0127	
Moon	29725-02-19 16:48 G	12577942.97	12577943.20	12577943.42	0.0530	0.0028	
Earth	29725-02-19 18:00 G	12577943.02	12577943.25	12577943.49	0.0530	0.0010	*
Earth	29726-03-27 12:00 G	12578343.99	12578344.00	12578344.02	0.0518	0.0517	
Mercury	29726-04-17 18:14 G	12578365.13	12578365.26	12578365.39	0.0517	0.0066	
Moon	29730-07-31 12:29 G	12579930.84	12579931.02	12579931.20	0.0492	0.0321	
Earth	29730-07-31 15:07 G	12579930.96	12579931.13	12579931.33	0.0492	0.0298	*
Earth	29731-08-31 22:48 G	12580327.23	12580327.45	12580327.67	0.0500	0.0152	
Moon	29731-09-01 02:09 G	12580327.38	12580327.59	12580327.81	0.0500	0.0161	*
Mercury	29732-06-15 08:38 G	12580615.78	12580615.86	12580615.95	0.0508	0.0437	
Mercury	29732-09-13 14:53 G	12580705.99	12580706.12	12580706.25	0.0511	0.0344	
Moon	29736-01-19 18:57 G	12581929.24	12581929.29	12581929.34	0.0536	0.0521	
Earth	29736-01-19 20:24 G	12581929.26	12581929.35	12581929.45	0.0536	0.0489	*
Venus	29736-08-18 04:19 G	12582140.55	12582140.68	12582140.81	0.0533	0.0408	

Earth	29737-02-24 23:17 G	12582331.24	12582331.47	12582331.70	0.0529	0.0083
Moon	29737-02-25 02:24 G	12582331.37	12582331.60	12582331.84	0.0529	0.0066 *
Mercury	29738-02-03 22:33 G	12582675.32	12582675.44	12582675.56	0.0518	0.0206
Mercury	29738-05-04 05:31 G	12582764.65	12582764.73	12582764.82	0.0515	0.0389
Earth	29742-08-05 00:29 G	12584318.32	12584318.52	12584318.73	0.0493	0.0236
Moon	29742-08-05 01:26 G	12584318.36	12584318.56	12584318.76	0.0493	0.0220 *
Venus	29743-02-09 08:09 G	12584506.83	12584506.84	12584506.86	0.0496	0.0494
Moon	29743-09-05 10:05 G	12584714.70	12584714.92	12584715.14	0.0501	0.0193
Earth	29743-09-05 12:43 G	12584714.83	12584715.03	12584715.24	0.0501	0.0222 *
Mercury	29744-07-02 13:55 G	12585015.92	12585016.08	12585016.25	0.0511	0.0165
Earth	29748-01-25 00:57 G	12586317.40	12586317.54	12586317.69	0.0535	0.0417
Moon	29748-01-25 04:05 G	12586317.52	12586317.67	12586317.83	0.0535	0.0404 *
Moon	29749-03-01 17:31 G	12586719.00	12586719.23	12586719.45	0.0527	0.0131
Earth	29749-03-01 21:21 G	12586719.17	12586719.39	12586719.61	0.0527	0.0159 *
Mercury	29749-11-23 01:55 G	12586985.49	12586985.58	12586985.68	0.0518	0.0364
Mercury	29750-02-20 08:38 G	12587074.75	12587074.86	12587074.99	0.0515	0.0229
Earth	29754-08-09 09:21 G	12588705.68	12588705.89	12588706.11	0.0494	0.0177
Moon	29754-08-09 10:19 G	12588705.70	12588705.93	12588706.17	0.0494	0.0152 *
Venus	29754-10-15 10:33 G	12588772.74	12588772.94	12588773.15	0.0495	0.0067
Earth	29755-09-10 02:38 G	12589102.42	12589102.61	12589102.80	0.0503	0.0288
Moon	29755-09-10 04:05 G	12589102.48	12589102.67	12589102.86	0.0503	0.0270 *
Mercury	29756-04-20 12:43 G	12589325.85	12589326.03	12589326.20	0.0510	0.0022
Moon	29760-01-30 01:55 G	12590705.39	12590705.58	12590705.77	0.0534	0.0307
Earth	29760-01-30 05:31 G	12590705.56	12590705.73	12590705.92	0.0534	0.0338 *
Venus	29760-08-21 04:48 G	12590909.59	12590909.70	12590909.81	0.0530	0.0441
Earth	29761-03-06 21:07 G	12591107.17	12591107.38	12591107.59	0.0525	0.0236
Moon	29761-03-07 00:14 G	12591107.32	12591107.51	12591107.72	0.0525	0.0255 *
Mercury	29761-09-11 06:00 G	12591295.73	12591295.75	12591295.77	0.0519	0.0510
Mercury	29761-12-09 12:43 G	12591384.90	12591385.03	12591385.16	0.0516	0.0080
Venus	29766-06-20 12:43 G	12593038.90	12593039.03	12593039.18	0.0494	0.0363

Moon	29766-08-13 15:50 G	12593092.94	12593093.16	12593093.38	0.0495	0.0125
Earth	29766-08-13 18:00 G	12593093.03	12593093.25	12593093.48	0.0495	0.0114 *
Earth	29767-09-14 14:53 G	12593489.95	12593490.12	12593490.28	0.0504	0.0351
Moon	29767-09-14 15:21 G	12593489.98	12593490.14	12593490.31	0.0504	0.0371 *
Mercury	29768-02-07 10:19 G	12593635.77	12593635.93	12593636.09	0.0509	0.0221
Earth	29772-02-04 09:07 G	12595093.68	12595093.88	12595094.09	0.0534	0.0259
Moon	29772-02-04 12:14 G	12595093.81	12595094.01	12595094.20	0.0534	0.0276 *
Venus	29772-04-25 19:12 G	12595175.11	12595175.30	12595175.50	0.0532	0.0101
Moon	29773-03-11 19:26 G	12595495.13	12595495.31	12595495.50	0.0524	0.0339
Earth	29773-03-11 21:21 G	12595495.21	12595495.39	12595495.58	0.0524	0.0310 *
Mercury	29773-09-27 16:48 G	12595695.07	12595695.20	12595695.33	0.0517	0.0063
Moon	29777-07-18 00:43 G	12597084.43	12597084.53	12597084.64	0.0491	0.0437
Earth	29777-07-18 04:48 G	12597084.64	12597084.70	12597084.77	0.0491	0.0468 *
Earth	29778-08-18 03:07 G	12597480.40	12597480.63	12597480.87	0.0496	0.0048
Moon	29778-08-18 06:14 G	12597480.53	12597480.76	12597481.00	0.0496	0.0079 *
Moon	29779-09-19 01:26 G	12597877.46	12597877.56	12597877.68	0.0506	0.0435
Earth	29779-09-19 04:05 G	12597877.55	12597877.67	12597877.81	0.0506	0.0416 *
Mercury	29779-11-26 07:55 G	12597945.74	12597945.83	12597945.94	0.0508	0.0417
Mercury	29780-02-24 14:09 G	12598035.97	12598036.09	12598036.21	0.0511	0.0362
Moon	29784-02-09 14:24 G	12599481.88	12599482.10	12599482.33	0.0533	0.0201
Earth	29784-02-09 15:36 G	12599481.93	12599482.15	12599482.38	0.0533	0.0174 *
Moon	29785-03-16 22:19 G	12599883.28	12599883.43	12599883.59	0.0522	0.0371
Earth	29785-03-16 23:02 G	12599883.31	12599883.46	12599883.62	0.0522	0.0384 *
Mercury	29785-07-16 21:07 G	12600005.26	12600005.38	12600005.51	0.0518	0.0203
Mercury	29785-10-14 04:19 G	12600094.59	12600094.68	12600094.76	0.0515	0.0393
Earth	29789-07-22 11:17 G	12601471.86	12601471.97	12601472.10	0.0491	0.0415
Moon	29789-07-22 14:53 G	12601472.00	12601472.12	12601472.26	0.0491	0.0406 *
Venus	29790-06-22 20:53 G	12601807.22	12601807.37	12601807.53	0.0496	0.0320
Moon	29790-08-22 08:24 G	12601867.62	12601867.85	12601868.08	0.0497	0.0019
Earth	29790-08-22 12:00 G	12601867.77	12601868.00	12601868.23	0.0497	0.0018 *

Earth	29791-09-23 18:29 G	12602265.20	12602265.27	12602265.35	0.0508	0.0480
Moon	29791-09-23 22:19 G	12602265.33	12602265.43	12602265.54	0.0508	0.0455 *
Mercury	29791-12-13 12:29 G	12602345.85	12602346.02	12602346.18	0.0511	0.0171
Moon	29796-02-14 21:36 G	12603870.18	12603870.40	12603870.63	0.0532	0.0072
Earth	29796-02-14 22:33 G	12603870.21	12603870.44	12603870.67	0.0532	0.0089 *
Earth	29797-03-21 23:02 G	12604271.35	12604271.46	12604271.58	0.0520	0.0454
Moon	29797-03-22 02:09 G	12604271.46	12604271.59	12604271.73	0.0520	0.0429 *
Mercury	29797-05-05 01:26 G	12604315.47	12604315.56	12604315.66	0.0519	0.0343
Mercury	29797-08-02 08:24 G	12604404.73	12604404.85	12604404.97	0.0516	0.0250
Moon	29801-07-27 17:02 G	12605859.06	12605859.21	12605859.36	0.0491	0.0380
Earth	29801-07-27 19:41 G	12605859.17	12605859.32	12605859.49	0.0491	0.0357 *
Venus	29802-02-27 00:00 G	12606073.30	12606073.50	12606073.70	0.0494	0.0107
Earth	29802-08-28 00:00 G	12606255.27	12606255.50	12606255.73	0.0498	0.0086
Moon	29802-08-28 03:21 G	12606255.42	12606255.64	12606255.86	0.0498	0.0117 *
Mercury	29803-10-02 11:17 G	12606655.80	12606655.97	12606656.15	0.0510	0.0012
Venus	29808-01-03 13:55 G	12608209.90	12608210.08	12608210.27	0.0531	0.0230
Earth	29808-02-20 23:17 G	12608258.24	12608258.47	12608258.70	0.0530	0.0009
Moon	29808-02-21 02:09 G	12608258.35	12608258.59	12608258.83	0.0530	0.0017 *
Mercury	29809-02-22 05:02 G	12608625.68	12608625.71	12608625.74	0.0519	0.0498
Earth	29809-03-27 16:19 G	12608659.15	12608659.18	12608659.21	0.0518	0.0512
Mercury	29809-05-22 11:45 G	12608714.86	12608714.99	12608715.12	0.0516	0.0092
Earth	29813-08-01 02:38 G	12610246.44	12610246.61	12610246.80	0.0492	0.0303
Moon	29813-08-01 03:36 G	12610246.48	12610246.65	12610246.83	0.0492	0.0317 *
Moon	29814-09-01 09:07 G	12610642.65	12610642.88	12610643.11	0.0500	0.0156
Earth	29814-09-01 11:45 G	12610642.77	12610642.99	12610643.21	0.0500	0.0151 *
Mercury	29815-07-21 09:50 G	12610965.74	12610965.91	12610966.07	0.0509	0.0199
Earth	29819-01-20 00:00 G	12612244.42	12612244.50	12612244.59	0.0536	0.0497
Moon	29819-01-20 02:38 G	12612244.58	12612244.61	12612244.66	0.0536	0.0527 *
Venus	29819-09-08 04:19 G	12612475.52	12612475.68	12612475.84	0.0532	0.0315
Moon	29820-02-25 20:53 G	12612646.14	12612646.37	12612646.60	0.0528	0.0052

Earth	29820-02-26 00:43 G	12612646.30	12612646.53	12612646.76	0.0528	0.0074	*
Mercury	29821-03-10 15:36 G	12613025.02	12613025.15	12613025.28	0.0517	0.0060	
Mars	29823-03-31 22:19 G	12613776.17	12613776.43	12613776.70	0.0496	0.0208	
Earth	29825-08-05 10:48 G	12614633.75	12614633.95	12614634.16	0.0493	0.0242	
Moon	29825-08-05 11:45 G	12614633.78	12614633.99	12614634.22	0.0493	0.0218	*
Earth	29826-09-05 22:33 G	12615030.23	12615030.44	12615030.65	0.0501	0.0217	
Moon	29826-09-06 00:00 G	12615030.29	12615030.50	12615030.71	0.0501	0.0189	*
Mercury	29827-05-09 07:12 G	12615275.69	12615275.80	12615275.91	0.0508	0.0399	
Mercury	29827-08-07 13:12 G	12615365.94	12615366.05	12615366.17	0.0511	0.0380	
Moon	29831-01-24 23:45 G	12616632.34	12616632.49	12616632.63	0.0535	0.0413	
Earth	29831-01-25 03:07 G	12616632.50	12616632.63	12616632.78	0.0535	0.0426	*
Earth	29832-03-02 01:26 G	12617034.34	12617034.56	12617034.79	0.0527	0.0153	
Moon	29832-03-02 05:02 G	12617034.49	12617034.71	12617034.93	0.0527	0.0127	*
Mercury	29832-12-27 19:41 G	12617335.20	12617335.32	12617335.44	0.0518	0.0203	
Mercury	29833-03-27 02:38 G	12617424.52	12617424.61	12617424.69	0.0515	0.0392	
Moon	29837-08-09 17:02 G	12619021.00	12619021.21	12619021.42	0.0494	0.0156	
Earth	29837-08-09 19:12 G	12619021.09	12619021.30	12619021.52	0.0494	0.0180	*
Venus	29837-11-04 10:48 G	12619107.76	12619107.95	12619108.15	0.0495	0.0151	
Earth	29838-09-10 10:05 G	12619417.74	12619417.92	12619418.12	0.0502	0.0284	
Moon	29838-09-10 10:48 G	12619417.75	12619417.95	12619418.15	0.0502	0.0271	*
Mercury	29839-05-26 11:17 G	12619675.81	12619675.97	12619676.14	0.0510	0.0187	
Mars	29841-03-14 00:00 G	12620333.25	12620333.50	12620333.75	0.0531	0.0096	
Earth	29843-01-30 09:36 G	12621020.73	12621020.90	12621021.08	0.0535	0.0345	
Moon	29843-01-30 12:57 G	12621020.86	12621021.04	12621021.23	0.0535	0.0319	*
Moon	29844-03-07 02:09 G	12621422.38	12621422.59	12621422.80	0.0526	0.0250	
Earth	29844-03-07 04:33 G	12621422.48	12621422.69	12621422.90	0.0526	0.0233	*
Mercury	29844-10-16 00:00 G	12621645.40	12621645.50	12621645.60	0.0519	0.0342	
Mercury	29845-01-13 06:43 G	12621734.67	12621734.78	12621734.90	0.0516	0.0252	
Venus	29849-07-10 12:29 G	12623373.86	12623374.02	12623374.20	0.0494	0.0282	
Earth	29849-08-14 02:53 G	12623408.39	12623408.62	12623408.84	0.0494	0.0116	

Moon	29849-08-14 06:00 G	12623408.52	12623408.75	12623408.98	0.0494	0.0130	*
Moon	29850-09-14 19:55 G	12623805.18	12623805.33	12623805.48	0.0504	0.0376	
Earth	29850-09-14 22:19 G	12623805.27	12623805.43	12623805.60	0.0504	0.0349	*
Mercury	29851-03-14 09:21 G	12623985.71	12623985.89	12623986.07	0.0510	0.0008	
Moon	29855-02-04 15:21 G	12625408.94	12625409.14	12625409.35	0.0534	0.0283	
Earth	29855-02-04 17:17 G	12625409.02	12625409.22	12625409.43	0.0534	0.0262	*
Venus	29855-05-16 22:48 G	12625510.25	12625510.45	12625510.65	0.0532	0.0011	
Earth	29856-03-12 06:43 G	12625810.59	12625810.78	12625810.97	0.0524	0.0310	
Moon	29856-03-12 06:29 G	12625810.60	12625810.77	12625810.95	0.0524	0.0334	*
Mercury	29856-08-04 04:19 G	12625955.64	12625955.68	12625955.73	0.0519	0.0482	
Mercury	29856-11-01 11:02 G	12626044.83	12626044.96	12626045.09	0.0516	0.0109	
Earth	29860-07-18 14:38 G	12627400.06	12627400.11	12627400.18	0.0490	0.0471	
Moon	29860-07-18 18:14 G	12627400.17	12627400.26	12627400.36	0.0490	0.0440	*
Moon	29861-08-18 09:21 G	12627795.67	12627795.89	12627796.12	0.0496	0.0078	
Earth	29861-08-18 13:12 G	12627795.82	12627796.05	12627796.28	0.0496	0.0049	*
Earth	29862-09-19 13:55 G	12628192.95	12628193.08	12628193.22	0.0506	0.0416	
Moon	29862-09-19 17:45 G	12628193.12	12628193.24	12628193.37	0.0506	0.0430	*
Mercury	29862-12-31 07:55 G	12628295.67	12628295.83	12628296.00	0.0509	0.0194	
Venus	29867-01-19 12:43 G	12629776.03	12629776.03	12629776.04	0.0533	0.0533	
Earth	29867-02-09 20:53 G	12629797.16	12629797.37	12629797.60	0.0533	0.0182	
Moon	29867-02-09 20:53 G	12629797.17	12629797.37	12629797.58	0.0533	0.0209	*
Earth	29868-03-17 02:38 G	12630198.45	12630198.61	12630198.77	0.0522	0.0378	
Moon	29868-03-17 05:02 G	12630198.54	12630198.71	12630198.89	0.0522	0.0355	*
Mercury	29868-08-20 14:24 G	12630354.97	12630355.10	12630355.23	0.0517	0.0049	
Moon	29872-07-22 17:17 G	12631787.11	12631787.22	12631787.36	0.0491	0.0414	
Earth	29872-07-22 20:24 G	12631787.23	12631787.35	12631787.47	0.0491	0.0421	*
Venus	29873-07-12 21:50 G	12632142.30	12632142.41	12632142.53	0.0496	0.0409	
Earth	29873-08-22 22:33 G	12632183.21	12632183.44	12632183.67	0.0497	0.0014	
Moon	29873-08-23 01:55 G	12632183.35	12632183.58	12632183.81	0.0497	0.0025	*
Moon	29874-09-24 01:55 G	12632580.47	12632580.58	12632580.68	0.0508	0.0454	

Earth	29874-09-24 05:45 G	12632580.67	12632580.74	12632580.82	0.0508	0.0479	*
Mercury	29874-10-19 06:14 G	12632605.65	12632605.76	12632605.88	0.0509	0.0383	
Mercury	29875-01-17 12:29 G	12632695.91	12632696.02	12632696.13	0.0512	0.0399	
Earth	29879-02-14 23:45 G	12634185.26	12634185.49	12634185.72	0.0531	0.0099	
Moon	29879-02-15 01:55 G	12634185.34	12634185.58	12634185.82	0.0531	0.0078	*
Moon	29880-03-21 19:41 G	12634586.19	12634586.32	12634586.46	0.0520	0.0421	
Earth	29880-03-21 23:31 G	12634586.37	12634586.48	12634586.60	0.0520	0.0446	*
Mercury	29880-06-08 18:14 G	12634665.14	12634665.26	12634665.38	0.0518	0.0198	
Mercury	29880-09-06 01:12 G	12634754.47	12634754.55	12634754.64	0.0515	0.0395	
Earth	29884-07-27 03:36 G	12636174.50	12636174.65	12636174.81	0.0492	0.0365	
Moon	29884-07-27 04:33 G	12636174.56	12636174.69	12636174.83	0.0492	0.0392	*
Venus	29885-03-17 23:31 G	12636408.27	12636408.48	12636408.68	0.0495	0.0024	
Moon	29885-08-27 05:45 G	12636570.50	12636570.74	12636570.97	0.0498	0.0110	
Earth	29885-08-27 08:24 G	12636570.62	12636570.85	12636571.08	0.0498	0.0079	*
Mercury	29886-11-05 10:05 G	12637005.77	12637005.92	12637006.09	0.0511	0.0200	
Venus	29891-01-22 13:12 G	12638544.89	12638545.05	12638545.21	0.0531	0.0314	
Moon	29891-02-19 21:07 G	12638573.15	12638573.38	12638573.61	0.0531	0.0008	
Earth	29891-02-20 00:43 G	12638573.30	12638573.53	12638573.77	0.0531	0.0021	*
Earth	29892-03-26 20:24 G	12638974.32	12638974.35	12638974.40	0.0519	0.0509	
Mercury	29892-03-27 22:19 G	12638975.33	12638975.43	12638975.53	0.0519	0.0344	
Mercury	29892-06-25 05:02 G	12639064.60	12639064.71	12639064.83	0.0516	0.0249	
Earth	29896-07-31 11:45 G	12640561.80	12640561.99	12640562.17	0.0492	0.0305	
Moon	29896-07-31 12:43 G	12640561.85	12640562.03	12640562.22	0.0492	0.0312	*
Venus	29896-11-21 01:55 G	12640674.50	12640674.58	12640674.66	0.0493	0.0452	
Earth	29897-08-31 18:29 G	12640958.05	12640958.27	12640958.50	0.0499	0.0146	
Moon	29897-08-31 19:55 G	12640958.12	12640958.33	12640958.55	0.0499	0.0149	*
Mercury	29898-08-24 08:09 G	12641315.66	12641315.84	12641316.01	0.0510	0.0006	
Earth	29902-01-20 00:43 G	12642559.46	12642559.53	12642559.61	0.0536	0.0506	
Venus	29902-09-28 04:19 G	12642810.50	12642810.68	12642810.86	0.0533	0.0225	
Earth	29903-02-26 04:33 G	12642961.45	12642961.69	12642961.92	0.0529	0.0068	

Moon	29903-02-26 08:09 G	12642961.61	12642961.84	12642962.07	0.0529	0.0041	*
Mercury	29904-01-16 02:38 G	12643285.57	12643285.61	12643285.66	0.0520	0.0484	
Mercury	29904-04-14 09:21 G	12643374.76	12643374.89	12643375.02	0.0517	0.0106	
Moon	29908-08-05 16:05 G	12644948.97	12644949.17	12644949.38	0.0493	0.0220	
Earth	29908-08-05 18:29 G	12644949.07	12644949.27	12644949.47	0.0493	0.0246	*
Earth	29909-09-06 04:33 G	12645345.48	12645345.69	12645345.90	0.0501	0.0213	
Moon	29909-09-06 04:48 G	12645345.48	12645345.70	12645345.93	0.0501	0.0185	*
Mercury	29910-06-13 05:45 G	12645625.58	12645625.74	12645625.91	0.0509	0.0195	
Earth	29914-01-25 08:24 G	12646947.72	12646947.85	12646948.00	0.0536	0.0431	
Moon	29914-01-25 12:14 G	12646947.87	12646948.01	12646948.16	0.0536	0.0410	*
Moon	29915-03-03 05:31 G	12647349.50	12647349.73	12647349.97	0.0528	0.0124	
Earth	29915-03-03 08:24 G	12647349.63	12647349.85	12647350.08	0.0528	0.0150	*
Mercury	29916-02-01 13:26 G	12647684.93	12647685.06	12647685.20	0.0517	0.0039	
Earth	29920-08-10 03:07 G	12649336.41	12649336.63	12649336.85	0.0493	0.0183	
Moon	29920-08-10 06:14 G	12649336.54	12649336.76	12649336.99	0.0493	0.0162	*
Venus	29920-11-24 10:05 G	12649442.74	12649442.92	12649443.10	0.0495	0.0229	
Moon	29921-09-10 15:36 G	12649732.96	12649733.15	12649733.34	0.0502	0.0278	
Earth	29921-09-10 17:45 G	12649733.06	12649733.24	12649733.44	0.0502	0.0282	*
Mercury	29922-04-01 04:19 G	12649935.56	12649935.68	12649935.79	0.0509	0.0382	
Mercury	29922-06-30 10:19 G	12650025.83	12650025.93	12650026.04	0.0512	0.0400	
Moon	29926-01-30 12:00 G	12651335.82	12651336.00	12651336.19	0.0535	0.0329	
Earth	29926-01-30 14:38 G	12651335.94	12651336.11	12651336.29	0.0535	0.0354	*
Earth	29927-03-08 07:41 G	12651737.61	12651737.82	12651738.03	0.0526	0.0224	
Moon	29927-03-08 08:24 G	12651737.65	12651737.85	12651738.05	0.0526	0.0245	*
Mercury	29927-11-20 17:02 G	12651995.09	12651995.21	12651995.33	0.0517	0.0191	
Mercury	29928-02-18 00:00 G	12652084.42	12652084.50	12652084.58	0.0514	0.0401	
Venus	29932-07-30 11:31 G	12653708.80	12653708.98	12653709.17	0.0495	0.0203	
Moon	29932-08-14 06:43 G	12653723.56	12653723.78	12653724.01	0.0495	0.0140	
Earth	29932-08-14 10:33 G	12653723.71	12653723.94	12653724.17	0.0495	0.0122	*
Earth	29933-09-15 06:57 G	12654120.63	12654120.79	12654120.96	0.0504	0.0345	

Moon	29933-09-15 10:48 G	12654120.80	12654120.95	12654121.11	0.0504	0.0377 *
Mercury	29934-04-18 08:53 G	12654335.72	12654335.87	12654336.03	0.0511	0.0212
Earth	29938-02-04 18:29 G	12655724.07	12655724.27	12655724.47	0.0534	0.0272
Moon	29938-02-04 19:12 G	12655724.11	12655724.30	12655724.49	0.0534	0.0296 *
Venus	29938-06-05 21:36 G	12655845.20	12655845.40	12655845.60	0.0531	0.0097
Earth	29939-03-13 06:14 G	12656125.57	12656125.76	12656125.95	0.0524	0.0300
Moon	29939-03-13 07:55 G	12656125.65	12656125.83	12656126.03	0.0524	0.0318 *
Mercury	29939-09-08 20:53 G	12656305.27	12656305.37	12656305.47	0.0518	0.0340
Mercury	29939-12-07 03:36 G	12656394.54	12656394.65	12656394.77	0.0515	0.0250
Moon	29943-07-19 17:31 G	12657715.14	12657715.23	12657715.33	0.0491	0.0449
Earth	29943-07-19 20:09 G	12657715.30	12657715.34	12657715.39	0.0491	0.0479 *
Earth	29944-08-18 19:12 G	12658111.07	12658111.30	12658111.53	0.0496	0.0058
Moon	29944-08-18 22:33 G	12658111.22	12658111.44	12658111.67	0.0496	0.0081 *
Moon	29945-09-19 15:07 G	12658508.01	12658508.13	12658508.26	0.0506	0.0425
Earth	29945-09-19 19:26 G	12658508.17	12658508.31	12658508.44	0.0506	0.0408 *
Mercury	29946-02-04 06:29 G	12658645.60	12658645.77	12658645.95	0.0510	0.0013
Venus	29950-02-08 10:19 G	12660110.83	12660110.93	12660111.04	0.0533	0.0457
Earth	29950-02-09 19:26 G	12660112.09	12660112.31	12660112.53	0.0533	0.0192
Moon	29950-02-09 20:38 G	12660112.14	12660112.36	12660112.58	0.0533	0.0215 *
Moon	29951-03-18 00:14 G	12660513.35	12660513.51	12660513.69	0.0523	0.0347
Earth	29951-03-18 03:50 G	12660513.50	12660513.66	12660513.82	0.0523	0.0371 *
Mercury	29951-06-28 00:43 G	12660615.49	12660615.53	12660615.58	0.0519	0.0489
Mercury	29951-09-25 07:26 G	12660704.68	12660704.81	12660704.94	0.0516	0.0101
Earth	29955-07-24 03:50 G	12662102.55	12662102.66	12662102.78	0.0491	0.0423
Moon	29955-07-24 04:33 G	12662102.59	12662102.69	12662102.80	0.0491	0.0427 *
Venus	29956-08-01 19:55 G	12662477.29	12662477.33	12662477.38	0.0496	0.0482
Moon	29956-08-23 01:41 G	12662498.33	12662498.57	12662498.81	0.0497	0.0023
Earth	29956-08-23 04:33 G	12662498.45	12662498.69	12662498.92	0.0497	0.0012 *
Earth	29957-09-24 08:24 G	12662895.78	12662895.85	12662895.95	0.0507	0.0473
Moon	29957-09-24 12:14 G	12662895.91	12662896.01	12662896.12	0.0507	0.0448 *

Mercury	29957-11-23 04:05 G	12662955.51	12662955.67	12662955.84	0.0509	0.0187
Moon	29962-02-14 20:24 G	12664500.12	12664500.35	12664500.57	0.0532	0.0085
Earth	29962-02-14 23:31 G	12664500.25	12664500.48	12664500.71	0.0532	0.0108 *
Earth	29963-03-23 02:53 G	12664901.51	12664901.62	12664901.75	0.0521	0.0442
Moon	29963-03-23 07:12 G	12664901.66	12664901.80	12664901.94	0.0521	0.0417 *
Mercury	29963-07-14 11:31 G	12665014.85	12665014.98	12665015.12	0.0517	0.0044
Earth	29967-07-28 10:05 G	12666489.77	12666489.92	12666490.08	0.0491	0.0368
Moon	29967-07-28 11:17 G	12666489.83	12666489.97	12666490.11	0.0491	0.0396 *
Venus	29968-04-06 21:07 G	12666743.18	12666743.38	12666743.59	0.0495	0.0046
Earth	29968-08-27 12:57 G	12666885.81	12666886.04	12666886.27	0.0498	0.0074
Moon	29968-08-27 14:24 G	12666885.88	12666886.10	12666886.32	0.0498	0.0104 *
Mercury	29969-09-11 01:41 G	12667265.46	12667265.57	12667265.68	0.0508	0.0388
Mercury	29969-12-10 07:55 G	12667355.72	12667355.83	12667355.94	0.0511	0.0393
Venus	29974-02-11 13:55 G	12668879.96	12668880.08	12668880.21	0.0531	0.0409
Earth	29974-02-20 04:48 G	12668888.47	12668888.70	12668888.93	0.0531	0.0023
Moon	29974-02-20 08:38 G	12668888.63	12668888.86	12668889.09	0.0531	0.0007 *
Earth	29975-03-28 02:09 G	12669289.55	12669289.59	12669289.64	0.0519	0.0506
Mercury	29975-05-02 15:50 G	12669325.04	12669325.16	12669325.28	0.0518	0.0184
Mercury	29975-07-30 22:48 G	12669414.37	12669414.45	12669414.53	0.0515	0.0409
Moon	29979-08-01 15:21 G	12670876.97	12670877.14	12670877.31	0.0492	0.0316
Earth	29979-08-01 17:45 G	12670877.06	12670877.24	12670877.42	0.0492	0.0309 *
Venus	29979-12-11 23:45 G	12671009.36	12671009.49	12671009.62	0.0494	0.0382
Moon	29980-09-01 00:00 G	12671273.27	12671273.50	12671273.74	0.0499	0.0140
Earth	29980-09-01 00:00 G	12671273.28	12671273.50	12671273.72	0.0499	0.0143 *
Mercury	29981-09-28 06:29 G	12671665.62	12671665.77	12671665.93	0.0511	0.0208
Earth	29985-01-19 04:48 G	12672874.64	12672874.70	12672874.76	0.0536	0.0515
Venus	29985-10-17 04:48 G	12673145.50	12673145.70	12673145.89	0.0532	0.0129
Moon	29986-02-25 03:50 G	12673276.42	12673276.66	12673276.90	0.0529	0.0032
Earth	29986-02-25 07:12 G	12673276.56	12673276.80	12673277.03	0.0529	0.0058 *
Mercury	29987-02-18 19:26 G	12673635.21	12673635.31	12673635.41	0.0518	0.0337

Mercury	29987-05-19 02:09 G	12673724.48	12673724.59	12673724.71	0.0515	0.0253
Earth	29991-08-05 23:02 G	12675264.26	12675264.46	12675264.66	0.0493	0.0253
Moon	29991-08-06 02:24 G	12675264.39	12675264.60	12675264.81	0.0493	0.0224 *
Moon	29992-09-05 08:24 G	12675660.64	12675660.85	12675661.07	0.0501	0.0180
Earth	29992-09-05 10:33 G	12675660.73	12675660.94	12675661.15	0.0501	0.0207 *
Mercury	29993-07-17 04:48 G	12675975.52	12675975.70	12675975.87	0.0510	0.0017
Mars	29995-06-09 08:38 G	12676667.64	12676667.86	12676668.09	0.0531	0.0255
Moon	29997-01-24 06:14 G	12677262.61	12677262.76	12677262.91	0.0535	0.0415
Earth	29997-01-24 09:36 G	12677262.77	12677262.90	12677263.03	0.0535	0.0440 *
Earth	29998-03-02 07:26 G	12677664.58	12677664.81	12677665.03	0.0527	0.0139
Moon	29998-03-02 08:53 G	12677664.65	12677664.87	12677665.09	0.0527	0.0117 *
Mercury	29998-12-07 23:17 G	12677945.43	12677945.47	12677945.52	0.0519	0.0486
Mercury	29999-03-07 06:00 G	12678034.62	12678034.75	12678034.88	0.0516	0.0103

31ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 31st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	30003-08-10 03:21 G	12679651.43	12679651.64	12679651.86	0.0494	0.0173		
Earth	30003-08-10 06:57 G	12679651.58	12679651.79	12679652.01	0.0494	0.0192 *		
Venus	30003-12-14 06:57 G	12679777.63	12679777.79	12679777.96	0.0496	0.0298		
Earth	30004-09-09 21:21 G	12680048.20	12680048.39	12680048.59	0.0502	0.0273		
Moon	30004-09-10 00:57 G	12680048.35	12680048.54	12680048.74	0.0502	0.0275 *		
Mercury	30005-05-05 02:09 G	12680285.43	12680285.59	12680285.76	0.0509	0.0185		

Earth	30009-01-29 10:05 G	12681650.75	12681650.92	12681651.09	0.0535	0.0365
Moon	30009-01-29 11:45 G	12681650.81	12681650.99	12681651.16	0.0535	0.0342 *
Earth	30010-03-07 05:17 G	12682052.51	12682052.72	12682052.94	0.0526	0.0215
Moon	30010-03-07 06:14 G	12682052.55	12682052.76	12682052.98	0.0526	0.0238 *
Mercury	30010-12-24 09:36 G	12682344.77	12682344.90	12682345.03	0.0517	0.0050
Earth	30015-08-14 15:36 G	12684038.92	12684039.15	12684039.37	0.0494	0.0127
Moon	30015-08-14 18:57 G	12684039.07	12684039.29	12684039.51	0.0494	0.0151 *
Venus	30015-08-19 09:07 G	12684043.68	12684043.88	12684044.07	0.0494	0.0135
Moon	30016-09-14 05:31 G	12684435.57	12684435.73	12684435.88	0.0503	0.0370
Earth	30016-09-14 09:36 G	12684435.73	12684435.90	12684436.07	0.0503	0.0338 *
Mercury	30017-02-20 23:45 G	12684595.38	12684595.49	12684595.61	0.0508	0.0384
Mercury	30017-05-22 06:00 G	12684685.64	12684685.75	12684685.86	0.0511	0.0396
Earth	30021-02-03 14:24 G	12686038.90	12686039.10	12686039.30	0.0534	0.0283
Moon	30021-02-03 14:38 G	12686038.91	12686039.11	12686039.31	0.0534	0.0304 *
Venus	30021-06-24 18:29 G	12686180.08	12686180.27	12686180.46	0.0532	0.0167
Moon	30022-03-12 02:53 G	12686440.44	12686440.62	12686440.80	0.0525	0.0311
Earth	30022-03-12 05:45 G	12686440.55	12686440.74	12686440.94	0.0525	0.0293 *
Mercury	30022-10-12 13:41 G	12686654.95	12686655.07	12686655.20	0.0518	0.0194
Mercury	30023-01-09 20:38 G	12686744.28	12686744.36	12686744.45	0.0515	0.0401
Moon	30026-07-19 02:38 G	12688030.53	12688030.61	12688030.69	0.0490	0.0459
Earth	30026-07-19 01:41 G	12688030.54	12688030.57	12688030.61	0.0490	0.0483 *
Moon	30027-08-18 20:09 G	12688426.10	12688426.34	12688426.57	0.0495	0.0086
Earth	30027-08-18 22:48 G	12688426.22	12688426.45	12688426.68	0.0495	0.0063 *
Earth	30028-09-18 20:38 G	12688823.22	12688823.36	12688823.50	0.0505	0.0402
Moon	30028-09-19 00:14 G	12688823.39	12688823.51	12688823.65	0.0505	0.0417 *
Mercury	30029-03-10 03:50 G	12688995.50	12688995.66	12688995.82	0.0511	0.0198
Moon	30033-02-08 17:45 G	12690427.04	12690427.24	12690427.45	0.0534	0.0221
Earth	30033-02-08 20:24 G	12690427.14	12690427.35	12690427.57	0.0534	0.0200 *
Venus	30033-02-27 09:50 G	12690445.76	12690445.91	12690446.05	0.0533	0.0371
Earth	30034-03-17 06:43 G	12690828.62	12690828.78	12690828.95	0.0523	0.0367

Moon	30034-03-17 10:48 G	12690828.78	12690828.95	12690829.13	0.0523	0.0339 *
Mercury	30034-07-31 18:00 G	12690965.15	12690965.25	12690965.35	0.0519	0.0336
Mercury	30034-10-29 00:43 G	12691054.42	12691054.53	12691054.65	0.0516	0.0257
Earth	30038-07-23 08:24 G	12692417.73	12692417.85	12692417.96	0.0491	0.0428
Moon	30038-07-23 09:21 G	12692417.78	12692417.89	12692418.00	0.0491	0.0437 *
Earth	30039-08-23 07:55 G	12692813.60	12692813.83	12692814.07	0.0496	0.0004
Moon	30039-08-23 09:36 G	12692813.67	12692813.90	12692814.12	0.0496	0.0019 *
Moon	30040-09-23 08:53 G	12693210.76	12693210.87	12693210.99	0.0507	0.0441
Earth	30040-09-23 11:31 G	12693210.90	12693210.98	12693211.07	0.0507	0.0467 *
Mercury	30040-12-27 02:09 G	12693305.41	12693305.59	12693305.76	0.0510	0.0009
Earth	30045-02-14 01:12 G	12694815.33	12694815.55	12694815.78	0.0532	0.0118
Moon	30045-02-14 05:17 G	12694815.49	12694815.72	12694815.95	0.0532	0.0088 *
Moon	30046-03-22 00:14 G	12695216.37	12695216.51	12695216.66	0.0521	0.0407
Earth	30046-03-22 04:05 G	12695216.55	12695216.67	12695216.80	0.0521	0.0433 *
Mercury	30046-05-19 21:50 G	12695275.37	12695275.41	12695275.45	0.0519	0.0484
Mercury	30046-08-17 04:19 G	12695364.55	12695364.68	12695364.81	0.0516	0.0104
Moon	30050-07-27 10:05 G	12696804.80	12696804.92	12696805.05	0.0491	0.0408
Earth	30050-07-27 12:29 G	12696804.87	12696805.02	12696805.17	0.0491	0.0376 *
Venus	30051-04-26 17:31 G	12697078.03	12697078.23	12697078.43	0.0495	0.0109
Moon	30051-08-27 16:05 G	12697200.93	12697201.17	12697201.41	0.0498	0.0094
Earth	30051-08-27 16:05 G	12697200.94	12697201.17	12697201.41	0.0498	0.0067 *
Mercury	30052-10-15 00:00 G	12697615.34	12697615.50	12697615.67	0.0510	0.0187
Moon	30057-02-18 23:45 G	12699203.25	12699203.49	12699203.72	0.0531	0.0016
Earth	30057-02-19 03:21 G	12699203.41	12699203.64	12699203.88	0.0531	0.0036 *
Venus	30057-03-02 11:31 G	12699214.90	12699214.98	12699215.06	0.0530	0.0483
Earth	30058-03-26 23:45 G	12699604.44	12699604.49	12699604.57	0.0519	0.0497
Mercury	30058-06-05 08:09 G	12699674.71	12699674.84	12699674.97	0.0517	0.0048
Earth	30062-07-31 19:26 G	12701192.14	12701192.31	12701192.50	0.0492	0.0318
Moon	30062-07-31 22:48 G	12701192.28	12701192.45	12701192.64	0.0492	0.0322 *
Venus	30062-12-30 19:26 G	12701344.16	12701344.31	12701344.47	0.0494	0.0322

Moon	30063-09-01 00:14 G	12701588.30	12701588.51	12701588.73	0.0499	0.0125
Earth	30063-09-01 02:09 G	12701588.37	12701588.59	12701588.82	0.0499	0.0133 *
Mercury	30064-08-02 21:21 G	12701925.28	12701925.39	12701925.51	0.0508	0.0388
Mercury	30064-11-01 03:36 G	12702015.55	12702015.65	12702015.77	0.0511	0.0395
Earth	30068-01-18 22:05 G	12703189.38	12703189.42	12703189.47	0.0536	0.0525
Venus	30068-11-04 23:45 G	12703480.29	12703480.49	12703480.70	0.0532	0.0071
Earth	30069-02-24 01:41 G	12703591.34	12703591.57	12703591.80	0.0530	0.0046
Moon	30069-02-24 04:05 G	12703591.44	12703591.67	12703591.90	0.0530	0.0022 *
Mercury	30070-03-24 11:45 G	12703984.87	12703984.99	12703985.11	0.0518	0.0201
Mercury	30070-06-21 18:43 G	12704074.19	12704074.28	12704074.36	0.0515	0.0392
Moon	30074-08-05 00:14 G	12705579.30	12705579.51	12705579.71	0.0492	0.0230
Earth	30074-08-05 03:50 G	12705579.46	12705579.66	12705579.86	0.0492	0.0257 *
Earth	30075-09-05 12:43 G	12705975.82	12705976.03	12705976.25	0.0500	0.0201
Moon	30075-09-05 16:19 G	12705975.95	12705976.18	12705976.40	0.0500	0.0171 *
Mercury	30076-08-20 01:41 G	12706325.41	12706325.57	12706325.73	0.0510	0.0198
Earth	30080-01-24 01:55 G	12707577.47	12707577.58	12707577.71	0.0536	0.0452
Moon	30080-01-24 04:33 G	12707577.56	12707577.69	12707577.83	0.0536	0.0426 *
Moon	30081-03-01 03:07 G	12707979.40	12707979.63	12707979.87	0.0529	0.0111
Earth	30081-03-01 03:21 G	12707979.41	12707979.64	12707979.86	0.0529	0.0129 *
Mercury	30082-01-10 15:50 G	12708295.06	12708295.16	12708295.26	0.0519	0.0347
Mercury	30082-04-09 22:33 G	12708384.33	12708384.44	12708384.56	0.0516	0.0246
Earth	30086-08-09 10:05 G	12709966.71	12709966.92	12709967.14	0.0493	0.0197
Moon	30086-08-09 13:41 G	12709966.86	12709967.07	12709967.28	0.0493	0.0186 *
Venus	30087-01-02 03:07 G	12710112.49	12710112.63	12710112.77	0.0495	0.0357
Moon	30087-09-09 18:14 G	12710363.07	12710363.26	12710363.46	0.0501	0.0266
Earth	30087-09-09 22:19 G	12710363.23	12710363.43	12710363.63	0.0501	0.0265 *
Mercury	30088-06-07 23:02 G	12710635.29	12710635.46	12710635.64	0.0510	0.0009
Moon	30092-01-29 07:41 G	12711965.64	12711965.82	12711966.01	0.0535	0.0350
Earth	30092-01-29 08:24 G	12711965.69	12711965.85	12711966.02	0.0535	0.0374 *
Moon	30093-03-06 03:21 G	12712367.45	12712367.64	12712367.85	0.0527	0.0237

Earth	30093-03-06 06:00 G	12712367.54	12712367.75	12712367.96	0.0527	0.0208	*
Mercury	30093-10-29 20:09 G	12712605.30	12712605.34	12712605.38	0.0520	0.0488	
Mercury	30094-01-27 02:38 G	12712694.48	12712694.61	12712694.74	0.0517	0.0102	
Mars	30095-12-13 17:45 G	12713379.98	12713380.24	12713380.51	0.0496	0.0216	
Moon	30098-08-13 15:07 G	12714353.91	12714354.13	12714354.36	0.0494	0.0159	
Earth	30098-08-13 18:00 G	12714354.02	12714354.25	12714354.47	0.0494	0.0133	*
Venus	30098-09-07 04:48 G	12714378.50	12714378.70	12714378.91	0.0494	0.0076	
Earth	30099-09-14 10:33 G	12714750.77	12714750.94	12714751.12	0.0503	0.0331	
Moon	30099-09-14 14:24 G	12714750.94	12714751.10	12714751.26	0.0503	0.0363	*
Mercury	30100-03-27 21:07 G	12714945.22	12714945.38	12714945.55	0.0509	0.0197	
Moon	30104-02-04 13:26 G	12716353.89	12716354.06	12716354.25	0.0534	0.0318	
Earth	30104-02-04 15:21 G	12716353.94	12716354.14	12716354.33	0.0534	0.0293	*
Venus	30104-07-14 17:31 G	12716515.05	12716515.23	12716515.41	0.0531	0.0252	
Earth	30105-03-12 06:29 G	12716755.58	12716755.77	12716755.97	0.0525	0.0283	
Moon	30105-03-12 10:19 G	12716755.74	12716755.93	12716756.13	0.0525	0.0300	*
Mercury	30105-11-16 06:29 G	12717004.64	12717004.77	12717004.90	0.0517	0.0049	
Moon	30109-07-19 03:07 G	12718345.57	12718345.63	12718345.72	0.0491	0.0466	
Earth	30109-07-19 02:24 G	12718345.59	12718345.60	12718345.62	0.0491	0.0489	*
Earth	30110-08-19 00:14 G	12718741.28	12718741.51	12718741.74	0.0495	0.0071	
Moon	30110-08-19 01:55 G	12718741.36	12718741.58	12718741.80	0.0495	0.0093	*
Moon	30111-09-19 19:55 G	12719138.19	12719138.33	12719138.47	0.0505	0.0405	
Earth	30111-09-19 22:48 G	12719138.31	12719138.45	12719138.59	0.0505	0.0395	*
Mercury	30112-01-14 18:43 G	12719255.18	12719255.28	12719255.40	0.0509	0.0395	
Mercury	30112-04-14 01:26 G	12719345.45	12719345.56	12719345.67	0.0512	0.0390	
Earth	30116-02-09 18:57 G	12720742.08	12720742.29	12720742.51	0.0533	0.0211	
Moon	30116-02-09 22:48 G	12720742.24	12720742.45	12720742.67	0.0533	0.0223	*
Venus	30116-03-19 07:41 G	12720780.65	12720780.82	12720780.99	0.0533	0.0293	
Moon	30117-03-17 00:43 G	12721143.35	12721143.53	12721143.71	0.0523	0.0332	
Earth	30117-03-17 04:33 G	12721143.53	12721143.69	12721143.87	0.0523	0.0357	*
Mercury	30117-09-04 10:19 G	12721314.81	12721314.93	12721315.05	0.0517	0.0199	

Mercury	30117-12-02 17:02 G	12721404.13	12721404.21	12721404.30	0.0514	0.0393
Moon	30121-07-23 06:57 G	12722732.70	12722732.79	12722732.88	0.0491	0.0449
Earth	30121-07-23 09:07 G	12722732.78	12722732.88	12722732.99	0.0491	0.0436 *
Moon	30122-08-23 08:53 G	12723128.63	12723128.87	12723129.12	0.0496	0.0012
Earth	30122-08-23 09:21 G	12723128.65	12723128.89	12723129.12	0.0496	0.0007 *
Earth	30123-09-24 11:45 G	12723525.90	12723525.99	12723526.09	0.0506	0.0459
Moon	30123-09-24 12:43 G	12723525.92	12723526.03	12723526.15	0.0506	0.0431 *
Mercury	30124-01-31 23:02 G	12723655.30	12723655.46	12723655.63	0.0511	0.0192
Moon	30128-02-14 13:55 G	12725129.85	12725130.08	12725130.31	0.0532	0.0101
Earth	30128-02-14 17:45 G	12725130.02	12725130.24	12725130.47	0.0532	0.0131 *
Earth	30129-03-21 23:17 G	12725531.35	12725531.47	12725531.62	0.0522	0.0426
Moon	30129-03-22 02:24 G	12725531.46	12725531.60	12725531.75	0.0522	0.0406 *
Mercury	30129-06-23 13:55 G	12725624.98	12725625.08	12725625.17	0.0519	0.0354
Mercury	30129-09-20 20:38 G	12725714.24	12725714.36	12725714.47	0.0516	0.0237
Earth	30133-07-27 17:02 G	12727120.07	12727120.21	12727120.36	0.0491	0.0379
Moon	30133-07-27 20:24 G	12727120.22	12727120.35	12727120.48	0.0491	0.0409 *
Venus	30134-05-16 14:09 G	12727412.90	12727413.09	12727413.29	0.0495	0.0172
Moon	30134-08-27 17:31 G	12727516.01	12727516.23	12727516.45	0.0497	0.0085
Earth	30134-08-27 18:57 G	12727516.06	12727516.29	12727516.52	0.0497	0.0062 *
Moon	30135-09-29 02:38 G	12727913.60	12727913.61	12727913.61	0.0508	0.0507
Mercury	30135-11-19 20:53 G	12727965.20	12727965.37	12727965.55	0.0510	0.0009
Earth	30140-02-19 20:09 G	12729518.11	12729518.34	12729518.58	0.0532	0.0047
Moon	30140-02-19 23:17 G	12729518.25	12729518.47	12729518.70	0.0532	0.0027 *
Moon	30141-03-26 19:55 G	12729919.31	12729919.33	12729919.37	0.0520	0.0516
Earth	30141-03-26 21:07 G	12729919.31	12729919.38	12729919.46	0.0520	0.0491 *
Mercury	30141-04-11 18:00 G	12729935.22	12729935.25	12729935.28	0.0520	0.0501
Mercury	30141-07-10 00:29 G	12730024.39	12730024.52	12730024.65	0.0517	0.0090
Moon	30145-07-31 19:41 G	12731507.15	12731507.32	12731507.49	0.0491	0.0327
Earth	30145-07-31 23:17 G	12731507.30	12731507.47	12731507.65	0.0491	0.0323 *
Venus	30146-01-19 15:36 G	12731678.97	12731679.15	12731679.32	0.0494	0.0262

Earth	30146-09-01 03:07 G	12731903.41	12731903.63	12731903.86	0.0498	0.0126
Moon	30146-09-01 06:29 G	12731903.54	12731903.77	12731904.00	0.0498	0.0110 *
Mercury	30147-09-07 18:14 G	12732275.10	12732275.26	12732275.42	0.0509	0.0210
Mars	30149-09-02 09:50 G	12733000.79	12733000.91	12733001.04	0.0531	0.0458
Earth	30151-01-18 18:14 G	12733504.25	12733504.26	12733504.28	0.0536	0.0535
Venus	30151-11-25 21:21 G	12733815.19	12733815.39	12733815.59	0.0532	0.0007
Moon	30152-02-24 23:02 G	12733906.22	12733906.46	12733906.71	0.0530	0.0016
Earth	30152-02-25 00:14 G	12733906.28	12733906.51	12733906.74	0.0530	0.0038 *
Mercury	30153-04-28 04:33 G	12734334.56	12734334.69	12734334.82	0.0517	0.0056
Earth	30157-08-05 06:00 G	12735894.55	12735894.75	12735894.95	0.0492	0.0263
Moon	30157-08-05 09:21 G	12735894.69	12735894.89	12735895.10	0.0492	0.0234 *
Moon	30158-09-05 09:36 G	12736290.68	12736290.90	12736291.12	0.0500	0.0163
Earth	30158-09-05 13:26 G	12736290.85	12736291.06	12736291.28	0.0500	0.0194 *
Mercury	30159-06-26 15:50 G	12736585.06	12736585.16	12736585.27	0.0508	0.0406
Mercury	30159-09-24 22:33 G	12736675.32	12736675.44	12736675.55	0.0511	0.0378
Moon	30163-01-24 00:43 G	12737892.40	12737892.53	12737892.68	0.0536	0.0434
Earth	30163-01-24 02:09 G	12737892.48	12737892.59	12737892.72	0.0536	0.0461 *
Venus	30163-07-31 12:43 G	12738081.03	12738081.03	12738081.03	0.0533	0.0533
Moon	30164-03-01 02:09 G	12738294.38	12738294.59	12738294.82	0.0529	0.0108
Earth	30164-03-01 03:50 G	12738294.44	12738294.66	12738294.89	0.0529	0.0120 *
Mercury	30165-02-14 08:38 G	12738644.74	12738644.86	12738644.98	0.0518	0.0201
Mercury	30165-05-14 15:21 G	12738734.06	12738734.14	12738734.23	0.0515	0.0391
Moon	30169-08-09 08:09 G	12740281.62	12740281.84	12740282.06	0.0493	0.0195
Earth	30169-08-09 10:48 G	12740281.75	12740281.95	12740282.17	0.0493	0.0204 *
Venus	30170-01-21 22:05 G	12740447.31	12740447.42	12740447.54	0.0496	0.0412
Earth	30170-09-09 23:17 G	12740678.27	12740678.47	12740678.67	0.0501	0.0258
Moon	30170-09-10 03:07 G	12740678.44	12740678.63	12740678.83	0.0501	0.0260 *
Mercury	30171-07-13 20:38 G	12740985.19	12740985.36	12740985.52	0.0511	0.0185
Moon	30175-01-29 06:57 G	12742280.63	12742280.79	12742280.96	0.0535	0.0363
Earth	30175-01-29 07:41 G	12742280.66	12742280.82	12742280.99	0.0535	0.0382 *

Earth	30176-03-06 04:33 G	12742682.47	12742682.69	12742682.90	0.0527	0.0199
Moon	30176-03-06 07:55 G	12742682.62	12742682.83	12742683.05	0.0527	0.0231 *
Mercury	30176-12-03 12:29 G	12742954.93	12742955.02	12742955.12	0.0518	0.0350
Mercury	30177-03-02 19:12 G	12743044.18	12743044.30	12743044.41	0.0515	0.0240
Earth	30181-08-13 19:12 G	12744669.08	12744669.30	12744669.53	0.0494	0.0140
Moon	30181-08-13 20:53 G	12744669.16	12744669.37	12744669.59	0.0494	0.0168 *
Venus	30181-09-27 00:00 G	12744713.30	12744713.50	12744713.71	0.0495	0.0022
Moon	30182-09-14 08:09 G	12745065.67	12745065.84	12745066.01	0.0503	0.0353
Earth	30182-09-14 11:17 G	12745065.80	12745065.97	12745066.15	0.0503	0.0325 *
Mercury	30183-05-01 18:14 G	12745295.09	12745295.26	12745295.44	0.0510	0.0017
Earth	30187-02-03 06:43 G	12746668.60	12746668.78	12746668.98	0.0535	0.0305
Moon	30187-02-03 09:50 G	12746668.73	12746668.91	12746669.10	0.0535	0.0332 *
Venus	30187-08-03 11:17 G	12746849.81	12746849.97	12746850.14	0.0531	0.0303
Moon	30188-03-10 20:09 G	12747070.15	12747070.34	12747070.54	0.0526	0.0295
Earth	30188-03-11 00:14 G	12747070.31	12747070.51	12747070.71	0.0526	0.0274 *
Mercury	30188-09-21 15:50 G	12747265.14	12747265.16	12747265.19	0.0520	0.0508
Mercury	30188-12-19 22:33 G	12747354.31	12747354.44	12747354.57	0.0517	0.0082
Moon	30192-07-18 05:31 G	12748660.67	12748660.73	12748660.79	0.0491	0.0471
Venus	30193-06-02 02:53 G	12748979.54	12748979.62	12748979.71	0.0493	0.0444
Moon	30193-08-18 03:50 G	12749056.43	12749056.66	12749056.90	0.0495	0.0094
Earth	30193-08-18 04:19 G	12749056.45	12749056.68	12749056.91	0.0495	0.0075 *
Earth	30194-09-18 23:45 G	12749453.36	12749453.49	12749453.65	0.0504	0.0391
Moon	30194-09-19 01:26 G	12749453.42	12749453.56	12749453.70	0.0504	0.0392 *
Mercury	30195-02-17 16:05 G	12749605.01	12749605.17	12749605.33	0.0509	0.0209
Moon	30199-02-08 06:00 G	12751056.55	12751056.75	12751056.97	0.0534	0.0240
Earth	30199-02-08 10:19 G	12751056.72	12751056.93	12751057.14	0.0534	0.0222 *
Venus	30199-04-08 01:12 G	12751115.37	12751115.55	12751115.73	0.0533	0.0244
Earth	30200-03-16 23:17 G	12751458.30	12751458.47	12751458.65	0.0524	0.0350
Moon	30200-03-17 02:38 G	12751458.44	12751458.61	12751458.80	0.0524	0.0325 *
Mercury	30200-10-09 02:24 G	12751664.47	12751664.60	12751664.73	0.0518	0.0066

Earth	30204-07-23 13:55 G	12753047.97	12753048.08	12753048.18	0.0491	0.0440
Moon	30204-07-23 17:02 G	12753048.12	12753048.21	12753048.30	0.0491	0.0454 *
Moon	30205-08-23 10:19 G	12753443.71	12753443.93	12753444.16	0.0495	0.0011
Earth	30205-08-23 11:45 G	12753443.75	12753443.99	12753444.22	0.0495	0.0012 *
Moon	30206-09-24 11:31 G	12753840.85	12753840.98	12753841.12	0.0506	0.0420
Earth	30206-09-24 11:02 G	12753840.87	12753840.96	12753841.07	0.0506	0.0452 *
Mercury	30206-12-07 13:12 G	12753914.95	12753915.05	12753915.15	0.0508	0.0415
Mercury	30207-03-07 19:41 G	12754005.20	12754005.32	12754005.44	0.0511	0.0368
Earth	30211-02-14 15:07 G	12755444.90	12755445.13	12755445.35	0.0533	0.0140
Moon	30211-02-14 18:43 G	12755445.06	12755445.28	12755445.51	0.0533	0.0111 *
Moon	30212-03-21 21:50 G	12755846.27	12755846.41	12755846.57	0.0523	0.0404
Earth	30212-03-21 23:45 G	12755846.35	12755846.49	12755846.63	0.0523	0.0420 *
Mercury	30212-07-28 06:43 G	12755974.66	12755974.78	12755974.90	0.0518	0.0210
Mercury	30212-10-25 13:26 G	12756063.98	12756064.06	12756064.15	0.0515	0.0385
Moon	30216-07-27 16:19 G	12757435.07	12757435.18	12757435.31	0.0491	0.0415
Earth	30216-07-27 20:09 G	12757435.20	12757435.34	12757435.49	0.0491	0.0384 *
Venus	30217-06-05 09:36 G	12757747.73	12757747.90	12757748.09	0.0495	0.0229
Earth	30217-08-27 20:09 G	12757831.11	12757831.34	12757831.58	0.0497	0.0056
Moon	30217-08-27 23:17 G	12757831.24	12757831.47	12757831.71	0.0497	0.0076 *
Moon	30218-09-28 23:31 G	12758228.46	12758228.48	12758228.51	0.0508	0.0504
Mercury	30218-12-24 17:45 G	12758315.08	12758315.24	12758315.41	0.0510	0.0176
Moon	30223-02-19 19:12 G	12759833.06	12759833.30	12759833.54	0.0532	0.0037
Earth	30223-02-19 21:21 G	12759833.16	12759833.39	12759833.62	0.0532	0.0055 *
Earth	30224-03-26 22:33 G	12760234.37	12760234.44	12760234.53	0.0520	0.0486
Moon	30224-03-26 22:19 G	12760234.41	12760234.43	12760234.46	0.0520	0.0515 *
Mercury	30224-05-16 10:48 G	12760284.86	12760284.95	12760285.04	0.0519	0.0353
Mercury	30224-08-13 17:17 G	12760374.11	12760374.22	12760374.34	0.0516	0.0239
Earth	30228-08-01 00:14 G	12761822.34	12761822.51	12761822.69	0.0491	0.0329
Moon	30228-08-01 03:50 G	12761822.49	12761822.66	12761822.84	0.0491	0.0324 *
Venus	30229-02-08 10:33 G	12762013.75	12762013.94	12762014.12	0.0494	0.0208

Moon	30229-09-01 00:29 G	12762218.30	12762218.52	12762218.75	0.0498	0.0104
Earth	30229-09-01 04:19 G	12762218.46	12762218.68	12762218.91	0.0498	0.0121 *
Mercury	30230-10-12 15:36 G	12762624.98	12762625.15	12762625.33	0.0510	0.0022
Venus	30234-12-15 19:55 G	12764150.13	12764150.33	12764150.53	0.0532	0.0084
Moon	30235-02-24 23:31 G	12764221.25	12764221.48	12764221.70	0.0530	0.0006
Earth	30235-02-25 00:14 G	12764221.27	12764221.51	12764221.74	0.0530	0.0031 *
Mercury	30236-03-04 14:38 G	12764595.08	12764595.11	12764595.15	0.0519	0.0501
Mercury	30236-06-01 21:07 G	12764684.25	12764684.38	12764684.51	0.0516	0.0090
Moon	30240-08-05 05:17 G	12766209.51	12766209.72	12766209.93	0.0492	0.0238
Earth	30240-08-05 08:09 G	12766209.65	12766209.84	12766210.04	0.0492	0.0268 *
Earth	30241-09-05 15:21 G	12766605.92	12766606.14	12766606.35	0.0499	0.0188
Moon	30241-09-05 19:12 G	12766606.08	12766606.30	12766606.53	0.0499	0.0158 *
Mercury	30242-07-31 13:26 G	12766934.90	12766935.06	12766935.22	0.0509	0.0216
Earth	30246-01-23 18:29 G	12768207.17	12768207.27	12768207.39	0.0536	0.0471
Moon	30246-01-23 19:12 G	12768207.18	12768207.30	12768207.42	0.0536	0.0448 *
Venus	30246-08-20 06:43 G	12768415.70	12768415.78	12768415.87	0.0533	0.0480
Earth	30247-03-01 21:07 G	12768609.15	12768609.38	12768609.60	0.0529	0.0110
Moon	30247-03-02 00:00 G	12768609.26	12768609.50	12768609.73	0.0529	0.0098 *
Mercury	30248-03-21 00:29 G	12768994.39	12768994.52	12768994.65	0.0518	0.0074
Mars	30250-03-09 17:31 G	12769712.93	12769713.23	12769713.52	0.0497	0.0019
Earth	30252-08-09 16:48 G	12770596.99	12770597.20	12770597.41	0.0493	0.0206
Moon	30252-08-09 18:29 G	12770597.07	12770597.27	12770597.48	0.0493	0.0202 *
Venus	30253-02-10 19:55 G	12770782.28	12770782.33	12770782.38	0.0496	0.0480
Moon	30253-09-09 23:45 G	12770993.29	12770993.49	12770993.70	0.0501	0.0257
Earth	30253-09-10 03:07 G	12770993.44	12770993.63	12770993.84	0.0501	0.0255 *
Mercury	30254-05-19 11:17 G	12771244.87	12771244.97	12771245.08	0.0508	0.0412
Mercury	30254-08-17 17:45 G	12771335.13	12771335.24	12771335.36	0.0511	0.0371
Earth	30258-01-28 22:33 G	12772595.28	12772595.44	12772595.60	0.0535	0.0394
Moon	30258-01-29 00:29 G	12772595.36	12772595.52	12772595.70	0.0535	0.0377 *
Moon	30259-03-06 17:45 G	12772997.04	12772997.24	12772997.46	0.0528	0.0220

Earth	30259-03-06 21:36 G	12772997.19	12772997.40	12772997.63	0.0528	0.0190	*
Mercury	30260-01-08 04:33 G	12773304.57	12773304.69	12773304.81	0.0518	0.0219	
Mercury	30260-04-06 11:17 G	12773393.89	12773393.97	12773394.07	0.0516	0.0376	
Moon	30264-08-13 23:02 G	12774984.24	12774984.46	12774984.69	0.0493	0.0171	
Earth	30264-08-13 23:45 G	12774984.27	12774984.49	12774984.71	0.0493	0.0144	*
Venus	30264-10-16 20:53 G	12775048.17	12775048.37	12775048.58	0.0494	0.0047	
Earth	30265-09-14 12:57 G	12775380.86	12775381.04	12775381.22	0.0502	0.0318	
Moon	30265-09-14 14:24 G	12775380.95	12775381.10	12775381.27	0.0502	0.0348	*
Mercury	30266-06-05 15:21 G	12775644.97	12775645.14	12775645.30	0.0510	0.0170	
Mars	30268-02-22 19:12 G	12776272.10	12776272.30	12776272.50	0.0530	0.0335	
Moon	30270-02-03 00:00 G	12776983.33	12776983.50	12776983.68	0.0535	0.0346	
Earth	30270-02-03 03:50 G	12776983.48	12776983.66	12776983.85	0.0535	0.0315	*
Venus	30270-08-23 08:53 G	12777184.73	12777184.87	12777185.01	0.0532	0.0376	
Earth	30271-03-12 00:00 G	12777385.30	12777385.50	12777385.70	0.0526	0.0268	
Moon	30271-03-12 03:36 G	12777385.46	12777385.65	12777385.85	0.0526	0.0286	*
Mercury	30271-10-27 08:53 G	12777614.78	12777614.87	12777614.96	0.0519	0.0362	
Mercury	30272-01-24 15:36 G	12777704.03	12777704.15	12777704.26	0.0516	0.0232	
Moon	30275-07-19 15:21 G	12778976.08	12778976.14	12778976.20	0.0490	0.0474	
Venus	30276-06-21 23:02 G	12779314.34	12779314.46	12779314.59	0.0493	0.0383	
Moon	30276-08-18 06:00 G	12779371.53	12779371.75	12779371.98	0.0494	0.0095	
Earth	30276-08-18 07:12 G	12779371.57	12779371.80	12779372.03	0.0494	0.0081	*
Earth	30277-09-19 00:57 G	12779768.39	12779768.54	12779768.69	0.0504	0.0384	
Moon	30277-09-19 00:57 G	12779768.39	12779768.54	12779768.71	0.0504	0.0380	*
Mercury	30278-03-24 13:12 G	12779954.88	12779955.05	12779955.23	0.0509	0.0028	
Earth	30282-02-08 11:31 G	12781371.77	12781371.98	12781372.20	0.0534	0.0231	
Moon	30282-02-08 15:36 G	12781371.95	12781372.15	12781372.36	0.0534	0.0246	*
Venus	30282-04-28 00:43 G	12781450.34	12781450.53	12781450.73	0.0533	0.0156	
Moon	30283-03-16 23:45 G	12781773.30	12781773.49	12781773.69	0.0524	0.0316	
Earth	30283-03-17 02:09 G	12781773.42	12781773.59	12781773.77	0.0524	0.0344	*
Mercury	30283-08-15 13:12 G	12781925.02	12781925.05	12781925.08	0.0520	0.0502	

Mercury	30283-11-12 19:41 G	12782014.19	12782014.32	12782014.45	0.0517	0.0087
Moon	30287-07-23 12:43 G	12783362.95	12783363.03	12783363.11	0.0490	0.0458
Earth	30287-07-23 16:19 G	12783363.09	12783363.18	12783363.28	0.0490	0.0444 *
Earth	30288-08-22 13:55 G	12783758.85	12783759.08	12783759.32	0.0495	0.0017
Moon	30288-08-22 17:02 G	12783758.97	12783759.21	12783759.45	0.0495	0.0012 *
Moon	30289-09-23 11:45 G	12784155.87	12784155.99	12784156.12	0.0506	0.0417
Earth	30289-09-23 13:12 G	12784155.95	12784156.05	12784156.16	0.0506	0.0448 *
Mercury	30290-01-10 11:02 G	12784264.80	12784264.96	12784265.12	0.0509	0.0222
Moon	30294-02-13 13:55 G	12785759.85	12785760.08	12785760.31	0.0533	0.0118
Earth	30294-02-13 16:48 G	12785759.98	12785760.20	12785760.43	0.0533	0.0146 *
Earth	30295-03-22 01:12 G	12786161.42	12786161.55	12786161.70	0.0523	0.0416
Moon	30295-03-22 01:26 G	12786161.43	12786161.56	12786161.71	0.0523	0.0406 *
Mercury	30295-08-31 23:31 G	12786324.35	12786324.48	12786324.61	0.0517	0.0062
Earth	30299-07-27 23:45 G	12787750.35	12787750.49	12787750.63	0.0491	0.0388
Moon	30299-07-28 03:21 G	12787750.52	12787750.64	12787750.76	0.0491	0.0414 *
Venus	30300-06-25 06:29 G	12788082.61	12788082.77	12788082.94	0.0495	0.0292
Moon	30300-08-27 20:24 G	12788146.12	12788146.35	12788146.58	0.0497	0.0072
Earth	30300-08-28 00:14 G	12788146.27	12788146.51	12788146.74	0.0497	0.0051 *
Moon	30301-09-29 06:57 G	12788543.77	12788543.79	12788543.83	0.0507	0.0502
Mercury	30301-10-30 08:53 G	12788574.77	12788574.87	12788574.98	0.0508	0.0416
Mercury	30302-01-28 15:36 G	12788665.03	12788665.15	12788665.27	0.0511	0.0368
Earth	30306-02-19 15:07 G	12790147.90	12790148.13	12790148.36	0.0532	0.0065
Moon	30306-02-19 15:36 G	12790147.93	12790148.15	12790148.38	0.0532	0.0052 *
Earth	30307-03-27 18:43 G	12790549.20	12790549.28	12790549.37	0.0521	0.0481
Moon	30307-03-27 20:09 G	12790549.29	12790549.34	12790549.39	0.0521	0.0508 *
Mercury	30307-06-21 02:53 G	12790634.50	12790634.62	12790634.74	0.0518	0.0221
Mercury	30307-09-18 09:36 G	12790723.81	12790723.90	12790724.00	0.0515	0.0373
Moon	30311-08-02 05:17 G	12792137.54	12792137.72	12792137.90	0.0491	0.0320
Earth	30311-08-02 08:09 G	12792137.67	12792137.84	12792138.01	0.0491	0.0330 *
Venus	30312-02-29 09:21 G	12792348.69	12792348.89	12792349.09	0.0494	0.0133

Earth	30312-09-01 11:02 G	12792533.74	12792533.96	12792534.19	0.0498	0.0119
Moon	30312-09-01 15:07 G	12792533.90	12792534.13	12792534.36	0.0498	0.0100 *
Mercury	30313-11-16 13:41 G	12792974.91	12792975.07	12792975.24	0.0510	0.0178
Venus	30318-01-04 14:09 G	12794484.89	12794485.09	12794485.28	0.0532	0.0137
Earth	30318-02-24 17:17 G	12794535.99	12794536.22	12794536.46	0.0531	0.0020
Moon	30318-02-24 19:26 G	12794536.07	12794536.31	12794536.55	0.0531	0.0011 *
Mercury	30319-04-09 06:57 G	12794944.70	12794944.79	12794944.88	0.0519	0.0369
Mercury	30319-07-07 13:26 G	12795033.95	12795034.06	12795034.18	0.0516	0.0225
Earth	30323-08-06 14:53 G	12796524.93	12796525.12	12796525.32	0.0492	0.0273
Moon	30323-08-06 16:33 G	12796525.00	12796525.19	12796525.39	0.0492	0.0243 *
Moon	30324-09-05 16:19 G	12796920.96	12796921.18	12796921.41	0.0499	0.0155
Earth	30324-09-05 19:55 G	12796921.12	12796921.33	12796921.55	0.0499	0.0183 *
Mercury	30325-09-04 11:17 G	12797284.79	12797284.97	12797285.14	0.0509	0.0025
Earth	30329-01-23 16:05 G	12798522.07	12798522.17	12798522.27	0.0536	0.0481
Moon	30329-01-23 17:02 G	12798522.09	12798522.21	12798522.34	0.0536	0.0453 *
Venus	30329-09-09 04:33 G	12798750.57	12798750.69	12798750.83	0.0534	0.0404
Moon	30330-03-01 17:31 G	12798924.01	12798924.23	12798924.46	0.0530	0.0089
Earth	30330-03-01 21:07 G	12798924.15	12798924.38	12798924.61	0.0530	0.0102 *
Mercury	30331-01-26 11:17 G	12799254.95	12799254.97	12799254.99	0.0520	0.0510
Mercury	30331-04-25 17:45 G	12799344.11	12799344.24	12799344.37	0.0517	0.0081
Moon	30335-08-10 21:21 G	12800912.17	12800912.39	12800912.61	0.0492	0.0206
Earth	30335-08-10 21:50 G	12800912.20	12800912.41	12800912.63	0.0492	0.0210 *
Earth	30336-09-10 06:14 G	12801308.56	12801308.76	12801308.97	0.0500	0.0250
Moon	30336-09-10 08:09 G	12801308.65	12801308.84	12801309.03	0.0500	0.0261 *
Mercury	30337-06-23 09:07 G	12801594.72	12801594.88	12801595.04	0.0509	0.0220
Moon	30341-01-28 21:07 G	12802910.23	12802910.38	12802910.54	0.0536	0.0391
Earth	30341-01-29 00:29 G	12802910.37	12802910.52	12802910.68	0.0536	0.0402 *
Earth	30342-03-07 01:55 G	12803312.36	12803312.58	12803312.80	0.0528	0.0185
Moon	30342-03-07 05:45 G	12803312.53	12803312.74	12803312.95	0.0528	0.0216 *
Mercury	30343-02-11 22:05 G	12803654.29	12803654.42	12803654.55	0.0518	0.0062

Moon	30347-08-15 02:53 G	12805299.41	12805299.62	12805299.83	0.0493	0.0175
Earth	30347-08-15 03:50 G	12805299.44	12805299.66	12805299.89	0.0493	0.0148 *
Venus	30347-11-06 18:00 G	12805383.05	12805383.25	12805383.45	0.0495	0.0110
Earth	30348-09-14 16:48 G	12805696.02	12805696.20	12805696.38	0.0502	0.0315
Moon	30348-09-14 16:33 G	12805696.02	12805696.19	12805696.37	0.0502	0.0343 *
Mercury	30349-04-11 06:43 G	12805904.68	12805904.78	12805904.88	0.0508	0.0418
Mercury	30349-07-10 13:26 G	12805994.94	12805995.06	12805995.18	0.0511	0.0367
Earth	30353-02-03 07:26 G	12807298.62	12807298.81	12807299.00	0.0535	0.0318
Moon	30353-02-03 11:31 G	12807298.81	12807298.98	12807299.16	0.0535	0.0352 *
Venus	30353-09-12 09:21 G	12807519.80	12807519.89	12807519.99	0.0531	0.0468
Moon	30354-03-12 00:57 G	12807700.34	12807700.54	12807700.75	0.0527	0.0276
Earth	30354-03-12 04:05 G	12807700.47	12807700.67	12807700.87	0.0527	0.0265 *
Mercury	30354-12-01 02:09 G	12807964.47	12807964.59	12807964.71	0.0518	0.0207
Mercury	30355-02-28 08:53 G	12808053.78	12808053.87	12808053.96	0.0515	0.0387
Moon	30358-07-19 13:55 G	12809291.04	12809291.08	12809291.13	0.0490	0.0478
Venus	30359-07-12 20:53 G	12809649.22	12809649.37	12809649.53	0.0494	0.0315
Earth	30359-08-19 13:12 G	12809686.82	12809687.05	12809687.28	0.0494	0.0082
Moon	30359-08-19 16:05 G	12809686.94	12809687.17	12809687.41	0.0494	0.0087 *
Moon	30360-09-19 05:17 G	12810083.57	12810083.72	12810083.87	0.0503	0.0379
Earth	30360-09-19 06:43 G	12810083.63	12810083.78	12810083.93	0.0503	0.0382 *
Mercury	30361-04-28 11:45 G	12810304.83	12810304.99	12810305.16	0.0510	0.0179
Moon	30365-02-08 04:05 G	12811686.46	12811686.67	12811686.88	0.0534	0.0259
Earth	30365-02-08 07:41 G	12811686.61	12811686.82	12811687.03	0.0534	0.0240 *
Venus	30365-05-17 21:07 G	12811785.18	12811785.38	12811785.58	0.0533	0.0090
Earth	30366-03-16 23:02 G	12812088.28	12812088.46	12812088.64	0.0525	0.0338
Moon	30366-03-17 00:00 G	12812088.32	12812088.50	12812088.68	0.0525	0.0309 *
Mercury	30366-09-19 05:31 G	12812274.64	12812274.73	12812274.82	0.0519	0.0367
Mercury	30366-12-17 12:00 G	12812363.88	12812364.00	12812364.12	0.0516	0.0225
Earth	30370-07-24 01:26 G	12813678.47	12813678.56	12813678.66	0.0491	0.0447
Moon	30370-07-24 05:02 G	12813678.65	12813678.71	12813678.78	0.0491	0.0468 *

Moon	30371-08-23 19:41 G	12814074.09	12814074.32	12814074.55	0.0495	0.0014
Earth	30371-08-23 23:31 G	12814074.25	12814074.48	12814074.72	0.0495	0.0018 *
Earth	30372-09-23 20:53 G	12814471.27	12814471.37	12814471.48	0.0505	0.0447
Moon	30372-09-23 23:31 G	12814471.35	12814471.48	12814471.62	0.0505	0.0415 *
Mercury	30373-02-14 10:05 G	12814614.75	12814614.92	12814615.10	0.0509	0.0012
Earth	30377-02-13 11:02 G	12816074.74	12816074.96	12816075.19	0.0533	0.0156
Moon	30377-02-13 12:43 G	12816074.81	12816075.03	12816075.25	0.0533	0.0129 *
Earth	30378-03-21 22:05 G	12816476.28	12816476.42	12816476.57	0.0524	0.0411
Moon	30378-03-21 23:02 G	12816476.31	12816476.46	12816476.62	0.0524	0.0398 *
Mercury	30378-07-08 09:21 G	12816584.88	12816584.89	12816584.91	0.0520	0.0514
Mercury	30378-10-05 16:05 G	12816674.04	12816674.17	12816674.30	0.0517	0.0078
Moon	30382-07-28 05:45 G	12818065.62	12818065.74	12818065.87	0.0491	0.0415
Earth	30382-07-28 08:38 G	12818065.73	12818065.86	12818066.00	0.0491	0.0392 *
Venus	30383-07-15 05:31 G	12818417.61	12818417.73	12818417.87	0.0495	0.0371
Earth	30383-08-28 07:41 G	12818461.59	12818461.82	12818462.05	0.0496	0.0048
Moon	30383-08-28 11:45 G	12818461.76	12818461.99	12818462.22	0.0496	0.0067 *
Moon	30384-09-28 05:17 G	12818858.71	12818858.72	12818858.74	0.0506	0.0504
Earth	30384-09-28 08:53 G	12818858.87	12818858.87	12818858.88	0.0506	0.0506
Mercury	30384-12-03 07:26 G	12818924.65	12818924.81	12818924.97	0.0508	0.0213
Earth	30389-02-18 15:50 G	12820462.93	12820463.16	12820463.39	0.0533	0.0073
Moon	30389-02-18 17:02 G	12820462.97	12820463.21	12820463.45	0.0533	0.0066 *
Moon	30390-03-26 19:55 G	12820864.29	12820864.33	12820864.38	0.0522	0.0508
Earth	30390-03-26 22:19 G	12820864.35	12820864.43	12820864.53	0.0522	0.0478 *
Mercury	30390-07-24 20:09 G	12820984.21	12820984.34	12820984.47	0.0518	0.0066
Earth	30394-08-01 15:21 G	12822452.98	12822453.14	12822453.32	0.0491	0.0335
Moon	30394-08-01 17:02 G	12822453.05	12822453.21	12822453.39	0.0491	0.0320 *
Venus	30395-03-20 07:41 G	12822683.62	12822683.82	12822684.02	0.0494	0.0060
Moon	30395-09-01 13:26 G	12822848.83	12822849.06	12822849.29	0.0497	0.0097
Earth	30395-09-01 17:02 G	12822848.98	12822849.21	12822849.43	0.0497	0.0115 *
Mercury	30396-09-21 05:02 G	12823234.61	12823234.71	12823234.82	0.0508	0.0410

Mercury	30396-12-20 11:45 G	12823324.88	12823324.99	12823325.11	0.0511	0.0374
Venus	30401-01-23 15:36 G	12824819.97	12824820.15	12824820.33	0.0532	0.0236
Moon	30401-02-23 19:26 G	12824851.09	12824851.31	12824851.54	0.0532	0.0020
Earth	30401-02-23 22:33 G	12824851.21	12824851.44	12824851.68	0.0532	0.0018 *
Mercury	30402-05-13 00:43 G	12825294.41	12825294.53	12825294.65	0.0519	0.0205
Mercury	30402-08-10 07:26 G	12825383.72	12825383.81	12825383.90	0.0515	0.0389
Mars	30404-06-03 16:05 G	12826046.97	12826047.17	12826047.39	0.0496	0.0345
Moon	30406-08-05 20:53 G	12826840.16	12826840.37	12826840.58	0.0492	0.0245
Earth	30406-08-05 21:21 G	12826840.20	12826840.39	12826840.58	0.0492	0.0275 *
Venus	30406-11-23 09:21 G	12826949.87	12826949.89	12826949.91	0.0493	0.0489
Earth	30407-09-06 01:55 G	12827236.36	12827236.58	12827236.79	0.0499	0.0182
Moon	30407-09-06 03:50 G	12827236.45	12827236.66	12827236.88	0.0499	0.0160 *
Mercury	30408-10-08 09:50 G	12827634.75	12827634.91	12827635.08	0.0510	0.0182
Moon	30412-01-23 18:57 G	12828837.18	12828837.29	12828837.42	0.0536	0.0455
Earth	30412-01-23 21:36 G	12828837.31	12828837.40	12828837.51	0.0536	0.0485 *
Venus	30412-09-28 06:57 G	12829085.62	12829085.79	12829085.96	0.0533	0.0301
Earth	30413-03-01 03:21 G	12829239.41	12829239.64	12829239.87	0.0530	0.0100
Moon	30413-03-01 07:12 G	12829239.57	12829239.80	12829240.03	0.0530	0.0090 *
Mercury	30414-03-01 04:48 G	12829604.61	12829604.70	12829604.80	0.0519	0.0349
Mercury	30414-05-29 11:31 G	12829693.86	12829693.98	12829694.10	0.0516	0.0244
Moon	30418-08-10 05:02 G	12831227.50	12831227.71	12831227.91	0.0492	0.0215
Earth	30418-08-10 06:00 G	12831227.54	12831227.75	12831227.96	0.0492	0.0211 *
Moon	30419-09-10 14:24 G	12831623.90	12831624.10	12831624.30	0.0500	0.0267
Earth	30419-09-10 14:24 G	12831623.91	12831624.10	12831624.31	0.0500	0.0250 *
Mercury	30420-07-27 08:24 G	12831944.68	12831944.85	12831945.03	0.0509	0.0010
Mars	30422-05-19 22:05 G	12832606.16	12832606.42	12832606.68	0.0530	0.0007
Earth	30424-01-28 23:31 G	12833225.34	12833225.48	12833225.64	0.0535	0.0410
Moon	30424-01-29 03:36 G	12833225.50	12833225.65	12833225.81	0.0535	0.0400 *
Moon	30425-03-05 20:53 G	12833627.16	12833627.37	12833627.59	0.0529	0.0208
Earth	30425-03-06 00:29 G	12833627.30	12833627.52	12833627.74	0.0529	0.0178 *

Mercury	30425-12-18 08:09 G	12833914.82	12833914.84	12833914.87	0.0520	0.0508
Mercury	30426-03-17 14:38 G	12834003.98	12834004.11	12834004.24	0.0517	0.0082
Earth	30430-08-14 15:21 G	12835614.92	12835615.14	12835615.37	0.0493	0.0149
Moon	30430-08-14 18:29 G	12835615.05	12835615.27	12835615.49	0.0493	0.0177 *
Venus	30430-11-25 19:12 G	12835718.12	12835718.30	12835718.49	0.0495	0.0200
Moon	30431-09-15 02:09 G	12836011.43	12836011.59	12836011.76	0.0501	0.0346
Earth	30431-09-15 03:36 G	12836011.47	12836011.65	12836011.84	0.0501	0.0316 *
Mercury	30432-05-15 06:43 G	12836254.62	12836254.78	12836254.95	0.0508	0.0195
Moon	30436-02-03 00:14 G	12837613.34	12837613.51	12837613.69	0.0535	0.0360
Earth	30436-02-03 04:05 G	12837613.49	12837613.67	12837613.86	0.0535	0.0329 *
Earth	30437-03-11 01:26 G	12838015.36	12838015.56	12838015.76	0.0527	0.0258
Moon	30437-03-11 02:53 G	12838015.43	12838015.62	12838015.82	0.0527	0.0264 *
Mercury	30438-01-03 18:43 G	12838314.15	12838314.28	12838314.41	0.0518	0.0066
Venus	30442-07-31 21:21 G	12839984.21	12839984.39	12839984.58	0.0494	0.0228
Moon	30442-08-18 19:41 G	12840002.09	12840002.32	12840002.55	0.0494	0.0087
Earth	30442-08-18 23:31 G	12840002.25	12840002.48	12840002.71	0.0494	0.0085 *
Earth	30443-09-19 14:38 G	12840398.96	12840399.11	12840399.26	0.0503	0.0380
Moon	30443-09-19 17:17 G	12840399.06	12840399.22	12840399.38	0.0503	0.0370 *
Mercury	30444-03-03 04:05 G	12840564.56	12840564.67	12840564.78	0.0508	0.0396
Mercury	30444-06-01 10:33 G	12840654.83	12840654.94	12840655.06	0.0510	0.0386
Earth	30448-02-08 09:21 G	12842001.68	12842001.89	12842002.09	0.0535	0.0248
Moon	30448-02-08 11:31 G	12842001.79	12842001.98	12842002.18	0.0535	0.0261 *
Venus	30448-06-05 21:07 G	12842120.18	12842120.38	12842120.58	0.0533	0.0000
Moon	30449-03-16 03:50 G	12842403.46	12842403.66	12842403.86	0.0526	0.0301
Earth	30449-03-16 03:21 G	12842403.47	12842403.64	12842403.82	0.0526	0.0335 *
Mercury	30449-10-22 23:02 G	12842624.34	12842624.46	12842624.58	0.0519	0.0207
Mercury	30450-01-20 05:45 G	12842713.66	12842713.74	12842713.83	0.0516	0.0388
Moon	30453-07-23 08:38 G	12843993.80	12843993.86	12843993.92	0.0491	0.0474
Earth	30453-07-23 11:17 G	12843993.89	12843993.97	12843994.07	0.0491	0.0450 *
Earth	30454-08-23 07:41 G	12844389.59	12844389.82	12844390.06	0.0495	0.0022

Moon	30454-08-23 11:45 G	12844389.76	12844389.99	12844390.22	0.0495	0.0012	*
Moon	30455-09-23 23:31 G	12844786.36	12844786.48	12844786.62	0.0504	0.0414	
Earth	30455-09-24 03:07 G	12844786.53	12844786.63	12844786.74	0.0504	0.0444	*
Mercury	30456-03-20 08:38 G	12844964.70	12844964.86	12844965.03	0.0510	0.0194	
Venus	30460-02-09 13:12 G	12846386.05	12846386.05	12846386.05	0.0534	0.0534	
Earth	30460-02-13 17:17 G	12846390.00	12846390.22	12846390.44	0.0534	0.0161	
Moon	30460-02-13 17:45 G	12846390.01	12846390.24	12846390.48	0.0534	0.0130	*
Moon	30461-03-21 04:33 G	12846791.55	12846791.69	12846791.84	0.0524	0.0402	
Earth	30461-03-21 06:43 G	12846791.64	12846791.78	12846791.93	0.0524	0.0410	*
Mercury	30461-08-11 03:21 G	12846934.55	12846934.64	12846934.74	0.0519	0.0346	
Mercury	30461-11-08 10:05 G	12847023.81	12847023.92	12847024.04	0.0516	0.0248	
Earth	30465-07-27 17:17 G	12848381.08	12848381.22	12848381.36	0.0491	0.0393	
Moon	30465-07-27 18:43 G	12848381.17	12848381.28	12848381.40	0.0491	0.0414	*
Venus	30466-08-03 05:02 G	12848752.63	12848752.71	12848752.80	0.0495	0.0448	
Moon	30466-08-27 12:14 G	12848776.77	12848777.01	12848777.24	0.0496	0.0065	
Earth	30466-08-27 15:50 G	12848776.93	12848777.16	12848777.39	0.0496	0.0047	*
Earth	30467-09-28 16:33 G	12849174.19	12849174.19	12849174.19	0.0506	0.0506	
Mercury	30468-01-07 06:43 G	12849274.61	12849274.78	12849274.96	0.0509	0.0006	
Moon	30472-02-18 21:21 G	12850778.17	12850778.39	12850778.62	0.0533	0.0071	
Earth	30472-02-19 00:00 G	12850778.27	12850778.50	12850778.74	0.0533	0.0074	*
Earth	30473-03-26 07:12 G	12851179.71	12851179.80	12851179.89	0.0522	0.0479	
Moon	30473-03-26 10:48 G	12851179.91	12851179.95	12851180.00	0.0522	0.0510	
Mercury	30473-05-30 07:41 G	12851244.78	12851244.82	12851244.87	0.0520	0.0487	
Mercury	30473-08-27 14:09 G	12851333.97	12851334.09	12851334.22	0.0517	0.0106	
Moon	30477-08-01 01:12 G	12852768.37	12852768.55	12852768.74	0.0491	0.0317	
Earth	30477-08-01 01:26 G	12852768.40	12852768.56	12852768.74	0.0491	0.0335	*
Venus	30478-04-08 08:09 G	12853018.64	12853018.84	12853019.05	0.0494	0.0024	
Earth	30478-09-01 03:07 G	12853164.40	12853164.63	12853164.86	0.0497	0.0116	
Moon	30478-09-01 05:02 G	12853164.49	12853164.71	12853164.94	0.0497	0.0094	*
Mercury	30479-10-26 05:17 G	12853584.56	12853584.72	12853584.89	0.0509	0.0185	

Venus	30484-02-12 14:38 G	12855154.95	12855155.11	12855155.27	0.0532	0.0320
Earth	30484-02-23 23:31 G	12855166.25	12855166.48	12855166.71	0.0531	0.0008
Moon	30484-02-24 03:21 G	12855166.40	12855166.64	12855166.87	0.0531	0.0026 *
Mercury	30485-06-15 17:31 G	12855644.10	12855644.23	12855644.36	0.0518	0.0058
Moon	30489-08-05 08:53 G	12857155.68	12857155.87	12857156.06	0.0492	0.0252
Earth	30489-08-05 10:05 G	12857155.73	12857155.92	12857156.11	0.0492	0.0276 *
Venus	30489-12-12 11:31 G	12857284.87	12857284.98	12857285.11	0.0493	0.0395
Moon	30490-09-05 15:07 G	12857551.90	12857552.13	12857552.36	0.0498	0.0166
Earth	30490-09-05 15:07 G	12857551.92	12857552.13	12857552.35	0.0498	0.0183 *
Mercury	30491-08-14 03:36 G	12857894.53	12857894.65	12857894.77	0.0508	0.0373
Mercury	30491-11-12 10:19 G	12857984.83	12857984.93	12857985.03	0.0511	0.0410
Earth	30495-01-22 21:21 G	12859152.31	12859152.39	12859152.49	0.0536	0.0494
Moon	30495-01-23 01:12 G	12859152.44	12859152.55	12859152.68	0.0536	0.0459 *
Venus	30495-10-18 05:02 G	12859420.52	12859420.71	12859420.89	0.0533	0.0223
Moon	30496-02-28 22:19 G	12859554.20	12859554.43	12859554.66	0.0530	0.0083
Earth	30496-02-29 02:09 G	12859554.36	12859554.59	12859554.82	0.0530	0.0092 *
Mercury	30497-04-03 21:36 G	12859954.28	12859954.40	12859954.52	0.0519	0.0204
Mercury	30497-07-02 04:19 G	12860043.60	12860043.68	12860043.77	0.0516	0.0391
Earth	30501-08-10 17:45 G	12861543.04	12861543.24	12861543.46	0.0492	0.0216
Moon	30501-08-10 20:53 G	12861543.16	12861543.37	12861543.59	0.0492	0.0229 *
Moon	30502-09-10 23:45 G	12861939.31	12861939.49	12861939.68	0.0499	0.0270
Earth	30502-09-11 01:12 G	12861939.35	12861939.55	12861939.76	0.0499	0.0247 *
Mercury	30503-09-01 07:55 G	12862294.67	12862294.83	12862294.99	0.0510	0.0212
Moon	30507-01-28 22:33 G	12863540.29	12863540.44	12863540.59	0.0536	0.0405
Earth	30507-01-29 02:24 G	12863540.47	12863540.60	12863540.76	0.0536	0.0418 *
Earth	30508-03-06 05:17 G	12863942.51	12863942.72	12863942.95	0.0529	0.0174
Moon	30508-03-06 07:26 G	12863942.61	12863942.81	12863943.03	0.0529	0.0207 *
Mercury	30509-01-22 01:55 G	12864264.48	12864264.58	12864264.68	0.0520	0.0345
Mercury	30509-04-21 08:38 G	12864353.74	12864353.86	12864353.97	0.0517	0.0249
Moon	30513-08-14 22:05 G	12865930.21	12865930.42	12865930.64	0.0493	0.0181

Earth	30513-08-15 01:55 G	12865930.36	12865930.58	12865930.80	0.0493	0.0151	*
Venus	30513-12-15 19:41 G	12866053.16	12866053.32	12866053.49	0.0495	0.0285	
Earth	30514-09-15 12:14 G	12866326.83	12866327.01	12866327.19	0.0501	0.0314	
Moon	30514-09-15 14:53 G	12866326.95	12866327.12	12866327.30	0.0501	0.0339	*
Mercury	30515-06-20 06:00 G	12866604.57	12866604.75	12866604.93	0.0509	0.0019	
Earth	30519-02-03 10:48 G	12867928.77	12867928.95	12867929.13	0.0536	0.0335	
Moon	30519-02-03 13:41 G	12867928.91	12867929.07	12867929.24	0.0536	0.0366	*
Moon	30520-03-11 10:33 G	12868330.73	12868330.94	12868331.15	0.0528	0.0256	
Earth	30520-03-11 10:33 G	12868330.74	12868330.94	12868331.15	0.0528	0.0257	*
Mercury	30520-11-10 06:29 G	12868574.73	12868574.77	12868574.82	0.0520	0.0482	
Mercury	30521-02-07 12:57 G	12868663.91	12868664.04	12868664.17	0.0517	0.0111	
Mars	30522-11-23 12:43 G	12869317.81	12869318.03	12869318.26	0.0498	0.0317	
Earth	30525-08-19 09:07 G	12870317.65	12870317.88	12870318.11	0.0494	0.0086	
Moon	30525-08-19 13:12 G	12870317.82	12870318.05	12870318.28	0.0494	0.0084	*
Venus	30525-08-20 21:36 G	12870319.21	12870319.40	12870319.60	0.0494	0.0146	
Moon	30526-09-19 20:09 G	12870714.20	12870714.34	12870714.51	0.0502	0.0368	
Earth	30526-09-19 23:45 G	12870714.34	12870714.49	12870714.65	0.0502	0.0380	*
Mercury	30527-04-08 03:50 G	12870914.50	12870914.66	12870914.83	0.0509	0.0176	
Moon	30531-02-08 18:29 G	12872317.06	12872317.27	12872317.49	0.0535	0.0251	
Earth	30531-02-08 18:57 G	12872317.09	12872317.29	12872317.50	0.0535	0.0249	*
Venus	30531-06-27 01:41 G	12872455.37	12872455.57	12872455.76	0.0533	0.0116	
Moon	30532-03-16 12:14 G	12872718.82	12872719.01	12872719.19	0.0526	0.0304	
Earth	30532-03-16 13:55 G	12872718.90	12872719.08	12872719.26	0.0526	0.0336	*
Mercury	30532-11-26 17:17 G	12872974.09	12872974.22	12872974.35	0.0518	0.0033	
Earth	30536-07-23 22:33 G	12874309.36	12874309.44	12874309.54	0.0491	0.0451	
Moon	30536-07-24 00:00 G	12874309.46	12874309.50	12874309.55	0.0491	0.0480	*
Moon	30537-08-23 16:05 G	12874704.93	12874705.17	12874705.41	0.0495	0.0012	
Earth	30537-08-23 19:26 G	12874705.08	12874705.31	12874705.55	0.0495	0.0021	*
Earth	30538-09-24 14:53 G	12875102.02	12875102.12	12875102.23	0.0504	0.0447	
Moon	30538-09-24 18:29 G	12875102.15	12875102.27	12875102.40	0.0504	0.0421	*

Mercury	30539-01-25 02:24 G	12875224.48	12875224.60	12875224.73	0.0508	0.0361
Mercury	30539-04-25 09:07 G	12875314.78	12875314.88	12875314.98	0.0511	0.0422
Moon	30543-02-13 18:57 G	12876705.07	12876705.29	12876705.51	0.0534	0.0137
Earth	30543-02-13 20:53 G	12876705.15	12876705.37	12876705.60	0.0534	0.0170 *
Venus	30543-03-01 13:55 G	12876720.97	12876721.08	12876721.20	0.0533	0.0437
Earth	30544-03-21 09:36 G	12877106.75	12877106.90	12877107.04	0.0524	0.0405
Moon	30544-03-21 12:43 G	12877106.88	12877107.03	12877107.18	0.0524	0.0403 *
Mercury	30544-09-14 20:38 G	12877284.24	12877284.36	12877284.48	0.0519	0.0193
Mercury	30544-12-13 03:21 G	12877373.56	12877373.64	12877373.72	0.0516	0.0401
Earth	30548-07-28 06:14 G	12878696.63	12878696.76	12878696.90	0.0491	0.0397
Moon	30548-07-28 06:14 G	12878696.63	12878696.76	12878696.89	0.0491	0.0413 *
Earth	30549-08-28 06:14 G	12879092.52	12879092.76	12879092.99	0.0496	0.0048
Moon	30549-08-28 08:09 G	12879092.61	12879092.84	12879093.06	0.0496	0.0055 *
Mercury	30551-02-11 07:41 G	12879624.67	12879624.82	12879624.98	0.0510	0.0239
Earth	30555-02-19 00:43 G	12881093.30	12881093.53	12881093.76	0.0533	0.0083
Moon	30555-02-19 04:19 G	12881093.44	12881093.68	12881093.91	0.0533	0.0080 *
Moon	30556-03-26 04:33 G	12881494.65	12881494.69	12881494.75	0.0523	0.0508
Earth	30556-03-26 08:24 G	12881494.76	12881494.85	12881494.95	0.0523	0.0476
Mercury	30556-07-04 00:43 G	12881594.43	12881594.53	12881594.63	0.0519	0.0340
Mercury	30556-10-01 07:12 G	12881683.69	12881683.80	12881683.92	0.0517	0.0254
Moon	30560-08-01 12:43 G	12883083.87	12883084.03	12883084.21	0.0491	0.0320
Earth	30560-08-01 14:09 G	12883083.93	12883084.09	12883084.26	0.0491	0.0340 *
Venus	30561-04-28 10:19 G	12883353.73	12883353.93	12883354.13	0.0494	0.0120
Moon	30561-09-01 15:21 G	12883479.91	12883480.14	12883480.39	0.0497	0.0086
Earth	30561-09-01 15:21 G	12883479.92	12883480.14	12883480.37	0.0497	0.0114 *
Mercury	30562-11-30 05:31 G	12883934.55	12883934.73	12883934.90	0.0509	0.0042
Moon	30567-02-24 00:57 G	12885481.31	12885481.54	12885481.77	0.0532	0.0031
Earth	30567-02-24 04:48 G	12885481.47	12885481.70	12885481.93	0.0532	0.0002 *
Venus	30567-03-04 16:19 G	12885490.06	12885490.18	12885490.30	0.0532	0.0419
Mercury	30568-04-22 05:02 G	12885904.66	12885904.71	12885904.76	0.0520	0.0480

Mercury	30568-07-20 11:31 G	12885993.85	12885993.98	12885994.11	0.0517	0.0112
Earth	30572-08-05 21:50 G	12887471.22	12887471.41	12887471.61	0.0492	0.0278
Moon	30572-08-06 00:57 G	12887471.34	12887471.54	12887471.75	0.0492	0.0259 *
Venus	30573-01-01 12:57 G	12887619.88	12887620.04	12887620.20	0.0493	0.0305
Moon	30573-09-06 00:00 G	12887867.29	12887867.50	12887867.71	0.0498	0.0168
Earth	30573-09-06 01:26 G	12887867.35	12887867.56	12887867.78	0.0498	0.0181 *
Mercury	30574-09-18 03:21 G	12888244.47	12888244.64	12888244.81	0.0508	0.0154
Mars	30576-08-14 10:05 G	12888940.74	12888940.92	12888941.11	0.0530	0.0362
Moon	30578-01-23 00:00 G	12889467.40	12889467.50	12889467.62	0.0536	0.0465
Earth	30578-01-23 04:05 G	12889467.60	12889467.67	12889467.76	0.0536	0.0500 *
Venus	30578-11-07 08:38 G	12889755.66	12889755.86	12889756.05	0.0533	0.0112
Earth	30579-03-01 11:02 G	12889869.73	12889869.96	12889870.19	0.0531	0.0090
Moon	30579-03-01 13:41 G	12889869.85	12889870.07	12889870.30	0.0531	0.0093 *
Mercury	30580-05-08 16:05 G	12890304.04	12890304.17	12890304.30	0.0518	0.0028
Moon	30584-08-10 01:12 G	12891858.35	12891858.55	12891858.75	0.0492	0.0235
Earth	30584-08-10 05:02 G	12891858.50	12891858.71	12891858.92	0.0492	0.0216 *
Earth	30585-09-10 11:31 G	12892254.78	12892254.98	12892255.18	0.0499	0.0247
Moon	30585-09-10 13:55 G	12892254.89	12892255.08	12892255.29	0.0499	0.0273 *
Mercury	30586-07-07 01:12 G	12892554.42	12892554.55	12892554.68	0.0508	0.0350
Mercury	30586-10-05 07:41 G	12892644.73	12892644.82	12892644.91	0.0511	0.0433
Earth	30590-01-28 12:43 G	12893855.90	12893856.03	12893856.19	0.0536	0.0420
Moon	30590-01-28 16:19 G	12893856.04	12893856.18	12893856.33	0.0536	0.0414 *
Moon	30591-03-06 15:50 G	12894257.94	12894258.16	12894258.39	0.0529	0.0206
Earth	30591-03-06 16:33 G	12894257.97	12894258.19	12894258.41	0.0529	0.0174 *
Mercury	30592-02-25 20:24 G	12894614.23	12894614.35	12894614.47	0.0519	0.0168
Mercury	30592-05-25 03:07 G	12894703.56	12894703.63	12894703.70	0.0516	0.0427
Earth	30596-08-14 14:24 G	12896245.88	12896246.10	12896246.32	0.0493	0.0150
Moon	30596-08-14 18:14 G	12896246.05	12896246.26	12896246.48	0.0493	0.0179 *
Venus	30597-01-03 21:50 G	12896388.28	12896388.41	12896388.55	0.0495	0.0378
Moon	30597-09-14 21:21 G	12896642.23	12896642.39	12896642.57	0.0501	0.0339

Earth	30597-09-15 00:57 G	12896642.37	12896642.54	12896642.72	0.0501	0.0317	*
Mercury	30598-07-24 06:43 G	12896954.63	12896954.78	12896954.93	0.0510	0.0253	
Moon	30602-02-03 15:36 G	12898243.99	12898244.15	12898244.34	0.0535	0.0372	
Earth	30602-02-03 17:17 G	12898244.04	12898244.22	12898244.40	0.0535	0.0342	*
Moon	30603-03-12 13:55 G	12898645.88	12898646.08	12898646.28	0.0527	0.0251	
Earth	30603-03-12 14:53 G	12898645.92	12898646.12	12898646.33	0.0527	0.0251	*
Mercury	30603-12-15 23:45 G	12898924.39	12898924.49	12898924.59	0.0519	0.0327	
Mercury	30604-03-14 06:29 G	12899013.65	12899013.77	12899013.88	0.0516	0.0266	
Moon	30608-08-19 20:09 G	12900633.11	12900633.34	12900633.58	0.0494	0.0084	
Earth	30608-08-19 23:31 G	12900633.26	12900633.48	12900633.71	0.0494	0.0088	*
Venus	30608-09-10 00:43 G	12900654.33	12900654.53	12900654.74	0.0494	0.0046	
Earth	30609-09-20 14:38 G	12901029.97	12901030.11	12901030.27	0.0502	0.0383	
Moon	30609-09-20 18:29 G	12901030.11	12901030.27	12901030.43	0.0502	0.0359	*
Mercury	30610-05-13 05:17 G	12901264.55	12901264.72	12901264.90	0.0509	0.0068	
Moon	30614-02-08 20:38 G	12902632.16	12902632.36	12902632.56	0.0534	0.0256	
Earth	30614-02-08 21:50 G	12902632.21	12902632.41	12902632.62	0.0534	0.0259	*
Venus	30614-07-17 01:26 G	12902790.38	12902790.56	12902790.75	0.0532	0.0206	
Earth	30615-03-17 15:21 G	12903033.97	12903034.14	12903034.33	0.0526	0.0330	
Moon	30615-03-17 18:29 G	12903034.07	12903034.27	12903034.47	0.0526	0.0297	*
Mercury	30615-10-04 03:50 G	12903234.61	12903234.66	12903234.71	0.0520	0.0473	
Mercury	30616-01-01 10:19 G	12903323.80	12903323.93	12903324.06	0.0517	0.0118	
Earth	30619-07-25 11:02 G	12904624.88	12904624.96	12904625.05	0.0491	0.0456	
Moon	30619-07-25 11:17 G	12904624.94	12904624.97	12904625.01	0.0491	0.0485	*
Venus	30620-05-16 03:21 G	12904920.58	12904920.64	12904920.71	0.0493	0.0468	
Earth	30620-08-24 08:24 G	12905020.61	12905020.85	12905021.08	0.0495	0.0023	
Moon	30620-08-24 10:05 G	12905020.70	12905020.92	12905021.15	0.0495	0.0012	*
Moon	30621-09-24 23:45 G	12905417.36	12905417.49	12905417.62	0.0504	0.0418	
Earth	30621-09-25 02:38 G	12905417.51	12905417.61	12905417.72	0.0504	0.0444	*
Mercury	30622-03-01 02:53 G	12905574.45	12905574.62	12905574.79	0.0508	0.0131	
Earth	30626-02-14 01:55 G	12907020.36	12907020.58	12907020.80	0.0534	0.0176	

Moon	30626-02-14 05:02 G	12907020.48	12907020.71	12907020.94	0.0534	0.0140	*
Venus	30626-03-21 15:36 G	12907056.00	12907056.15	12907056.31	0.0533	0.0336	
Moon	30627-03-22 12:57 G	12907421.90	12907422.04	12907422.19	0.0525	0.0408	
Earth	30627-03-22 16:48 G	12907422.05	12907422.20	12907422.35	0.0525	0.0403	*
Mercury	30627-10-20 14:38 G	12907633.98	12907634.11	12907634.24	0.0518	0.0025	
Moon	30631-07-29 17:17 G	12909012.11	12909012.22	12909012.35	0.0491	0.0411	
Earth	30631-07-29 18:57 G	12909012.16	12909012.29	12909012.43	0.0491	0.0399	*
Moon	30632-08-28 17:31 G	12909407.99	12909408.23	12909408.47	0.0495	0.0043	
Earth	30632-08-28 17:31 G	12909408.00	12909408.23	12909408.46	0.0495	0.0045	*
Mercury	30633-12-18 00:43 G	12909884.39	12909884.53	12909884.66	0.0508	0.0327	
Mercury	30634-03-18 07:12 G	12909974.72	12909974.80	12909974.88	0.0510	0.0454	
Moon	30638-02-19 05:02 G	12911408.48	12911408.71	12911408.94	0.0533	0.0086	
Earth	30638-02-19 08:53 G	12911408.64	12911408.87	12911409.10	0.0533	0.0087	*
Earth	30639-03-27 19:26 G	12911810.21	12911810.31	12911810.40	0.0523	0.0476	
Moon	30639-03-27 22:33 G	12911810.40	12911810.44	12911810.49	0.0523	0.0510	*
Mercury	30639-08-08 19:12 G	12911944.17	12911944.30	12911944.42	0.0519	0.0163	
Mercury	30639-11-06 01:55 G	12912033.51	12912033.58	12912033.65	0.0516	0.0434	
Earth	30643-08-03 01:55 G	12913399.42	12913399.58	12913399.75	0.0491	0.0341	
Moon	30643-08-03 05:02 G	12913399.53	12913399.71	12913399.90	0.0491	0.0313	*
Venus	30644-05-18 11:17 G	12913688.79	12913688.97	12913689.16	0.0494	0.0208	
Moon	30644-09-02 00:43 G	12913795.31	12913795.53	12913795.75	0.0496	0.0083	
Earth	30644-09-02 02:09 G	12913795.37	12913795.59	12913795.82	0.0496	0.0113	*
Mercury	30646-01-04 05:17 G	12914284.57	12914284.72	12914284.87	0.0510	0.0263	
Earth	30650-02-24 16:05 G	12915796.93	12915797.17	12915797.40	0.0532	0.0008	
Moon	30650-02-24 19:12 G	12915797.07	12915797.30	12915797.52	0.0532	0.0031	*
Mercury	30651-05-27 23:31 G	12916254.38	12916254.48	12916254.59	0.0519	0.0303	
Mercury	30651-08-25 06:14 G	12916343.65	12916343.76	12916343.87	0.0516	0.0291	
Moon	30655-08-07 06:43 G	12917786.59	12917786.78	12917786.98	0.0492	0.0264	
Earth	30655-08-07 10:33 G	12917786.75	12917786.94	12917787.14	0.0492	0.0279	*
Venus	30656-01-22 14:53 G	12917954.94	12917955.12	12917955.30	0.0494	0.0213	

Earth	30656-09-06 14:09 G	12918182.87	12918183.09	12918183.31	0.0498	0.0182
Moon	30656-09-06 17:02 G	12918182.99	12918183.21	12918183.43	0.0498	0.0173 *
Mercury	30657-10-23 04:19 G	12918594.50	12918594.68	12918594.85	0.0509	0.0082
Earth	30661-01-23 12:29 G	12919782.96	12919783.02	12919783.11	0.0535	0.0507
Moon	30661-01-23 16:19 G	12919783.08	12919783.18	12919783.30	0.0535	0.0473 *
Venus	30661-11-27 11:02 G	12920090.75	12920090.96	12920091.16	0.0532	0.0009
Moon	30662-03-01 15:36 G	12920184.91	12920185.15	12920185.39	0.0530	0.0090
Earth	30662-03-01 17:02 G	12920184.98	12920185.21	12920185.44	0.0530	0.0082 *
Mercury	30663-03-16 03:07 G	12920564.57	12920564.63	12920564.69	0.0520	0.0460
Mercury	30663-06-13 09:21 G	12920653.77	12920653.89	12920654.02	0.0517	0.0132
Earth	30667-08-11 18:14 G	12922174.05	12922174.26	12922174.47	0.0493	0.0219
Moon	30667-08-11 22:05 G	12922174.22	12922174.42	12922174.62	0.0493	0.0243 *
Moon	30668-09-10 22:33 G	12922570.25	12922570.44	12922570.63	0.0499	0.0275
Earth	30668-09-11 02:09 G	12922570.39	12922570.59	12922570.79	0.0499	0.0248 *
Mercury	30669-08-11 02:38 G	12922904.44	12922904.61	12922904.79	0.0509	0.0105
Moon	30673-01-28 15:36 G	12924171.01	12924171.15	12924171.30	0.0535	0.0426
Earth	30673-01-28 17:45 G	12924171.11	12924171.24	12924171.39	0.0535	0.0428 *
Moon	30674-03-06 18:29 G	12924573.06	12924573.27	12924573.48	0.0529	0.0199
Earth	30674-03-06 18:57 G	12924573.07	12924573.29	12924573.52	0.0529	0.0166 *
Mercury	30675-04-01 13:26 G	12924963.93	12924964.06	12924964.19	0.0518	0.0017
Mars	30677-02-17 22:48 G	12925652.16	12925652.45	12925652.74	0.0498	0.0059
Moon	30679-08-15 23:17 G	12926561.25	12926561.47	12926561.69	0.0493	0.0183
Earth	30679-08-16 02:38 G	12926561.39	12926561.61	12926561.83	0.0493	0.0155 *
Venus	30680-01-24 23:45 G	12926723.44	12926723.49	12926723.55	0.0495	0.0473
Earth	30680-09-15 12:57 G	12926957.86	12926958.04	12926958.22	0.0500	0.0313
Moon	30680-09-15 16:33 G	12926958.01	12926958.19	12926958.36	0.0500	0.0326 *
Mercury	30681-05-30 00:14 G	12927214.36	12927214.51	12927214.65	0.0508	0.0304
Mercury	30681-08-28 06:43 G	12927304.72	12927304.78	12927304.84	0.0510	0.0477
Moon	30685-02-02 20:53 G	12928559.22	12928559.37	12928559.54	0.0535	0.0381
Earth	30685-02-02 21:21 G	12928559.22	12928559.39	12928559.58	0.0535	0.0349 *

Earth	30686-03-11 20:53 G	12928961.16	12928961.37	12928961.58	0.0528	0.0247
Moon	30686-03-11 23:17 G	12928961.26	12928961.47	12928961.69	0.0528	0.0240 *
Mercury	30687-01-18 17:45 G	12929274.11	12929274.24	12929274.36	0.0519	0.0161
Mercury	30687-04-18 00:29 G	12929363.45	12929363.52	12929363.59	0.0516	0.0436
Earth	30691-08-20 11:17 G	12930948.74	12930948.97	12930949.20	0.0494	0.0090
Moon	30691-08-20 12:57 G	12930948.82	12930949.04	12930949.26	0.0494	0.0079 *
Venus	30691-09-30 02:09 G	12930989.38	12930989.59	12930989.79	0.0494	0.0046
Moon	30692-09-19 21:21 G	12931345.23	12931345.39	12931345.57	0.0502	0.0352
Earth	30692-09-20 00:29 G	12931345.37	12931345.52	12931345.68	0.0502	0.0379 *
Mercury	30693-03-17 21:36 G	12931524.38	12931524.40	12931524.43	0.0507	0.0501
Mercury	30693-06-16 04:48 G	12931614.55	12931614.70	12931614.84	0.0510	0.0285
Mars	30695-02-04 21:07 G	12932213.17	12932213.38	12932213.60	0.0528	0.0303
Earth	30697-02-08 04:19 G	12932947.48	12932947.68	12932947.89	0.0535	0.0264
Moon	30697-02-08 06:57 G	12932947.59	12932947.79	12932948.01	0.0535	0.0256 *
Venus	30697-08-05 04:19 G	12933125.52	12933125.68	12933125.85	0.0532	0.0314
Moon	30698-03-16 21:07 G	12933349.19	12933349.38	12933349.57	0.0527	0.0297
Earth	30698-03-17 00:57 G	12933349.36	12933349.54	12933349.72	0.0527	0.0328 *
Mercury	30698-11-06 22:05 G	12933584.32	12933584.42	12933584.53	0.0520	0.0299
Mercury	30699-02-04 04:48 G	12933673.59	12933673.70	12933673.81	0.0517	0.0296
Moon	30702-07-25 21:07 G	12934940.37	12934940.38	12934940.40	0.0491	0.0488
Earth	30702-07-25 22:48 G	12934940.38	12934940.45	12934940.54	0.0491	0.0458 *
Venus	30703-06-06 04:19 G	12935255.55	12935255.68	12935255.81	0.0493	0.0381
Earth	30703-08-25 18:57 G	12935336.06	12935336.29	12935336.53	0.0494	0.0024
Moon	30703-08-25 19:12 G	12935336.06	12935336.30	12935336.54	0.0494	0.0004 *
Earth	30704-09-25 12:14 G	12935732.91	12935733.01	12935733.12	0.0503	0.0444
Moon	30704-09-25 13:55 G	12935732.97	12935733.08	12935733.21	0.0503	0.0424 *
Mercury	30705-04-05 02:38 G	12935924.44	12935924.61	12935924.79	0.0509	0.0091
Moon	30709-02-14 08:38 G	12937335.64	12937335.86	12937336.09	0.0534	0.0144
Earth	30709-02-14 12:29 G	12937335.80	12937336.02	12937336.24	0.0534	0.0178 *
Venus	30709-04-10 20:24 G	12937391.17	12937391.35	12937391.54	0.0533	0.0217

Earth	30710-03-23 03:50 G	12937737.52	12937737.66	12937737.81	0.0525	0.0404
Moon	30710-03-23 07:26 G	12937737.67	12937737.81	12937737.95	0.0525	0.0419 *
Mercury	30710-08-27 02:38 G	12937894.54	12937894.61	12937894.68	0.0520	0.0438
Mercury	30710-11-24 09:07 G	12937983.75	12937983.88	12937984.00	0.0517	0.0154
Earth	30714-07-30 06:57 G	12939327.66	12939327.79	12939327.93	0.0491	0.0401
Moon	30714-07-30 10:05 G	12939327.79	12939327.92	12939328.07	0.0491	0.0400 *
Moon	30715-08-30 03:36 G	12939723.43	12939723.65	12939723.88	0.0495	0.0039
Earth	30715-08-30 05:31 G	12939723.50	12939723.73	12939723.96	0.0495	0.0045 *
Mercury	30717-01-22 01:26 G	12940234.38	12940234.56	12940234.73	0.0509	0.0093
Earth	30721-02-19 15:50 G	12941723.93	12941724.16	12941724.39	0.0533	0.0095
Moon	30721-02-19 19:26 G	12941724.08	12941724.31	12941724.53	0.0533	0.0103 *
Moon	30722-03-27 21:36 G	12942125.35	12942125.40	12942125.48	0.0523	0.0502
Earth	30722-03-28 00:29 G	12942125.42	12942125.52	12942125.62	0.0523	0.0470 *
Mercury	30722-09-12 12:29 G	12942293.89	12942294.02	12942294.15	0.0518	0.0006
Moon	30726-08-03 09:21 G	12943714.72	12943714.89	12943715.07	0.0492	0.0316
Earth	30726-08-03 13:12 G	12943714.89	12943715.05	12943715.22	0.0492	0.0347 *
Venus	30727-06-08 13:26 G	12944023.91	12944024.06	12944024.23	0.0495	0.0305
Earth	30727-09-03 15:21 G	12944110.91	12944111.14	12944111.36	0.0497	0.0111
Moon	30727-09-03 18:14 G	12944111.02	12944111.26	12944111.50	0.0497	0.0079 *
Mercury	30728-11-09 23:45 G	12944544.34	12944544.49	12944544.63	0.0508	0.0281
Mercury	30729-02-08 06:14 G	12944634.73	12944634.76	12944634.79	0.0511	0.0501
Moon	30733-02-24 17:17 G	12946111.98	12946112.22	12946112.46	0.0532	0.0039
Earth	30733-02-24 19:12 G	12946112.07	12946112.30	12946112.53	0.0532	0.0008 *
Mercury	30734-07-01 16:33 G	12946604.06	12946604.19	12946604.31	0.0518	0.0154
Mercury	30734-09-28 23:17 G	12946693.40	12946693.47	12946693.53	0.0516	0.0442
Earth	30738-08-07 21:07 G	12948102.19	12948102.38	12948102.57	0.0492	0.0286
Moon	30738-08-08 00:57 G	12948102.35	12948102.54	12948102.73	0.0492	0.0274 *
Venus	30739-02-11 15:50 G	12948289.96	12948290.16	12948290.36	0.0494	0.0123
Moon	30739-09-07 21:36 G	12948498.19	12948498.40	12948498.62	0.0498	0.0172
Earth	30739-09-08 01:12 G	12948498.34	12948498.55	12948498.77	0.0498	0.0177 *

Mercury	30740-08-28 20:53 G	12948854.32	12948854.37	12948854.43	0.0507	0.0482
Mercury	30740-11-27 03:50 G	12948944.53	12948944.66	12948944.81	0.0510	0.0305
Moon	30744-01-24 12:57 G	12950097.94	12950098.04	12950098.15	0.0535	0.0480
Earth	30744-01-24 15:50 G	12950098.10	12950098.16	12950098.23	0.0535	0.0513 *
Venus	30744-12-17 11:45 G	12950425.79	12950425.99	12950426.19	0.0532	0.0090
Earth	30745-03-01 21:07 G	12950500.15	12950500.38	12950500.61	0.0531	0.0076
Moon	30745-03-01 21:07 G	12950500.16	12950500.38	12950500.61	0.0531	0.0088 *
Mercury	30746-04-19 20:38 G	12950914.26	12950914.36	12950914.47	0.0519	0.0298
Mercury	30746-07-18 03:21 G	12951003.53	12951003.64	12951003.74	0.0517	0.0297
Moon	30750-08-12 02:09 G	12952489.39	12952489.59	12952489.80	0.0492	0.0244
Earth	30750-08-12 05:31 G	12952489.52	12952489.73	12952489.94	0.0492	0.0221 *
Earth	30751-09-12 11:17 G	12952885.78	12952885.97	12952886.18	0.0499	0.0245
Moon	30751-09-12 14:53 G	12952885.94	12952886.12	12952886.32	0.0499	0.0275 *
Mercury	30752-09-15 01:55 G	12953254.41	12953254.58	12953254.75	0.0509	0.0110
Earth	30756-01-29 22:05 G	12954486.29	12954486.42	12954486.56	0.0536	0.0435
Moon	30756-01-29 22:19 G	12954486.31	12954486.43	12954486.56	0.0536	0.0444 *
Venus	30756-08-22 02:53 G	12954691.51	12954691.62	12954691.73	0.0534	0.0447
Earth	30757-03-07 01:41 G	12954888.35	12954888.57	12954888.80	0.0530	0.0162
Moon	30757-03-07 03:50 G	12954888.43	12954888.66	12954888.88	0.0530	0.0192 *
Mercury	30758-02-06 01:12 G	12955224.48	12955224.55	12955224.62	0.0520	0.0437
Mercury	30758-05-06 07:41 G	12955313.69	12955313.82	12955313.94	0.0517	0.0156
Earth	30762-08-16 12:43 G	12956876.81	12956877.03	12956877.25	0.0493	0.0158
Moon	30762-08-16 14:24 G	12956876.89	12956877.10	12956877.31	0.0493	0.0178 *
Moon	30763-09-16 18:43 G	12957273.10	12957273.28	12957273.46	0.0500	0.0319
Earth	30763-09-16 21:36 G	12957273.22	12957273.40	12957273.58	0.0500	0.0311 *
Mercury	30764-07-03 23:45 G	12957564.31	12957564.49	12957564.66	0.0508	0.0088
Earth	30768-02-04 06:00 G	12958874.58	12958874.75	12958874.93	0.0535	0.0353
Moon	30768-02-04 08:09 G	12958874.68	12958874.84	12958875.01	0.0535	0.0384 *
Moon	30769-03-12 02:53 G	12959276.42	12959276.62	12959276.83	0.0528	0.0233
Earth	30769-03-12 06:29 G	12959276.57	12959276.77	12959276.98	0.0528	0.0246 *

Mercury	30770-02-22 12:00 G	12959623.87	12959624.00	12959624.13	0.0518	0.0018
Earth	30774-08-20 21:50 G	12961264.18	12961264.41	12961264.64	0.0494	0.0091
Moon	30774-08-20 22:05 G	12961264.18	12961264.42	12961264.66	0.0494	0.0072 *
Venus	30774-10-20 02:53 G	12961324.42	12961324.62	12961324.82	0.0494	0.0132
Earth	30775-09-21 10:48 G	12961660.81	12961660.95	12961661.11	0.0502	0.0380
Moon	30775-09-21 12:43 G	12961660.87	12961661.03	12961661.19	0.0502	0.0352 *
Mercury	30776-04-21 22:05 G	12961874.27	12961874.42	12961874.57	0.0508	0.0273
Mercury	30776-07-21 04:48 G	12961964.69	12961964.70	12961964.71	0.0511	0.0509
Moon	30780-02-09 08:24 G	12963262.65	12963262.85	12963263.05	0.0534	0.0265
Earth	30780-02-09 11:45 G	12963262.79	12963262.99	12963263.19	0.0534	0.0272 *
Venus	30780-08-25 06:29 G	12963460.65	12963460.77	12963460.89	0.0531	0.0418
Earth	30781-03-17 05:45 G	12963664.56	12963664.74	12963664.93	0.0526	0.0321
Moon	30781-03-17 09:36 G	12963664.71	12963664.90	12963665.09	0.0526	0.0292 *
Mercury	30781-12-11 15:21 G	12963934.02	12963934.14	12963934.27	0.0518	0.0144
Mercury	30782-03-10 22:05 G	12964023.36	12964023.42	12964023.49	0.0515	0.0452
Earth	30785-07-25 07:12 G	12965255.74	12965255.80	12965255.88	0.0491	0.0466
Venus	30786-06-25 04:48 G	12965590.54	12965590.70	12965590.87	0.0494	0.0295
Moon	30786-08-25 03:50 G	12965651.43	12965651.66	12965651.89	0.0495	0.0004
Earth	30786-08-25 05:45 G	12965651.50	12965651.74	12965651.97	0.0495	0.0030 *
Moon	30787-09-26 00:00 G	12966048.37	12966048.50	12966048.63	0.0504	0.0423
Earth	30787-09-26 00:14 G	12966048.40	12966048.51	12966048.62	0.0504	0.0442 *
Mercury	30788-02-08 20:09 G	12966184.27	12966184.34	12966184.41	0.0507	0.0464
Mercury	30788-05-09 03:21 G	12966274.50	12966274.64	12966274.77	0.0510	0.0324
Earth	30792-02-14 15:50 G	12967650.95	12967651.16	12967651.38	0.0533	0.0188
Moon	30792-02-14 19:41 G	12967651.10	12967651.32	12967651.54	0.0533	0.0156 *
Venus	30792-04-29 20:53 G	12967726.17	12967726.37	12967726.57	0.0532	0.0122
Moon	30793-03-22 02:24 G	12968052.46	12968052.60	12968052.76	0.0525	0.0407
Earth	30793-03-22 05:31 G	12968052.58	12968052.73	12968052.88	0.0525	0.0396 *
Mercury	30793-09-29 19:26 G	12968244.20	12968244.31	12968244.42	0.0519	0.0291
Mercury	30793-12-28 01:55 G	12968333.48	12968333.58	12968333.69	0.0516	0.0302

Moon	30797-07-29 11:17 G	12969642.84	12969642.97	12969643.10	0.0491	0.0404
Earth	30797-07-29 15:07 G	12969643.01	12969643.13	12969643.26	0.0491	0.0409 *
Earth	30798-08-29 14:38 G	12970038.88	12970039.11	12970039.34	0.0496	0.0039
Moon	30798-08-29 17:45 G	12970039.00	12970039.24	12970039.47	0.0496	0.0028 *
Earth	30799-09-30 12:29 G	12970436.01	12970436.02	12970436.04	0.0505	0.0503
Mercury	30800-02-26 00:57 G	12970584.37	12970584.54	12970584.71	0.0509	0.0125
Moon	30804-02-19 15:07 G	12972038.89	12972039.13	12972039.36	0.0533	0.0116
Earth	30804-02-19 17:45 G	12972039.01	12972039.24	12972039.47	0.0533	0.0103 *
Earth	30805-03-27 04:19 G	12972440.58	12972440.68	12972440.79	0.0524	0.0466
Moon	30805-03-27 05:17 G	12972440.67	12972440.72	12972440.80	0.0524	0.0498 *
Mercury	30805-07-18 23:31 G	12972554.41	12972554.48	12972554.55	0.0520	0.0437
Mercury	30805-10-16 06:00 G	12972643.62	12972643.75	12972643.88	0.0517	0.0155
Earth	30809-08-02 23:17 G	12974030.31	12974030.47	12974030.63	0.0491	0.0349
Moon	30809-08-03 02:53 G	12974030.45	12974030.62	12974030.80	0.0491	0.0318 *
Venus	30810-06-27 13:26 G	12974358.94	12974359.06	12974359.19	0.0495	0.0386
Moon	30810-09-02 20:24 G	12974426.13	12974426.35	12974426.58	0.0496	0.0077
Earth	30810-09-03 00:00 G	12974426.27	12974426.50	12974426.73	0.0496	0.0107 *
Mercury	30811-12-14 22:33 G	12974894.27	12974894.44	12974894.62	0.0508	0.0072
Earth	30816-02-24 22:33 G	12976427.21	12976427.44	12976427.67	0.0532	0.0015
Moon	30816-02-24 23:17 G	12976427.24	12976427.47	12976427.69	0.0532	0.0044 *
Moon	30817-04-01 06:00 G	12976828.75	12976828.75	12976828.78	0.0522	0.0521
Mercury	30817-08-04 10:19 G	12976953.80	12976953.93	12976954.06	0.0518	0.0014
Moon	30821-08-07 02:53 G	12978417.43	12978417.62	12978417.82	0.0492	0.0277
Earth	30821-08-07 06:14 G	12978417.57	12978417.76	12978417.95	0.0492	0.0288 *
Venus	30822-03-02 15:07 G	12978624.93	12978625.13	12978625.33	0.0494	0.0044
Earth	30822-09-07 08:38 G	12978813.64	12978813.86	12978814.08	0.0497	0.0174
Moon	30822-09-07 12:14 G	12978813.80	12978814.01	12978814.23	0.0497	0.0179 *
Mercury	30823-10-02 19:55 G	12979204.19	12979204.33	12979204.49	0.0508	0.0273
Mercury	30824-01-01 02:38 G	12979294.61	12979294.61	12979294.62	0.0511	0.0510
Earth	30827-01-23 21:36 G	12980413.35	12980413.40	12980413.46	0.0536	0.0520

Moon	30827-01-23 22:48 G	12980413.37	12980413.45	12980413.54	0.0536	0.0492 *
Venus	30828-01-06 14:24 G	12980760.91	12980761.10	12980761.29	0.0532	0.0197
Earth	30828-03-01 04:19 G	12980815.45	12980815.68	12980815.91	0.0531	0.0072
Moon	30828-03-01 05:45 G	12980815.50	12980815.74	12980815.98	0.0531	0.0086 *
Mercury	30829-05-23 14:38 G	12981263.98	12981264.11	12981264.24	0.0519	0.0129
Mercury	30829-08-20 21:21 G	12981353.34	12981353.39	12981353.44	0.0516	0.0466
Mars	30831-05-16 12:43 G	12981986.91	12981987.03	12981987.16	0.0497	0.0447
Earth	30833-08-11 14:09 G	12982804.89	12982805.09	12982805.30	0.0492	0.0225
Moon	30833-08-11 15:50 G	12982804.97	12982805.16	12982805.36	0.0492	0.0250 *
Venus	30833-11-05 18:00 G	12982891.19	12982891.25	12982891.31	0.0493	0.0465
Moon	30834-09-11 17:02 G	12983201.01	12983201.21	12983201.41	0.0499	0.0273
Earth	30834-09-11 19:55 G	12983201.13	12983201.33	12983201.54	0.0499	0.0242 *
Mercury	30835-07-21 18:14 G	12983514.19	12983514.26	12983514.33	0.0507	0.0461
Mercury	30835-10-20 01:26 G	12983604.43	12983604.56	12983604.69	0.0510	0.0326
Earth	30839-01-29 04:48 G	12984801.57	12984801.70	12984801.83	0.0535	0.0443
Moon	30839-01-29 06:00 G	12984801.64	12984801.75	12984801.89	0.0535	0.0458 *
Venus	30839-09-11 04:48 G	12985026.55	12985026.70	12985026.86	0.0533	0.0341
Moon	30840-03-06 03:36 G	12985203.44	12985203.65	12985203.87	0.0529	0.0181
Earth	30840-03-06 06:43 G	12985203.56	12985203.78	12985204.01	0.0529	0.0153 *
Mercury	30841-03-11 18:14 G	12985574.15	12985574.26	12985574.37	0.0519	0.0283
Mercury	30841-06-09 00:43 G	12985663.43	12985663.53	12985663.64	0.0516	0.0309
Earth	30845-08-15 20:09 G	12987192.13	12987192.34	12987192.57	0.0493	0.0165
Moon	30845-08-15 20:24 G	12987192.13	12987192.35	12987192.58	0.0493	0.0177 *
Earth	30846-09-16 06:43 G	12987588.60	12987588.78	12987588.97	0.0500	0.0307
Moon	30846-09-16 08:24 G	12987588.68	12987588.85	12987589.03	0.0500	0.0313 *
Mercury	30847-08-07 23:45 G	12987914.32	12987914.49	12987914.66	0.0510	0.0138
Mars	30849-05-02 15:36 G	12988547.90	12988548.15	12988548.41	0.0529	0.0100
Moon	30851-02-03 06:43 G	12989189.63	12989189.78	12989189.93	0.0535	0.0396
Earth	30851-02-03 09:36 G	12989189.73	12989189.90	12989190.07	0.0535	0.0362 *
Earth	30852-03-11 07:26 G	12989591.61	12989591.81	12989592.03	0.0528	0.0236

Moon	30852-03-11 11:31 G	12989591.77	12989591.98	12989592.19	0.0528	0.0215	*
Mercury	30852-12-28 22:19 G	12989884.36	12989884.43	12989884.50	0.0519	0.0431	
Mercury	30853-03-28 04:33 G	12989973.57	12989973.69	12989973.82	0.0517	0.0159	
Moon	30857-08-20 02:53 G	12991579.39	12991579.62	12991579.84	0.0494	0.0075	
Earth	30857-08-20 04:33 G	12991579.47	12991579.69	12991579.92	0.0494	0.0100	*
Venus	30857-11-08 01:26 G	12991659.37	12991659.56	12991659.74	0.0495	0.0209	
Moon	30858-09-20 17:17 G	12991976.05	12991976.22	12991976.40	0.0502	0.0343	
Earth	30858-09-20 17:45 G	12991976.09	12991976.24	12991976.39	0.0502	0.0373	*
Mercury	30859-05-26 21:07 G	12992224.20	12992224.38	12992224.56	0.0509	0.0063	
Earth	30863-02-08 10:48 G	12993577.75	12993577.95	12993578.15	0.0534	0.0282	
Moon	30863-02-08 14:38 G	12993577.91	12993578.11	12993578.31	0.0534	0.0269	*
Venus	30863-09-14 04:33 G	12993795.63	12993795.69	12993795.77	0.0531	0.0497	
Moon	30864-03-16 03:36 G	12993979.45	12993979.65	12993979.85	0.0527	0.0283	
Earth	30864-03-16 06:43 G	12993979.60	12993979.78	12993979.97	0.0527	0.0314	*
Mercury	30865-01-14 08:38 G	12994283.72	12994283.86	12994283.99	0.0518	0.0019	
Earth	30868-07-24 15:50 G	12995571.10	12995571.16	12995571.24	0.0491	0.0469	
Venus	30869-07-14 03:50 G	12995925.48	12995925.66	12995925.84	0.0494	0.0217	
Earth	30869-08-24 13:12 G	12995966.82	12995967.05	12995967.28	0.0494	0.0032	
Moon	30869-08-24 16:19 G	12995966.94	12995967.18	12995967.41	0.0494	0.0011	*
Moon	30870-09-25 03:50 G	12996363.55	12996363.66	12996363.78	0.0503	0.0428	
Earth	30870-09-25 05:17 G	12996363.62	12996363.72	12996363.84	0.0503	0.0437	*
Mercury	30871-03-14 18:43 G	12996534.12	12996534.28	12996534.43	0.0508	0.0262	
Moon	30875-02-13 12:14 G	12997965.79	12997966.01	12997966.24	0.0534	0.0168	
Earth	30875-02-13 15:36 G	12997965.93	12997966.15	12997966.37	0.0534	0.0197	*
Venus	30875-05-19 19:41 G	12998061.11	12998061.32	12998061.52	0.0533	0.0041	
Earth	30876-03-21 08:09 G	12998367.69	12998367.84	12998368.00	0.0526	0.0391	
Moon	30876-03-21 10:05 G	12998367.78	12998367.92	12998368.06	0.0526	0.0406	*
Mercury	30876-11-02 12:43 G	12998593.91	12998594.03	12998594.16	0.0519	0.0134	
Mercury	30877-01-30 19:26 G	12998683.26	12998683.31	12998683.37	0.0516	0.0462	
Earth	30880-07-28 22:48 G	12999958.33	12999958.45	12999958.58	0.0491	0.0413	

Moon	30880-07-29 02:24 G	12999958.48	12999958.60	12999958.74	0.0491	0.0404	*
Moon	30881-08-28 17:17 G	13000353.99	13000354.22	13000354.45	0.0495	0.0022	
Earth	30881-08-28 20:53 G	13000354.14	13000354.37	13000354.60	0.0495	0.0034	*
Earth	30882-09-29 16:33 G	13000751.16	13000751.19	13000751.23	0.0504	0.0499	
Mercury	30882-12-31 15:50 G	13000844.09	13000844.16	13000844.23	0.0507	0.0465	
Mercury	30883-03-31 23:02 G	13000934.32	13000934.46	13000934.59	0.0510	0.0322	
Earth	30887-02-18 21:50 G	13002354.19	13002354.41	13002354.64	0.0533	0.0109	
Moon	30887-02-18 23:17 G	13002354.25	13002354.47	13002354.69	0.0533	0.0128	*
Earth	30888-03-26 10:19 G	13002755.82	13002755.93	13002756.04	0.0524	0.0463	
Moon	30888-03-26 10:48 G	13002755.87	13002755.95	13002756.04	0.0524	0.0487	*
Mercury	30888-08-21 17:02 G	13002904.10	13002904.21	13002904.32	0.0519	0.0276	
Mercury	30888-11-18 23:45 G	13002993.38	13002993.49	13002993.59	0.0516	0.0318	
Moon	30892-08-02 02:53 G	13004345.45	13004345.62	13004345.81	0.0491	0.0323	
Earth	30892-08-02 06:14 G	13004345.60	13004345.76	13004345.92	0.0491	0.0354	*
Venus	30893-07-16 11:45 G	13004693.92	13004693.99	13004694.07	0.0495	0.0459	
Earth	30893-09-02 06:14 G	13004741.53	13004741.76	13004741.99	0.0496	0.0103	
Moon	30893-09-02 09:50 G	13004741.68	13004741.91	13004742.14	0.0496	0.0077	*
Mercury	30895-01-17 21:21 G	13005244.22	13005244.39	13005244.56	0.0509	0.0135	
Earth	30899-02-24 02:38 G	13006742.38	13006742.61	13006742.85	0.0532	0.0026	
Moon	30899-02-24 03:21 G	13006742.40	13006742.64	13006742.88	0.0532	0.0053	*
Moon	30900-04-01 04:48 G	13007143.66	13007143.70	13007143.75	0.0522	0.0509	
Mercury	30900-06-10 20:53 G	13007214.30	13007214.37	13007214.45	0.0519	0.0427	
Mercury	30900-09-08 03:21 G	13007303.51	13007303.64	13007303.76	0.0517	0.0164	
Earth	30904-08-07 10:48 G	13008732.76	13008732.95	13008733.14	0.0492	0.0296	
Moon	30904-08-07 12:29 G	13008732.84	13008733.02	13008733.21	0.0492	0.0291	*
Venus	30905-03-22 12:43 G	13008959.82	13008960.03	13008960.23	0.0495	0.0027	
Moon	30905-09-07 11:45 G	13009128.77	13009128.99	13009129.21	0.0498	0.0177	
Earth	30905-09-07 14:53 G	13009128.90	13009129.12	13009129.34	0.0498	0.0168	*
Mercury	30906-11-06 19:26 G	13009554.13	13009554.31	13009554.48	0.0509	0.0058	
Moon	30910-01-24 00:57 G	13010728.46	13010728.54	13010728.64	0.0535	0.0497	

Earth	30910-01-24 00:29 G	13010728.49	13010728.52	13010728.57	0.0535	0.0527	*
Venus	30911-01-26 13:26 G	13011095.89	13011096.06	13011096.23	0.0531	0.0281	
Moon	30911-03-02 02:38 G	13011130.38	13011130.61	13011130.83	0.0531	0.0079	
Earth	30911-03-02 05:02 G	13011130.48	13011130.71	13011130.94	0.0531	0.0062	*
Mercury	30912-06-27 07:12 G	13011613.67	13011613.80	13011613.93	0.0517	0.0017	
Earth	30916-08-11 18:29 G	13013120.07	13013120.27	13013120.48	0.0492	0.0233	
Moon	30916-08-11 18:29 G	13013120.07	13013120.27	13013120.48	0.0492	0.0259	*
Venus	30916-11-25 14:53 G	13013226.01	13013226.12	13013226.24	0.0494	0.0399	
Earth	30917-09-12 00:29 G	13013516.32	13013516.52	13013516.73	0.0499	0.0235	
Moon	30917-09-12 02:24 G	13013516.41	13013516.60	13013516.80	0.0499	0.0267	*
Mercury	30918-08-25 16:48 G	13013864.04	13013864.20	13013864.35	0.0508	0.0259	
Moon	30922-01-28 23:02 G	13015116.36	13015116.46	13015116.57	0.0535	0.0468	
Earth	30922-01-29 01:12 G	13015116.43	13015116.55	13015116.68	0.0535	0.0453	*
Venus	30922-10-01 01:41 G	13015361.40	13015361.57	13015361.74	0.0533	0.0271	
Earth	30923-03-07 04:19 G	13015518.45	13015518.68	13015518.90	0.0530	0.0144	
Moon	30923-03-07 08:09 G	13015518.62	13015518.84	13015519.06	0.0530	0.0168	*
Mercury	30924-04-15 11:02 G	13015923.83	13015923.96	13015924.08	0.0519	0.0140	
Mercury	30924-07-13 17:45 G	13016013.18	13016013.24	13016013.29	0.0516	0.0456	
Moon	30928-08-16 00:43 G	13017507.33	13017507.53	13017507.75	0.0493	0.0178	
Earth	30928-08-16 02:38 G	13017507.40	13017507.61	13017507.83	0.0493	0.0168	*
Moon	30929-09-16 10:33 G	13017903.75	13017903.94	13017904.13	0.0500	0.0304	
Earth	30929-09-16 11:17 G	13017903.78	13017903.97	13017904.15	0.0500	0.0302	*
Mercury	30930-06-13 14:09 G	13018174.02	13018174.09	13018174.16	0.0507	0.0459	
Mercury	30930-09-11 21:07 G	13018264.25	13018264.38	13018264.52	0.0510	0.0328	
Earth	30934-02-03 05:17 G	13019504.56	13019504.72	13019504.90	0.0535	0.0374	
Moon	30934-02-03 09:07 G	13019504.73	13019504.88	13019505.04	0.0535	0.0403	*
Moon	30935-03-12 02:53 G	13019906.40	13019906.62	13019906.84	0.0529	0.0206	
Earth	30935-03-12 06:29 G	13019906.56	13019906.77	13019906.98	0.0529	0.0228	*
Mercury	30936-02-02 15:07 G	13020234.02	13020234.13	13020234.24	0.0519	0.0284	
Mercury	30936-05-01 21:36 G	13020323.30	13020323.40	13020323.51	0.0517	0.0311	

Earth	30940-08-20 09:36 G	13021894.67	13021894.90	13021895.13	0.0493	0.0105
Moon	30940-08-20 12:29 G	13021894.79	13021895.02	13021895.26	0.0493	0.0078 *
Venus	30940-11-27 22:33 G	13021994.27	13021994.44	13021994.61	0.0495	0.0275
Moon	30941-09-20 19:26 G	13022291.15	13022291.31	13022291.47	0.0501	0.0340
Earth	30941-09-20 20:24 G	13022291.20	13022291.35	13022291.52	0.0501	0.0367 *
Mercury	30942-06-30 18:43 G	13022574.11	13022574.28	13022574.45	0.0509	0.0127
Moon	30946-02-08 08:09 G	13023892.64	13023892.84	13023893.04	0.0535	0.0275
Earth	30946-02-08 11:45 G	13023892.80	13023892.99	13023893.19	0.0535	0.0291 *
Earth	30947-03-17 09:50 G	13024294.72	13024294.91	13024295.10	0.0527	0.0308
Moon	30947-03-17 12:14 G	13024294.82	13024295.01	13024295.20	0.0527	0.0282 *
Mercury	30947-11-21 19:26 G	13024544.24	13024544.31	13024544.38	0.0520	0.0426
Mercury	30948-02-19 01:55 G	13024633.45	13024633.58	13024633.70	0.0517	0.0166
Mars	30949-11-03 16:05 G	13025256.94	13025257.17	13025257.40	0.0499	0.0297
Earth	30951-07-25 21:07 G	13025886.32	13025886.38	13025886.44	0.0491	0.0473
Venus	30952-08-03 00:57 G	13026260.34	13026260.54	13026260.73	0.0494	0.0152
Moon	30952-08-24 14:09 G	13026281.86	13026282.09	13026282.32	0.0494	0.0015
Earth	30952-08-24 17:31 G	13026282.00	13026282.23	13026282.47	0.0494	0.0039 *
Earth	30953-09-25 08:53 G	13026678.76	13026678.87	13026678.99	0.0503	0.0432
Moon	30953-09-25 12:00 G	13026678.88	13026679.00	13026679.13	0.0503	0.0430 *
Mercury	30954-04-18 16:48 G	13026884.02	13026884.20	13026884.38	0.0509	0.0065
Earth	30958-02-13 18:14 G	13028281.05	13028281.26	13028281.48	0.0534	0.0207
Moon	30958-02-13 20:24 G	13028281.14	13028281.35	13028281.57	0.0534	0.0181 *
Venus	30958-06-08 19:41 G	13028396.12	13028396.32	13028396.53	0.0532	0.0054
Moon	30959-03-22 09:50 G	13028682.76	13028682.91	13028683.08	0.0525	0.0398
Earth	30959-03-22 10:19 G	13028682.77	13028682.93	13028683.09	0.0525	0.0382 *
Mercury	30959-12-08 05:31 G	13028943.60	13028943.73	13028943.86	0.0517	0.0018
Moon	30963-07-29 21:36 G	13030273.28	13030273.40	13030273.53	0.0491	0.0412
Earth	30963-07-30 00:57 G	13030273.42	13030273.54	13030273.66	0.0491	0.0421 *
Earth	30964-08-29 00:00 G	13030669.27	13030669.50	13030669.73	0.0495	0.0027
Moon	30964-08-29 03:36 G	13030669.42	13030669.65	13030669.89	0.0495	0.0011 *

Earth	30965-09-29 20:38 G	13031066.33	13031066.36	13031066.42	0.0505	0.0494
Mercury	30966-02-04 14:24 G	13031193.95	13031194.10	13031194.26	0.0508	0.0261
Venus	30970-02-11 09:50 G	13032661.83	13032661.91	13032661.99	0.0533	0.0490
Moon	30970-02-18 21:36 G	13032669.17	13032669.40	13032669.64	0.0533	0.0138
Earth	30970-02-18 22:05 G	13032669.19	13032669.42	13032669.65	0.0533	0.0119 *
Moon	30971-03-27 06:43 G	13033070.70	13033070.78	13033070.88	0.0524	0.0477
Earth	30971-03-27 08:53 G	13033070.76	13033070.87	13033070.99	0.0524	0.0454 *
Mercury	30971-09-26 09:21 G	13033253.77	13033253.89	13033254.02	0.0518	0.0138
Mercury	30971-12-24 16:05 G	13033343.11	13033343.17	13033343.23	0.0515	0.0456
Earth	30975-08-03 07:55 G	13034660.68	13034660.83	13034660.99	0.0492	0.0362
Moon	30975-08-03 09:50 G	13034660.75	13034660.91	13034661.08	0.0492	0.0335 *
Moon	30976-09-02 05:45 G	13035056.51	13035056.74	13035056.98	0.0496	0.0071
Earth	30976-09-02 09:07 G	13035056.65	13035056.88	13035057.11	0.0496	0.0095 *
Mercury	30977-11-23 11:31 G	13035503.92	13035503.98	13035504.06	0.0507	0.0464
Mercury	30978-02-21 18:57 G	13035594.16	13035594.29	13035594.42	0.0510	0.0325
Moon	30982-02-23 19:55 G	13037057.10	13037057.33	13037057.55	0.0532	0.0063
Earth	30982-02-23 21:21 G	13037057.16	13037057.39	13037057.63	0.0532	0.0036 *
Earth	30983-04-01 04:48 G	13037458.69	13037458.70	13037458.71	0.0522	0.0522
Moon	30983-04-01 08:38 G	13037458.79	13037458.86	13037458.93	0.0522	0.0498
Mercury	30983-07-15 13:12 G	13037563.94	13037564.05	13037564.16	0.0519	0.0291
Mercury	30983-10-12 19:41 G	13037653.22	13037653.32	13037653.43	0.0516	0.0303
Earth	30987-08-07 16:19 G	13039047.99	13039048.18	13039048.36	0.0492	0.0300
Moon	30987-08-07 16:05 G	13039047.99	13039048.17	13039048.37	0.0492	0.0302 *
Venus	30988-04-10 09:50 G	13039294.71	13039294.91	13039295.11	0.0494	0.0093
Earth	30988-09-06 18:29 G	13039444.06	13039444.27	13039444.50	0.0497	0.0163
Moon	30988-09-06 20:38 G	13039444.15	13039444.36	13039444.57	0.0497	0.0176 *
Mercury	30989-12-10 16:33 G	13039904.02	13039904.19	13039904.36	0.0509	0.0128
Moon	30993-01-22 16:05 G	13041043.11	13041043.17	13041043.24	0.0535	0.0510
Venus	30994-02-14 08:53 G	13041430.71	13041430.87	13041431.02	0.0532	0.0342
Earth	30994-03-01 00:00 G	13041445.27	13041445.50	13041445.73	0.0531	0.0051

Moon	30994-03-01 03:36 G	13041445.41	13041445.65	13041445.88	0.0531	0.0074	*
Mercury	30995-05-03 17:17 G	13041874.15	13041874.22	13041874.29	0.0520	0.0437	
Mercury	30995-07-31 23:45 G	13041963.36	13041963.49	13041963.61	0.0517	0.0156	
Moon	30999-08-11 20:53 G	13043435.18	13043435.37	13043435.56	0.0492	0.0269	
Earth	30999-08-11 22:33 G	13043435.24	13043435.44	13043435.65	0.0492	0.0239	*
Venus	30999-12-15 11:31 G	13043560.83	13043560.98	13043561.13	0.0493	0.0336	
Moon	31000-09-12 01:55 G	13043831.37	13043831.58	13043831.78	0.0498	0.0257	
Earth	31000-09-12 02:38 G	13043831.41	13043831.61	13043831.82	0.0498	0.0228	*

32ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 32nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	31001-09-29 13:55 G		13044213.90	13044214.08	13044214.25	0.0508	0.0076	
Mars	31003-07-28 22:19 G		13044881.24	13044881.43	13044881.64	0.0529	0.0340	
Earth	31005-01-28 23:02 G		13045431.35	13045431.46	13045431.58	0.0536	0.0464	
Moon	31005-01-29 02:09 G		13045431.49	13045431.59	13045431.70	0.0536	0.0478	*
Venus	31005-10-20 23:45 G		13045696.31	13045696.49	13045696.68	0.0533	0.0194	
Moon	31006-03-07 00:14 G		13045833.29	13045833.51	13045833.74	0.0530	0.0161	
Earth	31006-03-07 04:19 G		13045833.46	13045833.68	13045833.91	0.0530	0.0136	*
Mercury	31007-05-21 03:50 G		13046273.53	13046273.66	13046273.79	0.0518	0.0017	
Earth	31011-08-17 05:45 G		13047822.52	13047822.74	13047822.96	0.0492	0.0175	
Moon	31011-08-17 08:38 G		13047822.64	13047822.86	13047823.09	0.0492	0.0182	*
Moon	31012-09-16 12:00 G		13048218.83	13048219.00	13048219.19	0.0499	0.0295	

Earth	31012-09-16 12:57 G	13048218.86	13048219.04	13048219.23	0.0499	0.0296	*
Mercury	31013-07-18 11:45 G	13048523.84	13048523.99	13048524.14	0.0508	0.0271	
Moon	31017-02-03 02:53 G	13049819.48	13049819.62	13049819.77	0.0535	0.0411	
Earth	31017-02-03 06:57 G	13049819.62	13049819.79	13049819.95	0.0535	0.0383	*
Earth	31018-03-12 07:41 G	13050221.61	13050221.82	13050222.03	0.0529	0.0219	
Moon	31018-03-12 10:33 G	13050221.74	13050221.94	13050222.16	0.0529	0.0198	*
Mercury	31019-03-09 07:55 G	13050583.70	13050583.83	13050583.95	0.0518	0.0138	
Mercury	31019-06-06 14:24 G	13050673.04	13050673.10	13050673.16	0.0515	0.0455	
Moon	31023-08-21 07:12 G	13052209.57	13052209.80	13052210.03	0.0493	0.0087	
Earth	31023-08-21 10:48 G	13052209.72	13052209.95	13052210.17	0.0493	0.0113	*
Venus	31023-12-18 17:45 G	13052329.09	13052329.24	13052329.40	0.0495	0.0331	
Earth	31024-09-20 22:33 G	13052606.28	13052606.44	13052606.60	0.0501	0.0361	
Moon	31024-09-21 01:12 G	13052606.38	13052606.55	13052606.74	0.0501	0.0331	*
Mercury	31025-05-06 09:07 G	13052833.81	13052833.88	13052833.94	0.0508	0.0471	
Mercury	31025-08-04 16:19 G	13052924.05	13052924.18	13052924.32	0.0510	0.0321	
Earth	31029-02-08 11:31 G	13054207.79	13054207.98	13054208.17	0.0535	0.0300	
Moon	31029-02-08 14:24 G	13054207.91	13054208.10	13054208.29	0.0535	0.0278	*
Moon	31030-03-17 07:12 G	13054609.59	13054609.80	13054610.01	0.0527	0.0273	
Earth	31030-03-17 08:24 G	13054609.66	13054609.85	13054610.04	0.0527	0.0299	*
Mercury	31030-12-26 11:45 G	13054893.88	13054893.99	13054894.10	0.0519	0.0288	
Mercury	31031-03-25 18:14 G	13054983.15	13054983.26	13054983.36	0.0516	0.0303	
Earth	31034-07-25 21:36 G	13056201.36	13056201.40	13056201.45	0.0491	0.0481	
Venus	31035-08-23 19:55 G	13056595.13	13056595.33	13056595.53	0.0494	0.0097	
Earth	31035-08-25 18:43 G	13056597.05	13056597.28	13056597.52	0.0494	0.0046	
Moon	31035-08-25 22:33 G	13056597.21	13056597.44	13056597.67	0.0494	0.0028	*
Moon	31036-09-25 06:14 G	13056993.64	13056993.76	13056993.88	0.0502	0.0423	
Earth	31036-09-25 09:50 G	13056993.80	13056993.91	13056994.05	0.0502	0.0426	*
Mercury	31037-05-23 14:09 G	13057233.92	13057234.09	13057234.26	0.0509	0.0121	
Moon	31041-02-13 09:36 G	13058595.67	13058595.90	13058596.12	0.0534	0.0190	
Earth	31041-02-13 11:02 G	13058595.74	13058595.96	13058596.17	0.0534	0.0218	*

Venus	31041-06-28 14:09 G	13058730.90	13058731.09	13058731.29	0.0532	0.0107
Moon	31042-03-22 03:36 G	13058997.50	13058997.65	13058997.79	0.0526	0.0395
Earth	31042-03-22 04:48 G	13058997.54	13058997.70	13058997.86	0.0526	0.0374 *
Mercury	31042-10-14 15:21 G	13059204.08	13059204.14	13059204.21	0.0520	0.0444
Mercury	31043-01-11 21:36 G	13059293.28	13059293.40	13059293.53	0.0517	0.0148
Earth	31046-07-30 05:45 G	13060588.62	13060588.74	13060588.85	0.0491	0.0425
Moon	31046-07-30 07:41 G	13060588.70	13060588.82	13060588.94	0.0491	0.0415 *
Moon	31047-08-30 00:43 G	13060984.29	13060984.53	13060984.77	0.0495	0.0003
Earth	31047-08-30 03:50 G	13060984.43	13060984.66	13060984.89	0.0495	0.0023 *
Earth	31048-09-29 21:50 G	13061381.36	13061381.41	13061381.47	0.0504	0.0488
Mercury	31049-03-11 11:45 G	13061543.81	13061543.99	13061544.16	0.0508	0.0078
Moon	31053-02-18 13:12 G	13062983.84	13062984.05	13062984.27	0.0534	0.0151
Earth	31053-02-18 13:55 G	13062983.86	13062984.08	13062984.31	0.0534	0.0132 *
Venus	31053-03-03 03:50 G	13062996.55	13062996.66	13062996.77	0.0533	0.0440
Earth	31054-03-27 04:19 G	13063385.56	13063385.68	13063385.80	0.0525	0.0447
Moon	31054-03-27 07:41 G	13063385.72	13063385.82	13063385.93	0.0525	0.0468 *
Mercury	31054-10-31 01:41 G	13063603.44	13063603.57	13063603.70	0.0518	0.0009
Moon	31058-08-03 12:00 G	13064975.83	13064976.00	13064976.18	0.0491	0.0341
Earth	31058-08-03 12:14 G	13064975.86	13064976.01	13064976.16	0.0491	0.0367 *
Earth	31059-09-03 11:02 G	13065371.73	13065371.96	13065372.19	0.0495	0.0088
Moon	31059-09-03 13:12 G	13065371.82	13065372.05	13065372.27	0.0495	0.0065 *
Mercury	31060-12-28 08:38 G	13065853.71	13065853.86	13065854.01	0.0508	0.0283
Mercury	31061-03-28 15:21 G	13065944.12	13065944.14	13065944.18	0.0510	0.0501
Earth	31065-02-23 18:43 G	13067372.05	13067372.28	13067372.51	0.0533	0.0046
Moon	31065-02-23 21:50 G	13067372.17	13067372.41	13067372.64	0.0533	0.0068 *
Moon	31066-04-01 00:43 G	13067773.47	13067773.53	13067773.61	0.0523	0.0497
Earth	31066-04-01 04:48 G	13067773.68	13067773.70	13067773.74	0.0523	0.0517
Mercury	31066-08-19 06:00 G	13067913.62	13067913.75	13067913.87	0.0519	0.0145
Mercury	31066-11-16 12:43 G	13068002.96	13068003.03	13068003.09	0.0516	0.0450
Moon	31070-08-07 17:02 G	13069363.04	13069363.21	13069363.38	0.0491	0.0316

Earth	31070-08-07 18:43 G	13069363.10	13069363.28	13069363.46	0.0491	0.0307	*
Venus	31071-05-01 05:17 G	13069629.53	13069629.72	13069629.92	0.0494	0.0149	
Moon	31071-09-07 18:43 G	13069759.05	13069759.28	13069759.51	0.0497	0.0168	
Earth	31071-09-07 19:41 G	13069759.10	13069759.32	13069759.54	0.0497	0.0155	*
Mercury	31072-10-16 06:14 G	13070163.71	13070163.76	13070163.82	0.0507	0.0481	
Mercury	31073-01-14 13:41 G	13070253.93	13070254.07	13070254.21	0.0510	0.0309	
Moon	31076-01-23 19:41 G	13071358.27	13071358.32	13071358.39	0.0536	0.0517	
Moon	31077-02-28 20:38 G	13071760.13	13071760.36	13071760.59	0.0532	0.0067	
Earth	31077-03-01 00:29 G	13071760.29	13071760.52	13071760.76	0.0532	0.0043	*
Venus	31077-03-06 07:26 G	13071765.70	13071765.81	13071765.94	0.0532	0.0425	
Mercury	31078-06-07 10:05 G	13072223.81	13072223.92	13072224.03	0.0519	0.0291	
Mercury	31078-09-04 16:19 G	13072313.08	13072313.18	13072313.29	0.0516	0.0301	
Earth	31082-08-11 22:33 G	13073750.25	13073750.44	13073750.65	0.0492	0.0246	
Moon	31082-08-12 01:41 G	13073750.37	13073750.57	13073750.77	0.0492	0.0276	*
Venus	31083-01-04 06:00 G	13073895.59	13073895.75	13073895.92	0.0494	0.0286	
Moon	31083-09-12 02:38 G	13074146.42	13074146.61	13074146.80	0.0498	0.0249	
Earth	31083-09-12 03:07 G	13074146.43	13074146.63	13074146.85	0.0498	0.0222	*
Mercury	31084-11-02 11:17 G	13074563.80	13074563.97	13074564.14	0.0510	0.0112	
Moon	31088-01-28 19:12 G	13075746.22	13075746.30	13075746.40	0.0535	0.0488	
Earth	31088-01-28 23:02 G	13075746.35	13075746.46	13075746.57	0.0535	0.0471	*
Venus	31088-11-08 22:05 G	13076031.22	13076031.42	13076031.62	0.0533	0.0115	
Earth	31089-03-06 03:07 G	13076148.40	13076148.63	13076148.86	0.0530	0.0127	
Moon	31089-03-06 06:29 G	13076148.56	13076148.77	13076148.99	0.0530	0.0152	*
Mercury	31090-03-26 13:55 G	13076534.02	13076534.08	13076534.15	0.0520	0.0440	
Mercury	31090-06-23 20:09 G	13076623.22	13076623.34	13076623.47	0.0517	0.0151	
Moon	31094-08-16 02:53 G	13078137.41	13078137.62	13078137.84	0.0493	0.0191	
Earth	31094-08-16 06:29 G	13078137.55	13078137.77	13078137.99	0.0493	0.0182	*
Earth	31095-09-16 13:41 G	13078533.88	13078534.07	13078534.26	0.0499	0.0289	
Moon	31095-09-16 16:19 G	13078533.98	13078534.18	13078534.38	0.0499	0.0278	*
Mercury	31096-08-21 08:53 G	13078873.70	13078873.87	13078874.05	0.0508	0.0087	

Earth	31100-02-02 22:19 G	13080134.28	13080134.43	13080134.59	0.0535	0.0395
Moon	31100-02-03 01:55 G	13080134.44	13080134.58	13080134.72	0.0535	0.0420 *
Moon	31101-03-11 21:50 G	13080536.19	13080536.41	13080536.64	0.0529	0.0189
Earth	31101-03-12 00:14 G	13080536.30	13080536.51	13080536.73	0.0529	0.0208 *
Mercury	31102-04-12 23:45 G	13080933.36	13080933.49	13080933.62	0.0518	0.0010
Mars	31104-01-29 12:43 G	13081589.74	13081590.03	13081590.31	0.0499	0.0074
Earth	31106-08-21 14:53 G	13082524.90	13082525.12	13082525.35	0.0493	0.0117
Moon	31106-08-21 18:43 G	13082525.05	13082525.28	13082525.51	0.0493	0.0088 *
Venus	31107-01-07 14:38 G	13082663.99	13082664.11	13082664.24	0.0495	0.0394
Moon	31107-09-21 21:07 G	13082921.21	13082921.38	13082921.56	0.0500	0.0326
Earth	31107-09-22 00:57 G	13082921.38	13082921.54	13082921.70	0.0500	0.0356 *
Mercury	31108-06-10 06:29 G	13083183.62	13083183.77	13083183.92	0.0508	0.0285
Mercury	31108-09-08 13:26 G	13083274.03	13083274.06	13083274.09	0.0510	0.0499
Moon	31112-02-08 23:31 G	13084522.28	13084522.48	13084522.68	0.0535	0.0292
Earth	31112-02-09 01:41 G	13084522.39	13084522.57	13084522.77	0.0535	0.0314 *
Moon	31113-03-17 00:43 G	13084924.34	13084924.53	13084924.72	0.0528	0.0269
Earth	31113-03-17 00:57 G	13084924.35	13084924.54	13084924.74	0.0528	0.0289 *
Mercury	31114-01-30 03:36 G	13085243.53	13085243.65	13085243.78	0.0519	0.0159
Mercury	31114-04-29 10:19 G	13085332.86	13085332.93	13085333.00	0.0516	0.0438
Earth	31117-07-26 02:09 G	13086516.56	13086516.59	13086516.62	0.0491	0.0487
Moon	31118-08-25 18:29 G	13086912.04	13086912.27	13086912.51	0.0493	0.0040
Earth	31118-08-25 21:50 G	13086912.18	13086912.41	13086912.64	0.0493	0.0052 *
Venus	31118-09-12 16:05 G	13086929.96	13086930.17	13086930.37	0.0494	0.0037
Earth	31119-09-26 10:19 G	13087308.80	13087308.93	13087309.06	0.0501	0.0418
Moon	31119-09-26 14:24 G	13087308.97	13087309.10	13087309.23	0.0501	0.0417 *
Mercury	31120-03-29 03:07 G	13087493.60	13087493.63	13087493.68	0.0507	0.0492
Mercury	31120-06-27 10:33 G	13087583.80	13087583.94	13087584.09	0.0509	0.0298
Mars	31122-01-17 00:29 G	13088152.41	13088152.52	13088152.63	0.0527	0.0473
Earth	31124-02-14 06:43 G	13088910.57	13088910.78	13088910.99	0.0535	0.0230
Moon	31124-02-14 07:12 G	13088910.59	13088910.80	13088911.00	0.0535	0.0204 *

Venus	31124-07-18 11:02 G	13089065.77	13089065.96	13089066.15	0.0532	0.0176
Earth	31125-03-22 03:07 G	13089312.47	13089312.63	13089312.80	0.0527	0.0367
Moon	31125-03-22 06:00 G	13089312.60	13089312.75	13089312.91	0.0527	0.0393 *
Mercury	31125-11-18 07:55 G	13089553.73	13089553.83	13089553.94	0.0520	0.0301
Mercury	31126-02-15 14:24 G	13089642.99	13089643.10	13089643.21	0.0517	0.0293
Moon	31129-07-30 08:09 G	13090903.72	13090903.84	13090903.98	0.0491	0.0414
Earth	31129-07-30 08:38 G	13090903.75	13090903.86	13090903.97	0.0491	0.0430 *
Venus	31130-05-18 18:00 G	13091196.19	13091196.25	13091196.32	0.0493	0.0462
Earth	31130-08-30 05:17 G	13091299.49	13091299.72	13091299.95	0.0494	0.0016
Moon	31130-08-30 07:26 G	13091299.58	13091299.81	13091300.04	0.0494	0.0010 *
Earth	31131-09-30 21:50 G	13091696.35	13091696.41	13091696.48	0.0503	0.0481
Mercury	31132-04-15 08:38 G	13091893.68	13091893.86	13091894.03	0.0509	0.0103
Earth	31136-02-19 13:55 G	13093298.86	13093299.08	13093299.31	0.0534	0.0142
Moon	31136-02-19 16:05 G	13093298.94	13093299.17	13093299.40	0.0534	0.0163 *
Venus	31136-03-23 02:38 G	13093331.46	13093331.61	13093331.76	0.0533	0.0357
Moon	31137-03-27 01:26 G	13093700.46	13093700.56	13093700.67	0.0525	0.0465
Earth	31137-03-27 05:17 G	13093700.60	13093700.72	13093700.85	0.0525	0.0441 *
Mercury	31137-09-06 12:14 G	13093863.95	13093864.01	13093864.08	0.0520	0.0444
Mercury	31137-12-04 18:29 G	13093953.15	13093953.27	13093953.40	0.0517	0.0146
Moon	31141-08-03 11:02 G	13095290.81	13095290.96	13095291.12	0.0491	0.0351
Earth	31141-08-03 12:29 G	13095290.88	13095291.02	13095291.18	0.0491	0.0374 *
Moon	31142-09-03 10:19 G	13095686.69	13095686.93	13095687.17	0.0495	0.0058
Earth	31142-09-03 11:31 G	13095686.75	13095686.98	13095687.21	0.0495	0.0081 *
Mercury	31144-02-02 06:00 G	13096203.58	13096203.75	13096203.93	0.0509	0.0097
Moon	31148-02-24 14:38 G	13097686.88	13097687.11	13097687.34	0.0533	0.0074
Earth	31148-02-24 18:29 G	13097687.04	13097687.27	13097687.50	0.0533	0.0053 *
Earth	31149-04-01 04:19 G	13098088.64	13098088.68	13098088.73	0.0523	0.0511
Moon	31149-04-01 08:09 G	13098088.77	13098088.84	13098088.92	0.0523	0.0490
Mercury	31149-09-22 22:33 G	13098263.30	13098263.44	13098263.57	0.0518	0.0016
Earth	31153-08-07 19:41 G	13099678.15	13099678.32	13099678.51	0.0492	0.0313

Moon	31153-08-07 22:48 G	13099678.27	13099678.45	13099678.63	0.0492	0.0323	*
Venus	31154-05-21 00:29 G	13099964.34	13099964.52	13099964.71	0.0495	0.0204	
Moon	31154-09-07 20:38 G	13100074.15	13100074.36	13100074.57	0.0497	0.0165	
Earth	31154-09-07 20:53 G	13100074.15	13100074.37	13100074.60	0.0497	0.0151	*
Mercury	31155-11-21 03:36 G	13100513.51	13100513.65	13100513.80	0.0508	0.0295	
Mercury	31156-02-19 10:48 G	13100603.91	13100603.95	13100603.99	0.0510	0.0492	
Moon	31159-01-23 06:43 G	13101672.76	13101672.78	13101672.81	0.0535	0.0531	
Earth	31160-02-29 16:33 G	13102074.96	13102075.19	13102075.42	0.0532	0.0029	
Moon	31160-02-29 20:24 G	13102075.12	13102075.35	13102075.58	0.0532	0.0057	*
Venus	31160-03-26 01:26 G	13102100.48	13102100.56	13102100.65	0.0531	0.0474	
Mercury	31161-07-12 01:55 G	13102573.46	13102573.58	13102573.70	0.0519	0.0164	
Mercury	31161-10-09 08:24 G	13102662.78	13102662.85	13102662.92	0.0516	0.0431	
Moon	31165-08-12 00:43 G	13104065.35	13104065.53	13104065.72	0.0492	0.0282	
Earth	31165-08-12 04:05 G	13104065.48	13104065.67	13104065.88	0.0492	0.0250	*
Venus	31166-01-24 03:21 G	13104230.46	13104230.64	13104230.83	0.0494	0.0220	
Earth	31166-09-12 07:26 G	13104461.61	13104461.81	13104462.02	0.0497	0.0218	
Moon	31166-09-12 10:05 G	13104461.71	13104461.92	13104462.13	0.0497	0.0241	*
Mercury	31167-09-09 01:12 G	13104823.51	13104823.55	13104823.60	0.0507	0.0491	
Mercury	31167-12-08 08:38 G	13104913.72	13104913.86	13104914.01	0.0509	0.0299	
Earth	31171-01-28 13:26 G	13106060.96	13106061.06	13106061.16	0.0535	0.0484	
Moon	31171-01-28 17:02 G	13106061.14	13106061.21	13106061.29	0.0535	0.0505	*
Venus	31171-11-29 15:21 G	13106365.94	13106366.14	13106366.34	0.0533	0.0068	
Moon	31172-03-05 15:21 G	13106462.91	13106463.14	13106463.38	0.0531	0.0142	
Earth	31172-03-05 18:29 G	13106463.05	13106463.27	13106463.50	0.0531	0.0116	*
Mercury	31173-04-30 06:00 G	13106883.64	13106883.75	13106883.85	0.0520	0.0313	
Mercury	31173-07-28 12:14 G	13106972.90	13106973.01	13106973.12	0.0517	0.0282	
Earth	31177-08-16 10:48 G	13108452.74	13108452.95	13108453.17	0.0492	0.0188	
Moon	31177-08-16 14:38 G	13108452.90	13108453.11	13108453.33	0.0492	0.0190	*
Moon	31178-09-16 12:29 G	13108848.83	13108849.02	13108849.21	0.0498	0.0269	
Earth	31178-09-16 15:50 G	13108848.98	13108849.16	13108849.36	0.0498	0.0284	*

Mercury	31179-09-26 06:00 G	13109223.57	13109223.75	13109223.92	0.0509	0.0095
Moon	31183-02-02 14:53 G	13110448.98	13110449.12	13110449.26	0.0535	0.0433
Earth	31183-02-02 18:00 G	13110449.10	13110449.25	13110449.40	0.0535	0.0407 *
Earth	31184-03-10 22:05 G	13110851.20	13110851.42	13110851.63	0.0530	0.0199
Moon	31184-03-10 22:48 G	13110851.24	13110851.45	13110851.66	0.0530	0.0179 *
Mercury	31185-02-16 10:05 G	13111193.87	13111193.92	13111193.99	0.0520	0.0456
Mercury	31185-05-16 16:33 G	13111283.06	13111283.19	13111283.31	0.0518	0.0137
Moon	31189-08-20 14:38 G	13112839.87	13112840.11	13112840.34	0.0493	0.0094
Earth	31189-08-20 17:45 G	13112840.02	13112840.24	13112840.47	0.0493	0.0123 *
Venus	31190-01-26 10:19 G	13112998.86	13112998.93	13112999.02	0.0495	0.0452
Earth	31190-09-21 01:41 G	13113236.41	13113236.57	13113236.74	0.0500	0.0350
Moon	31190-09-21 06:00 G	13113236.57	13113236.75	13113236.93	0.0500	0.0318 *
Mercury	31191-07-15 03:36 G	13113533.48	13113533.65	13113533.83	0.0508	0.0102
Earth	31195-02-08 01:41 G	13114837.39	13114837.57	13114837.76	0.0535	0.0323
Moon	31195-02-08 02:53 G	13114837.44	13114837.62	13114837.81	0.0535	0.0302 *
Earth	31196-03-16 02:24 G	13115239.41	13115239.60	13115239.81	0.0529	0.0284
Moon	31196-03-16 04:33 G	13115239.49	13115239.69	13115239.90	0.0528	0.0267 *
Mercury	31197-03-04 20:38 G	13115593.23	13115593.36	13115593.49	0.0518	0.0016
Earth	31201-08-24 23:17 G	13117227.24	13117227.47	13117227.70	0.0493	0.0058
Moon	31201-08-25 01:26 G	13117227.34	13117227.56	13117227.79	0.0493	0.0049 *
Venus	31201-10-01 11:17 G	13117264.76	13117264.97	13117265.17	0.0494	0.0019
Moon	31202-09-25 07:41 G	13117623.69	13117623.82	13117623.96	0.0501	0.0410
Earth	31202-09-25 11:31 G	13117623.85	13117623.98	13117624.11	0.0501	0.0414 *
Mercury	31203-05-03 00:57 G	13117843.40	13117843.54	13117843.68	0.0508	0.0303
Mercury	31203-08-01 07:55 G	13117933.79	13117933.83	13117933.89	0.0511	0.0485
Earth	31207-02-13 07:41 G	13119225.61	13119225.82	13119226.03	0.0535	0.0236
Moon	31207-02-13 08:53 G	13119225.65	13119225.87	13119226.09	0.0535	0.0213 *
Venus	31207-08-07 10:05 G	13119400.75	13119400.92	13119401.10	0.0532	0.0258
Moon	31208-03-21 00:29 G	13119627.38	13119627.52	13119627.68	0.0527	0.0390
Earth	31208-03-21 04:19 G	13119627.51	13119627.68	13119627.85	0.0527	0.0361 *

Mercury	31208-12-22 00:43 G	13119903.41	13119903.53	13119903.66	0.0519	0.0155
Mercury	31209-03-21 07:12 G	13119992.74	13119992.80	13119992.87	0.0516	0.0439
Moon	31212-07-29 09:36 G	13121218.79	13121218.90	13121219.02	0.0491	0.0415
Earth	31212-07-29 11:17 G	13121218.86	13121218.97	13121219.07	0.0491	0.0436 *
Venus	31213-06-06 13:55 G	13121530.97	13121531.08	13121531.20	0.0493	0.0405
Moon	31213-08-29 06:57 G	13121614.54	13121614.79	13121615.03	0.0494	0.0018
Earth	31213-08-29 08:09 G	13121614.60	13121614.84	13121615.07	0.0494	0.0015 *
Earth	31214-09-30 00:14 G	13122011.45	13122011.51	13122011.58	0.0503	0.0479
Mercury	31215-02-18 22:48 G	13122153.42	13122153.45	13122153.48	0.0507	0.0498
Mercury	31215-05-20 06:14 G	13122243.62	13122243.76	13122243.90	0.0510	0.0293
Moon	31219-02-18 04:05 G	13123613.46	13123613.67	13123613.89	0.0534	0.0179
Earth	31219-02-18 07:12 G	13123613.58	13123613.80	13123614.03	0.0534	0.0154 *
Venus	31219-04-11 21:07 G	13123666.22	13123666.38	13123666.55	0.0533	0.0301
Earth	31220-03-25 23:17 G	13124015.35	13124015.47	13124015.61	0.0526	0.0435
Moon	31220-03-26 03:36 G	13124015.54	13124015.65	13124015.76	0.0526	0.0458 *
Mercury	31220-10-10 04:05 G	13124213.57	13124213.67	13124213.78	0.0520	0.0316
Mercury	31221-01-07 10:33 G	13124302.83	13124302.94	13124303.05	0.0517	0.0277
Earth	31224-08-02 18:57 G	13125606.15	13125606.29	13125606.45	0.0491	0.0379
Moon	31224-08-02 22:05 G	13125606.26	13125606.42	13125606.59	0.0491	0.0354 *
Moon	31225-09-02 17:45 G	13126002.01	13126002.24	13126002.46	0.0495	0.0060
Earth	31225-09-02 18:00 G	13126002.02	13126002.25	13126002.48	0.0495	0.0079 *
Mercury	31227-03-08 04:19 G	13126553.50	13126553.68	13126553.85	0.0509	0.0100
Earth	31231-02-23 10:05 G	13128001.69	13128001.92	13128002.15	0.0533	0.0066
Moon	31231-02-23 14:09 G	13128001.86	13128002.09	13128002.32	0.0533	0.0087 *
Moon	31232-03-30 19:12 G	13128403.22	13128403.30	13128403.40	0.0524	0.0484
Earth	31232-03-30 22:48 G	13128403.39	13128403.45	13128403.51	0.0524	0.0505 *
Mercury	31232-07-29 08:09 G	13128523.79	13128523.84	13128523.90	0.0521	0.0464
Mercury	31232-10-26 14:24 G	13128612.98	13128613.10	13128613.23	0.0518	0.0129
Moon	31236-08-06 22:48 G	13129993.28	13129993.45	13129993.62	0.0491	0.0330
Earth	31236-08-07 02:09 G	13129993.42	13129993.59	13129993.78	0.0491	0.0319 *

Venus	31237-06-08 22:19 G	13130299.26	13130299.43	13130299.60	0.0494	0.0272
Earth	31237-09-07 01:55 G	13130389.35	13130389.58	13130389.80	0.0496	0.0145
Moon	31237-09-07 04:05 G	13130389.44	13130389.67	13130389.90	0.0496	0.0166 *
Mercury	31238-12-25 01:26 G	13130863.38	13130863.56	13130863.73	0.0508	0.0104
Moon	31243-02-28 10:48 G	13132389.72	13132389.95	13132390.19	0.0533	0.0043
Earth	31243-02-28 14:24 G	13132389.87	13132390.10	13132390.34	0.0533	0.0022 *
Mercury	31244-08-14 18:43 G	13132923.15	13132923.28	13132923.41	0.0519	0.0016
Earth	31248-08-11 08:53 G	13134380.68	13134380.87	13134381.07	0.0492	0.0255
Moon	31248-08-11 12:43 G	13134380.84	13134381.03	13134381.22	0.0492	0.0284 *
Venus	31249-02-12 00:14 G	13134565.32	13134565.51	13134565.71	0.0493	0.0155
Moon	31249-09-11 07:12 G	13134776.60	13134776.80	13134777.00	0.0497	0.0235
Earth	31249-09-11 10:33 G	13134776.74	13134776.94	13134777.16	0.0497	0.0212 *
Mercury	31250-10-12 22:48 G	13135173.31	13135173.45	13135173.60	0.0507	0.0303
Mercury	31251-01-11 06:00 G	13135263.70	13135263.75	13135263.80	0.0510	0.0483
Moon	31254-01-27 10:05 G	13136375.86	13136375.92	13136375.98	0.0536	0.0517
Earth	31254-01-27 13:41 G	13136375.98	13136376.07	13136376.16	0.0536	0.0493 *
Venus	31254-12-18 15:07 G	13136700.93	13136701.13	13136701.33	0.0533	0.0020
Earth	31255-03-05 20:53 G	13136778.14	13136778.37	13136778.60	0.0532	0.0109
Moon	31255-03-05 22:19 G	13136778.22	13136778.43	13136778.65	0.0532	0.0131 *
Mercury	31256-06-02 23:02 G	13137233.34	13137233.46	13137233.59	0.0519	0.0158
Mercury	31256-08-31 05:31 G	13137322.67	13137322.73	13137322.81	0.0516	0.0438
Mars	31258-04-24 00:14 G	13137923.25	13137923.51	13137923.77	0.0498	0.0212
Moon	31260-08-15 11:02 G	13138767.74	13138767.96	13138768.18	0.0492	0.0190
Earth	31260-08-15 14:24 G	13138767.89	13138768.10	13138768.32	0.0492	0.0192 *
Earth	31261-09-15 18:43 G	13139164.09	13139164.28	13139164.47	0.0498	0.0280
Moon	31261-09-15 22:48 G	13139164.25	13139164.45	13139164.65	0.0498	0.0263 *
Mercury	31262-07-31 20:09 G	13139483.33	13139483.34	13139483.36	0.0507	0.0504
Mercury	31262-10-30 03:50 G	13139573.52	13139573.66	13139573.80	0.0510	0.0288
Earth	31266-02-01 20:24 G	13140764.21	13140764.35	13140764.51	0.0536	0.0413
Moon	31266-02-01 22:33 G	13140764.32	13140764.44	13140764.57	0.0536	0.0438 *

Venus	31266-08-23 06:00 G	13140966.70	13140966.75	13140966.80	0.0534	0.0518
Earth	31267-03-11 00:57 G	13141166.33	13141166.54	13141166.76	0.0530	0.0196
Moon	31267-03-11 02:09 G	13141166.36	13141166.59	13141166.83	0.0530	0.0169 *
Mercury	31268-03-22 03:21 G	13141543.53	13141543.64	13141543.74	0.0519	0.0303
Mercury	31268-06-19 09:36 G	13141632.80	13141632.90	13141633.01	0.0517	0.0290
Earth	31272-08-19 22:33 G	13143155.22	13143155.44	13143155.67	0.0493	0.0126
Moon	31272-08-20 00:43 G	13143155.31	13143155.53	13143155.75	0.0493	0.0096 *
Moon	31273-09-20 02:53 G	13143551.44	13143551.62	13143551.80	0.0500	0.0316
Earth	31273-09-20 06:43 G	13143551.61	13143551.78	13143551.95	0.0500	0.0348 *
Mercury	31274-08-18 02:09 G	13143883.41	13143883.59	13143883.76	0.0509	0.0099
Mars	31276-04-11 16:05 G	13144485.93	13144486.17	13144486.42	0.0527	0.0185
Moon	31278-02-06 21:36 G	13145152.20	13145152.40	13145152.60	0.0535	0.0313
Earth	31278-02-06 21:36 G	13145152.22	13145152.40	13145152.58	0.0535	0.0335 *
Moon	31279-03-15 18:57 G	13145554.10	13145554.29	13145554.49	0.0529	0.0257
Earth	31279-03-15 22:05 G	13145554.22	13145554.42	13145554.62	0.0529	0.0274 *
Mercury	31280-01-09 06:43 G	13145853.72	13145853.78	13145853.84	0.0520	0.0464
Mercury	31280-04-07 12:57 G	13145942.91	13145943.04	13145943.17	0.0518	0.0128
Moon	31284-08-24 06:57 G	13147542.55	13147542.79	13147543.03	0.0493	0.0053
Earth	31284-08-24 07:55 G	13147542.60	13147542.83	13147543.07	0.0493	0.0060 *
Venus	31284-10-20 10:48 G	13147599.75	13147599.95	13147600.15	0.0494	0.0096
Earth	31285-09-24 19:12 G	13147939.17	13147939.30	13147939.43	0.0501	0.0413
Moon	31285-09-24 21:36 G	13147939.29	13147939.40	13147939.53	0.0501	0.0419 *
Mercury	31286-06-06 00:14 G	13148193.33	13148193.51	13148193.68	0.0508	0.0094
Moon	31290-02-11 23:02 G	13149540.26	13149540.46	13149540.66	0.0534	0.0231
Earth	31290-02-12 01:26 G	13149540.35	13149540.56	13149540.77	0.0534	0.0249 *
Venus	31290-08-26 04:48 G	13149735.54	13149735.70	13149735.87	0.0532	0.0315
Earth	31291-03-20 22:48 G	13149942.28	13149942.45	13149942.62	0.0528	0.0353
Moon	31291-03-21 02:38 G	13149942.46	13149942.61	13149942.78	0.0528	0.0381 *
Mercury	31292-01-25 17:02 G	13150253.08	13150253.21	13150253.34	0.0519	0.0025
Earth	31295-07-29 18:57 G	13151534.20	13151534.29	13151534.40	0.0491	0.0443

Moon	31295-07-29 22:05 G	13151534.30	13151534.42	13151534.55	0.0491	0.0414 *
Venus	31296-06-25 12:57 G	13151865.89	13151866.04	13151866.20	0.0493	0.0328
Moon	31296-08-28 15:21 G	13151929.91	13151930.14	13151930.36	0.0494	0.0020
Earth	31296-08-28 15:36 G	13151929.92	13151930.15	13151930.39	0.0494	0.0007 *
Earth	31297-09-29 05:31 G	13152326.66	13152326.73	13152326.81	0.0502	0.0474
Moon	31297-09-29 04:33 G	13152326.69	13152326.69	13152326.71	0.0502	0.0501 *
Mercury	31298-03-24 21:07 G	13152503.24	13152503.38	13152503.53	0.0507	0.0297
Mercury	31298-06-23 04:05 G	13152593.63	13152593.67	13152593.73	0.0510	0.0488
Earth	31302-02-18 06:00 G	13153928.53	13153928.75	13153928.97	0.0534	0.0163
Moon	31302-02-18 09:50 G	13153928.70	13153928.91	13153929.13	0.0534	0.0194 *
Venus	31302-05-01 19:26 G	13154001.12	13154001.31	13154001.49	0.0533	0.0223
Moon	31303-03-26 21:07 G	13154330.27	13154330.38	13154330.51	0.0526	0.0452
Earth	31303-03-27 00:57 G	13154330.41	13154330.54	13154330.67	0.0526	0.0429 *
Mercury	31303-11-14 21:21 G	13154563.26	13154563.39	13154563.51	0.0519	0.0165
Mercury	31304-02-12 03:50 G	13154652.59	13154652.66	13154652.73	0.0517	0.0432
Moon	31307-08-03 22:48 G	13155921.30	13155921.45	13155921.61	0.0491	0.0359
Earth	31307-08-04 02:24 G	13155921.46	13155921.60	13155921.75	0.0491	0.0382 *
Earth	31308-09-02 23:45 G	13156317.26	13156317.49	13156317.72	0.0495	0.0075
Moon	31308-09-03 01:55 G	13156317.34	13156317.58	13156317.82	0.0495	0.0063 *
Mercury	31310-01-11 18:43 G	13156813.25	13156813.28	13156813.31	0.0506	0.0495
Mercury	31310-04-12 02:09 G	13156903.45	13156903.59	13156903.73	0.0509	0.0294
Moon	31314-02-23 09:36 G	13158316.67	13158316.90	13158317.13	0.0534	0.0096
Earth	31314-02-23 13:41 G	13158316.83	13158317.07	13158317.30	0.0534	0.0074 *
Earth	31315-04-01 04:05 G	13158718.61	13158718.67	13158718.74	0.0525	0.0504
Moon	31315-04-01 06:00 G	13158718.66	13158718.75	13158718.84	0.0525	0.0478 *
Mercury	31315-09-03 01:41 G	13158873.47	13158873.57	13158873.68	0.0520	0.0303
Mercury	31315-12-01 08:09 G	13158962.73	13158962.84	13158962.95	0.0517	0.0291
Earth	31319-08-08 07:55 G	13160308.66	13160308.83	13160309.01	0.0491	0.0322
Moon	31319-08-08 11:45 G	13160308.82	13160308.99	13160309.16	0.0491	0.0337 *
Venus	31320-06-28 19:55 G	13160634.18	13160634.33	13160634.48	0.0494	0.0339

Moon	31320-09-07 03:36 G	13160704.43	13160704.65	13160704.86	0.0496	0.0168
Earth	31320-09-07 06:57 G	13160704.57	13160704.79	13160705.02	0.0496	0.0142 *
Mercury	31322-01-29 00:00 G	13161213.32	13161213.50	13161213.67	0.0509	0.0098
Earth	31326-02-28 19:41 G	13162705.09	13162705.32	13162705.55	0.0533	0.0016
Moon	31326-02-28 22:05 G	13162705.19	13162705.42	13162705.65	0.0533	0.0042 *
Mercury	31327-06-22 06:00 G	13163183.69	13163183.75	13163183.82	0.0520	0.0447
Mercury	31327-09-19 12:14 G	13163272.89	13163273.01	13163273.14	0.0518	0.0145
Moon	31331-08-12 12:43 G	13164695.84	13164696.03	13164696.23	0.0492	0.0284
Earth	31331-08-12 16:05 G	13164695.97	13164696.17	13164696.37	0.0492	0.0258 *
Venus	31332-03-03 22:48 G	13164900.25	13164900.45	13164900.65	0.0494	0.0083
Earth	31332-09-11 17:45 G	13165092.03	13165092.24	13165092.45	0.0497	0.0211
Moon	31332-09-11 21:36 G	13165092.20	13165092.40	13165092.61	0.0497	0.0233 *
Mercury	31333-11-16 22:19 G	13165523.25	13165523.43	13165523.60	0.0508	0.0092
Earth	31337-01-27 12:57 G	13166690.97	13166691.04	13166691.12	0.0535	0.0504
Moon	31337-01-27 15:36 G	13166691.14	13166691.15	13166691.18	0.0535	0.0531
Venus	31338-01-07 12:29 G	13167035.82	13167036.02	13167036.22	0.0532	0.0094
Earth	31338-03-05 18:43 G	13167093.05	13167093.28	13167093.51	0.0531	0.0099
Moon	31338-03-05 18:43 G	13167093.05	13167093.28	13167093.52	0.0531	0.0114 *
Mercury	31339-07-08 15:36 G	13167583.02	13167583.15	13167583.28	0.0518	0.0018
Earth	31343-08-17 00:43 G	13169083.32	13169083.53	13169083.75	0.0492	0.0195
Moon	31343-08-17 02:53 G	13169083.41	13169083.62	13169083.83	0.0492	0.0184 *
Moon	31344-09-16 01:26 G	13169479.37	13169479.56	13169479.77	0.0498	0.0263
Earth	31344-09-16 05:31 G	13169479.54	13169479.73	13169479.92	0.0498	0.0280 *
Mercury	31345-09-04 20:09 G	13169833.20	13169833.34	13169833.50	0.0507	0.0281
Mercury	31345-12-04 03:21 G	13169923.62	13169923.64	13169923.66	0.0510	0.0504
Moon	31349-02-01 16:19 G	13171079.06	13171079.18	13171079.32	0.0535	0.0447
Earth	31349-02-01 17:31 G	13171079.09	13171079.23	13171079.37	0.0535	0.0424 *
Venus	31349-09-12 02:24 G	13171301.49	13171301.60	13171301.71	0.0533	0.0450
Moon	31350-03-10 18:43 G	13171481.07	13171481.28	13171481.50	0.0530	0.0156
Earth	31350-03-10 21:07 G	13171481.16	13171481.38	13171481.60	0.0530	0.0186 *

Mercury	31351-04-26 19:41 G	13171893.19	13171893.32	13171893.44	0.0519	0.0166
Mercury	31351-07-25 02:09 G	13171982.52	13171982.59	13171982.66	0.0516	0.0430
Moon	31355-08-21 07:26 G	13173470.58	13173470.81	13173471.05	0.0493	0.0100
Earth	31355-08-21 08:24 G	13173470.63	13173470.85	13173471.08	0.0493	0.0131 *
Earth	31356-09-20 15:07 G	13173866.96	13173867.13	13173867.30	0.0499	0.0344
Moon	31356-09-20 17:45 G	13173867.07	13173867.24	13173867.41	0.0499	0.0319 *
Mercury	31357-06-23 17:17 G	13174143.18	13174143.22	13174143.28	0.0506	0.0484
Mercury	31357-09-22 00:57 G	13174233.40	13174233.54	13174233.68	0.0509	0.0305
Moon	31361-02-06 20:24 G	13175467.17	13175467.35	13175467.53	0.0535	0.0322
Earth	31361-02-06 21:50 G	13175467.24	13175467.41	13175467.59	0.0535	0.0345 *
Earth	31362-03-16 00:14 G	13175869.31	13175869.51	13175869.72	0.0529	0.0269
Moon	31362-03-16 04:05 G	13175869.47	13175869.67	13175869.88	0.0529	0.0252 *
Mercury	31363-02-13 00:00 G	13176203.40	13176203.50	13176203.60	0.0520	0.0307
Mercury	31363-05-13 06:29 G	13176292.66	13176292.77	13176292.88	0.0517	0.0288
Moon	31367-08-25 15:50 G	13177857.94	13177858.16	13177858.39	0.0493	0.0061
Earth	31367-08-25 16:19 G	13177857.95	13177858.18	13177858.41	0.0493	0.0063 *
Venus	31367-11-10 09:50 G	13177934.72	13177934.91	13177935.11	0.0494	0.0174
Moon	31368-09-25 00:29 G	13178254.40	13178254.52	13178254.66	0.0500	0.0421
Earth	31368-09-25 01:41 G	13178254.44	13178254.57	13178254.70	0.0500	0.0410 *
Mercury	31369-07-10 22:48 G	13178543.27	13178543.45	13178543.62	0.0508	0.0111
Earth	31373-02-12 05:45 G	13179855.53	13179855.74	13179855.94	0.0535	0.0257
Moon	31373-02-12 09:21 G	13179855.68	13179855.89	13179856.10	0.0535	0.0242 *
Venus	31373-09-15 06:29 G	13180070.65	13180070.77	13180070.91	0.0532	0.0416
Moon	31374-03-21 01:55 G	13180257.42	13180257.58	13180257.74	0.0528	0.0378
Earth	31374-03-21 05:45 G	13180257.57	13180257.74	13180257.91	0.0528	0.0351 *
Mercury	31374-12-02 04:33 G	13180513.63	13180513.69	13180513.76	0.0521	0.0445
Mercury	31375-03-01 10:48 G	13180602.83	13180602.95	13180603.08	0.0518	0.0148
Mars	31376-10-12 19:26 G	13181194.23	13181194.31	13181194.40	0.0500	0.0475
Moon	31378-07-29 23:45 G	13181849.37	13181849.49	13181849.61	0.0491	0.0419
Earth	31378-07-30 03:21 G	13181849.55	13181849.64	13181849.74	0.0491	0.0445 *

Venus	31379-07-16 11:45 G	13182200.82	13182200.99	13182201.17	0.0493	0.0254
Earth	31379-08-29 23:02 G	13182245.23	13182245.46	13182245.69	0.0494	0.0005
Moon	31379-08-30 01:12 G	13182245.31	13182245.55	13182245.79	0.0494	0.0023 *
Earth	31380-09-29 12:14 G	13182641.94	13182642.01	13182642.09	0.0502	0.0474
Mercury	31381-04-28 20:24 G	13182853.18	13182853.35	13182853.53	0.0508	0.0086
Moon	31385-02-17 09:07 G	13184243.67	13184243.88	13184244.10	0.0535	0.0198
Earth	31385-02-17 13:26 G	13184243.84	13184244.06	13184244.28	0.0535	0.0167 *
Venus	31385-05-20 22:19 G	13184336.24	13184336.43	13184336.63	0.0533	0.0116
Earth	31386-03-26 08:38 G	13184645.73	13184645.86	13184646.00	0.0526	0.0430
Moon	31386-03-26 11:17 G	13184645.85	13184645.97	13184646.09	0.0526	0.0443 *
Mercury	31386-12-18 15:07 G	13184913.00	13184913.13	13184913.26	0.0518	0.0005
Earth	31390-08-03 11:17 G	13186236.83	13186236.97	13186237.12	0.0491	0.0385
Moon	31390-08-03 15:07 G	13186236.98	13186237.13	13186237.29	0.0491	0.0365 *
Moon	31391-09-03 05:45 G	13186632.51	13186632.74	13186632.96	0.0495	0.0069
Earth	31391-09-03 09:07 G	13186632.65	13186632.88	13186633.11	0.0495	0.0074 *
Mercury	31393-02-14 18:43 G	13187163.13	13187163.28	13187163.43	0.0507	0.0274
Earth	31397-02-22 14:24 G	13188631.87	13188632.10	13188632.34	0.0533	0.0083
Moon	31397-02-22 17:31 G	13188632.01	13188632.23	13188632.46	0.0533	0.0103 *
Moon	31398-03-31 04:05 G	13189033.57	13189033.67	13189033.78	0.0525	0.0468
Earth	31398-03-31 04:48 G	13189033.63	13189033.70	13189033.76	0.0525	0.0499 *
Mercury	31398-10-06 18:29 G	13189223.15	13189223.27	13189223.40	0.0519	0.0158
Mercury	31399-01-04 00:57 G	13189312.48	13189312.54	13189312.61	0.0516	0.0438
Moon	31402-08-08 16:05 G	13190624.01	13190624.17	13190624.34	0.0492	0.0346
Earth	31402-08-08 19:12 G	13190624.14	13190624.30	13190624.48	0.0492	0.0327 *
Venus	31403-07-19 21:50 G	13190969.31	13190969.41	13190969.51	0.0495	0.0432
Earth	31403-09-08 19:26 G	13191020.09	13191020.31	13191020.54	0.0496	0.0142
Moon	31403-09-08 23:31 G	13191020.27	13191020.48	13191020.70	0.0496	0.0173 *
Mercury	31404-12-04 16:48 G	13191473.13	13191473.20	13191473.28	0.0507	0.0463
Mercury	31405-03-05 00:29 G	13191563.38	13191563.52	13191563.65	0.0509	0.0327
Moon	31409-02-28 17:17 G	13193019.98	13193020.22	13193020.47	0.0533	0.0032

Earth	31409-02-28 18:14 G	13193020.03	13193020.26	13193020.50	0.0533	0.0007	*
Mercury	31410-07-26 22:33 G	13193533.34	13193533.44	13193533.55	0.0520	0.0305	
Mercury	31410-10-24 05:02 G	13193622.60	13193622.71	13193622.82	0.0517	0.0289	
Earth	31414-08-13 03:21 G	13195011.45	13195011.64	13195011.84	0.0492	0.0263	
Moon	31414-08-13 05:17 G	13195011.54	13195011.72	13195011.91	0.0492	0.0286	*
Venus	31415-03-25 00:00 G	13195235.30	13195235.50	13195235.71	0.0494	0.0009	
Moon	31415-09-13 00:57 G	13195407.34	13195407.54	13195407.75	0.0497	0.0229	
Earth	31415-09-13 04:48 G	13195407.49	13195407.70	13195407.92	0.0497	0.0209	*
Mercury	31416-12-21 21:50 G	13195873.24	13195873.41	13195873.59	0.0508	0.0128	
Earth	31420-01-28 15:07 G	13197006.07	13197006.13	13197006.20	0.0535	0.0512	
Venus	31421-01-27 12:57 G	13197370.85	13197371.04	13197371.23	0.0533	0.0185	
Moon	31421-03-05 20:24 G	13197408.13	13197408.35	13197408.57	0.0532	0.0103	
Earth	31421-03-05 22:05 G	13197408.19	13197408.42	13197408.65	0.0532	0.0093	*
Mercury	31422-05-15 02:53 G	13197843.56	13197843.62	13197843.69	0.0521	0.0447	
Mercury	31422-08-12 09:21 G	13197932.76	13197932.89	13197933.01	0.0518	0.0147	
Moon	31426-08-17 10:33 G	13199398.71	13199398.94	13199399.16	0.0492	0.0183	
Earth	31426-08-17 11:17 G	13199398.76	13199398.97	13199399.19	0.0492	0.0198	*
Venus	31426-11-28 02:24 G	13199501.50	13199501.60	13199501.72	0.0493	0.0414	
Earth	31427-09-17 14:24 G	13199794.91	13199795.10	13199795.29	0.0498	0.0277	
Moon	31427-09-17 17:02 G	13199795.02	13199795.21	13199795.41	0.0498	0.0258	*
Mercury	31428-10-09 19:41 G	13200183.14	13200183.32	13200183.50	0.0508	0.0068	
Mars	31430-07-08 20:38 G	13200820.11	13200820.36	13200820.61	0.0527	0.0158	
Moon	31432-02-02 21:50 G	13201394.29	13201394.41	13201394.53	0.0536	0.0450	
Earth	31432-02-02 22:33 G	13201394.30	13201394.44	13201394.58	0.0536	0.0432	*
Venus	31432-10-02 04:48 G	13201636.55	13201636.70	13201636.85	0.0534	0.0345	
Earth	31433-03-11 04:33 G	13201796.48	13201796.69	13201796.92	0.0531	0.0183	
Moon	31433-03-11 08:09 G	13201796.62	13201796.84	13201797.07	0.0531	0.0150	*
Mercury	31434-05-31 13:55 G	13202242.95	13202243.08	13202243.21	0.0519	0.0017	
Moon	31438-08-21 17:31 G	13203786.01	13203786.23	13203786.45	0.0492	0.0105	
Earth	31438-08-21 18:00 G	13203786.03	13203786.25	13203786.48	0.0492	0.0133	*

Moon	31439-09-21 22:48 G	13204182.27	13204182.45	13204182.64	0.0499	0.0322
Earth	31439-09-22 00:00 G	13204182.33	13204182.50	13204182.66	0.0499	0.0344 *
Mercury	31440-07-28 17:17 G	13204493.07	13204493.22	13204493.37	0.0507	0.0265
Earth	31444-02-08 06:29 G	13205782.60	13205782.77	13205782.96	0.0535	0.0349
Moon	31444-02-08 10:05 G	13205782.73	13205782.92	13205783.11	0.0535	0.0316 *
Moon	31445-03-16 06:00 G	13206184.55	13206184.75	13206184.96	0.0530	0.0254
Earth	31445-03-16 10:05 G	13206184.72	13206184.92	13206185.12	0.0530	0.0269 *
Mercury	31446-03-19 18:14 G	13206553.13	13206553.26	13206553.38	0.0519	0.0134
Mercury	31446-06-17 00:43 G	13206642.47	13206642.53	13206642.59	0.0516	0.0462
Earth	31450-08-26 03:21 G	13208173.41	13208173.64	13208173.87	0.0493	0.0064
Moon	31450-08-26 05:45 G	13208173.50	13208173.74	13208173.98	0.0493	0.0070 *
Venus	31450-11-30 11:02 G	13208269.79	13208269.96	13208270.14	0.0494	0.0260
Moon	31451-09-26 11:45 G	13208569.89	13208569.99	13208570.11	0.0500	0.0433
Earth	31451-09-26 12:57 G	13208569.91	13208570.04	13208570.17	0.0500	0.0411 *
Mercury	31452-05-16 15:36 G	13208803.07	13208803.15	13208803.23	0.0507	0.0452
Mercury	31452-08-14 23:02 G	13208893.33	13208893.46	13208893.60	0.0509	0.0339
Moon	31456-02-13 06:00 G	13210170.55	13210170.75	13210170.96	0.0534	0.0252
Earth	31456-02-13 10:05 G	13210170.73	13210170.92	13210171.13	0.0534	0.0267 *
Venus	31456-10-05 07:12 G	13210405.74	13210405.80	13210405.86	0.0531	0.0507
Earth	31457-03-21 08:24 G	13210572.68	13210572.85	13210573.03	0.0528	0.0345
Moon	31457-03-21 11:31 G	13210572.82	13210572.98	13210573.14	0.0528	0.0375 *
Mercury	31458-01-05 21:36 G	13210863.29	13210863.40	13210863.51	0.0520	0.0294
Mercury	31458-04-05 04:05 G	13210952.56	13210952.67	13210952.77	0.0517	0.0300
Earth	31461-07-30 14:38 G	13212165.03	13212165.11	13212165.21	0.0492	0.0452
Moon	31461-07-30 18:29 G	13212165.16	13212165.27	13212165.40	0.0492	0.0423 *
Venus	31462-08-05 14:09 G	13212535.90	13212536.09	13212536.29	0.0494	0.0157
Moon	31462-08-30 09:21 G	13212560.66	13212560.89	13212561.12	0.0494	0.0027
Earth	31462-08-30 12:43 G	13212560.80	13212561.03	13212561.27	0.0494	0.0010 *
Earth	31463-10-01 02:24 G	13212957.54	13212957.60	13212957.68	0.0502	0.0476
Mercury	31464-06-02 21:36 G	13213203.23	13213203.40	13213203.57	0.0509	0.0154

Earth	31468-02-18 14:38 G	13214558.90	13214559.11	13214559.34	0.0534	0.0178
Moon	31468-02-18 18:14 G	13214559.05	13214559.26	13214559.48	0.0534	0.0208 *
Venus	31468-06-09 21:36 G	13214671.20	13214671.40	13214671.61	0.0533	0.0031
Moon	31469-03-26 08:24 G	13214960.71	13214960.85	13214960.99	0.0527	0.0430
Earth	31469-03-26 09:21 G	13214960.76	13214960.89	13214961.03	0.0527	0.0423 *
Mercury	31469-10-25 01:41 G	13215173.51	13215173.57	13215173.64	0.0521	0.0441
Mercury	31470-01-22 07:55 G	13215262.71	13215262.83	13215262.96	0.0518	0.0152
Moon	31473-08-03 19:55 G	13216552.19	13216552.33	13216552.49	0.0492	0.0379
Earth	31473-08-03 23:17 G	13216552.34	13216552.47	13216552.61	0.0492	0.0392 *
Earth	31474-09-03 21:36 G	13216948.17	13216948.40	13216948.63	0.0495	0.0070
Moon	31474-09-04 01:41 G	13216948.34	13216948.57	13216948.80	0.0495	0.0071 *
Mercury	31476-03-21 19:12 G	13217513.12	13217513.30	13217513.47	0.0508	0.0047
Moon	31480-02-23 17:02 G	13218946.97	13218947.21	13218947.45	0.0534	0.0104
Earth	31480-02-23 18:43 G	13218947.05	13218947.28	13218947.52	0.0534	0.0091 *
Moon	31481-03-31 10:19 G	13219348.83	13219348.93	13219349.03	0.0525	0.0467
Earth	31481-03-31 11:02 G	13219348.89	13219348.96	13219349.04	0.0525	0.0497 *
Mercury	31481-11-10 12:14 G	13219572.88	13219573.01	13219573.14	0.0519	0.0015
Earth	31485-08-08 07:26 G	13220939.64	13220939.81	13220939.99	0.0492	0.0329
Moon	31485-08-08 09:21 G	13220939.73	13220939.89	13220940.04	0.0492	0.0356 *
Moon	31486-09-08 02:53 G	13221335.40	13221335.62	13221335.84	0.0495	0.0169
Earth	31486-09-08 06:43 G	13221335.55	13221335.78	13221336.00	0.0495	0.0139 *
Mercury	31488-01-08 16:48 G	13221823.04	13221823.20	13221823.35	0.0507	0.0242
Moon	31492-02-29 00:43 G	13223335.31	13223335.53	13223335.76	0.0533	0.0032
Earth	31492-02-29 01:55 G	13223335.35	13223335.58	13223335.81	0.0533	0.0001 *
Mercury	31493-08-29 16:48 G	13223883.08	13223883.20	13223883.33	0.0519	0.0130
Mercury	31493-11-26 23:31 G	13223972.42	13223972.48	13223972.53	0.0517	0.0468
Moon	31497-08-12 13:55 G	13225326.89	13225327.08	13225327.29	0.0492	0.0285
Earth	31497-08-12 14:38 G	13225326.92	13225327.11	13225327.31	0.0492	0.0265 *
Venus	31498-04-13 00:43 G	13225570.33	13225570.53	13225570.73	0.0494	0.0094
Earth	31498-09-12 15:07 G	13225722.92	13225723.13	13225723.34	0.0496	0.0208

Moon	31498-09-12 17:45 G	13225723.04	13225723.24	13225723.45	0.0496	0.0222	*
Mercury	31499-10-27 14:09 G	13226133.01	13226133.09	13226133.18	0.0507	0.0440	
Mercury	31500-01-25 21:50 G	13226223.28	13226223.41	13226223.54	0.0509	0.0349	
Earth	31503-01-29 00:57 G	13227321.49	13227321.54	13227321.61	0.0535	0.0517	
Venus	31504-02-17 17:45 G	13227706.08	13227706.24	13227706.41	0.0533	0.0304	
Earth	31504-03-06 08:53 G	13227723.64	13227723.87	13227724.10	0.0532	0.0093	
Moon	31504-03-06 12:14 G	13227723.77	13227724.01	13227724.24	0.0532	0.0097	*
Mercury	31505-06-18 21:21 G	13228193.28	13228193.39	13228193.50	0.0520	0.0270	
Mercury	31505-09-16 03:50 G	13228282.56	13228282.66	13228282.76	0.0517	0.0325	
Moon	31509-08-17 22:48 G	13229714.24	13229714.45	13229714.66	0.0492	0.0182	
Earth	31509-08-17 23:31 G	13229714.27	13229714.48	13229714.69	0.0492	0.0199	*
Venus	31509-12-18 04:19 G	13229836.53	13229836.68	13229836.84	0.0493	0.0323	
Moon	31510-09-18 01:55 G	13230110.37	13230110.58	13230110.79	0.0498	0.0253	
Earth	31510-09-18 02:53 G	13230110.43	13230110.62	13230110.81	0.0498	0.0279	*
Mercury	31511-11-14 20:24 G	13230533.19	13230533.35	13230533.52	0.0509	0.0168	
Earth	31515-02-03 06:14 G	13231709.63	13231709.76	13231709.89	0.0535	0.0441	
Moon	31515-02-03 08:53 G	13231709.74	13231709.87	13231710.00	0.0535	0.0447	*
Venus	31515-10-23 06:57 G	13231971.61	13231971.79	13231971.97	0.0533	0.0240	
Moon	31516-03-11 06:00 G	13232111.53	13232111.75	13232111.98	0.0531	0.0142	
Earth	31516-03-11 09:50 G	13232111.69	13232111.91	13232112.13	0.0531	0.0175	*
Mercury	31517-04-07 00:57 G	13232503.47	13232503.54	13232503.61	0.0520	0.0428	
Mercury	31517-07-05 07:12 G	13232592.67	13232592.80	13232592.92	0.0518	0.0165	
Earth	31521-08-22 07:41 G	13234101.59	13234101.82	13234102.04	0.0493	0.0136	
Moon	31521-08-22 10:05 G	13234101.68	13234101.92	13234102.15	0.0493	0.0112	*
Moon	31522-09-22 13:41 G	13234497.91	13234498.07	13234498.25	0.0499	0.0332	
Earth	31522-09-22 14:53 G	13234497.96	13234498.12	13234498.29	0.0499	0.0345	*
Mercury	31523-09-02 18:57 G	13234843.11	13234843.29	13234843.47	0.0508	0.0019	
Moon	31527-02-08 07:12 G	13236097.62	13236097.80	13236097.99	0.0534	0.0324	
Earth	31527-02-08 11:17 G	13236097.80	13236097.97	13236098.15	0.0534	0.0357	*
Earth	31528-03-16 12:14 G	13236499.81	13236500.01	13236500.22	0.0529	0.0260	

Moon	31528-03-16 15:36 G	13236499.95	13236500.15	13236500.36	0.0529	0.0253	*
Mercury	31529-04-23 11:17 G	13236902.84	13236902.97	13236903.10	0.0518	0.0023	
Mars	31531-01-09 03:50 G	13237528.38	13237528.66	13237528.94	0.0500	0.0105	
Moon	31533-08-26 12:43 G	13238488.81	13238489.03	13238489.26	0.0493	0.0084	
Earth	31533-08-26 16:19 G	13238488.95	13238489.18	13238489.41	0.0493	0.0068	*
Venus	31533-12-20 13:26 G	13238604.92	13238605.06	13238605.20	0.0495	0.0358	
Earth	31534-09-27 01:26 G	13238885.43	13238885.56	13238885.70	0.0500	0.0409	
Moon	31534-09-27 04:05 G	13238885.55	13238885.67	13238885.79	0.0500	0.0432	*
Mercury	31535-06-21 16:19 G	13239153.02	13239153.18	13239153.34	0.0507	0.0218	
Earth	31539-02-13 14:53 G	13240485.92	13240486.12	13240486.32	0.0535	0.0273	
Moon	31539-02-13 18:43 G	13240486.08	13240486.28	13240486.48	0.0535	0.0261	*
Moon	31540-03-21 12:57 G	13240887.87	13240888.04	13240888.22	0.0529	0.0372	
Earth	31540-03-21 14:38 G	13240887.94	13240888.11	13240888.29	0.0529	0.0341	*
Mercury	31541-02-09 15:36 G	13241213.02	13241213.15	13241213.27	0.0519	0.0127	
Mercury	31541-05-09 22:05 G	13241302.37	13241302.42	13241302.47	0.0517	0.0471	
Moon	31544-07-31 00:43 G	13242480.42	13242480.53	13242480.65	0.0492	0.0425	
Earth	31544-07-31 03:50 G	13242480.58	13242480.66	13242480.75	0.0492	0.0454	*
Venus	31545-08-25 16:05 G	13242870.96	13242871.17	13242871.37	0.0494	0.0066	
Earth	31545-08-31 00:57 G	13242876.31	13242876.54	13242876.77	0.0494	0.0003	
Moon	31545-08-31 04:48 G	13242876.47	13242876.70	13242876.94	0.0494	0.0030	*
Moon	31546-10-01 09:36 G	13243272.90	13243272.90	13243272.92	0.0501	0.0500	
Earth	31546-10-01 12:57 G	13243272.97	13243273.04	13243273.12	0.0501	0.0474	
Mercury	31547-04-09 13:55 G	13243462.98	13243463.08	13243463.18	0.0506	0.0415	
Mercury	31547-07-08 21:21 G	13243553.27	13243553.39	13243553.51	0.0509	0.0373	
Mars	31548-12-29 03:07 G	13244092.59	13244092.63	13244092.68	0.0526	0.0516	
Moon	31551-02-18 19:26 G	13244874.09	13244874.31	13244874.53	0.0535	0.0212	
Earth	31551-02-18 22:05 G	13244874.20	13244874.42	13244874.64	0.0535	0.0183	*
Venus	31551-07-01 00:57 G	13245006.34	13245006.54	13245006.74	0.0533	0.0081	
Moon	31552-03-26 18:57 G	13245276.16	13245276.29	13245276.42	0.0527	0.0427	
Earth	31552-03-26 19:12 G	13245276.17	13245276.30	13245276.45	0.0527	0.0423	*

Mercury	31552-11-28 20:09 G	13245523.23	13245523.34	13245523.45	0.0520	0.0264
Mercury	31553-02-26 02:38 G	13245612.51	13245612.61	13245612.71	0.0517	0.0332
Earth	31556-08-04 11:45 G	13246867.85	13246867.99	13246868.13	0.0491	0.0394
Moon	31556-08-04 13:12 G	13246867.92	13246868.05	13246868.19	0.0491	0.0392 *
Venus	31557-04-30 18:14 G	13247137.24	13247137.26	13247137.29	0.0493	0.0487
Moon	31557-09-04 05:02 G	13247263.48	13247263.71	13247263.95	0.0494	0.0071
Earth	31557-09-04 08:53 G	13247263.64	13247263.87	13247264.11	0.0494	0.0070 *
Mercury	31559-04-26 19:12 G	13247863.14	13247863.30	13247863.47	0.0509	0.0179
Moon	31563-02-24 05:31 G	13249262.51	13249262.73	13249262.95	0.0534	0.0095
Earth	31563-02-24 06:00 G	13249262.52	13249262.75	13249262.98	0.0534	0.0093 *
Venus	31563-03-05 17:02 G	13249272.10	13249272.21	13249272.32	0.0534	0.0449
Earth	31564-03-31 23:02 G	13249664.39	13249664.46	13249664.53	0.0526	0.0499
Moon	31564-04-01 01:26 G	13249664.45	13249664.56	13249664.67	0.0526	0.0465 *
Mercury	31564-09-17 00:43 G	13249833.45	13249833.53	13249833.61	0.0521	0.0404
Mercury	31564-12-15 06:57 G	13249922.67	13249922.79	13249922.91	0.0518	0.0190
Moon	31568-08-08 19:41 G	13251255.17	13251255.32	13251255.50	0.0492	0.0359
Earth	31568-08-08 20:09 G	13251255.17	13251255.34	13251255.52	0.0492	0.0330 *
Earth	31569-09-08 19:12 G	13251651.08	13251651.30	13251651.53	0.0495	0.0141
Moon	31569-09-08 21:50 G	13251651.20	13251651.41	13251651.63	0.0495	0.0170 *
Mercury	31571-02-12 18:00 G	13252173.07	13252173.25	13252173.42	0.0508	0.0013
Earth	31575-03-01 09:07 G	13253650.65	13253650.88	13253651.11	0.0533	0.0008
Moon	31575-03-01 12:00 G	13253650.76	13253651.00	13253651.24	0.0533	0.0029 *
Mercury	31576-10-03 10:19 G	13254232.80	13254232.93	13254233.06	0.0518	0.0031
Moon	31580-08-13 02:09 G	13255642.41	13255642.59	13255642.78	0.0492	0.0288
Earth	31580-08-13 03:07 G	13255642.44	13255642.63	13255642.83	0.0492	0.0271 *
Venus	31581-05-03 03:36 G	13255905.46	13255905.65	13255905.84	0.0495	0.0193
Moon	31581-09-13 05:02 G	13256038.49	13256038.71	13256038.93	0.0497	0.0210
Earth	31581-09-13 05:45 G	13256038.53	13256038.74	13256038.95	0.0497	0.0207 *
Mercury	31582-12-01 16:05 G	13256483.01	13256483.17	13256483.34	0.0507	0.0192
Earth	31586-01-28 08:09 G	13257636.80	13257636.84	13257636.89	0.0534	0.0524

Moon	31587-03-06 09:07 G	13258038.65	13258038.88	13258039.11	0.0532	0.0089
Earth	31587-03-06 12:43 G	13258038.81	13258039.03	13258039.27	0.0532	0.0084 *
Venus	31587-03-08 18:29 G	13258041.15	13258041.27	13258041.41	0.0532	0.0400
Mercury	31588-07-22 14:24 G	13258542.97	13258543.10	13258543.23	0.0519	0.0117
Mercury	31588-10-19 20:53 G	13258632.33	13258632.37	13258632.42	0.0516	0.0478
Earth	31592-08-17 11:31 G	13260029.77	13260029.98	13260030.20	0.0492	0.0206
Moon	31592-08-17 14:09 G	13260029.87	13260030.09	13260030.31	0.0492	0.0181 *
Venus	31593-01-06 06:14 G	13260171.58	13260171.76	13260171.94	0.0494	0.0228
Moon	31593-09-17 14:38 G	13260425.91	13260426.11	13260426.30	0.0497	0.0247
Earth	31593-09-17 15:36 G	13260425.96	13260426.15	13260426.35	0.0497	0.0275 *
Mercury	31594-09-19 13:26 G	13260792.95	13260793.06	13260793.18	0.0506	0.0391
Mercury	31594-12-18 20:53 G	13260883.27	13260883.37	13260883.48	0.0509	0.0397
Moon	31598-02-02 07:26 G	13262024.70	13262024.81	13262024.94	0.0535	0.0453
Earth	31598-02-02 11:02 G	13262024.84	13262024.96	13262025.10	0.0535	0.0448 *
Venus	31598-11-11 08:53 G	13262306.67	13262306.87	13262307.06	0.0533	0.0140
Earth	31599-03-11 15:21 G	13262426.92	13262427.14	13262427.37	0.0531	0.0170
Moon	31599-03-11 19:12 G	13262427.08	13262427.30	13262427.52	0.0531	0.0138 *
Mercury	31600-05-10 18:43 G	13262853.17	13262853.28	13262853.39	0.0520	0.0261
Mercury	31600-08-08 01:12 G	13262942.45	13262942.55	13262942.65	0.0517	0.0335
Moon	31604-08-21 16:48 G	13264416.98	13264417.20	13264417.42	0.0493	0.0119
Earth	31604-08-21 20:24 G	13264417.12	13264417.35	13264417.57	0.0493	0.0138 *
Earth	31605-09-22 01:55 G	13264813.42	13264813.58	13264813.75	0.0498	0.0343
Moon	31605-09-22 04:33 G	13264813.51	13264813.69	13264813.87	0.0498	0.0331 *
Mercury	31606-10-06 18:43 G	13265193.12	13265193.28	13265193.45	0.0508	0.0203
Earth	31610-02-07 17:17 G	13266413.05	13266413.22	13266413.39	0.0535	0.0364
Moon	31610-02-07 21:21 G	13266413.21	13266413.39	13266413.58	0.0535	0.0329 *
Moon	31611-03-16 18:29 G	13266815.07	13266815.27	13266815.49	0.0530	0.0257
Earth	31611-03-16 20:53 G	13266815.17	13266815.37	13266815.57	0.0530	0.0257 *
Mercury	31612-02-27 23:17 G	13267163.39	13267163.47	13267163.55	0.0521	0.0399
Mercury	31612-05-27 05:31 G	13267252.61	13267252.73	13267252.85	0.0518	0.0195

Earth	31616-08-26 03:50 G	13268804.43	13268804.66	13268804.89	0.0493	0.0070
Moon	31616-08-26 07:41 G	13268804.59	13268804.82	13268805.05	0.0493	0.0092 *
Venus	31617-01-08 14:38 G	13268940.02	13268940.11	13268940.20	0.0495	0.0446
Moon	31617-09-26 08:38 G	13269200.76	13269200.86	13269200.98	0.0500	0.0435
Earth	31617-09-26 12:00 G	13269200.87	13269201.00	13269201.14	0.0500	0.0409 *
Mercury	31618-07-25 16:33 G	13269503.01	13269503.19	13269503.37	0.0508	0.0008
Moon	31622-02-12 22:19 G	13270801.23	13270801.43	13270801.64	0.0535	0.0268
Earth	31622-02-13 01:26 G	13270801.36	13270801.56	13270801.76	0.0535	0.0277 *
Earth	31623-03-22 02:09 G	13271203.42	13271203.59	13271203.77	0.0529	0.0341
Moon	31623-03-22 02:09 G	13271203.43	13271203.59	13271203.75	0.0529	0.0375 *
Mercury	31624-03-15 10:05 G	13271562.79	13271562.92	13271563.05	0.0519	0.0055
Earth	31627-07-31 16:19 G	13272796.10	13272796.18	13272796.27	0.0492	0.0456
Moon	31627-07-31 17:45 G	13272796.14	13272796.24	13272796.35	0.0492	0.0430 *
Moon	31628-08-30 09:50 G	13273191.67	13273191.91	13273192.14	0.0494	0.0031
Earth	31628-08-30 13:26 G	13273191.83	13273192.06	13273192.29	0.0494	0.0002 *
Venus	31628-09-13 17:45 G	13273206.04	13273206.24	13273206.45	0.0494	0.0026
Earth	31629-10-01 01:12 G	13273588.49	13273588.55	13273588.63	0.0501	0.0476
Moon	31629-10-01 05:02 G	13273588.68	13273588.71	13273588.76	0.0501	0.0493
Mercury	31630-05-13 14:53 G	13273812.96	13273813.12	13273813.29	0.0507	0.0179
Earth	31634-02-18 06:43 G	13275189.56	13275189.78	13275190.00	0.0534	0.0191
Moon	31634-02-18 06:57 G	13275189.59	13275189.79	13275190.00	0.0534	0.0222 *
Venus	31634-07-20 04:19 G	13275341.49	13275341.68	13275341.87	0.0532	0.0192
Earth	31635-03-27 01:41 G	13275591.43	13275591.57	13275591.72	0.0527	0.0416
Moon	31635-03-27 03:36 G	13275591.50	13275591.65	13275591.80	0.0527	0.0415 *
Mercury	31636-01-02 13:26 G	13275872.94	13275873.06	13275873.19	0.0519	0.0105
Mercury	31636-03-31 20:09 G	13275962.30	13275962.34	13275962.37	0.0516	0.0491
Moon	31639-08-04 22:05 G	13277183.28	13277183.42	13277183.56	0.0492	0.0401
Earth	31639-08-04 22:19 G	13277183.29	13277183.43	13277183.56	0.0492	0.0401 *
Venus	31640-05-19 19:55 G	13277472.21	13277472.33	13277472.46	0.0494	0.0395
Earth	31640-09-03 21:36 G	13277579.17	13277579.40	13277579.64	0.0495	0.0067

Moon	31640-09-04 00:14 G	13277579.29	13277579.51	13277579.73	0.0495	0.0073	*
Mercury	31642-03-01 12:57 G	13278122.92	13278123.04	13278123.17	0.0507	0.0368	
Mercury	31642-05-30 20:38 G	13278213.26	13278213.36	13278213.46	0.0510	0.0422	
Earth	31646-02-23 11:17 G	13279577.74	13279577.97	13279578.20	0.0533	0.0102	
Moon	31646-02-23 13:26 G	13279577.82	13279578.06	13279578.29	0.0533	0.0097	*
Venus	31646-03-24 18:43 G	13279607.13	13279607.28	13279607.43	0.0533	0.0346	
Moon	31647-03-31 22:48 G	13279979.35	13279979.45	13279979.57	0.0525	0.0461	
Earth	31647-04-01 02:09 G	13279979.52	13279979.59	13279979.67	0.0525	0.0492	*
Mercury	31647-10-21 17:45 G	13280183.12	13280183.24	13280183.35	0.0520	0.0252	
Mercury	31648-01-19 00:00 G	13280272.40	13280272.50	13280272.60	0.0517	0.0342	
Moon	31651-08-09 05:31 G	13281570.59	13281570.73	13281570.88	0.0492	0.0369	
Earth	31651-08-09 06:29 G	13281570.61	13281570.77	13281570.95	0.0492	0.0338	*
Moon	31652-09-08 06:29 G	13281966.54	13281966.77	13281967.00	0.0495	0.0161	
Earth	31652-09-08 07:12 G	13281966.58	13281966.80	13281967.02	0.0496	0.0135	*
Mercury	31654-03-18 18:14 G	13282523.10	13282523.26	13282523.42	0.0509	0.0224	
Moon	31658-02-28 10:19 G	13283965.70	13283965.93	13283966.16	0.0533	0.0023	
Earth	31658-02-28 13:41 G	13283965.84	13283966.07	13283966.30	0.0533	0.0014	*
Mercury	31659-08-09 21:50 G	13284493.33	13284493.41	13284493.50	0.0521	0.0396	
Mercury	31659-11-07 04:05 G	13284582.55	13284582.67	13284582.79	0.0518	0.0198	
Earth	31663-08-13 15:21 G	13285957.95	13285958.14	13285958.34	0.0492	0.0273	
Moon	31663-08-13 18:00 G	13285958.06	13285958.25	13285958.45	0.0492	0.0279	*
Venus	31664-05-22 05:02 G	13286240.54	13286240.71	13286240.88	0.0494	0.0283	
Moon	31664-09-12 15:21 G	13286353.94	13286354.14	13286354.35	0.0496	0.0200	
Earth	31664-09-12 16:33 G	13286353.98	13286354.19	13286354.41	0.0496	0.0205	*
Mercury	31666-01-04 15:50 G	13286832.99	13286833.16	13286833.34	0.0508	0.0031	
Earth	31669-01-27 12:43 G	13287952.01	13287952.03	13287952.06	0.0535	0.0531	
Earth	31670-03-05 18:57 G	13288354.06	13288354.29	13288354.52	0.0532	0.0078	
Moon	31670-03-05 22:48 G	13288354.22	13288354.45	13288354.68	0.0532	0.0079	*
Venus	31670-03-27 20:53 G	13288376.31	13288376.37	13288376.44	0.0532	0.0501	
Mercury	31671-08-26 08:38 G	13288892.73	13288892.86	13288892.99	0.0519	0.0057	

Moon	31675-08-17 19:12 G	13290345.09	13290345.30	13290345.52	0.0492	0.0181
Earth	31675-08-17 22:48 G	13290345.25	13290345.45	13290345.67	0.0492	0.0209 *
Venus	31676-01-26 06:57 G	13290506.60	13290506.79	13290506.99	0.0493	0.0143
Earth	31676-09-17 01:26 G	13290741.37	13290741.56	13290741.76	0.0497	0.0273
Moon	31676-09-17 04:05 G	13290741.47	13290741.67	13290741.89	0.0497	0.0241 *
Mercury	31677-10-23 13:26 G	13291142.89	13291143.06	13291143.23	0.0507	0.0171
Earth	31681-02-01 19:55 G	13292340.21	13292340.33	13292340.46	0.0535	0.0453
Moon	31681-02-02 00:00 G	13292340.39	13292340.50	13292340.63	0.0535	0.0453 *
Venus	31681-11-30 13:12 G	13292641.85	13292642.05	13292642.25	0.0533	0.0024
Moon	31682-03-10 22:48 G	13292742.22	13292742.45	13292742.68	0.0531	0.0136
Earth	31682-03-11 01:26 G	13292742.34	13292742.56	13292742.78	0.0531	0.0168 *
Mercury	31683-06-14 12:57 G	13293202.91	13293203.04	13293203.17	0.0519	0.0085
Mercury	31683-09-11 19:26 G	13293292.30	13293292.31	13293292.33	0.0516	0.0513
Mars	31685-04-05 02:09 G	13293863.38	13293863.59	13293863.82	0.0500	0.0317
Earth	31687-08-22 07:26 G	13294732.59	13294732.81	13294733.04	0.0493	0.0141
Moon	31687-08-22 11:31 G	13294732.75	13294732.98	13294733.20	0.0493	0.0127 *
Moon	31688-09-21 09:50 G	13295128.74	13295128.91	13295129.08	0.0498	0.0333
Earth	31688-09-21 13:12 G	13295128.88	13295129.05	13295129.22	0.0498	0.0342 *
Mercury	31689-08-11 11:45 G	13295452.86	13295452.99	13295453.11	0.0507	0.0358
Mercury	31689-11-09 19:12 G	13295543.21	13295543.30	13295543.40	0.0509	0.0431
Moon	31693-02-06 23:17 G	13296728.29	13296728.47	13296728.65	0.0534	0.0338
Earth	31693-02-07 02:38 G	13296728.45	13296728.61	13296728.78	0.0534	0.0372 *
Earth	31694-03-16 03:36 G	13297130.45	13297130.65	13297130.86	0.0529	0.0250
Moon	31694-03-16 04:19 G	13297130.49	13297130.68	13297130.88	0.0529	0.0258 *
Mercury	31695-04-02 16:48 G	13297513.08	13297513.20	13297513.31	0.0519	0.0240
Mercury	31695-06-30 23:02 G	13297602.36	13297602.46	13297602.55	0.0517	0.0354
Moon	31699-08-26 10:33 G	13299119.71	13299119.94	13299120.18	0.0494	0.0098
Earth	31699-08-26 14:24 G	13299119.87	13299120.10	13299120.33	0.0494	0.0075 *
Earth	31700-09-27 00:00 G	13299516.38	13299516.50	13299516.65	0.0500	0.0407
Moon	31700-09-27 04:05 G	13299516.56	13299516.67	13299516.78	0.0500	0.0435 *

Mercury	31701-08-29 17:31 G	13299853.08	13299853.23	13299853.39	0.0509	0.0245
Mars	31703-03-27 06:57 G	13300427.53	13300427.79	13300428.05	0.0526	0.0066
Earth	31705-02-13 07:26 G	13301116.62	13301116.81	13301117.02	0.0534	0.0285
Moon	31705-02-13 08:53 G	13301116.68	13301116.87	13301117.06	0.0534	0.0287 *
Earth	31706-03-22 05:31 G	13301518.55	13301518.73	13301518.91	0.0528	0.0332
Moon	31706-03-22 06:43 G	13301518.61	13301518.78	13301518.96	0.0528	0.0365 *
Mercury	31707-01-20 20:53 G	13301823.28	13301823.37	13301823.45	0.0520	0.0387
Mercury	31707-04-20 02:53 G	13301912.50	13301912.62	13301912.74	0.0517	0.0205
Moon	31710-08-01 00:29 G	13303111.41	13303111.52	13303111.63	0.0492	0.0435
Earth	31710-08-01 00:29 G	13303111.44	13303111.52	13303111.59	0.0492	0.0465 *
Earth	31711-08-31 23:02 G	13303507.23	13303507.46	13303507.70	0.0494	0.0007
Moon	31711-09-01 01:26 G	13303507.34	13303507.56	13303507.79	0.0494	0.0032 *
Venus	31711-10-04 18:00 G	13303541.05	13303541.25	13303541.45	0.0494	0.0112
Moon	31712-10-01 08:09 G	13303903.79	13303903.84	13303903.91	0.0501	0.0482
Earth	31712-10-01 11:31 G	13303903.91	13303903.98	13303904.06	0.0501	0.0471 *
Mercury	31713-06-17 15:07 G	13304162.95	13304163.13	13304163.30	0.0508	0.0046
Earth	31717-02-18 09:21 G	13305504.68	13305504.89	13305505.11	0.0534	0.0199
Moon	31717-02-18 10:48 G	13305504.73	13305504.95	13305505.17	0.0534	0.0230 *
Venus	31717-08-09 04:33 G	13305676.52	13305676.69	13305676.86	0.0532	0.0282
Moon	31718-03-27 02:53 G	13305906.48	13305906.62	13305906.76	0.0527	0.0409
Earth	31718-03-27 05:45 G	13305906.60	13305906.74	13305906.89	0.0527	0.0411 *
Mercury	31719-02-06 06:57 G	13306222.66	13306222.79	13306222.92	0.0518	0.0059
Moon	31722-08-05 08:09 G	13307498.72	13307498.84	13307498.96	0.0492	0.0409
Earth	31722-08-05 09:21 G	13307498.76	13307498.89	13307499.03	0.0492	0.0403 *
Venus	31723-06-09 20:53 G	13307807.21	13307807.37	13307807.53	0.0493	0.0309
Moon	31723-09-05 07:12 G	13307894.57	13307894.80	13307895.05	0.0494	0.0078
Earth	31723-09-05 07:55 G	13307894.60	13307894.83	13307895.07	0.0494	0.0064 *
Mercury	31725-04-05 12:29 G	13308472.85	13308473.02	13308473.19	0.0507	0.0153
Moon	31729-02-23 11:31 G	13309892.76	13309892.98	13309893.20	0.0534	0.0105
Earth	31729-02-23 14:38 G	13309892.88	13309893.11	13309893.34	0.0534	0.0109 *

Venus	31729-04-13 19:26 G	13309942.13	13309942.31	13309942.49	0.0533	0.0252
Earth	31730-04-01 08:09 G	13310294.76	13310294.84	13310294.93	0.0526	0.0490
Moon	31730-04-01 12:00 G	13310294.89	13310295.00	13310295.12	0.0526	0.0459 *
Mercury	31730-11-25 11:31 G	13310532.85	13310532.98	13310533.11	0.0519	0.0085
Mercury	31731-02-22 18:00 G	13310622.24	13310622.25	13310622.26	0.0517	0.0512
Earth	31734-08-09 17:02 G	13311886.04	13311886.21	13311886.38	0.0492	0.0341
Moon	31734-08-09 19:41 G	13311886.17	13311886.32	13311886.48	0.0492	0.0369 *
Moon	31735-09-09 14:53 G	13312281.90	13312282.12	13312282.33	0.0495	0.0157
Earth	31735-09-09 16:05 G	13312281.95	13312282.17	13312282.40	0.0495	0.0131 *
Mercury	31737-01-22 09:50 G	13312782.78	13312782.91	13312783.04	0.0507	0.0354
Mercury	31737-04-22 17:17 G	13312873.13	13312873.22	13312873.31	0.0509	0.0435
Earth	31741-02-28 21:07 G	13314281.15	13314281.38	13314281.62	0.0533	0.0020
Moon	31741-03-01 01:12 G	13314281.31	13314281.55	13314281.78	0.0533	0.0018 *
Mercury	31742-09-13 15:50 G	13314843.05	13314843.16	13314843.28	0.0520	0.0226
Mercury	31742-12-11 22:19 G	13314932.34	13314932.43	13314932.52	0.0517	0.0370
Moon	31746-08-13 21:36 G	13316273.21	13316273.40	13316273.59	0.0492	0.0277
Earth	31746-08-14 01:12 G	13316273.36	13316273.55	13316273.75	0.0492	0.0276 *
Venus	31747-06-12 05:02 G	13316575.58	13316575.71	13316575.85	0.0495	0.0365
Earth	31747-09-14 01:55 G	13316669.37	13316669.58	13316669.80	0.0496	0.0203
Moon	31747-09-14 04:48 G	13316669.48	13316669.70	13316669.92	0.0496	0.0192 *
Mercury	31749-02-08 15:50 G	13317183.01	13317183.16	13317183.32	0.0509	0.0250
Moon	31753-03-05 22:48 G	13318669.21	13318669.45	13318669.68	0.0532	0.0064
Earth	31753-03-06 01:55 G	13318669.35	13318669.58	13318669.81	0.0532	0.0070 *
Mercury	31754-07-02 19:41 G	13319153.23	13319153.32	13319153.41	0.0520	0.0378
Mercury	31754-09-30 01:55 G	13319242.46	13319242.58	13319242.70	0.0517	0.0214
Earth	31758-08-18 06:14 G	13320660.56	13320660.76	13320660.98	0.0493	0.0215
Moon	31758-08-18 10:05 G	13320660.71	13320660.92	13320661.14	0.0493	0.0184 *
Venus	31759-02-15 06:29 G	13320841.57	13320841.77	13320841.97	0.0494	0.0063
Moon	31759-09-18 07:26 G	13321056.62	13321056.81	13321057.02	0.0498	0.0238
Earth	31759-09-18 11:02 G	13321056.76	13321056.96	13321057.15	0.0498	0.0269 *

Mercury	31760-11-27 13:55 G	13321492.90	13321493.08	13321493.26	0.0508	0.0059
Moon	31764-02-02 22:33 G	13322655.32	13322655.44	13322655.55	0.0534	0.0461
Earth	31764-02-03 02:09 G	13322655.48	13322655.59	13322655.72	0.0534	0.0460 *
Venus	31764-12-20 14:09 G	13322976.89	13322977.09	13322977.29	0.0532	0.0073
Earth	31765-03-11 04:33 G	13323057.47	13323057.69	13323057.92	0.0531	0.0159
Moon	31765-03-11 06:00 G	13323057.53	13323057.75	13323057.97	0.0531	0.0128 *
Mercury	31766-07-19 05:45 G	13323552.61	13323552.74	13323552.87	0.0518	0.0065
Moon	31770-08-22 11:02 G	13325047.74	13325047.96	13325048.19	0.0493	0.0134
Earth	31770-08-22 14:38 G	13325047.89	13325048.11	13325048.34	0.0493	0.0148 *
Venus	31770-10-21 08:53 G	13325107.83	13325107.87	13325107.91	0.0493	0.0483
Earth	31771-09-22 20:53 G	13325444.21	13325444.37	13325444.55	0.0498	0.0337
Moon	31771-09-23 00:43 G	13325444.36	13325444.53	13325444.70	0.0498	0.0335 *
Mercury	31772-09-15 11:17 G	13325802.80	13325802.97	13325803.14	0.0507	0.0141
Earth	31776-02-08 03:07 G	13327043.47	13327043.63	13327043.80	0.0534	0.0380
Moon	31776-02-08 05:17 G	13327043.55	13327043.72	13327043.89	0.0534	0.0350 *
Venus	31776-08-25 02:38 G	13327242.52	13327242.61	13327242.70	0.0533	0.0475
Earth	31777-03-16 04:48 G	13327445.50	13327445.70	13327445.91	0.0530	0.0243
Moon	31777-03-16 05:31 G	13327445.52	13327445.73	13327445.94	0.0530	0.0251 *
Mercury	31778-05-07 09:50 G	13327862.78	13327862.91	13327863.04	0.0519	0.0085
Mercury	31778-08-04 16:19 G	13327952.17	13327952.18	13327952.20	0.0516	0.0511
Earth	31782-08-26 23:17 G	13329435.24	13329435.47	13329435.70	0.0493	0.0078
Moon	31782-08-27 01:41 G	13329435.35	13329435.57	13329435.79	0.0493	0.0102 *
Moon	31783-09-27 04:05 G	13329831.57	13329831.67	13329831.80	0.0499	0.0433
Earth	31783-09-27 07:41 G	13329831.68	13329831.82	13329831.96	0.0499	0.0403 *
Mercury	31784-07-04 08:38 G	13330112.73	13330112.86	13330112.99	0.0507	0.0341
Mercury	31784-10-02 16:05 G	13330203.09	13330203.17	13330203.26	0.0509	0.0448
Earth	31788-02-13 07:41 G	13331431.63	13331431.82	13331432.02	0.0534	0.0294
Moon	31788-02-13 08:09 G	13331431.64	13331431.84	13331432.04	0.0534	0.0301 *
Moon	31789-03-21 05:31 G	13331833.57	13331833.73	13331833.90	0.0529	0.0359
Earth	31789-03-21 07:55 G	13331833.65	13331833.83	13331834.02	0.0529	0.0327 *

Mercury	31790-02-23 14:09 G	13332172.98	13332173.09	13332173.21	0.0520	0.0229
Mercury	31790-05-23 20:38 G	13332262.27	13332262.36	13332262.45	0.0517	0.0367
Moon	31793-07-31 08:09 G	13333426.75	13333426.84	13333426.94	0.0492	0.0443
Earth	31793-07-31 09:36 G	13333426.83	13333426.90	13333426.97	0.0492	0.0468 *
Moon	31794-08-31 06:00 G	13333822.51	13333822.75	13333823.00	0.0493	0.0029
Earth	31794-08-31 06:43 G	13333822.55	13333822.78	13333823.02	0.0493	0.0012 *
Venus	31794-10-23 16:48 G	13333876.02	13333876.20	13333876.39	0.0494	0.0189
Earth	31795-10-01 17:02 G	13334219.14	13334219.21	13334219.30	0.0501	0.0468
Moon	31795-10-01 19:26 G	13334219.24	13334219.31	13334219.38	0.0501	0.0475 *
Mercury	31796-07-21 13:41 G	13334512.91	13334513.07	13334513.22	0.0509	0.0249
Moon	31800-02-18 11:31 G	13335819.78	13335819.98	13335820.18	0.0534	0.0240
Earth	31800-02-18 14:09 G	13335819.87	13335820.09	13335820.30	0.0534	0.0206 *
Venus	31800-08-29 06:14 G	13336011.62	13336011.76	13336011.90	0.0532	0.0381
Earth	31801-03-27 11:45 G	13336221.85	13336221.99	13336222.14	0.0528	0.0409
Moon	31801-03-27 15:36 G	13336222.00	13336222.15	13336222.31	0.0528	0.0395 *
Mercury	31801-12-13 18:43 G	13336483.19	13336483.28	13336483.37	0.0520	0.0370
Mercury	31802-03-13 00:57 G	13336572.42	13336572.54	13336572.65	0.0518	0.0224
Mars	31803-09-25 21:07 G	13337134.21	13337134.38	13337134.57	0.0501	0.0390
Earth	31805-08-05 17:17 G	13337814.10	13337814.22	13337814.35	0.0492	0.0408
Moon	31805-08-05 19:55 G	13337814.21	13337814.33	13337814.46	0.0492	0.0418 *
Venus	31806-06-29 19:41 G	13338142.14	13338142.32	13338142.50	0.0493	0.0233
Moon	31806-09-05 14:09 G	13338209.87	13338210.09	13338210.31	0.0494	0.0080
Earth	31806-09-05 15:21 G	13338209.91	13338210.14	13338210.37	0.0494	0.0059 *
Moon	31807-10-07 05:02 G	13338606.71	13338606.71	13338606.72	0.0502	0.0502
Mercury	31808-05-10 11:45 G	13338822.82	13338822.99	13338823.17	0.0508	0.0061
Earth	31812-02-24 20:24 G	13340208.12	13340208.35	13340208.58	0.0533	0.0118
Moon	31812-02-25 00:14 G	13340208.28	13340208.51	13340208.74	0.0533	0.0109 *
Venus	31812-05-03 21:21 G	13340277.20	13340277.39	13340277.59	0.0532	0.0149
Moon	31813-04-01 08:53 G	13340609.75	13340609.87	13340610.00	0.0526	0.0450
Earth	31813-04-01 12:29 G	13340609.94	13340610.02	13340610.12	0.0526	0.0482 *

Mercury	31813-10-01 22:33 G	13340793.44	13340793.44	13340793.45	0.0521	0.0519
Mercury	31813-12-30 04:33 G	13340882.56	13340882.69	13340882.82	0.0518	0.0070
Moon	31817-08-09 18:00 G	13342201.11	13342201.25	13342201.40	0.0492	0.0377
Earth	31817-08-09 21:36 G	13342201.24	13342201.40	13342201.57	0.0492	0.0349 *
Earth	31818-09-09 22:19 G	13342597.20	13342597.43	13342597.65	0.0496	0.0126
Moon	31818-09-10 00:57 G	13342597.31	13342597.54	13342597.77	0.0496	0.0150 *
Mercury	31820-02-27 09:36 G	13343132.73	13343132.90	13343133.07	0.0508	0.0136
Moon	31824-02-29 20:24 G	13344596.12	13344596.35	13344596.59	0.0532	0.0011
Earth	31824-03-01 00:14 G	13344596.27	13344596.51	13344596.74	0.0532	0.0028 *
Mercury	31825-10-18 08:38 G	13345192.73	13345192.86	13345192.99	0.0518	0.0081
Mercury	31826-01-15 14:53 G	13345282.12	13345282.12	13345282.13	0.0516	0.0514
Earth	31829-08-14 05:17 G	13346588.54	13346588.72	13346588.92	0.0492	0.0285
Moon	31829-08-14 09:07 G	13346588.70	13346588.88	13346589.08	0.0492	0.0278 *
Venus	31830-07-02 02:38 G	13346910.52	13346910.61	13346910.71	0.0495	0.0435
Moon	31830-09-14 04:05 G	13346984.46	13346984.67	13346984.88	0.0496	0.0186
Earth	31830-09-14 07:26 G	13346984.60	13346984.81	13346985.03	0.0496	0.0196 *
Mercury	31831-12-16 06:43 G	13347442.65	13347442.78	13347442.92	0.0507	0.0337
Mercury	31832-03-15 14:24 G	13347533.02	13347533.10	13347533.18	0.0509	0.0453
Earth	31836-03-06 00:14 G	13348984.28	13348984.51	13348984.74	0.0532	0.0061
Moon	31836-03-06 02:09 G	13348984.37	13348984.59	13348984.82	0.0532	0.0049 *
Mercury	31837-08-06 12:29 G	13349502.90	13349503.02	13349503.13	0.0520	0.0232
Mercury	31837-11-03 18:43 G	13349592.19	13349592.28	13349592.37	0.0517	0.0362
Moon	31841-08-18 10:33 G	13350975.72	13350975.94	13350976.16	0.0492	0.0186
Earth	31841-08-18 13:55 G	13350975.88	13350976.08	13350976.30	0.0492	0.0219 *
Venus	31842-03-07 05:02 G	13351176.51	13351176.71	13351176.92	0.0494	0.0013
Earth	31842-09-18 17:02 G	13351372.02	13351372.21	13351372.41	0.0497	0.0265
Moon	31842-09-18 20:53 G	13351372.17	13351372.37	13351372.57	0.0497	0.0236 *
Mercury	31844-01-02 12:00 G	13351842.85	13351843.00	13351843.15	0.0509	0.0256
Earth	31847-02-02 23:02 G	13352970.35	13352970.46	13352970.57	0.0534	0.0470
Moon	31847-02-03 01:55 G	13352970.48	13352970.58	13352970.69	0.0534	0.0469 *

Venus	31848-01-10 11:31 G	13353311.78	13353311.98	13353312.17	0.0532	0.0145
Moon	31848-03-11 03:07 G	13353372.39	13353372.63	13353372.87	0.0531	0.0118
Earth	31848-03-11 03:21 G	13353372.41	13353372.64	13353372.86	0.0531	0.0150 *
Mercury	31849-05-25 16:48 G	13353813.11	13353813.20	13353813.28	0.0521	0.0377
Mercury	31849-08-22 22:48 G	13353902.34	13353902.45	13353902.57	0.0518	0.0217
Earth	31853-08-22 21:07 G	13355363.16	13355363.38	13355363.60	0.0492	0.0152
Moon	31853-08-22 23:31 G	13355363.27	13355363.48	13355363.70	0.0492	0.0143 *
Venus	31853-11-10 06:43 G	13355442.68	13355442.78	13355442.90	0.0493	0.0412
Moon	31854-09-22 22:05 G	13355759.25	13355759.42	13355759.60	0.0498	0.0335
Earth	31854-09-23 01:26 G	13355759.39	13355759.56	13355759.74	0.0498	0.0331 *
Mercury	31855-10-21 09:21 G	13356152.71	13356152.89	13356153.06	0.0508	0.0055
Mars	31857-06-21 01:26 G	13356761.33	13356761.56	13356761.80	0.0526	0.0232
Moon	31859-02-08 03:50 G	13357358.49	13357358.66	13357358.85	0.0535	0.0359
Earth	31859-02-08 04:19 G	13357358.53	13357358.68	13357358.85	0.0535	0.0390 *
Venus	31859-09-15 02:24 G	13357577.47	13357577.60	13357577.75	0.0533	0.0387
Moon	31860-03-16 06:14 G	13357760.56	13357760.76	13357760.96	0.0530	0.0247
Earth	31860-03-16 07:55 G	13357760.63	13357760.83	13357761.04	0.0530	0.0236 *
Mercury	31861-03-13 21:07 G	13358123.37	13358123.38	13358123.39	0.0521	0.0518
Mercury	31861-06-11 03:07 G	13358212.50	13358212.63	13358212.76	0.0518	0.0074
Moon	31865-08-27 03:50 G	13359750.43	13359750.66	13359750.90	0.0493	0.0108
Earth	31865-08-27 04:48 G	13359750.47	13359750.70	13359750.93	0.0493	0.0083 *
Earth	31866-09-27 12:00 G	13360146.87	13360147.00	13360147.14	0.0499	0.0398
Moon	31866-09-27 14:09 G	13360146.98	13360147.09	13360147.21	0.0499	0.0431 *
Mercury	31867-08-09 07:12 G	13360462.63	13360462.80	13360462.97	0.0507	0.0140
Moon	31871-02-13 09:50 G	13361746.73	13361746.91	13361747.09	0.0534	0.0316
Earth	31871-02-13 11:45 G	13361746.80	13361746.99	13361747.18	0.0534	0.0303 *
Earth	31872-03-21 11:02 G	13362148.78	13362148.96	13362149.15	0.0529	0.0319
Moon	31872-03-21 14:38 G	13362148.94	13362149.11	13362149.29	0.0529	0.0346 *
Mercury	31873-03-30 07:12 G	13362522.67	13362522.80	13362522.92	0.0519	0.0080
Earth	31876-07-31 11:17 G	13363741.92	13363741.97	13363742.03	0.0492	0.0477

Moon	31876-07-31 14:09 G	13363742.00	13363742.09	13363742.18	0.0492	0.0452	*
Moon	31877-08-31 08:53 G	13364137.64	13364137.87	13364138.09	0.0494	0.0031	
Earth	31877-08-31 10:05 G	13364137.68	13364137.92	13364138.15	0.0494	0.0019	*
Venus	31877-11-12 13:12 G	13364210.88	13364211.05	13364211.23	0.0495	0.0251	
Moon	31878-10-01 20:38 G	13364534.28	13364534.36	13364534.45	0.0501	0.0466	
Earth	31878-10-01 21:50 G	13364534.32	13364534.41	13364534.49	0.0501	0.0462	*
Mercury	31879-05-28 04:19 G	13364772.56	13364772.68	13364772.82	0.0507	0.0340	
Mercury	31879-08-26 12:14 G	13364862.94	13364863.01	13364863.09	0.0510	0.0454	
Earth	31883-02-18 16:05 G	13366134.96	13366135.17	13366135.39	0.0534	0.0214	
Moon	31883-02-18 19:41 G	13366135.11	13366135.32	13366135.53	0.0534	0.0247	*
Venus	31883-09-18 05:17 G	13366346.63	13366346.72	13366346.82	0.0531	0.0465	
Moon	31884-03-26 08:09 G	13366536.69	13366536.84	13366537.01	0.0527	0.0382	
Earth	31884-03-26 12:14 G	13366536.86	13366537.01	13366537.16	0.0527	0.0399	*
Mercury	31885-01-16 11:02 G	13366832.85	13366832.96	13366833.08	0.0519	0.0228	
Mercury	31885-04-15 17:17 G	13366922.13	13366922.22	13366922.31	0.0516	0.0365	
Moon	31888-08-04 15:21 G	13368129.04	13368129.14	13368129.26	0.0492	0.0433	
Earth	31888-08-04 18:57 G	13368129.17	13368129.29	13368129.42	0.0492	0.0416	*
Venus	31889-07-18 15:36 G	13368476.96	13368477.15	13368477.34	0.0494	0.0174	
Earth	31889-09-04 18:14 G	13368525.03	13368525.26	13368525.50	0.0494	0.0052	
Moon	31889-09-04 21:07 G	13368525.14	13368525.38	13368525.61	0.0494	0.0078	*
Moon	31890-10-06 08:24 G	13368921.84	13368921.85	13368921.88	0.0502	0.0500	
Mercury	31891-06-14 09:50 G	13369172.76	13369172.91	13369173.06	0.0509	0.0255	
Moon	31895-02-23 12:14 G	13370522.78	13370523.01	13370523.24	0.0533	0.0121	
Earth	31895-02-23 16:05 G	13370522.94	13370523.17	13370523.40	0.0533	0.0129	*
Venus	31895-05-23 17:31 G	13370612.03	13370612.23	13370612.43	0.0532	0.0085	
Earth	31896-03-31 09:21 G	13370924.80	13370924.89	13370925.00	0.0526	0.0475	
Moon	31896-03-31 12:29 G	13370924.90	13370925.02	13370925.14	0.0526	0.0445	*
Mercury	31896-11-04 14:53 G	13371143.04	13371143.12	13371143.21	0.0520	0.0382	
Mercury	31897-02-01 21:07 G	13371232.26	13371232.38	13371232.50	0.0518	0.0211	
Earth	31900-08-10 03:36 G	13372516.49	13372516.65	13372516.81	0.0492	0.0353	

Moon	31900-08-10 07:26 G	13372516.67	13372516.81	13372516.96	0.0492	0.0379	*
Moon	31901-09-10 00:00 G	13372912.29	13372912.50	13372912.73	0.0495	0.0148	
Earth	31901-09-10 03:36 G	13372912.42	13372912.65	13372912.87	0.0495	0.0122	*
Mercury	31903-04-03 07:26 G	13373482.63	13373482.81	13373482.98	0.0508	0.0057	
Earth	31907-03-01 18:57 G	13374911.06	13374911.29	13374911.52	0.0533	0.0039	
Moon	31907-03-01 21:50 G	13374911.18	13374911.41	13374911.63	0.0533	0.0014	*
Mercury	31908-11-22 01:12 G	13375542.42	13375542.55	13375542.68	0.0519	0.0064	
Moon	31912-08-14 07:12 G	13376903.62	13376903.80	13376904.00	0.0492	0.0284	
Earth	31912-08-14 10:48 G	13376903.77	13376903.95	13376904.14	0.0492	0.0291	*
Earth	31913-09-14 10:48 G	13377299.74	13377299.95	13377300.17	0.0496	0.0190	
Moon	31913-09-14 14:38 G	13377299.89	13377300.11	13377300.33	0.0496	0.0175	*
Mercury	31915-01-20 04:19 G	13377792.51	13377792.68	13377792.85	0.0507	0.0150	
Moon	31919-03-06 22:48 G	13379299.21	13379299.45	13379299.70	0.0533	0.0037	
Earth	31919-03-07 00:00 G	13379299.26	13379299.50	13379299.73	0.0533	0.0051	*
Mercury	31920-09-10 05:31 G	13379852.60	13379852.73	13379852.86	0.0519	0.0081	
Mercury	31920-12-08 11:45 G	13379941.99	13379941.99	13379942.00	0.0516	0.0516	
Earth	31924-08-18 17:45 G	13381291.04	13381291.24	13381291.45	0.0492	0.0225	
Moon	31924-08-18 20:24 G	13381291.14	13381291.35	13381291.56	0.0492	0.0195	*
Venus	31925-03-27 01:26 G	13381511.36	13381511.56	13381511.76	0.0494	0.0073	
Moon	31925-09-18 16:33 G	13381686.98	13381687.19	13381687.40	0.0497	0.0231	
Earth	31925-09-18 19:55 G	13381687.13	13381687.33	13381687.53	0.0497	0.0259	*
Mercury	31926-11-08 01:55 G	13382102.45	13382102.58	13382102.71	0.0507	0.0346	
Mercury	31927-02-06 09:36 G	13382192.82	13382192.90	13382192.99	0.0509	0.0445	
Moon	31930-02-02 23:17 G	13383285.36	13383285.47	13383285.59	0.0534	0.0470	
Earth	31930-02-03 00:43 G	13383285.44	13383285.53	13383285.64	0.0534	0.0480	*
Venus	31931-01-30 11:17 G	13383646.79	13383646.97	13383647.15	0.0532	0.0234	
Moon	31931-03-12 04:19 G	13383687.46	13383687.68	13383687.90	0.0531	0.0111	
Earth	31931-03-12 05:17 G	13383687.50	13383687.72	13383687.95	0.0531	0.0141	*
Mercury	31932-06-29 09:36 G	13384162.78	13384162.90	13384163.01	0.0519	0.0229	
Mercury	31932-09-26 15:50 G	13384252.06	13384252.16	13384252.25	0.0517	0.0364	

Moon	31936-08-22 21:07 G	13385678.15	13385678.38	13385678.61	0.0493	0.0155
Earth	31936-08-22 22:05 G	13385678.20	13385678.42	13385678.64	0.0493	0.0161 *
Venus	31936-11-30 01:41 G	13385777.44	13385777.57	13385777.72	0.0494	0.0360
Earth	31937-09-23 03:21 G	13386074.46	13386074.64	13386074.81	0.0498	0.0325
Moon	31937-09-23 05:31 G	13386074.57	13386074.73	13386074.90	0.0498	0.0336 *
Mercury	31938-11-25 07:12 G	13386502.65	13386502.80	13386502.96	0.0509	0.0249
Moon	31942-02-08 04:33 G	13387673.53	13387673.69	13387673.86	0.0534	0.0369
Earth	31942-02-08 05:45 G	13387673.59	13387673.74	13387673.89	0.0534	0.0397 *
Venus	31942-10-05 01:26 G	13387912.39	13387912.56	13387912.73	0.0533	0.0304
Earth	31943-03-17 07:41 G	13388075.61	13388075.82	13388076.04	0.0530	0.0227
Moon	31943-03-17 10:48 G	13388075.74	13388075.95	13388076.16	0.0530	0.0243 *
Mercury	31944-04-17 13:26 G	13388472.98	13388473.06	13388473.15	0.0520	0.0379
Mercury	31944-07-15 19:41 G	13388562.20	13388562.32	13388562.44	0.0517	0.0213
Moon	31948-08-27 04:48 G	13390065.48	13390065.70	13390065.92	0.0493	0.0119
Earth	31948-08-27 05:45 G	13390065.51	13390065.74	13390065.97	0.0493	0.0091 *
Moon	31949-09-27 12:14 G	13390461.89	13390462.01	13390462.15	0.0499	0.0422
Earth	31949-09-27 13:41 G	13390461.93	13390462.07	13390462.21	0.0499	0.0392 *
Mercury	31950-09-13 04:48 G	13390812.52	13390812.70	13390812.87	0.0508	0.0049
Earth	31954-02-13 05:17 G	13392061.53	13392061.72	13392061.91	0.0534	0.0315
Moon	31954-02-13 07:55 G	13392061.64	13392061.83	13392062.02	0.0534	0.0326 *
Moon	31955-03-22 01:26 G	13392463.39	13392463.56	13392463.75	0.0529	0.0337
Earth	31955-03-22 05:31 G	13392463.54	13392463.73	13392463.92	0.0529	0.0309 *
Mercury	31956-05-03 23:17 G	13392872.34	13392872.47	13392872.60	0.0518	0.0057
Mars	31957-12-19 23:45 G	13393467.22	13393467.49	13393467.76	0.0501	0.0150
Moon	31959-08-01 12:57 G	13394056.96	13394057.04	13394057.11	0.0492	0.0463
Earth	31959-08-01 16:19 G	13394057.14	13394057.18	13394057.23	0.0492	0.0482
Earth	31960-08-31 14:38 G	13394452.87	13394453.11	13394453.34	0.0494	0.0023
Moon	31960-08-31 17:17 G	13394452.98	13394453.22	13394453.46	0.0494	0.0031 *
Venus	31960-12-02 10:19 G	13394545.78	13394545.93	13394546.09	0.0495	0.0315
Moon	31961-10-02 00:14 G	13394849.42	13394849.51	13394849.59	0.0500	0.0461

Earth	31961-10-02 00:14 G	13394849.43	13394849.51	13394849.61	0.0500	0.0458	*
Mercury	31962-07-02 02:09 G	13395122.42	13395122.59	13395122.76	0.0507	0.0151	
Moon	31966-02-18 04:19 G	13396449.48	13396449.68	13396449.89	0.0534	0.0261	
Earth	31966-02-18 08:09 G	13396449.63	13396449.84	13396450.05	0.0534	0.0228	*
Venus	31966-10-07 23:31 G	13396681.45	13396681.48	13396681.53	0.0532	0.0518	
Earth	31967-03-27 06:14 G	13396851.61	13396851.76	13396851.92	0.0528	0.0392	
Moon	31967-03-27 09:50 G	13396851.75	13396851.91	13396852.07	0.0528	0.0373	*
Mercury	31968-02-21 03:21 G	13397182.51	13397182.64	13397182.76	0.0519	0.0094	
Mercury	31968-05-20 09:36 G	13397271.88	13397271.90	13397271.93	0.0517	0.0503	
Earth	31971-08-05 23:31 G	13398444.37	13398444.48	13398444.60	0.0492	0.0422	
Moon	31971-08-06 03:21 G	13398444.55	13398444.64	13398444.74	0.0492	0.0445	*
Venus	31972-08-07 12:00 G	13398811.80	13398812.00	13398812.20	0.0494	0.0112	
Moon	31972-09-04 18:14 G	13398840.03	13398840.26	13398840.49	0.0494	0.0070	
Earth	31972-09-04 21:36 G	13398840.17	13398840.40	13398840.63	0.0494	0.0045	*
Moon	31973-10-06 11:45 G	13399236.95	13399236.99	13399237.04	0.0501	0.0490	
Mercury	31974-04-19 22:48 G	13399432.33	13399432.45	13399432.58	0.0506	0.0358	
Mercury	31974-07-19 06:43 G	13399522.69	13399522.78	13399522.87	0.0509	0.0432	
Earth	31978-02-23 12:43 G	13400837.81	13400838.03	13400838.26	0.0534	0.0141	
Moon	31978-02-23 16:05 G	13400837.95	13400838.17	13400838.39	0.0534	0.0126	*
Venus	31978-06-12 14:38 G	13400946.91	13400947.11	13400947.31	0.0533	0.0014	
Moon	31979-04-01 06:29 G	13401239.64	13401239.77	13401239.91	0.0527	0.0437	
Earth	31979-04-01 08:38 G	13401239.76	13401239.86	13401239.97	0.0527	0.0469	*
Mercury	31979-12-10 07:41 G	13401492.70	13401492.82	13401492.93	0.0520	0.0237	
Mercury	31980-03-08 13:55 G	13401581.98	13401582.08	13401582.17	0.0517	0.0358	
Moon	31983-08-10 03:07 G	13402831.49	13402831.63	13402831.78	0.0492	0.0387	
Earth	31983-08-10 06:43 G	13402831.62	13402831.78	13402831.94	0.0492	0.0360	*
Earth	31984-09-09 05:17 G	13403227.49	13403227.72	13403227.95	0.0495	0.0114	
Moon	31984-09-09 09:07 G	13403227.65	13403227.88	13403228.10	0.0495	0.0137	*
Mercury	31986-05-07 04:19 G	13403832.53	13403832.68	13403832.84	0.0509	0.0239	
Moon	31990-02-28 17:45 G	13405226.00	13405226.24	13405226.48	0.0533	0.0020	

Earth	31990-02-28 19:26 G	13405226.08	13405226.31	13405226.55	0.0533	0.0050	*
Mercury	31991-09-28 11:45 G	13405802.91	13405802.99	13405803.08	0.0520	0.0382	
Mercury	31991-12-26 17:45 G	13405892.12	13405892.24	13405892.36	0.0517	0.0209	
Earth	31995-08-14 10:33 G	13407218.75	13407218.94	13407219.12	0.0492	0.0298	
Moon	31995-08-14 13:12 G	13407218.87	13407219.05	13407219.23	0.0492	0.0291	*
Moon	31996-09-13 07:41 G	13407614.59	13407614.82	13407615.04	0.0496	0.0165	
Earth	31996-09-13 11:02 G	13407614.75	13407614.96	13407615.18	0.0496	0.0183	*
Mercury	31998-02-23 01:55 G	13408142.40	13408142.58	13408142.75	0.0508	0.0039	

33RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 33rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	32002-03-05 23:31 G	13409614.24	13409614.48	13409614.71	0.0532	0.0043		
Moon	32002-03-05 23:17 G	13409614.25	13409614.47	13409614.70	0.0532	0.0027	*	
Mercury	32003-10-14 21:50 G	13410202.28	13410202.41	13410202.54	0.0518	0.0059		
Moon	32007-08-18 16:48 G	13411605.98	13411606.20	13411606.42	0.0492	0.0205		
Earth	32007-08-18 17:45 G	13411606.04	13411606.24	13411606.45	0.0492	0.0233	*	
Venus	32008-04-14 19:55 G	13411846.14	13411846.33	13411846.53	0.0494	0.0124		
Earth	32008-09-17 20:24 G	13412002.15	13412002.35	13412002.55	0.0497	0.0253		
Moon	32008-09-17 22:48 G	13412002.25	13412002.45	13412002.65	0.0497	0.0229	*	
Mercury	32009-12-11 23:17 G	13412452.30	13412452.47	13412452.64	0.0507	0.0162		
Mars	32011-09-15 12:57 G	13413094.96	13413095.04	13413095.12	0.0526	0.0498		
Earth	32013-02-01 17:31 G	13413600.14	13413600.23	13413600.32	0.0534	0.0492		

Moon	32013-02-01 17:31 G	13413600.14	13413600.23	13413600.33	0.0534	0.0481 *
Venus	32014-02-18 05:17 G	13413981.55	13413981.72	13413981.89	0.0532	0.0285
Earth	32014-03-10 21:36 G	13414002.17	13414002.40	13414002.63	0.0532	0.0129
Moon	32014-03-10 23:45 G	13414002.25	13414002.49	13414002.73	0.0532	0.0101 *
Mercury	32015-08-03 01:26 G	13414512.43	13414512.56	13414512.68	0.0519	0.0102
Mercury	32015-10-31 07:41 G	13414601.79	13414601.82	13414601.86	0.0516	0.0495
Moon	32019-08-23 01:41 G	13415993.35	13415993.57	13415993.78	0.0493	0.0169
Earth	32019-08-23 02:24 G	13415993.38	13415993.60	13415993.82	0.0493	0.0165 *
Venus	32019-12-19 22:48 G	13416112.29	13416112.45	13416112.62	0.0493	0.0296
Moon	32020-09-22 05:17 G	13416389.54	13416389.72	13416389.90	0.0498	0.0332
Earth	32020-09-22 06:43 G	13416389.60	13416389.78	13416389.95	0.0498	0.0321 *
Mercury	32021-09-29 20:38 G	13416762.23	13416762.36	13416762.49	0.0506	0.0361
Mercury	32021-12-29 04:33 G	13416852.59	13416852.69	13416852.78	0.0509	0.0431
Earth	32025-02-06 19:55 G	13417988.19	13417988.33	13417988.48	0.0534	0.0413
Moon	32025-02-06 22:05 G	13417988.25	13417988.42	13417988.59	0.0534	0.0379 *
Venus	32025-10-23 18:43 G	13418247.10	13418247.28	13418247.46	0.0533	0.0257
Moon	32026-03-15 19:41 G	13418390.12	13418390.32	13418390.53	0.0531	0.0234
Earth	32026-03-15 23:17 G	13418390.26	13418390.47	13418390.69	0.0531	0.0216 *
Mercury	32027-05-22 05:17 G	13418822.61	13418822.72	13418822.84	0.0520	0.0251
Mercury	32027-08-19 11:31 G	13418911.89	13418911.98	13418912.08	0.0517	0.0345
Earth	32031-08-27 09:21 G	13420380.66	13420380.89	13420381.12	0.0493	0.0098
Moon	32031-08-27 12:00 G	13420380.77	13420381.00	13420381.23	0.0493	0.0128 *
Earth	32032-09-26 14:53 G	13420776.98	13420777.12	13420777.27	0.0498	0.0385
Moon	32032-09-26 14:53 G	13420777.00	13420777.12	13420777.24	0.0498	0.0416 *
Mercury	32033-10-17 01:26 G	13421162.41	13421162.56	13421162.72	0.0508	0.0227
Moon	32037-02-11 20:38 G	13422376.19	13422376.36	13422376.54	0.0535	0.0340
Earth	32037-02-12 00:00 G	13422376.32	13422376.50	13422376.69	0.0535	0.0329 *
Earth	32038-03-21 02:38 G	13422778.42	13422778.61	13422778.80	0.0530	0.0300
Moon	32038-03-21 06:14 G	13422778.59	13422778.76	13422778.95	0.0530	0.0328 *
Mercury	32039-03-10 09:36 G	13423132.82	13423132.90	13423132.99	0.0521	0.0394

Mercury	32039-06-07 15:50 G	13423222.04	13423222.16	13423222.28	0.0518	0.0200
Earth	32042-07-31 19:12 G	13424372.28	13424372.30	13424372.33	0.0492	0.0488
Moon	32042-07-31 22:48 G	13424372.40	13424372.45	13424372.51	0.0492	0.0476
Moon	32043-08-31 12:57 G	13424767.82	13424768.04	13424768.27	0.0493	0.0041
Earth	32043-08-31 16:19 G	13424767.95	13424768.18	13424768.42	0.0493	0.0030 *
Venus	32043-12-22 05:31 G	13424880.60	13424880.73	13424880.87	0.0494	0.0369
Earth	32044-10-01 00:29 G	13425164.43	13425164.52	13425164.62	0.0500	0.0452
Moon	32044-10-01 02:38 G	13425164.50	13425164.61	13425164.71	0.0500	0.0446 *
Mercury	32045-08-04 23:02 G	13425472.28	13425472.46	13425472.64	0.0508	0.0030
Earth	32049-02-17 07:12 G	13426764.59	13426764.80	13426765.01	0.0534	0.0239
Moon	32049-02-17 10:48 G	13426764.76	13426764.95	13426765.16	0.0534	0.0268 *
Moon	32050-03-26 04:05 G	13427166.50	13427166.67	13427166.84	0.0528	0.0366
Earth	32050-03-26 06:57 G	13427166.63	13427166.79	13427166.95	0.0528	0.0384 *
Mercury	32051-03-26 19:55 G	13427532.20	13427532.33	13427532.46	0.0518	0.0056
Moon	32054-08-04 19:55 G	13428759.24	13428759.33	13428759.42	0.0492	0.0452
Earth	32054-08-04 23:31 G	13428759.37	13428759.48	13428759.59	0.0492	0.0429 *
Venus	32055-08-27 06:14 G	13429146.55	13429146.76	13429146.96	0.0494	0.0064
Earth	32055-09-04 21:21 G	13429155.15	13429155.39	13429155.62	0.0494	0.0039
Moon	32055-09-05 00:57 G	13429155.31	13429155.54	13429155.78	0.0494	0.0065 *
Moon	32056-10-05 06:14 G	13429551.71	13429551.76	13429551.82	0.0501	0.0486
Mercury	32057-05-23 20:09 G	13429782.18	13429782.34	13429782.51	0.0508	0.0175
Moon	32061-02-22 09:50 G	13431152.67	13431152.91	13431153.14	0.0534	0.0130
Earth	32061-02-22 12:14 G	13431152.79	13431153.01	13431153.24	0.0534	0.0149 *
Venus	32061-07-01 12:57 G	13431281.84	13431282.04	13431282.25	0.0532	0.0065
Earth	32062-03-31 07:55 G	13431554.73	13431554.83	13431554.95	0.0527	0.0463
Moon	32062-03-31 08:38 G	13431554.75	13431554.86	13431554.99	0.0527	0.0439 *
Mercury	32063-01-13 00:00 G	13431842.37	13431842.50	13431842.63	0.0519	0.0096
Mercury	32063-04-12 06:14 G	13431931.73	13431931.76	13431931.80	0.0516	0.0498
Earth	32066-08-09 06:43 G	13433146.63	13433146.78	13433146.94	0.0492	0.0367
Moon	32066-08-09 09:21 G	13433146.76	13433146.89	13433147.03	0.0492	0.0394 *

Venus	32067-05-02 08:38 G	13433412.82	13433412.86	13433412.89	0.0493	0.0484
Moon	32067-09-09 02:24 G	13433542.37	13433542.60	13433542.83	0.0495	0.0127
Earth	32067-09-09 06:00 G	13433542.52	13433542.75	13433542.97	0.0495	0.0108 *
Mercury	32069-03-11 17:45 G	13434092.12	13434092.24	13434092.36	0.0507	0.0373
Mercury	32069-06-10 01:41 G	13434182.47	13434182.57	13434182.67	0.0509	0.0420
Earth	32073-02-27 11:17 G	13435540.74	13435540.97	13435541.21	0.0533	0.0063
Moon	32073-02-27 12:14 G	13435540.79	13435541.01	13435541.24	0.0533	0.0034 *
Venus	32073-03-06 00:14 G	13435547.43	13435547.51	13435547.59	0.0533	0.0491
Mercury	32074-11-01 03:36 G	13436152.54	13436152.65	13436152.76	0.0520	0.0257
Mercury	32075-01-29 09:36 G	13436241.81	13436241.90	13436242.00	0.0517	0.0338
Moon	32078-08-13 13:55 G	13437533.89	13437534.08	13437534.28	0.0492	0.0293
Earth	32078-08-13 15:07 G	13437533.95	13437534.13	13437534.32	0.0492	0.0304 *
Earth	32079-09-13 15:36 G	13437929.93	13437930.15	13437930.37	0.0495	0.0179
Moon	32079-09-13 18:00 G	13437930.04	13437930.25	13437930.47	0.0495	0.0156 *
Mercury	32081-03-28 23:31 G	13438492.32	13438492.48	13438492.63	0.0508	0.0226
Earth	32085-03-04 13:41 G	13439928.84	13439929.07	13439929.31	0.0533	0.0030
Moon	32085-03-04 14:53 G	13439928.88	13439929.12	13439929.37	0.0533	0.0014 *
Mercury	32086-08-20 07:41 G	13440462.74	13440462.82	13440462.89	0.0521	0.0406
Mercury	32086-11-17 13:41 G	13440551.95	13440552.07	13440552.19	0.0518	0.0187
Moon	32090-08-17 21:36 G	13441921.20	13441921.40	13441921.60	0.0492	0.0216
Earth	32090-08-17 22:19 G	13441921.23	13441921.43	13441921.64	0.0492	0.0240 *
Venus	32091-05-04 16:33 G	13442181.00	13442181.19	13442181.38	0.0494	0.0186
Moon	32091-09-17 21:50 G	13442317.20	13442317.41	13442317.63	0.0496	0.0221
Earth	32091-09-17 23:17 G	13442317.27	13442317.47	13442317.67	0.0496	0.0246 *
Mercury	32093-01-14 20:24 G	13442802.17	13442802.35	13442802.53	0.0508	0.0020
Earth	32096-02-01 11:31 G	13443914.92	13443914.98	13443915.06	0.0534	0.0506
Moon	32096-02-01 12:43 G	13443914.94	13443915.03	13443915.13	0.0534	0.0490 *
Venus	32097-03-09 01:26 G	13444316.41	13444316.56	13444316.71	0.0532	0.0350
Moon	32097-03-09 14:24 G	13444316.88	13444317.10	13444317.33	0.0532	0.0092
Earth	32097-03-09 17:31 G	13444317.01	13444317.23	13444317.46	0.0532	0.0118 *

Mercury	32098-09-05 17:45 G	13444862.12	13444862.24	13444862.37	0.0519	0.0047
Earth	32102-08-23 05:02 G	13446308.50	13446308.71	13446308.93	0.0492	0.0172
Moon	32102-08-23 07:41 G	13446308.60	13446308.82	13446309.04	0.0492	0.0181 *
Venus	32103-01-08 18:29 G	13446447.10	13446447.27	13446447.45	0.0493	0.0238
Earth	32103-09-23 07:41 G	13446704.64	13446704.82	13446705.00	0.0497	0.0314
Moon	32103-09-23 07:41 G	13446704.66	13446704.82	13446705.00	0.0497	0.0328 *
Mercury	32104-11-03 17:45 G	13447112.07	13447112.24	13447112.41	0.0507	0.0180
Moon	32108-02-07 15:50 G	13448303.01	13448303.16	13448303.32	0.0535	0.0393
Earth	32108-02-07 18:29 G	13448303.14	13448303.27	13448303.42	0.0535	0.0424 *
Venus	32108-11-12 17:17 G	13448582.03	13448582.22	13448582.41	0.0533	0.0178
Earth	32109-03-15 23:31 G	13448705.27	13448705.48	13448705.70	0.0531	0.0208
Moon	32109-03-16 03:36 G	13448705.44	13448705.65	13448705.86	0.0531	0.0233 *
Mercury	32110-06-25 22:19 G	13449172.30	13449172.43	13449172.55	0.0519	0.0102
Mercury	32110-09-23 04:33 G	13449261.65	13449261.69	13449261.72	0.0516	0.0494
Mars	32112-03-15 06:00 G	13449800.47	13449800.75	13449801.03	0.0501	0.0110
Moon	32114-08-27 06:43 G	13450695.56	13450695.78	13450696.00	0.0493	0.0137
Earth	32114-08-27 10:05 G	13450695.69	13450695.92	13450696.15	0.0493	0.0105 *
Earth	32115-09-27 15:07 G	13451091.99	13451092.13	13451092.29	0.0498	0.0380
Moon	32115-09-27 16:48 G	13451092.07	13451092.20	13451092.34	0.0498	0.0406 *
Mercury	32116-08-22 14:38 G	13451422.00	13451422.11	13451422.23	0.0507	0.0384
Mercury	32116-11-20 22:48 G	13451512.35	13451512.45	13451512.55	0.0509	0.0410
Earth	32120-02-13 00:14 G	13452691.34	13452691.51	13452691.70	0.0535	0.0337
Moon	32120-02-13 04:05 G	13452691.50	13452691.67	13452691.85	0.0535	0.0352 *
Moon	32121-03-20 23:45 G	13453093.30	13453093.49	13453093.68	0.0530	0.0322
Earth	32121-03-21 03:07 G	13453093.44	13453093.63	13453093.82	0.0530	0.0295 *
Mercury	32122-04-14 02:24 G	13453482.49	13453482.60	13453482.71	0.0520	0.0249
Mercury	32122-07-12 08:24 G	13453571.76	13453571.85	13453571.95	0.0517	0.0345
Moon	32125-07-31 16:48 G	13454687.16	13454687.20	13454687.26	0.0492	0.0481
Earth	32126-08-31 18:00 G	13455083.01	13455083.25	13455083.48	0.0493	0.0036
Moon	32126-08-31 21:50 G	13455083.17	13455083.41	13455083.64	0.0493	0.0043 *

Venus	32127-01-11 01:12 G	13455215.45	13455215.55	13455215.66	0.0495	0.0424
Moon	32127-10-01 23:17 G	13455479.36	13455479.47	13455479.58	0.0500	0.0439
Earth	32127-10-02 02:24 G	13455479.50	13455479.60	13455479.70	0.0500	0.0449 *
Mercury	32128-09-08 20:38 G	13455822.20	13455822.36	13455822.52	0.0508	0.0217
Mars	32130-03-06 11:02 G	13456365.74	13456365.96	13456366.17	0.0525	0.0316
Moon	32132-02-17 21:07 G	13457079.18	13457079.38	13457079.59	0.0534	0.0282
Earth	32132-02-18 00:29 G	13457079.32	13457079.52	13457079.73	0.0534	0.0254 *
Earth	32133-03-25 23:45 G	13457481.34	13457481.49	13457481.66	0.0529	0.0375
Moon	32133-03-26 01:41 G	13457481.41	13457481.57	13457481.74	0.0529	0.0359 *
Mercury	32134-01-31 05:45 G	13457792.66	13457792.74	13457792.82	0.0521	0.0410
Mercury	32134-04-30 11:45 G	13457881.87	13457881.99	13457882.12	0.0518	0.0183
Earth	32137-08-05 04:48 G	13459074.59	13459074.70	13459074.80	0.0492	0.0437
Moon	32137-08-05 07:26 G	13459074.73	13459074.81	13459074.88	0.0492	0.0462 *
Moon	32138-09-04 23:45 G	13459470.25	13459470.49	13459470.72	0.0494	0.0061
Earth	32138-09-05 03:21 G	13459470.41	13459470.64	13459470.87	0.0494	0.0034 *
Venus	32138-09-16 04:05 G	13459481.47	13459481.67	13459481.88	0.0494	0.0006
Moon	32139-10-06 18:14 G	13459867.21	13459867.26	13459867.33	0.0501	0.0482
Mercury	32140-06-27 18:29 G	13460132.09	13460132.27	13460132.45	0.0508	0.0022
Earth	32144-02-23 03:21 G	13461467.42	13461467.64	13461467.87	0.0534	0.0164
Moon	32144-02-23 05:17 G	13461467.50	13461467.72	13461467.94	0.0534	0.0146 *
Venus	32144-07-21 06:29 G	13461616.58	13461616.77	13461616.97	0.0532	0.0113
Earth	32145-03-31 00:14 G	13461869.41	13461869.51	13461869.64	0.0528	0.0455
Moon	32145-03-31 01:12 G	13461869.42	13461869.55	13461869.70	0.0528	0.0431 *
Mercury	32146-02-16 15:50 G	13462192.03	13462192.16	13462192.29	0.0519	0.0033
Moon	32149-08-09 11:17 G	13463461.83	13463461.97	13463462.11	0.0492	0.0396
Earth	32149-08-09 12:29 G	13463461.87	13463462.02	13463462.17	0.0492	0.0375 *
Venus	32150-05-22 06:00 G	13463747.65	13463747.75	13463747.87	0.0493	0.0416
Earth	32150-09-09 10:48 G	13463857.72	13463857.95	13463858.18	0.0494	0.0102
Moon	32150-09-09 13:12 G	13463857.83	13463858.05	13463858.28	0.0494	0.0114 *
Mercury	32152-04-15 15:21 G	13464441.97	13464442.14	13464442.31	0.0507	0.0183

Moon	32156-02-28 07:26 G	13465855.57	13465855.81	13465856.05	0.0534	0.0047
Earth	32156-02-28 07:26 G	13465855.58	13465855.81	13465856.04	0.0534	0.0076 *
Venus	32156-03-25 20:38 G	13465882.24	13465882.36	13465882.48	0.0534	0.0425
Mercury	32157-12-05 20:09 G	13466502.21	13466502.34	13466502.47	0.0520	0.0112
Mercury	32158-03-05 02:24 G	13466591.56	13466591.60	13466591.65	0.0517	0.0485
Moon	32161-08-13 18:57 G	13467849.11	13467849.29	13467849.47	0.0492	0.0295
Earth	32161-08-13 19:26 G	13467849.14	13467849.31	13467849.50	0.0492	0.0311 *
Moon	32162-09-13 17:02 G	13468244.98	13468245.21	13468245.44	0.0495	0.0146
Earth	32162-09-13 18:29 G	13468245.06	13468245.27	13468245.49	0.0495	0.0173 *
Mercury	32164-02-02 12:29 G	13468751.91	13468752.02	13468752.14	0.0506	0.0385
Mercury	32164-05-02 20:38 G	13468842.26	13468842.36	13468842.46	0.0509	0.0408
Moon	32168-03-04 11:45 G	13470243.77	13470243.99	13470244.22	0.0533	0.0007
Earth	32168-03-04 14:24 G	13470243.86	13470244.10	13470244.33	0.0533	0.0021 *
Mercury	32169-09-24 00:29 G	13470812.41	13470812.52	13470812.64	0.0520	0.0254
Mercury	32169-12-22 06:43 G	13470901.69	13470901.78	13470901.88	0.0517	0.0341
Earth	32173-08-18 00:57 G	13472236.34	13472236.54	13472236.74	0.0492	0.0246
Moon	32173-08-18 03:21 G	13472236.43	13472236.64	13472236.86	0.0492	0.0221 *
Venus	32174-05-24 12:14 G	13472515.83	13472516.01	13472516.19	0.0494	0.0242
Earth	32174-09-18 01:12 G	13472632.35	13472632.55	13472632.75	0.0496	0.0241
Moon	32174-09-18 01:26 G	13472632.36	13472632.56	13472632.76	0.0496	0.0219 *
Mercury	32176-02-19 18:00 G	13473152.09	13473152.25	13473152.42	0.0509	0.0209
Moon	32179-02-01 11:31 G	13474229.90	13474229.98	13474230.06	0.0534	0.0501
Earth	32179-02-01 13:26 G	13474230.00	13474230.06	13474230.12	0.0534	0.0514 *
Earth	32180-03-09 19:41 G	13474632.09	13474632.32	13474632.55	0.0532	0.0112
Moon	32180-03-09 23:31 G	13474632.25	13474632.48	13474632.71	0.0532	0.0091 *
Venus	32180-03-29 01:12 G	13474651.44	13474651.55	13474651.67	0.0532	0.0436
Mercury	32181-07-13 04:48 G	13475122.62	13475122.70	13475122.79	0.0521	0.0399
Mercury	32181-10-10 10:48 G	13475211.83	13475211.95	13475212.08	0.0518	0.0194
Moon	32185-08-22 05:17 G	13476623.51	13476623.72	13476623.94	0.0492	0.0187
Earth	32185-08-22 08:38 G	13476623.65	13476623.86	13476624.08	0.0492	0.0178 *

Venus	32186-01-27 14:53 G	13476781.94	13476782.12	13476782.32	0.0493	0.0179
Earth	32186-09-22 11:17 G	13477019.79	13477019.97	13477020.16	0.0497	0.0311
Moon	32186-09-22 12:43 G	13477019.86	13477020.03	13477020.22	0.0497	0.0328 *
Mercury	32187-12-08 16:05 G	13477461.99	13477462.17	13477462.35	0.0508	0.0017
Earth	32191-02-06 14:38 G	13478617.98	13478618.11	13478618.24	0.0534	0.0437
Moon	32191-02-06 18:14 G	13478618.11	13478618.26	13478618.41	0.0534	0.0407 *
Venus	32191-12-02 12:57 G	13478916.85	13478917.04	13478917.24	0.0533	0.0115
Moon	32192-03-14 14:24 G	13479019.89	13479020.10	13479020.32	0.0531	0.0218
Earth	32192-03-14 18:14 G	13479020.05	13479020.26	13479020.48	0.0531	0.0196 *
Mercury	32193-07-29 14:09 G	13479521.96	13479522.09	13479522.22	0.0519	0.0035
Earth	32197-08-26 17:31 G	13481011.00	13481011.23	13481011.46	0.0493	0.0110
Moon	32197-08-26 21:21 G	13481011.16	13481011.39	13481011.61	0.0493	0.0141 *
Moon	32198-09-26 19:41 G	13481407.19	13481407.32	13481407.45	0.0498	0.0403
Earth	32198-09-26 22:33 G	13481407.30	13481407.44	13481407.60	0.0498	0.0379 *
Mercury	32199-09-26 13:55 G	13481771.91	13481772.08	13481772.25	0.0507	0.0176
Moon	32203-02-12 14:09 G	13483005.93	13483006.09	13483006.27	0.0534	0.0371
Earth	32203-02-12 18:00 G	13483006.08	13483006.25	13483006.43	0.0534	0.0352 *
Earth	32204-03-20 20:09 G	13483408.14	13483408.34	13483408.54	0.0530	0.0283
Moon	32204-03-20 22:33 G	13483408.26	13483408.44	13483408.63	0.0530	0.0311 *
Mercury	32205-05-18 18:14 G	13483832.14	13483832.26	13483832.39	0.0520	0.0119
Mercury	32205-08-16 00:29 G	13483921.48	13483921.52	13483921.57	0.0517	0.0478
Moon	32209-08-31 21:36 G	13485398.16	13485398.40	13485398.63	0.0493	0.0046
Earth	32209-09-01 01:12 G	13485398.32	13485398.55	13485398.78	0.0493	0.0042 *
Earth	32210-10-02 07:41 G	13485794.72	13485794.82	13485794.93	0.0499	0.0444
Moon	32210-10-02 11:45 G	13485794.88	13485794.99	13485795.11	0.0499	0.0427 *
Mercury	32211-07-16 10:48 G	13486081.83	13486081.95	13486082.07	0.0506	0.0381
Mercury	32211-10-14 18:43 G	13486172.18	13486172.28	13486172.38	0.0509	0.0411
Earth	32215-02-17 21:36 G	13487394.20	13487394.40	13487394.60	0.0534	0.0266
Moon	32215-02-18 00:00 G	13487394.32	13487394.50	13487394.69	0.0534	0.0293 *
Moon	32216-03-25 22:48 G	13487796.27	13487796.45	13487796.64	0.0530	0.0347

Earth	32216-03-25 23:02 G	13487796.30	13487796.46	13487796.63	0.0530	0.0367	*
Mercury	32217-03-06 22:33 G	13488142.33	13488142.44	13488142.55	0.0520	0.0262	
Mercury	32217-06-04 04:48 G	13488231.60	13488231.70	13488231.80	0.0518	0.0333	
Moon	32220-08-05 09:50 G	13489389.84	13489389.91	13489389.99	0.0492	0.0465	
Earth	32220-08-05 11:17 G	13489389.87	13489389.97	13489390.07	0.0492	0.0443	*
Earth	32221-09-05 08:38 G	13489785.63	13489785.86	13489786.09	0.0493	0.0028	
Moon	32221-09-05 11:17 G	13489785.74	13489785.97	13489786.19	0.0493	0.0057	*
Venus	32221-10-06 01:41 G	13489816.37	13489816.57	13489816.77	0.0494	0.0073	
Moon	32222-10-06 13:55 G	13490182.02	13490182.08	13490182.15	0.0500	0.0476	
Mercury	32223-08-02 16:19 G	13490482.02	13490482.18	13490482.34	0.0508	0.0214	
Moon	32227-02-23 04:05 G	13491782.44	13491782.67	13491782.90	0.0534	0.0155	
Earth	32227-02-23 04:48 G	13491782.48	13491782.70	13491782.92	0.0534	0.0174	*
Venus	32227-08-11 06:29 G	13491951.58	13491951.77	13491951.96	0.0533	0.0201	
Moon	32228-03-31 01:41 G	13492184.45	13492184.57	13492184.70	0.0528	0.0432	
Earth	32228-03-31 04:05 G	13492184.56	13492184.67	13492184.80	0.0528	0.0451	*
Mercury	32228-12-24 03:07 G	13492452.55	13492452.63	13492452.72	0.0521	0.0402	
Mercury	32229-03-23 09:21 G	13492541.77	13492541.89	13492542.01	0.0518	0.0192	
Moon	32232-08-09 16:48 G	13493777.07	13493777.20	13493777.34	0.0492	0.0397	
Earth	32232-08-09 17:17 G	13493777.08	13493777.22	13493777.38	0.0492	0.0381	*
Venus	32233-06-11 03:07 G	13494082.49	13494082.63	13494082.77	0.0493	0.0352	
Moon	32233-09-09 13:26 G	13494172.83	13494173.06	13494173.30	0.0494	0.0106	
Earth	32233-09-09 14:53 G	13494172.90	13494173.12	13494173.35	0.0494	0.0098	*
Mercury	32235-05-21 13:41 G	13494791.89	13494792.07	13494792.25	0.0508	0.0014	
Moon	32239-02-28 09:50 G	13496170.68	13496170.91	13496171.13	0.0534	0.0058	
Earth	32239-02-28 11:31 G	13496170.75	13496170.98	13496171.21	0.0534	0.0081	*
Venus	32239-04-15 21:36 G	13496217.25	13496217.40	13496217.57	0.0534	0.0331	
Mercury	32241-01-09 13:26 G	13496851.93	13496852.06	13496852.19	0.0519	0.0047	
Earth	32244-08-14 01:26 G	13498164.38	13498164.56	13498164.74	0.0492	0.0316	
Moon	32244-08-14 03:50 G	13498164.47	13498164.66	13498164.86	0.0492	0.0291	*
Earth	32245-09-14 00:29 G	13498560.30	13498560.52	13498560.74	0.0495	0.0170	

Moon	32245-09-14 00:43 G	13498560.31	13498560.53	13498560.74	0.0495	0.0144 *
Mercury	32247-03-09 11:45 G	13499101.82	13499101.99	13499102.16	0.0507	0.0177
Earth	32251-03-05 11:45 G	13500558.76	13500558.99	13500559.22	0.0533	0.0007
Moon	32251-03-05 15:21 G	13500558.91	13500559.14	13500559.38	0.0533	0.0020 *
Mercury	32252-10-28 16:48 G	13501162.08	13501162.20	13501162.33	0.0520	0.0117
Mercury	32253-01-25 23:02 G	13501251.42	13501251.46	13501251.51	0.0517	0.0480
Moon	32256-08-18 06:14 G	13502551.56	13502551.76	13502551.97	0.0492	0.0228
Earth	32256-08-18 09:36 G	13502551.71	13502551.90	13502552.11	0.0492	0.0253 *
Venus	32257-06-13 12:29 G	13502850.87	13502851.02	13502851.18	0.0494	0.0325
Earth	32257-09-18 10:48 G	13502947.75	13502947.95	13502948.16	0.0496	0.0240
Moon	32257-09-18 12:29 G	13502947.80	13502948.02	13502948.24	0.0496	0.0223 *
Mercury	32258-12-26 09:36 G	13503411.78	13503411.90	13503412.03	0.0506	0.0368
Mercury	32259-03-26 17:31 G	13503502.14	13503502.23	13503502.33	0.0509	0.0425
Earth	32262-02-01 10:48 G	13504544.92	13504544.95	13504544.99	0.0534	0.0527
Moon	32262-02-01 13:55 G	13504545.01	13504545.08	13504545.15	0.0534	0.0509
Moon	32263-03-10 11:02 G	13504946.73	13504946.96	13504947.19	0.0532	0.0074
Earth	32263-03-10 15:07 G	13504946.90	13504947.13	13504947.36	0.0532	0.0098 *
Venus	32263-04-18 20:53 G	13504986.31	13504986.37	13504986.45	0.0532	0.0499
Mercury	32264-08-16 20:53 G	13505472.26	13505472.37	13505472.49	0.0520	0.0266
Mercury	32264-11-14 03:07 G	13505561.53	13505561.63	13505561.73	0.0518	0.0330
Mars	32266-06-09 20:09 G	13506134.19	13506134.34	13506134.50	0.0501	0.0412
Earth	32268-08-22 17:45 G	13506939.02	13506939.24	13506939.45	0.0492	0.0184
Moon	32268-08-22 21:36 G	13506939.19	13506939.40	13506939.61	0.0492	0.0197 *
Venus	32269-02-16 14:53 G	13507116.92	13507117.12	13507117.32	0.0494	0.0097
Moon	32269-09-22 16:48 G	13507335.04	13507335.20	13507335.37	0.0496	0.0330
Earth	32269-09-22 19:55 G	13507335.15	13507335.33	13507335.51	0.0496	0.0306 *
Mercury	32271-01-12 14:53 G	13507811.96	13507812.12	13507812.28	0.0508	0.0224
Moon	32274-02-06 10:05 G	13508932.78	13508932.92	13508933.06	0.0534	0.0422
Earth	32274-02-06 13:55 G	13508932.96	13508933.08	13508933.21	0.0534	0.0448 *
Venus	32274-12-22 11:45 G	13509251.78	13509251.99	13509252.19	0.0533	0.0036

Earth	32275-03-15 18:29 G	13509335.05	13509335.27	13509335.49	0.0532	0.0187
Moon	32275-03-15 21:36 G	13509335.19	13509335.40	13509335.61	0.0532	0.0211 *
Mercury	32276-06-05 01:26 G	13509782.48	13509782.56	13509782.64	0.0521	0.0408
Mercury	32276-09-02 07:26 G	13509871.69	13509871.81	13509871.93	0.0519	0.0187
Moon	32280-08-26 21:50 G	13511326.19	13511326.41	13511326.64	0.0492	0.0144
Earth	32280-08-27 01:41 G	13511326.34	13511326.57	13511326.79	0.0492	0.0115 *
Earth	32281-09-27 05:02 G	13511722.56	13511722.71	13511722.86	0.0497	0.0375
Moon	32281-09-27 08:53 G	13511722.73	13511722.87	13511723.01	0.0497	0.0396 *
Mercury	32282-10-31 12:29 G	13512121.84	13512122.02	13512122.20	0.0507	0.0027
Mars	32284-05-31 05:02 G	13512699.45	13512699.71	13512699.98	0.0525	0.0015
Earth	32286-02-11 20:24 G	13513321.18	13513321.35	13513321.52	0.0535	0.0361
Moon	32286-02-11 23:17 G	13513321.32	13513321.47	13513321.63	0.0535	0.0386 *
Moon	32287-03-20 23:45 G	13513723.30	13513723.49	13513723.70	0.0531	0.0299
Earth	32287-03-21 00:57 G	13513723.34	13513723.54	13513723.74	0.0531	0.0278 *
Mercury	32288-06-21 12:00 G	13514181.87	13514182.00	13514182.13	0.0519	0.0047
Earth	32292-08-31 07:55 G	13515713.60	13515713.83	13515714.06	0.0493	0.0046
Moon	32292-08-31 10:33 G	13515713.71	13515713.94	13515714.16	0.0493	0.0039 *
Moon	32293-10-01 09:36 G	13516109.79	13516109.90	13516110.03	0.0499	0.0426
Earth	32293-10-01 13:41 G	13516109.97	13516110.07	13516110.18	0.0499	0.0442 *
Mercury	32294-08-19 09:50 G	13516431.74	13516431.91	13516432.08	0.0507	0.0174
Moon	32298-02-17 02:09 G	13517709.40	13517709.59	13517709.80	0.0535	0.0297
Earth	32298-02-17 03:36 G	13517709.46	13517709.65	13517709.86	0.0535	0.0272 *
Moon	32299-03-26 04:05 G	13518111.50	13518111.67	13518111.84	0.0530	0.0340
Earth	32299-03-26 06:00 G	13518111.58	13518111.75	13518111.91	0.0530	0.0366 *
Mercury	32300-04-10 16:19 G	13518492.05	13518492.18	13518492.31	0.0520	0.0097
Mercury	32300-07-08 22:48 G	13518581.41	13518581.45	13518581.48	0.0517	0.0499
Moon	32303-08-06 18:43 G	13519705.22	13519705.28	13519705.34	0.0492	0.0474
Earth	32303-08-06 19:12 G	13519705.22	13519705.30	13519705.41	0.0492	0.0447 *
Moon	32304-09-05 15:36 G	13520100.91	13520101.15	13520101.39	0.0493	0.0057
Earth	32304-09-05 17:02 G	13520100.98	13520101.21	13520101.44	0.0493	0.0026 *

Venus	32304-10-26 00:57 G	13520151.35	13520151.54	13520151.74	0.0494	0.0150
Moon	32305-10-07 05:17 G	13520497.67	13520497.72	13520497.78	0.0500	0.0482
Mercury	32306-06-08 07:55 G	13520741.71	13520741.83	13520741.95	0.0506	0.0364
Mercury	32306-09-06 15:50 G	13520832.07	13520832.16	13520832.26	0.0509	0.0430
Moon	32310-02-23 05:17 G	13522097.51	13522097.72	13522097.94	0.0534	0.0166
Earth	32310-02-23 06:00 G	13522097.53	13522097.75	13522097.97	0.0534	0.0186 *
Venus	32310-08-31 05:17 G	13522286.55	13522286.72	13522286.89	0.0532	0.0283
Earth	32311-04-01 03:50 G	13522499.54	13522499.66	13522499.79	0.0528	0.0442
Moon	32311-04-01 07:26 G	13522499.67	13522499.81	13522499.95	0.0528	0.0424 *
Mercury	32312-01-28 19:55 G	13522802.21	13522802.33	13522802.44	0.0520	0.0259
Mercury	32312-04-27 01:55 G	13522891.48	13522891.58	13522891.68	0.0518	0.0337
Earth	32315-08-11 02:53 G	13524092.49	13524092.62	13524092.77	0.0493	0.0389
Moon	32315-08-11 05:45 G	13524092.60	13524092.74	13524092.88	0.0493	0.0395 *
Venus	32316-07-01 04:05 G	13524417.50	13524417.67	13524417.85	0.0494	0.0265
Earth	32316-09-10 02:24 G	13524488.38	13524488.60	13524488.83	0.0494	0.0096
Moon	32316-09-10 02:24 G	13524488.38	13524488.60	13524488.82	0.0494	0.0100 *
Mercury	32318-06-25 14:24 G	13525141.94	13525142.10	13525142.25	0.0508	0.0244
Earth	32322-02-28 10:05 G	13526485.69	13526485.92	13526486.15	0.0533	0.0094
Moon	32322-02-28 13:26 G	13526485.82	13526486.06	13526486.29	0.0533	0.0076 *
Venus	32322-05-05 19:26 G	13526552.13	13526552.31	13526552.49	0.0533	0.0253
Earth	32323-04-06 04:48 G	13526887.67	13526887.70	13526887.74	0.0527	0.0520
Mercury	32323-11-17 00:00 G	13527112.42	13527112.50	13527112.58	0.0521	0.0406
Mercury	32324-02-14 06:00 G	13527201.63	13527201.75	13527201.87	0.0518	0.0188
Moon	32327-08-15 08:09 G	13528479.66	13528479.84	13528480.02	0.0492	0.0297
Earth	32327-08-15 11:45 G	13528479.81	13528479.99	13528480.16	0.0492	0.0324 *
Earth	32328-09-14 11:17 G	13528875.75	13528875.97	13528876.19	0.0495	0.0165
Moon	32328-09-14 12:43 G	13528875.80	13528876.03	13528876.27	0.0495	0.0138 *
Mercury	32330-04-13 11:31 G	13529451.80	13529451.98	13529452.16	0.0507	0.0043
Moon	32334-03-05 09:50 G	13530873.67	13530873.91	13530874.14	0.0533	0.0032
Earth	32334-03-05 13:55 G	13530873.84	13530874.08	13530874.31	0.0533	0.0010 *

Mercury	32335-12-03 10:19 G	13531511.80	13531511.93	13531512.06	0.0519	0.0044
Earth	32339-08-19 19:55 G	13532867.13	13532867.33	13532867.53	0.0492	0.0256
Moon	32339-08-20 00:00 G	13532867.29	13532867.50	13532867.70	0.0492	0.0233 *
Venus	32340-07-03 12:43 G	13533185.91	13533186.03	13533186.14	0.0494	0.0407
Moon	32340-09-18 17:02 G	13533263.01	13533263.21	13533263.41	0.0495	0.0227
Earth	32340-09-18 19:55 G	13533263.13	13533263.33	13533263.54	0.0495	0.0236 *
Mercury	32342-01-30 09:07 G	13533761.71	13533761.88	13533762.05	0.0507	0.0156
Moon	32345-02-01 10:48 G	13534859.90	13534859.95	13534860.01	0.0534	0.0515
Earth	32346-03-10 20:38 G	13535262.13	13535262.36	13535262.59	0.0533	0.0093
Moon	32346-03-11 00:14 G	13535262.28	13535262.51	13535262.73	0.0533	0.0072 *
Mercury	32347-09-21 14:53 G	13535822.00	13535822.12	13535822.25	0.0520	0.0095
Mercury	32347-12-19 21:21 G	13535911.36	13535911.39	13535911.41	0.0517	0.0503
Moon	32351-08-23 23:17 G	13537254.26	13537254.47	13537254.69	0.0492	0.0204
Earth	32351-08-24 02:53 G	13537254.41	13537254.62	13537254.84	0.0492	0.0188 *
Venus	32352-03-08 14:24 G	13537451.89	13537452.10	13537452.30	0.0493	0.0018
Earth	32352-09-23 04:05 G	13537650.49	13537650.67	13537650.86	0.0496	0.0305
Moon	32352-09-23 07:55 G	13537650.66	13537650.83	13537651.01	0.0496	0.0334 *
Mercury	32353-11-18 06:14 G	13538071.64	13538071.76	13538071.89	0.0506	0.0356
Mercury	32354-02-16 14:24 G	13538162.01	13538162.10	13538162.19	0.0509	0.0437
Earth	32357-02-06 21:36 G	13539248.28	13539248.40	13539248.53	0.0534	0.0455
Moon	32357-02-07 00:57 G	13539248.41	13539248.54	13539248.68	0.0534	0.0435 *
Venus	32358-01-11 15:21 G	13539586.94	13539587.14	13539587.34	0.0533	0.0076
Moon	32358-03-16 01:26 G	13539650.34	13539650.56	13539650.79	0.0532	0.0209
Earth	32358-03-16 03:21 G	13539650.42	13539650.64	13539650.86	0.0532	0.0185 *
Mercury	32359-07-10 19:26 G	13540132.19	13540132.31	13540132.42	0.0520	0.0236
Mercury	32359-10-08 01:26 G	13540221.47	13540221.56	13540221.66	0.0518	0.0360
Earth	32363-08-28 11:45 G	13541641.77	13541641.99	13541642.22	0.0492	0.0117
Moon	32363-08-28 14:09 G	13541641.88	13541642.09	13541642.31	0.0492	0.0141 *
Venus	32363-11-12 17:31 G	13541718.14	13541718.23	13541718.33	0.0493	0.0432
Moon	32364-09-27 11:31 G	13542037.84	13542037.98	13542038.12	0.0497	0.0396

Earth	32364-09-27 15:21 G	13542038.00	13542038.14	13542038.30	0.0497	0.0376	*
Mercury	32365-12-05 12:43 G	13542471.88	13542472.03	13542472.19	0.0508	0.0253	
Moon	32369-02-11 23:31 G	13543636.32	13543636.48	13543636.64	0.0534	0.0396	
Earth	32369-02-12 01:41 G	13543636.41	13543636.57	13543636.74	0.0534	0.0372	*
Venus	32369-09-16 04:05 G	13543852.58	13543852.67	13543852.77	0.0533	0.0465	
Moon	32370-03-21 02:53 G	13544038.43	13544038.62	13544038.81	0.0531	0.0284	
Earth	32370-03-21 03:50 G	13544038.46	13544038.66	13544038.86	0.0531	0.0269	*
Mercury	32371-04-28 23:02 G	13544442.37	13544442.46	13544442.54	0.0521	0.0396	
Mercury	32371-07-27 05:02 G	13544531.59	13544531.71	13544531.83	0.0518	0.0198	
Moon	32375-09-01 19:12 G	13546029.06	13546029.30	13546029.54	0.0493	0.0036	
Earth	32375-09-01 20:24 G	13546029.12	13546029.35	13546029.58	0.0493	0.0050	*
Earth	32376-10-02 03:21 G	13546425.54	13546425.64	13546425.75	0.0499	0.0442	
Moon	32376-10-02 06:29 G	13546425.66	13546425.77	13546425.89	0.0499	0.0424	*
Mercury	32377-09-23 11:17 G	13546781.79	13546781.97	13546782.14	0.0508	0.0067	
Earth	32381-02-17 06:14 G	13548024.57	13548024.76	13548024.96	0.0534	0.0284	
Moon	32381-02-17 06:14 G	13548024.58	13548024.76	13548024.94	0.0534	0.0306	*
Earth	32382-03-26 06:00 G	13548426.59	13548426.75	13548426.93	0.0529	0.0357	
Moon	32382-03-26 09:21 G	13548426.70	13548426.89	13548427.08	0.0529	0.0324	*
Mercury	32383-05-15 09:07 G	13548841.75	13548841.88	13548842.01	0.0519	0.0050	
Mars	32384-11-29 01:26 G	13549405.33	13549405.56	13549405.80	0.0503	0.0265	
Earth	32386-08-06 05:45 G	13550020.66	13550020.74	13550020.83	0.0493	0.0456	
Moon	32386-08-06 08:38 G	13550020.82	13550020.86	13550020.90	0.0493	0.0484	*
Moon	32387-09-06 05:02 G	13550416.48	13550416.71	13550416.93	0.0494	0.0051	
Earth	32387-09-06 05:17 G	13550416.48	13550416.72	13550416.95	0.0494	0.0023	*
Venus	32387-11-15 02:38 G	13550486.43	13550486.61	13550486.79	0.0494	0.0243	
Moon	32388-10-06 12:14 G	13550812.96	13550813.01	13550813.08	0.0500	0.0482	
Mercury	32389-07-12 08:24 G	13551091.68	13551091.85	13551092.03	0.0507	0.0134	
Earth	32393-02-22 09:36 G	13552412.68	13552412.90	13552413.12	0.0534	0.0194	
Moon	32393-02-22 12:14 G	13552412.78	13552413.01	13552413.23	0.0534	0.0167	*
Venus	32393-09-19 06:14 G	13552621.62	13552621.76	13552621.90	0.0532	0.0377	

Moon	32394-03-31 04:48 G	13552814.57	13552814.70	13552814.84	0.0529	0.0419
Earth	32394-03-31 08:38 G	13552814.74	13552814.86	13552815.00	0.0529	0.0439 *
Mercury	32395-03-03 13:26 G	13553151.93	13553152.06	13553152.19	0.0520	0.0094
Mercury	32395-05-31 19:41 G	13553241.30	13553241.32	13553241.35	0.0517	0.0504
Moon	32398-08-10 11:17 G	13554407.85	13554407.97	13554408.11	0.0493	0.0398
Earth	32398-08-10 15:07 G	13554407.99	13554408.13	13554408.27	0.0493	0.0392 *
Venus	32399-07-21 05:17 G	13554752.53	13554752.72	13554752.92	0.0493	0.0176
Earth	32399-09-10 13:41 G	13554803.84	13554804.07	13554804.30	0.0494	0.0093
Moon	32399-09-10 15:21 G	13554803.91	13554804.14	13554804.38	0.0494	0.0091 *
Mercury	32401-04-30 05:45 G	13555401.61	13555401.74	13555401.88	0.0506	0.0333
Mercury	32401-07-29 13:55 G	13555492.00	13555492.08	13555492.15	0.0509	0.0459
Moon	32405-02-27 12:29 G	13556800.79	13556801.02	13556801.25	0.0534	0.0085
Earth	32405-02-27 16:19 G	13556800.95	13556801.18	13556801.41	0.0534	0.0101 *
Venus	32405-05-24 22:05 G	13556887.22	13556887.42	13556887.61	0.0533	0.0149
Earth	32406-04-05 13:41 G	13557203.03	13557203.07	13557203.11	0.0528	0.0519
Mercury	32406-12-20 18:00 G	13557462.14	13557462.25	13557462.37	0.0521	0.0233
Mercury	32407-03-20 00:14 G	13557551.42	13557551.51	13557551.60	0.0518	0.0364
Earth	32410-08-14 22:48 G	13558795.28	13558795.45	13558795.63	0.0492	0.0327
Moon	32410-08-15 02:53 G	13558795.43	13558795.62	13558795.81	0.0492	0.0297 *
Moon	32411-09-14 18:29 G	13559191.06	13559191.27	13559191.49	0.0494	0.0136
Earth	32411-09-14 21:36 G	13559191.18	13559191.40	13559191.62	0.0494	0.0164 *
Mercury	32413-05-17 11:31 G	13559801.83	13559801.98	13559802.13	0.0508	0.0263
Earth	32417-03-05 00:00 G	13561189.26	13561189.50	13561189.73	0.0534	0.0010
Moon	32417-03-05 03:36 G	13561189.42	13561189.65	13561189.88	0.0534	0.0036 *
Mercury	32418-10-08 22:33 G	13561772.36	13561772.44	13561772.53	0.0521	0.0373
Mercury	32419-01-06 04:48 G	13561861.58	13561861.70	13561861.81	0.0518	0.0222
Moon	32422-08-19 04:05 G	13563182.47	13563182.67	13563182.88	0.0492	0.0241
Earth	32422-08-19 07:55 G	13563182.63	13563182.83	13563183.03	0.0492	0.0259 *
Earth	32423-09-19 07:55 G	13563578.63	13563578.83	13563579.03	0.0495	0.0236
Moon	32423-09-19 11:45 G	13563578.79	13563578.99	13563579.20	0.0495	0.0236 *

Mercury	32425-03-05 10:05 G	13564111.74	13564111.92	13564112.09	0.0508	0.0079
Moon	32428-02-02 02:38 G	13565175.57	13565175.61	13565175.67	0.0533	0.0517
Moon	32429-03-10 00:14 G	13565577.27	13565577.51	13565577.75	0.0532	0.0064
Earth	32429-03-10 02:38 G	13565577.38	13565577.61	13565577.85	0.0532	0.0084 *
Mercury	32430-10-25 08:09 G	13566171.71	13566171.84	13566171.97	0.0519	0.0062
Earth	32434-08-23 15:07 G	13567569.92	13567570.13	13567570.35	0.0493	0.0193
Moon	32434-08-23 17:31 G	13567570.03	13567570.23	13567570.43	0.0493	0.0217 *
Venus	32435-03-28 16:48 G	13567787.00	13567787.20	13567787.40	0.0494	0.0080
Moon	32435-09-23 14:38 G	13567965.94	13567966.11	13567966.28	0.0497	0.0334
Earth	32435-09-23 18:29 G	13567966.09	13567966.27	13567966.46	0.0497	0.0304 *
Mercury	32436-12-22 08:09 G	13568421.67	13568421.84	13568422.02	0.0507	0.0109
Mars	32438-08-27 04:33 G	13569034.55	13569034.69	13569034.85	0.0525	0.0430
Moon	32440-02-07 01:12 G	13569563.42	13569563.55	13569563.69	0.0533	0.0443
Earth	32440-02-07 03:50 G	13569563.55	13569563.66	13569563.78	0.0533	0.0464 *
Venus	32441-01-30 15:50 G	13569921.97	13569922.16	13569922.35	0.0532	0.0170
Earth	32441-03-15 06:14 G	13569965.54	13569965.76	13569965.98	0.0531	0.0175
Moon	32441-03-15 06:00 G	13569965.55	13569965.75	13569965.96	0.0531	0.0203 *
Mercury	32442-08-13 12:14 G	13570481.89	13570482.01	13570482.14	0.0520	0.0087
Mercury	32442-11-10 18:43 G	13570571.26	13570571.28	13570571.29	0.0517	0.0510
Moon	32446-08-27 23:17 G	13571957.24	13571957.47	13571957.71	0.0493	0.0143
Earth	32446-08-28 00:14 G	13571957.28	13571957.51	13571957.74	0.0493	0.0123 *
Venus	32446-12-01 19:41 G	13572053.17	13572053.32	13572053.47	0.0493	0.0338
Earth	32447-09-28 04:19 G	13572353.53	13572353.68	13572353.84	0.0497	0.0373
Moon	32447-09-28 07:26 G	13572353.67	13572353.81	13572353.96	0.0497	0.0389 *
Mercury	32448-10-10 05:31 G	13572731.59	13572731.73	13572731.87	0.0506	0.0308
Mercury	32449-01-08 13:26 G	13572822.01	13572822.06	13572822.11	0.0509	0.0483
Earth	32452-02-12 06:29 G	13573951.61	13573951.77	13573951.93	0.0534	0.0380
Moon	32452-02-12 07:12 G	13573951.66	13573951.80	13573951.94	0.0534	0.0407 *
Venus	32452-10-05 05:45 G	13574187.59	13574187.74	13574187.89	0.0533	0.0366
Earth	32453-03-20 09:21 G	13574353.68	13574353.89	13574354.09	0.0531	0.0264

Moon	32453-03-20 12:00 G	13574353.79	13574354.00	13574354.21	0.0531	0.0272	*
Mercury	32454-06-01 16:48 G	13574792.08	13574792.20	13574792.31	0.0520	0.0230	
Mercury	32454-08-29 22:48 G	13574881.36	13574881.45	13574881.54	0.0518	0.0367	
Moon	32458-09-01 08:38 G	13576344.63	13576344.86	13576345.08	0.0493	0.0035	
Earth	32458-09-01 08:53 G	13576344.64	13576344.87	13576345.11	0.0493	0.0052	*
Moon	32459-10-02 12:57 G	13576740.92	13576741.04	13576741.18	0.0498	0.0418	
Earth	32459-10-02 14:38 G	13576741.01	13576741.11	13576741.22	0.0498	0.0441	*
Mercury	32460-10-27 11:02 G	13577131.82	13577131.96	13577132.11	0.0508	0.0289	
Earth	32464-02-17 12:29 G	13578339.83	13578340.02	13578340.22	0.0534	0.0291	
Moon	32464-02-17 14:24 G	13578339.91	13578340.10	13578340.30	0.0534	0.0303	*
Moon	32465-03-25 11:02 G	13578741.78	13578741.96	13578742.15	0.0530	0.0322	
Earth	32465-03-25 14:53 G	13578741.95	13578742.12	13578742.30	0.0530	0.0354	*
Mercury	32466-03-20 21:21 G	13579102.30	13579102.39	13579102.48	0.0521	0.0367	
Mercury	32466-06-18 03:21 G	13579191.53	13579191.64	13579191.76	0.0519	0.0228	
Moon	32469-08-05 14:53 G	13580336.11	13580336.12	13580336.14	0.0493	0.0491	
Earth	32469-08-05 18:29 G	13580336.19	13580336.27	13580336.36	0.0493	0.0459	
Earth	32470-09-05 16:48 G	13580731.97	13580732.20	13580732.43	0.0493	0.0019	
Moon	32470-09-05 18:43 G	13580732.04	13580732.28	13580732.52	0.0493	0.0045	*
Venus	32470-12-04 03:50 G	13580821.51	13580821.66	13580821.82	0.0494	0.0331	
Moon	32471-10-07 00:00 G	13581128.47	13581128.50	13581128.54	0.0499	0.0492	
Mercury	32472-08-15 08:38 G	13581441.69	13581441.86	13581442.04	0.0507	0.0092	
Moon	32476-02-22 16:33 G	13582727.97	13582728.19	13582728.41	0.0534	0.0167	
Earth	32476-02-22 20:24 G	13582728.13	13582728.35	13582728.56	0.0534	0.0199	*
Venus	32476-10-08 11:17 G	13582956.90	13582956.97	13582957.04	0.0532	0.0496	
Earth	32477-03-30 20:24 G	13583130.23	13583130.35	13583130.48	0.0529	0.0439	
Moon	32477-03-31 00:14 G	13583130.38	13583130.51	13583130.65	0.0529	0.0427	*
Mercury	32478-01-07 01:55 G	13583412.56	13583412.58	13583412.61	0.0522	0.0506	
Mercury	32478-04-06 07:55 G	13583501.70	13583501.83	13583501.96	0.0519	0.0087	
Earth	32481-08-10 03:36 G	13584723.52	13584723.65	13584723.79	0.0492	0.0395	
Moon	32481-08-10 07:26 G	13584723.68	13584723.81	13584723.96	0.0492	0.0396	*

Venus	32482-08-09 07:12 G	13585087.60	13585087.80	13585088.01	0.0494	0.0085
Moon	32482-09-09 23:17 G	13585119.25	13585119.47	13585119.70	0.0494	0.0082
Earth	32482-09-10 02:24 G	13585119.37	13585119.60	13585119.83	0.0494	0.0093 *
Mercury	32484-06-03 07:12 G	13585751.62	13585751.80	13585751.97	0.0507	0.0095
Earth	32488-02-28 00:57 G	13587116.31	13587116.54	13587116.77	0.0533	0.0109
Moon	32488-02-28 05:02 G	13587116.48	13587116.71	13587116.93	0.0533	0.0098 *
Venus	32488-06-13 01:26 G	13587222.36	13587222.56	13587222.76	0.0532	0.0037
Earth	32489-04-04 19:55 G	13587518.28	13587518.33	13587518.38	0.0527	0.0512
Mercury	32490-01-23 11:31 G	13587811.85	13587811.98	13587812.11	0.0519	0.0072
Moon	32493-08-14 06:29 G	13589110.59	13589110.77	13589110.96	0.0493	0.0306
Earth	32493-08-14 10:19 G	13589110.76	13589110.93	13589111.10	0.0493	0.0334 *
Earth	32494-09-14 11:17 G	13589506.75	13589506.97	13589507.19	0.0495	0.0161
Moon	32494-09-14 15:07 G	13589506.91	13589507.13	13589507.36	0.0495	0.0133 *
Mercury	32496-03-22 05:17 G	13590061.57	13590061.72	13590061.87	0.0506	0.0282
Moon	32500-03-05 02:24 G	13591504.36	13591504.60	13591504.84	0.0533	0.0044
Earth	32500-03-05 05:31 G	13591504.49	13591504.73	13591504.96	0.0533	0.0016 *
Mercury	32501-11-12 15:36 G	13592122.04	13592122.15	13592122.27	0.0520	0.0219
Mercury	32502-02-09 21:50 G	13592211.32	13592211.41	13592211.50	0.0517	0.0376
Earth	32505-08-19 19:12 G	13593498.11	13593498.30	13593498.50	0.0493	0.0266
Moon	32505-08-19 21:21 G	13593498.20	13593498.39	13593498.59	0.0493	0.0260 *
Moon	32506-09-19 17:17 G	13593894.01	13593894.22	13593894.42	0.0496	0.0234
Earth	32506-09-19 20:53 G	13593894.17	13593894.37	13593894.58	0.0496	0.0233 *
Mercury	32508-01-10 02:24 G	13594371.55	13594371.60	13594371.65	0.0506	0.0482
Mercury	32508-04-09 10:48 G	13594461.81	13594461.95	13594462.09	0.0508	0.0313
Moon	32511-02-02 01:55 G	13595490.53	13595490.58	13595490.63	0.0533	0.0520
Earth	32512-03-10 08:09 G	13595892.61	13595892.84	13595893.08	0.0532	0.0078
Moon	32512-03-10 08:53 G	13595892.64	13595892.87	13595893.09	0.0532	0.0068 *
Mercury	32513-08-31 19:55 G	13596432.24	13596432.33	13596432.43	0.0521	0.0364
Mercury	32513-11-29 02:09 G	13596521.47	13596521.59	13596521.70	0.0518	0.0232
Moon	32517-08-24 03:36 G	13597885.44	13597885.65	13597885.88	0.0493	0.0223

Earth	32517-08-24 04:33 G	13597885.47	13597885.69	13597885.90	0.0493	0.0195	*
Venus	32518-04-17 18:57 G	13598122.09	13598122.29	13598122.48	0.0494	0.0172	
Earth	32518-09-24 06:43 G	13598281.59	13598281.78	13598281.96	0.0496	0.0303	
Moon	32518-09-24 09:21 G	13598281.73	13598281.89	13598282.07	0.0496	0.0335	*
Mercury	32520-01-27 08:24 G	13598771.68	13598771.85	13598772.03	0.0507	0.0118	
Earth	32523-02-07 09:36 G	13599878.80	13599878.90	13599879.02	0.0534	0.0471	
Moon	32523-02-07 11:02 G	13599878.85	13599878.96	13599879.08	0.0534	0.0456	*
Venus	32524-02-20 18:43 G	13600257.11	13600257.28	13600257.45	0.0532	0.0276	
Earth	32524-03-15 13:55 G	13600280.86	13600281.08	13600281.30	0.0532	0.0171	
Moon	32524-03-15 16:05 G	13600280.95	13600281.17	13600281.40	0.0532	0.0203	*
Mercury	32525-06-20 00:43 G	13600742.50	13600742.53	13600742.56	0.0522	0.0501	
Mercury	32525-09-17 06:43 G	13600831.65	13600831.78	13600831.90	0.0519	0.0092	
Moon	32529-08-28 11:45 G	13602272.78	13602272.99	13602273.21	0.0493	0.0143	
Earth	32529-08-28 12:29 G	13602272.80	13602273.02	13602273.25	0.0493	0.0126	*
Venus	32529-12-21 21:07 G	13602388.21	13602388.38	13602388.56	0.0493	0.0248	
Moon	32530-09-28 13:55 G	13602668.93	13602669.08	13602669.24	0.0497	0.0379	
Earth	32530-09-28 15:36 G	13602669.00	13602669.15	13602669.30	0.0497	0.0371	*
Mercury	32531-11-15 06:00 G	13603081.57	13603081.75	13603081.92	0.0507	0.0082	
Earth	32535-02-12 16:48 G	13604267.04	13604267.20	13604267.36	0.0534	0.0385	
Moon	32535-02-12 17:45 G	13604267.10	13604267.24	13604267.40	0.0534	0.0414	*
Venus	32535-10-26 10:48 G	13604522.77	13604522.95	13604523.13	0.0533	0.0247	
Moon	32536-03-20 17:02 G	13604669.01	13604669.21	13604669.41	0.0531	0.0270	
Earth	32536-03-20 20:38 G	13604669.16	13604669.36	13604669.57	0.0531	0.0263	*
Mercury	32537-07-06 11:17 G	13605141.84	13605141.97	13605142.10	0.0520	0.0051	
Mars	32539-02-25 02:24 G	13605740.34	13605740.60	13605740.87	0.0502	0.0170	
Earth	32541-09-01 21:36 G	13606660.17	13606660.40	13606660.63	0.0493	0.0054	
Moon	32541-09-01 23:31 G	13606660.24	13606660.48	13606660.73	0.0493	0.0033	*
Moon	32542-10-03 02:38 G	13607056.49	13607056.61	13607056.74	0.0498	0.0415	
Earth	32542-10-03 03:21 G	13607056.54	13607056.64	13607056.75	0.0498	0.0442	*
Mercury	32543-09-03 04:05 G	13607391.52	13607391.67	13607391.83	0.0506	0.0269	

Moon	32547-02-17 19:26 G	13608655.13	13608655.31	13608655.50	0.0534	0.0305
Earth	32547-02-17 22:48 G	13608655.26	13608655.45	13608655.65	0.0534	0.0299 *
Earth	32548-03-25 22:48 G	13609057.27	13609057.45	13609057.62	0.0530	0.0347
Moon	32548-03-26 02:38 G	13609057.42	13609057.61	13609057.80	0.0530	0.0314 *
Mercury	32549-04-24 14:53 G	13609452.00	13609452.12	13609452.24	0.0520	0.0205
Mercury	32549-07-22 21:07 G	13609541.29	13609541.38	13609541.46	0.0517	0.0390
Earth	32552-08-06 04:05 G	13610651.61	13610651.67	13610651.75	0.0493	0.0468
Moon	32553-09-06 01:55 G	13611047.35	13611047.58	13611047.81	0.0494	0.0036
Earth	32553-09-06 05:02 G	13611047.48	13611047.71	13611047.94	0.0494	0.0014 *
Venus	32553-12-24 06:00 G	13611156.65	13611156.75	13611156.86	0.0495	0.0427
Moon	32554-10-07 17:17 G	13611444.19	13611444.22	13611444.25	0.0500	0.0495
Mercury	32555-06-22 01:55 G	13611701.51	13611701.58	13611701.66	0.0506	0.0459
Mercury	32555-09-20 10:33 G	13611791.81	13611791.94	13611792.07	0.0508	0.0338
Mars	32557-02-16 09:21 G	13612306.66	13612306.89	13612307.13	0.0523	0.0243
Earth	32559-02-23 03:36 G	13613043.44	13613043.65	13613043.87	0.0533	0.0208
Moon	32559-02-23 07:41 G	13613043.61	13613043.82	13613044.05	0.0533	0.0173 *
Moon	32560-03-30 22:05 G	13613445.28	13613445.42	13613445.57	0.0528	0.0423
Earth	32560-03-31 00:57 G	13613445.41	13613445.54	13613445.68	0.0528	0.0431 *
Mercury	32561-02-10 19:12 G	13613762.20	13613762.30	13613762.39	0.0520	0.0352
Mercury	32561-05-11 00:57 G	13613851.43	13613851.54	13613851.66	0.0518	0.0242
Moon	32564-08-10 09:50 G	13615038.78	13615038.91	13615039.05	0.0493	0.0401
Earth	32564-08-10 13:26 G	13615038.93	13615039.06	13615039.20	0.0493	0.0403 *
Venus	32565-08-29 08:38 G	13615422.66	13615422.86	13615423.07	0.0494	0.0014
Earth	32565-09-10 14:09 G	13615434.86	13615435.09	13615435.32	0.0494	0.0088
Moon	32565-09-10 18:00 G	13615435.02	13615435.25	13615435.48	0.0494	0.0067 *
Mercury	32567-07-09 07:55 G	13616101.66	13616101.83	13616102.01	0.0508	0.0141
Moon	32571-02-28 02:24 G	13617431.37	13617431.60	13617431.84	0.0533	0.0103
Earth	32571-02-28 06:00 G	13617431.52	13617431.75	13617431.98	0.0533	0.0116 *
Venus	32571-07-04 03:07 G	13617557.42	13617557.63	13617557.83	0.0532	0.0062
Earth	32572-04-05 01:55 G	13617833.53	13617833.58	13617833.64	0.0528	0.0510

Mercury	32572-11-29 23:17 G	13618072.44	13618072.47	13618072.51	0.0522	0.0497
Mercury	32573-02-27 05:17 G	13618161.59	13618161.72	13618161.85	0.0519	0.0095
Earth	32576-08-14 23:02 G	13619426.29	13619426.46	13619426.63	0.0493	0.0336
Moon	32576-08-15 01:12 G	13619426.37	13619426.55	13619426.72	0.0493	0.0309 *
Venus	32577-05-04 11:31 G	13619688.87	13619688.98	13619689.09	0.0493	0.0409
Moon	32577-09-14 19:55 G	13619822.10	13619822.33	13619822.56	0.0495	0.0130
Earth	32577-09-14 23:45 G	13619822.26	13619822.49	13619822.71	0.0495	0.0160 *
Mercury	32579-04-27 05:31 G	13620411.55	13620411.73	13620411.91	0.0507	0.0057
Earth	32583-03-05 11:17 G	13621819.74	13621819.97	13621820.20	0.0533	0.0020
Moon	32583-03-05 12:29 G	13621819.80	13621820.02	13621820.25	0.0533	0.0051 *
Venus	32583-03-08 18:00 G	13621823.16	13621823.25	13621823.35	0.0533	0.0469
Mercury	32584-12-16 09:50 G	13622471.78	13622471.91	13622472.04	0.0520	0.0045
Moon	32588-08-19 06:57 G	13623813.59	13623813.79	13623814.00	0.0492	0.0269
Earth	32588-08-19 07:26 G	13623813.62	13623813.81	13623814.01	0.0492	0.0268 *
Earth	32589-09-19 07:55 G	13624209.62	13624209.83	13624210.04	0.0495	0.0230
Moon	32589-09-19 10:48 G	13624209.75	13624209.95	13624210.15	0.0495	0.0237 *
Mercury	32591-02-13 02:38 G	13624721.46	13624721.61	13624721.77	0.0506	0.0258
Moon	32594-02-01 15:50 G	13625806.13	13625806.16	13625806.19	0.0533	0.0528
Earth	32595-03-10 18:14 G	13626208.03	13626208.26	13626208.49	0.0533	0.0074
Moon	32595-03-10 19:55 G	13626208.09	13626208.33	13626208.57	0.0533	0.0075 *
Mercury	32596-10-04 14:24 G	13626781.98	13626782.10	13626782.22	0.0520	0.0185
Mercury	32597-01-01 20:24 G	13626871.28	13626871.35	13626871.43	0.0518	0.0411
Moon	32600-08-24 15:36 G	13628200.95	13628201.15	13628201.35	0.0493	0.0229
Earth	32600-08-24 16:19 G	13628200.97	13628201.18	13628201.40	0.0493	0.0198 *
Venus	32601-05-07 20:24 G	13628457.17	13628457.35	13628457.52	0.0494	0.0262
Moon	32601-09-24 17:02 G	13628597.03	13628597.21	13628597.39	0.0496	0.0328
Earth	32601-09-24 18:29 G	13628597.08	13628597.27	13628597.45	0.0496	0.0301 *
Mercury	32602-12-03 00:43 G	13629031.45	13629031.53	13629031.61	0.0506	0.0447
Mercury	32603-03-03 09:07 G	13629121.76	13629121.88	13629122.01	0.0508	0.0350
Earth	32606-02-07 20:38 G	13630194.26	13630194.36	13630194.46	0.0533	0.0478

Moon	32606-02-07 21:07 G	13630194.27	13630194.38	13630194.50	0.0533	0.0469	*
Venus	32607-03-12 22:19 G	13630592.30	13630592.43	13630592.57	0.0532	0.0389	
Moon	32607-03-16 19:26 G	13630596.10	13630596.31	13630596.52	0.0531	0.0198	
Earth	32607-03-16 22:48 G	13630596.23	13630596.45	13630596.67	0.0531	0.0163	*
Mercury	32608-07-24 18:14 G	13631092.16	13631092.26	13631092.36	0.0520	0.0339	
Mercury	32608-10-22 00:14 G	13631181.39	13631181.51	13631181.62	0.0518	0.0254	
Earth	32612-08-28 22:19 G	13632588.21	13632588.43	13632588.66	0.0493	0.0132	
Moon	32612-08-29 00:29 G	13632588.29	13632588.52	13632588.75	0.0493	0.0143	*
Venus	32613-01-10 21:50 G	13632723.22	13632723.41	13632723.61	0.0494	0.0161	
Moon	32613-09-29 02:53 G	13632984.48	13632984.62	13632984.78	0.0498	0.0368	
Earth	32613-09-29 03:36 G	13632984.50	13632984.65	13632984.81	0.0498	0.0370	*
Mercury	32614-12-20 07:26 G	13633431.64	13633431.81	13633431.98	0.0508	0.0161	
Moon	32618-02-12 22:33 G	13634582.31	13634582.44	13634582.58	0.0533	0.0424	
Earth	32618-02-13 01:26 G	13634582.41	13634582.56	13634582.72	0.0533	0.0392	*
Venus	32618-11-15 13:12 G	13634857.86	13634858.05	13634858.25	0.0532	0.0141	
Earth	32619-03-22 01:55 G	13634984.38	13634984.58	13634984.79	0.0530	0.0254	
Moon	32619-03-22 06:00 G	13634984.55	13634984.75	13634984.95	0.0530	0.0258	*
Mercury	32620-05-12 22:19 G	13635402.39	13635402.43	13635402.48	0.0521	0.0486	
Mercury	32620-08-10 04:19 G	13635491.55	13635491.68	13635491.80	0.0518	0.0106	
Moon	32624-09-02 04:05 G	13636975.44	13636975.67	13636975.90	0.0493	0.0035	
Earth	32624-09-02 07:26 G	13636975.57	13636975.81	13636976.04	0.0493	0.0061	*
Earth	32625-10-03 14:24 G	13637371.99	13637372.10	13637372.20	0.0498	0.0438	
Moon	32625-10-03 16:48 G	13637372.06	13637372.20	13637372.34	0.0498	0.0406	*
Mercury	32626-10-08 04:48 G	13637741.52	13637741.70	13637741.88	0.0507	0.0040	
Earth	32630-02-18 02:38 G	13638970.42	13638970.61	13638970.80	0.0533	0.0306	
Moon	32630-02-18 06:43 G	13638970.59	13638970.78	13638970.98	0.0533	0.0306	*
Moon	32631-03-26 23:31 G	13639372.29	13639372.48	13639372.68	0.0530	0.0310	
Earth	32631-03-27 02:53 G	13639372.45	13639372.62	13639372.81	0.0530	0.0342	*
Mercury	32632-05-29 08:24 G	13639801.72	13639801.85	13639801.98	0.0520	0.0043	
Earth	32635-08-07 16:05 G	13640967.11	13640967.17	13640967.24	0.0493	0.0470	

Earth	32636-09-06 16:19 G	13641362.95	13641363.18	13641363.42	0.0494	0.0016
Moon	32636-09-06 20:09 G	13641363.11	13641363.34	13641363.58	0.0494	0.0028 *
Moon	32637-10-07 21:21 G	13641759.38	13641759.39	13641759.42	0.0499	0.0497
Mercury	32638-07-27 01:55 G	13642051.43	13642051.58	13642051.75	0.0506	0.0238
Moon	32642-02-23 03:36 G	13643358.42	13643358.65	13643358.87	0.0534	0.0181
Earth	32642-02-23 07:26 G	13643358.59	13643358.81	13643359.02	0.0534	0.0215 *
Earth	32643-04-01 06:43 G	13643760.65	13643760.78	13643760.92	0.0529	0.0427
Moon	32643-04-01 07:55 G	13643760.70	13643760.83	13643760.96	0.0529	0.0432 *
Mercury	32644-03-17 12:57 G	13644111.92	13644112.04	13644112.16	0.0520	0.0184
Mercury	32644-06-14 18:57 G	13644201.22	13644201.29	13644201.37	0.0518	0.0412
Earth	32647-08-12 00:57 G	13645354.41	13645354.54	13645354.67	0.0493	0.0407
Moon	32647-08-12 02:53 G	13645354.49	13645354.62	13645354.76	0.0493	0.0395 *
Moon	32648-09-10 20:53 G	13645750.13	13645750.37	13645750.60	0.0494	0.0061
Earth	32648-09-11 00:29 G	13645750.29	13645750.52	13645750.75	0.0494	0.0084 *
Venus	32648-09-18 09:21 G	13645757.69	13645757.89	13645758.09	0.0494	0.0092
Mercury	32650-05-14 23:02 G	13646361.38	13646361.46	13646361.55	0.0506	0.0440
Mercury	32650-08-13 07:26 G	13646451.69	13646451.81	13646451.94	0.0508	0.0356
Earth	32654-02-28 13:55 G	13647746.85	13647747.08	13647747.31	0.0534	0.0121
Moon	32654-02-28 15:50 G	13647746.94	13647747.16	13647747.38	0.0534	0.0117 *
Venus	32654-07-24 06:29 G	13647892.58	13647892.77	13647892.97	0.0532	0.0172
Earth	32655-04-06 11:17 G	13648148.92	13648148.97	13648149.04	0.0528	0.0509
Mercury	32656-01-04 17:31 G	13648422.13	13648422.23	13648422.33	0.0521	0.0324
Mercury	32656-04-02 23:31 G	13648511.37	13648511.48	13648511.59	0.0518	0.0270
Mars	32657-08-16 11:45 G	13649011.99	13649011.99	13649012.01	0.0504	0.0503
Moon	32659-08-16 09:36 G	13649741.71	13649741.90	13649742.08	0.0493	0.0312
Earth	32659-08-16 09:50 G	13649741.74	13649741.91	13649742.08	0.0493	0.0340 *
Venus	32660-05-24 12:14 G	13650023.85	13650024.01	13650024.16	0.0493	0.0325
Earth	32660-09-15 09:36 G	13650137.69	13650137.90	13650138.13	0.0495	0.0158
Moon	32660-09-15 12:29 G	13650137.80	13650138.02	13650138.24	0.0495	0.0132 *
Mercury	32662-06-01 05:45 G	13650761.57	13650761.74	13650761.91	0.0508	0.0169

Earth	32666-03-05 19:55 G	13652135.10	13652135.33	13652135.56	0.0533	0.0028
Moon	32666-03-05 20:53 G	13652135.12	13652135.37	13652135.61	0.0533	0.0059 *
Venus	32666-03-28 21:50 G	13652158.26	13652158.41	13652158.56	0.0533	0.0355
Mercury	32667-10-23 21:21 G	13652732.34	13652732.39	13652732.44	0.0521	0.0475
Mercury	32668-01-21 03:07 G	13652821.51	13652821.63	13652821.76	0.0518	0.0117
Moon	32671-08-20 13:41 G	13654128.89	13654129.07	13654129.26	0.0493	0.0281
Earth	32671-08-20 14:38 G	13654128.92	13654129.11	13654129.31	0.0493	0.0276 *
Moon	32672-09-19 15:50 G	13654524.94	13654525.16	13654525.37	0.0496	0.0235
Earth	32672-09-19 17:02 G	13654525.01	13654525.21	13654525.43	0.0496	0.0226 *
Mercury	32674-03-20 03:36 G	13655071.47	13655071.65	13655071.83	0.0507	0.0024
Moon	32677-02-01 22:19 G	13656121.43	13656121.43	13656121.45	0.0532	0.0532
Moon	32678-03-10 21:07 G	13656523.15	13656523.38	13656523.60	0.0532	0.0071
Earth	32678-03-11 00:00 G	13656523.26	13656523.50	13656523.73	0.0532	0.0066 *
Mercury	32679-11-09 07:26 G	13657131.68	13657131.81	13657131.93	0.0519	0.0038
Earth	32683-08-24 23:17 G	13658516.26	13658516.47	13658516.69	0.0493	0.0206
Moon	32683-08-25 01:41 G	13658516.36	13658516.57	13658516.78	0.0493	0.0235 *
Venus	32684-05-26 19:41 G	13658792.17	13658792.32	13658792.47	0.0495	0.0341
Moon	32684-09-24 02:09 G	13658912.42	13658912.59	13658912.76	0.0496	0.0323
Earth	32684-09-24 02:53 G	13658912.44	13658912.62	13658912.81	0.0496	0.0297 *
Mercury	32686-01-06 00:43 G	13659381.37	13659381.53	13659381.70	0.0507	0.0225
Moon	32689-02-06 20:38 G	13660509.28	13660509.36	13660509.45	0.0533	0.0487
Earth	32689-02-06 22:48 G	13660509.37	13660509.45	13660509.55	0.0533	0.0486 *
Earth	32690-03-16 00:29 G	13660911.30	13660911.52	13660911.75	0.0532	0.0156
Moon	32690-03-16 04:19 G	13660911.47	13660911.68	13660911.91	0.0532	0.0192 *
Venus	32690-03-31 22:05 G	13660927.33	13660927.42	13660927.51	0.0531	0.0474
Mercury	32691-08-28 11:17 G	13661441.85	13661441.97	13661442.10	0.0520	0.0184
Mercury	32691-11-25 17:31 G	13661531.15	13661531.23	13661531.31	0.0517	0.0412
Moon	32695-08-29 05:17 G	13662903.50	13662903.72	13662903.94	0.0493	0.0139
Earth	32695-08-29 08:38 G	13662903.63	13662903.86	13662904.08	0.0493	0.0134 *
Venus	32696-01-30 22:19 G	13663058.23	13663058.43	13663058.63	0.0494	0.0078

Earth	32696-09-28 12:43 G	13663299.88	13663300.03	13663300.19	0.0497	0.0367
Moon	32696-09-28 15:21 G	13663299.97	13663300.14	13663300.31	0.0497	0.0355 *
Mercury	32697-10-24 22:05 G	13663691.32	13663691.42	13663691.52	0.0506	0.0425
Mercury	32698-01-23 06:29 G	13663781.65	13663781.77	13663781.89	0.0508	0.0371
Earth	32701-02-13 02:24 G	13664897.45	13664897.60	13664897.75	0.0533	0.0401
Moon	32701-02-13 06:14 G	13664897.63	13664897.76	13664897.90	0.0533	0.0435 *
Venus	32701-12-05 12:57 G	13665192.84	13665193.04	13665193.24	0.0532	0.0056
Moon	32702-03-22 00:29 G	13665299.32	13665299.52	13665299.73	0.0531	0.0249
Earth	32702-03-22 04:19 G	13665299.48	13665299.68	13665299.89	0.0531	0.0248 *
Mercury	32703-06-17 15:50 G	13665752.06	13665752.16	13665752.26	0.0521	0.0326
Mercury	32703-09-14 21:50 G	13665841.30	13665841.41	13665841.52	0.0518	0.0268
Earth	32707-09-03 16:19 G	13667290.95	13667291.18	13667291.42	0.0493	0.0065
Moon	32707-09-03 20:09 G	13667291.11	13667291.34	13667291.57	0.0493	0.0034 *
Moon	32708-10-03 18:14 G	13667687.13	13667687.26	13667687.40	0.0498	0.0403
Earth	32708-10-03 21:36 G	13667687.29	13667687.40	13667687.52	0.0498	0.0434 *
Mercury	32709-11-12 03:50 G	13668091.49	13668091.66	13668091.83	0.0508	0.0170
Mars	32711-05-15 15:21 G	13668640.88	13668641.14	13668641.40	0.0524	0.0114
Moon	32713-02-18 03:50 G	13669285.47	13669285.66	13669285.85	0.0534	0.0316
Earth	32713-02-18 07:41 G	13669285.64	13669285.82	13669286.02	0.0534	0.0314 *
Earth	32714-03-27 09:21 G	13669687.71	13669687.89	13669688.07	0.0530	0.0338
Moon	32714-03-27 11:17 G	13669687.79	13669687.97	13669688.15	0.0530	0.0308 *
Mercury	32715-04-05 20:24 G	13670062.29	13670062.35	13670062.40	0.0521	0.0467
Mercury	32715-07-04 02:09 G	13670151.47	13670151.59	13670151.72	0.0519	0.0126
Earth	32718-08-08 00:57 G	13671282.48	13671282.54	13671282.60	0.0493	0.0475
Moon	32719-09-07 21:07 G	13671678.15	13671678.38	13671678.62	0.0493	0.0023
Earth	32719-09-08 00:43 G	13671678.30	13671678.53	13671678.77	0.0493	0.0013 *
Moon	32720-10-08 12:29 G	13672075.01	13672075.02	13672075.03	0.0499	0.0498
Mercury	32721-08-31 01:41 G	13672401.39	13672401.57	13672401.75	0.0507	0.0022
Earth	32725-02-23 14:38 G	13673673.90	13673674.11	13673674.33	0.0533	0.0223
Moon	32725-02-23 17:17 G	13673674.01	13673674.22	13673674.44	0.0533	0.0191 *

Earth	32726-04-01 12:43 G	13674075.89	13674076.03	13674076.17	0.0529	0.0420
Moon	32726-04-01 12:43 G	13674075.90	13674076.03	13674076.18	0.0529	0.0428 *
Mercury	32727-04-22 06:00 G	13674461.63	13674461.75	13674461.88	0.0519	0.0033
Moon	32730-08-12 05:02 G	13675669.57	13675669.71	13675669.86	0.0493	0.0395
Earth	32730-08-12 05:17 G	13675669.60	13675669.72	13675669.85	0.0493	0.0415 *
Earth	32731-09-12 06:29 G	13676065.54	13676065.77	13676066.00	0.0494	0.0078
Moon	32731-09-12 09:21 G	13676065.66	13676065.89	13676066.11	0.0494	0.0054 *
Venus	32731-10-09 07:12 G	13676092.61	13676092.80	13676093.00	0.0495	0.0164
Mercury	32733-06-18 23:02 G	13676711.30	13676711.46	13676711.63	0.0507	0.0219
Moon	32737-02-28 18:57 G	13678062.05	13678062.29	13678062.53	0.0533	0.0133
Earth	32737-02-28 18:57 G	13678062.07	13678062.29	13678062.52	0.0533	0.0129 *
Venus	32737-08-13 07:26 G	13678227.64	13678227.81	13678227.99	0.0531	0.0267
Earth	32738-04-06 13:55 G	13678464.02	13678464.08	13678464.16	0.0527	0.0500
Mercury	32739-02-08 10:05 G	13678771.80	13678771.92	13678772.05	0.0519	0.0177
Mercury	32739-05-08 16:05 G	13678861.10	13678861.17	13678861.25	0.0517	0.0418
Moon	32742-08-16 12:43 G	13680056.86	13680057.03	13680057.20	0.0493	0.0322
Earth	32742-08-16 13:55 G	13680056.92	13680057.08	13680057.24	0.0493	0.0348 *
Venus	32743-06-14 09:50 G	13680358.73	13680358.91	13680359.08	0.0494	0.0256
Moon	32743-09-16 13:55 G	13680452.85	13680453.08	13680453.32	0.0495	0.0129
Earth	32743-09-16 15:21 G	13680452.92	13680453.14	13680453.37	0.0495	0.0151 *
Mercury	32745-04-06 20:09 G	13681021.25	13681021.34	13681021.45	0.0506	0.0420
Mercury	32745-07-06 04:48 G	13681111.59	13681111.70	13681111.82	0.0508	0.0378
Moon	32749-03-05 17:17 G	13682449.99	13682450.22	13682450.44	0.0533	0.0070
Earth	32749-03-05 19:26 G	13682450.08	13682450.31	13682450.54	0.0533	0.0037 *
Venus	32749-04-17 20:09 G	13682493.16	13682493.34	13682493.51	0.0532	0.0278
Mercury	32750-11-27 14:09 G	13683081.99	13683082.09	13683082.19	0.0521	0.0328
Mercury	32751-02-24 20:09 G	13683171.23	13683171.34	13683171.45	0.0518	0.0266
Earth	32754-08-20 23:02 G	13684444.27	13684444.46	13684444.66	0.0493	0.0279
Moon	32754-08-21 01:26 G	13684444.37	13684444.56	13684444.76	0.0493	0.0287 *
Moon	32755-09-21 00:14 G	13684840.32	13684840.51	13684840.71	0.0495	0.0241

Earth	32755-09-21 00:57 G	13684840.33	13684840.54	13684840.75	0.0495	0.0222	*
Mercury	32757-04-24 02:09 G	13685421.43	13685421.59	13685421.76	0.0508	0.0180	
Earth	32761-03-10 22:33 G	13686838.21	13686838.44	13686838.67	0.0533	0.0056	
Moon	32761-03-11 02:09 G	13686838.36	13686838.59	13686838.83	0.0533	0.0062	*
Mercury	32762-09-15 18:29 G	13687392.22	13687392.27	13687392.32	0.0521	0.0473	
Mercury	32762-12-14 00:29 G	13687481.39	13687481.52	13687481.64	0.0519	0.0121	
Moon	32766-08-25 03:50 G	13688831.47	13688831.66	13688831.86	0.0493	0.0240	
Earth	32766-08-25 07:12 G	13688831.59	13688831.80	13688832.01	0.0493	0.0211	*
Venus	32767-06-16 18:14 G	13689127.15	13689127.26	13689127.37	0.0495	0.0413	
Earth	32767-09-25 08:38 G	13689227.68	13689227.86	13689228.06	0.0496	0.0292	
Moon	32767-09-25 11:17 G	13689227.79	13689227.97	13689228.16	0.0496	0.0315	*
Mercury	32769-02-09 23:17 G	13689731.29	13689731.47	13689731.65	0.0507	0.0025	
Earth	32772-02-08 00:43 G	13690824.44	13690824.53	13690824.61	0.0533	0.0495	
Moon	32772-02-08 04:19 G	13690824.60	13690824.68	13690824.75	0.0533	0.0502	*
Moon	32773-03-15 23:45 G	13691226.28	13691226.49	13691226.72	0.0532	0.0182	
Earth	32773-03-16 03:50 G	13691226.43	13691226.66	13691226.88	0.0532	0.0149	*
Mercury	32774-10-02 04:48 G	13691791.57	13691791.70	13691791.83	0.0519	0.0023	
Earth	32778-08-29 14:53 G	13693218.90	13693219.12	13693219.34	0.0493	0.0140	
Moon	32778-08-29 18:43 G	13693219.05	13693219.28	13693219.50	0.0493	0.0135	*
Venus	32779-02-19 20:24 G	13693393.14	13693393.35	13693393.55	0.0494	0.0009	
Moon	32779-09-29 15:07 G	13693614.97	13693615.13	13693615.29	0.0497	0.0351	
Earth	32779-09-29 18:29 G	13693615.11	13693615.27	13693615.43	0.0497	0.0362	*
Mercury	32780-11-28 20:53 G	13694041.21	13694041.37	13694041.54	0.0507	0.0220	
Moon	32784-02-13 03:21 G	13695212.52	13695212.64	13695212.77	0.0533	0.0445	
Earth	32784-02-13 07:26 G	13695212.67	13695212.81	13695212.97	0.0533	0.0410	*
Venus	32784-12-24 14:24 G	13695527.90	13695528.10	13695528.30	0.0532	0.0043	
Earth	32785-03-21 08:53 G	13695614.66	13695614.87	13695615.08	0.0531	0.0240	
Moon	32785-03-21 11:17 G	13695614.77	13695614.97	13695615.18	0.0531	0.0232	*
Mercury	32786-07-21 08:53 G	13696101.75	13696101.87	13696101.99	0.0519	0.0173	
Mercury	32786-10-18 14:53 G	13696191.05	13696191.12	13696191.19	0.0517	0.0420	

Moon	32790-09-02 16:05 G	13697605.93	13697606.17	13697606.40	0.0493	0.0041
Earth	32790-09-02 19:41 G	13697606.09	13697606.32	13697606.55	0.0493	0.0072 *
Venus	32790-10-25 20:38 G	13697659.27	13697659.36	13697659.45	0.0494	0.0437
Earth	32791-10-04 01:55 G	13698002.47	13698002.58	13698002.70	0.0498	0.0430
Moon	32791-10-04 05:45 G	13698002.61	13698002.74	13698002.88	0.0498	0.0398 *
Mercury	32792-09-16 18:00 G	13698351.16	13698351.25	13698351.35	0.0506	0.0422
Mercury	32792-12-16 02:38 G	13698441.50	13698441.61	13698441.73	0.0509	0.0379
Earth	32796-02-18 11:45 G	13699600.81	13699600.99	13699601.19	0.0533	0.0322
Moon	32796-02-18 15:21 G	13699600.96	13699601.14	13699601.32	0.0533	0.0320 *
Venus	32796-08-29 04:48 G	13699793.63	13699793.70	13699793.78	0.0533	0.0490
Moon	32797-03-26 11:02 G	13700002.76	13700002.96	13700003.16	0.0530	0.0298
Earth	32797-03-26 11:31 G	13700002.80	13700002.98	13700003.16	0.0530	0.0329 *
Mercury	32798-05-09 12:57 G	13700411.94	13700412.04	13700412.14	0.0520	0.0322
Mercury	32798-08-06 18:43 G	13700501.17	13700501.28	13700501.40	0.0517	0.0270
Earth	32801-08-07 02:24 G	13701597.56	13701597.60	13701597.65	0.0494	0.0484
Earth	32802-09-07 03:36 G	13701993.42	13701993.65	13701993.89	0.0494	0.0010
Moon	32802-09-07 06:29 G	13701993.54	13701993.77	13701994.00	0.0494	0.0012 *
Moon	32803-10-08 08:53 G	13702389.85	13702389.87	13702389.89	0.0499	0.0496
Earth	32803-10-08 12:29 G	13702390.00	13702390.02	13702390.04	0.0499	0.0496
Mercury	32804-10-04 00:14 G	13702751.34	13702751.51	13702751.67	0.0508	0.0179
Moon	32808-02-23 10:19 G	13703988.71	13703988.93	13703989.16	0.0533	0.0204
Earth	32808-02-23 11:45 G	13703988.78	13703988.99	13703989.20	0.0533	0.0234 *
Moon	32809-03-31 08:38 G	13704390.73	13704390.86	13704391.00	0.0529	0.0422
Earth	32809-03-31 09:50 G	13704390.77	13704390.91	13704391.06	0.0529	0.0413 *
Mercury	32810-02-25 16:48 G	13704722.15	13704722.20	13704722.25	0.0521	0.0476
Mercury	32810-05-25 22:33 G	13704811.32	13704811.44	13704811.57	0.0519	0.0116
Mars	32811-11-10 22:19 G	13705345.19	13705345.43	13705345.68	0.0504	0.0230
Moon	32813-08-11 10:48 G	13705984.82	13705984.95	13705985.09	0.0493	0.0398
Earth	32813-08-11 12:00 G	13705984.88	13705985.00	13705985.12	0.0493	0.0420 *
Moon	32814-09-11 11:31 G	13706380.74	13706380.98	13706381.22	0.0494	0.0050

Earth	32814-09-11 12:57 G	13706380.81	13706381.04	13706381.27	0.0494	0.0074	*
Venus	32814-10-28 05:31 G	13706427.55	13706427.73	13706427.91	0.0494	0.0233	
Mercury	32816-07-22 21:21 G	13707061.21	13707061.39	13707061.57	0.0507	0.0024	
Moon	32820-02-28 12:57 G	13708376.83	13708377.04	13708377.26	0.0533	0.0151	
Earth	32820-02-28 14:24 G	13708376.87	13708377.10	13708377.32	0.0533	0.0141	*
Venus	32820-09-01 03:36 G	13708562.50	13708562.65	13708562.81	0.0532	0.0330	
Earth	32821-04-05 11:02 G	13708778.89	13708778.96	13708779.05	0.0528	0.0495	
Moon	32821-04-05 14:09 G	13708779.07	13708779.09	13708779.12	0.0528	0.0525	
Mercury	32822-03-14 02:53 G	13709121.49	13709121.62	13709121.75	0.0519	0.0035	
Earth	32825-08-15 20:09 G	13710372.18	13710372.34	13710372.50	0.0493	0.0355	
Moon	32825-08-15 22:33 G	13710372.26	13710372.44	13710372.62	0.0493	0.0328	*
Venus	32826-07-03 07:26 G	13710693.62	13710693.81	13710693.99	0.0494	0.0189	
Moon	32826-09-15 19:55 G	13710768.11	13710768.33	13710768.54	0.0494	0.0131	
Earth	32826-09-15 20:24 G	13710768.13	13710768.35	13710768.57	0.0494	0.0144	*
Mercury	32828-05-10 18:14 G	13711371.10	13711371.26	13711371.42	0.0506	0.0228	
Earth	32832-03-04 18:57 G	13712765.06	13712765.29	13712765.52	0.0533	0.0048	
Moon	32832-03-04 22:05 G	13712765.19	13712765.42	13712765.66	0.0533	0.0082	*
Venus	32832-05-06 18:29 G	13712828.09	13712828.27	13712828.46	0.0533	0.0198	
Mercury	32833-12-31 07:12 G	13713431.68	13713431.80	13713431.92	0.0520	0.0175	
Mercury	32834-03-30 13:12 G	13713520.98	13713521.05	13713521.13	0.0517	0.0420	
Moon	32837-08-20 00:29 G	13714759.35	13714759.52	13714759.71	0.0493	0.0299	
Earth	32837-08-20 03:50 G	13714759.47	13714759.66	13714759.85	0.0493	0.0286	*
Earth	32838-09-20 04:33 G	13715155.48	13715155.69	13715155.90	0.0495	0.0216	
Moon	32838-09-20 06:57 G	13715155.58	13715155.79	13715156.00	0.0495	0.0241	*
Mercury	32840-02-27 15:36 G	13715681.05	13715681.15	13715681.24	0.0506	0.0427	
Mercury	32840-05-28 00:14 G	13715771.39	13715771.51	13715771.63	0.0508	0.0372	
Moon	32844-03-09 21:36 G	13717153.17	13717153.40	13717153.63	0.0533	0.0053	
Earth	32844-03-10 01:26 G	13717153.33	13717153.56	13717153.79	0.0533	0.0047	*
Mercury	32845-10-19 11:17 G	13717741.87	13717741.97	13717742.07	0.0520	0.0323	
Mercury	32846-01-16 17:17 G	13717831.11	13717831.22	13717831.33	0.0518	0.0269	

Earth	32849-08-24 07:55 G	13719146.62	13719146.83	13719147.04	0.0493	0.0219
Moon	32849-08-24 11:45 G	13719146.79	13719146.99	13719147.19	0.0493	0.0246 *
Venus	32850-07-05 13:26 G	13719462.00	13719462.06	13719462.13	0.0495	0.0467
Moon	32850-09-24 07:12 G	13719542.63	13719542.80	13719542.98	0.0496	0.0311
Earth	32850-09-24 10:33 G	13719542.75	13719542.94	13719543.13	0.0496	0.0285 *
Mercury	32852-03-15 21:36 G	13720081.23	13720081.40	13720081.57	0.0508	0.0172
Moon	32855-02-06 23:17 G	13721139.41	13721139.47	13721139.54	0.0533	0.0511
Earth	32855-02-07 03:21 G	13721139.57	13721139.64	13721139.72	0.0533	0.0503
Earth	32856-03-15 05:02 G	13721541.48	13721541.71	13721541.93	0.0532	0.0141
Moon	32856-03-15 08:09 G	13721541.62	13721541.84	13721542.06	0.0532	0.0171 *
Mercury	32857-08-07 15:21 G	13722052.09	13722052.14	13722052.20	0.0521	0.0472
Mercury	32857-11-04 21:07 G	13722141.26	13722141.38	13722141.51	0.0518	0.0119
Moon	32861-08-28 12:14 G	13723533.78	13723534.01	13723534.23	0.0493	0.0142
Earth	32861-08-28 15:36 G	13723533.93	13723534.15	13723534.38	0.0493	0.0149 *
Venus	32862-03-10 15:21 G	13723727.94	13723728.14	13723728.35	0.0494	0.0046
Earth	32862-09-28 19:55 G	13723930.17	13723930.33	13723930.49	0.0497	0.0357
Moon	32862-09-28 23:45 G	13723930.32	13723930.49	13723930.66	0.0497	0.0343 *
Mercury	32864-01-02 18:43 G	13724391.10	13724391.28	13724391.46	0.0507	0.0032
Mars	32865-08-08 10:19 G	13724974.78	13724974.93	13724975.09	0.0524	0.0425
Earth	32867-02-12 02:24 G	13725527.47	13725527.60	13725527.75	0.0533	0.0422
Moon	32867-02-12 06:14 G	13725527.65	13725527.76	13725527.88	0.0533	0.0457 *
Venus	32868-01-13 09:36 G	13725862.71	13725862.90	13725863.10	0.0532	0.0102
Moon	32868-03-20 01:55 G	13725929.36	13725929.58	13725929.81	0.0531	0.0217
Earth	32868-03-20 03:21 G	13725929.43	13725929.64	13725929.86	0.0531	0.0230 *
Mercury	32869-08-24 00:57 G	13726451.41	13726451.54	13726451.67	0.0519	0.0039
Earth	32873-09-02 00:43 G	13727921.30	13727921.53	13727921.76	0.0493	0.0077
Moon	32873-09-02 03:21 G	13727921.42	13727921.64	13727921.87	0.0493	0.0046 *
Venus	32873-11-13 18:00 G	13727994.12	13727994.25	13727994.39	0.0494	0.0371
Moon	32874-10-03 02:24 G	13728317.46	13728317.60	13728317.74	0.0498	0.0397
Earth	32874-10-03 06:14 G	13728317.64	13728317.76	13728317.87	0.0498	0.0426 *

Mercury	32875-10-21 16:05 G	13728701.01	13728701.17	13728701.33	0.0506	0.0230
Moon	32879-02-17 02:09 G	13729915.41	13729915.59	13729915.78	0.0533	0.0332
Earth	32879-02-17 04:33 G	13729915.51	13729915.69	13729915.87	0.0533	0.0335 *
Venus	32879-09-17 23:02 G	13730128.35	13730128.46	13730128.58	0.0533	0.0437
Moon	32880-03-25 04:33 G	13730317.51	13730317.69	13730317.88	0.0530	0.0289
Earth	32880-03-25 05:02 G	13730317.53	13730317.71	13730317.90	0.0530	0.0320 *
Mercury	32881-06-12 05:02 G	13730761.59	13730761.71	13730761.83	0.0520	0.0187
Mercury	32881-09-09 11:02 G	13730850.88	13730850.96	13730851.04	0.0518	0.0408
Earth	32884-08-06 07:26 G	13731912.80	13731912.81	13731912.83	0.0494	0.0492
Moon	32885-09-06 06:29 G	13732308.53	13732308.77	13732309.01	0.0493	0.0006
Earth	32885-09-06 07:55 G	13732308.60	13732308.83	13732309.07	0.0493	0.0011 *
Earth	32886-10-07 14:24 G	13732705.07	13732705.10	13732705.14	0.0498	0.0490
Mercury	32887-08-09 12:29 G	13733010.94	13733011.02	13733011.11	0.0506	0.0438
Mercury	32887-11-07 21:07 G	13733101.26	13733101.38	13733101.51	0.0508	0.0360
Moon	32891-02-22 07:55 G	13734303.62	13734303.83	13734304.03	0.0534	0.0218
Earth	32891-02-22 08:09 G	13734303.64	13734303.84	13734304.05	0.0534	0.0247 *
Earth	32892-03-30 08:24 G	13734705.71	13734705.85	13734706.00	0.0530	0.0405
Moon	32892-03-30 10:48 G	13734705.81	13734705.95	13734706.10	0.0530	0.0415 *
Mercury	32893-03-31 09:21 G	13735071.80	13735071.89	13735071.99	0.0521	0.0331
Mercury	32893-06-28 15:21 G	13735161.03	13735161.14	13735161.25	0.0518	0.0263
Earth	32896-08-10 15:21 G	13736300.03	13736300.14	13736300.26	0.0493	0.0427
Moon	32896-08-10 17:45 G	13736300.10	13736300.24	13736300.38	0.0493	0.0401 *
Moon	32897-09-10 15:07 G	13736695.90	13736696.13	13736696.35	0.0494	0.0042
Earth	32897-09-10 15:21 G	13736695.91	13736696.14	13736696.37	0.0494	0.0067 *
Venus	32897-11-16 01:12 G	13736762.39	13736762.55	13736762.72	0.0494	0.0290
Mercury	32899-08-26 18:43 G	13737411.11	13737411.28	13737411.45	0.0508	0.0164
Earth	32903-02-28 14:53 G	13738691.90	13738692.12	13738692.35	0.0534	0.0151
Moon	32903-02-28 17:31 G	13738692.01	13738692.23	13738692.46	0.0534	0.0164 *
Venus	32903-09-22 02:38 G	13738897.49	13738897.61	13738897.74	0.0532	0.0412
Moon	32904-04-05 08:53 G	13739093.83	13739093.87	13739093.92	0.0528	0.0516

Earth	32904-04-05 12:29 G	13739093.94	13739094.02	13739094.11	0.0528	0.0487
Mercury	32905-01-18 13:41 G	13739382.03	13739382.07	13739382.12	0.0521	0.0476
Mercury	32905-04-17 19:26 G	13739471.19	13739471.31	13739471.44	0.0518	0.0116
Moon	32908-08-15 16:33 G	13740687.03	13740687.19	13740687.36	0.0493	0.0341
Earth	32908-08-15 19:41 G	13740687.17	13740687.32	13740687.48	0.0493	0.0364 *
Venus	32909-07-23 01:26 G	13741028.37	13741028.56	13741028.76	0.0494	0.0141
Earth	32909-09-15 20:09 G	13741083.12	13741083.34	13741083.57	0.0494	0.0137
Moon	32909-09-15 22:19 G	13741083.20	13741083.43	13741083.67	0.0494	0.0128 *
Mercury	32911-06-15 15:50 G	13741720.98	13741721.16	13741721.34	0.0507	0.0041
Moon	32915-03-05 15:50 G	13743079.93	13743080.16	13743080.38	0.0533	0.0090
Earth	32915-03-05 19:26 G	13743080.08	13743080.31	13743080.54	0.0533	0.0056 *
Venus	32915-05-27 17:17 G	13743163.02	13743163.22	13743163.42	0.0532	0.0118
Mercury	32917-02-03 23:31 G	13743781.35	13743781.48	13743781.61	0.0519	0.0036
Earth	32920-08-20 03:07 G	13745074.45	13745074.63	13745074.82	0.0493	0.0295
Moon	32920-08-20 06:57 G	13745074.61	13745074.79	13745074.97	0.0493	0.0314 *
Moon	32921-09-20 01:26 G	13745470.37	13745470.56	13745470.77	0.0495	0.0236
Earth	32921-09-20 04:48 G	13745470.49	13745470.70	13745470.91	0.0495	0.0210 *
Mercury	32923-04-03 13:12 G	13746030.89	13746031.05	13746031.20	0.0507	0.0242
Earth	32927-03-10 18:00 G	13747468.02	13747468.25	13747468.49	0.0533	0.0034
Moon	32927-03-10 21:50 G	13747468.18	13747468.41	13747468.64	0.0533	0.0044 *
Mercury	32928-11-23 03:07 G	13748091.51	13748091.63	13748091.75	0.0520	0.0195
Mercury	32929-02-20 09:07 G	13748180.80	13748180.88	13748180.96	0.0517	0.0400
Moon	32932-08-24 08:38 G	13749461.66	13749461.86	13749462.07	0.0493	0.0253
Earth	32932-08-24 12:14 G	13749461.81	13749462.01	13749462.22	0.0493	0.0226 *
Earth	32933-09-24 14:24 G	13749857.91	13749858.10	13749858.29	0.0496	0.0281
Moon	32933-09-24 18:14 G	13749858.08	13749858.26	13749858.45	0.0496	0.0304 *
Mercury	32935-01-20 10:19 G	13750340.84	13750340.93	13750341.02	0.0506	0.0442
Mercury	32935-04-20 18:57 G	13750431.17	13750431.29	13750431.42	0.0508	0.0357
Earth	32938-02-06 18:29 G	13751454.23	13751454.27	13751454.33	0.0532	0.0518
Moon	32938-02-06 22:33 G	13751454.41	13751454.44	13751454.48	0.0532	0.0525

Moon	32939-03-15 17:45 G	13751856.02	13751856.24	13751856.48	0.0532	0.0156
Earth	32939-03-15 20:09 G	13751856.12	13751856.34	13751856.57	0.0532	0.0127 *
Mercury	32940-09-11 07:12 G	13752401.71	13752401.80	13752401.90	0.0521	0.0344
Mercury	32940-12-09 13:12 G	13752490.94	13752491.05	13752491.16	0.0518	0.0249
Earth	32944-08-28 19:41 G	13753849.10	13753849.32	13753849.54	0.0493	0.0156
Moon	32944-08-28 22:19 G	13753849.22	13753849.43	13753849.65	0.0493	0.0148 *
Venus	32945-03-30 11:45 G	13754062.79	13754062.99	13754063.19	0.0494	0.0106
Moon	32945-09-28 18:29 G	13754245.10	13754245.27	13754245.45	0.0496	0.0335
Earth	32945-09-28 22:19 G	13754245.27	13754245.43	13754245.59	0.0496	0.0350 *
Mercury	32947-02-06 15:50 G	13754740.99	13754741.16	13754741.33	0.0507	0.0151
Moon	32950-02-11 17:45 G	13755842.13	13755842.24	13755842.36	0.0533	0.0469
Earth	32950-02-11 20:53 G	13755842.24	13755842.37	13755842.51	0.0533	0.0437 *
Venus	32951-02-02 05:45 G	13756197.55	13756197.74	13756197.93	0.0532	0.0165
Earth	32951-03-20 23:31 G	13756244.27	13756244.48	13756244.70	0.0532	0.0219
Moon	32951-03-21 00:00 G	13756244.29	13756244.50	13756244.70	0.0532	0.0205 *
Mercury	32952-06-30 11:31 G	13756711.94	13756711.98	13756712.03	0.0522	0.0489
Mercury	32952-09-27 17:31 G	13756801.10	13756801.23	13756801.35	0.0519	0.0105
Moon	32956-09-02 01:12 G	13758236.31	13758236.55	13758236.79	0.0493	0.0056
Earth	32956-09-02 02:53 G	13758236.39	13758236.62	13758236.85	0.0493	0.0085 *
Venus	32956-12-03 13:26 G	13758328.91	13758329.06	13758329.22	0.0493	0.0316
Earth	32957-10-03 06:43 G	13758632.65	13758632.78	13758632.90	0.0497	0.0419
Moon	32957-10-03 09:07 G	13758632.75	13758632.88	13758633.03	0.0497	0.0395 *
Mercury	32958-11-25 13:12 G	13759050.87	13759051.05	13759051.23	0.0507	0.0050
Earth	32962-02-17 03:07 G	13760230.45	13760230.63	13760230.81	0.0534	0.0348
Moon	32962-02-17 03:36 G	13760230.48	13760230.65	13760230.83	0.0534	0.0338 *
Venus	32962-10-07 21:21 G	13760463.25	13760463.39	13760463.54	0.0533	0.0359
Earth	32963-03-26 05:17 G	13760632.53	13760632.72	13760632.91	0.0531	0.0311
Moon	32963-03-26 06:57 G	13760632.59	13760632.79	13760633.00	0.0531	0.0280 *
Mercury	32964-07-16 21:50 G	13761111.28	13761111.41	13761111.53	0.0519	0.0045
Mars	32966-02-04 04:05 G	13761678.39	13761678.67	13761678.95	0.0503	0.0027

Moon	32968-09-06 07:12 G	13762623.57	13762623.80	13762624.02	0.0493	0.0014
Earth	32968-09-06 07:12 G	13762623.57	13762623.80	13762624.04	0.0493	0.0015 *
Moon	32969-10-07 12:14 G	13763019.99	13763020.01	13763020.03	0.0498	0.0495
Earth	32969-10-07 13:41 G	13763020.03	13763020.07	13763020.13	0.0498	0.0485 *
Mercury	32970-09-13 09:50 G	13763360.76	13763360.91	13763361.07	0.0507	0.0256
Earth	32974-02-22 07:55 G	13764618.63	13764618.83	13764619.04	0.0534	0.0256
Moon	32974-02-22 09:50 G	13764618.69	13764618.91	13764619.13	0.0534	0.0225 *
Moon	32975-03-31 04:33 G	13765020.55	13765020.69	13765020.84	0.0530	0.0413
Earth	32975-03-31 07:55 G	13765020.68	13765020.83	13765020.99	0.0530	0.0398 *
Mercury	32976-05-05 01:55 G	13765421.46	13765421.58	13765421.70	0.0520	0.0191
Mercury	32976-08-02 07:41 G	13765510.74	13765510.82	13765510.90	0.0517	0.0403
Moon	32979-08-11 11:31 G	13766614.87	13766614.98	13766615.11	0.0493	0.0413
Earth	32979-08-11 14:38 G	13766615.01	13766615.11	13766615.22	0.0493	0.0437 *
Earth	32980-09-10 15:21 G	13767010.90	13767011.14	13767011.37	0.0494	0.0060
Moon	32980-09-10 17:31 G	13767010.99	13767011.23	13767011.47	0.0494	0.0031 *
Venus	32980-12-05 19:26 G	13767097.17	13767097.31	13767097.47	0.0495	0.0339
Mercury	32982-07-02 07:12 G	13767670.72	13767670.80	13767670.88	0.0506	0.0456
Mercury	32982-09-30 16:05 G	13767761.04	13767761.17	13767761.30	0.0508	0.0345
Mars	32984-01-27 23:02 G	13768245.31	13768245.46	13768245.63	0.0522	0.0415
Moon	32986-02-27 04:19 G	13769006.46	13769006.68	13769006.89	0.0533	0.0177
Earth	32986-02-27 07:26 G	13769006.59	13769006.81	13769007.03	0.0533	0.0167 *
Venus	32986-10-10 20:38 G	13769232.26	13769232.36	13769232.46	0.0532	0.0462
Earth	32987-04-05 04:48 G	13769408.61	13769408.70	13769408.80	0.0529	0.0478
Moon	32987-04-05 08:38 G	13769408.80	13769408.86	13769408.93	0.0529	0.0506 *
Mercury	32988-02-22 05:17 G	13769731.63	13769731.72	13769731.82	0.0521	0.0352
Mercury	32988-05-21 11:17 G	13769820.85	13769820.97	13769821.08	0.0518	0.0242
Earth	32991-08-15 23:31 G	13771002.33	13771002.48	13771002.63	0.0493	0.0372
Moon	32991-08-16 03:07 G	13771002.47	13771002.63	13771002.80	0.0493	0.0355 *
Venus	32992-08-10 22:33 G	13771363.23	13771363.44	13771363.64	0.0494	0.0078
Moon	32992-09-14 21:21 G	13771398.17	13771398.39	13771398.61	0.0494	0.0123

Earth	32992-09-15 00:29 G	13771398.30	13771398.52	13771398.75	0.0494	0.0133	*
Mercury	32994-07-19 13:26 G	13772070.89	13772071.06	13772071.24	0.0507	0.0149	
Earth	32998-03-04 09:36 G	13773394.67	13773394.90	13773395.13	0.0533	0.0074	
Moon	32998-03-04 13:26 G	13773394.83	13773395.06	13773395.29	0.0533	0.0105	*
Venus	32998-06-15 10:19 G	13773497.73	13773497.93	13773498.13	0.0532	0.0075	
Mercury	32999-12-11 09:36 G	13774041.86	13774041.90	13774041.93	0.0522	0.0501	
Mercury	33000-03-10 15:07 G	13774131.01	13774131.13	13774131.26	0.0519	0.0093	

34TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 34th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	33003-08-21 04:05 G		13775389.49	13775389.67	13775389.84	0.0493	0.0326	
Earth	33003-08-21 07:26 G		13775389.63	13775389.81	13775390.00	0.0493	0.0304	*
Earth	33004-09-20 08:09 G		13775785.62	13775785.84	13775786.05	0.0495	0.0202	
Moon	33004-09-20 11:45 G		13775785.79	13775785.99	13775786.21	0.0495	0.0230	*
Mercury	33006-05-08 10:19 G		13776380.75	13776380.93	13776381.11	0.0507	0.0060	
Moon	33010-03-10 09:50 G		13777782.67	13777782.91	13777783.14	0.0533	0.0034	
Earth	33010-03-10 12:57 G		13777782.80	13777783.04	13777783.27	0.0533	0.0022	*
Mercury	33011-12-28 19:26 G		13778441.19	13778441.31	13778441.44	0.0520	0.0057	
Earth	33015-08-25 14:53 G		13779776.91	13779777.12	13779777.32	0.0493	0.0234	
Moon	33015-08-25 17:31 G		13779777.04	13779777.23	13779777.43	0.0493	0.0260	*
Moon	33016-09-24 12:00 G		13780172.81	13780173.00	13780173.19	0.0495	0.0295	
Earth	33016-09-24 15:50 G		13780172.97	13780173.16	13780173.35	0.0495	0.0274	*

Mercury	33018-02-24 07:26 G	13780690.65	13780690.81	13780690.96	0.0506	0.0262
Earth	33021-02-06 15:50 G	13781769.15	13781769.16	13781769.18	0.0533	0.0532
Earth	33022-03-15 19:12 G	13782171.07	13782171.30	13782171.53	0.0533	0.0116
Moon	33022-03-15 20:24 G	13782171.13	13782171.35	13782171.56	0.0533	0.0146 *
Mercury	33023-10-17 00:00 G	13782751.38	13782751.50	13782751.62	0.0520	0.0197
Mercury	33024-01-14 06:00 G	13782840.67	13782840.75	13782840.83	0.0517	0.0397
Moon	33027-08-29 17:45 G	13784164.01	13784164.24	13784164.47	0.0493	0.0156
Earth	33027-08-29 19:41 G	13784164.10	13784164.32	13784164.54	0.0493	0.0165 *
Venus	33028-04-19 05:45 G	13784397.55	13784397.74	13784397.94	0.0494	0.0154
Earth	33028-09-28 21:50 G	13784560.24	13784560.41	13784560.58	0.0496	0.0344
Moon	33028-09-29 00:43 G	13784560.36	13784560.53	13784560.70	0.0496	0.0323 *
Mercury	33029-12-13 04:05 G	13785000.61	13785000.67	13785000.73	0.0506	0.0470
Mercury	33030-03-13 12:57 G	13785090.91	13785091.04	13785091.18	0.0508	0.0332
Earth	33033-02-11 20:53 G	13786157.24	13786157.37	13786157.49	0.0533	0.0447
Moon	33033-02-11 22:19 G	13786157.34	13786157.43	13786157.53	0.0533	0.0476 *
Venus	33034-02-22 04:19 G	13786532.50	13786532.68	13786532.86	0.0532	0.0244
Earth	33034-03-20 23:31 G	13786559.27	13786559.48	13786559.70	0.0532	0.0212
Moon	33034-03-21 00:29 G	13786559.30	13786559.52	13786559.75	0.0532	0.0196 *
Mercury	33035-08-05 04:05 G	13787061.58	13787061.67	13787061.77	0.0521	0.0345
Mercury	33035-11-02 10:05 G	13787150.80	13787150.92	13787151.03	0.0518	0.0248
Earth	33039-09-03 03:21 G	13788551.41	13788551.64	13788551.87	0.0493	0.0093
Moon	33039-09-03 03:21 G	13788551.42	13788551.64	13788551.87	0.0493	0.0067 *
Venus	33039-12-24 08:09 G	13788663.67	13788663.84	13788664.02	0.0494	0.0265
Moon	33040-10-03 06:00 G	13788947.60	13788947.75	13788947.90	0.0497	0.0389
Earth	33040-10-03 07:41 G	13788947.69	13788947.82	13788947.95	0.0497	0.0415 *
Mercury	33041-12-30 10:33 G	13789400.77	13789400.94	13789401.12	0.0508	0.0136
Earth	33045-02-16 20:53 G	13790545.20	13790545.37	13790545.54	0.0533	0.0364
Moon	33045-02-16 21:36 G	13790545.22	13790545.40	13790545.59	0.0533	0.0349 *
Venus	33045-10-27 15:50 G	13790798.00	13790798.16	13790798.33	0.0533	0.0304
Moon	33046-03-25 19:12 G	13790947.11	13790947.30	13790947.50	0.0531	0.0270

Earth	33046-03-25 21:50 G	13790947.22	13790947.41	13790947.60	0.0531	0.0298	*
Mercury	33047-05-24 07:41 G	13791371.80	13791371.82	13791371.85	0.0521	0.0506	
Mercury	33047-08-21 13:26 G	13791460.93	13791461.06	13791461.19	0.0519	0.0085	
Earth	33051-09-07 12:29 G	13792938.78	13792939.02	13792939.25	0.0493	0.0023	
Moon	33051-09-07 14:24 G	13792938.86	13792939.10	13792939.34	0.0493	0.0029	*
Earth	33052-10-07 18:29 G	13793335.22	13793335.27	13793335.33	0.0498	0.0482	
Mercury	33053-10-18 08:09 G	13793710.66	13793710.84	13793711.02	0.0507	0.0061	
Moon	33057-02-21 20:38 G	13794933.16	13794933.36	13794933.56	0.0533	0.0243	
Earth	33057-02-21 23:02 G	13794933.27	13794933.46	13794933.67	0.0533	0.0275	*
Earth	33058-03-30 23:02 G	13795335.30	13795335.46	13795335.62	0.0530	0.0385	
Moon	33058-03-31 02:53 G	13795335.47	13795335.62	13795335.77	0.0530	0.0406	*
Mercury	33059-06-09 17:31 G	13795771.10	13795771.23	13795771.36	0.0520	0.0065	
Earth	33062-08-11 19:12 G	13796930.21	13796930.30	13796930.40	0.0494	0.0447	
Moon	33062-08-11 23:02 G	13796930.34	13796930.46	13796930.58	0.0494	0.0419	*
Moon	33063-09-11 16:48 G	13797325.98	13797326.20	13797326.43	0.0493	0.0021	
Earth	33063-09-11 20:09 G	13797326.11	13797326.34	13797326.57	0.0493	0.0052	*
Venus	33063-12-26 16:48 G	13797432.08	13797432.20	13797432.31	0.0494	0.0404	
Mercury	33065-08-06 04:48 G	13798020.55	13798020.70	13798020.86	0.0506	0.0268	
Earth	33069-02-27 01:55 G	13799321.36	13799321.58	13799321.80	0.0534	0.0182	
Moon	33069-02-27 05:31 G	13799321.51	13799321.73	13799321.95	0.0534	0.0194	*
Venus	33069-10-30 16:33 G	13799567.16	13799567.19	13799567.22	0.0532	0.0525	
Moon	33070-04-04 22:05 G	13799723.34	13799723.42	13799723.50	0.0529	0.0497	
Earth	33070-04-05 01:41 G	13799723.47	13799723.57	13799723.68	0.0529	0.0469	*
Mercury	33071-03-28 21:50 G	13800081.29	13800081.41	13800081.53	0.0521	0.0210	
Mercury	33071-06-26 03:50 G	13800170.57	13800170.66	13800170.75	0.0518	0.0385	
Moon	33074-08-15 23:45 G	13801317.34	13801317.49	13801317.65	0.0493	0.0366	
Earth	33074-08-16 03:21 G	13801317.50	13801317.64	13801317.79	0.0493	0.0380	*
Venus	33075-08-31 18:29 G	13801698.07	13801698.27	13801698.48	0.0494	0.0020	
Earth	33075-09-16 03:21 G	13801713.42	13801713.64	13801713.87	0.0494	0.0125	
Moon	33075-09-16 07:12 G	13801713.57	13801713.80	13801714.03	0.0494	0.0118	*

Mercury	33077-05-25 01:55 G	13802330.52	13802330.58	13802330.64	0.0505	0.0470
Mercury	33077-08-23 10:48 G	13802420.81	13802420.95	13802421.08	0.0508	0.0329
Moon	33081-03-04 04:48 G	13803709.47	13803709.70	13803709.94	0.0534	0.0114
Earth	33081-03-04 08:24 G	13803709.62	13803709.85	13803710.08	0.0534	0.0085 *
Venus	33081-07-05 08:38 G	13803832.66	13803832.86	13803833.06	0.0533	0.0004
Mercury	33083-01-15 02:24 G	13804391.51	13804391.60	13804391.69	0.0521	0.0351
Mercury	33083-04-14 08:09 G	13804480.73	13804480.84	13804480.96	0.0518	0.0242
Earth	33086-08-20 09:21 G	13805704.71	13805704.89	13805705.07	0.0493	0.0312
Moon	33086-08-20 12:00 G	13805704.84	13805705.00	13805705.17	0.0493	0.0338 *
Venus	33087-05-06 19:12 G	13805964.22	13805964.30	13805964.39	0.0493	0.0444
Moon	33087-09-20 05:31 G	13806100.52	13806100.73	13806100.94	0.0494	0.0222
Earth	33087-09-20 09:21 G	13806100.67	13806100.89	13806101.10	0.0494	0.0195 *
Mercury	33089-06-11 07:41 G	13806730.65	13806730.82	13806731.00	0.0508	0.0127
Earth	33093-03-09 13:55 G	13808097.85	13808098.08	13808098.32	0.0533	0.0014
Moon	33093-03-09 15:50 G	13808097.94	13808098.16	13808098.39	0.0533	0.0031 *
Venus	33093-03-09 23:31 G	13808098.45	13808098.48	13808098.52	0.0533	0.0524
Mercury	33094-11-03 06:43 G	13808701.74	13808701.78	13808701.82	0.0521	0.0497
Mercury	33095-01-31 12:29 G	13808790.89	13808791.02	13808791.14	0.0519	0.0096
Moon	33098-08-24 15:07 G	13810091.94	13810092.13	13810092.34	0.0493	0.0266
Earth	33098-08-24 17:02 G	13810092.01	13810092.21	13810092.42	0.0493	0.0242 *
Earth	33099-09-24 18:14 G	13810488.07	13810488.26	13810488.46	0.0495	0.0269
Moon	33099-09-24 21:07 G	13810488.20	13810488.38	13810488.57	0.0495	0.0284 *
Mercury	33101-03-31 05:31 G	13811040.55	13811040.73	13811040.91	0.0507	0.0069
Moon	33105-03-15 13:26 G	13812485.83	13812486.06	13812486.30	0.0532	0.0130
Earth	33105-03-15 13:41 G	13812485.84	13812486.07	13812486.30	0.0532	0.0101 *
Mercury	33106-11-20 15:50 G	13813101.03	13813101.16	13813101.29	0.0520	0.0068
Earth	33110-08-30 01:41 G	13814479.36	13814479.57	13814479.79	0.0493	0.0173
Moon	33110-08-30 01:41 G	13814479.36	13814479.57	13814479.79	0.0493	0.0160 *
Venus	33111-05-10 04:19 G	13814732.50	13814732.68	13814732.86	0.0494	0.0226
Moon	33111-09-30 03:07 G	13814875.45	13814875.63	13814875.82	0.0496	0.0314

Earth	33111-09-30 04:48 G	13814875.53	13814875.70	13814875.87	0.0496	0.0340	*
Mercury	33113-01-17 03:07 G	13815350.48	13815350.63	13815350.79	0.0506	0.0263	
Earth	33116-02-12 14:38 G	13816472.01	13816472.11	13816472.23	0.0533	0.0464	
Moon	33116-02-12 14:38 G	13816472.02	13816472.11	13816472.20	0.0533	0.0490	*
Venus	33117-03-13 22:33 G	13816867.27	13816867.44	13816867.61	0.0532	0.0296	
Moon	33117-03-20 14:09 G	13816873.88	13816874.09	13816874.30	0.0532	0.0181	
Earth	33117-03-20 16:05 G	13816873.95	13816874.17	13816874.38	0.0532	0.0196	*
Mercury	33118-09-08 19:55 G	13817411.21	13817411.33	13817411.45	0.0520	0.0218	
Mercury	33118-12-07 01:55 G	13817500.49	13817500.58	13817500.67	0.0518	0.0377	
Mars	33120-05-01 08:38 G	13818011.64	13818011.86	13818012.09	0.0504	0.0289	
Earth	33122-09-03 09:50 G	13818866.68	13818866.91	13818867.14	0.0493	0.0101	
Moon	33122-09-03 11:45 G	13818866.76	13818866.99	13818867.23	0.0493	0.0078	*
Venus	33123-01-13 06:29 G	13818998.58	13818998.77	13818998.96	0.0494	0.0193	
Earth	33123-10-04 13:12 G	13819262.92	13819263.05	13819263.18	0.0497	0.0409	
Moon	33123-10-04 13:26 G	13819262.93	13819263.06	13819263.20	0.0497	0.0389	*
Mercury	33124-11-04 23:45 G	13819660.43	13819660.49	13819660.56	0.0505	0.0470	
Mercury	33125-02-03 08:38 G	13819750.73	13819750.86	13819751.00	0.0508	0.0330	
Moon	33128-02-17 15:07 G	13820859.97	13820860.13	13820860.29	0.0533	0.0365	
Earth	33128-02-17 16:48 G	13820860.04	13820860.20	13820860.37	0.0533	0.0379	*
Venus	33128-11-16 12:29 G	13821132.84	13821133.02	13821133.21	0.0533	0.0237	
Earth	33129-03-25 18:57 G	13821262.10	13821262.29	13821262.49	0.0531	0.0287	
Moon	33129-03-25 22:33 G	13821262.24	13821262.44	13821262.65	0.0531	0.0263	*
Mercury	33130-06-28 00:14 G	13821721.42	13821721.51	13821721.60	0.0521	0.0363	
Mercury	33130-09-25 06:00 G	13821810.64	13821810.75	13821810.87	0.0519	0.0233	
Moon	33134-09-07 14:09 G	13823253.87	13823254.09	13823254.32	0.0493	0.0040	
Earth	33134-09-07 17:31 G	13823254.00	13823254.23	13823254.46	0.0493	0.0027	*
Earth	33135-10-08 22:05 G	13823650.36	13823650.42	13823650.49	0.0498	0.0476	
Moon	33135-10-08 23:17 G	13823650.44	13823650.47	13823650.50	0.0498	0.0492	*
Mercury	33136-11-22 06:00 G	13824060.58	13824060.75	13824060.93	0.0507	0.0130	
Mars	33138-04-24 06:00 G	13824578.49	13824578.75	13824579.01	0.0522	0.0152	

Earth	33140-02-22 22:33 G	13825248.24	13825248.44	13825248.64	0.0534	0.0286
Moon	33140-02-23 01:55 G	13825248.37	13825248.58	13825248.79	0.0534	0.0255 *
Moon	33141-03-30 20:53 G	13825650.23	13825650.37	13825650.53	0.0531	0.0402
Earth	33141-03-31 00:43 G	13825650.38	13825650.53	13825650.70	0.0531	0.0380 *
Mercury	33142-04-16 05:02 G	13826031.68	13826031.71	13826031.74	0.0522	0.0502
Mercury	33142-07-14 10:48 G	13826120.82	13826120.95	13826121.07	0.0519	0.0093
Moon	33145-08-11 19:55 G	13827245.22	13827245.33	13827245.46	0.0493	0.0425
Earth	33145-08-11 23:45 G	13827245.40	13827245.49	13827245.58	0.0493	0.0455 *
Earth	33146-09-11 23:31 G	13827641.24	13827641.48	13827641.71	0.0493	0.0046
Moon	33146-09-12 03:21 G	13827641.40	13827641.64	13827641.87	0.0493	0.0014 *
Venus	33147-01-15 12:57 G	13827766.98	13827767.04	13827767.12	0.0494	0.0463
Mercury	33148-09-10 03:07 G	13828370.45	13828370.63	13828370.81	0.0507	0.0075
Moon	33152-02-28 00:57 G	13829636.33	13829636.54	13829636.76	0.0534	0.0207
Earth	33152-02-28 04:48 G	13829636.49	13829636.70	13829636.92	0.0534	0.0191 *
Earth	33153-04-05 05:17 G	13830038.61	13830038.72	13830038.83	0.0530	0.0466
Moon	33153-04-05 07:41 G	13830038.75	13830038.82	13830038.91	0.0530	0.0495 *
Mercury	33154-05-02 14:53 G	13830431.00	13830431.12	13830431.25	0.0520	0.0058
Earth	33157-08-16 07:55 G	13831632.70	13831632.83	13831632.98	0.0493	0.0387
Moon	33157-08-16 10:48 G	13831632.81	13831632.95	13831633.10	0.0493	0.0378 *
Moon	33158-09-16 04:19 G	13832028.46	13832028.68	13832028.91	0.0494	0.0114
Earth	33158-09-16 08:24 G	13832028.62	13832028.85	13832029.07	0.0494	0.0120 *
Venus	33158-09-20 15:50 G	13832032.95	13832033.16	13832033.36	0.0494	0.0047
Mercury	33160-06-29 00:43 G	13832680.38	13832680.53	13832680.69	0.0506	0.0268
Earth	33164-03-04 06:00 G	13834024.52	13834024.75	13834024.98	0.0533	0.0100
Moon	33164-03-04 08:24 G	13834024.64	13834024.85	13834025.08	0.0533	0.0128 *
Venus	33164-07-25 05:31 G	13834167.53	13834167.73	13834167.93	0.0532	0.0075
Moon	33165-04-10 01:41 G	13834426.55	13834426.57	13834426.60	0.0528	0.0525
Mercury	33166-02-18 18:29 G	13834741.15	13834741.27	13834741.39	0.0520	0.0217
Mercury	33166-05-19 00:29 G	13834830.43	13834830.52	13834830.60	0.0518	0.0378
Moon	33169-08-20 14:24 G	13836019.93	13836020.10	13836020.28	0.0493	0.0345

Earth	33169-08-20 16:19 G	13836020.01	13836020.18	13836020.36	0.0493	0.0322	*
Venus	33170-05-26 18:43 G	13836299.15	13836299.28	13836299.42	0.0494	0.0365	
Earth	33170-09-20 17:45 G	13836416.03	13836416.24	13836416.46	0.0495	0.0191	
Moon	33170-09-20 20:38 G	13836416.16	13836416.36	13836416.57	0.0495	0.0221	*
Mercury	33172-04-16 22:33 G	13836990.37	13836990.44	13836990.51	0.0505	0.0459	
Mercury	33172-07-16 07:26 G	13837080.68	13837080.81	13837080.94	0.0508	0.0341	
Moon	33176-03-09 08:09 G	13838412.60	13838412.84	13838413.09	0.0533	0.0015	
Earth	33176-03-09 09:21 G	13838412.65	13838412.89	13838413.12	0.0533	0.0012	*
Venus	33176-03-29 19:26 G	13838433.21	13838433.31	13838433.41	0.0533	0.0459	
Mercury	33177-12-07 22:33 G	13839051.35	13839051.44	13839051.53	0.0521	0.0366	
Mercury	33178-03-07 04:19 G	13839140.57	13839140.68	13839140.80	0.0519	0.0229	
Earth	33181-08-25 00:57 G	13840407.34	13840407.54	13840407.74	0.0493	0.0251	
Moon	33181-08-25 00:57 G	13840407.35	13840407.54	13840407.73	0.0493	0.0270	*
Moon	33182-09-25 00:57 G	13840803.34	13840803.54	13840803.74	0.0495	0.0270	
Earth	33182-09-25 02:38 G	13840803.41	13840803.61	13840803.80	0.0495	0.0263	*
Mercury	33184-05-04 04:33 G	13841390.52	13841390.69	13841390.86	0.0507	0.0138	
Moon	33188-03-14 11:17 G	13842800.75	13842800.97	13842801.19	0.0533	0.0118	
Earth	33188-03-14 12:14 G	13842800.78	13842801.01	13842801.24	0.0533	0.0090	*
Mercury	33189-09-26 02:53 G	13843361.60	13843361.62	13843361.65	0.0522	0.0510	
Mercury	33189-12-24 08:53 G	13843450.74	13843450.87	13843450.99	0.0519	0.0085	
Earth	33193-08-29 09:21 G	13844794.67	13844794.89	13844795.11	0.0493	0.0179	
Moon	33193-08-29 11:17 G	13844794.75	13844794.97	13844795.20	0.0493	0.0157	*
Venus	33194-05-29 02:53 G	13845067.46	13845067.62	13845067.78	0.0494	0.0299	
Earth	33194-09-29 10:48 G	13845190.79	13845190.95	13845191.13	0.0496	0.0336	
Moon	33194-09-29 11:17 G	13845190.79	13845190.97	13845191.14	0.0496	0.0309	*
Mercury	33196-02-21 01:41 G	13845700.39	13845700.57	13845700.75	0.0506	0.0063	
Moon	33199-02-11 14:24 G	13846787.04	13846787.10	13846787.17	0.0533	0.0505	
Earth	33199-02-11 15:36 G	13846787.05	13846787.15	13846787.26	0.0533	0.0475	*
Earth	33200-03-19 18:29 G	13847189.06	13847189.27	13847189.49	0.0532	0.0189	
Moon	33200-03-19 21:50 G	13847189.19	13847189.41	13847189.64	0.0532	0.0165	*

Venus	33200-04-01 22:33 G	13847202.31	13847202.44	13847202.58	0.0532	0.0385
Mercury	33201-10-12 13:26 G	13847760.93	13847761.06	13847761.19	0.0520	0.0057
Moon	33205-09-02 12:43 G	13849181.81	13849182.03	13849182.26	0.0493	0.0084
Earth	33205-09-02 16:05 G	13849181.94	13849182.17	13849182.40	0.0493	0.0107 *
Venus	33206-02-01 04:19 G	13849333.49	13849333.68	13849333.88	0.0493	0.0124
Earth	33206-10-03 18:29 G	13849578.14	13849578.27	13849578.41	0.0496	0.0405
Moon	33206-10-03 19:41 G	13849578.17	13849578.32	13849578.47	0.0496	0.0385 *
Mercury	33207-12-09 22:48 G	13850010.29	13850010.45	13850010.60	0.0506	0.0266
Earth	33211-02-16 21:36 G	13851175.25	13851175.40	13851175.56	0.0533	0.0388
Moon	33211-02-17 00:29 G	13851175.36	13851175.52	13851175.70	0.0533	0.0369 *
Venus	33211-12-06 14:24 G	13851467.91	13851468.10	13851468.30	0.0533	0.0138
Moon	33212-03-24 20:38 G	13851577.16	13851577.36	13851577.57	0.0532	0.0260
Earth	33212-03-25 00:29 G	13851577.33	13851577.52	13851577.73	0.0532	0.0284 *
Mercury	33213-07-31 17:45 G	13852071.12	13852071.24	13852071.36	0.0520	0.0200
Mercury	33213-10-28 23:45 G	13852160.41	13852160.49	13852160.57	0.0518	0.0395
Earth	33217-09-07 00:43 G	13853569.30	13853569.53	13853569.76	0.0493	0.0032
Moon	33217-09-07 04:48 G	13853569.46	13853569.70	13853569.93	0.0493	0.0047 *
Moon	33218-10-08 02:53 G	13853965.62	13853965.62	13853965.62	0.0497	0.0497
Earth	33218-10-08 05:17 G	13853965.66	13853965.72	13853965.80	0.0497	0.0476
Mercury	33219-09-27 20:24 G	13854320.28	13854320.35	13854320.43	0.0505	0.0458
Mercury	33219-12-27 05:31 G	13854410.60	13854410.73	13854410.86	0.0508	0.0343
Moon	33223-02-21 20:38 G	13855563.16	13855563.36	13855563.56	0.0533	0.0273
Earth	33223-02-22 00:14 G	13855563.33	13855563.51	13855563.71	0.0533	0.0301 *
Earth	33224-03-30 00:14 G	13855965.35	13855965.51	13855965.68	0.0530	0.0368
Moon	33224-03-30 03:36 G	13855965.50	13855965.65	13855965.81	0.0530	0.0393 *
Mercury	33225-05-19 21:21 G	13856381.30	13856381.39	13856381.48	0.0521	0.0360
Mercury	33225-08-17 03:07 G	13856470.52	13856470.63	13856470.75	0.0519	0.0233
Earth	33228-08-11 07:12 G	13857560.73	13857560.80	13857560.88	0.0494	0.0465
Moon	33228-08-11 09:50 G	13857560.81	13857560.91	13857561.02	0.0494	0.0435 *
Moon	33229-09-11 05:45 G	13857956.51	13857956.74	13857956.97	0.0494	0.0009

Earth	33229-09-11 09:36 G	13857956.67	13857956.90	13857957.13	0.0494	0.0040	*
Mercury	33231-10-15 03:36 G	13858720.48	13858720.65	13858720.82	0.0507	0.0155	
Earth	33235-02-27 04:05 G	13859951.46	13859951.67	13859951.89	0.0533	0.0206	
Moon	33235-02-27 07:12 G	13859951.60	13859951.80	13859952.01	0.0533	0.0229	*
Moon	33236-04-04 00:57 G	13860353.44	13860353.54	13860353.64	0.0529	0.0479	
Earth	33236-04-04 02:38 G	13860353.49	13860353.61	13860353.73	0.0529	0.0455	*
Mercury	33237-03-08 01:41 G	13860691.54	13860691.57	13860691.59	0.0522	0.0508	
Mercury	33237-06-05 07:12 G	13860780.68	13860780.80	13860780.93	0.0519	0.0085	
Mars	33238-10-20 12:57 G	13861282.89	13861283.04	13861283.20	0.0505	0.0414	
Moon	33240-08-15 14:53 G	13861947.98	13861948.12	13861948.28	0.0494	0.0389	
Earth	33240-08-15 16:48 G	13861948.07	13861948.20	13861948.34	0.0494	0.0397	*
Earth	33241-09-15 18:29 G	13862344.04	13862344.27	13862344.49	0.0494	0.0113	
Moon	33241-09-15 21:21 G	13862344.17	13862344.39	13862344.61	0.0494	0.0118	*
Venus	33241-10-09 16:19 G	13862367.98	13862368.18	13862368.38	0.0494	0.0132	
Mercury	33243-08-03 00:43 G	13863030.35	13863030.53	13863030.71	0.0506	0.0047	
Moon	33247-03-04 05:02 G	13864339.48	13864339.71	13864339.95	0.0533	0.0138	
Earth	33247-03-04 06:43 G	13864339.56	13864339.78	13864340.01	0.0533	0.0112	*
Venus	33247-08-14 04:48 G	13864502.51	13864502.70	13864502.90	0.0532	0.0158	
Moon	33248-04-09 04:05 G	13864741.63	13864741.67	13864741.71	0.0529	0.0517	
Mercury	33249-03-24 11:45 G	13865090.86	13865090.99	13865091.11	0.0520	0.0062	
Earth	33252-08-20 02:09 G	13866335.42	13866335.59	13866335.76	0.0493	0.0326	
Moon	33252-08-20 01:55 G	13866335.43	13866335.58	13866335.74	0.0493	0.0353	*
Venus	33253-06-14 18:43 G	13866634.12	13866634.28	13866634.45	0.0493	0.0284	
Moon	33253-09-20 01:26 G	13866731.34	13866731.56	13866731.78	0.0494	0.0216	
Earth	33253-09-20 02:53 G	13866731.41	13866731.62	13866731.84	0.0494	0.0187	*
Mercury	33255-05-21 21:50 G	13867340.26	13867340.41	13867340.57	0.0506	0.0248	
Moon	33259-03-09 12:43 G	13868727.81	13868728.03	13868728.26	0.0533	0.0007	
Earth	33259-03-09 12:57 G	13868727.81	13868728.04	13868728.28	0.0533	0.0018	*
Venus	33259-04-18 20:24 G	13868768.21	13868768.35	13868768.50	0.0533	0.0365	
Mercury	33261-01-10 16:19 G	13869401.06	13869401.18	13869401.30	0.0521	0.0199	

Mercury	33261-04-09 22:19 G	13869490.35	13869490.43	13869490.51	0.0518	0.0397
Earth	33264-08-24 09:50 G	13870722.72	13870722.91	13870723.11	0.0493	0.0257
Moon	33264-08-24 12:00 G	13870722.80	13870723.00	13870723.21	0.0493	0.0265 *
Earth	33265-09-24 10:19 G	13871118.74	13871118.93	13871119.13	0.0495	0.0260
Moon	33265-09-24 10:33 G	13871118.75	13871118.94	13871119.13	0.0495	0.0264 *
Mercury	33267-03-09 18:43 G	13871650.21	13871650.28	13871650.37	0.0505	0.0452
Mercury	33267-06-08 03:50 G	13871740.53	13871740.66	13871740.79	0.0508	0.0349
Earth	33271-03-14 19:55 G	13873116.10	13873116.33	13873116.56	0.0533	0.0085
Moon	33271-03-14 22:48 G	13873116.21	13873116.45	13873116.68	0.0533	0.0105 *
Mercury	33272-10-29 20:53 G	13873711.28	13873711.37	13873711.47	0.0521	0.0340
Mercury	33273-01-27 02:38 G	13873800.50	13873800.61	13873800.73	0.0519	0.0255
Moon	33276-08-28 15:36 G	13875109.94	13875110.15	13875110.37	0.0493	0.0157
Earth	33276-08-28 18:57 G	13875110.08	13875110.29	13875110.51	0.0493	0.0183 *
Venus	33277-06-17 03:07 G	13875402.50	13875402.63	13875402.76	0.0494	0.0380
Earth	33277-09-28 20:24 G	13875506.19	13875506.35	13875506.53	0.0496	0.0335
Moon	33277-09-28 21:50 G	13875506.22	13875506.41	13875506.60	0.0496	0.0305 *
Mercury	33279-03-27 02:09 G	13876050.42	13876050.59	13876050.76	0.0507	0.0162
Earth	33282-02-10 21:21 G	13877102.31	13877102.39	13877102.49	0.0532	0.0488
Moon	33282-02-11 00:00 G	13877102.44	13877102.50	13877102.57	0.0532	0.0513 *
Moon	33283-03-19 18:14 G	13877504.03	13877504.26	13877504.48	0.0532	0.0149
Earth	33283-03-19 21:50 G	13877504.20	13877504.41	13877504.64	0.0532	0.0177 *
Venus	33283-04-21 23:02 G	13877537.38	13877537.46	13877537.55	0.0532	0.0476
Mercury	33284-08-18 00:29 G	13878021.49	13878021.52	13878021.56	0.0522	0.0499
Mercury	33284-11-15 06:14 G	13878110.63	13878110.76	13878110.89	0.0519	0.0093
Earth	33288-09-02 02:53 G	13879497.39	13879497.62	13879497.85	0.0493	0.0114
Moon	33288-09-02 06:43 G	13879497.55	13879497.78	13879498.02	0.0493	0.0092 *
Venus	33289-02-20 05:45 G	13879668.54	13879668.74	13879668.95	0.0494	0.0035
Moon	33289-10-03 04:33 G	13879893.56	13879893.69	13879893.83	0.0497	0.0393
Earth	33289-10-03 07:12 G	13879893.67	13879893.80	13879893.94	0.0497	0.0404 *
Mercury	33291-01-13 00:14 G	13880360.33	13880360.51	13880360.69	0.0507	0.0026

Mars	33292-07-18 19:41 G	13880913.09	13880913.32	13880913.56	0.0522	0.0257
Moon	33294-02-15 22:05 G	13881490.26	13881490.42	13881490.58	0.0532	0.0381
Earth	33294-02-16 01:41 G	13881490.42	13881490.57	13881490.72	0.0532	0.0400 *
Venus	33294-12-25 13:55 G	13881802.88	13881803.08	13881803.28	0.0532	0.0051
Earth	33295-03-25 01:12 G	13881892.35	13881892.55	13881892.75	0.0531	0.0271
Moon	33295-03-25 04:48 G	13881892.50	13881892.70	13881892.90	0.0531	0.0251 *
Mercury	33296-09-03 10:33 G	13882420.81	13882420.94	13882421.06	0.0520	0.0058
Moon	33300-09-07 08:09 G	13883884.61	13883884.84	13883885.08	0.0493	0.0055
Earth	33300-09-07 12:14 G	13883884.77	13883885.01	13883885.24	0.0493	0.0040 *
Venus	33300-10-27 08:24 G	13883934.77	13883934.85	13883934.94	0.0494	0.0447
Earth	33301-10-08 17:02 G	13884281.15	13884281.21	13884281.29	0.0497	0.0472
Mercury	33302-11-01 21:21 G	13884670.23	13884670.39	13884670.55	0.0506	0.0227
Earth	33306-02-22 03:36 G	13885878.46	13885878.65	13885878.84	0.0533	0.0310
Moon	33306-02-22 06:57 G	13885878.60	13885878.79	13885878.99	0.0533	0.0289 *
Moon	33307-03-31 01:41 G	13886280.40	13886280.57	13886280.74	0.0531	0.0383
Earth	33307-03-31 03:50 G	13886280.50	13886280.66	13886280.84	0.0531	0.0362 *
Mercury	33308-06-23 14:53 G	13886731.00	13886731.12	13886731.24	0.0521	0.0199
Mercury	33308-09-20 20:53 G	13886820.29	13886820.37	13886820.45	0.0518	0.0397
Moon	33311-08-12 17:17 G	13887876.12	13887876.22	13887876.34	0.0494	0.0438
Earth	33311-08-12 18:57 G	13887876.22	13887876.29	13887876.36	0.0494	0.0470 *
Earth	33312-09-11 20:53 G	13888272.14	13888272.37	13888272.60	0.0493	0.0037
Moon	33312-09-11 23:45 G	13888272.26	13888272.49	13888272.71	0.0493	0.0014 *
Mercury	33314-08-20 18:29 G	13888980.18	13888980.27	13888980.37	0.0505	0.0427
Mercury	33314-11-19 03:21 G	13889070.52	13889070.64	13889070.76	0.0508	0.0372
Moon	33318-02-27 06:57 G	13890266.58	13890266.79	13890267.01	0.0533	0.0239
Earth	33318-02-27 09:07 G	13890266.67	13890266.88	13890267.10	0.0533	0.0215 *
Earth	33319-04-05 09:50 G	13890668.79	13890668.91	13890669.03	0.0530	0.0452
Moon	33319-04-05 09:21 G	13890668.80	13890668.89	13890669.00	0.0530	0.0471 *
Mercury	33320-04-11 19:26 G	13891041.22	13891041.31	13891041.41	0.0521	0.0338
Mercury	33320-07-10 01:26 G	13891130.45	13891130.56	13891130.67	0.0519	0.0258

Moon	33323-08-17 03:50 G	13892263.54	13892263.66	13892263.79	0.0494	0.0403
Earth	33323-08-17 04:05 G	13892263.54	13892263.67	13892263.81	0.0494	0.0402 *
Moon	33324-09-16 03:21 G	13892659.41	13892659.64	13892659.87	0.0494	0.0122
Earth	33324-09-16 04:48 G	13892659.47	13892659.70	13892659.93	0.0494	0.0110 *
Venus	33324-10-29 16:48 G	13892703.01	13892703.20	13892703.38	0.0494	0.0216
Mercury	33326-09-07 00:43 G	13893380.36	13893380.53	13893380.70	0.0507	0.0173
Earth	33330-03-04 16:05 G	13894654.95	13894655.17	13894655.40	0.0534	0.0118
Moon	33330-03-04 16:19 G	13894654.97	13894655.18	13894655.40	0.0534	0.0140 *
Venus	33330-09-03 09:07 G	13894837.71	13894837.88	13894838.05	0.0532	0.0272
Moon	33331-04-10 18:00 G	13895057.19	13895057.25	13895057.32	0.0529	0.0507
Mercury	33332-01-30 00:14 G	13895351.46	13895351.51	13895351.56	0.0522	0.0477
Mercury	33332-04-28 06:00 G	13895440.62	13895440.75	13895440.87	0.0519	0.0117
Earth	33335-08-21 13:41 G	13896650.90	13896651.07	13896651.24	0.0493	0.0331
Moon	33335-08-21 15:50 G	13896651.00	13896651.16	13896651.33	0.0493	0.0358 *
Venus	33336-07-04 19:55 G	13896969.15	13896969.33	13896969.52	0.0494	0.0197
Earth	33336-09-20 14:24 G	13897046.88	13897047.10	13897047.32	0.0494	0.0186
Moon	33336-09-20 14:09 G	13897046.89	13897047.09	13897047.30	0.0494	0.0216 *
Mercury	33338-06-25 23:02 G	13897690.28	13897690.46	13897690.64	0.0507	0.0018
Earth	33342-03-09 20:09 G	13899043.10	13899043.34	13899043.57	0.0533	0.0025
Moon	33342-03-09 22:19 G	13899043.18	13899043.43	13899043.67	0.0533	0.0009 *
Venus	33342-05-08 23:02 G	13899103.28	13899103.46	13899103.64	0.0532	0.0258
Mercury	33344-02-15 09:36 G	13899750.77	13899750.90	13899751.03	0.0520	0.0045
Moon	33347-08-25 17:17 G	13901038.04	13901038.22	13901038.42	0.0494	0.0269
Earth	33347-08-25 20:53 G	13901038.17	13901038.37	13901038.57	0.0494	0.0264 *
Earth	33348-09-24 23:45 G	13901434.29	13901434.49	13901434.69	0.0495	0.0257
Moon	33348-09-25 01:12 G	13901434.35	13901434.55	13901434.76	0.0495	0.0254 *
Mercury	33350-04-13 20:53 G	13902000.21	13902000.37	13902000.54	0.0506	0.0203
Moon	33354-03-14 20:38 G	13903431.13	13903431.36	13903431.58	0.0532	0.0090
Earth	33354-03-15 00:14 G	13903431.28	13903431.51	13903431.74	0.0532	0.0074 *
Mercury	33355-12-04 13:41 G	13904060.95	13904061.07	13904061.19	0.0520	0.0190

Mercury	33356-03-02 19:41 G	13904150.24	13904150.32	13904150.40	0.0518	0.0405
Earth	33359-08-30 06:14 G	13905425.55	13905425.76	13905425.98	0.0493	0.0191
Moon	33359-08-30 10:19 G	13905425.71	13905425.93	13905426.15	0.0493	0.0160 *
Venus	33360-07-07 05:02 G	13905737.67	13905737.71	13905737.77	0.0495	0.0475
Moon	33360-09-29 06:43 G	13905821.61	13905821.78	13905821.96	0.0496	0.0302
Earth	33360-09-29 09:21 G	13905821.73	13905821.89	13905822.07	0.0496	0.0331 *
Mercury	33362-01-30 18:00 G	13906310.15	13906310.25	13906310.36	0.0505	0.0403
Mercury	33362-05-01 02:53 G	13906400.52	13906400.62	13906400.74	0.0508	0.0396
Moon	33365-02-10 23:45 G	13907417.45	13907417.49	13907417.54	0.0532	0.0520
Earth	33365-02-11 03:07 G	13907417.55	13907417.63	13907417.71	0.0532	0.0495
Earth	33366-03-20 03:07 G	13907819.40	13907819.63	13907819.85	0.0532	0.0170
Moon	33366-03-20 06:57 G	13907819.56	13907819.79	13907820.01	0.0532	0.0139 *
Mercury	33367-09-22 18:14 G	13908371.16	13908371.26	13908371.36	0.0521	0.0334
Mercury	33367-12-21 00:00 G	13908460.39	13908460.50	13908460.61	0.0519	0.0261
Moon	33371-09-03 12:00 G	13909812.77	13909813.00	13909813.23	0.0493	0.0096
Earth	33371-09-03 15:50 G	13909812.93	13909813.16	13909813.39	0.0493	0.0116 *
Venus	33372-03-12 07:41 G	13910003.62	13910003.82	13910004.03	0.0494	0.0059
Earth	33372-10-03 18:57 G	13910209.17	13910209.29	13910209.44	0.0496	0.0403
Moon	33372-10-03 22:48 G	13910209.32	13910209.45	13910209.59	0.0496	0.0402 *
Mercury	33374-02-17 00:29 G	13910710.36	13910710.52	13910710.69	0.0507	0.0199
Earth	33377-02-16 07:26 G	13911805.66	13911805.81	13911805.96	0.0533	0.0408
Moon	33377-02-16 11:02 G	13911805.81	13911805.96	13911806.13	0.0533	0.0381 *
Venus	33378-01-14 16:33 G	13912137.99	13912138.19	13912138.39	0.0533	0.0053
Moon	33378-03-25 06:00 G	13912207.53	13912207.75	13912207.96	0.0532	0.0246
Earth	33378-03-25 08:53 G	13912207.67	13912207.87	13912208.07	0.0532	0.0267 *
Mercury	33379-07-11 22:48 G	13912681.40	13912681.45	13912681.51	0.0522	0.0472
Mercury	33379-10-09 04:33 G	13912770.57	13912770.69	13912770.82	0.0520	0.0123
Earth	33383-09-08 00:14 G	13914200.27	13914200.51	13914200.74	0.0493	0.0042
Moon	33383-09-08 02:53 G	13914200.39	13914200.62	13914200.85	0.0493	0.0063 *
Venus	33383-11-16 09:50 G	13914269.78	13914269.91	13914270.06	0.0493	0.0358

Earth	33384-10-08 04:05 G	13914596.60	13914596.67	13914596.75	0.0497	0.0471
Mercury	33385-12-05 21:50 G	13915020.23	13915020.41	13915020.59	0.0506	0.0005
Moon	33389-02-21 11:17 G	13916193.77	13916193.97	13916194.17	0.0533	0.0298
Earth	33389-02-21 13:55 G	13916193.89	13916194.08	13916194.27	0.0533	0.0316 *
Venus	33389-09-19 08:38 G	13916403.77	13916403.86	13916403.96	0.0533	0.0465
Earth	33390-03-30 15:21 G	13916595.97	13916596.14	13916596.31	0.0531	0.0360
Moon	33390-03-30 15:36 G	13916596.01	13916596.15	13916596.31	0.0531	0.0388 *
Mercury	33391-07-28 09:07 G	13917080.76	13917080.88	13917081.01	0.0520	0.0026
Mars	33393-01-15 11:17 G	13917617.70	13917617.97	13917618.25	0.0505	0.0012
Moon	33394-08-12 07:12 G	13918191.71	13918191.80	13918191.90	0.0494	0.0449
Earth	33394-08-12 07:26 G	13918191.76	13918191.81	13918191.88	0.0494	0.0474 *
Moon	33395-09-12 08:24 G	13918587.61	13918587.85	13918588.09	0.0493	0.0015
Earth	33395-09-12 09:36 G	13918587.67	13918587.90	13918588.13	0.0493	0.0035 *
Mercury	33397-09-23 19:55 G	13919330.16	13919330.33	13919330.50	0.0506	0.0188
Earth	33401-02-27 19:12 G	13920582.09	13920582.30	13920582.51	0.0533	0.0223
Moon	33401-02-27 19:55 G	13920582.14	13920582.33	13920582.53	0.0533	0.0252 *
Earth	33402-04-05 17:02 G	13920984.09	13920984.21	13920984.34	0.0530	0.0444
Moon	33402-04-05 19:26 G	13920984.19	13920984.31	13920984.44	0.0530	0.0451 *
Mercury	33403-05-17 12:57 G	13921390.92	13921391.04	13921391.16	0.0520	0.0176
Mercury	33403-08-14 18:57 G	13921480.21	13921480.29	13921480.36	0.0518	0.0419
Earth	33406-08-17 14:09 G	13922578.97	13922579.09	13922579.22	0.0494	0.0410
Moon	33406-08-17 16:33 G	13922579.06	13922579.19	13922579.32	0.0494	0.0420 *
Moon	33407-09-17 17:17 G	13922975.00	13922975.22	13922975.44	0.0494	0.0125
Earth	33407-09-17 17:31 G	13922975.01	13922975.23	13922975.46	0.0494	0.0106 *
Venus	33407-11-19 18:57 G	13923038.14	13923038.29	13923038.45	0.0495	0.0312
Mercury	33409-07-13 17:45 G	13923640.12	13923640.24	13923640.36	0.0506	0.0378
Mercury	33409-10-12 02:38 G	13923730.52	13923730.61	13923730.71	0.0508	0.0423
Mars	33411-01-09 18:00 G	13924185.10	13924185.25	13924185.40	0.0521	0.0431
Earth	33413-03-04 23:45 G	13924970.26	13924970.49	13924970.72	0.0533	0.0126
Moon	33413-03-05 01:12 G	13924970.32	13924970.55	13924970.79	0.0533	0.0142 *

Venus	33413-09-23 11:02 G	13925172.82	13925172.96	13925173.10	0.0531	0.0373
Moon	33414-04-10 15:50 G	13925372.10	13925372.16	13925372.24	0.0528	0.0498
Mercury	33415-03-05 17:17 G	13925701.12	13925701.22	13925701.32	0.0521	0.0322
Mercury	33415-06-02 23:02 G	13925790.35	13925790.46	13925790.57	0.0518	0.0271
Moon	33418-08-21 20:38 G	13926966.22	13926966.36	13926966.52	0.0494	0.0370
Earth	33418-08-22 00:14 G	13926966.34	13926966.51	13926966.68	0.0494	0.0339 *
Venus	33419-07-25 21:50 G	13927304.21	13927304.41	13927304.62	0.0494	0.0104
Earth	33419-09-22 03:07 G	13927362.42	13927362.63	13927362.85	0.0495	0.0181
Moon	33419-09-22 04:48 G	13927362.49	13927362.70	13927362.92	0.0495	0.0209 *
Mercury	33421-07-31 00:14 G	13928040.35	13928040.51	13928040.67	0.0507	0.0225
Moon	33425-03-09 22:48 G	13929358.22	13929358.45	13929358.68	0.0533	0.0004
Earth	33425-03-10 02:09 G	13929358.36	13929358.59	13929358.82	0.0533	0.0031 *
Venus	33425-05-29 00:57 G	13929438.35	13929438.54	13929438.74	0.0532	0.0158
Mercury	33426-12-22 21:36 G	13930011.35	13930011.40	13930011.46	0.0522	0.0467
Mercury	33427-03-22 03:21 G	13930100.51	13930100.64	13930100.77	0.0519	0.0126
Earth	33430-08-26 10:19 G	13931353.74	13931353.93	13931354.13	0.0494	0.0266
Moon	33430-08-26 14:24 G	13931353.91	13931354.10	13931354.30	0.0494	0.0264 *
Moon	33431-09-26 10:05 G	13931749.72	13931749.92	13931750.11	0.0495	0.0248
Earth	33431-09-26 12:43 G	13931749.84	13931750.03	13931750.24	0.0495	0.0257 *
Mercury	33433-05-18 21:36 G	13932350.22	13932350.40	13932350.58	0.0506	0.0028
Earth	33437-03-15 07:26 G	13933746.58	13933746.81	13933747.04	0.0533	0.0069
Moon	33437-03-15 11:17 G	13933746.74	13933746.97	13933747.20	0.0533	0.0079 *
Mercury	33439-01-08 07:55 G	13934410.70	13934410.83	13934410.96	0.0520	0.0020
Moon	33442-08-30 15:36 G	13935740.93	13935741.15	13935741.38	0.0493	0.0165
Earth	33442-08-30 19:26 G	13935741.10	13935741.31	13935741.53	0.0493	0.0194 *
Earth	33443-09-30 21:21 G	13936137.22	13936137.39	13936137.56	0.0495	0.0329
Moon	33443-10-01 01:12 G	13936137.36	13936137.55	13936137.73	0.0495	0.0301 *
Mercury	33445-03-06 18:43 G	13936660.11	13936660.28	13936660.46	0.0506	0.0174
Earth	33448-02-12 12:57 G	13937732.98	13937733.04	13937733.13	0.0532	0.0503
Moon	33448-02-12 16:48 G	13937733.16	13937733.20	13937733.26	0.0532	0.0516

Moon	33449-03-20 11:02 G	13938134.73	13938134.96	13938135.20	0.0532	0.0136
Earth	33449-03-20 14:24 G	13938134.88	13938135.10	13938135.32	0.0532	0.0168 *
Mercury	33450-10-27 12:43 G	13938720.90	13938721.03	13938721.15	0.0521	0.0153
Mercury	33451-01-24 18:29 G	13938810.21	13938810.27	13938810.34	0.0518	0.0444
Earth	33454-09-04 04:48 G	13940128.47	13940128.70	13940128.93	0.0493	0.0118
Moon	33454-09-04 07:26 G	13940128.59	13940128.81	13940129.03	0.0493	0.0109 *
Venus	33455-04-02 09:50 G	13940338.72	13940338.91	13940339.11	0.0494	0.0152
Moon	33455-10-05 04:19 G	13940524.55	13940524.68	13940524.82	0.0496	0.0406
Earth	33455-10-05 07:55 G	13940524.71	13940524.83	13940524.98	0.0496	0.0403 *
Mercury	33456-12-23 16:48 G	13940970.08	13940970.20	13940970.33	0.0506	0.0363
Mercury	33457-03-24 01:41 G	13941060.49	13941060.57	13941060.66	0.0508	0.0438
Moon	33460-02-17 16:05 G	13942121.02	13942121.17	13942121.34	0.0532	0.0385
Earth	33460-02-17 19:12 G	13942121.16	13942121.30	13942121.45	0.0532	0.0416 *
Venus	33461-02-03 20:53 G	13942473.18	13942473.37	13942473.56	0.0532	0.0170
Earth	33461-03-25 18:14 G	13942523.06	13942523.26	13942523.47	0.0531	0.0259
Moon	33461-03-25 19:26 G	13942523.11	13942523.31	13942523.51	0.0531	0.0248 *
Mercury	33462-08-15 16:33 G	13943031.08	13943031.19	13943031.29	0.0521	0.0307
Mercury	33462-11-12 22:19 G	13943120.32	13943120.43	13943120.53	0.0518	0.0286
Moon	33466-09-08 10:33 G	13944515.70	13944515.94	13944516.18	0.0494	0.0074
Earth	33466-09-08 11:45 G	13944515.75	13944515.99	13944516.22	0.0494	0.0047 *
Venus	33466-12-06 11:31 G	13944604.81	13944604.98	13944605.15	0.0494	0.0267
Earth	33467-10-09 18:00 G	13944912.18	13944912.25	13944912.32	0.0498	0.0470
Mercury	33469-01-10 00:00 G	13945370.34	13945370.50	13945370.65	0.0508	0.0251
Earth	33472-02-22 23:45 G	13946509.31	13946509.49	13946509.68	0.0532	0.0323
Moon	33472-02-23 01:12 G	13946509.37	13946509.55	13946509.73	0.0532	0.0311 *
Venus	33472-10-09 11:45 G	13946738.85	13946738.99	13946739.15	0.0532	0.0355
Earth	33473-03-30 21:50 G	13946911.24	13946911.41	13946911.59	0.0530	0.0352
Moon	33473-03-30 23:31 G	13946911.32	13946911.48	13946911.65	0.0530	0.0382 *
Mercury	33474-06-03 20:53 G	13947341.31	13947341.37	13947341.43	0.0521	0.0453
Mercury	33474-09-01 02:24 G	13947430.48	13947430.60	13947430.73	0.0519	0.0138

Earth	33477-08-12 16:33 G	13948507.15	13948507.19	13948507.24	0.0495	0.0483
Moon	33477-08-12 18:57 G	13948507.21	13948507.29	13948507.38	0.0495	0.0461 *
Moon	33478-09-12 20:38 G	13948903.13	13948903.36	13948903.58	0.0494	0.0015
Earth	33478-09-12 21:07 G	13948903.15	13948903.38	13948903.62	0.0494	0.0030 *
Mercury	33480-10-28 21:21 G	13949680.21	13949680.39	13949680.57	0.0507	0.0053
Earth	33484-02-28 01:26 G	13950897.35	13950897.56	13950897.77	0.0533	0.0230
Moon	33484-02-28 02:09 G	13950897.38	13950897.59	13950897.80	0.0533	0.0258 *
Moon	33485-04-04 19:55 G	13951299.22	13951299.33	13951299.46	0.0530	0.0447
Earth	33485-04-04 23:31 G	13951299.35	13951299.48	13951299.61	0.0530	0.0441 *
Mercury	33486-06-20 06:43 G	13951740.65	13951740.78	13951740.91	0.0520	0.0008
Moon	33489-08-17 00:00 G	13952894.39	13952894.50	13952894.61	0.0494	0.0431
Earth	33489-08-17 03:36 G	13952894.53	13952894.65	13952894.78	0.0494	0.0412 *
Earth	33490-09-17 06:57 G	13953290.56	13953290.79	13953291.01	0.0494	0.0105
Moon	33490-09-17 08:38 G	13953290.63	13953290.86	13953291.10	0.0494	0.0128 *
Venus	33490-12-08 21:21 G	13953373.28	13953373.39	13953373.51	0.0495	0.0405
Mercury	33492-08-16 18:29 G	13953990.10	13953990.27	13953990.45	0.0506	0.0148
Moon	33496-03-04 02:53 G	13955285.40	13955285.62	13955285.84	0.0533	0.0141
Earth	33496-03-04 05:45 G	13955285.52	13955285.74	13955285.97	0.0533	0.0133 *
Venus	33496-10-12 13:26 G	13955507.98	13955508.06	13955508.15	0.0532	0.0476
Earth	33497-04-10 03:36 G	13955687.65	13955687.65	13955687.66	0.0529	0.0529
Moon	33497-04-10 07:41 G	13955687.75	13955687.82	13955687.91	0.0529	0.0495
Mercury	33498-04-08 11:17 G	13956050.85	13956050.97	13956051.10	0.0521	0.0148
Mercury	33498-07-06 17:17 G	13956140.16	13956140.22	13956140.28	0.0518	0.0448
Earth	33501-08-22 13:12 G	13957281.89	13957282.05	13957282.23	0.0494	0.0343
Moon	33501-08-22 17:31 G	13957282.08	13957282.23	13957282.38	0.0494	0.0372 *
Venus	33502-08-14 23:45 G	13957639.28	13957639.49	13957639.69	0.0494	0.0012
Moon	33502-09-22 12:29 G	13957677.81	13957678.02	13957678.23	0.0494	0.0203
Earth	33502-09-22 15:21 G	13957677.92	13957678.14	13957678.36	0.0494	0.0179 *
Mercury	33504-06-05 15:36 G	13958300.02	13958300.15	13958300.28	0.0505	0.0349
Mercury	33504-09-04 00:29 G	13958390.44	13958390.52	13958390.60	0.0508	0.0450

Earth	33508-03-10 12:29 G	13959673.78	13959674.02	13959674.25	0.0533	0.0036
Moon	33508-03-10 16:19 G	13959673.95	13959674.18	13959674.42	0.0533	0.0009 *
Venus	33508-06-18 05:45 G	13959773.54	13959773.74	13959773.95	0.0532	0.0042
Mercury	33510-01-26 16:05 G	13960361.06	13960361.17	13960361.27	0.0521	0.0287
Mercury	33510-04-25 21:50 G	13960450.30	13960450.41	13960450.51	0.0519	0.0308
Moon	33513-08-26 19:12 G	13961669.11	13961669.30	13961669.50	0.0493	0.0267
Earth	33513-08-26 23:02 G	13961669.27	13961669.46	13961669.66	0.0493	0.0270 *
Venus	33514-04-20 02:38 G	13961905.51	13961905.61	13961905.71	0.0494	0.0425
Earth	33514-09-27 01:12 G	13962065.35	13962065.55	13962065.75	0.0495	0.0255
Moon	33514-09-27 05:02 G	13962065.50	13962065.71	13962065.91	0.0495	0.0236 *
Mercury	33516-06-22 22:48 G	13962700.30	13962700.45	13962700.60	0.0507	0.0264
Moon	33520-03-15 14:38 G	13964061.87	13964062.11	13964062.34	0.0532	0.0071
Earth	33520-03-15 18:14 G	13964062.02	13964062.26	13964062.49	0.0532	0.0062 *
Mercury	33521-11-14 19:55 G	13964671.27	13964671.33	13964671.40	0.0521	0.0439
Mercury	33522-02-12 01:41 G	13964760.44	13964760.57	13964760.69	0.0519	0.0153
Earth	33525-08-31 04:48 G	13966056.49	13966056.70	13966056.92	0.0494	0.0201
Moon	33525-08-31 07:26 G	13966056.60	13966056.81	13966057.03	0.0494	0.0173 *
Moon	33526-10-01 05:31 G	13966452.55	13966452.73	13966452.92	0.0496	0.0298
Earth	33526-10-01 09:21 G	13966452.72	13966452.89	13966453.06	0.0496	0.0326 *
Mercury	33528-04-10 20:38 G	13967010.18	13967010.36	13967010.54	0.0507	0.0073
Moon	33531-02-12 21:21 G	13968048.33	13968048.39	13968048.45	0.0531	0.0514
Earth	33531-02-13 00:29 G	13968048.46	13968048.52	13968048.59	0.0531	0.0507
Earth	33532-03-20 22:19 G	13968450.21	13968450.43	13968450.65	0.0532	0.0160
Moon	33532-03-21 00:00 G	13968450.28	13968450.50	13968450.72	0.0532	0.0130 *
Mercury	33533-12-01 05:45 G	13969070.61	13969070.74	13969070.87	0.0519	0.0011
Moon	33537-09-04 13:26 G	13970443.83	13970444.06	13970444.30	0.0494	0.0124
Earth	33537-09-04 14:24 G	13970443.87	13970444.10	13970444.32	0.0494	0.0125 *
Venus	33538-04-22 10:48 G	13970673.77	13970673.95	13970674.13	0.0495	0.0238
Earth	33538-10-05 19:26 G	13970840.18	13970840.31	13970840.45	0.0497	0.0399
Moon	33538-10-05 22:19 G	13970840.31	13970840.43	13970840.56	0.0497	0.0409 *

Mercury	33540-01-28 18:00 G	13971320.07	13971320.25	13971320.42	0.0506	0.0126
Earth	33543-02-18 00:43 G	13972436.40	13972436.53	13972436.68	0.0532	0.0422
Moon	33543-02-18 02:38 G	13972436.46	13972436.61	13972436.77	0.0532	0.0390 *
Venus	33544-02-24 22:19 G	13972808.26	13972808.43	13972808.61	0.0532	0.0266
Earth	33544-03-25 23:31 G	13972838.27	13972838.48	13972838.68	0.0531	0.0254
Moon	33544-03-26 00:14 G	13972838.30	13972838.51	13972838.73	0.0531	0.0252 *
Mercury	33545-09-19 10:05 G	13973380.80	13973380.92	13973381.04	0.0520	0.0143
Mercury	33545-12-17 15:50 G	13973470.10	13973470.16	13973470.23	0.0518	0.0453
Mars	33547-04-13 19:26 G	13973952.13	13973952.31	13973952.50	0.0505	0.0376
Moon	33549-09-08 23:31 G	13974831.26	13974831.48	13974831.70	0.0494	0.0078
Earth	33549-09-09 00:14 G	13974831.28	13974831.51	13974831.74	0.0494	0.0048 *
Venus	33549-12-26 13:26 G	13974939.87	13974940.06	13974940.26	0.0494	0.0177
Earth	33550-10-10 05:45 G	13975227.67	13975227.74	13975227.81	0.0497	0.0469
Mercury	33551-11-16 15:07 G	13975629.99	13975630.13	13975630.27	0.0506	0.0326
Mercury	33552-02-15 00:00 G	13975720.44	13975720.50	13975720.57	0.0508	0.0473
Moon	33555-02-23 04:19 G	13976824.49	13976824.68	13976824.88	0.0532	0.0320
Earth	33555-02-23 04:19 G	13976824.50	13976824.68	13976824.86	0.0532	0.0331 *
Venus	33555-10-30 13:26 G	13977073.88	13977074.06	13977074.24	0.0532	0.0259
Moon	33556-03-31 00:29 G	13977226.37	13977226.52	13977226.69	0.0531	0.0382
Earth	33556-03-31 03:36 G	13977226.48	13977226.65	13977226.83	0.0531	0.0348 *
Mercury	33557-07-08 14:38 G	13977691.00	13977691.11	13977691.22	0.0521	0.0285
Mercury	33557-10-05 20:24 G	13977780.25	13977780.35	13977780.46	0.0519	0.0311
Moon	33560-08-13 01:41 G	13978822.51	13978822.57	13978822.64	0.0495	0.0470
Earth	33560-08-13 05:31 G	13978822.69	13978822.73	13978822.77	0.0495	0.0486
Earth	33561-09-13 08:53 G	13979218.64	13979218.87	13979219.10	0.0494	0.0027
Moon	33561-09-13 11:02 G	13979218.71	13979218.96	13979219.20	0.0494	0.0018 *
Mercury	33563-12-03 21:21 G	13980030.24	13980030.39	13980030.54	0.0507	0.0273
Mars	33565-04-06 10:33 G	13980519.67	13980519.94	13980520.21	0.0521	0.0021
Moon	33567-02-28 07:12 G	13981212.61	13981212.80	13981213.00	0.0533	0.0268
Earth	33567-02-28 09:50 G	13981212.70	13981212.91	13981213.12	0.0533	0.0236 *

Earth	33568-04-05 09:07 G	13981614.76	13981614.88	13981615.01	0.0530	0.0439
Moon	33568-04-05 13:26 G	13981614.93	13981615.06	13981615.19	0.0530	0.0441 *
Mercury	33569-04-26 19:12 G	13982001.23	13982001.30	13982001.38	0.0522	0.0424
Mercury	33569-07-25 00:57 G	13982090.42	13982090.54	13982090.66	0.0519	0.0170
Earth	33572-08-17 15:07 G	13983210.01	13983210.13	13983210.26	0.0494	0.0417
Moon	33572-08-17 19:12 G	13983210.20	13983210.30	13983210.41	0.0494	0.0440 *
Moon	33573-09-17 15:07 G	13983605.91	13983606.13	13983606.35	0.0494	0.0127
Earth	33573-09-17 18:00 G	13983606.03	13983606.25	13983606.48	0.0494	0.0103 *
Venus	33573-12-28 22:33 G	13983708.42	13983708.44	13983708.46	0.0495	0.0491
Mercury	33575-09-21 19:26 G	13984340.13	13984340.31	13984340.48	0.0507	0.0084
Earth	33579-03-05 16:19 G	13985600.95	13985601.18	13985601.40	0.0533	0.0140
Moon	33579-03-05 20:09 G	13985601.12	13985601.34	13985601.57	0.0533	0.0137 *
Moon	33580-04-10 08:38 G	13986002.78	13986002.86	13986002.96	0.0529	0.0490
Earth	33580-04-10 12:29 G	13986002.99	13986003.02	13986003.05	0.0529	0.0522
Mercury	33581-05-13 04:48 G	13986400.57	13986400.70	13986400.83	0.0519	0.0022
Moon	33584-08-21 16:48 G	13987597.05	13987597.20	13987597.35	0.0494	0.0379
Earth	33584-08-21 20:38 G	13987597.20	13987597.36	13987597.52	0.0494	0.0350 *
Venus	33585-09-02 23:31 G	13987974.28	13987974.48	13987974.68	0.0495	0.0068
Earth	33585-09-22 00:29 G	13987993.30	13987993.52	13987993.74	0.0495	0.0175
Moon	33585-09-22 04:05 G	13987993.46	13987993.67	13987993.89	0.0495	0.0191 *
Mercury	33587-07-10 16:48 G	13988650.03	13988650.20	13988650.38	0.0507	0.0112
Moon	33591-03-10 17:02 G	13989988.97	13989989.21	13989989.44	0.0532	0.0012
Earth	33591-03-10 20:53 G	13989989.13	13989989.37	13989989.60	0.0532	0.0043 *
Venus	33591-07-08 08:53 G	13990108.67	13990108.87	13990109.07	0.0531	0.0066
Mercury	33593-03-01 09:07 G	13990710.76	13990710.88	13990711.00	0.0520	0.0132
Mercury	33593-05-29 14:53 G	13990800.07	13990800.12	13990800.18	0.0517	0.0462
Earth	33596-08-26 05:45 G	13991984.55	13991984.74	13991984.94	0.0494	0.0278
Moon	33596-08-26 08:24 G	13991984.67	13991984.85	13991985.04	0.0494	0.0269 *
Venus	33597-05-09 01:55 G	13992240.44	13992240.58	13992240.73	0.0494	0.0348
Moon	33597-09-26 06:29 G	13992380.57	13992380.77	13992380.98	0.0495	0.0227

Earth	33597-09-26 10:05 G	13992380.73	13992380.92	13992381.13	0.0495	0.0251	*
Mercury	33599-04-28 13:55 G	13992959.94	13992960.08	13992960.23	0.0506	0.0312	
Mercury	33599-07-27 23:02 G	13993050.42	13993050.46	13993050.51	0.0508	0.0489	
Venus	33603-03-12 21:50 G	13994374.32	13994374.41	13994374.51	0.0532	0.0470	
Earth	33603-03-15 21:21 G	13994377.16	13994377.39	13994377.63	0.0532	0.0056	
Moon	33603-03-16 00:00 G	13994377.27	13994377.50	13994377.72	0.0532	0.0061	*
Mercury	33604-12-18 13:12 G	13995020.95	13995021.05	13995021.16	0.0521	0.0281	
Mercury	33605-03-17 18:57 G	13995110.19	13995110.29	13995110.39	0.0518	0.0313	
Moon	33608-08-30 15:21 G	13996371.91	13996372.14	13996372.37	0.0494	0.0176	
Earth	33608-08-30 16:05 G	13996371.96	13996372.17	13996372.38	0.0494	0.0203	*
Earth	33609-09-30 19:55 G	13996768.16	13996768.33	13996768.51	0.0496	0.0326	
Moon	33609-09-30 22:33 G	13996768.27	13996768.44	13996768.63	0.0496	0.0302	*
Mercury	33611-05-15 20:24 G	13997360.21	13997360.35	13997360.50	0.0507	0.0291	
Earth	33614-02-12 02:38 G	13998363.57	13998363.61	13998363.67	0.0531	0.0516	
Moon	33614-02-12 05:02 G	13998363.68	13998363.71	13998363.76	0.0531	0.0520	
Moon	33615-03-21 01:12 G	13998765.31	13998765.55	13998765.79	0.0532	0.0123	
Earth	33615-03-21 01:12 G	13998765.32	13998765.55	13998765.77	0.0532	0.0153	*
Mercury	33616-10-06 17:45 G	13999331.17	13999331.24	13999331.31	0.0522	0.0424	
Mercury	33617-01-03 23:17 G	13999420.35	13999420.47	13999420.60	0.0519	0.0170	
Moon	33620-09-04 00:00 G	14000759.29	14000759.50	14000759.72	0.0493	0.0136	
Earth	33620-09-04 00:57 G	14000759.32	14000759.54	14000759.77	0.0493	0.0129	*
Venus	33621-05-11 11:02 G	14001008.81	14001008.96	14001009.12	0.0495	0.0321	
Moon	33621-10-05 02:53 G	14001155.49	14001155.62	14001155.76	0.0496	0.0405	
Earth	33621-10-05 04:33 G	14001155.56	14001155.69	14001155.84	0.0496	0.0396	*
Mercury	33623-03-03 17:31 G	14001670.05	14001670.23	14001670.41	0.0507	0.0089	
Moon	33626-02-17 06:00 G	14002751.59	14002751.75	14002751.91	0.0532	0.0397	
Earth	33626-02-17 06:43 G	14002751.64	14002751.78	14002751.91	0.0532	0.0430	*
Venus	33627-03-16 00:57 G	14003143.40	14003143.54	14003143.69	0.0532	0.0369	
Moon	33627-03-26 03:50 G	14003153.47	14003153.66	14003153.86	0.0532	0.0255	
Earth	33627-03-26 06:29 G	14003153.57	14003153.77	14003153.98	0.0532	0.0249	*

Mercury	33628-10-23 03:50 G	14003730.54	14003730.66	14003730.79	0.0520	0.0033
Earth	33632-09-08 09:36 G	14005146.67	14005146.90	14005147.14	0.0494	0.0053
Moon	33632-09-08 11:45 G	14005146.76	14005146.99	14005147.23	0.0494	0.0084 *
Venus	33633-01-14 13:41 G	14005274.87	14005275.07	14005275.27	0.0494	0.0096
Earth	33633-10-09 14:38 G	14005543.04	14005543.11	14005543.19	0.0497	0.0467
Moon	33633-10-09 14:09 G	14005543.08	14005543.09	14005543.12	0.0497	0.0494 *
Mercury	33634-12-20 15:21 G	14005979.96	14005980.14	14005980.31	0.0506	0.0105
Moon	33638-02-22 11:17 G	14007139.80	14007139.97	14007140.15	0.0532	0.0337
Earth	33638-02-22 12:57 G	14007139.87	14007140.04	14007140.23	0.0532	0.0339 *
Venus	33638-11-18 17:02 G	14007409.01	14007409.21	14007409.40	0.0532	0.0149
Earth	33639-03-31 11:31 G	14007541.80	14007541.98	14007542.16	0.0530	0.0341
Moon	33639-03-31 15:21 G	14007541.98	14007542.14	14007542.31	0.0530	0.0377 *
Mercury	33640-08-11 07:55 G	14008040.71	14008040.83	14008040.96	0.0520	0.0124
Mercury	33640-11-08 13:55 G	14008130.03	14008130.08	14008130.13	0.0517	0.0470
Earth	33643-08-13 09:50 G	14009137.91	14009137.91	14009137.92	0.0495	0.0495
Moon	33643-08-13 13:55 G	14009138.03	14009138.08	14009138.14	0.0495	0.0480
Moon	33644-09-12 12:00 G	14009533.77	14009534.00	14009534.23	0.0494	0.0012
Earth	33644-09-12 14:53 G	14009533.89	14009534.12	14009534.36	0.0494	0.0022 *
Mercury	33646-10-08 12:29 G	14010289.88	14010290.02	14010290.17	0.0506	0.0304
Mercury	33647-01-06 21:36 G	14010380.37	14010380.40	14010380.43	0.0509	0.0499
Earth	33650-02-27 17:31 G	14011528.02	14011528.23	14011528.44	0.0532	0.0242
Moon	33650-02-27 21:07 G	14011528.19	14011528.38	14011528.59	0.0532	0.0274 *
Moon	33651-04-05 10:33 G	14011929.81	14011929.94	14011930.07	0.0529	0.0434
Earth	33651-04-05 14:24 G	14011929.97	14011930.10	14011930.24	0.0529	0.0433 *
Mercury	33652-05-30 12:14 G	14012350.90	14012351.01	14012351.12	0.0520	0.0271
Mercury	33652-08-27 18:00 G	14012440.15	14012440.25	14012440.35	0.0518	0.0321
Moon	33655-08-17 15:21 G	14013525.05	14013525.14	14013525.25	0.0495	0.0447
Earth	33655-08-17 19:26 G	14013525.19	14013525.31	14013525.43	0.0495	0.0425 *
Earth	33656-09-17 00:00 G	14013921.27	14013921.50	14013921.73	0.0494	0.0096
Moon	33656-09-17 03:36 G	14013921.43	14013921.65	14013921.88	0.0494	0.0125 *

Mercury	33658-10-25 18:57 G	14014690.15	14014690.29	14014690.44	0.0508	0.0300
Moon	33662-03-04 13:26 G	14015915.84	14015916.06	14015916.29	0.0532	0.0148
Earth	33662-03-04 17:31 G	14015916.01	14015916.23	14015916.46	0.0532	0.0149 *
Earth	33663-04-10 13:26 G	14016318.03	14016318.06	14016318.12	0.0529	0.0518
Moon	33663-04-10 16:05 G	14016318.09	14016318.17	14016318.26	0.0529	0.0488 *
Mercury	33664-03-18 16:19 G	14016661.11	14016661.18	14016661.25	0.0521	0.0423
Mercury	33664-06-15 21:50 G	14016750.29	14016750.41	14016750.54	0.0519	0.0170
Mars	33665-10-02 06:57 G	14017223.58	14017223.79	14017224.00	0.0506	0.0319
Earth	33667-08-22 05:45 G	14017912.58	14017912.74	14017912.90	0.0494	0.0354
Moon	33667-08-22 08:09 G	14017912.70	14017912.84	14017912.99	0.0494	0.0377 *
Moon	33668-09-21 06:14 G	14018308.54	14018308.76	14018308.97	0.0495	0.0184
Earth	33668-09-21 09:36 G	14018308.69	14018308.90	14018309.12	0.0495	0.0173 *
Venus	33668-09-21 23:31 G	14018309.28	14018309.48	14018309.67	0.0495	0.0147
Mercury	33670-08-13 16:19 G	14019000.00	14019000.18	14019000.36	0.0507	0.0100
Earth	33674-03-09 20:09 G	14020304.11	14020304.34	14020304.58	0.0532	0.0052
Moon	33674-03-09 23:17 G	14020304.24	14020304.47	14020304.70	0.0532	0.0018 *
Venus	33674-07-27 07:26 G	14020443.61	14020443.81	14020444.00	0.0532	0.0143
Mercury	33676-04-04 02:09 G	14021060.47	14021060.59	14021060.72	0.0520	0.0028
Moon	33679-08-26 14:09 G	14022299.89	14022300.09	14022300.30	0.0494	0.0266
Earth	33679-08-26 15:07 G	14022299.94	14022300.13	14022300.32	0.0494	0.0283 *
Venus	33680-05-28 01:26 G	14022575.39	14022575.56	14022575.73	0.0494	0.0270
Earth	33680-09-25 17:45 G	14022696.04	14022696.24	14022696.45	0.0495	0.0246
Moon	33680-09-25 20:38 G	14022696.16	14022696.36	14022696.56	0.0495	0.0220 *
Mercury	33682-06-01 12:57 G	14023309.87	14023310.04	14023310.22	0.0506	0.0107
Moon	33686-03-15 00:14 G	14024692.26	14024692.51	14024692.75	0.0533	0.0046
Earth	33686-03-15 00:57 G	14024692.31	14024692.54	14024692.78	0.0533	0.0047 *
Venus	33686-03-31 22:33 G	14024709.31	14024709.44	14024709.59	0.0532	0.0379
Mercury	33688-01-22 06:43 G	14025370.66	14025370.78	14025370.91	0.0520	0.0119
Mercury	33688-04-20 12:43 G	14025459.98	14025460.03	14025460.07	0.0518	0.0477
Moon	33691-08-30 22:33 G	14026687.23	14026687.44	14026687.65	0.0494	0.0184

Earth	33691-08-30 23:31 G	14026687.27	14026687.48	14026687.70	0.0494	0.0209	*
Moon	33692-09-30 00:57 G	14027083.35	14027083.54	14027083.74	0.0495	0.0297	
Earth	33692-09-30 02:53 G	14027083.44	14027083.62	14027083.79	0.0495	0.0321	*
Mercury	33694-03-20 10:33 G	14027619.79	14027619.94	14027620.09	0.0506	0.0302	
Mercury	33694-06-18 19:41 G	14027710.29	14027710.32	14027710.35	0.0508	0.0499	
Moon	33697-02-11 07:55 G	14028678.80	14028678.83	14028678.87	0.0531	0.0524	
Earth	33697-02-11 09:07 G	14028678.85	14028678.88	14028678.92	0.0531	0.0524	*
Moon	33698-03-20 05:17 G	14029080.50	14029080.72	14029080.94	0.0532	0.0116	
Earth	33698-03-20 07:12 G	14029080.58	14029080.80	14029081.03	0.0532	0.0146	*
Mercury	33699-11-10 11:02 G	14029680.85	14029680.96	14029681.07	0.0520	0.0267	
Mercury	33700-02-07 16:33 G	14029770.09	14029770.19	14029770.29	0.0518	0.0326	
Earth	33703-09-05 04:19 G	14031074.45	14031074.68	14031074.90	0.0494	0.0137	
Moon	33703-09-05 06:14 G	14031074.54	14031074.76	14031075.00	0.0494	0.0146	*
Venus	33704-05-31 07:55 G	14031343.71	14031343.83	14031343.96	0.0495	0.0384	
Earth	33704-10-05 09:07 G	14031470.74	14031470.88	14031471.03	0.0497	0.0391	
Moon	33704-10-05 09:07 G	14031470.75	14031470.88	14031471.01	0.0497	0.0408	*
Mercury	33706-04-07 16:48 G	14032020.06	14032020.20	14032020.35	0.0508	0.0302	
Moon	33709-02-17 11:45 G	14033066.85	14033066.99	14033067.14	0.0532	0.0407	
Earth	33709-02-17 12:57 G	14033066.91	14033067.04	14033067.17	0.0532	0.0436	*
Earth	33710-03-26 10:48 G	14033468.74	14033468.95	14033469.16	0.0531	0.0242	
Moon	33710-03-26 14:24 G	14033468.90	14033469.10	14033469.31	0.0531	0.0252	*
Venus	33710-04-05 01:55 G	14033478.49	14033478.58	14033478.68	0.0531	0.0461	
Mercury	33711-08-30 15:07 G	14033991.06	14033991.13	14033991.21	0.0521	0.0415	
Mercury	33711-11-27 20:38 G	14034080.24	14034080.36	14034080.48	0.0518	0.0176	
Moon	33715-09-09 09:36 G	14035461.68	14035461.90	14035462.13	0.0494	0.0091	
Earth	33715-09-09 12:43 G	14035461.80	14035462.03	14035462.26	0.0494	0.0060	*
Venus	33716-02-04 10:05 G	14035609.72	14035609.92	14035610.13	0.0495	0.0036	
Earth	33716-10-09 18:43 G	14035858.21	14035858.28	14035858.37	0.0497	0.0464	
Moon	33716-10-09 21:07 G	14035858.33	14035858.38	14035858.44	0.0497	0.0484	*
Mercury	33718-01-24 14:09 G	14036329.91	14036330.09	14036330.27	0.0507	0.0101	

Mars	33719-07-02 19:26 G	14036854.12	14036854.31	14036854.51	0.0521	0.0358
Earth	33721-02-22 12:14 G	14037454.84	14037455.01	14037455.19	0.0532	0.0348
Moon	33721-02-22 15:36 G	14037454.97	14037455.15	14037455.32	0.0532	0.0355 *
Venus	33721-12-08 14:38 G	14037743.91	14037744.11	14037744.31	0.0532	0.0077
Moon	33722-03-31 06:00 G	14037856.58	14037856.75	14037856.91	0.0531	0.0368
Earth	33722-03-31 09:50 G	14037856.73	14037856.91	14037857.10	0.0531	0.0333 *
Mercury	33723-09-16 00:29 G	14038390.39	14038390.52	14038390.65	0.0519	0.0026
Moon	33726-08-13 12:57 G	14039453.00	14039453.04	14039453.09	0.0495	0.0485
Earth	33727-09-13 22:19 G	14039849.19	14039849.43	14039849.66	0.0494	0.0016
Moon	33727-09-14 01:55 G	14039849.35	14039849.58	14039849.82	0.0494	0.0019 *
Venus	33727-10-10 12:43 G	14039875.95	14039876.03	14039876.12	0.0494	0.0448
Mercury	33729-11-12 11:17 G	14040639.80	14040639.97	14040640.15	0.0506	0.0101
Moon	33733-02-27 09:50 G	14041842.72	14041842.91	14041843.11	0.0532	0.0290
Earth	33733-02-27 13:55 G	14041842.88	14041843.08	14041843.29	0.0532	0.0255 *
Earth	33734-04-05 11:45 G	14042244.85	14042244.99	14042245.13	0.0530	0.0425
Moon	33734-04-05 14:38 G	14042244.98	14042245.11	14042245.26	0.0530	0.0422 *
Mercury	33735-07-05 04:48 G	14042700.58	14042700.70	14042700.83	0.0520	0.0126
Mercury	33735-10-02 10:33 G	14042789.89	14042789.94	14042790.00	0.0518	0.0470
Earth	33738-08-18 02:38 G	14043840.50	14043840.61	14043840.72	0.0495	0.0432
Moon	33738-08-18 05:02 G	14043840.64	14043840.71	14043840.81	0.0495	0.0457 *
Moon	33739-09-18 02:38 G	14044236.39	14044236.61	14044236.85	0.0494	0.0121
Earth	33739-09-18 06:14 G	14044236.53	14044236.76	14044236.99	0.0494	0.0091 *
Mercury	33741-08-31 07:55 G	14044949.69	14044949.83	14044949.97	0.0506	0.0308
Mercury	33741-11-29 16:48 G	14045040.17	14045040.20	14045040.25	0.0508	0.0493
Earth	33745-03-04 17:31 G	14046231.01	14046231.23	14046231.45	0.0533	0.0160
Moon	33745-03-04 21:07 G	14046231.16	14046231.38	14046231.60	0.0533	0.0158 *
Moon	33746-04-10 14:24 G	14046633.01	14046633.10	14046633.21	0.0529	0.0480
Earth	33746-04-10 15:21 G	14046633.09	14046633.14	14046633.20	0.0529	0.0512 *
Mercury	33747-04-23 09:21 G	14047010.78	14047010.89	14047011.00	0.0521	0.0269
Mercury	33747-07-21 15:07 G	14047100.03	14047100.13	14047100.23	0.0518	0.0325

Moon	33750-08-22 10:33 G	14048227.79	14048227.94	14048228.10	0.0494	0.0376
Earth	33750-08-22 11:17 G	14048227.82	14048227.97	14048228.14	0.0494	0.0361 *
Earth	33751-09-22 14:24 G	14048623.88	14048624.10	14048624.32	0.0494	0.0166
Moon	33751-09-22 17:02 G	14048624.00	14048624.21	14048624.43	0.0494	0.0175 *
Venus	33751-10-12 20:38 G	14048644.18	14048644.36	14048644.55	0.0494	0.0213
Mercury	33753-09-17 14:38 G	14049349.96	14049350.11	14049350.25	0.0508	0.0298
Moon	33757-03-09 22:05 G	14050619.18	14050619.42	14050619.67	0.0533	0.0032
Earth	33757-03-10 00:00 G	14050619.27	14050619.50	14050619.73	0.0533	0.0061 *
Venus	33757-08-16 08:09 G	14050778.66	14050778.84	14050779.02	0.0532	0.0235
Mercury	33759-02-09 13:41 G	14051320.99	14051321.07	14051321.14	0.0521	0.0415
Mercury	33759-05-09 19:12 G	14051410.18	14051410.30	14051410.42	0.0518	0.0176
Moon	33762-08-26 15:07 G	14052614.95	14052615.13	14052615.33	0.0494	0.0271
Earth	33762-08-26 16:05 G	14052614.98	14052615.17	14052615.36	0.0494	0.0292 *
Venus	33763-06-17 20:38 G	14052910.18	14052910.36	14052910.55	0.0494	0.0216
Moon	33763-09-26 17:31 G	14053011.02	14053011.23	14053011.45	0.0495	0.0214
Earth	33763-09-26 19:26 G	14053011.11	14053011.31	14053011.52	0.0495	0.0240 *
Mercury	33765-07-06 11:31 G	14053659.81	14053659.98	14053660.16	0.0507	0.0095
Moon	33769-03-15 02:53 G	14055007.40	14055007.62	14055007.85	0.0532	0.0030
Earth	33769-03-15 04:05 G	14055007.43	14055007.67	14055007.90	0.0532	0.0039 *
Venus	33769-04-20 23:02 G	14055044.29	14055044.46	14055044.63	0.0532	0.0290
Mercury	33771-02-25 23:17 G	14055720.34	14055720.47	14055720.60	0.0519	0.0026
Earth	33774-08-31 00:14 G	14057002.30	14057002.51	14057002.72	0.0494	0.0218
Moon	33774-08-31 02:24 G	14057002.38	14057002.60	14057002.82	0.0494	0.0192 *
Earth	33775-10-01 04:19 G	14057398.51	14057398.68	14057398.87	0.0496	0.0315
Moon	33775-10-01 04:19 G	14057398.51	14057398.68	14057398.87	0.0496	0.0299 *
Mercury	33777-04-24 08:38 G	14057969.69	14057969.86	14057970.04	0.0507	0.0108
Earth	33781-03-20 02:53 G	14059395.39	14059395.62	14059395.84	0.0532	0.0134
Moon	33781-03-20 06:00 G	14059395.52	14059395.75	14059395.99	0.0532	0.0102 *
Mercury	33782-12-15 03:07 G	14060030.50	14060030.63	14060030.75	0.0520	0.0131
Mercury	33783-03-14 08:53 G	14060119.82	14060119.87	14060119.93	0.0518	0.0463

Moon	33786-09-04 06:43 G	14061389.57	14061389.78	14061390.00	0.0494	0.0154
Earth	33786-09-04 09:50 G	14061389.69	14061389.91	14061390.13	0.0494	0.0142 *
Venus	33787-06-20 05:45 G	14061678.66	14061678.74	14061678.83	0.0495	0.0451
Earth	33787-10-05 14:24 G	14061785.95	14061786.10	14061786.24	0.0496	0.0387
Moon	33787-10-05 16:19 G	14061786.05	14061786.18	14061786.32	0.0496	0.0410 *
Mercury	33789-02-10 05:45 G	14062279.60	14062279.74	14062279.89	0.0506	0.0309
Mercury	33789-05-11 14:53 G	14062370.08	14062370.12	14062370.16	0.0508	0.0493
Earth	33792-02-17 06:57 G	14063381.67	14063381.79	14063381.92	0.0531	0.0452
Moon	33792-02-17 09:36 G	14063381.76	14063381.90	14063382.05	0.0531	0.0420 *
Moon	33793-03-25 00:43 G	14063783.33	14063783.53	14063783.74	0.0531	0.0235
Earth	33793-03-25 04:48 G	14063783.49	14063783.70	14063783.91	0.0531	0.0230 *
Venus	33793-04-23 20:53 G	14063813.33	14063813.37	14063813.42	0.0531	0.0516
Mercury	33794-10-03 07:12 G	14064340.70	14064340.80	14064340.91	0.0521	0.0280
Mercury	33794-12-31 12:57 G	14064429.94	14064430.04	14064430.14	0.0518	0.0314
Earth	33798-09-08 17:45 G	14065777.01	14065777.24	14065777.47	0.0494	0.0068
Moon	33798-09-08 21:36 G	14065777.17	14065777.40	14065777.63	0.0494	0.0096 *
Venus	33799-02-23 07:26 G	14065944.60	14065944.81	14065945.01	0.0494	0.0031
Moon	33799-10-09 19:12 G	14066173.25	14066173.30	14066173.36	0.0497	0.0480
Earth	33799-10-09 22:19 G	14066173.35	14066173.43	14066173.53	0.0497	0.0457 *
Mercury	33801-02-28 11:45 G	14066679.84	14066679.99	14066680.14	0.0507	0.0287
Moon	33804-02-23 05:17 G	14067769.55	14067769.72	14067769.88	0.0532	0.0372
Earth	33804-02-23 09:07 G	14067769.71	14067769.88	14067770.05	0.0532	0.0362 *
Venus	33804-12-28 11:45 G	14068078.79	14068078.99	14068079.20	0.0532	0.0014
Earth	33805-03-31 08:09 G	14068171.65	14068171.84	14068172.02	0.0531	0.0324
Moon	33805-03-31 11:31 G	14068171.82	14068171.98	14068172.16	0.0531	0.0356 *
Mercury	33806-07-23 11:45 G	14068650.92	14068650.99	14068651.06	0.0521	0.0423
Mercury	33806-10-20 17:17 G	14068740.10	14068740.22	14068740.34	0.0519	0.0170
Moon	33810-09-13 22:05 G	14070164.18	14070164.42	14070164.66	0.0494	0.0014
Earth	33810-09-14 01:41 G	14070164.34	14070164.57	14070164.80	0.0494	0.0009 *
Venus	33810-10-30 08:53 G	14070210.75	14070210.87	14070211.00	0.0494	0.0388

Mercury	33812-12-17 09:07 G	14070989.70	14070989.88	14070990.06	0.0507	0.0088
Earth	33816-02-28 14:38 G	14072157.91	14072158.11	14072158.32	0.0533	0.0266
Moon	33816-02-28 18:29 G	14072158.09	14072158.27	14072158.46	0.0533	0.0301 *
Venus	33816-09-02 03:36 G	14072344.63	14072344.65	14072344.69	0.0532	0.0525
Moon	33817-04-05 11:31 G	14072559.83	14072559.98	14072560.14	0.0530	0.0405
Earth	33817-04-05 13:26 G	14072559.92	14072560.06	14072560.20	0.0530	0.0417 *
Mercury	33818-08-08 21:36 G	14073050.27	14073050.40	14073050.53	0.0519	0.0023
Mars	33819-12-28 19:55 G	14073557.06	14073557.33	14073557.60	0.0505	0.0038
Moon	33821-08-18 01:12 G	14074155.47	14074155.55	14074155.63	0.0495	0.0466
Earth	33821-08-18 02:24 G	14074155.50	14074155.60	14074155.70	0.0495	0.0442 *
Earth	33822-09-18 06:00 G	14074551.52	14074551.75	14074551.98	0.0494	0.0082
Moon	33822-09-18 08:38 G	14074551.65	14074551.86	14074552.09	0.0494	0.0114 *
Mercury	33824-10-05 05:45 G	14075299.56	14075299.74	14075299.92	0.0507	0.0120
Moon	33828-03-04 16:19 G	14076545.95	14076546.18	14076546.41	0.0533	0.0166
Earth	33828-03-04 18:57 G	14076546.07	14076546.29	14076546.51	0.0533	0.0169 *
Moon	33829-04-10 15:21 G	14076948.05	14076948.14	14076948.24	0.0529	0.0477
Earth	33829-04-10 15:36 G	14076948.10	14076948.15	14076948.23	0.0529	0.0506 *
Mercury	33830-05-28 01:41 G	14077360.45	14077360.57	14077360.70	0.0520	0.0128
Mercury	33830-08-25 07:26 G	14077449.76	14077449.81	14077449.87	0.0517	0.0466
Moon	33833-08-22 09:50 G	14078542.77	14078542.91	14078543.05	0.0494	0.0385
Earth	33833-08-22 10:33 G	14078542.79	14078542.94	14078543.09	0.0494	0.0371 *
Moon	33834-09-22 12:14 G	14078938.79	14078939.01	14078939.24	0.0494	0.0167
Earth	33834-09-22 14:24 G	14078938.88	14078939.10	14078939.32	0.0494	0.0158 *
Venus	33834-11-01 15:07 G	14078978.96	14078979.13	14078979.30	0.0495	0.0261
Mercury	33836-07-24 02:53 G	14079609.48	14079609.62	14079609.76	0.0506	0.0322
Mercury	33836-10-22 12:00 G	14079699.95	14079700.00	14079700.06	0.0508	0.0482
Mars	33837-12-21 05:45 G	14080124.65	14080124.74	14080124.84	0.0520	0.0484
Earth	33840-03-09 17:45 G	14080934.01	14080934.24	14080934.48	0.0532	0.0077
Moon	33840-03-09 18:00 G	14080934.03	14080934.25	14080934.47	0.0532	0.0047 *
Venus	33840-09-05 02:53 G	14081113.45	14081113.62	14081113.79	0.0531	0.0290

Mercury	33842-03-16 05:31 G	14081670.62	14081670.73	14081670.83	0.0521	0.0287
Mercury	33842-06-13 11:02 G	14081759.86	14081759.96	14081760.07	0.0518	0.0307
Earth	33845-08-26 19:55 G	14082930.15	14082930.33	14082930.52	0.0494	0.0301
Moon	33845-08-26 22:05 G	14082930.23	14082930.42	14082930.63	0.0494	0.0275 *
Venus	33846-07-07 17:45 G	14083245.05	14083245.24	14083245.44	0.0494	0.0153
Earth	33846-09-26 23:45 G	14083326.29	14083326.49	14083326.70	0.0495	0.0235
Moon	33846-09-27 00:00 G	14083326.30	14083326.50	14083326.70	0.0495	0.0209 *
Mercury	33848-08-10 09:21 G	14084009.74	14084009.89	14084010.04	0.0507	0.0284
Earth	33852-03-14 19:26 G	14085322.08	14085322.31	14085322.55	0.0532	0.0025
Moon	33852-03-14 21:50 G	14085322.17	14085322.41	14085322.66	0.0532	0.0015 *
Venus	33852-05-10 16:33 G	14085379.01	14085379.19	14085379.37	0.0532	0.0242
Mercury	33854-01-02 09:36 G	14085980.83	14085980.90	14085980.97	0.0521	0.0436
Mercury	33854-04-01 15:07 G	14086070.01	14086070.13	14086070.25	0.0519	0.0156
Moon	33857-08-31 01:26 G	14087317.36	14087317.56	14087317.77	0.0494	0.0203
Earth	33857-08-31 04:33 G	14087317.48	14087317.69	14087317.90	0.0494	0.0227 *
Earth	33858-10-01 07:26 G	14087713.64	14087713.81	14087714.00	0.0495	0.0307
Moon	33858-10-01 09:21 G	14087713.70	14087713.89	14087714.09	0.0495	0.0297 *
Mercury	33860-05-29 06:00 G	14088319.57	14088319.75	14088319.93	0.0507	0.0075
Moon	33864-03-19 18:43 G	14089710.06	14089710.28	14089710.51	0.0532	0.0086
Earth	33864-03-19 22:19 G	14089710.20	14089710.43	14089710.66	0.0532	0.0120 *
Mercury	33866-01-18 19:26 G	14090380.18	14090380.31	14090380.44	0.0520	0.0016
Earth	33869-09-04 12:14 G	14091704.79	14091705.01	14091705.23	0.0494	0.0151
Moon	33869-09-04 15:50 G	14091704.94	14091705.16	14091705.38	0.0494	0.0168 *
Moon	33870-10-05 12:14 G	14092100.89	14092101.01	14092101.14	0.0496	0.0407
Earth	33870-10-05 15:21 G	14092101.00	14092101.14	14092101.30	0.0496	0.0380 *
Mercury	33872-03-17 03:07 G	14092629.45	14092629.63	14092629.80	0.0506	0.0128
Moon	33875-02-17 01:41 G	14093696.44	14093696.57	14093696.70	0.0532	0.0434
Earth	33875-02-17 05:02 G	14093696.61	14093696.71	14093696.83	0.0532	0.0465 *
Earth	33876-03-25 04:19 G	14094098.47	14094098.68	14094098.89	0.0532	0.0220
Moon	33876-03-25 08:09 G	14094098.63	14094098.84	14094099.05	0.0532	0.0229 *

Mercury	33877-11-07 00:00 G	14094690.37	14094690.50	14094690.62	0.0520	0.0135
Mercury	33878-02-04 05:45 G	14094779.68	14094779.74	14094779.79	0.0517	0.0460
Moon	33881-09-08 13:12 G	14096091.82	14096092.05	14096092.28	0.0493	0.0105
Earth	33881-09-08 16:48 G	14096091.97	14096092.20	14096092.43	0.0493	0.0078 *
Venus	33882-03-15 00:57 G	14096279.34	14096279.54	14096279.75	0.0494	0.0076
Earth	33882-10-09 21:07 G	14096488.29	14096488.38	14096488.48	0.0497	0.0450
Moon	33882-10-10 00:57 G	14096488.48	14096488.54	14096488.62	0.0497	0.0473 *
Mercury	33884-01-03 23:31 G	14096939.35	14096939.48	14096939.62	0.0506	0.0338
Mercury	33884-04-03 08:53 G	14097029.80	14097029.87	14097029.94	0.0508	0.0467
Earth	33887-02-22 09:07 G	14098084.72	14098084.88	14098085.04	0.0532	0.0373
Moon	33887-02-22 13:12 G	14098084.89	14098085.05	14098085.21	0.0532	0.0384 *
Venus	33888-01-17 10:19 G	14098413.73	14098413.93	14098414.13	0.0532	0.0071
Moon	33888-03-30 05:17 G	14098486.54	14098486.72	14098486.90	0.0531	0.0344
Earth	33888-03-30 07:55 G	14098486.65	14098486.83	14098487.02	0.0531	0.0316 *
Mercury	33889-08-26 04:05 G	14099000.56	14099000.67	14099000.78	0.0520	0.0283
Mercury	33889-11-23 09:36 G	14099089.80	14099089.90	14099090.01	0.0518	0.0310
Earth	33893-09-13 00:43 G	14100479.30	14100479.53	14100479.76	0.0494	0.0001
Moon	33893-09-13 03:36 G	14100479.42	14100479.65	14100479.88	0.0494	0.0009 *
Venus	33893-11-18 02:53 G	14100545.48	14100545.62	14100545.77	0.0494	0.0342
Mercury	33896-01-21 06:14 G	14101339.61	14101339.76	14101339.92	0.0508	0.0269
Moon	33899-02-27 04:48 G	14102472.51	14102472.70	14102472.89	0.0532	0.0317
Earth	33899-02-27 08:24 G	14102472.65	14102472.85	14102473.04	0.0532	0.0284 *
Venus	33899-09-21 22:05 G	14102679.33	14102679.42	14102679.51	0.0532	0.0470
Earth	33900-04-05 05:45 G	14102874.60	14102874.74	14102874.89	0.0530	0.0405
Moon	33900-04-05 06:29 G	14102874.62	14102874.77	14102874.92	0.0530	0.0392 *
Mercury	33901-06-15 07:41 G	14103310.76	14103310.82	14103310.89	0.0521	0.0443
Mercury	33901-09-12 13:12 G	14103399.93	14103400.05	14103400.18	0.0519	0.0149
Earth	33904-08-18 05:02 G	14104470.62	14104470.71	14104470.80	0.0495	0.0453
Moon	33904-08-18 04:19 G	14104470.64	14104470.68	14104470.73	0.0495	0.0483 *
Moon	33905-09-18 07:55 G	14104866.60	14104866.83	14104867.07	0.0494	0.0105

Earth	33905-09-18 09:50 G	14104866.68	14104866.91	14104867.15	0.0494	0.0075	*
Mercury	33907-11-10 03:36 G	14105649.47	14105649.65	14105649.83	0.0507	0.0071	
Earth	33911-03-05 09:36 G	14106860.69	14106860.90	14106861.12	0.0532	0.0189	
Moon	33911-03-05 10:48 G	14106860.75	14106860.95	14106861.17	0.0532	0.0183	*
Earth	33912-04-10 06:29 G	14107262.69	14107262.77	14107262.86	0.0530	0.0493	
Moon	33912-04-10 07:55 G	14107262.72	14107262.83	14107262.95	0.0530	0.0461	*
Mercury	33913-07-01 17:17 G	14107710.09	14107710.22	14107710.35	0.0520	0.0010	
Earth	33916-08-22 13:55 G	14108857.94	14108858.08	14108858.23	0.0495	0.0383	
Moon	33916-08-22 16:19 G	14108858.03	14108858.18	14108858.32	0.0495	0.0392	*
Earth	33917-09-22 17:45 G	14109254.02	14109254.24	14109254.46	0.0494	0.0150	
Moon	33917-09-22 18:00 G	14109254.04	14109254.25	14109254.47	0.0494	0.0154	*
Venus	33917-11-21 11:31 G	14109313.83	14109313.98	14109314.14	0.0495	0.0322	
Mercury	33919-08-29 00:14 G	14109959.33	14109959.51	14109959.68	0.0506	0.0139	
Earth	33923-03-10 11:31 G	14111248.75	14111248.98	14111249.21	0.0533	0.0092	
Moon	33923-03-10 12:57 G	14111248.80	14111249.04	14111249.28	0.0533	0.0063	*
Venus	33923-09-25 22:05 G	14111448.28	14111448.42	14111448.58	0.0532	0.0349	
Mercury	33925-04-19 21:36 G	14112020.28	14112020.40	14112020.53	0.0520	0.0149	
Mercury	33925-07-18 03:21 G	14112109.58	14112109.64	14112109.71	0.0518	0.0447	
Moon	33928-08-26 19:26 G	14113245.13	14113245.31	14113245.50	0.0494	0.0286	
Earth	33928-08-26 22:33 G	14113245.26	14113245.44	14113245.62	0.0494	0.0310	*
Venus	33929-07-27 13:12 G	14113579.85	14113580.05	14113580.25	0.0494	0.0098	
Earth	33929-09-27 01:12 G	14113641.34	14113641.55	14113641.76	0.0494	0.0226	
Moon	33929-09-27 02:53 G	14113641.40	14113641.62	14113641.84	0.0494	0.0198	*
Mercury	33931-06-16 20:53 G	14114269.24	14114269.37	14114269.51	0.0505	0.0344	
Mercury	33931-09-15 06:14 G	14114359.69	14114359.76	14114359.84	0.0508	0.0460	
Moon	33935-03-15 14:24 G	14115636.87	14115637.10	14115637.33	0.0533	0.0004	
Earth	33935-03-15 17:31 G	14115637.00	14115637.23	14115637.46	0.0533	0.0010	*
Venus	33935-05-31 14:09 G	14115713.90	14115714.09	14115714.28	0.0532	0.0170	
Mercury	33937-02-06 02:09 G	14116330.49	14116330.59	14116330.70	0.0521	0.0291	
Mercury	33937-05-06 07:55 G	14116419.72	14116419.83	14116419.93	0.0518	0.0302	

Earth	33940-08-31 03:50 G	14117632.46	14117632.66	14117632.87	0.0494	0.0237
Moon	33940-08-31 07:26 G	14117632.60	14117632.81	14117633.03	0.0494	0.0217 *
Moon	33941-10-01 03:21 G	14118028.46	14118028.64	14118028.83	0.0495	0.0292
Earth	33941-10-01 06:29 G	14118028.59	14118028.77	14118028.96	0.0495	0.0299 *
Mercury	33943-07-04 03:07 G	14118669.47	14118669.63	14118669.78	0.0508	0.0253
Earth	33947-03-20 22:05 G	14120025.19	14120025.42	14120025.65	0.0532	0.0111
Moon	33947-03-21 01:55 G	14120025.35	14120025.58	14120025.81	0.0532	0.0079 *
Mercury	33948-11-25 06:29 G	14120640.70	14120640.77	14120640.84	0.0521	0.0438
Mercury	33949-02-22 12:00 G	14120729.88	14120730.00	14120730.12	0.0519	0.0153
Moon	33952-09-04 08:24 G	14122019.63	14122019.85	14122020.07	0.0494	0.0182
Earth	33952-09-04 12:00 G	14122019.78	14122020.00	14122020.22	0.0494	0.0162 *
Earth	33953-10-05 15:07 G	14122415.99	14122416.13	14122416.29	0.0496	0.0374
Moon	33953-10-05 19:12 G	14122416.17	14122416.30	14122416.44	0.0496	0.0402 *
Mercury	33955-04-22 00:29 G	14122979.34	14122979.52	14122979.70	0.0507	0.0055
Earth	33958-02-16 23:31 G	14124011.39	14124011.48	14124011.58	0.0531	0.0483
Moon	33958-02-17 03:36 G	14124011.53	14124011.65	14124011.78	0.0531	0.0450 *
Moon	33959-03-25 17:31 G	14124413.01	14124413.23	14124413.45	0.0532	0.0212
Earth	33959-03-25 20:53 G	14124413.16	14124413.37	14124413.59	0.0532	0.0204 *
Mercury	33960-12-11 15:36 G	14125040.02	14125040.15	14125040.27	0.0520	0.0020
Earth	33964-09-08 20:53 G	14126407.14	14126407.37	14126407.60	0.0494	0.0087
Moon	33964-09-08 23:45 G	14126407.26	14126407.49	14126407.71	0.0494	0.0112 *
Venus	33965-04-03 22:05 G	14126614.23	14126614.42	14126614.62	0.0495	0.0140
Moon	33965-10-09 21:36 G	14126803.34	14126803.40	14126803.49	0.0496	0.0469
Earth	33965-10-10 01:41 G	14126803.47	14126803.57	14126803.67	0.0496	0.0446 *
Mercury	33967-02-07 21:50 G	14127289.24	14127289.41	14127289.59	0.0506	0.0142
Moon	33970-02-21 20:53 G	14128399.22	14128399.37	14128399.53	0.0532	0.0398
Earth	33970-02-22 00:43 G	14128399.38	14128399.53	14128399.69	0.0532	0.0394 *
Venus	33971-02-06 03:21 G	14128748.44	14128748.64	14128748.84	0.0532	0.0116
Earth	33971-03-30 22:19 G	14128801.24	14128801.43	14128801.62	0.0531	0.0299
Moon	33971-03-30 23:45 G	14128801.32	14128801.49	14128801.67	0.0531	0.0329 *

Mercury	33972-09-29 19:41 G	14129350.19	14129350.32	14129350.44	0.0520	0.0161
Mercury	33972-12-28 01:12 G	14129439.49	14129439.55	14129439.62	0.0518	0.0435
Mars	33974-03-23 21:07 G	14129890.13	14129890.38	14129890.63	0.0506	0.0203
Moon	33976-09-13 02:53 G	14130794.38	14130794.62	14130794.86	0.0494	0.0006
Earth	33976-09-13 05:02 G	14130794.48	14130794.71	14130794.94	0.0494	0.0011 *
Venus	33976-12-07 23:45 G	14130880.33	14130880.49	14130880.67	0.0494	0.0278
Moon	33977-10-14 13:12 G	14131191.04	14131191.05	14131191.06	0.0497	0.0496
Mercury	33978-11-26 18:14 G	14131599.13	14131599.26	14131599.39	0.0505	0.0352
Mercury	33979-02-25 03:36 G	14131689.57	14131689.65	14131689.73	0.0508	0.0452
Earth	33982-02-27 01:41 G	14132787.39	14132787.57	14132787.77	0.0532	0.0301
Moon	33982-02-27 04:05 G	14132787.50	14132787.67	14132787.85	0.0532	0.0332 *
Venus	33982-10-11 17:02 G	14133014.09	14133014.21	14133014.34	0.0532	0.0413
Earth	33983-04-05 00:43 G	14133189.38	14133189.53	14133189.69	0.0531	0.0393
Moon	33983-04-05 01:12 G	14133189.38	14133189.55	14133189.72	0.0531	0.0377 *
Mercury	33984-07-19 00:00 G	14133660.40	14133660.50	14133660.60	0.0521	0.0306
Mercury	33984-10-16 05:31 G	14133749.63	14133749.73	14133749.84	0.0519	0.0289
Earth	33987-08-18 07:55 G	14134785.76	14134785.83	14134785.92	0.0495	0.0463
Moon	33987-08-18 09:50 G	14134785.90	14134785.91	14134785.94	0.0495	0.0493 *
Earth	33988-09-17 12:29 G	14135181.79	14135182.02	14135182.25	0.0494	0.0066
Moon	33988-09-17 12:57 G	14135181.82	14135182.04	14135182.26	0.0494	0.0094 *
Mercury	33990-12-14 00:43 G	14135999.37	14135999.53	14135999.69	0.0507	0.0250
Mars	33992-03-16 05:17 G	14136457.48	14136457.72	14136457.96	0.0520	0.0247
Earth	33994-03-04 06:57 G	14137175.57	14137175.79	14137176.00	0.0533	0.0203
Moon	33994-03-04 07:26 G	14137175.58	14137175.81	14137176.03	0.0533	0.0189 *
Moon	33995-04-10 03:36 G	14137577.55	14137577.65	14137577.77	0.0530	0.0457
Earth	33995-04-10 06:00 G	14137577.66	14137577.75	14137577.85	0.0530	0.0486 *
Mercury	33996-05-07 04:33 G	14137970.63	14137970.69	14137970.75	0.0522	0.0447
Mercury	33996-08-04 10:05 G	14138059.80	14138059.92	14138060.04	0.0519	0.0145
Moon	33999-08-22 12:29 G	14139172.89	14139173.02	14139173.14	0.0494	0.0406
Earth	33999-08-22 15:07 G	14139173.00	14139173.13	14139173.27	0.0494	0.0393 *

Earth	34000-09-21 18:00 G	14139569.03	14139569.25	14139569.48	0.0494	0.0141
Moon	34000-09-21 19:26 G	14139569.08	14139569.31	14139569.55	0.0494	0.0137 *
Venus	34000-12-10 06:00 G	14139648.62	14139648.75	14139648.89	0.0494	0.0371

35TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 35th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	34002-10-01 21:21 G		14140309.21	14140309.39	14140309.57	0.0507	0.0043	
Moon	34006-03-09 09:21 G		14141563.67	14141563.89	14141564.12	0.0533	0.0073	
Earth	34006-03-09 11:45 G		14141563.77	14141563.99	14141564.23	0.0533	0.0104 *	
Venus	34006-10-14 20:53 G		14141783.26	14141783.37	14141783.50	0.0532	0.0428	
Mercury	34008-05-23 14:24 G		14142369.97	14142370.10	14142370.23	0.0520	0.0008	
Earth	34011-08-26 23:31 G		14143560.31	14143560.48	14143560.66	0.0494	0.0321	
Moon	34011-08-27 03:07 G		14143560.45	14143560.63	14143560.82	0.0494	0.0293 *	
Venus	34012-08-15 08:24 G		14143914.64	14143914.85	14143915.05	0.0494	0.0046	
Moon	34012-09-25 23:31 G		14143956.27	14143956.48	14143956.69	0.0494	0.0189	
Earth	34012-09-26 02:24 G		14143956.40	14143956.60	14143956.82	0.0494	0.0219 *	
Mercury	34014-07-20 18:57 G		14144619.11	14144619.29	14144619.46	0.0506	0.0155	
Earth	34018-03-14 11:45 G		14145951.76	14145951.99	14145952.23	0.0532	0.0013	
Moon	34018-03-14 15:36 G		14145951.91	14145952.15	14145952.39	0.0532	0.0020 *	
Venus	34018-06-19 09:07 G		14146048.69	14146048.88	14146049.08	0.0532	0.0110	
Mercury	34020-03-11 17:45 G		14146680.12	14146680.24	14146680.37	0.0520	0.0166	
Mercury	34020-06-08 23:31 G		14146769.41	14146769.48	14146769.55	0.0518	0.0430	

Moon	34023-08-31 04:33 G	14147947.48	14147947.69	14147947.90	0.0494	0.0233
Earth	34023-08-31 08:09 G	14147947.64	14147947.84	14147948.04	0.0494	0.0249 *
Venus	34024-04-20 10:48 G	14148180.88	14148180.95	14148181.03	0.0494	0.0456
Earth	34024-09-30 12:14 G	14148343.82	14148344.01	14148344.20	0.0495	0.0293
Moon	34024-09-30 16:05 G	14148343.98	14148344.17	14148344.36	0.0495	0.0288 *
Mercury	34026-05-08 16:19 G	14148929.05	14148929.18	14148929.31	0.0505	0.0351
Mercury	34026-08-07 01:41 G	14149019.49	14149019.57	14149019.65	0.0508	0.0454
Moon	34030-03-19 10:19 G	14150339.70	14150339.93	14150340.16	0.0532	0.0060
Earth	34030-03-19 14:09 G	14150339.86	14150340.09	14150340.32	0.0532	0.0092 *
Mercury	34031-12-29 22:05 G	14150990.32	14150990.42	14150990.52	0.0521	0.0315
Mercury	34032-03-28 03:36 G	14151079.54	14151079.65	14151079.76	0.0519	0.0279
Earth	34035-09-04 17:02 G	14152334.99	14152335.21	14152335.43	0.0494	0.0173
Moon	34035-09-04 19:55 G	14152335.12	14152335.33	14152335.54	0.0494	0.0198 *
Moon	34036-10-04 16:48 G	14152731.06	14152731.20	14152731.34	0.0495	0.0394
Earth	34036-10-04 20:38 G	14152731.21	14152731.36	14152731.52	0.0495	0.0366 *
Mercury	34038-05-25 22:33 G	14153329.28	14153329.44	14153329.60	0.0507	0.0248
Moon	34041-02-15 14:38 G	14154326.00	14154326.11	14154326.22	0.0531	0.0466
Earth	34041-02-15 18:43 G	14154326.21	14154326.28	14154326.36	0.0531	0.0500 *
Earth	34042-03-24 16:19 G	14154727.96	14154728.18	14154728.40	0.0532	0.0189
Moon	34042-03-24 18:43 G	14154728.07	14154728.28	14154728.49	0.0532	0.0206 *
Mercury	34043-10-18 02:24 G	14155300.54	14155300.60	14155300.66	0.0522	0.0460
Mercury	34044-01-15 07:55 G	14155389.71	14155389.83	14155389.96	0.0519	0.0133
Moon	34047-09-08 23:02 G	14156722.23	14156722.46	14156722.70	0.0494	0.0120
Earth	34047-09-09 01:12 G	14156722.32	14156722.55	14156722.78	0.0494	0.0095 *
Venus	34048-04-22 18:43 G	14156949.10	14156949.28	14156949.47	0.0494	0.0202
Earth	34048-10-09 04:48 G	14157118.60	14157118.70	14157118.81	0.0496	0.0439
Moon	34048-10-09 07:55 G	14157118.75	14157118.83	14157118.93	0.0496	0.0456 *
Mercury	34050-03-13 19:41 G	14157639.13	14157639.32	14157639.50	0.0506	0.0047
Earth	34053-02-20 22:19 G	14158714.29	14158714.43	14158714.59	0.0532	0.0408
Moon	34053-02-21 01:26 G	14158714.42	14158714.56	14158714.70	0.0532	0.0417 *

Venus	34054-02-25 01:26 G	14159083.37	14159083.56	14159083.75	0.0532	0.0192
Moon	34054-03-29 21:36 G	14159116.21	14159116.40	14159116.60	0.0532	0.0318
Earth	34054-03-29 21:50 G	14159116.22	14159116.41	14159116.61	0.0532	0.0290 *
Mercury	34055-11-03 12:29 G	14159699.89	14159700.02	14159700.15	0.0520	0.0016
Earth	34059-09-13 07:26 G	14161109.58	14161109.81	14161110.05	0.0493	0.0023
Moon	34059-09-13 08:09 G	14161109.62	14161109.84	14161110.07	0.0493	0.0008 *
Venus	34059-12-27 19:41 G	14161215.14	14161215.32	14161215.50	0.0494	0.0220
Moon	34060-10-13 09:36 G	14161505.86	14161505.90	14161505.96	0.0497	0.0485
Mercury	34061-12-30 16:05 G	14161949.00	14161949.17	14161949.35	0.0506	0.0164
Moon	34065-02-26 02:38 G	14163102.43	14163102.61	14163102.80	0.0532	0.0340
Earth	34065-02-26 03:07 G	14163102.45	14163102.63	14163102.83	0.0532	0.0314 *
Venus	34065-10-30 16:48 G	14163349.05	14163349.20	14163349.36	0.0533	0.0328
Moon	34066-04-04 01:26 G	14163504.40	14163504.56	14163504.72	0.0531	0.0372
Earth	34066-04-04 03:07 G	14163504.47	14163504.63	14163504.79	0.0531	0.0386 *
Mercury	34067-08-22 17:02 G	14164010.08	14164010.21	14164010.33	0.0520	0.0155
Mercury	34067-11-19 22:33 G	14164099.38	14164099.44	14164099.51	0.0518	0.0441
Earth	34070-08-17 11:31 G	14165100.92	14165100.98	14165101.05	0.0495	0.0473
Earth	34071-09-17 16:05 G	14165496.93	14165497.17	14165497.40	0.0494	0.0059
Moon	34071-09-17 17:17 G	14165496.99	14165497.22	14165497.46	0.0494	0.0083 *
Mercury	34073-10-18 13:41 G	14166258.94	14166259.07	14166259.20	0.0505	0.0359
Mercury	34074-01-16 23:02 G	14166349.38	14166349.46	14166349.55	0.0508	0.0447
Moon	34077-03-03 02:53 G	14167490.41	14167490.62	14167490.83	0.0532	0.0206
Earth	34077-03-03 04:33 G	14167490.48	14167490.69	14167490.90	0.0532	0.0221 *
Earth	34078-04-09 01:41 G	14167892.47	14167892.57	14167892.68	0.0530	0.0473
Moon	34078-04-09 05:17 G	14167892.59	14167892.72	14167892.84	0.0530	0.0445 *
Mercury	34079-06-10 20:24 G	14168320.25	14168320.35	14168320.45	0.0521	0.0316
Mercury	34079-09-08 01:55 G	14168409.48	14168409.58	14168409.69	0.0519	0.0279
Earth	34082-08-21 19:55 G	14169488.20	14169488.33	14169488.46	0.0495	0.0407
Moon	34082-08-21 23:31 G	14169488.35	14169488.48	14169488.61	0.0495	0.0411 *
Moon	34083-09-21 22:05 G	14169884.20	14169884.42	14169884.64	0.0494	0.0123

Earth	34083-09-22 01:12 G	14169884.32	14169884.55	14169884.77	0.0494	0.0134	*
Venus	34083-12-30 04:48 G	14169983.62	14169983.70	14169983.79	0.0495	0.0446	
Mercury	34085-11-04 20:53 G	14170659.22	14170659.37	14170659.53	0.0507	0.0256	
Earth	34089-03-08 07:12 G	14171878.57	14171878.80	14171879.03	0.0532	0.0122	
Moon	34089-03-08 10:33 G	14171878.70	14171878.94	14171879.17	0.0532	0.0091	*
Venus	34089-11-02 16:05 G	14172118.09	14172118.17	14172118.25	0.0531	0.0486	
Mercury	34091-03-30 00:43 G	14172630.47	14172630.53	14172630.58	0.0522	0.0465	
Mercury	34091-06-27 06:14 G	14172719.63	14172719.76	14172719.88	0.0519	0.0128	
Moon	34094-08-26 01:55 G	14173875.40	14173875.58	14173875.77	0.0495	0.0304	
Earth	34094-08-26 05:31 G	14173875.56	14173875.73	14173875.90	0.0495	0.0333	*
Venus	34095-09-04 06:57 G	14174249.59	14174249.79	14174250.00	0.0494	0.0032	
Earth	34095-09-26 09:36 G	14174271.70	14174271.90	14174272.12	0.0494	0.0212	
Moon	34095-09-26 13:41 G	14174271.85	14174272.07	14174272.29	0.0494	0.0180	*
Mercury	34097-08-23 17:45 G	14174969.06	14174969.24	14174969.42	0.0506	0.0051	
Moon	34101-03-14 05:17 G	14176266.49	14176266.72	14176266.95	0.0532	0.0035	
Earth	34101-03-14 09:07 G	14176266.65	14176266.88	14176267.11	0.0532	0.0023	*
Venus	34101-07-09 06:14 G	14176383.56	14176383.76	14176383.96	0.0532	0.0041	
Mercury	34103-04-16 10:33 G	14177029.81	14177029.94	14177030.07	0.0520	0.0018	
Earth	34106-08-31 14:38 G	14178262.92	14178263.11	14178263.31	0.0494	0.0257	
Moon	34106-08-31 17:31 G	14178263.04	14178263.23	14178263.43	0.0494	0.0248	*
Venus	34107-05-11 09:07 G	14178515.75	14178515.88	14178516.00	0.0494	0.0385	
Moon	34107-10-01 14:09 G	14178658.90	14178659.09	14178659.28	0.0495	0.0281	
Earth	34107-10-01 18:14 G	14178659.07	14178659.26	14178659.45	0.0495	0.0287	*
Mercury	34109-06-12 14:53 G	14179278.94	14179279.12	14179279.29	0.0506	0.0153	
Earth	34113-03-19 14:24 G	14180654.87	14180655.10	14180655.34	0.0533	0.0082	
Moon	34113-03-19 17:31 G	14180655.00	14180655.23	14180655.45	0.0533	0.0055	*
Mercury	34115-02-02 15:07 G	14181340.01	14181340.13	14181340.26	0.0521	0.0158	
Mercury	34115-05-02 20:53 G	14181429.31	14181429.37	14181429.44	0.0518	0.0438	
Moon	34118-09-04 20:09 G	14182650.13	14182650.34	14182650.57	0.0494	0.0207	
Earth	34118-09-04 22:19 G	14182650.22	14182650.43	14182650.65	0.0494	0.0181	*

Earth	34119-10-06 00:57 G	14183046.38	14183046.54	14183046.70	0.0495	0.0361
Moon	34119-10-06 04:19 G	14183046.54	14183046.68	14183046.82	0.0495	0.0389 *
Mercury	34121-03-31 11:17 G	14183588.85	14183588.97	14183589.10	0.0505	0.0361
Mercury	34121-06-29 20:53 G	14183679.29	14183679.37	14183679.46	0.0508	0.0445
Earth	34124-02-16 21:50 G	14184641.36	14184641.41	14184641.48	0.0531	0.0512
Moon	34124-02-17 01:26 G	14184641.47	14184641.56	14184641.66	0.0531	0.0482 *
Moon	34125-03-24 19:26 G	14185043.09	14185043.31	14185043.54	0.0532	0.0201
Earth	34125-03-24 20:24 G	14185043.14	14185043.35	14185043.57	0.0532	0.0182 *
Mercury	34126-11-21 19:41 G	14185650.22	14185650.32	14185650.43	0.0521	0.0301
Mercury	34127-02-19 01:12 G	14185739.45	14185739.55	14185739.66	0.0519	0.0294
Earth	34130-09-09 07:12 G	14187037.57	14187037.80	14187038.03	0.0494	0.0103
Moon	34130-09-09 07:41 G	14187037.61	14187037.82	14187038.04	0.0494	0.0124 *
Venus	34131-05-13 16:48 G	14187284.03	14187284.20	14187284.37	0.0494	0.0271
Moon	34131-10-10 08:53 G	14187433.77	14187433.87	14187433.98	0.0496	0.0444
Earth	34131-10-10 11:02 G	14187433.85	14187433.96	14187434.07	0.0496	0.0435 *
Mercury	34133-04-17 18:43 G	14187989.13	14187989.28	14187989.44	0.0507	0.0254
Moon	34136-02-21 22:48 G	14189029.31	14189029.45	14189029.58	0.0531	0.0437
Earth	34136-02-22 00:14 G	14189029.38	14189029.51	14189029.65	0.0531	0.0424 *
Venus	34137-03-16 23:31 G	14189418.31	14189418.48	14189418.66	0.0531	0.0272
Moon	34137-03-29 20:24 G	14189431.18	14189431.35	14189431.54	0.0531	0.0305
Earth	34137-03-29 21:21 G	14189431.19	14189431.39	14189431.59	0.0531	0.0275 *
Mercury	34138-09-09 23:17 G	14189960.42	14189960.47	14189960.53	0.0522	0.0461
Mercury	34138-12-08 04:48 G	14190049.58	14190049.70	14190049.83	0.0519	0.0131
Earth	34142-09-13 15:36 G	14191424.92	14191425.15	14191425.38	0.0494	0.0029
Moon	34142-09-13 17:02 G	14191424.96	14191425.21	14191425.45	0.0494	0.0011 *
Venus	34143-01-16 19:26 G	14191550.11	14191550.31	14191550.51	0.0494	0.0140
Moon	34143-10-14 21:50 G	14191821.36	14191821.41	14191821.47	0.0497	0.0480
Mercury	34145-02-03 16:48 G	14192299.02	14192299.20	14192299.38	0.0507	0.0064
Mars	34146-06-11 05:31 G	14192791.46	14192791.73	14192792.00	0.0520	0.0110
Moon	34148-02-27 02:09 G	14193417.43	14193417.59	14193417.76	0.0531	0.0357

Earth	34148-02-27 03:07 G	14193417.45	14193417.63	14193417.82	0.0531	0.0330	*
Venus	34148-11-19 14:09 G	14193683.92	14193684.09	14193684.27	0.0532	0.0254	
Earth	34149-04-03 23:45 G	14193819.34	14193819.49	14193819.67	0.0531	0.0372	
Moon	34149-04-04 02:38 G	14193819.44	14193819.61	14193819.80	0.0531	0.0352	*
Mercury	34150-09-26 09:07 G	14194359.75	14194359.88	14194360.00	0.0520	0.0026	
Earth	34153-08-17 18:00 G	14195416.21	14195416.25	14195416.29	0.0496	0.0486	
Moon	34154-09-17 21:50 G	14195812.19	14195812.41	14195812.64	0.0494	0.0072	
Earth	34154-09-18 00:43 G	14195812.30	14195812.53	14195812.77	0.0494	0.0051	*
Mercury	34156-11-22 13:41 G	14196608.89	14196609.07	14196609.24	0.0506	0.0140	
Earth	34160-03-03 04:19 G	14197805.47	14197805.68	14197805.89	0.0532	0.0234	
Moon	34160-03-03 07:12 G	14197805.58	14197805.80	14197806.02	0.0532	0.0215	*
Moon	34161-04-08 22:33 G	14198207.31	14198207.44	14198207.57	0.0530	0.0440	
Earth	34161-04-09 02:09 G	14198207.49	14198207.59	14198207.71	0.0530	0.0465	*
Mercury	34162-07-15 13:26 G	14198669.94	14198670.06	14198670.18	0.0521	0.0163	
Mercury	34162-10-12 19:12 G	14198759.23	14198759.30	14198759.37	0.0518	0.0433	
Moon	34165-08-22 00:57 G	14199803.42	14199803.54	14199803.67	0.0495	0.0412	
Earth	34165-08-22 04:33 G	14199803.57	14199803.69	14199803.82	0.0495	0.0414	*
Earth	34166-09-22 09:36 G	14200199.67	14200199.90	14200200.12	0.0494	0.0129	
Moon	34166-09-22 13:26 G	14200199.83	14200200.06	14200200.29	0.0494	0.0113	*
Mercury	34168-09-10 10:33 G	14200918.81	14200918.94	14200919.07	0.0505	0.0343	
Mercury	34168-12-09 19:55 G	14201009.26	14201009.33	14201009.40	0.0507	0.0461	
Moon	34172-03-08 05:31 G	14202193.50	14202193.73	14202193.96	0.0533	0.0104	
Earth	34172-03-08 09:07 G	14202193.66	14202193.88	14202194.11	0.0533	0.0134	*
Mercury	34174-05-03 18:14 G	14202980.15	14202980.26	14202980.36	0.0521	0.0302	
Mercury	34174-07-31 23:45 G	14203069.39	14203069.49	14203069.60	0.0519	0.0293	
Earth	34177-08-26 13:41 G	14204190.91	14204191.07	14204191.24	0.0494	0.0340	
Moon	34177-08-26 16:33 G	14204191.02	14204191.19	14204191.37	0.0494	0.0310	*
Venus	34178-09-24 05:45 G	14204584.54	14204584.74	14204584.94	0.0494	0.0105	
Moon	34178-09-26 12:57 G	14204586.83	14204587.04	14204587.27	0.0494	0.0174	
Earth	34178-09-26 17:02 G	14204587.00	14204587.21	14204587.43	0.0494	0.0206	*

Mercury	34180-09-27 17:02 G	14205319.05	14205319.21	14205319.36	0.0507	0.0258
Earth	34184-03-13 15:07 G	14206581.90	14206582.13	14206582.37	0.0533	0.0033
Moon	34184-03-13 18:29 G	14206582.05	14206582.27	14206582.50	0.0533	0.0052 *
Venus	34184-07-28 08:38 G	14206718.66	14206718.86	14206719.07	0.0532	0.0064
Mercury	34186-02-19 22:48 G	14207290.39	14207290.45	14207290.52	0.0522	0.0443
Mercury	34186-05-20 04:19 G	14207379.56	14207379.68	14207379.80	0.0519	0.0150
Moon	34189-08-30 21:36 G	14208578.19	14208578.40	14208578.60	0.0494	0.0255
Earth	34189-08-30 23:17 G	14208578.28	14208578.47	14208578.67	0.0494	0.0264 *
Venus	34190-05-30 08:38 G	14208850.70	14208850.86	14208851.02	0.0494	0.0307
Earth	34190-10-01 02:24 G	14208974.42	14208974.60	14208974.80	0.0495	0.0284
Moon	34190-10-01 06:00 G	14208974.56	14208974.75	14208974.93	0.0495	0.0285 *
Mercury	34192-07-16 14:53 G	14209628.94	14209629.12	14209629.30	0.0507	0.0069
Moon	34196-03-18 16:19 G	14210969.94	14210970.18	14210970.42	0.0532	0.0042
Earth	34196-03-18 18:00 G	14210970.02	14210970.25	14210970.48	0.0532	0.0066 *
Venus	34196-04-01 22:33 G	14210984.34	14210984.44	14210984.54	0.0532	0.0464
Mercury	34198-03-08 07:55 G	14211689.70	14211689.83	14211689.96	0.0520	0.0011
Earth	34201-09-05 06:57 G	14212965.58	14212965.79	14212966.01	0.0494	0.0191
Moon	34201-09-05 07:41 G	14212965.62	14212965.82	14212966.02	0.0494	0.0217 *
Moon	34202-10-06 10:19 G	14213361.78	14213361.93	14213362.08	0.0496	0.0384
Earth	34202-10-06 12:14 G	14213361.85	14213362.01	14213362.17	0.0496	0.0357 *
Mercury	34204-05-05 12:43 G	14213938.86	14213939.03	14213939.21	0.0506	0.0122
Moon	34207-02-17 00:29 G	14214956.44	14214956.52	14214956.61	0.0530	0.0497
Earth	34207-02-17 02:38 G	14214956.59	14214956.61	14214956.65	0.0530	0.0525 *
Earth	34208-03-24 21:21 G	14215358.17	14215358.39	14215358.62	0.0532	0.0168
Moon	34208-03-24 21:21 G	14215358.18	14215358.39	14215358.60	0.0532	0.0189 *
Mercury	34209-12-26 12:14 G	14215999.88	14216000.01	14216000.13	0.0520	0.0159
Mercury	34210-03-25 17:45 G	14216089.18	14216089.24	14216089.31	0.0518	0.0436
Earth	34213-09-09 16:48 G	14217352.98	14217353.20	14217353.43	0.0494	0.0112
Moon	34213-09-09 18:14 G	14217353.03	14217353.26	14217353.50	0.0494	0.0125 *
Venus	34214-06-02 17:45 G	14217619.10	14217619.24	14217619.38	0.0495	0.0359

Earth	34214-10-10 21:50 G	14217749.31	14217749.41	14217749.53	0.0496	0.0431
Moon	34214-10-10 22:05 G	14217749.32	14217749.42	14217749.53	0.0496	0.0434 *
Mercury	34216-02-22 09:50 G	14218248.77	14218248.91	14218249.05	0.0505	0.0324
Mercury	34216-05-22 19:12 G	14218339.24	14218339.30	14218339.36	0.0507	0.0479
Earth	34219-02-22 03:07 G	14219344.50	14219344.63	14219344.76	0.0531	0.0435
Moon	34219-02-22 02:53 G	14219344.51	14219344.62	14219344.73	0.0531	0.0457 *
Earth	34220-03-29 23:45 G	14219746.29	14219746.49	14219746.69	0.0532	0.0266
Moon	34220-03-30 01:55 G	14219746.38	14219746.58	14219746.78	0.0532	0.0290 *
Venus	34220-04-05 23:31 G	14219753.34	14219753.48	14219753.64	0.0532	0.0358
Mercury	34221-10-14 16:33 G	14220310.09	14220310.19	14220310.29	0.0521	0.0303
Mercury	34222-01-11 22:05 G	14220399.32	14220399.42	14220399.53	0.0519	0.0292
Moon	34225-09-13 23:17 G	14221740.25	14221740.47	14221740.70	0.0494	0.0012
Earth	34225-09-14 02:24 G	14221740.37	14221740.60	14221740.83	0.0494	0.0033 *
Venus	34226-02-05 20:24 G	14221885.14	14221885.35	14221885.55	0.0494	0.0056
Moon	34226-10-15 08:38 G	14222136.79	14222136.86	14222136.93	0.0497	0.0473
Mercury	34228-03-10 16:33 G	14222649.04	14222649.19	14222649.34	0.0507	0.0281
Earth	34231-02-27 06:57 G	14223732.61	14223732.79	14223732.97	0.0532	0.0340
Moon	34231-02-27 09:07 G	14223732.72	14223732.88	14223733.06	0.0532	0.0365 *
Venus	34231-12-10 15:36 G	14224018.96	14224019.15	14224019.34	0.0532	0.0159
Moon	34232-04-04 01:41 G	14224134.40	14224134.57	14224134.75	0.0531	0.0342
Earth	34232-04-04 05:17 G	14224134.56	14224134.72	14224134.89	0.0531	0.0366 *
Mercury	34233-08-02 21:21 G	14224620.32	14224620.39	14224620.46	0.0522	0.0442
Mercury	34233-10-31 02:53 G	14224709.50	14224709.62	14224709.74	0.0520	0.0152
Earth	34236-08-18 05:02 G	14225731.69	14225731.71	14225731.73	0.0496	0.0493
Earth	34237-09-18 10:48 G	14226127.71	14226127.95	14226128.18	0.0494	0.0045
Moon	34237-09-18 14:38 G	14226127.88	14226128.11	14226128.34	0.0494	0.0065 *
Venus	34237-10-11 22:19 G	14226151.37	14226151.43	14226151.49	0.0494	0.0469
Mercury	34239-12-28 13:26 G	14226958.88	14226959.06	14226959.24	0.0506	0.0079
Moon	34243-03-04 08:53 G	14228120.67	14228120.87	14228121.08	0.0532	0.0224
Earth	34243-03-04 12:29 G	14228120.81	14228121.02	14228121.23	0.0532	0.0243 *

Earth	34244-04-09 11:17 G	14228522.86	14228522.97	14228523.09	0.0531	0.0461
Moon	34244-04-09 14:53 G	14228523.00	14228523.12	14228523.25	0.0531	0.0443 *
Mercury	34245-08-19 07:26 G	14229019.68	14229019.81	14229019.94	0.0520	0.0012
Mars	34246-12-08 13:41 G	14229495.81	14229496.07	14229496.33	0.0507	0.0145
Earth	34248-08-22 15:36 G	14230119.03	14230119.15	14230119.27	0.0495	0.0420
Moon	34248-08-22 18:14 G	14230119.14	14230119.26	14230119.39	0.0495	0.0409 *
Moon	34249-09-22 16:19 G	14230514.95	14230515.18	14230515.41	0.0494	0.0109
Earth	34249-09-22 20:09 G	14230515.12	14230515.34	14230515.57	0.0494	0.0126 *
Mercury	34251-10-16 11:31 G	14231268.80	14231268.98	14231269.16	0.0506	0.0112
Earth	34255-03-09 16:33 G	14232508.97	14232509.19	14232509.42	0.0532	0.0146
Moon	34255-03-09 20:09 G	14232509.12	14232509.34	14232509.57	0.0532	0.0122 *
Mercury	34257-06-07 11:17 G	14233329.84	14233329.97	14233330.09	0.0520	0.0148
Mercury	34257-09-04 16:48 G	14233419.14	14233419.20	14233419.27	0.0518	0.0447
Moon	34260-08-26 20:53 G	14234506.19	14234506.37	14234506.56	0.0495	0.0319
Earth	34260-08-26 22:48 G	14234506.29	14234506.45	14234506.61	0.0495	0.0350 *
Earth	34261-09-27 04:33 G	14234902.48	14234902.69	14234902.91	0.0495	0.0201
Moon	34261-09-27 07:55 G	14234902.62	14234902.83	14234903.05	0.0495	0.0174 *
Venus	34261-10-14 07:12 G	14234919.62	14234919.80	14234920.00	0.0495	0.0195
Mercury	34263-08-04 09:07 G	14235578.74	14235578.88	14235579.03	0.0506	0.0303
Mercury	34263-11-02 18:43 G	14235669.26	14235669.28	14235669.30	0.0508	0.0503
Moon	34267-03-14 18:14 G	14236897.02	14236897.26	14236897.50	0.0532	0.0068
Earth	34267-03-14 20:38 G	14236897.13	14236897.36	14236897.59	0.0532	0.0043 *
Venus	34267-08-18 09:36 G	14237053.71	14237053.90	14237054.10	0.0531	0.0157
Mercury	34269-03-26 15:36 G	14237640.04	14237640.15	14237640.25	0.0521	0.0295
Mercury	34269-06-23 21:07 G	14237729.27	14237729.38	14237729.48	0.0519	0.0299
Earth	34272-08-31 09:07 G	14238893.69	14238893.88	14238894.08	0.0495	0.0273
Moon	34272-08-31 09:36 G	14238893.71	14238893.90	14238894.09	0.0495	0.0271 *
Venus	34273-06-19 10:05 G	14239185.74	14239185.92	14239186.10	0.0494	0.0217
Moon	34273-10-01 12:43 G	14239289.84	14239290.03	14239290.23	0.0495	0.0287
Earth	34273-10-01 14:24 G	14239289.92	14239290.10	14239290.30	0.0495	0.0279 *

Mercury	34275-05-23 06:14 G	14239888.75	14239888.76	14239888.77	0.0505	0.0503
Mercury	34275-08-21 16:05 G	14239979.03	14239979.17	14239979.31	0.0507	0.0304
Earth	34279-03-19 22:33 G	14241285.21	14241285.44	14241285.67	0.0532	0.0058
Moon	34279-03-19 23:02 G	14241285.24	14241285.46	14241285.69	0.0532	0.0036 *
Venus	34279-04-22 23:45 G	14241319.35	14241319.49	14241319.64	0.0532	0.0370
Mercury	34281-01-12 19:55 G	14241950.27	14241950.33	14241950.40	0.0522	0.0439
Mercury	34281-04-12 01:26 G	14242039.44	14242039.56	14242039.68	0.0520	0.0154
Earth	34284-09-04 19:41 G	14243281.10	14243281.32	14243281.53	0.0494	0.0194
Moon	34284-09-04 21:07 G	14243281.16	14243281.38	14243281.60	0.0494	0.0221 *
Earth	34285-10-06 00:00 G	14243677.35	14243677.50	14243677.67	0.0495	0.0356
Moon	34285-10-06 00:14 G	14243677.37	14243677.51	14243677.65	0.0495	0.0385 *
Mercury	34287-06-09 13:26 G	14244288.88	14244289.06	14244289.23	0.0506	0.0106
Moon	34290-02-16 08:38 G	14245271.81	14245271.86	14245271.91	0.0530	0.0514
Earth	34291-03-25 03:36 G	14245673.43	14245673.65	14245673.87	0.0532	0.0161
Moon	34291-03-25 05:02 G	14245673.49	14245673.71	14245673.95	0.0532	0.0186 *
Mercury	34293-01-29 06:14 G	14246349.63	14246349.76	14246349.89	0.0520	0.0017
Moon	34296-09-09 01:55 G	14247668.36	14247668.58	14247668.80	0.0494	0.0122
Earth	34296-09-09 05:02 G	14247668.49	14247668.71	14247668.94	0.0494	0.0116 *
Venus	34297-06-21 18:57 G	14247954.21	14247954.29	14247954.39	0.0495	0.0446
Earth	34297-10-10 08:53 G	14248064.76	14248064.87	14248064.99	0.0496	0.0429
Moon	34297-10-10 10:05 G	14248064.81	14248064.92	14248065.05	0.0496	0.0425 *
Mercury	34299-03-28 10:19 G	14248598.75	14248598.93	14248599.11	0.0506	0.0098
Mars	34300-09-06 18:14 G	14249126.24	14249126.26	14249126.30	0.0520	0.0517
Earth	34302-02-22 12:29 G	14249659.90	14249660.02	14249660.15	0.0531	0.0443
Moon	34302-02-22 14:24 G	14249659.99	14249660.10	14249660.21	0.0531	0.0468 *
Moon	34303-03-31 06:43 G	14250061.59	14250061.78	14250061.98	0.0532	0.0281
Earth	34303-03-31 10:19 G	14250061.72	14250061.93	14250062.13	0.0532	0.0262 *
Venus	34303-04-27 04:19 G	14250088.59	14250088.68	14250088.77	0.0532	0.0472
Mercury	34304-11-18 10:48 G	14250659.83	14250659.95	14250660.08	0.0521	0.0125
Mercury	34305-02-15 16:33 G	14250749.14	14250749.19	14250749.24	0.0518	0.0471

Earth	34308-09-14 14:38 G	14252055.88	14252056.11	14252056.34	0.0494	0.0037
Moon	34308-09-14 18:43 G	14252056.04	14252056.28	14252056.51	0.0494	0.0010 *
Venus	34309-02-25 22:05 G	14252220.22	14252220.42	14252220.63	0.0494	0.0035
Moon	34309-10-15 17:02 G	14252452.16	14252452.21	14252452.28	0.0496	0.0475
Mercury	34311-01-15 08:09 G	14252908.69	14252908.84	14252908.99	0.0505	0.0288
Moon	34314-02-27 14:24 G	14254047.94	14254048.10	14254048.26	0.0531	0.0375
Earth	34314-02-27 17:45 G	14254048.06	14254048.24	14254048.41	0.0531	0.0350 *
Venus	34314-12-30 19:26 G	14254354.11	14254354.31	14254354.51	0.0531	0.0046
Earth	34315-04-05 13:26 G	14254449.89	14254450.06	14254450.23	0.0531	0.0357
Moon	34315-04-05 17:17 G	14254450.04	14254450.22	14254450.40	0.0531	0.0327 *
Mercury	34316-09-06 14:38 G	14254970.01	14254970.11	14254970.22	0.0521	0.0281
Mercury	34316-12-04 20:09 G	14255059.24	14255059.34	14255059.45	0.0518	0.0313
Moon	34320-09-18 18:14 G	14256443.03	14256443.26	14256443.49	0.0494	0.0059
Earth	34320-09-18 22:19 G	14256443.19	14256443.43	14256443.66	0.0494	0.0039 *
Venus	34320-10-31 23:31 G	14256486.36	14256486.48	14256486.62	0.0495	0.0380
Mercury	34322-11-03 05:45 G	14257218.69	14257218.74	14257218.80	0.0505	0.0480
Mercury	34323-02-01 15:50 G	14257309.02	14257309.16	14257309.29	0.0507	0.0330
Earth	34326-03-04 21:36 G	14258436.20	14258436.40	14258436.61	0.0531	0.0251
Moon	34326-03-05 01:26 G	14258436.35	14258436.56	14258436.77	0.0531	0.0226 *
Moon	34327-04-10 13:55 G	14258837.95	14258838.08	14258838.22	0.0530	0.0431
Earth	34327-04-10 17:02 G	14258838.09	14258838.21	14258838.33	0.0530	0.0452 *
Mercury	34328-06-25 19:12 G	14259280.22	14259280.30	14259280.37	0.0521	0.0427
Mercury	34328-09-23 00:29 G	14259369.40	14259369.52	14259369.64	0.0519	0.0166
Moon	34331-08-23 23:02 G	14260434.33	14260434.46	14260434.59	0.0496	0.0414
Earth	34331-08-24 00:43 G	14260434.42	14260434.53	14260434.65	0.0496	0.0429 *
Earth	34332-09-23 08:09 G	14260830.61	14260830.84	14260831.06	0.0495	0.0120
Moon	34332-09-23 11:17 G	14260830.75	14260830.97	14260831.20	0.0495	0.0101 *
Mercury	34334-11-20 12:57 G	14261618.87	14261619.04	14261619.22	0.0506	0.0131
Moon	34338-03-09 20:09 G	14262824.11	14262824.34	14262824.57	0.0532	0.0134
Earth	34338-03-09 23:02 G	14262824.24	14262824.46	14262824.68	0.0532	0.0152 *

Mercury	34340-07-12 04:48 G	14263679.58	14263679.70	14263679.83	0.0520	0.0026
Earth	34343-08-28 12:00 G	14264821.85	14264822.00	14264822.17	0.0495	0.0353
Moon	34343-08-28 12:14 G	14264821.85	14264822.01	14264822.19	0.0495	0.0326 *
Moon	34344-09-27 16:19 G	14265217.96	14265218.18	14265218.41	0.0495	0.0178
Earth	34344-09-27 18:14 G	14265218.04	14265218.26	14265218.47	0.0495	0.0200 *
Venus	34344-11-03 09:50 G	14265254.74	14265254.91	14265255.08	0.0495	0.0288
Mercury	34346-09-08 10:19 G	14265928.75	14265928.93	14265929.11	0.0506	0.0069
Earth	34350-03-15 03:07 G	14267212.40	14267212.63	14267212.86	0.0532	0.0049
Moon	34350-03-15 04:05 G	14267212.45	14267212.67	14267212.90	0.0532	0.0078 *
Venus	34350-09-07 12:29 G	14267388.84	14267389.02	14267389.19	0.0532	0.0259
Mercury	34352-04-30 09:36 G	14267989.78	14267989.90	14267990.03	0.0521	0.0119
Mercury	34352-07-28 15:21 G	14268079.09	14268079.14	14268079.19	0.0518	0.0477
Earth	34355-09-01 22:33 G	14269209.25	14269209.44	14269209.64	0.0495	0.0277
Moon	34355-09-02 00:14 G	14269209.32	14269209.51	14269209.71	0.0495	0.0282 *
Venus	34356-07-09 12:14 G	14269520.81	14269521.01	14269521.20	0.0494	0.0126
Earth	34356-10-02 02:53 G	14269605.43	14269605.62	14269605.82	0.0495	0.0276
Moon	34356-10-02 02:53 G	14269605.44	14269605.62	14269605.80	0.0495	0.0295 *
Mercury	34358-06-27 07:12 G	14270238.65	14270238.80	14270238.95	0.0505	0.0272
Earth	34362-03-20 09:21 G	14271600.66	14271600.89	14271601.13	0.0532	0.0054
Moon	34362-03-20 10:33 G	14271600.70	14271600.94	14271601.18	0.0532	0.0035 *
Venus	34362-05-13 04:48 G	14271654.52	14271654.70	14271654.87	0.0532	0.0252
Mercury	34364-02-17 14:24 G	14272299.99	14272300.10	14272300.21	0.0521	0.0259
Mercury	34364-05-16 19:55 G	14272389.23	14272389.33	14272389.43	0.0519	0.0337
Moon	34367-09-06 05:45 G	14273596.53	14273596.74	14273596.94	0.0494	0.0227
Earth	34367-09-06 08:53 G	14273596.65	14273596.87	14273597.08	0.0494	0.0197 *
Earth	34368-10-06 13:12 G	14273992.89	14273993.05	14273993.21	0.0495	0.0353
Moon	34368-10-06 14:38 G	14273992.96	14273993.11	14273993.27	0.0495	0.0380 *
Mercury	34370-04-15 04:48 G	14274548.64	14274548.70	14274548.78	0.0505	0.0464
Mercury	34370-07-14 14:38 G	14274638.98	14274639.11	14274639.25	0.0507	0.0345
Moon	34373-02-16 22:19 G	14275587.40	14275587.43	14275587.47	0.0530	0.0524

Moon	34374-03-25 11:17 G	14275988.76	14275988.97	14275989.19	0.0532	0.0182
Earth	34374-03-25 14:24 G	14275988.88	14275989.10	14275989.33	0.0532	0.0153 *
Mercury	34375-12-06 18:14 G	14276610.19	14276610.26	14276610.34	0.0521	0.0411
Mercury	34376-03-04 23:45 G	14276699.37	14276699.49	14276699.61	0.0519	0.0180
Earth	34379-09-10 15:21 G	14277983.92	14277984.14	14277984.37	0.0495	0.0123
Moon	34379-09-10 19:26 G	14277984.08	14277984.31	14277984.54	0.0495	0.0121 *
Moon	34380-10-10 19:12 G	14278380.19	14278380.30	14278380.42	0.0496	0.0422
Earth	34380-10-10 21:50 G	14278380.30	14278380.41	14278380.53	0.0496	0.0427 *
Mercury	34382-05-02 12:43 G	14278948.86	14278949.03	14278949.20	0.0507	0.0155
Moon	34385-02-21 21:36 G	14279975.31	14279975.40	14279975.50	0.0530	0.0478
Earth	34385-02-22 00:29 G	14279975.41	14279975.52	14279975.65	0.0530	0.0448 *
Earth	34386-03-30 18:29 G	14280377.07	14280377.27	14280377.48	0.0531	0.0255
Moon	34386-03-30 22:19 G	14280377.24	14280377.43	14280377.64	0.0531	0.0265 *
Mercury	34387-12-23 04:05 G	14281009.54	14281009.67	14281009.80	0.0519	0.0034
Moon	34391-09-14 21:36 G	14282371.16	14282371.40	14282371.63	0.0495	0.0012
Earth	34391-09-15 01:41 G	14282371.33	14282371.57	14282371.80	0.0495	0.0043 *
Venus	34392-03-16 23:31 G	14282555.29	14282555.48	14282555.68	0.0495	0.0126
Moon	34392-10-15 12:00 G	14282767.93	14282768.00	14282768.07	0.0497	0.0472
Mercury	34394-02-18 09:50 G	14283258.73	14283258.91	14283259.10	0.0506	0.0045
Earth	34397-02-27 00:57 G	14284363.37	14284363.54	14284363.71	0.0531	0.0356
Moon	34397-02-27 04:48 G	14284363.53	14284363.70	14284363.86	0.0531	0.0373 *
Venus	34398-01-18 21:36 G	14284689.20	14284689.40	14284689.61	0.0531	0.0055
Moon	34398-04-04 16:33 G	14284765.01	14284765.19	14284765.38	0.0531	0.0320
Earth	34398-04-04 19:55 G	14284765.16	14284765.33	14284765.51	0.0531	0.0353 *
Mercury	34399-10-11 08:24 G	14285319.73	14285319.85	14285319.98	0.0520	0.0113
Mercury	34400-01-08 14:09 G	14285409.04	14285409.09	14285409.13	0.0518	0.0483
Mars	34401-03-04 23:02 G	14285830.22	14285830.46	14285830.71	0.0507	0.0225
Earth	34403-09-19 12:00 G	14286758.76	14286759.00	14286759.23	0.0494	0.0039
Moon	34403-09-19 15:07 G	14286758.90	14286759.13	14286759.36	0.0494	0.0052 *
Venus	34403-11-21 02:24 G	14286821.43	14286821.60	14286821.77	0.0494	0.0286

Mercury	34405-12-07 06:57 G	14287568.64	14287568.79	14287568.95	0.0505	0.0245
Moon	34409-03-04 00:43 G	14288751.32	14288751.53	14288751.75	0.0531	0.0230
Earth	34409-03-04 04:05 G	14288751.47	14288751.67	14288751.88	0.0531	0.0258 *
Venus	34409-09-23 12:57 G	14288954.95	14288955.04	14288955.14	0.0532	0.0463
Earth	34410-04-10 00:14 G	14289153.40	14289153.51	14289153.64	0.0531	0.0450
Moon	34410-04-10 02:09 G	14289153.46	14289153.59	14289153.72	0.0531	0.0436 *
Mercury	34411-07-30 13:12 G	14289629.93	14289630.05	14289630.16	0.0521	0.0253
Mercury	34411-10-27 18:43 G	14289719.18	14289719.28	14289719.38	0.0519	0.0342
Earth	34414-08-23 14:24 G	14290750.00	14290750.10	14290750.22	0.0496	0.0434
Moon	34414-08-23 14:38 G	14290750.00	14290750.11	14290750.24	0.0496	0.0417 *
Moon	34415-09-23 19:26 G	14291146.08	14291146.31	14291146.55	0.0494	0.0093
Earth	34415-09-23 21:07 G	14291146.16	14291146.38	14291146.61	0.0494	0.0118 *
Mercury	34417-09-25 03:50 G	14291878.58	14291878.66	14291878.74	0.0505	0.0448
Mercury	34417-12-24 13:41 G	14291968.94	14291969.07	14291969.20	0.0507	0.0359
Mars	34419-02-26 11:45 G	14292397.73	14292397.99	14292398.24	0.0519	0.0185
Earth	34421-03-09 09:21 G	14293139.67	14293139.89	14293140.11	0.0532	0.0158
Moon	34421-03-09 10:48 G	14293139.73	14293139.95	14293140.17	0.0532	0.0146 *
Mercury	34423-05-18 17:45 G	14293940.16	14293940.24	14293940.33	0.0522	0.0392
Mercury	34423-08-15 23:17 G	14294029.35	14294029.47	14294029.59	0.0519	0.0203
Earth	34426-08-28 01:26 G	14295137.40	14295137.56	14295137.72	0.0495	0.0357
Moon	34426-08-28 02:53 G	14295137.45	14295137.62	14295137.81	0.0495	0.0332 *
Moon	34427-09-28 06:43 G	14295533.57	14295533.78	14295533.99	0.0494	0.0183
Earth	34427-09-28 06:57 G	14295533.58	14295533.79	14295534.01	0.0494	0.0198 *
Venus	34427-11-23 12:00 G	14295589.87	14295590.00	14295590.13	0.0495	0.0380
Mercury	34429-10-12 11:45 G	14296278.82	14296278.99	14296279.16	0.0507	0.0171
Earth	34433-03-14 15:07 G	14297527.90	14297528.13	14297528.37	0.0532	0.0057
Moon	34433-03-14 15:50 G	14297527.92	14297528.16	14297528.40	0.0532	0.0086 *
Venus	34433-09-26 17:17 G	14297724.08	14297724.22	14297724.36	0.0531	0.0377
Mercury	34435-06-04 03:21 G	14298339.51	14298339.64	14298339.77	0.0519	0.0049
Moon	34438-09-01 04:33 G	14299524.51	14299524.69	14299524.87	0.0495	0.0299

Earth	34438-09-01 07:26 G	14299524.63	14299524.81	14299525.01	0.0495	0.0284 *
Venus	34439-07-29 12:57 G	14299855.84	14299856.04	14299856.25	0.0495	0.0041
Earth	34439-10-02 14:09 G	14299920.90	14299921.09	14299921.28	0.0495	0.0272
Moon	34439-10-02 15:50 G	14299920.97	14299921.16	14299921.35	0.0495	0.0295 *
Mercury	34441-07-31 09:21 G	14300588.71	14300588.89	14300589.07	0.0507	0.0022
Moon	34445-03-19 17:02 G	14301915.99	14301916.21	14301916.44	0.0531	0.0038
Earth	34445-03-19 19:41 G	14301916.09	14301916.32	14301916.56	0.0531	0.0048 *
Venus	34445-06-01 08:53 G	14301989.67	14301989.87	14301990.06	0.0531	0.0139
Mercury	34447-03-23 07:41 G	14302649.69	14302649.82	14302649.94	0.0520	0.0099
Mercury	34447-06-20 13:12 G	14302739.02	14302739.05	14302739.09	0.0518	0.0495
Earth	34450-09-05 17:45 G	14303912.03	14303912.24	14303912.45	0.0495	0.0204
Moon	34450-09-05 21:36 G	14303912.20	14303912.40	14303912.61	0.0495	0.0233 *
Venus	34451-04-03 15:36 G	14304122.07	14304122.15	14304122.23	0.0495	0.0451
Moon	34451-10-06 21:36 G	14304308.26	14304308.40	14304308.56	0.0496	0.0378
Earth	34451-10-07 00:29 G	14304308.36	14304308.52	14304308.69	0.0496	0.0351 *
Mercury	34453-05-19 06:29 G	14304898.61	14304898.77	14304898.94	0.0506	0.0223
Earth	34457-03-24 20:24 G	14306304.13	14306304.35	14306304.58	0.0531	0.0149
Moon	34457-03-25 00:29 G	14306304.30	14306304.52	14306304.74	0.0531	0.0181 *
Mercury	34459-01-09 12:00 G	14306959.88	14306960.00	14306960.11	0.0521	0.0247
Mercury	34459-04-08 17:31 G	14307049.13	14307049.23	14307049.32	0.0519	0.0348
Moon	34462-09-10 00:43 G	14308299.30	14308299.53	14308299.76	0.0495	0.0123
Earth	34462-09-10 04:48 G	14308299.47	14308299.70	14308299.92	0.0495	0.0124 *
Earth	34463-10-11 10:48 G	14308695.83	14308695.95	14308696.06	0.0496	0.0427
Moon	34463-10-11 14:09 G	14308695.97	14308696.09	14308696.23	0.0496	0.0412 *
Mercury	34465-03-07 03:36 G	14309208.55	14309208.65	14309208.75	0.0505	0.0423
Mercury	34465-06-05 13:12 G	14309298.94	14309299.05	14309299.17	0.0507	0.0385
Earth	34468-02-22 06:00 G	14310290.64	14310290.75	14310290.87	0.0530	0.0456
Moon	34468-02-22 09:50 G	14310290.82	14310290.91	14310291.00	0.0530	0.0485 *
Moon	34469-03-29 20:53 G	14310692.17	14310692.37	14310692.58	0.0531	0.0259
Earth	34469-03-30 00:29 G	14310692.32	14310692.52	14310692.73	0.0531	0.0250 *

Mercury	34470-10-28 16:33 G	14311270.11	14311270.19	14311270.27	0.0522	0.0388
Mercury	34471-01-25 22:05 G	14311359.30	14311359.42	14311359.54	0.0519	0.0206
Earth	34474-09-14 14:24 G	14312686.87	14312687.10	14312687.33	0.0494	0.0046
Moon	34474-09-14 17:31 G	14312687.00	14312687.23	14312687.45	0.0494	0.0017 *
Venus	34475-04-06 01:26 G	14312890.38	14312890.56	14312890.74	0.0495	0.0216
Moon	34475-10-15 16:19 G	14313083.11	14313083.18	14313083.25	0.0496	0.0471
Mercury	34477-03-24 10:19 G	14313608.77	14313608.93	14313609.10	0.0507	0.0183
Moon	34480-02-27 06:14 G	14314678.60	14314678.76	14314678.93	0.0531	0.0374
Earth	34480-02-27 09:50 G	14314678.74	14314678.91	14314679.08	0.0531	0.0363 *
Venus	34481-02-07 01:55 G	14315024.39	14315024.58	14315024.77	0.0532	0.0166
Earth	34481-04-04 06:00 G	14315080.58	14315080.75	14315080.93	0.0531	0.0350
Moon	34481-04-04 08:09 G	14315080.67	14315080.84	14315081.03	0.0531	0.0319 *
Mercury	34482-11-14 02:38 G	14315669.48	14315669.61	14315669.74	0.0520	0.0066
Moon	34486-09-18 22:33 G	14317074.20	14317074.44	14317074.68	0.0494	0.0041
Earth	34486-09-19 00:00 G	14317074.27	14317074.50	14317074.73	0.0494	0.0036 *
Venus	34486-12-10 04:05 G	14317156.48	14317156.67	14317156.86	0.0494	0.0196
Mercury	34489-01-10 08:09 G	14317918.66	14317918.84	14317919.02	0.0506	0.0011
Earth	34492-03-03 15:50 G	14319066.96	14319067.16	14319067.36	0.0531	0.0264
Moon	34492-03-03 17:31 G	14319067.03	14319067.23	14319067.44	0.0531	0.0233 *
Venus	34492-10-12 18:00 G	14319290.10	14319290.25	14319290.40	0.0531	0.0344
Earth	34493-04-09 10:48 G	14319468.83	14319468.95	14319469.08	0.0530	0.0444
Moon	34493-04-09 11:02 G	14319468.83	14319468.96	14319469.10	0.0530	0.0437 *
Mercury	34494-09-02 06:43 G	14319979.65	14319979.78	14319979.91	0.0520	0.0086
Mercury	34494-11-30 12:14 G	14320068.99	14320069.01	14320069.04	0.0517	0.0508
Earth	34497-08-22 21:36 G	14321065.30	14321065.40	14321065.51	0.0496	0.0441
Moon	34497-08-22 23:17 G	14321065.34	14321065.47	14321065.60	0.0496	0.0418 *
Moon	34498-09-23 05:45 G	14321461.52	14321461.74	14321461.96	0.0495	0.0085
Earth	34498-09-23 06:00 G	14321461.52	14321461.75	14321461.98	0.0495	0.0113 *
Mercury	34500-10-30 05:31 G	14322228.56	14322228.73	14322228.90	0.0506	0.0207
Moon	34504-03-09 19:55 G	14323455.11	14323455.33	14323455.57	0.0531	0.0154

Earth	34504-03-09 20:09 G	14323455.12	14323455.34	14323455.56	0.0531	0.0163	*
Mercury	34506-06-22 11:02 G	14324289.85	14324289.96	14324290.08	0.0520	0.0233	
Mercury	34506-09-19 16:33 G	14324379.10	14324379.19	14324379.28	0.0518	0.0360	
Moon	34509-08-28 04:48 G	14325452.54	14325452.70	14325452.87	0.0496	0.0346	
Earth	34509-08-28 07:55 G	14325452.68	14325452.83	14325452.99	0.0496	0.0365	*
Earth	34510-09-28 15:50 G	14325848.95	14325849.16	14325849.38	0.0495	0.0193	
Moon	34510-09-28 17:45 G	14325849.01	14325849.24	14325849.46	0.0495	0.0181	*
Venus	34510-12-13 12:00 G	14325924.93	14325925.00	14325925.07	0.0495	0.0460	
Mercury	34512-08-18 02:38 G	14326538.50	14326538.61	14326538.72	0.0505	0.0407	
Mercury	34512-11-16 12:29 G	14326628.91	14326629.02	14326629.13	0.0507	0.0402	
Moon	34516-03-14 18:29 G	14327843.05	14327843.27	14327843.49	0.0531	0.0093	
Earth	34516-03-14 20:24 G	14327843.12	14327843.35	14327843.58	0.0531	0.0062	*
Venus	34516-10-16 18:29 G	14328059.18	14328059.27	14328059.36	0.0531	0.0469	
Mercury	34518-04-10 15:21 G	14328600.05	14328600.14	14328600.22	0.0521	0.0382	
Mercury	34518-07-08 20:38 G	14328689.25	14328689.36	14328689.48	0.0519	0.0211	
Mars	34519-08-26 00:14 G	14329102.38	14329102.51	14329102.65	0.0508	0.0435	
Earth	34521-09-01 19:12 G	14329840.12	14329840.30	14329840.50	0.0495	0.0287	
Moon	34521-09-01 23:17 G	14329840.29	14329840.47	14329840.65	0.0495	0.0308	*
Venus	34522-08-18 14:38 G	14330190.91	14330191.11	14330191.32	0.0495	0.0050	
Moon	34522-10-02 23:17 G	14330236.29	14330236.47	14330236.66	0.0495	0.0298	
Earth	34522-10-03 02:09 G	14330236.40	14330236.59	14330236.78	0.0495	0.0272	*
Mercury	34524-09-04 09:50 G	14330938.74	14330938.91	14330939.07	0.0507	0.0203	
Earth	34528-03-19 23:17 G	14332231.24	14332231.47	14332231.70	0.0532	0.0040	
Moon	34528-03-20 03:07 G	14332231.39	14332231.63	14332231.86	0.0532	0.0039	*
Venus	34528-06-21 09:36 G	14332324.69	14332324.90	14332325.10	0.0531	0.0050	
Mercury	34530-04-27 01:12 G	14332999.42	14332999.55	14332999.68	0.0520	0.0067	
Moon	34533-09-06 01:41 G	14334227.37	14334227.57	14334227.78	0.0495	0.0238	
Earth	34533-09-06 05:31 G	14334227.53	14334227.73	14334227.95	0.0495	0.0209	*
Venus	34534-04-23 16:48 G	14334457.07	14334457.20	14334457.34	0.0494	0.0364	
Earth	34534-10-07 11:02 G	14334623.80	14334623.96	14334624.13	0.0495	0.0348	

Moon	34534-10-07 14:38 G	14334623.96	14334624.11	14334624.27	0.0495	0.0367	*
Mercury	34536-06-23 06:43 G	14335248.59	14335248.78	14335248.96	0.0506	0.0009	
Moon	34540-03-25 00:14 G	14336619.29	14336619.51	14336619.74	0.0532	0.0177	
Earth	34540-03-25 04:05 G	14336619.45	14336619.67	14336619.90	0.0532	0.0143	*
Mercury	34542-02-13 06:00 G	14337309.62	14337309.75	14337309.87	0.0520	0.0076	
Earth	34545-09-10 15:07 G	14338614.91	14338615.13	14338615.36	0.0494	0.0129	
Moon	34545-09-10 18:14 G	14338615.04	14338615.26	14338615.48	0.0494	0.0122	*
Moon	34546-10-11 17:02 G	14339011.08	14339011.21	14339011.35	0.0496	0.0403	
Earth	34546-10-11 20:38 G	14339011.25	14339011.36	14339011.49	0.0496	0.0425	*
Mercury	34548-04-11 04:05 G	14339558.51	14339558.67	14339558.84	0.0506	0.0197	
Moon	34551-02-22 12:29 G	14340605.94	14340606.02	14340606.10	0.0530	0.0494	
Earth	34551-02-22 16:05 G	14340606.06	14340606.17	14340606.29	0.0530	0.0463	*
Earth	34552-03-30 10:05 G	14341007.71	14341007.92	14341008.13	0.0531	0.0244	
Moon	34552-03-30 12:43 G	14341007.83	14341008.03	14341008.23	0.0531	0.0251	*
Mercury	34553-12-02 10:05 G	14341619.81	14341619.92	14341620.04	0.0520	0.0223	
Mercury	34554-03-01 15:36 G	14341709.06	14341709.15	14341709.24	0.0518	0.0370	
Moon	34557-09-14 18:57 G	14343002.04	14343002.29	14343002.53	0.0495	0.0026	
Earth	34557-09-14 20:38 G	14343002.12	14343002.36	14343002.59	0.0495	0.0053	*
Venus	34558-04-26 00:14 G	14343225.34	14343225.51	14343225.67	0.0495	0.0289	
Moon	34558-10-16 06:43 G	14343398.72	14343398.78	14343398.85	0.0497	0.0473	
Mercury	34560-01-29 00:57 G	14343868.44	14343868.54	14343868.66	0.0506	0.0399	
Mercury	34560-04-28 11:17 G	14343958.86	14343958.97	14343959.07	0.0508	0.0413	
Earth	34563-02-27 19:41 G	14344994.16	14344994.32	14344994.50	0.0531	0.0368	
Moon	34563-02-27 22:05 G	14344994.27	14344994.42	14344994.59	0.0531	0.0370	*
Venus	34564-02-28 05:02 G	14345359.53	14345359.71	14345359.88	0.0531	0.0271	
Moon	34564-04-04 13:12 G	14345395.86	14345396.05	14345396.25	0.0530	0.0314	
Earth	34564-04-04 13:55 G	14345395.90	14345396.08	14345396.25	0.0530	0.0345	*
Mercury	34565-09-20 14:24 G	14345930.01	14345930.10	14345930.19	0.0521	0.0369	
Mercury	34565-12-18 19:41 G	14346019.21	14346019.32	14346019.44	0.0518	0.0222	
Moon	34569-09-19 05:31 G	14347389.51	14347389.73	14347389.96	0.0495	0.0028	

Earth	34569-09-19 06:00 G	14347389.52	14347389.75	14347389.98	0.0495	0.0029	*
Venus	34569-12-30 02:24 G	14347491.40	14347491.60	14347491.80	0.0495	0.0126	
Mercury	34572-02-15 08:24 G	14348268.69	14348268.85	14348269.02	0.0507	0.0213	
Mars	34573-05-24 10:19 G	14348732.70	14348732.93	14348733.17	0.0519	0.0263	
Moon	34575-03-04 18:29 G	14349382.06	14349382.27	14349382.49	0.0531	0.0239	
Earth	34575-03-04 19:12 G	14349382.11	14349382.30	14349382.51	0.0531	0.0273	*
Venus	34575-11-02 18:00 G	14349625.08	14349625.25	14349625.43	0.0531	0.0259	
Moon	34576-04-09 11:31 G	14349783.86	14349783.98	14349784.11	0.0530	0.0441	
Earth	34576-04-09 13:41 G	14349783.94	14349784.07	14349784.20	0.0530	0.0438	*
Mercury	34577-07-09 18:29 G	14350240.27	14350240.27	14350240.28	0.0522	0.0521	
Mercury	34577-10-06 23:45 G	14350329.37	14350329.49	14350329.62	0.0519	0.0072	
Moon	34580-08-23 04:05 G	14351380.56	14351380.67	14351380.80	0.0496	0.0421	
Earth	34580-08-23 07:12 G	14351380.71	14351380.80	14351380.91	0.0496	0.0446	*
Earth	34581-09-23 16:19 G	14351776.95	14351777.18	14351777.41	0.0495	0.0111	
Moon	34581-09-23 18:14 G	14351777.02	14351777.26	14351777.50	0.0495	0.0080	*
Mercury	34583-12-04 05:31 G	14352578.55	14352578.73	14352578.91	0.0506	0.0013	
Moon	34587-03-09 19:55 G	14353770.11	14353770.33	14353770.54	0.0531	0.0167	
Earth	34587-03-09 21:07 G	14353770.16	14353770.38	14353770.60	0.0531	0.0173	*
Mercury	34589-07-26 04:19 G	14354639.55	14354639.68	14354639.81	0.0520	0.0076	
Earth	34592-08-27 18:14 G	14355768.10	14355768.26	14355768.41	0.0496	0.0371	
Moon	34592-08-27 22:05 G	14355768.26	14355768.42	14355768.58	0.0496	0.0356	*
Moon	34593-09-27 22:33 G	14356164.22	14356164.44	14356164.65	0.0495	0.0179	
Earth	34593-09-28 01:12 G	14356164.34	14356164.55	14356164.77	0.0495	0.0189	*
Mercury	34595-09-22 02:09 G	14356888.42	14356888.59	14356888.76	0.0506	0.0194	
Earth	34599-03-15 00:29 G	14358158.29	14358158.52	14358158.75	0.0532	0.0072	
Moon	34599-03-15 03:50 G	14358158.43	14358158.66	14358158.90	0.0532	0.0103	*
Mercury	34601-05-15 08:53 G	14358949.75	14358949.87	14358949.99	0.0521	0.0217	
Mercury	34601-08-12 14:24 G	14359039.01	14359039.10	14359039.19	0.0518	0.0377	
Moon	34604-09-02 00:00 G	14360155.32	14360155.50	14360155.69	0.0495	0.0314	
Earth	34604-09-02 04:05 G	14360155.48	14360155.67	14360155.86	0.0495	0.0292	*

Venus	34605-09-07 13:55 G	14360525.89	14360526.08	14360526.29	0.0495	0.0126
Earth	34605-10-03 10:05 G	14360551.73	14360551.92	14360552.12	0.0495	0.0268
Moon	34605-10-03 13:41 G	14360551.88	14360552.07	14360552.26	0.0495	0.0295 *
Mercury	34607-07-11 23:17 G	14361198.36	14361198.47	14361198.59	0.0505	0.0393
Mercury	34607-10-10 09:07 G	14361288.79	14361288.88	14361288.99	0.0508	0.0418
Moon	34611-03-21 02:53 G	14362546.39	14362546.62	14362546.86	0.0532	0.0035
Earth	34611-03-21 06:57 G	14362546.56	14362546.79	14362547.02	0.0532	0.0033 *
Venus	34611-07-12 12:29 G	14362659.82	14362660.02	14362660.22	0.0531	0.0055
Mercury	34613-03-03 13:12 G	14363259.96	14363260.05	14363260.14	0.0521	0.0364
Mercury	34613-05-31 18:29 G	14363349.16	14363349.27	14363349.39	0.0518	0.0227
Earth	34616-09-06 09:07 G	14364542.67	14364542.88	14364543.09	0.0495	0.0217
Moon	34616-09-06 12:14 G	14364542.82	14364543.01	14364543.21	0.0495	0.0244 *
Venus	34617-05-13 13:41 G	14364791.91	14364792.07	14364792.24	0.0495	0.0302
Moon	34617-10-07 12:14 G	14364938.85	14364939.01	14364939.17	0.0496	0.0358
Earth	34617-10-07 15:50 G	14364939.00	14364939.16	14364939.33	0.0496	0.0343 *
Mercury	34619-07-29 06:29 G	14365598.60	14365598.77	14365598.93	0.0507	0.0216
Venus	34623-03-17 03:50 G	14366925.56	14366925.66	14366925.76	0.0531	0.0462
Earth	34623-03-26 10:48 G	14366934.72	14366934.95	14366935.18	0.0531	0.0137
Moon	34623-03-26 13:55 G	14366934.87	14366935.08	14366935.30	0.0531	0.0172 *
Mercury	34624-12-20 17:31 G	14367570.21	14367570.23	14367570.25	0.0521	0.0511
Mercury	34625-03-19 22:48 G	14367659.32	14367659.45	14367659.58	0.0519	0.0078
Moon	34628-09-10 16:33 G	14368929.96	14368930.19	14368930.43	0.0495	0.0126
Earth	34628-09-10 18:14 G	14368930.04	14368930.26	14368930.49	0.0495	0.0137 *
Earth	34629-10-12 01:12 G	14369326.44	14369326.55	14369326.68	0.0496	0.0421
Moon	34629-10-12 04:19 G	14369326.55	14369326.68	14369326.82	0.0496	0.0396 *
Mercury	34631-05-17 03:36 G	14369908.47	14369908.65	14369908.83	0.0507	0.0015
Earth	34634-02-22 17:31 G	14370921.13	14370921.23	14370921.34	0.0530	0.0474
Moon	34634-02-22 20:24 G	14370921.29	14370921.35	14370921.42	0.0530	0.0507 *
Moon	34635-03-31 08:24 G	14371322.64	14371322.85	14371323.07	0.0531	0.0239
Earth	34635-03-31 10:05 G	14371322.71	14371322.92	14371323.13	0.0531	0.0235 *

Mercury	34637-01-06 02:38 G	14371969.49	14371969.61	14371969.74	0.0520	0.0078
Moon	34640-09-15 04:19 G	14373317.46	14373317.68	14373317.91	0.0495	0.0031
Earth	34640-09-15 04:33 G	14373317.46	14373317.69	14373317.93	0.0495	0.0058 *
Venus	34641-05-15 23:31 G	14373560.34	14373560.48	14373560.62	0.0495	0.0364
Moon	34641-10-16 09:36 G	14373713.83	14373713.90	14373713.98	0.0497	0.0470
Earth	34641-10-16 11:45 G	14373713.98	14373713.99	14373714.01	0.0497	0.0496 *
Mercury	34643-03-05 00:29 G	14374218.36	14374218.52	14374218.70	0.0506	0.0188
Moon	34646-02-27 16:33 G	14375309.03	14375309.19	14375309.36	0.0530	0.0382
Earth	34646-02-27 18:14 G	14375309.10	14375309.26	14375309.42	0.0530	0.0381 *
Venus	34647-03-20 02:24 G	14375694.44	14375694.60	14375694.75	0.0531	0.0340
Moon	34647-04-05 10:48 G	14375710.77	14375710.95	14375711.14	0.0531	0.0307
Earth	34647-04-05 12:00 G	14375710.82	14375711.00	14375711.18	0.0531	0.0335 *
Mercury	34648-10-25 06:57 G	14376279.68	14376279.79	14376279.91	0.0521	0.0224
Mercury	34649-01-22 12:29 G	14376368.94	14376369.02	14376369.11	0.0518	0.0372
Earth	34652-09-19 13:41 G	14377704.84	14377705.07	14377705.30	0.0494	0.0023
Moon	34652-09-19 15:36 G	14377704.91	14377705.15	14377705.39	0.0494	0.0016 *
Venus	34653-01-19 01:26 G	14377826.35	14377826.56	14377826.76	0.0495	0.0052
Mercury	34654-12-21 20:53 G	14378528.26	14378528.37	14378528.49	0.0505	0.0397
Mercury	34655-03-22 06:57 G	14378618.69	14378618.79	14378618.89	0.0507	0.0413
Moon	34658-03-04 19:41 G	14379697.12	14379697.32	14379697.51	0.0531	0.0255
Earth	34658-03-04 19:55 G	14379697.14	14379697.33	14379697.53	0.0531	0.0286 *
Venus	34658-11-22 17:31 G	14379960.04	14379960.23	14379960.42	0.0532	0.0176
Earth	34659-04-10 15:36 G	14380099.02	14380099.15	14380099.29	0.0531	0.0431
Moon	34659-04-10 18:57 G	14380099.16	14380099.29	14380099.43	0.0531	0.0438 *
Mercury	34660-08-13 11:45 G	14380589.90	14380589.99	14380590.08	0.0521	0.0366
Mercury	34660-11-10 17:02 G	14380679.10	14380679.21	14380679.33	0.0519	0.0228
Earth	34663-08-24 13:55 G	14381695.99	14381696.08	14381696.17	0.0496	0.0453
Moon	34663-08-24 17:45 G	14381696.12	14381696.24	14381696.37	0.0496	0.0422 *
Moon	34664-09-23 19:26 G	14382092.09	14382092.31	14382092.54	0.0494	0.0073
Earth	34664-09-23 22:19 G	14382092.20	14382092.43	14382092.66	0.0494	0.0104 *

Venus	34664-09-24 03:21 G	14382092.57	14382092.64	14382092.70	0.0494	0.0466	*
Mercury	34667-01-08 04:19 G	14382928.52	14382928.68	14382928.84	0.0507	0.0215	
Earth	34670-03-10 01:26 G	14384085.35	14384085.56	14384085.78	0.0531	0.0182	
Moon	34670-03-10 04:19 G	14384085.46	14384085.68	14384085.91	0.0531	0.0185	*
Earth	34671-04-15 20:38 G	14384487.34	14384487.36	14384487.39	0.0530	0.0526	
Mercury	34672-06-01 16:05 G	14384900.15	14384900.17	14384900.19	0.0521	0.0510	
Mercury	34672-08-29 21:21 G	14384989.26	14384989.39	14384989.52	0.0519	0.0080	
Mars	34673-11-19 23:02 G	14385436.20	14385436.46	14385436.73	0.0507	0.0114	
Moon	34675-08-28 15:50 G	14386083.00	14386083.16	14386083.32	0.0496	0.0364	
Earth	34675-08-28 19:41 G	14386083.18	14386083.32	14386083.47	0.0496	0.0381	*
Earth	34676-09-28 02:53 G	14386479.41	14386479.62	14386479.84	0.0495	0.0182	
Moon	34676-09-28 06:29 G	14386479.56	14386479.77	14386480.00	0.0495	0.0177	*
Mercury	34678-10-27 00:57 G	14387238.36	14387238.54	14387238.73	0.0507	0.0014	
Moon	34682-03-15 01:26 G	14388473.34	14388473.56	14388473.79	0.0531	0.0113	
Earth	34682-03-15 05:31 G	14388473.50	14388473.73	14388473.96	0.0531	0.0079	*
Mercury	34684-06-18 01:41 G	14389299.44	14389299.57	14389299.69	0.0519	0.0071	
Earth	34687-09-02 04:33 G	14390470.51	14390470.69	14390470.88	0.0495	0.0303	
Moon	34687-09-02 07:41 G	14390470.66	14390470.82	14390471.00	0.0495	0.0326	*
Venus	34688-09-26 09:36 G	14390860.71	14390860.90	14390861.09	0.0495	0.0179	
Moon	34688-10-02 08:09 G	14390866.66	14390866.84	14390867.04	0.0495	0.0290	
Earth	34688-10-02 12:00 G	14390866.80	14390867.00	14390867.20	0.0495	0.0261	*
Mercury	34690-08-14 22:05 G	14391548.25	14391548.42	14391548.59	0.0506	0.0194	
Earth	34694-03-20 04:19 G	14392861.45	14392861.68	14392861.91	0.0531	0.0020	
Moon	34694-03-20 07:55 G	14392861.60	14392861.83	14392862.06	0.0531	0.0024	*
Venus	34694-07-31 09:21 G	14392994.69	14392994.89	14392995.09	0.0531	0.0121	
Mercury	34696-04-06 05:31 G	14393609.61	14393609.73	14393609.84	0.0520	0.0226	
Mercury	34696-07-04 10:48 G	14393698.87	14393698.95	14393699.05	0.0518	0.0367	
Moon	34699-09-06 13:12 G	14394857.84	14394858.05	14394858.26	0.0495	0.0246	
Earth	34699-09-06 15:07 G	14394857.92	14394858.13	14394858.34	0.0495	0.0225	*
Venus	34700-06-02 12:00 G	14395126.82	14395127.00	14395127.19	0.0495	0.0232	

Earth	34700-10-07 21:50 G	14395254.25	14395254.41	14395254.59	0.0495	0.0340
Moon	34700-10-08 00:57 G	14395254.38	14395254.54	14395254.70	0.0495	0.0350 *
Mercury	34702-06-03 18:57 G	14395858.18	14395858.29	14395858.40	0.0505	0.0397
Mercury	34702-09-02 05:02 G	14395948.61	14395948.71	14395948.81	0.0507	0.0414
Moon	34706-03-26 03:21 G	14397249.41	14397249.64	14397249.87	0.0531	0.0154
Earth	34706-03-26 05:45 G	14397249.52	14397249.74	14397249.97	0.0531	0.0122 *
Venus	34706-04-05 23:17 G	14397260.34	14397260.47	14397260.60	0.0531	0.0403
Mercury	34708-01-25 09:36 G	14397919.82	14397919.90	14397919.99	0.0521	0.0375
Mercury	34708-04-23 15:07 G	14398009.01	14398009.13	14398009.25	0.0519	0.0218
Moon	34711-09-12 00:14 G	14399245.29	14399245.51	14399245.72	0.0495	0.0128
Earth	34711-09-12 00:14 G	14399245.29	14399245.51	14399245.74	0.0495	0.0146 *
Moon	34712-10-12 04:05 G	14399641.53	14399641.67	14399641.83	0.0496	0.0388
Earth	34712-10-12 06:14 G	14399641.64	14399641.76	14399641.89	0.0496	0.0415 *
Mercury	34714-06-21 01:26 G	14400258.40	14400258.56	14400258.73	0.0507	0.0207
Moon	34717-02-22 12:57 G	14401236.00	14401236.04	14401236.08	0.0530	0.0521
Earth	34717-02-22 15:07 G	14401236.05	14401236.13	14401236.22	0.0530	0.0488 *
Earth	34718-03-31 08:24 G	14401637.64	14401637.85	14401638.07	0.0531	0.0224
Moon	34718-03-31 08:24 G	14401637.65	14401637.85	14401638.05	0.0531	0.0222 *
Mercury	34719-11-13 14:09 G	14402230.08	14402230.09	14402230.11	0.0522	0.0518
Mercury	34720-02-10 19:26 G	14402319.19	14402319.31	14402319.44	0.0520	0.0075
Earth	34723-09-16 08:53 G	14403632.64	14403632.87	14403633.10	0.0494	0.0065
Moon	34723-09-16 10:48 G	14403632.71	14403632.95	14403633.19	0.0494	0.0039 *
Venus	34724-06-04 20:09 G	14403895.24	14403895.34	14403895.45	0.0495	0.0424
Moon	34724-10-16 15:21 G	14404029.08	14404029.14	14404029.22	0.0496	0.0470
Earth	34724-10-16 14:38 G	14404029.09	14404029.11	14404029.16	0.0496	0.0490 *
Mercury	34726-04-08 22:33 G	14404568.26	14404568.44	14404568.63	0.0506	0.0011
Earth	34729-02-27 19:12 G	14405624.15	14405624.30	14405624.46	0.0531	0.0393
Moon	34729-02-27 19:26 G	14405624.17	14405624.31	14405624.46	0.0531	0.0395 *
Earth	34730-04-05 14:09 G	14406025.91	14406026.09	14406026.27	0.0531	0.0327
Moon	34730-04-05 16:48 G	14406026.01	14406026.20	14406026.41	0.0531	0.0296 *

Venus	34730-04-09 01:55 G	14406029.47	14406029.58	14406029.71	0.0531	0.0424
Mercury	34731-11-30 00:00 G	14406629.37	14406629.50	14406629.62	0.0520	0.0073
Moon	34735-09-20 10:48 G	14408019.73	14408019.95	14408020.18	0.0494	0.0009
Earth	34735-09-20 13:41 G	14408019.83	14408020.07	14408020.30	0.0494	0.0016 *
Venus	34736-02-08 19:55 G	14408161.12	14408161.33	14408161.53	0.0495	0.0009
Mercury	34738-01-25 18:57 G	14408878.13	14408878.29	14408878.46	0.0506	0.0207
Earth	34741-03-04 22:33 G	14410012.25	14410012.44	14410012.64	0.0531	0.0295
Moon	34741-03-05 00:43 G	14410012.32	14410012.53	14410012.74	0.0531	0.0264 *
Venus	34741-12-12 17:17 G	14410295.02	14410295.22	14410295.42	0.0531	0.0092
Moon	34742-04-10 13:26 G	14410413.94	14410414.06	14410414.20	0.0530	0.0431
Earth	34742-04-10 17:31 G	14410414.09	14410414.23	14410414.37	0.0530	0.0425 *
Mercury	34743-09-18 04:05 G	14410939.56	14410939.67	14410939.79	0.0520	0.0222
Mercury	34743-12-16 09:36 G	14411028.81	14411028.90	14411028.99	0.0518	0.0371
Moon	34746-08-24 09:07 G	14412010.77	14412010.88	14412011.00	0.0496	0.0434
Earth	34746-08-24 13:12 G	14412010.97	14412011.05	14412011.13	0.0496	0.0465 *
Earth	34747-09-24 21:50 G	14412407.19	14412407.41	14412407.64	0.0495	0.0095
Moon	34747-09-25 01:26 G	14412407.33	14412407.56	14412407.80	0.0495	0.0065 *
Venus	34747-10-14 21:36 G	14412427.29	14412427.40	14412427.51	0.0495	0.0419
Mercury	34749-11-13 15:50 G	14413188.06	14413188.16	14413188.27	0.0505	0.0410
Mercury	34750-02-12 02:09 G	14413278.48	14413278.59	14413278.70	0.0508	0.0403
Moon	34753-03-09 17:45 G	14414400.03	14414400.24	14414400.45	0.0531	0.0205
Earth	34753-03-09 21:21 G	14414400.17	14414400.39	14414400.61	0.0531	0.0199 *
Earth	34754-04-15 15:21 G	14414802.09	14414802.14	14414802.20	0.0530	0.0514
Mercury	34755-07-07 07:55 G	14415249.75	14415249.83	14415249.92	0.0521	0.0380
Mercury	34755-10-04 13:12 G	14415338.94	14415339.05	14415339.17	0.0519	0.0212
Earth	34758-08-28 23:31 G	14416398.34	14416398.48	14416398.62	0.0496	0.0391
Moon	34758-08-29 02:53 G	14416398.47	14416398.62	14416398.76	0.0496	0.0377 *
Moon	34759-09-29 04:05 G	14416794.45	14416794.67	14416794.89	0.0495	0.0175
Earth	34759-09-29 07:55 G	14416794.61	14416794.83	14416795.04	0.0495	0.0175 *
Mercury	34761-11-30 23:17 G	14417588.30	14417588.47	14417588.64	0.0507	0.0203

Earth	34765-03-14 22:05 G	14418788.19	14418788.42	14418788.65	0.0531	0.0097
Moon	34765-03-15 01:55 G	14418788.36	14418788.58	14418788.81	0.0531	0.0132 *
Mercury	34767-07-23 17:31 G	14419649.10	14419649.23	14419649.35	0.0520	0.0063
Moon	34770-09-02 06:57 G	14420785.62	14420785.79	14420785.97	0.0495	0.0336
Earth	34770-09-02 09:07 G	14420785.71	14420785.88	14420786.07	0.0495	0.0314 *
Earth	34771-10-03 15:50 G	14421181.97	14421182.16	14421182.37	0.0495	0.0253
Moon	34771-10-03 18:57 G	14421182.11	14421182.29	14421182.48	0.0495	0.0285 *
Venus	34771-10-17 06:29 G	14421195.59	14421195.77	14421195.95	0.0495	0.0242
Mercury	34773-09-18 19:41 G	14421898.14	14421898.32	14421898.50	0.0506	0.0008
Moon	34777-03-19 20:24 G	14423176.12	14423176.35	14423176.59	0.0532	0.0010
Earth	34777-03-19 23:45 G	14423176.26	14423176.49	14423176.72	0.0532	0.0005 *
Venus	34777-08-20 05:17 G	14423329.54	14423329.72	14423329.92	0.0531	0.0185
Mercury	34779-05-11 21:50 G	14423959.28	14423959.41	14423959.54	0.0520	0.0084
Mercury	34779-08-09 03:21 G	14424048.63	14424048.64	14424048.66	0.0518	0.0511
Earth	34782-09-06 18:00 G	14425173.05	14425173.25	14425173.46	0.0495	0.0234
Moon	34782-09-06 18:00 G	14425173.06	14425173.25	14425173.45	0.0495	0.0251 *
Venus	34783-06-22 07:55 G	14425461.64	14425461.83	14425462.03	0.0494	0.0175
Moon	34783-10-07 21:36 G	14425569.23	14425569.40	14425569.58	0.0495	0.0340
Earth	34783-10-08 00:00 G	14425569.33	14425569.50	14425569.67	0.0495	0.0331 *
Mercury	34785-07-07 16:33 G	14426208.02	14426208.19	14426208.35	0.0506	0.0213
Earth	34789-03-25 05:02 G	14427564.48	14427564.71	14427564.94	0.0532	0.0111
Moon	34789-03-25 06:00 G	14427564.53	14427564.75	14427564.97	0.0532	0.0141 *
Venus	34789-04-24 21:36 G	14427595.24	14427595.40	14427595.55	0.0532	0.0328
Mercury	34791-02-28 02:24 G	14428269.48	14428269.60	14428269.71	0.0520	0.0228
Mercury	34791-05-28 07:41 G	14428358.73	14428358.82	14428358.91	0.0518	0.0365
Earth	34794-09-10 23:17 G	14429560.25	14429560.47	14429560.70	0.0494	0.0158
Moon	34794-09-11 00:57 G	14429560.31	14429560.54	14429560.78	0.0494	0.0135 *
Earth	34795-10-12 05:02 G	14429956.58	14429956.71	14429956.84	0.0496	0.0406
Moon	34795-10-12 06:00 G	14429956.61	14429956.75	14429956.89	0.0496	0.0383 *
Mercury	34797-04-25 12:29 G	14430517.93	14430518.02	14430518.12	0.0506	0.0427

Mercury	34797-07-24 22:48 G	14430608.34	14430608.45	14430608.57	0.0508	0.0388
Earth	34800-02-22 15:36 G	14431551.08	14431551.15	14431551.23	0.0530	0.0501
Earth	34801-03-30 08:53 G	14431952.66	14431952.87	14431953.09	0.0531	0.0215
Moon	34801-03-30 11:02 G	14431952.73	14431952.96	14431953.18	0.0531	0.0204 *
Mercury	34802-12-17 06:43 G	14432579.69	14432579.78	14432579.86	0.0521	0.0376
Mercury	34803-03-16 12:00 G	14432668.88	14432669.00	14432669.12	0.0518	0.0215
Moon	34806-09-15 05:02 G	14433947.49	14433947.71	14433947.94	0.0494	0.0050
Earth	34806-09-15 07:41 G	14433947.59	14433947.82	14433948.05	0.0494	0.0077 *
Venus	34807-06-24 14:09 G	14434230.03	14434230.09	14434230.15	0.0495	0.0469
Earth	34807-10-16 13:55 G	14434344.04	14434344.08	14434344.14	0.0496	0.0483
Moon	34807-10-16 14:53 G	14434344.05	14434344.12	14434344.21	0.0496	0.0467 *
Mercury	34809-05-12 20:09 G	14434918.17	14434918.34	14434918.51	0.0507	0.0187
Earth	34812-02-27 14:09 G	14435938.95	14435939.09	14435939.24	0.0530	0.0412
Moon	34812-02-27 15:07 G	14435938.99	14435939.13	14435939.29	0.0530	0.0409 *
Moon	34813-04-04 03:50 G	14436340.47	14436340.66	14436340.86	0.0531	0.0278
Earth	34813-04-04 07:26 G	14436340.62	14436340.81	14436341.00	0.0531	0.0311 *
Venus	34813-04-27 20:24 G	14436364.27	14436364.35	14436364.44	0.0531	0.0477
Mercury	34815-01-02 15:36 G	14436979.02	14436979.15	14436979.28	0.0519	0.0054
Earth	34818-09-19 17:02 G	14438334.98	14438335.21	14438335.45	0.0495	0.0008
Moon	34818-09-19 20:38 G	14438335.12	14438335.36	14438335.60	0.0495	0.0007 *
Venus	34819-02-27 16:33 G	14438495.99	14438496.19	14438496.40	0.0495	0.0059
Mercury	34821-02-28 17:17 G	14439228.03	14439228.22	14439228.40	0.0506	0.0015
Moon	34824-03-03 11:31 G	14440326.79	14440326.98	14440327.17	0.0531	0.0286
Earth	34824-03-03 14:38 G	14440326.92	14440327.11	14440327.30	0.0531	0.0316 *
Venus	34824-12-31 10:33 G	14440629.73	14440629.94	14440630.14	0.0531	0.0047
Earth	34825-04-09 08:09 G	14440728.70	14440728.84	14440728.99	0.0530	0.0409
Moon	34825-04-09 12:14 G	14440728.87	14440729.01	14440729.16	0.0530	0.0414 *
Mercury	34826-10-21 19:41 G	14441289.20	14441289.32	14441289.45	0.0520	0.0097
Mercury	34827-01-19 01:12 G	14441378.52	14441378.55	14441378.59	0.0518	0.0497
Mars	34828-02-14 02:53 G	14441769.36	14441769.62	14441769.88	0.0508	0.0136

Earth	34829-08-23 15:50 G	14442326.11	14442326.16	14442326.23	0.0497	0.0480
Moon	34829-08-23 19:26 G	14442326.22	14442326.31	14442326.41	0.0497	0.0449 *
Moon	34830-09-23 22:05 G	14442722.19	14442722.42	14442722.65	0.0494	0.0056
Earth	34830-09-24 01:41 G	14442722.34	14442722.57	14442722.80	0.0494	0.0085 *
Venus	34830-11-02 18:14 G	14442762.12	14442762.26	14442762.40	0.0494	0.0356
Mercury	34832-12-17 13:26 G	14443537.90	14443538.06	14443538.23	0.0505	0.0225
Earth	34836-03-08 14:38 G	14444714.90	14444715.11	14444715.33	0.0531	0.0218
Moon	34836-03-08 18:43 G	14444715.07	14444715.28	14444715.50	0.0531	0.0226 *
Earth	34837-04-14 10:19 G	14445116.86	14445116.93	14445117.00	0.0530	0.0502
Mercury	34838-08-10 00:00 G	14445599.39	14445599.50	14445599.62	0.0521	0.0244
Mercury	34838-11-07 05:31 G	14445688.64	14445688.73	14445688.83	0.0519	0.0351
Moon	34841-08-27 23:31 G	14446713.33	14446713.48	14446713.63	0.0496	0.0390
Earth	34841-08-28 01:55 G	14446713.44	14446713.58	14446713.71	0.0496	0.0402 *
Earth	34842-09-28 09:21 G	14447109.67	14447109.89	14447110.11	0.0494	0.0165
Moon	34842-09-28 12:29 G	14447109.81	14447110.02	14447110.24	0.0494	0.0173 *
Mercury	34844-10-05 10:05 G	14447847.83	14447847.92	14447848.01	0.0505	0.0432
Mercury	34845-01-03 20:09 G	14447938.23	14447938.34	14447938.46	0.0507	0.0381
Mars	34846-02-05 20:24 G	14448336.14	14448336.35	14448336.58	0.0518	0.0315
Moon	34848-03-13 15:36 G	14449102.93	14449103.15	14449103.38	0.0532	0.0147
Earth	34848-03-13 19:26 G	14449103.08	14449103.31	14449103.54	0.0532	0.0112 *
Mercury	34850-05-29 04:33 G	14449909.61	14449909.69	14449909.78	0.0521	0.0386
Mercury	34850-08-26 10:05 G	14449998.80	14449998.92	14449999.04	0.0519	0.0207
Earth	34853-09-01 08:24 G	14451100.68	14451100.85	14451101.03	0.0495	0.0327
Moon	34853-09-01 08:38 G	14451100.71	14451100.86	14451101.03	0.0495	0.0353 *
Moon	34854-10-02 12:14 G	14451496.81	14451497.01	14451497.21	0.0495	0.0273
Earth	34854-10-02 14:38 G	14451496.91	14451497.11	14451497.32	0.0495	0.0242 *
Venus	34854-11-05 00:00 G	14451530.34	14451530.50	14451530.67	0.0495	0.0286
Mercury	34856-10-22 16:33 G	14452248.02	14452248.19	14452248.37	0.0507	0.0170
Earth	34860-03-18 23:17 G	14453491.24	14453491.47	14453491.70	0.0532	0.0008
Moon	34860-03-19 01:12 G	14453491.32	14453491.55	14453491.77	0.0532	0.0007 *

Venus	34860-09-08 03:36 G	14453664.48	14453664.65	14453664.83	0.0531	0.0259
Mercury	34862-06-14 14:09 G	14454308.97	14454309.09	14454309.22	0.0519	0.0060
Earth	34865-09-05 17:02 G	14455488.01	14455488.21	14455488.42	0.0495	0.0247
Moon	34865-09-05 18:43 G	14455488.08	14455488.28	14455488.49	0.0495	0.0259 *
Venus	34866-07-11 01:55 G	14455796.38	14455796.58	14455796.78	0.0495	0.0129
Earth	34866-10-06 23:02 G	14455884.29	14455884.46	14455884.64	0.0495	0.0323
Moon	34866-10-07 00:00 G	14455884.34	14455884.50	14455884.67	0.0495	0.0332 *
Mercury	34868-08-10 13:55 G	14456557.90	14456558.08	14456558.26	0.0506	0.0031
Earth	34872-03-23 22:19 G	14457879.21	14457879.43	14457879.66	0.0531	0.0091
Moon	34872-03-23 23:02 G	14457879.23	14457879.46	14457879.70	0.0531	0.0120 *
Venus	34872-05-13 15:50 G	14457929.99	14457930.16	14457930.34	0.0531	0.0273
Mercury	34874-04-02 17:45 G	14458619.12	14458619.24	14458619.37	0.0520	0.0105
Mercury	34874-06-30 23:17 G	14458708.43	14458708.47	14458708.51	0.0518	0.0489
Moon	34877-09-09 23:45 G	14459875.27	14459875.49	14459875.71	0.0495	0.0147
Earth	34877-09-10 02:09 G	14459875.38	14459875.59	14459875.82	0.0495	0.0170 *
Earth	34878-10-11 08:53 G	14460271.74	14460271.87	14460272.01	0.0496	0.0400
Moon	34878-10-11 09:50 G	14460271.75	14460271.91	14460272.07	0.0496	0.0373 *
Mercury	34880-05-29 11:02 G	14460867.80	14460867.96	14460868.12	0.0506	0.0230
Earth	34883-02-21 08:38 G	14461865.83	14461865.86	14461865.90	0.0529	0.0522
Moon	34884-03-28 20:53 G	14462267.15	14462267.37	14462267.58	0.0531	0.0185
Earth	34884-03-28 23:31 G	14462267.27	14462267.48	14462267.70	0.0531	0.0194 *
Mercury	34886-01-19 22:05 G	14462929.31	14462929.42	14462929.53	0.0521	0.0256
Mercury	34886-04-19 03:21 G	14463018.55	14463018.64	14463018.74	0.0519	0.0338
Earth	34889-09-14 11:17 G	14464262.74	14464262.97	14464263.20	0.0495	0.0088
Moon	34889-09-14 14:38 G	14464262.88	14464263.11	14464263.35	0.0495	0.0065 *
Moon	34890-10-15 14:38 G	14464659.05	14464659.11	14464659.20	0.0496	0.0466
Earth	34890-10-15 17:17 G	14464659.16	14464659.22	14464659.29	0.0496	0.0475 *
Mercury	34892-03-17 07:12 G	14465177.72	14465177.80	14465177.89	0.0505	0.0441
Mercury	34892-06-15 17:31 G	14465268.11	14465268.23	14465268.35	0.0507	0.0371
Moon	34895-02-26 05:17 G	14466253.59	14466253.72	14466253.86	0.0530	0.0426

Earth	34895-02-26 07:41 G	14466253.69	14466253.82	14466253.96	0.0530	0.0431	*
Earth	34896-04-03 01:12 G	14466655.36	14466655.55	14466655.74	0.0531	0.0296	
Moon	34896-04-03 05:02 G	14466655.51	14466655.71	14466655.92	0.0531	0.0261	*
Mercury	34897-11-08 02:24 G	14467239.52	14467239.60	14467239.68	0.0522	0.0402	
Mercury	34898-02-05 07:41 G	14467328.70	14467328.82	14467328.94	0.0519	0.0191	
Moon	34901-09-19 15:50 G	14468649.93	14468650.16	14468650.39	0.0494	0.0021	
Earth	34901-09-19 19:41 G	14468650.08	14468650.32	14468650.55	0.0494	0.0011	*
Venus	34902-03-19 12:14 G	14468830.81	14468831.01	14468831.21	0.0495	0.0114	
Mercury	34904-04-04 14:24 G	14469577.93	14469578.10	14469578.27	0.0507	0.0166	
Earth	34907-03-04 10:48 G	14470641.77	14470641.95	14470642.13	0.0531	0.0333	
Moon	34907-03-04 14:24 G	14470641.92	14470642.10	14470642.30	0.0531	0.0301	*
Venus	34908-01-21 07:26 G	14470964.61	14470964.81	14470965.01	0.0532	0.0022	
Moon	34908-04-09 02:24 G	14471043.45	14471043.60	14471043.76	0.0531	0.0401	
Earth	34908-04-09 06:14 G	14471043.61	14471043.76	14471043.92	0.0531	0.0398	*
Mercury	34909-11-25 12:14 G	14471638.88	14471639.01	14471639.14	0.0520	0.0050	
Moon	34912-08-23 14:09 G	14472641.01	14472641.09	14472641.18	0.0496	0.0463	
Earth	34912-08-23 16:33 G	14472641.18	14472641.19	14472641.23	0.0496	0.0493	*
Earth	34913-09-24 01:26 G	14473037.33	14473037.56	14473037.79	0.0494	0.0073	
Moon	34913-09-24 04:33 G	14473037.47	14473037.69	14473037.92	0.0494	0.0048	*
Venus	34913-11-22 12:29 G	14473096.86	14473097.02	14473097.18	0.0494	0.0308	
Mercury	34916-01-22 10:33 G	14473887.76	14473887.94	14473888.13	0.0506	0.0048	
Moon	34919-03-09 10:19 G	14475029.72	14475029.93	14475030.14	0.0531	0.0237	
Earth	34919-03-09 14:24 G	14475029.89	14475030.10	14475030.31	0.0531	0.0232	*
Venus	34919-09-25 22:48 G	14475230.38	14475230.45	14475230.52	0.0532	0.0493	
Earth	34920-04-14 10:19 G	14475431.85	14475431.93	14475432.01	0.0530	0.0495	
Moon	34920-04-14 12:14 G	14475431.99	14475432.01	14475432.04	0.0530	0.0525	*
Mercury	34921-09-13 16:33 G	14475949.07	14475949.19	14475949.32	0.0520	0.0100	
Mercury	34921-12-11 22:05 G	14476038.39	14476038.42	14476038.46	0.0518	0.0495	
Earth	34924-08-28 02:09 G	14477028.47	14477028.59	14477028.72	0.0496	0.0416	
Moon	34924-08-28 02:38 G	14477028.49	14477028.61	14477028.74	0.0496	0.0413	*

Moon	34925-09-28 07:12 G	14477424.58	14477424.80	14477425.03	0.0494	0.0162
Earth	34925-09-28 09:50 G	14477424.69	14477424.91	14477425.13	0.0494	0.0155 *
Mercury	34927-11-10 07:41 G	14478197.67	14478197.82	14478197.99	0.0506	0.0247
Earth	34931-03-14 14:09 G	14479417.87	14479418.09	14479418.32	0.0531	0.0134
Moon	34931-03-14 17:02 G	14479418.00	14479418.21	14479418.43	0.0531	0.0166 *
Mercury	34933-07-02 20:09 G	14480259.23	14480259.34	14480259.45	0.0521	0.0261
Mercury	34933-09-30 01:41 G	14480348.47	14480348.57	14480348.67	0.0518	0.0332
Earth	34936-09-01 11:02 G	14481415.79	14481415.96	14481416.13	0.0496	0.0341
Moon	34936-09-01 12:29 G	14481415.86	14481416.02	14481416.18	0.0496	0.0369 *
Earth	34937-10-02 19:12 G	14481812.09	14481812.30	14481812.51	0.0495	0.0234
Moon	34937-10-02 20:09 G	14481812.16	14481812.34	14481812.54	0.0495	0.0265 *
Venus	34937-11-24 21:21 G	14481865.25	14481865.39	14481865.53	0.0495	0.0351
Mercury	34939-08-29 05:02 G	14482507.63	14482507.71	14482507.80	0.0505	0.0444
Mercury	34939-11-27 15:21 G	14482598.02	14482598.14	14482598.26	0.0507	0.0370
Moon	34943-03-19 15:21 G	14483805.89	14483806.14	14483806.38	0.0531	0.0024
Earth	34943-03-19 15:50 G	14483805.92	14483806.16	14483806.39	0.0531	0.0031 *
Venus	34943-09-28 21:07 G	14483999.22	14483999.38	14483999.55	0.0531	0.0308
Mercury	34945-04-21 00:29 G	14484569.44	14484569.52	14484569.59	0.0521	0.0411
Mercury	34945-07-19 05:45 G	14484658.62	14484658.74	14484658.86	0.0519	0.0181
Moon	34948-09-05 18:14 G	14485803.08	14485803.26	14485803.45	0.0495	0.0276
Earth	34948-09-05 20:53 G	14485803.17	14485803.37	14485803.57	0.0495	0.0261 *
Venus	34949-07-30 23:17 G	14486131.27	14486131.47	14486131.67	0.0495	0.0062
Earth	34949-10-07 03:50 G	14486199.48	14486199.66	14486199.84	0.0495	0.0313
Moon	34949-10-07 04:19 G	14486199.50	14486199.68	14486199.87	0.0495	0.0315 *
Mercury	34951-09-15 12:00 G	14486907.83	14486908.00	14486908.17	0.0506	0.0162
Moon	34955-03-24 14:53 G	14488193.90	14488194.12	14488194.34	0.0532	0.0104
Earth	34955-03-24 16:48 G	14488193.97	14488194.20	14488194.43	0.0532	0.0073 *
Venus	34955-06-03 11:02 G	14488264.78	14488264.96	14488265.15	0.0532	0.0215
Mercury	34957-05-07 10:05 G	14488968.79	14488968.92	14488969.05	0.0520	0.0034
Earth	34960-09-10 06:00 G	14490190.53	14490190.75	14490190.97	0.0495	0.0180

Moon	34960-09-10 09:21 G	14490190.67	14490190.89	14490191.12	0.0495	0.0154 *
Venus	34961-04-05 00:43 G	14490397.48	14490397.53	14490397.59	0.0494	0.0476
Moon	34961-10-11 09:36 G	14490586.75	14490586.90	14490587.05	0.0495	0.0364
Earth	34961-10-11 12:00 G	14490586.86	14490587.00	14490587.14	0.0495	0.0392 *
Mercury	34963-07-04 08:38 G	14491217.68	14491217.86	14491218.04	0.0506	0.0044
Earth	34967-03-29 21:21 G	14492582.17	14492582.39	14492582.61	0.0532	0.0181
Moon	34967-03-30 00:57 G	14492582.32	14492582.54	14492582.77	0.0532	0.0170 *
Mercury	34969-02-23 14:38 G	14493278.99	14493279.11	14493279.24	0.0520	0.0109
Mercury	34969-05-23 20:09 G	14493368.30	14493368.34	14493368.39	0.0518	0.0488
Moon	34972-09-14 09:36 G	14494577.67	14494577.90	14494578.13	0.0494	0.0079
Earth	34972-09-14 13:26 G	14494577.83	14494578.06	14494578.29	0.0494	0.0100 *
Earth	34973-10-15 18:14 G	14494974.19	14494974.26	14494974.34	0.0496	0.0466
Moon	34973-10-15 21:50 G	14494974.33	14494974.41	14494974.50	0.0496	0.0460 *
Mercury	34975-04-22 05:02 G	14495527.55	14495527.71	14495527.86	0.0506	0.0257
Earth	34978-02-26 07:41 G	14496568.70	14496568.82	14496568.95	0.0530	0.0447
Moon	34978-02-26 11:17 G	14496568.84	14496568.97	14496569.11	0.0530	0.0432 *
Moon	34979-04-03 22:19 G	14496970.23	14496970.43	14496970.64	0.0532	0.0252
Earth	34979-04-04 02:24 G	14496970.40	14496970.60	14496970.80	0.0532	0.0286 *
Mercury	34980-12-12 19:12 G	14497589.19	14497589.30	14497589.41	0.0521	0.0252
Mercury	34981-03-12 00:29 G	14497678.43	14497678.52	14497678.62	0.0519	0.0341
Mars	34982-05-10 13:26 G	14498102.92	14498103.06	14498103.23	0.0507	0.0415
Earth	34984-09-18 21:50 G	14498965.18	14498965.41	14498965.65	0.0494	0.0018
Moon	34984-09-19 01:12 G	14498965.32	14498965.55	14498965.78	0.0494	0.0038 *
Venus	34985-04-07 07:55 G	14499165.64	14499165.83	14499166.03	0.0495	0.0172
Mercury	34987-02-08 02:09 G	14499837.51	14499837.59	14499837.67	0.0505	0.0455
Mercury	34987-05-09 12:29 G	14499927.89	14499928.02	14499928.15	0.0507	0.0359
Moon	34990-03-03 04:33 G	14500956.51	14500956.69	14500956.88	0.0530	0.0320
Earth	34990-03-03 08:38 G	14500956.69	14500956.86	14500957.04	0.0530	0.0354 *
Venus	34991-02-09 03:36 G	14501299.45	14501299.65	14501299.85	0.0531	0.0088
Earth	34991-04-09 01:55 G	14501358.42	14501358.58	14501358.75	0.0531	0.0380

Moon	34991-04-09 04:48 G	14501358.55	14501358.70	14501358.86	0.0531	0.0392	*
Mercury	34992-09-30 22:48 G	14501899.38	14501899.45	14501899.53	0.0521	0.0414	
Mercury	34992-12-29 04:05 G	14501988.55	14501988.67	14501988.79	0.0519	0.0178	
Moon	34995-08-23 19:55 G	14502956.29	14502956.33	14502956.39	0.0497	0.0483	
Moon	34996-09-23 04:19 G	14503352.44	14503352.68	14503352.92	0.0495	0.0036	
Earth	34996-09-23 06:43 G	14503352.55	14503352.78	14503353.02	0.0495	0.0064	*
Venus	34996-12-11 10:05 G	14503431.75	14503431.92	14503432.11	0.0495	0.0239	
Mercury	34999-02-25 10:05 G	14504237.75	14504237.92	14504238.09	0.0507	0.0166	
Mars	35000-05-03 06:57 G	14504669.51	14504669.79	14504670.07	0.0518	0.0008	

36TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 36th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	35002-03-09 10:05 G		14505344.72	14505344.92	14505345.13	0.0531	0.0253	
Moon	35002-03-09 13:41 G		14505344.87	14505345.07	14505345.27	0.0531	0.0258	*
Venus	35002-10-15 18:00 G		14505565.13	14505565.25	14505565.36	0.0531	0.0432	
Moon	35003-04-15 02:53 G		14505746.56	14505746.62	14505746.70	0.0530	0.0506	
Earth	35003-04-15 03:36 G		14505746.56	14505746.65	14505746.76	0.0530	0.0478	*
Mercury	35004-10-18 08:09 G		14506298.72	14506298.84	14506298.97	0.0520	0.0033	
Earth	35007-08-29 06:00 G		14507343.64	14507343.75	14507343.87	0.0497	0.0431	
Moon	35007-08-29 07:26 G		14507343.69	14507343.81	14507343.92	0.0497	0.0433	*
Earth	35008-09-28 15:50 G		14507739.94	14507740.16	14507740.39	0.0495	0.0145	
Moon	35008-09-28 17:02 G		14507740.00	14507740.21	14507740.43	0.0495	0.0156	*

Mercury	35010-12-15 06:43 G	14508547.60	14508547.78	14508547.96	0.0506	0.0042
Moon	35014-03-14 08:53 G	14509732.65	14509732.87	14509733.10	0.0531	0.0180
Earth	35014-03-14 10:33 G	14509732.72	14509732.94	14509733.17	0.0531	0.0151 *
Mercury	35016-08-06 12:43 G	14510608.90	14510609.03	14510609.15	0.0521	0.0119
Mercury	35016-11-03 18:14 G	14510698.21	14510698.26	14510698.31	0.0518	0.0477
Moon	35019-09-02 13:55 G	14511730.95	14511731.08	14511731.23	0.0496	0.0383
Earth	35019-09-02 16:33 G	14511731.03	14511731.19	14511731.36	0.0496	0.0351 *
Earth	35020-10-03 00:29 G	14512127.32	14512127.52	14512127.73	0.0495	0.0227
Moon	35020-10-03 00:57 G	14512127.34	14512127.54	14512127.75	0.0495	0.0253 *
Venus	35020-12-14 18:43 G	14512200.18	14512200.28	14512200.40	0.0495	0.0418
Mercury	35022-10-03 03:21 G	14512857.49	14512857.64	14512857.80	0.0505	0.0248
Moon	35026-03-19 13:26 G	14514120.83	14514121.06	14514121.28	0.0532	0.0033
Earth	35026-03-19 14:24 G	14514120.87	14514121.10	14514121.34	0.0532	0.0046 *
Venus	35026-10-18 19:26 G	14514334.17	14514334.31	14514334.45	0.0531	0.0384
Mercury	35028-05-25 17:17 G	14514919.11	14514919.22	14514919.34	0.0521	0.0259
Mercury	35028-08-22 22:48 G	14515008.35	14515008.45	14515008.55	0.0519	0.0336
Earth	35031-09-07 01:26 G	14516118.37	14516118.56	14516118.76	0.0495	0.0273
Moon	35031-09-07 05:02 G	14516118.52	14516118.71	14516118.91	0.0495	0.0282 *
Venus	35032-08-19 19:55 G	14516466.13	14516466.33	14516466.54	0.0494	0.0008
Moon	35032-10-07 05:17 G	14516514.54	14516514.72	14516514.90	0.0495	0.0300
Earth	35032-10-07 07:26 G	14516514.63	14516514.81	14516515.00	0.0495	0.0305 *
Mercury	35034-07-21 23:45 G	14517167.42	14517167.49	14517167.57	0.0505	0.0459
Mercury	35034-10-20 10:05 G	14517257.79	14517257.92	14517258.05	0.0507	0.0355
Earth	35038-03-24 19:26 G	14518509.08	14518509.31	14518509.55	0.0532	0.0062
Moon	35038-03-24 22:48 G	14518509.21	14518509.45	14518509.68	0.0532	0.0093 *
Venus	35038-06-23 11:17 G	14518599.78	14518599.97	14518600.17	0.0532	0.0127
Mercury	35040-03-13 22:05 G	14519229.34	14519229.42	14519229.50	0.0522	0.0402
Mercury	35040-06-11 03:21 G	14519318.52	14519318.64	14519318.76	0.0519	0.0192
Moon	35043-09-11 07:12 G	14520505.59	14520505.80	14520506.03	0.0495	0.0165
Earth	35043-09-11 11:02 G	14520505.75	14520505.96	14520506.18	0.0495	0.0190 *

Venus	35044-04-24 22:05 G	14520732.31	14520732.42	14520732.54	0.0494	0.0410
Earth	35044-10-11 16:33 G	14520902.06	14520902.19	14520902.35	0.0495	0.0387
Moon	35044-10-11 20:24 G	14520902.19	14520902.35	14520902.52	0.0495	0.0355 *
Mercury	35046-08-08 07:41 G	14521567.65	14521567.82	14521567.99	0.0507	0.0161
Moon	35050-03-29 17:02 G	14522896.99	14522897.21	14522897.44	0.0531	0.0155
Earth	35050-03-29 20:53 G	14522897.15	14522897.37	14522897.60	0.0531	0.0164 *
Mercury	35052-03-30 06:57 G	14523628.66	14523628.79	14523628.91	0.0520	0.0033
Earth	35055-09-15 19:12 G	14524893.08	14524893.30	14524893.53	0.0495	0.0112
Moon	35055-09-15 22:33 G	14524893.22	14524893.44	14524893.66	0.0495	0.0098 *
Moon	35056-10-15 22:33 G	14525289.35	14525289.44	14525289.54	0.0496	0.0454
Earth	35056-10-16 02:38 G	14525289.53	14525289.61	14525289.70	0.0496	0.0461 *
Mercury	35058-05-27 05:17 G	14525877.54	14525877.72	14525877.91	0.0506	0.0034
Moon	35061-02-26 04:33 G	14526883.57	14526883.69	14526883.81	0.0529	0.0450
Earth	35061-02-26 08:38 G	14526883.75	14526883.86	14526883.97	0.0529	0.0464 *
Earth	35062-04-03 23:31 G	14527285.28	14527285.48	14527285.68	0.0531	0.0268
Moon	35062-04-04 02:53 G	14527285.42	14527285.62	14527285.83	0.0531	0.0239 *
Mercury	35064-01-17 11:02 G	14527938.84	14527938.96	14527939.09	0.0520	0.0120
Mercury	35064-04-15 16:33 G	14528028.14	14528028.19	14528028.24	0.0518	0.0475
Moon	35067-09-20 02:38 G	14529280.37	14529280.61	14529280.85	0.0495	0.0052
Earth	35067-09-20 05:02 G	14529280.48	14529280.71	14529280.95	0.0495	0.0029 *
Venus	35068-04-27 07:12 G	14529500.63	14529500.80	14529500.98	0.0495	0.0250
Mercury	35070-03-15 02:09 G	14530187.43	14530187.59	14530187.75	0.0505	0.0237
Earth	35073-03-03 07:55 G	14531271.67	14531271.83	14531272.00	0.0530	0.0368
Moon	35073-03-03 11:45 G	14531271.81	14531271.99	14531272.17	0.0530	0.0335 *
Venus	35074-03-01 01:26 G	14531634.37	14531634.56	14531634.75	0.0531	0.0161
Moon	35074-04-08 23:17 G	14531673.31	14531673.47	14531673.64	0.0531	0.0383
Earth	35074-04-09 00:57 G	14531673.38	14531673.54	14531673.71	0.0531	0.0369 *
Mercury	35075-11-05 15:36 G	14532249.04	14532249.15	14532249.26	0.0521	0.0266
Mercury	35076-02-02 20:53 G	14532338.27	14532338.37	14532338.47	0.0519	0.0329
Moon	35078-08-24 03:50 G	14533271.63	14533271.66	14533271.71	0.0498	0.0490

Earth	35079-09-24 14:38 G	14533667.88	14533668.11	14533668.34	0.0495	0.0056
Moon	35079-09-24 15:36 G	14533667.93	14533668.15	14533668.38	0.0495	0.0034 *
Venus	35080-01-01 09:21 G	14533766.70	14533766.89	14533767.08	0.0495	0.0163
Mercury	35081-12-31 22:48 G	14534497.36	14534497.45	14534497.54	0.0505	0.0443
Mercury	35082-04-01 08:53 G	14534587.75	14534587.87	14534588.00	0.0507	0.0370
Moon	35085-03-08 08:24 G	14535659.65	14535659.85	14535660.06	0.0531	0.0274
Earth	35085-03-08 11:02 G	14535659.76	14535659.96	14535660.16	0.0531	0.0266 *
Venus	35085-11-03 17:02 G	14535900.06	14535900.21	14535900.37	0.0532	0.0351
Earth	35086-04-14 06:00 G	14536061.65	14536061.75	14536061.86	0.0531	0.0470
Moon	35086-04-14 05:31 G	14536061.67	14536061.73	14536061.81	0.0531	0.0501 *
Mercury	35087-08-24 20:24 G	14536559.27	14536559.35	14536559.43	0.0522	0.0405
Mercury	35087-11-22 01:41 G	14536648.45	14536648.57	14536648.69	0.0520	0.0189
Moon	35090-08-28 11:17 G	14537658.87	14537658.97	14537659.07	0.0496	0.0448
Earth	35090-08-28 13:41 G	14537658.97	14537659.07	14537659.18	0.0496	0.0440 *
Earth	35091-09-28 22:33 G	14538055.22	14538055.44	14538055.67	0.0494	0.0137
Moon	35091-09-28 23:02 G	14538055.23	14538055.46	14538055.69	0.0494	0.0151 *
Mercury	35094-01-18 05:45 G	14538897.57	14538897.74	14538897.91	0.0506	0.0163
Moon	35097-03-13 14:53 G	14540047.91	14540048.12	14540048.33	0.0532	0.0190
Earth	35097-03-13 15:21 G	14540047.92	14540048.14	14540048.36	0.0532	0.0162 *
Mercury	35099-09-10 06:14 G	14540958.63	14540958.76	14540958.89	0.0520	0.0047
Mars	35100-10-31 08:09 G	14541374.62	14541374.84	14541375.06	0.0509	0.0283
Earth	35102-09-03 00:14 G	14542046.36	14542046.51	14542046.67	0.0496	0.0360
Moon	35102-09-03 03:50 G	14542046.52	14542046.66	14542046.80	0.0496	0.0391 *
Moon	35103-10-04 05:45 G	14542442.55	14542442.74	14542442.94	0.0495	0.0245
Earth	35103-10-04 08:09 G	14542442.63	14542442.84	14542443.05	0.0495	0.0220 *
Venus	35104-01-04 18:00 G	14542535.23	14542535.25	14542535.27	0.0495	0.0491
Mercury	35105-11-07 03:21 G	14543207.46	14543207.64	14543207.83	0.0506	0.0031
Earth	35109-03-19 18:14 G	14544436.02	14544436.26	14544436.49	0.0531	0.0061
Moon	35109-03-19 20:53 G	14544436.13	14544436.37	14544436.61	0.0531	0.0042 *
Venus	35109-11-07 19:12 G	14544669.21	14544669.30	14544669.39	0.0531	0.0471

Mercury	35111-06-30 09:50 G	14545268.79	14545268.91	14545269.04	0.0520	0.0114
Mercury	35111-09-27 15:21 G	14545358.09	14545358.14	14545358.19	0.0518	0.0480
Moon	35114-09-07 04:33 G	14546433.50	14546433.69	14546433.88	0.0496	0.0291
Earth	35114-09-07 08:09 G	14546433.65	14546433.84	14546434.04	0.0496	0.0284 *
Venus	35115-09-09 19:55 G	14546801.13	14546801.33	14546801.54	0.0495	0.0082
Earth	35115-10-08 16:48 G	14546830.02	14546830.20	14546830.39	0.0495	0.0299
Moon	35115-10-08 20:24 G	14546830.17	14546830.35	14546830.55	0.0495	0.0286 *
Mercury	35117-08-26 00:57 G	14547517.38	14547517.54	14547517.71	0.0506	0.0222
Moon	35121-03-24 17:45 G	14548824.01	14548824.24	14548824.47	0.0531	0.0078
Earth	35121-03-24 21:21 G	14548824.16	14548824.39	14548824.62	0.0531	0.0046 *
Venus	35121-07-13 10:19 G	14548934.73	14548934.93	14548935.14	0.0531	0.0044
Mercury	35123-04-18 14:09 G	14549578.98	14549579.09	14549579.20	0.0521	0.0262
Mercury	35123-07-16 19:41 G	14549668.22	14549668.32	14549668.41	0.0519	0.0332
Earth	35126-09-11 18:43 G	14550821.07	14550821.28	14550821.50	0.0496	0.0202
Moon	35126-09-11 21:50 G	14550821.20	14550821.41	14550821.63	0.0496	0.0173 *
Venus	35127-05-15 22:19 G	14551067.28	14551067.43	14551067.58	0.0495	0.0328
Moon	35127-10-12 22:48 G	14551217.29	14551217.45	14551217.62	0.0495	0.0348
Earth	35127-10-13 02:53 G	14551217.48	14551217.62	14551217.77	0.0495	0.0380 *
Mercury	35129-06-13 21:50 G	14551827.32	14551827.41	14551827.51	0.0505	0.0426
Mercury	35129-09-12 08:09 G	14551917.72	14551917.84	14551917.96	0.0507	0.0387
Earth	35133-03-29 22:33 G	14553212.22	14553212.44	14553212.67	0.0531	0.0152
Moon	35133-03-30 02:24 G	14553212.37	14553212.60	14553212.82	0.0531	0.0138 *
Mercury	35135-02-04 18:43 G	14553889.20	14553889.28	14553889.36	0.0522	0.0407
Mercury	35135-05-05 00:00 G	14553978.38	14553978.50	14553978.62	0.0520	0.0186
Moon	35138-09-16 03:07 G	14555208.39	14555208.63	14555208.86	0.0495	0.0107
Earth	35138-09-16 05:17 G	14555208.50	14555208.72	14555208.95	0.0495	0.0117 *
Earth	35139-10-17 12:14 G	14555604.93	14555605.01	14555605.10	0.0496	0.0458
Moon	35139-10-17 16:05 G	14555605.08	14555605.17	14555605.26	0.0496	0.0456 *
Mercury	35141-07-01 05:17 G	14556227.55	14556227.72	14556227.89	0.0506	0.0185
Earth	35144-02-27 11:17 G	14557198.88	14557198.97	14557199.08	0.0529	0.0476

Moon	35144-02-27 15:21 G	14557199.03	14557199.14	14557199.26	0.0529	0.0460 *
Moon	35145-04-04 00:57 G	14557600.32	14557600.54	14557600.75	0.0531	0.0232
Earth	35145-04-04 03:07 G	14557600.43	14557600.63	14557600.84	0.0531	0.0259 *
Mercury	35147-02-21 04:48 G	14558288.57	14558288.70	14558288.83	0.0520	0.0048
Earth	35150-09-20 14:38 G	14559595.88	14559596.11	14559596.35	0.0495	0.0035
Moon	35150-09-20 15:50 G	14559595.93	14559596.16	14559596.38	0.0495	0.0061 *
Venus	35151-05-18 07:12 G	14559835.65	14559835.80	14559835.95	0.0495	0.0328
Mercury	35153-04-19 01:55 G	14560537.40	14560537.58	14560537.76	0.0506	0.0021
Mars	35154-07-29 07:55 G	14561003.63	14561003.83	14561004.03	0.0518	0.0358
Moon	35156-03-03 11:45 G	14561586.82	14561586.99	14561587.17	0.0530	0.0349
Earth	35156-03-03 14:38 G	14561586.96	14561587.11	14561587.28	0.0530	0.0380 *
Venus	35157-03-21 04:19 G	14561969.51	14561969.68	14561969.86	0.0531	0.0267
Earth	35157-04-09 08:53 G	14561988.71	14561988.87	14561989.04	0.0531	0.0363
Moon	35157-04-09 09:07 G	14561988.73	14561988.88	14561989.03	0.0531	0.0385 *
Mercury	35158-12-10 09:21 G	14562598.77	14562598.89	14562599.02	0.0521	0.0095
Mercury	35159-03-09 14:53 G	14562688.09	14562688.12	14562688.15	0.0518	0.0501
Earth	35162-09-25 00:29 G	14563983.29	14563983.52	14563983.76	0.0494	0.0051
Moon	35162-09-25 01:12 G	14563983.31	14563983.55	14563983.79	0.0494	0.0032 *
Venus	35163-01-21 09:50 G	14564101.71	14564101.91	14564102.12	0.0495	0.0081
Mercury	35165-02-04 23:31 G	14564847.32	14564847.48	14564847.65	0.0505	0.0214
Earth	35168-03-08 18:29 G	14565975.07	14565975.27	14565975.47	0.0530	0.0279
Moon	35168-03-08 18:43 G	14565975.10	14565975.28	14565975.47	0.0530	0.0298 *
Venus	35168-11-23 19:12 G	14566235.13	14566235.30	14566235.48	0.0531	0.0248
Earth	35169-04-14 11:17 G	14566376.86	14566376.97	14566377.09	0.0530	0.0458
Moon	35169-04-14 13:12 G	14566376.95	14566377.05	14566377.14	0.0530	0.0485 *
Mercury	35170-09-28 13:12 G	14566908.94	14566909.05	14566909.16	0.0521	0.0251
Mercury	35170-12-26 18:29 G	14566998.18	14566998.27	14566998.37	0.0519	0.0342
Earth	35173-08-28 20:38 G	14567974.27	14567974.36	14567974.46	0.0497	0.0452
Moon	35173-08-29 00:14 G	14567974.43	14567974.51	14567974.60	0.0497	0.0461 *
Venus	35174-09-26 11:17 G	14568367.96	14568367.97	14568367.99	0.0495	0.0493

Moon	35174-09-29 06:14 G	14568370.55	14568370.76	14568370.98	0.0495	0.0151
Earth	35174-09-29 08:38 G	14568370.63	14568370.86	14568371.08	0.0495	0.0130 *
Mercury	35176-11-23 21:07 G	14569157.28	14569157.38	14569157.49	0.0505	0.0406
Mercury	35177-02-22 07:26 G	14569247.71	14569247.81	14569247.92	0.0507	0.0408
Earth	35180-03-13 21:50 G	14570363.19	14570363.41	14570363.63	0.0530	0.0174
Moon	35180-03-14 00:00 G	14570363.28	14570363.50	14570363.73	0.0530	0.0198 *
Mercury	35182-07-17 17:31 G	14571219.16	14571219.23	14571219.32	0.0521	0.0398
Mercury	35182-10-14 22:48 G	14571308.33	14571308.45	14571308.57	0.0519	0.0195
Moon	35185-09-02 04:33 G	14572361.56	14572361.69	14572361.83	0.0497	0.0402
Earth	35185-09-02 08:09 G	14572361.69	14572361.84	14572362.00	0.0497	0.0372 *
Earth	35186-10-03 18:43 G	14572758.07	14572758.28	14572758.49	0.0495	0.0214
Moon	35186-10-03 22:33 G	14572758.23	14572758.44	14572758.65	0.0495	0.0235 *
Mercury	35188-12-11 04:48 G	14573557.53	14573557.70	14573557.86	0.0506	0.0208
Moon	35192-03-18 19:12 G	14574751.08	14574751.30	14574751.53	0.0531	0.0054
Earth	35192-03-18 22:33 G	14574751.21	14574751.44	14574751.68	0.0531	0.0071 *
Mercury	35194-08-03 03:21 G	14575618.51	14575618.64	14575618.77	0.0520	0.0049
Earth	35197-09-06 19:55 G	14576749.14	14576749.33	14576749.52	0.0496	0.0289
Moon	35197-09-06 23:02 G	14576749.28	14576749.46	14576749.65	0.0496	0.0285 *
Venus	35198-09-28 21:36 G	14577136.21	14577136.40	14577136.60	0.0495	0.0170
Moon	35198-10-08 00:43 G	14577145.35	14577145.53	14577145.73	0.0495	0.0282
Earth	35198-10-08 04:48 G	14577145.52	14577145.70	14577145.89	0.0495	0.0297 *
Mercury	35200-09-29 01:41 G	14577867.39	14577867.57	14577867.76	0.0506	0.0008
Earth	35204-03-24 02:24 G	14579139.37	14579139.60	14579139.83	0.0531	0.0038
Moon	35204-03-24 06:14 G	14579139.53	14579139.76	14579139.99	0.0531	0.0066 *
Venus	35204-08-01 12:00 G	14579269.80	14579270.00	14579270.21	0.0531	0.0054
Mercury	35206-05-22 08:09 G	14579928.71	14579928.84	14579928.96	0.0521	0.0091
Mercury	35206-08-19 13:26 G	14580018.04	14580018.06	14580018.09	0.0518	0.0506
Moon	35209-09-11 04:48 G	14581136.47	14581136.70	14581136.92	0.0495	0.0176
Earth	35209-09-11 06:57 G	14581136.58	14581136.79	14581137.00	0.0495	0.0207 *
Venus	35210-06-03 23:31 G	14581402.31	14581402.48	14581402.67	0.0495	0.0241

Earth	35210-10-12 13:41 G	14581532.93	14581533.07	14581533.23	0.0495	0.0376
Moon	35210-10-12 17:31 G	14581533.07	14581533.23	14581533.39	0.0495	0.0347 *
Mercury	35212-07-17 22:19 G	14582177.27	14582177.43	14582177.60	0.0505	0.0200
Moon	35216-03-29 05:17 G	14583527.48	14583527.72	14583527.95	0.0532	0.0125
Earth	35216-03-29 07:55 G	14583527.61	14583527.83	14583528.06	0.0532	0.0146 *
Venus	35216-04-06 04:19 G	14583535.59	14583535.68	14583535.79	0.0532	0.0454
Mercury	35218-03-10 12:43 G	14584238.92	14584239.03	14584239.15	0.0521	0.0231
Mercury	35218-06-07 18:14 G	14584328.17	14584328.26	14584328.35	0.0519	0.0364
Earth	35221-09-15 17:17 G	14585523.99	14585524.22	14585524.45	0.0495	0.0122
Moon	35221-09-15 18:00 G	14585524.04	14585524.25	14585524.47	0.0495	0.0117 *
Moon	35222-10-16 21:21 G	14585920.31	14585920.39	14585920.49	0.0496	0.0458
Earth	35222-10-17 00:00 G	14585920.42	14585920.50	14585920.59	0.0496	0.0456 *
Mercury	35224-05-05 19:55 G	14586487.22	14586487.33	14586487.45	0.0505	0.0393
Mercury	35224-08-04 06:14 G	14586577.67	14586577.76	14586577.87	0.0507	0.0421
Moon	35227-02-26 18:57 G	14587514.19	14587514.29	14587514.41	0.0529	0.0469
Earth	35227-02-26 22:19 G	14587514.35	14587514.43	14587514.52	0.0529	0.0486 *
Earth	35228-04-03 12:00 G	14587915.80	14587916.00	14587916.21	0.0531	0.0250
Moon	35228-04-03 12:43 G	14587915.83	14587916.03	14587916.24	0.0531	0.0228 *
Mercury	35229-12-27 16:48 G	14588549.12	14588549.20	14588549.28	0.0521	0.0384
Mercury	35230-03-26 22:05 G	14588638.30	14588638.42	14588638.54	0.0519	0.0207
Earth	35233-09-20 00:43 G	14589911.29	14589911.53	14589911.76	0.0495	0.0042
Moon	35233-09-20 01:12 G	14589911.31	14589911.55	14589911.79	0.0495	0.0069 *
Venus	35234-06-06 08:38 G	14590170.76	14590170.86	14590170.97	0.0496	0.0418
Mercury	35236-05-23 04:19 G	14590887.52	14590887.68	14590887.84	0.0507	0.0231
Earth	35239-03-04 01:26 G	14591902.41	14591902.56	14591902.72	0.0529	0.0387
Moon	35239-03-04 02:24 G	14591902.44	14591902.60	14591902.76	0.0529	0.0366 *
Earth	35240-04-08 15:50 G	14592303.99	14592304.16	14592304.34	0.0530	0.0354
Moon	35240-04-08 17:02 G	14592304.05	14592304.21	14592304.39	0.0530	0.0376 *
Venus	35240-04-09 06:57 G	14592304.65	14592304.79	14592304.94	0.0530	0.0368
Mercury	35242-01-13 02:24 G	14592948.47	14592948.60	14592948.73	0.0520	0.0061

Moon	35245-09-24 08:53 G	14594298.64	14594298.87	14594299.09	0.0495	0.0034
Earth	35245-09-24 11:17 G	14594298.74	14594298.97	14594299.20	0.0495	0.0044 *
Venus	35246-02-09 11:17 G	14594436.77	14594436.97	14594437.18	0.0495	0.0014
Mercury	35248-03-11 01:26 G	14595197.38	14595197.56	14595197.74	0.0506	0.0031
Earth	35251-03-09 01:26 G	14596290.37	14596290.56	14596290.76	0.0530	0.0287
Moon	35251-03-09 02:53 G	14596290.43	14596290.62	14596290.82	0.0530	0.0311 *
Venus	35251-12-13 21:21 G	14596570.20	14596570.39	14596570.58	0.0531	0.0150
Moon	35252-04-13 14:24 G	14596692.01	14596692.10	14596692.20	0.0530	0.0478
Earth	35252-04-13 17:31 G	14596692.11	14596692.23	14596692.35	0.0530	0.0454 *
Mercury	35253-11-01 06:43 G	14597258.66	14597258.78	14597258.91	0.0520	0.0087
Mercury	35254-01-29 12:14 G	14597347.99	14597348.01	14597348.03	0.0518	0.0510
Mars	35255-01-25 13:12 G	14597708.79	14597709.05	14597709.32	0.0509	0.0068
Moon	35256-08-28 05:45 G	14598289.67	14598289.74	14598289.82	0.0498	0.0470
Earth	35256-08-28 09:36 G	14598289.82	14598289.90	14598290.00	0.0498	0.0457 *
Earth	35257-09-28 21:50 G	14598686.19	14598686.41	14598686.64	0.0495	0.0129
Moon	35257-09-29 01:41 G	14598686.34	14598686.57	14598686.79	0.0495	0.0157 *
Venus	35257-10-15 13:55 G	14598702.96	14598703.08	14598703.20	0.0495	0.0400
Mercury	35259-12-28 22:19 G	14599507.26	14599507.43	14599507.61	0.0505	0.0171
Moon	35263-03-14 00:57 G	14600678.34	14600678.54	14600678.76	0.0531	0.0209
Earth	35263-03-14 04:05 G	14600678.46	14600678.67	14600678.89	0.0531	0.0182 *
Moon	35264-04-19 01:26 G	14601080.54	14601080.56	14601080.59	0.0530	0.0526
Mercury	35265-08-20 11:31 G	14601568.87	14601568.98	14601569.10	0.0521	0.0225
Mercury	35265-11-17 17:02 G	14601658.12	14601658.21	14601658.30	0.0519	0.0370
Earth	35268-09-01 21:50 G	14602677.27	14602677.41	14602677.57	0.0497	0.0376
Moon	35268-09-02 00:57 G	14602677.42	14602677.54	14602677.68	0.0497	0.0403 *
Moon	35269-10-03 03:21 G	14603073.44	14603073.64	14603073.85	0.0495	0.0232
Earth	35269-10-03 07:41 G	14603073.61	14603073.82	14603074.03	0.0495	0.0211 *
Mercury	35271-10-16 18:57 G	14603817.18	14603817.29	14603817.42	0.0505	0.0377
Mercury	35272-01-15 05:17 G	14603907.64	14603907.72	14603907.82	0.0507	0.0437
Mars	35273-01-16 16:05 G	14604274.98	14604275.17	14604275.37	0.0517	0.0371

Earth	35275-03-19 08:53 G	14605066.64	14605066.87	14605067.10	0.0531	0.0077
Moon	35275-03-19 12:43 G	14605066.80	14605067.03	14605067.26	0.0531	0.0054 *
Mercury	35277-06-08 16:19 G	14605879.09	14605879.18	14605879.27	0.0522	0.0364
Mercury	35277-09-05 21:36 G	14605968.29	14605968.40	14605968.52	0.0519	0.0231
Moon	35280-09-06 07:12 G	14607064.60	14607064.80	14607065.00	0.0496	0.0281
Earth	35280-09-06 09:07 G	14607064.70	14607064.88	14607065.07	0.0496	0.0294 *
Earth	35281-10-07 17:31 G	14607461.05	14607461.23	14607461.43	0.0495	0.0295
Moon	35281-10-07 21:21 G	14607461.20	14607461.39	14607461.58	0.0495	0.0276 *
Venus	35281-10-18 00:00 G	14607471.32	14607471.50	14607471.67	0.0495	0.0262
Mercury	35283-11-03 03:21 G	14608217.48	14608217.64	14608217.80	0.0507	0.0247
Moon	35287-03-24 10:48 G	14609454.72	14609454.95	14609455.19	0.0531	0.0053
Earth	35287-03-24 14:09 G	14609454.86	14609455.09	14609455.32	0.0531	0.0031 *
Venus	35287-08-21 17:02 G	14609605.02	14609605.21	14609605.40	0.0531	0.0169
Mercury	35289-03-27 20:24 G	14610189.34	14610189.35	14610189.37	0.0522	0.0515
Mercury	35289-06-25 01:41 G	14610278.44	14610278.57	14610278.69	0.0519	0.0076
Earth	35292-09-10 16:19 G	14611451.97	14611452.18	14611452.39	0.0496	0.0215
Moon	35292-09-10 17:02 G	14611452.00	14611452.21	14611452.42	0.0496	0.0185 *
Venus	35293-06-23 00:57 G	14611737.34	14611737.54	14611737.73	0.0495	0.0154
Moon	35293-10-11 23:02 G	14611848.29	14611848.46	14611848.64	0.0496	0.0347
Earth	35293-10-12 01:26 G	14611848.42	14611848.56	14611848.72	0.0496	0.0374 *
Mercury	35295-08-22 00:57 G	14612527.36	14612527.54	14612527.72	0.0506	0.0055
Earth	35299-03-29 18:14 G	14613843.04	14613843.26	14613843.49	0.0531	0.0139
Moon	35299-03-29 19:26 G	14613843.09	14613843.31	14613843.53	0.0531	0.0112 *
Venus	35299-04-26 08:53 G	14613870.71	14613870.87	14613871.02	0.0531	0.0340
Mercury	35301-04-14 06:00 G	14614588.63	14614588.75	14614588.88	0.0520	0.0071
Earth	35304-09-16 02:53 G	14615839.40	14615839.62	14615839.85	0.0496	0.0130
Moon	35304-09-16 03:50 G	14615839.42	14615839.66	14615839.89	0.0496	0.0128 *
Earth	35305-10-17 12:14 G	14616235.92	14616236.01	14616236.11	0.0496	0.0453
Moon	35305-10-17 12:43 G	14616235.97	14616236.03	14616236.11	0.0496	0.0469 *
Mercury	35307-06-10 22:05 G	14616837.25	14616837.42	14616837.60	0.0506	0.0146

Earth	35310-02-27 06:57 G	14617829.71	14617829.79	14617829.88	0.0528	0.0492
Moon	35310-02-27 08:24 G	14617829.76	14617829.85	14617829.96	0.0528	0.0471 *
Earth	35311-04-04 19:12 G	14618231.09	14618231.30	14618231.51	0.0531	0.0244
Moon	35311-04-04 19:55 G	14618231.11	14618231.33	14618231.55	0.0531	0.0223 *
Mercury	35313-01-31 10:33 G	14618898.82	14618898.94	14618899.05	0.0521	0.0218
Mercury	35313-04-30 15:50 G	14618988.07	14618988.16	14618988.25	0.0519	0.0376
Moon	35316-09-20 12:00 G	14620226.78	14620227.00	14620227.23	0.0495	0.0072
Earth	35316-09-20 14:38 G	14620226.88	14620227.11	14620227.34	0.0495	0.0043 *
Mercury	35319-03-29 19:12 G	14621147.16	14621147.30	14621147.43	0.0505	0.0347
Mercury	35319-06-28 05:17 G	14621237.66	14621237.72	14621237.79	0.0507	0.0466
Earth	35322-03-04 08:24 G	14622217.70	14622217.85	14622218.01	0.0529	0.0394
Moon	35322-03-04 09:21 G	14622217.73	14622217.89	14622218.06	0.0529	0.0377 *
Moon	35323-04-09 20:38 G	14622619.20	14622619.36	14622619.52	0.0531	0.0375
Earth	35323-04-09 23:02 G	14622619.29	14622619.46	14622619.64	0.0531	0.0349 *
Venus	35323-04-30 09:36 G	14622639.81	14622639.90	14622639.99	0.0531	0.0468
Mercury	35324-11-19 15:07 G	14623209.04	14623209.13	14623209.23	0.0522	0.0358
Mercury	35325-02-16 20:24 G	14623298.24	14623298.35	14623298.47	0.0519	0.0237
Earth	35328-09-25 00:57 G	14624614.30	14624614.54	14624614.77	0.0495	0.0041
Moon	35328-09-25 04:33 G	14624614.46	14624614.69	14624614.93	0.0495	0.0041 *
Venus	35329-03-01 13:55 G	14624771.88	14624772.08	14624772.28	0.0495	0.0102
Mercury	35331-04-16 02:24 G	14625547.44	14625547.60	14625547.75	0.0507	0.0263
Moon	35334-03-09 08:53 G	14626605.70	14626605.87	14626606.05	0.0530	0.0322
Earth	35334-03-09 11:45 G	14626605.80	14626605.99	14626606.18	0.0530	0.0293 *
Venus	35335-01-03 02:09 G	14626905.39	14626905.59	14626905.80	0.0531	0.0036
Earth	35335-04-15 04:33 G	14627007.57	14627007.69	14627007.81	0.0531	0.0452
Moon	35335-04-15 08:24 G	14627007.74	14627007.85	14627007.96	0.0531	0.0466 *
Mercury	35336-09-07 19:55 G	14627519.30	14627519.33	14627519.37	0.0522	0.0496
Mercury	35336-12-06 01:12 G	14627608.43	14627608.55	14627608.68	0.0520	0.0097
Earth	35339-08-29 23:17 G	14628605.39	14628605.47	14628605.56	0.0497	0.0460
Moon	35339-08-30 02:24 G	14628605.55	14628605.60	14628605.66	0.0497	0.0483 *

Moon	35340-09-29 07:12 G	14629001.58	14629001.80	14629002.02	0.0495	0.0156
Earth	35340-09-29 11:17 G	14629001.74	14629001.97	14629002.20	0.0495	0.0126 *
Venus	35340-11-04 16:19 G	14629038.03	14629038.18	14629038.35	0.0495	0.0307
Mercury	35343-02-02 00:00 G	14629857.32	14629857.50	14629857.69	0.0506	0.0073
Earth	35346-03-14 17:02 G	14630993.99	14630994.21	14630994.43	0.0530	0.0188
Moon	35346-03-14 20:53 G	14630994.16	14630994.37	14630994.59	0.0530	0.0208 *
Moon	35347-04-20 05:31 G	14631395.68	14631395.73	14631395.78	0.0530	0.0516
Mercury	35348-09-24 05:17 G	14631918.59	14631918.72	14631918.85	0.0520	0.0056
Moon	35351-09-03 04:05 G	14632992.55	14632992.67	14632992.82	0.0497	0.0407
Earth	35351-09-03 06:14 G	14632992.62	14632992.76	14632992.91	0.0497	0.0384 *
Earth	35352-10-03 17:45 G	14633389.04	14633389.24	14633389.46	0.0495	0.0207
Moon	35352-10-03 21:36 G	14633389.19	14633389.40	14633389.60	0.0495	0.0225 *
Mercury	35354-11-20 21:36 G	14634167.22	14634167.40	14634167.58	0.0506	0.0124
Moon	35358-03-19 17:45 G	14635382.01	14635382.24	14635382.48	0.0530	0.0054
Earth	35358-03-19 21:21 G	14635382.16	14635382.39	14635382.62	0.0530	0.0081 *
Mercury	35360-07-13 09:36 G	14636228.79	14636228.90	14636229.02	0.0520	0.0203
Mercury	35360-10-10 14:53 G	14636318.04	14636318.12	14636318.21	0.0518	0.0392
Earth	35363-09-07 17:31 G	14637380.05	14637380.23	14637380.42	0.0497	0.0301
Moon	35363-09-07 18:00 G	14637380.07	14637380.25	14637380.44	0.0497	0.0288 *
Moon	35364-10-08 02:09 G	14637776.39	14637776.59	14637776.79	0.0496	0.0270
Earth	35364-10-08 04:33 G	14637776.50	14637776.69	14637776.88	0.0496	0.0291 *
Venus	35364-11-07 00:57 G	14637806.40	14637806.54	14637806.69	0.0496	0.0348
Mercury	35366-09-08 18:43 G	14638477.14	14638477.28	14638477.42	0.0505	0.0325
Mercury	35366-12-08 05:02 G	14638567.66	14638567.71	14638567.75	0.0507	0.0489
Earth	35370-03-24 21:36 G	14639770.17	14639770.40	14639770.63	0.0531	0.0025
Moon	35370-03-24 23:17 G	14639770.25	14639770.47	14639770.70	0.0531	0.0039 *
Venus	35370-09-10 19:26 G	14639940.14	14639940.31	14639940.49	0.0530	0.0269
Mercury	35372-05-01 14:09 G	14640538.99	14640539.09	14640539.18	0.0521	0.0349
Mercury	35372-07-29 19:12 G	14640628.19	14640628.30	14640628.42	0.0519	0.0244
Earth	35375-09-12 05:31 G	14641767.53	14641767.73	14641767.95	0.0496	0.0218

Moon	35375-09-12 06:43 G	14641767.55	14641767.78	14641768.00	0.0496	0.0188	*
Venus	35376-07-13 03:50 G	14642072.46	14642072.66	14642072.86	0.0495	0.0060	
Earth	35376-10-12 15:21 G	14642163.99	14642164.14	14642164.29	0.0496	0.0374	
Moon	35376-10-12 15:36 G	14642164.00	14642164.15	14642164.31	0.0496	0.0358	*
Mercury	35378-09-26 02:09 G	14642877.44	14642877.59	14642877.74	0.0507	0.0290	
Moon	35382-03-30 00:43 G	14644158.29	14644158.53	14644158.77	0.0531	0.0103	
Earth	35382-03-30 00:29 G	14644158.30	14644158.52	14644158.75	0.0531	0.0134	*
Venus	35382-05-16 10:48 G	14644205.78	14644205.95	14644206.14	0.0531	0.0243	
Mercury	35384-02-18 18:43 G	14644849.24	14644849.28	14644849.32	0.0522	0.0491	
Mercury	35384-05-18 00:00 G	14644938.37	14644938.50	14644938.62	0.0520	0.0102	
Moon	35387-09-16 14:24 G	14646154.88	14646155.10	14646155.32	0.0496	0.0141	
Earth	35387-09-16 16:48 G	14646154.98	14646155.20	14646155.43	0.0496	0.0133	*
Venus	35388-03-18 06:00 G	14646338.69	14646338.75	14646338.82	0.0495	0.0468	
Earth	35388-10-17 00:57 G	14646551.45	14646551.54	14646551.64	0.0496	0.0451	
Moon	35388-10-17 02:09 G	14646551.53	14646551.59	14646551.67	0.0496	0.0472	*
Mercury	35390-07-14 23:02 G	14647187.28	14647187.46	14647187.64	0.0506	0.0086	
Moon	35393-02-26 16:33 G	14648145.09	14648145.19	14648145.31	0.0529	0.0470	
Earth	35393-02-26 16:05 G	14648145.11	14648145.17	14648145.25	0.0529	0.0500	*
Moon	35394-04-04 03:21 G	14648546.43	14648546.64	14648546.84	0.0531	0.0224	
Earth	35394-04-04 05:17 G	14648546.52	14648546.72	14648546.93	0.0531	0.0240	*
Mercury	35396-03-06 04:48 G	14649248.57	14649248.70	14649248.82	0.0520	0.0040	
Earth	35399-09-21 03:21 G	14650542.41	14650542.64	14650542.87	0.0495	0.0046	
Moon	35399-09-21 07:12 G	14650542.56	14650542.80	14650543.03	0.0495	0.0075	*
Mercury	35402-05-03 20:38 G	14651497.18	14651497.36	14651497.54	0.0506	0.0108	
Moon	35405-03-04 18:29 G	14652533.12	14652533.27	14652533.43	0.0529	0.0388	
Earth	35405-03-04 21:07 G	14652533.23	14652533.38	14652533.53	0.0529	0.0400	*
Earth	35406-04-10 11:02 G	14652934.78	14652934.96	14652935.13	0.0530	0.0345	
Moon	35406-04-10 14:38 G	14652934.94	14652935.11	14652935.27	0.0530	0.0376	*
Mercury	35407-12-25 08:53 G	14653558.75	14653558.87	14653558.99	0.0520	0.0188	
Mercury	35408-03-23 14:09 G	14653648.01	14653648.09	14653648.17	0.0518	0.0405	

Mars	35409-04-23 05:02 G	14654043.60	14654043.71	14654043.82	0.0508	0.0462
Moon	35411-09-26 05:31 G	14654929.49	14654929.73	14654929.96	0.0495	0.0037
Earth	35411-09-26 09:21 G	14654929.66	14654929.89	14654930.13	0.0495	0.0036 *
Venus	35412-03-21 13:55 G	14655106.90	14655107.08	14655107.28	0.0496	0.0183
Mercury	35414-02-19 17:45 G	14655807.09	14655807.24	14655807.38	0.0506	0.0308
Earth	35417-03-10 00:43 G	14656921.34	14656921.53	14656921.72	0.0530	0.0296
Moon	35417-03-10 04:19 G	14656921.50	14656921.68	14656921.87	0.0530	0.0327 *
Venus	35418-01-23 06:57 G	14657240.59	14657240.79	14657240.99	0.0530	0.0079
Moon	35418-04-15 11:02 G	14657322.85	14657322.96	14657323.08	0.0530	0.0456
Earth	35418-04-15 14:38 G	14657323.00	14657323.11	14657323.24	0.0530	0.0448 *
Mercury	35419-10-13 13:26 G	14657868.96	14657869.06	14657869.16	0.0521	0.0333
Mercury	35420-01-10 18:29 G	14657958.16	14657958.27	14657958.39	0.0518	0.0258
Moon	35422-08-30 03:36 G	14658920.63	14658920.65	14658920.69	0.0498	0.0494
Earth	35422-08-30 05:45 G	14658920.67	14658920.74	14658920.82	0.0498	0.0469 *
Earth	35423-09-30 19:41 G	14659317.10	14659317.32	14659317.55	0.0495	0.0121
Moon	35423-09-30 23:17 G	14659317.25	14659317.47	14659317.69	0.0495	0.0152 *
Venus	35423-11-25 16:19 G	14659373.00	14659373.18	14659373.36	0.0496	0.0228
Mercury	35426-03-09 01:26 G	14660207.42	14660207.56	14660207.70	0.0507	0.0309
Mars	35427-04-16 02:09 G	14660610.32	14660610.59	14660610.87	0.0517	0.0134
Moon	35429-03-14 20:38 G	14661309.14	14661309.36	14661309.57	0.0530	0.0210
Earth	35429-03-15 00:14 G	14661309.30	14661309.51	14661309.73	0.0530	0.0195 *
Venus	35429-09-27 20:38 G	14661506.26	14661506.36	14661506.48	0.0531	0.0442
Moon	35430-04-20 17:17 G	14661711.18	14661711.22	14661711.28	0.0530	0.0515
Mercury	35431-08-01 17:45 G	14662179.19	14662179.24	14662179.28	0.0522	0.0483
Mercury	35431-10-29 22:48 G	14662268.33	14662268.45	14662268.58	0.0519	0.0109
Earth	35434-09-03 18:29 G	14663308.13	14663308.27	14663308.42	0.0497	0.0388
Moon	35434-09-03 18:57 G	14663308.17	14663308.29	14663308.42	0.0497	0.0409 *
Moon	35435-10-05 04:19 G	14663704.47	14663704.68	14663704.90	0.0495	0.0217
Earth	35435-10-05 06:43 G	14663704.57	14663704.78	14663704.99	0.0495	0.0207 *
Mercury	35437-12-25 22:33 G	14664517.26	14664517.44	14664517.62	0.0506	0.0109

Earth	35441-03-20 01:55 G	14665697.36	14665697.58	14665697.82	0.0530	0.0090
Moon	35441-03-20 04:19 G	14665697.45	14665697.68	14665697.90	0.0530	0.0058 *
Mercury	35443-08-18 03:21 G	14666578.51	14666578.64	14666578.77	0.0520	0.0035
Earth	35446-09-08 06:29 G	14667695.59	14667695.77	14667695.95	0.0497	0.0306
Moon	35446-09-08 07:26 G	14667695.61	14667695.81	14667696.01	0.0497	0.0286 *
Earth	35447-10-09 16:33 G	14668092.00	14668092.19	14668092.38	0.0495	0.0289
Moon	35447-10-09 16:48 G	14668092.02	14668092.20	14668092.40	0.0495	0.0264 *
Venus	35447-11-28 02:38 G	14668141.52	14668141.61	14668141.71	0.0495	0.0436
Mercury	35449-10-13 19:12 G	14668827.12	14668827.30	14668827.48	0.0506	0.0098
Moon	35453-03-25 05:02 G	14670085.47	14670085.71	14670085.96	0.0531	0.0031
Earth	35453-03-25 05:31 G	14670085.50	14670085.73	14670085.96	0.0531	0.0018 *
Venus	35453-09-30 22:48 G	14670275.31	14670275.45	14670275.60	0.0531	0.0374
Mercury	35455-06-06 08:09 G	14670888.72	14670888.84	14670888.96	0.0521	0.0175
Mercury	35455-09-03 13:26 G	14670977.99	14670978.06	14670978.14	0.0519	0.0419
Moon	35458-09-12 14:38 G	14672082.91	14672083.11	14672083.33	0.0496	0.0199
Earth	35458-09-12 17:17 G	14672083.02	14672083.22	14672083.43	0.0496	0.0221 *
Venus	35459-08-03 05:02 G	14672407.51	14672407.71	14672407.92	0.0495	0.0026
Earth	35459-10-14 02:09 G	14672479.44	14672479.59	14672479.75	0.0496	0.0372
Moon	35459-10-14 03:50 G	14672479.50	14672479.66	14672479.83	0.0496	0.0358 *
Mercury	35461-08-01 16:33 G	14673137.04	14673137.19	14673137.34	0.0505	0.0295
Moon	35465-03-30 10:05 G	14674473.70	14674473.92	14674474.14	0.0531	0.0099
Earth	35465-03-30 11:31 G	14674473.76	14674473.98	14674474.21	0.0531	0.0129 *
Venus	35465-06-05 15:36 G	14674540.96	14674541.15	14674541.35	0.0531	0.0128
Mercury	35467-03-25 12:29 G	14675198.92	14675199.02	14675199.12	0.0521	0.0322
Mercury	35467-06-22 17:31 G	14675288.13	14675288.23	14675288.34	0.0518	0.0270
Earth	35470-09-16 23:02 G	14676470.24	14676470.46	14676470.69	0.0496	0.0139
Moon	35470-09-17 02:53 G	14676470.39	14676470.62	14676470.84	0.0496	0.0157 *
Venus	35471-04-08 04:48 G	14676673.58	14676673.70	14676673.82	0.0495	0.0397
Moon	35471-10-18 06:14 G	14676866.70	14676866.76	14676866.83	0.0496	0.0473
Earth	35471-10-18 08:53 G	14676866.77	14676866.87	14676866.97	0.0496	0.0449 *

Mercury	35473-05-20 13:12 G	14677447.03	14677447.05	14677447.08	0.0505	0.0500
Mercury	35473-08-19 00:00 G	14677537.37	14677537.50	14677537.65	0.0507	0.0322
Moon	35476-02-28 02:09 G	14678460.50	14678460.59	14678460.69	0.0528	0.0472
Earth	35476-02-28 04:19 G	14678460.62	14678460.68	14678460.75	0.0528	0.0503 *
Earth	35477-04-04 15:36 G	14678861.94	14678862.15	14678862.35	0.0530	0.0237
Moon	35477-04-04 18:57 G	14678862.08	14678862.29	14678862.50	0.0530	0.0231 *
Mercury	35479-01-11 16:48 G	14679509.15	14679509.20	14679509.26	0.0521	0.0468
Mercury	35479-04-10 21:50 G	14679598.29	14679598.41	14679598.54	0.0519	0.0123
Moon	35482-09-21 05:17 G	14680857.49	14680857.72	14680857.96	0.0496	0.0084
Earth	35482-09-21 09:21 G	14680857.66	14680857.89	14680858.12	0.0496	0.0053 *
Mercury	35485-06-06 21:21 G	14681847.21	14681847.39	14681847.57	0.0507	0.0121
Earth	35488-03-04 02:53 G	14682848.48	14682848.62	14682848.77	0.0529	0.0408
Moon	35488-03-04 06:29 G	14682848.61	14682848.77	14682848.92	0.0529	0.0397 *
Moon	35489-04-09 11:31 G	14683249.81	14683249.98	14683250.15	0.0530	0.0372
Earth	35489-04-09 15:07 G	14683249.96	14683250.13	14683250.32	0.0530	0.0340 *
Mercury	35491-01-28 02:09 G	14683908.46	14683908.59	14683908.72	0.0520	0.0030
Earth	35494-09-25 20:24 G	14685245.12	14685245.35	14685245.59	0.0495	0.0033
Moon	35494-09-26 00:00 G	14685245.27	14685245.50	14685245.73	0.0495	0.0038 *
Venus	35495-04-10 15:21 G	14685441.97	14685442.14	14685442.31	0.0496	0.0267
Mercury	35497-03-25 18:14 G	14686157.08	14686157.26	14686157.44	0.0506	0.0082
Moon	35500-03-09 23:31 G	14687236.31	14687236.48	14687236.67	0.0529	0.0338
Earth	35500-03-10 03:21 G	14687236.46	14687236.64	14687236.84	0.0529	0.0308 *
Venus	35501-02-12 06:43 G	14687575.59	14687575.78	14687575.98	0.0530	0.0162
Earth	35501-04-15 17:17 G	14687638.09	14687638.22	14687638.35	0.0530	0.0441
Moon	35501-04-15 20:09 G	14687638.23	14687638.34	14687638.47	0.0530	0.0449 *
Mercury	35502-11-17 06:43 G	14688218.66	14688218.78	14688218.90	0.0521	0.0175
Mercury	35503-02-14 12:00 G	14688307.92	14688308.00	14688308.07	0.0518	0.0419
Earth	35505-08-30 16:33 G	14689236.14	14689236.19	14689236.27	0.0498	0.0476
Moon	35506-10-01 04:05 G	14689632.45	14689632.67	14689632.91	0.0495	0.0146
Earth	35506-10-01 06:29 G	14689632.55	14689632.77	14689633.00	0.0495	0.0117 *

Venus	35506-12-15 17:17 G	14689708.02	14689708.22	14689708.41	0.0495	0.0144
Mercury	35509-01-12 14:38 G	14690466.97	14690467.11	14690467.27	0.0505	0.0290
Earth	35512-03-15 05:17 G	14691624.50	14691624.72	14691624.93	0.0530	0.0204
Moon	35512-03-15 07:55 G	14691624.62	14691624.83	14691625.04	0.0530	0.0210 *
Venus	35512-10-17 22:19 G	14691841.28	14691841.43	14691841.58	0.0531	0.0347
Moon	35513-04-20 19:55 G	14692026.27	14692026.33	14692026.40	0.0530	0.0508
Mercury	35514-09-05 11:17 G	14692528.87	14692528.97	14692529.07	0.0521	0.0316
Mercury	35514-12-03 16:33 G	14692618.08	14692618.19	14692618.30	0.0519	0.0277
Earth	35517-09-04 04:05 G	14693623.54	14693623.67	14693623.82	0.0497	0.0394
Moon	35517-09-04 05:02 G	14693623.59	14693623.71	14693623.86	0.0497	0.0409 *
Earth	35518-10-05 16:05 G	14694019.95	14694020.17	14694020.38	0.0495	0.0202
Moon	35518-10-05 16:19 G	14694019.98	14694020.18	14694020.38	0.0495	0.0204 *
Mercury	35520-10-31 11:45 G	14694776.95	14694776.99	14694777.04	0.0505	0.0490
Mercury	35521-01-29 22:33 G	14694867.30	14694867.44	14694867.58	0.0507	0.0329
Moon	35524-03-20 09:50 G	14696012.67	14696012.91	14696013.15	0.0530	0.0062
Earth	35524-03-20 10:48 G	14696012.72	14696012.95	14696013.18	0.0530	0.0096 *
Mercury	35526-06-24 15:50 G	14696839.10	14696839.16	14696839.21	0.0521	0.0461
Mercury	35526-09-21 20:53 G	14696928.24	14696928.37	14696928.49	0.0519	0.0129
Mars	35527-10-14 10:19 G	14697315.69	14697315.93	14697316.18	0.0509	0.0206
Moon	35529-09-08 08:09 G	14698010.66	14698010.84	14698011.02	0.0497	0.0293
Earth	35529-09-08 10:33 G	14698010.76	14698010.94	14698011.12	0.0497	0.0315 *
Earth	35530-10-09 21:21 G	14698407.20	14698407.39	14698407.59	0.0496	0.0284
Moon	35530-10-09 22:48 G	14698407.25	14698407.45	14698407.66	0.0496	0.0253 *
Mercury	35532-11-17 19:26 G	14699177.13	14699177.31	14699177.49	0.0507	0.0124
Moon	35536-03-25 13:26 G	14700400.83	14700401.06	14700401.28	0.0531	0.0021
Earth	35536-03-25 14:24 G	14700400.87	14700401.10	14700401.34	0.0531	0.0016 *
Venus	35536-10-21 01:41 G	14700610.49	14700610.57	14700610.66	0.0530	0.0475
Mercury	35538-07-11 01:12 G	14701238.42	14701238.55	14701238.68	0.0519	0.0019
Earth	35541-09-12 20:38 G	14702398.15	14702398.36	14702398.56	0.0496	0.0231
Moon	35541-09-13 00:14 G	14702398.30	14702398.51	14702398.72	0.0496	0.0212 *

Venus	35542-08-23 02:24 G	14702742.40	14702742.60	14702742.80	0.0496	0.0090
Moon	35542-10-14 04:33 G	14702794.54	14702794.69	14702794.85	0.0496	0.0355
Earth	35542-10-14 06:57 G	14702794.64	14702794.79	14702794.96	0.0496	0.0367 *
Mercury	35544-09-05 16:33 G	14703487.01	14703487.19	14703487.37	0.0506	0.0079
Earth	35548-03-30 13:41 G	14704788.84	14704789.07	14704789.30	0.0530	0.0119
Moon	35548-03-30 16:33 G	14704788.96	14704789.19	14704789.43	0.0530	0.0088 *
Venus	35548-06-25 15:07 G	14704875.93	14704876.13	14704876.33	0.0530	0.0047
Mercury	35550-04-29 05:17 G	14705548.60	14705548.72	14705548.84	0.0520	0.0173
Mercury	35550-07-27 10:33 G	14705637.87	14705637.94	14705638.01	0.0518	0.0420
Moon	35553-09-17 03:50 G	14706785.44	14706785.66	14706785.88	0.0496	0.0166
Earth	35553-09-17 07:55 G	14706785.61	14706785.83	14706786.05	0.0496	0.0145 *
Venus	35554-04-28 04:33 G	14707008.54	14707008.69	14707008.86	0.0495	0.0319
Earth	35554-10-18 17:45 G	14707182.15	14707182.24	14707182.34	0.0496	0.0447
Moon	35554-10-18 21:07 G	14707182.32	14707182.38	14707182.46	0.0496	0.0473 *
Mercury	35556-06-24 13:12 G	14707796.91	14707797.05	14707797.21	0.0505	0.0282
Earth	35559-02-28 04:33 G	14708775.66	14708775.69	14708775.74	0.0528	0.0517
Moon	35559-02-28 07:55 G	14708775.74	14708775.83	14708775.93	0.0528	0.0481 *
Moon	35560-04-04 11:17 G	14709176.76	14709176.97	14709177.18	0.0531	0.0224
Earth	35560-04-04 15:07 G	14709176.92	14709177.13	14709177.34	0.0531	0.0226 *
Mercury	35562-02-15 09:36 G	14709858.80	14709858.90	14709859.00	0.0521	0.0320
Mercury	35562-05-15 14:53 G	14709948.01	14709948.12	14709948.23	0.0519	0.0273
Earth	35565-09-21 18:14 G	14711173.03	14711173.26	14711173.49	0.0496	0.0060
Moon	35565-09-21 21:36 G	14711173.18	14711173.40	14711173.63	0.0496	0.0089 *
Mercury	35568-04-12 09:36 G	14712106.86	14712106.90	14712106.94	0.0505	0.0491
Mercury	35568-07-11 20:24 G	14712197.21	14712197.35	14712197.49	0.0507	0.0327
Moon	35571-03-05 00:43 G	14713163.40	14713163.53	14713163.68	0.0529	0.0413
Earth	35571-03-05 04:33 G	14713163.56	14713163.69	14713163.84	0.0529	0.0421 *
Earth	35572-04-09 18:00 G	14713565.06	14713565.25	14713565.43	0.0531	0.0330
Moon	35572-04-09 21:07 G	14713565.22	14713565.38	14713565.55	0.0531	0.0366 *
Mercury	35573-12-04 14:24 G	14714169.04	14714169.10	14714169.15	0.0522	0.0462

Mercury	35574-03-03 19:26 G	14714258.19	14714258.31	14714258.43	0.0519	0.0130
Moon	35577-09-26 01:12 G	14715560.31	14715560.55	14715560.79	0.0495	0.0033
Earth	35577-09-26 03:36 G	14715560.42	14715560.65	14715560.89	0.0495	0.0027 *
Venus	35578-04-30 13:55 G	14715776.93	14715777.08	14715777.23	0.0495	0.0338
Mercury	35580-04-29 17:31 G	14716507.05	14716507.23	14716507.41	0.0507	0.0127
Mars	35581-07-11 07:55 G	14716944.83	14716944.83	14716944.84	0.0518	0.0517
Earth	35583-03-10 08:38 G	14717551.68	14717551.86	14717552.05	0.0530	0.0317
Moon	35583-03-10 11:45 G	14717551.82	14717551.99	14717552.16	0.0530	0.0349 *
Venus	35584-03-03 08:38 G	14717910.68	14717910.86	14717911.04	0.0530	0.0257
Moon	35584-04-14 21:21 G	14717953.26	14717953.39	14717953.53	0.0530	0.0440
Earth	35584-04-14 23:17 G	14717953.35	14717953.47	14717953.61	0.0530	0.0436 *
Mercury	35585-12-20 23:45 G	14718568.37	14718568.49	14718568.62	0.0519	0.0021
Earth	35588-08-29 18:57 G	14719551.25	14719551.29	14719551.34	0.0498	0.0487
Earth	35589-09-30 08:53 G	14719947.64	14719947.87	14719948.09	0.0495	0.0109
Moon	35589-09-30 09:21 G	14719947.67	14719947.89	14719948.10	0.0495	0.0135 *
Venus	35590-01-03 13:12 G	14720042.85	14720043.05	14720043.25	0.0495	0.0088
Mercury	35592-02-16 13:55 G	14720816.90	14720817.08	14720817.27	0.0506	0.0084
Moon	35595-03-15 10:05 G	14721939.71	14721939.92	14721940.15	0.0530	0.0212
Earth	35595-03-15 11:45 G	14721939.78	14721939.99	14721940.20	0.0530	0.0212 *
Venus	35595-11-07 00:14 G	14722176.33	14722176.51	14722176.69	0.0531	0.0251
Moon	35596-04-20 02:09 G	14722341.53	14722341.59	14722341.65	0.0530	0.0508
Mercury	35597-10-09 04:05 G	14722878.55	14722878.67	14722878.79	0.0520	0.0165
Mercury	35598-01-06 09:21 G	14722967.82	14722967.89	14722967.96	0.0518	0.0427
Moon	35600-09-03 02:53 G	14723938.50	14723938.62	14723938.75	0.0497	0.0419
Earth	35600-09-03 05:17 G	14723938.59	14723938.72	14723938.85	0.0497	0.0406 *
Earth	35601-10-04 18:00 G	14724335.03	14724335.25	14724335.46	0.0495	0.0195
Moon	35601-10-04 19:12 G	14724335.08	14724335.30	14724335.53	0.0495	0.0189 *
Mercury	35603-12-05 10:48 G	14725126.80	14725126.95	14725127.11	0.0506	0.0287
Moon	35607-03-20 10:05 G	14726327.70	14726327.92	14726328.15	0.0530	0.0078
Earth	35607-03-20 10:19 G	14726327.71	14726327.93	14726328.16	0.0530	0.0110 *

Mercury	35609-07-28 08:09 G	14727188.74	14727188.84	14727188.94	0.0521	0.0320
Mercury	35609-10-25 13:12 G	14727277.94	14727278.05	14727278.16	0.0519	0.0271
Earth	35612-09-07 16:19 G	14728326.01	14728326.18	14728326.36	0.0497	0.0325
Moon	35612-09-07 20:09 G	14728326.15	14728326.34	14728326.53	0.0497	0.0296 *
Moon	35613-10-09 01:55 G	14728722.38	14728722.58	14728722.78	0.0496	0.0248
Earth	35613-10-09 04:33 G	14728722.50	14728722.69	14728722.88	0.0496	0.0279 *
Mercury	35615-09-23 07:41 G	14729436.78	14729436.82	14729436.86	0.0505	0.0490
Mercury	35615-12-22 18:29 G	14729527.14	14729527.27	14729527.41	0.0507	0.0330
Earth	35619-03-25 11:02 G	14730715.72	14730715.96	14730716.19	0.0530	0.0007
Moon	35619-03-25 13:12 G	14730715.81	14730716.05	14730716.29	0.0530	0.0009 *
Mercury	35621-05-16 12:29 G	14731498.97	14731499.02	14731499.07	0.0521	0.0469
Mercury	35621-08-13 17:31 G	14731588.11	14731588.23	14731588.36	0.0519	0.0122
Moon	35624-09-11 23:17 G	14732713.26	14732713.47	14732713.68	0.0496	0.0223
Earth	35624-09-12 03:21 G	14732713.44	14732713.64	14732713.84	0.0496	0.0240 *
Venus	35625-09-11 00:43 G	14733077.34	14733077.53	14733077.72	0.0495	0.0160
Earth	35625-10-13 13:12 G	14733109.90	14733110.05	14733110.22	0.0496	0.0361
Moon	35625-10-13 16:48 G	14733110.04	14733110.20	14733110.37	0.0496	0.0352 *
Mercury	35627-10-10 14:53 G	14733836.95	14733837.12	14733837.30	0.0506	0.0120
Moon	35631-03-30 08:53 G	14735103.64	14735103.87	14735104.10	0.0531	0.0073
Earth	35631-03-30 12:29 G	14735103.79	14735104.02	14735104.25	0.0531	0.0106 *
Venus	35631-07-15 12:57 G	14735210.84	14735211.04	14735211.24	0.0531	0.0027
Mercury	35633-06-01 22:05 G	14735898.29	14735898.42	14735898.55	0.0520	0.0023
Earth	35636-09-16 12:57 G	14737100.82	14737101.04	14737101.26	0.0496	0.0154
Moon	35636-09-16 16:19 G	14737100.97	14737101.18	14737101.40	0.0496	0.0177 *
Venus	35637-05-17 02:09 G	14737343.41	14737343.59	14737343.77	0.0495	0.0253
Moon	35637-10-17 18:14 G	14737497.20	14737497.26	14737497.34	0.0496	0.0468
Earth	35637-10-17 22:05 G	14737497.32	14737497.42	14737497.53	0.0496	0.0440 *
Mercury	35639-07-29 11:45 G	14738146.81	14738146.99	14738147.17	0.0506	0.0084
Moon	35642-02-27 02:38 G	14739090.54	14739090.61	14739090.69	0.0528	0.0497
Venus	35643-03-20 05:31 G	14739476.65	14739476.73	14739476.82	0.0531	0.0477

Earth	35643-04-04 17:31 G	14739492.02	14739492.23	14739492.45	0.0531	0.0217
Moon	35643-04-04 21:21 G	14739492.18	14739492.39	14739492.60	0.0531	0.0221 *
Mercury	35645-03-21 02:38 G	14740208.49	14740208.61	14740208.73	0.0520	0.0167
Mercury	35645-06-18 07:41 G	14740297.75	14740297.82	14740297.90	0.0518	0.0425
Moon	35648-09-20 15:50 G	14741487.92	14741488.16	14741488.40	0.0495	0.0098
Earth	35648-09-20 18:29 G	14741488.04	14741488.27	14741488.50	0.0495	0.0071 *
Mercury	35651-05-17 07:55 G	14742456.68	14742456.83	14742456.98	0.0506	0.0299
Earth	35654-03-04 08:09 G	14743478.71	14743478.84	14743478.97	0.0529	0.0432
Moon	35654-03-04 11:31 G	14743478.86	14743478.98	14743479.12	0.0529	0.0434 *
Moon	35655-04-09 18:29 G	14743880.10	14743880.27	14743880.45	0.0531	0.0356
Earth	35655-04-09 21:21 G	14743880.20	14743880.39	14743880.57	0.0531	0.0323 *
Mercury	35657-01-07 06:57 G	14744518.69	14744518.79	14744518.89	0.0520	0.0315
Mercury	35657-04-06 12:00 G	14744607.89	14744608.00	14744608.11	0.0518	0.0276
Earth	35660-09-25 03:21 G	14745875.41	14745875.64	14745875.87	0.0495	0.0015
Moon	35660-09-25 04:05 G	14745875.45	14745875.67	14745875.89	0.0495	0.0028 *
Venus	35661-05-19 08:24 G	14746111.73	14746111.85	14746111.98	0.0496	0.0386
Mercury	35663-03-05 04:33 G	14746766.68	14746766.69	14746766.71	0.0505	0.0503
Mercury	35663-06-03 15:36 G	14746857.01	14746857.15	14746857.29	0.0507	0.0319
Moon	35666-03-09 04:05 G	14747866.50	14747866.67	14747866.85	0.0529	0.0367
Earth	35666-03-09 06:29 G	14747866.59	14747866.77	14747866.95	0.0529	0.0335 *
Venus	35667-03-23 04:48 G	14748245.54	14748245.70	14748245.86	0.0530	0.0319
Earth	35667-04-14 19:26 G	14748268.18	14748268.31	14748268.46	0.0530	0.0423
Moon	35667-04-14 19:55 G	14748268.21	14748268.33	14748268.47	0.0530	0.0426 *
Mercury	35668-10-26 10:48 G	14748828.90	14748828.95	14748829.00	0.0521	0.0473
Mercury	35669-01-23 15:50 G	14748918.04	14748918.16	14748918.28	0.0519	0.0117
Earth	35672-09-29 13:41 G	14750262.84	14750263.07	14750263.30	0.0495	0.0100
Moon	35672-09-29 14:53 G	14750262.89	14750263.12	14750263.36	0.0495	0.0126 *
Venus	35673-01-22 10:48 G	14750377.75	14750377.95	14750378.16	0.0495	0.0022
Mercury	35675-03-22 12:43 G	14751166.85	14751167.03	14751167.21	0.0507	0.0117
Earth	35678-03-14 06:00 G	14752254.55	14752254.75	14752254.96	0.0530	0.0232

Moon	35678-03-14 06:29 G	14752254.58	14752254.77	14752254.98	0.0530	0.0234 *
Venus	35678-11-25 18:57 G	14752511.10	14752511.29	14752511.47	0.0530	0.0198
Earth	35679-04-19 19:55 G	14752656.31	14752656.33	14752656.38	0.0530	0.0523
Moon	35679-04-19 22:19 G	14752656.34	14752656.43	14752656.52	0.0530	0.0491 *
Mercury	35680-11-11 20:09 G	14753228.21	14753228.34	14753228.46	0.0520	0.0036
Mars	35682-01-06 23:45 G	14753649.22	14753649.49	14753649.75	0.0509	0.0077
Earth	35683-09-03 09:36 G	14754253.77	14754253.90	14754254.02	0.0498	0.0419
Moon	35683-09-03 13:12 G	14754253.92	14754254.05	14754254.17	0.0498	0.0421 *
Venus	35684-09-27 12:29 G	14754643.92	14754644.02	14754644.12	0.0495	0.0433
Moon	35684-10-03 20:09 G	14754650.13	14754650.34	14754650.55	0.0495	0.0178
Earth	35684-10-03 22:48 G	14754650.23	14754650.45	14754650.66	0.0495	0.0185 *
Mercury	35687-01-08 08:53 G	14755476.69	14755476.87	14755477.05	0.0506	0.0096
Earth	35690-03-19 06:00 G	14756642.53	14756642.75	14756642.98	0.0530	0.0127
Moon	35690-03-19 07:26 G	14756642.57	14756642.81	14756643.05	0.0530	0.0095 *
Mercury	35692-08-31 00:29 G	14757538.40	14757538.52	14757538.64	0.0521	0.0179
Mercury	35692-11-28 05:45 G	14757627.67	14757627.74	14757627.82	0.0518	0.0415
Moon	35695-09-07 16:05 G	14758640.99	14758641.17	14758641.35	0.0497	0.0305
Earth	35695-09-07 19:55 G	14758641.16	14758641.33	14758641.51	0.0497	0.0336 *
Earth	35696-10-08 06:57 G	14759037.60	14759037.79	14759037.99	0.0495	0.0270
Moon	35696-10-08 10:33 G	14759037.73	14759037.94	14759038.15	0.0495	0.0238 *
Mercury	35698-10-27 05:31 G	14759786.58	14759786.73	14759786.88	0.0505	0.0303
Mars	35699-12-29 01:12 G	14760214.36	14760214.55	14760214.75	0.0516	0.0373
Moon	35702-03-25 06:57 G	14761030.56	14761030.79	14761031.02	0.0531	0.0019
Earth	35702-03-25 10:19 G	14761030.70	14761030.93	14761031.16	0.0531	0.0016 *
Mercury	35704-06-20 05:02 G	14761848.62	14761848.71	14761848.81	0.0521	0.0322
Mercury	35704-09-17 10:19 G	14761937.82	14761937.93	14761938.04	0.0518	0.0270
Earth	35707-09-13 02:24 G	14763028.40	14763028.60	14763028.80	0.0496	0.0254
Moon	35707-09-13 06:00 G	14763028.55	14763028.75	14763028.96	0.0496	0.0238 *
Venus	35708-09-30 18:29 G	14763412.09	14763412.27	14763412.46	0.0495	0.0204
Moon	35708-10-13 08:24 G	14763424.69	14763424.85	14763425.02	0.0495	0.0344

Earth	35708-10-13 12:00 G	14763424.84	14763425.00	14763425.17	0.0495	0.0351	*
Mercury	35710-11-14 12:14 G	14764186.87	14764187.01	14764187.16	0.0507	0.0303	
Earth	35714-03-30 13:26 G	14765418.84	14765419.06	14765419.30	0.0531	0.0095	
Moon	35714-03-30 17:31 G	14765419.00	14765419.23	14765419.46	0.0531	0.0061	*
Venus	35714-08-04 12:00 G	14765545.81	14765546.00	14765546.20	0.0531	0.0106	
Mercury	35716-04-08 09:21 G	14766158.84	14766158.89	14766158.95	0.0521	0.0470	
Mercury	35716-07-06 14:38 G	14766247.98	14766248.11	14766248.23	0.0519	0.0122	
Moon	35719-09-17 08:38 G	14767415.64	14767415.86	14767416.09	0.0496	0.0188	
Earth	35719-09-17 11:31 G	14767415.77	14767415.98	14767416.20	0.0496	0.0168	*
Venus	35720-06-05 19:55 G	14767678.15	14767678.33	14767678.52	0.0495	0.0209	
Earth	35720-10-17 20:53 G	14767812.26	14767812.37	14767812.49	0.0496	0.0432	
Moon	35720-10-18 00:14 G	14767812.43	14767812.51	14767812.59	0.0496	0.0462	*
Mercury	35722-09-02 09:21 G	14768496.71	14768496.89	14768497.07	0.0507	0.0099	
Moon	35725-02-27 06:14 G	14769405.73	14769405.76	14769405.81	0.0528	0.0519	
Moon	35726-04-04 08:53 G	14769806.65	14769806.87	14769807.09	0.0531	0.0197	
Earth	35726-04-04 12:14 G	14769806.79	14769807.01	14769807.23	0.0531	0.0197	*
Venus	35726-04-09 00:43 G	14769811.41	14769811.53	14769811.66	0.0531	0.0419	
Mercury	35728-04-24 18:14 G	14770558.13	14770558.26	14770558.39	0.0520	0.0040	
Earth	35731-09-21 21:21 G	14771803.16	14771803.39	14771803.62	0.0496	0.0083	
Moon	35731-09-21 22:19 G	14771803.21	14771803.43	14771803.65	0.0496	0.0104	*
Mercury	35734-06-21 06:14 G	14772806.58	14772806.76	14772806.94	0.0506	0.0103	
Moon	35737-03-03 22:48 G	14773793.33	14773793.45	14773793.57	0.0528	0.0457	
Earth	35737-03-04 01:41 G	14773793.46	14773793.57	14773793.69	0.0528	0.0454	*
Earth	35738-04-09 12:29 G	14774194.84	14774195.02	14774195.22	0.0530	0.0304	
Moon	35738-04-09 14:09 G	14774194.92	14774195.09	14774195.27	0.0530	0.0336	*
Mercury	35740-02-11 22:19 G	14774868.32	14774868.43	14774868.55	0.0520	0.0192	
Mercury	35740-05-11 03:36 G	14774957.57	14774957.65	14774957.73	0.0518	0.0402	
Earth	35743-09-26 06:57 G	14776190.55	14776190.79	14776191.02	0.0495	0.0005	
Moon	35743-09-26 08:09 G	14776190.59	14776190.84	14776191.08	0.0495	0.0024	*
Venus	35744-06-08 05:02 G	14776446.63	14776446.71	14776446.80	0.0496	0.0447	

Mercury	35746-04-09 02:24 G	14777116.46	14777116.60	14777116.75	0.0505	0.0315
Mercury	35746-07-08 12:57 G	14777207.02	14777207.04	14777207.07	0.0507	0.0502
Earth	35749-03-09 00:00 G	14778181.33	14778181.50	14778181.68	0.0529	0.0355
Moon	35749-03-09 01:26 G	14778181.41	14778181.56	14778181.71	0.0529	0.0389 *
Venus	35750-04-11 23:45 G	14778580.35	14778580.49	14778580.63	0.0531	0.0375
Earth	35750-04-14 13:41 G	14778582.93	14778583.07	14778583.22	0.0531	0.0408
Moon	35750-04-14 14:53 G	14778582.96	14778583.12	14778583.28	0.0531	0.0402 *
Mercury	35751-12-01 02:53 G	14779178.52	14779178.62	14779178.72	0.0521	0.0337
Mercury	35752-02-28 07:55 G	14779267.72	14779267.83	14779267.94	0.0519	0.0256
Moon	35755-09-30 12:57 G	14780577.82	14780578.04	14780578.26	0.0495	0.0116
Earth	35755-09-30 15:36 G	14780577.92	14780578.15	14780578.38	0.0495	0.0089 *
Venus	35756-02-12 06:29 G	14780712.56	14780712.77	14780712.97	0.0495	0.0033
Mercury	35758-04-26 09:50 G	14781516.76	14781516.91	14781517.06	0.0507	0.0296
Earth	35761-03-14 02:38 G	14782569.41	14782569.61	14782569.82	0.0530	0.0250
Moon	35761-03-14 03:21 G	14782569.43	14782569.64	14782569.85	0.0530	0.0248 *
Venus	35761-12-15 15:50 G	14782845.97	14782846.16	14782846.36	0.0531	0.0130
Moon	35762-04-19 15:07 G	14782971.05	14782971.13	14782971.23	0.0530	0.0481
Earth	35762-04-19 18:29 G	14782971.22	14782971.27	14782971.33	0.0530	0.0513 *
Mercury	35763-09-19 07:26 G	14783488.77	14783488.81	14783488.86	0.0521	0.0479
Mercury	35763-12-17 12:29 G	14783577.90	14783578.02	14783578.15	0.0519	0.0113
Moon	35766-09-03 05:02 G	14784568.60	14784568.71	14784568.82	0.0497	0.0435
Earth	35766-09-03 08:53 G	14784568.77	14784568.87	14784568.99	0.0497	0.0434 *
Earth	35767-10-04 21:07 G	14784965.16	14784965.38	14784965.60	0.0495	0.0172
Moon	35767-10-05 00:29 G	14784965.29	14784965.52	14784965.74	0.0495	0.0163 *
Venus	35767-10-18 06:00 G	14784978.63	14784978.75	14784978.88	0.0495	0.0389
Mercury	35770-02-12 05:45 G	14785826.56	14785826.74	14785826.93	0.0507	0.0082
Moon	35773-03-19 02:38 G	14786957.39	14786957.61	14786957.84	0.0531	0.0112
Earth	35773-03-19 05:31 G	14786957.50	14786957.73	14786957.95	0.0531	0.0143 *
Mercury	35775-10-05 16:48 G	14787888.08	14787888.20	14787888.33	0.0520	0.0040
Earth	35778-09-07 18:29 G	14788956.11	14788956.27	14788956.44	0.0497	0.0351

Moon	35778-09-07 22:19 G	14788956.25	14788956.43	14788956.60	0.0497	0.0320	*
Moon	35779-10-09 01:55 G	14789352.38	14789352.58	14789352.79	0.0495	0.0228	
Earth	35779-10-09 05:45 G	14789352.54	14789352.74	14789352.93	0.0495	0.0258	*
Mercury	35781-12-01 02:53 G	14790136.44	14790136.62	14790136.80	0.0506	0.0122	
Earth	35785-03-24 04:19 G	14791345.45	14791345.68	14791345.91	0.0530	0.0039	
Moon	35785-03-24 08:24 G	14791345.61	14791345.85	14791346.08	0.0530	0.0048	*
Mercury	35787-07-24 20:38 G	14792198.24	14792198.36	14792198.48	0.0520	0.0198	
Mercury	35787-10-22 01:41 G	14792287.49	14792287.57	14792287.66	0.0518	0.0394	
Moon	35790-09-12 00:57 G	14793343.34	14793343.54	14793343.75	0.0497	0.0254	
Earth	35790-09-12 04:05 G	14793343.48	14793343.67	14793343.87	0.0497	0.0270	*
Earth	35791-10-13 15:07 G	14793739.97	14793740.13	14793740.31	0.0496	0.0341	
Moon	35791-10-13 18:43 G	14793740.12	14793740.28	14793740.44	0.0496	0.0345	*
Venus	35791-10-20 15:07 G	14793746.95	14793747.13	14793747.30	0.0496	0.0265	
Mercury	35793-09-18 23:45 G	14794446.35	14794446.49	14794446.64	0.0505	0.0323	
Mercury	35793-12-18 10:19 G	14794536.90	14794536.93	14794536.98	0.0507	0.0496	
Moon	35797-03-29 01:12 G	14795733.31	14795733.55	14795733.78	0.0530	0.0036	
Earth	35797-03-29 05:02 G	14795733.47	14795733.71	14795733.94	0.0530	0.0072	*
Venus	35797-08-23 05:17 G	14795880.52	14795880.72	14795880.91	0.0530	0.0150	
Mercury	35799-05-13 00:43 G	14796508.44	14796508.53	14796508.63	0.0521	0.0350	
Mercury	35799-08-10 05:45 G	14796597.63	14796597.74	14796597.86	0.0519	0.0243	
Earth	35802-09-17 14:09 G	14797730.87	14797731.09	14797731.31	0.0496	0.0183	
Moon	35802-09-17 15:21 G	14797730.93	14797731.14	14797731.34	0.0496	0.0206	*
Venus	35803-06-26 16:33 G	14798012.99	14798013.19	14798013.38	0.0495	0.0147	
Moon	35803-10-18 21:36 G	14798127.31	14798127.40	14798127.50	0.0496	0.0452	
Earth	35803-10-19 00:14 G	14798127.39	14798127.51	14798127.63	0.0496	0.0422	*
Mercury	35805-10-07 06:57 G	14798846.64	14798846.79	14798846.94	0.0507	0.0285	
Earth	35809-04-04 05:02 G	14800121.50	14800121.71	14800121.93	0.0531	0.0178	
Moon	35809-04-04 07:41 G	14800121.60	14800121.82	14800122.03	0.0531	0.0179	*
Venus	35809-04-28 18:57 G	14800146.15	14800146.29	14800146.44	0.0531	0.0367	
Mercury	35811-03-02 05:02 G	14800818.68	14800818.71	14800818.75	0.0522	0.0497	

Mercury	35811-05-30 10:19 G	14800907.80	14800907.93	14800908.05	0.0520	0.0095
Earth	35814-09-21 23:31 G	14802118.25	14802118.48	14802118.71	0.0496	0.0096
Moon	35814-09-22 00:29 G	14802118.28	14802118.52	14802118.75	0.0496	0.0110 *
Mercury	35817-07-26 03:36 G	14803156.46	14803156.65	14803156.83	0.0506	0.0077
Earth	35820-03-03 20:53 G	14804108.28	14804108.37	14804108.48	0.0528	0.0474
Moon	35820-03-03 23:02 G	14804108.37	14804108.46	14804108.55	0.0528	0.0480 *
Earth	35821-04-09 09:07 G	14804509.69	14804509.88	14804510.08	0.0531	0.0289
Moon	35821-04-09 09:07 G	14804509.69	14804509.88	14804510.08	0.0531	0.0318 *
Mercury	35823-03-18 14:53 G	14805217.99	14805218.12	14805218.25	0.0520	0.0048
Moon	35826-09-26 04:05 G	14806505.44	14806505.67	14806505.90	0.0495	0.0011
Earth	35826-09-26 06:14 G	14806505.53	14806505.76	14806506.00	0.0495	0.0016 *
Venus	35827-06-28 22:48 G	14806781.44	14806781.45	14806781.48	0.0495	0.0492
Mercury	35829-05-13 23:31 G	14807466.30	14807466.48	14807466.66	0.0506	0.0140
Moon	35832-03-08 22:19 G	14808496.28	14808496.43	14808496.59	0.0529	0.0405
Earth	35832-03-08 22:33 G	14808496.28	14808496.44	14808496.61	0.0529	0.0373 *
Moon	35833-04-14 10:33 G	14808897.79	14808897.94	14808898.09	0.0531	0.0387
Earth	35833-04-14 12:57 G	14808897.89	14808898.04	14808898.20	0.0531	0.0396 *
Venus	35833-05-01 21:36 G	14808915.30	14808915.40	14808915.51	0.0531	0.0448
Mercury	35835-01-04 19:12 G	14809528.19	14809528.30	14809528.42	0.0520	0.0195
Mercury	35835-04-04 00:29 G	14809617.44	14809617.52	14809617.60	0.0518	0.0398
Mars	35836-04-03 07:12 G	14809982.60	14809982.80	14809983.00	0.0509	0.0336
Earth	35838-09-30 14:53 G	14810892.89	14810893.12	14810893.35	0.0495	0.0076
Moon	35838-09-30 18:14 G	14810893.02	14810893.26	14810893.49	0.0495	0.0102 *
Venus	35839-03-04 00:43 G	14811047.32	14811047.53	14811047.73	0.0495	0.0081
Mercury	35841-03-01 20:24 G	14811776.22	14811776.35	14811776.49	0.0505	0.0342
Mercury	35841-05-31 06:57 G	14811866.74	14811866.79	14811866.86	0.0508	0.0478
Moon	35844-03-13 20:24 G	14812884.16	14812884.35	14812884.54	0.0529	0.0271
Earth	35844-03-13 22:05 G	14812884.23	14812884.42	14812884.63	0.0529	0.0274 *
Venus	35845-01-04 10:48 G	14813180.75	14813180.95	14813181.15	0.0531	0.0072
Earth	35845-04-19 11:45 G	14813285.91	14813285.99	14813286.07	0.0530	0.0494

Moon	35845-04-19 15:36 G	14813286.04	14813286.15	14813286.27	0.0530	0.0460 *
Mercury	35846-10-23 23:02 G	14813838.37	14813838.46	14813838.55	0.0521	0.0356
Mercury	35847-01-21 04:05 G	14813927.56	14813927.67	14813927.78	0.0519	0.0235
Earth	35849-09-03 09:36 G	14814883.81	14814883.90	14814884.00	0.0498	0.0452
Moon	35849-09-03 13:12 G	14814883.96	14814884.05	14814884.15	0.0498	0.0451 *
Moon	35850-10-04 20:24 G	14815280.14	14815280.35	14815280.58	0.0495	0.0150
Earth	35850-10-05 00:14 G	14815280.29	14815280.51	14815280.73	0.0495	0.0160 *
Venus	35850-11-07 02:24 G	14815313.45	14815313.60	14815313.76	0.0495	0.0328
Mercury	35853-03-19 04:33 G	14816176.54	14816176.69	14816176.84	0.0507	0.0280
Mars	35854-03-25 03:07 G	14816547.36	14816547.63	14816547.92	0.0516	0.0095
Earth	35856-03-18 22:33 G	14817272.22	14817272.44	14817272.66	0.0530	0.0167
Moon	35856-03-19 02:09 G	14817272.36	14817272.59	14817272.82	0.0530	0.0135 *
Mercury	35858-08-12 03:07 G	14818148.61	14818148.63	14818148.66	0.0522	0.0507
Mercury	35858-11-09 08:09 G	14818237.72	14818237.84	14818237.97	0.0520	0.0084
Moon	35861-09-07 17:17 G	14819271.05	14819271.22	14819271.40	0.0497	0.0338
Earth	35861-09-07 20:24 G	14819271.20	14819271.35	14819271.51	0.0497	0.0369 *
Earth	35862-10-09 09:21 G	14819667.69	14819667.89	14819668.09	0.0495	0.0247
Moon	35862-10-09 12:43 G	14819667.82	14819668.03	14819668.24	0.0495	0.0220 *
Mercury	35865-01-05 00:57 G	14820486.36	14820486.54	14820486.72	0.0506	0.0070
Moon	35868-03-23 18:00 G	14821660.02	14821660.25	14821660.48	0.0530	0.0066
Earth	35868-03-23 22:05 G	14821660.19	14821660.42	14821660.65	0.0530	0.0059 *
Mercury	35870-08-28 12:29 G	14822547.90	14822548.02	14822548.15	0.0520	0.0066
Earth	35873-09-12 06:57 G	14823658.60	14823658.79	14823658.98	0.0497	0.0282
Moon	35873-09-12 08:09 G	14823658.66	14823658.84	14823659.03	0.0497	0.0274 *
Moon	35874-10-13 15:21 G	14824054.96	14824055.14	14824055.31	0.0495	0.0337
Earth	35874-10-13 18:00 G	14824055.07	14824055.25	14824055.42	0.0495	0.0331 *
Venus	35874-11-09 10:48 G	14824081.80	14824081.95	14824082.11	0.0495	0.0323
Mercury	35876-10-23 21:21 G	14824796.21	14824796.39	14824796.57	0.0506	0.0139
Earth	35880-03-29 00:57 G	14826048.31	14826048.54	14826048.77	0.0531	0.0054
Moon	35880-03-29 04:05 G	14826048.44	14826048.67	14826048.90	0.0531	0.0020 *

Venus	35880-09-12 01:41 G	14826215.39	14826215.57	14826215.76	0.0531	0.0215
Mercury	35882-06-16 17:17 G	14826858.10	14826858.22	14826858.34	0.0521	0.0205
Mercury	35882-09-13 22:33 G	14826947.35	14826947.44	14826947.52	0.0519	0.0388
Earth	35885-09-16 15:36 G	14828045.94	14828046.15	14828046.36	0.0496	0.0197
Moon	35885-09-16 16:19 G	14828045.96	14828046.18	14828046.40	0.0496	0.0223 *
Venus	35886-07-15 11:31 G	14828347.77	14828347.98	14828348.18	0.0495	0.0095
Earth	35886-10-18 00:14 G	14828442.39	14828442.51	14828442.64	0.0495	0.0411
Moon	35886-10-18 01:41 G	14828442.48	14828442.57	14828442.67	0.0495	0.0443 *
Mercury	35888-08-11 17:17 G	14829106.09	14829106.22	14829106.35	0.0505	0.0355
Mercury	35888-11-10 04:05 G	14829196.60	14829196.67	14829196.74	0.0507	0.0464
Moon	35892-04-03 03:50 G	14830436.43	14830436.66	14830436.89	0.0531	0.0167
Earth	35892-04-03 04:48 G	14830436.49	14830436.70	14830436.93	0.0531	0.0164 *
Venus	35892-05-17 17:17 G	14830481.06	14830481.22	14830481.40	0.0531	0.0291
Mercury	35894-04-04 21:50 G	14831168.32	14831168.41	14831168.50	0.0521	0.0350
Mercury	35894-07-03 02:53 G	14831257.51	14831257.62	14831257.73	0.0519	0.0242
Moon	35897-09-20 22:33 G	14832433.22	14832433.44	14832433.66	0.0495	0.0124
Earth	35897-09-21 00:57 G	14832433.31	14832433.54	14832433.76	0.0495	0.0110 *
Earth	35898-10-22 09:21 G	14832829.87	14832829.89	14832829.92	0.0496	0.0493
Mercury	35900-08-30 01:26 G	14833506.40	14833506.56	14833506.72	0.0507	0.0266
Moon	35903-03-04 17:45 G	14834423.18	14834423.24	14834423.33	0.0528	0.0500
Earth	35903-03-04 18:57 G	14834423.22	14834423.29	14834423.37	0.0528	0.0496 *
Moon	35904-04-09 03:21 G	14834824.46	14834824.64	14834824.83	0.0531	0.0297
Earth	35904-04-09 05:02 G	14834824.51	14834824.71	14834824.91	0.0531	0.0267 *
Mercury	35906-01-23 01:26 G	14835478.54	14835478.56	14835478.59	0.0522	0.0511
Mercury	35906-04-22 06:29 G	14835567.65	14835567.77	14835567.90	0.0519	0.0080
Earth	35909-09-26 09:36 G	14836820.67	14836820.90	14836821.13	0.0496	0.0026
Moon	35909-09-26 12:57 G	14836820.80	14836821.04	14836821.28	0.0496	0.0004 *
Mercury	35912-06-17 22:48 G	14837816.27	14837816.45	14837816.63	0.0506	0.0070
Moon	35915-03-09 18:14 G	14838811.14	14838811.26	14838811.40	0.0528	0.0426
Earth	35915-03-09 19:26 G	14838811.16	14838811.31	14838811.46	0.0528	0.0394 *

Earth	35916-04-14 06:29 G	14839212.61	14839212.77	14839212.94	0.0530	0.0375
Moon	35916-04-14 10:05 G	14839212.75	14839212.92	14839213.09	0.0530	0.0362 *
Venus	35916-05-21 16:19 G	14839250.12	14839250.18	14839250.24	0.0530	0.0501
Mercury	35918-02-08 10:48 G	14839877.82	14839877.95	14839878.07	0.0520	0.0071
Moon	35921-09-30 15:36 G	14841207.93	14841208.15	14841208.38	0.0496	0.0088
Earth	35921-09-30 19:26 G	14841208.08	14841208.31	14841208.54	0.0496	0.0063 *
Venus	35922-03-23 22:05 G	14841382.23	14841382.42	14841382.62	0.0495	0.0149
Mercury	35924-04-05 19:12 G	14842126.13	14842126.30	14842126.48	0.0505	0.0139
Earth	35927-03-14 17:45 G	14843199.05	14843199.24	14843199.44	0.0529	0.0292
Moon	35927-03-14 20:53 G	14843199.18	14843199.37	14843199.58	0.0529	0.0281 *
Venus	35928-01-25 06:29 G	14843515.57	14843515.77	14843515.97	0.0531	0.0013
Moon	35928-04-19 03:07 G	14843600.51	14843600.63	14843600.76	0.0530	0.0444
Earth	35928-04-19 06:57 G	14843600.70	14843600.79	14843600.90	0.0530	0.0480 *
Mercury	35929-11-27 15:07 G	14844188.02	14844188.13	14844188.25	0.0521	0.0218
Mercury	35930-02-24 20:24 G	14844277.26	14844277.35	14844277.44	0.0519	0.0376
Moon	35932-09-03 10:33 G	14845198.86	14845198.94	14845199.03	0.0498	0.0463
Earth	35932-09-03 13:41 G	14845199.00	14845199.07	14845199.16	0.0498	0.0465 *
Earth	35933-10-05 04:33 G	14845595.47	14845595.69	14845595.92	0.0495	0.0151
Moon	35933-10-05 08:09 G	14845595.62	14845595.84	14845596.06	0.0495	0.0133 *
Venus	35933-11-26 23:31 G	14845648.31	14845648.48	14845648.66	0.0495	0.0263
Mercury	35936-01-23 15:36 G	14846436.02	14846436.15	14846436.29	0.0505	0.0348
Mercury	35936-04-23 02:24 G	14846526.54	14846526.60	14846526.67	0.0507	0.0470
Moon	35939-03-19 15:50 G	14847586.94	14847587.16	14847587.38	0.0530	0.0152
Earth	35939-03-19 19:41 G	14847587.11	14847587.32	14847587.54	0.0530	0.0185 *
Venus	35939-09-29 22:05 G	14847781.38	14847781.42	14847781.46	0.0531	0.0518
Mercury	35941-09-15 19:55 G	14848498.24	14848498.33	14848498.42	0.0521	0.0359
Mercury	35941-12-14 00:57 G	14848587.43	14848587.54	14848587.66	0.0519	0.0235
Earth	35944-09-08 00:29 G	14849586.38	14849586.52	14849586.67	0.0497	0.0382
Moon	35944-09-08 01:55 G	14849586.43	14849586.58	14849586.75	0.0497	0.0355 *
Moon	35945-10-09 09:36 G	14849982.68	14849982.90	14849983.12	0.0495	0.0208

Earth	35945-10-09 12:14 G	14849982.81	14849983.01	14849983.22	0.0495	0.0235	*
Mercury	35948-02-09 22:48 G	14850836.29	14850836.45	14850836.61	0.0507	0.0259	
Earth	35951-03-24 23:02 G	14851975.23	14851975.46	14851975.69	0.0531	0.0075	
Moon	35951-03-25 02:38 G	14851975.38	14851975.61	14851975.84	0.0531	0.0082	*
Mercury	35953-07-05 00:29 G	14852808.49	14852808.52	14852808.55	0.0522	0.0502	
Mercury	35953-10-02 05:31 G	14852897.61	14852897.73	14852897.86	0.0520	0.0090	
Mars	35954-09-24 00:00 G	14853254.34	14853254.50	14853254.67	0.0510	0.0393	
Earth	35956-09-12 11:02 G	14853973.77	14853973.96	14853974.14	0.0497	0.0295	
Moon	35956-09-12 11:31 G	14853973.78	14853973.98	14853974.17	0.0497	0.0293	*
Earth	35957-10-13 21:21 G	14854370.22	14854370.39	14854370.57	0.0495	0.0321	
Moon	35957-10-13 23:02 G	14854370.29	14854370.46	14854370.62	0.0495	0.0332	*
Venus	35957-11-29 07:41 G	14854416.69	14854416.82	14854416.95	0.0495	0.0383	
Mercury	35959-11-28 20:09 G	14855146.16	14855146.34	14855146.52	0.0506	0.0062	
Moon	35963-03-29 22:19 G	14856363.19	14856363.43	14856363.67	0.0530	0.0006	
Earth	35963-03-30 00:29 G	14856363.29	14856363.52	14856363.75	0.0530	0.0033	*
Venus	35963-10-02 23:02 G	14856550.30	14856550.46	14856550.63	0.0530	0.0288	
Mercury	35965-07-21 09:07 G	14857207.76	14857207.88	14857208.01	0.0520	0.0074	
Moon	35968-09-16 17:02 G	14858361.02	14858361.21	14858361.41	0.0497	0.0243	
Earth	35968-09-16 19:12 G	14858361.10	14858361.30	14858361.52	0.0497	0.0213	*
Venus	35969-08-04 09:36 G	14858682.69	14858682.90	14858683.10	0.0496	0.0026	
Earth	35969-10-18 06:29 G	14858757.65	14858757.77	14858757.91	0.0496	0.0403	
Moon	35969-10-18 06:29 G	14858757.66	14858757.77	14858757.89	0.0496	0.0431	*
Mercury	35971-09-16 17:31 G	14859456.06	14859456.23	14859456.41	0.0506	0.0134	
Moon	35975-04-04 01:41 G	14860751.36	14860751.57	14860751.79	0.0530	0.0156	
Earth	35975-04-04 02:24 G	14860751.38	14860751.60	14860751.83	0.0530	0.0144	*
Venus	35975-06-07 14:09 G	14860815.90	14860816.09	14860816.27	0.0530	0.0222	
Mercury	35977-05-09 13:26 G	14861517.95	14861518.06	14861518.18	0.0521	0.0221	
Mercury	35977-08-06 18:43 G	14861607.19	14861607.28	14861607.37	0.0519	0.0372	
Earth	35980-09-21 05:45 G	14862748.52	14862748.74	14862748.97	0.0496	0.0123	
Moon	35980-09-21 09:07 G	14862748.65	14862748.88	14862749.11	0.0496	0.0134	*

Venus	35981-04-09 11:17 G	14862948.88	14862948.97	14862949.07	0.0496	0.0433
Moon	35981-10-22 14:38 G	14863145.08	14863145.11	14863145.16	0.0496	0.0485
Earth	35981-10-22 16:33 G	14863145.15	14863145.19	14863145.23	0.0496	0.0485 *
Mercury	35983-07-05 14:09 G	14863765.95	14863766.09	14863766.22	0.0505	0.0341
Mercury	35983-10-04 00:57 G	14863856.48	14863856.54	14863856.60	0.0507	0.0477
Earth	35986-03-03 18:14 G	14864738.20	14864738.26	14864738.31	0.0527	0.0512
Moon	35986-03-03 17:45 G	14864738.22	14864738.24	14864738.28	0.0527	0.0521 *
Earth	35987-04-09 02:38 G	14865139.41	14865139.61	14865139.82	0.0531	0.0253
Moon	35987-04-09 05:45 G	14865139.54	14865139.74	14865139.94	0.0531	0.0282 *
Mercury	35989-02-25 18:00 G	14865828.16	14865828.25	14865828.34	0.0522	0.0367
Mercury	35989-05-25 23:02 G	14865917.35	14865917.46	14865917.58	0.0519	0.0226
Moon	35992-09-25 12:43 G	14867135.80	14867136.03	14867136.26	0.0496	0.0010
Earth	35992-09-25 16:19 G	14867135.95	14867136.18	14867136.42	0.0496	0.0035 *
Mercury	35995-07-22 21:36 G	14868166.25	14868166.40	14868166.56	0.0506	0.0272
Earth	35998-03-08 18:43 G	14869126.14	14869126.28	14869126.43	0.0528	0.0411
Moon	35998-03-08 21:21 G	14869126.26	14869126.39	14869126.52	0.0528	0.0438 *
Moon	35999-04-14 02:53 G	14869527.45	14869527.62	14869527.79	0.0531	0.0354
Earth	35999-04-14 06:43 G	14869527.61	14869527.78	14869527.95	0.0531	0.0363 *
Mercury	36000-12-14 22:48 G	14870138.42	14870138.45	14870138.48	0.0522	0.0507

37TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 37th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	36001-03-14 03:50 G	14870227.53	14870227.66	14870227.79	0.0520	0.0085
Earth	36004-09-30 01:26 G	14871523.33	14871523.56	14871523.79	0.0495	0.0052
Moon	36004-09-30 05:02 G	14871523.48	14871523.71	14871523.93	0.0495	0.0070 *
Venus	36005-04-11 19:55 G	14871717.15	14871717.33	14871717.52	0.0495	0.0217
Mercury	36007-05-10 18:00 G	14872476.07	14872476.25	14872476.43	0.0506	0.0062
Mars	36008-06-18 12:57 G	14872880.79	14872881.04	14872881.31	0.0516	0.0213
Moon	36010-03-13 17:02 G	14873514.02	14873514.21	14873514.41	0.0529	0.0294
Earth	36010-03-13 20:53 G	14873514.19	14873514.37	14873514.56	0.0529	0.0308 *
Venus	36011-02-13 07:12 G	14873850.60	14873850.80	14873851.00	0.0531	0.0078
Earth	36011-04-19 11:17 G	14873915.87	14873915.97	14873916.08	0.0531	0.0470
Moon	36011-04-19 14:53 G	14873916.00	14873916.12	14873916.26	0.0531	0.0440 *
Mercury	36012-12-31 08:24 G	14874537.72	14874537.85	14874537.98	0.0520	0.0058
Earth	36015-09-03 20:24 G	14875514.29	14875514.35	14875514.42	0.0498	0.0476
Moon	36015-09-03 22:05 G	14875514.36	14875514.42	14875514.50	0.0498	0.0471 *
Moon	36016-10-04 08:38 G	14875910.63	14875910.86	14875911.09	0.0495	0.0119
Earth	36016-10-04 11:17 G	14875910.75	14875910.97	14875911.19	0.0495	0.0142 *
Venus	36016-12-15 22:05 G	14875983.23	14875983.42	14875983.61	0.0495	0.0191
Mercury	36019-02-26 15:21 G	14876785.96	14876786.14	14876786.32	0.0506	0.0135
Earth	36022-03-18 23:02 G	14877902.25	14877902.46	14877902.68	0.0529	0.0202
Moon	36022-03-19 02:53 G	14877902.41	14877902.62	14877902.84	0.0529	0.0170 *
Venus	36022-10-18 21:36 G	14878116.29	14878116.40	14878116.52	0.0530	0.0431
Mercury	36024-10-19 12:14 G	14878847.90	14878848.01	14878848.13	0.0521	0.0216
Mercury	36025-01-16 17:17 G	14878937.14	14878937.22	14878937.31	0.0518	0.0377
Earth	36027-09-08 04:48 G	14879901.56	14879901.70	14879901.84	0.0498	0.0397
Moon	36027-09-08 05:02 G	14879901.56	14879901.71	14879901.88	0.0498	0.0369 *
Earth	36028-10-08 19:26 G	14880298.11	14880298.31	14880298.52	0.0496	0.0226
Moon	36028-10-08 20:53 G	14880298.17	14880298.37	14880298.58	0.0496	0.0203 *
Mercury	36030-12-15 12:43 G	14881095.90	14881096.03	14881096.17	0.0505	0.0330
Mercury	36031-03-15 23:45 G	14881186.44	14881186.49	14881186.53	0.0507	0.0490
Moon	36034-03-23 23:02 G	14882290.22	14882290.46	14882290.69	0.0530	0.0099

Earth	36034-03-24 01:41 G	14882290.34	14882290.57	14882290.80	0.0530	0.0091	*
Mercury	36036-08-07 16:33 G	14883158.10	14883158.19	14883158.28	0.0521	0.0364	
Mercury	36036-11-04 21:36 G	14883247.29	14883247.40	14883247.52	0.0519	0.0228	
Moon	36039-09-12 14:09 G	14884288.92	14884289.09	14884289.27	0.0497	0.0315	
Earth	36039-09-12 16:19 G	14884289.00	14884289.18	14884289.37	0.0497	0.0309	*
Moon	36040-10-13 05:45 G	14884685.56	14884685.74	14884685.93	0.0496	0.0325	
Earth	36040-10-13 05:45 G	14884685.57	14884685.74	14884685.93	0.0496	0.0314	*
Venus	36040-12-18 07:26 G	14884751.74	14884751.81	14884751.88	0.0496	0.0463	
Mercury	36043-01-01 20:38 G	14885496.21	14885496.36	14885496.51	0.0507	0.0287	
Earth	36046-03-29 01:26 G	14886678.33	14886678.56	14886678.80	0.0530	0.0022	
Moon	36046-03-29 01:41 G	14886678.35	14886678.57	14886678.80	0.0530	0.0008	*
Venus	36046-10-21 21:50 G	14886885.27	14886885.41	14886885.56	0.0530	0.0366	
Mercury	36048-05-26 21:07 G	14887468.36	14887468.38	14887468.40	0.0522	0.0510	
Mercury	36048-08-24 02:09 G	14887557.46	14887557.59	14887557.71	0.0520	0.0082	
Earth	36051-09-17 04:05 G	14888676.47	14888676.67	14888676.89	0.0497	0.0220	
Moon	36051-09-17 07:41 G	14888676.61	14888676.82	14888677.02	0.0497	0.0251	*
Venus	36052-08-23 09:36 G	14889017.70	14889017.90	14889018.10	0.0495	0.0055	
Moon	36052-10-17 13:55 G	14889072.98	14889073.08	14889073.20	0.0496	0.0426	
Earth	36052-10-17 15:36 G	14889073.02	14889073.15	14889073.30	0.0496	0.0399	*
Mercury	36054-10-20 17:17 G	14889806.04	14889806.22	14889806.41	0.0506	0.0083	
Earth	36058-04-03 04:33 G	14891066.47	14891066.69	14891066.92	0.0531	0.0132	
Moon	36058-04-03 06:57 G	14891066.56	14891066.79	14891067.03	0.0531	0.0150	*
Venus	36058-06-26 13:41 G	14891150.88	14891151.07	14891151.27	0.0531	0.0139	
Mercury	36060-06-12 06:57 G	14891867.66	14891867.79	14891867.92	0.0521	0.0059	
Moon	36063-09-21 11:17 G	14893063.75	14893063.97	14893064.19	0.0496	0.0142	
Earth	36063-09-21 15:07 G	14893063.90	14893064.13	14893064.35	0.0496	0.0132	*
Venus	36064-04-28 11:02 G	14893283.82	14893283.96	14893284.11	0.0495	0.0354	
Earth	36064-10-22 00:14 G	14893460.47	14893460.51	14893460.58	0.0496	0.0480	
Moon	36064-10-22 03:50 G	14893460.59	14893460.66	14893460.74	0.0496	0.0467	
Mercury	36066-08-08 13:55 G	14894115.90	14894116.08	14894116.25	0.0505	0.0128	

Earth	36069-03-02 23:17 G	14895053.46	14895053.47	14895053.49	0.0528	0.0525
Moon	36070-04-08 05:31 G	14895454.54	14895454.73	14895454.93	0.0531	0.0275
Earth	36070-04-08 09:07 G	14895454.68	14895454.88	14895455.09	0.0531	0.0244 *
Mercury	36072-03-31 11:31 G	14896177.87	14896177.98	14896178.10	0.0521	0.0200
Mercury	36072-06-28 16:48 G	14896267.12	14896267.20	14896267.28	0.0519	0.0395
Earth	36075-09-26 01:26 G	14897451.33	14897451.56	14897451.80	0.0496	0.0043
Moon	36075-09-26 05:02 G	14897451.48	14897451.71	14897451.94	0.0496	0.0014 *
Mercury	36078-05-27 11:17 G	14898425.83	14898425.97	14898426.11	0.0505	0.0323
Mercury	36078-08-25 21:50 G	14898516.38	14898516.41	14898516.45	0.0507	0.0496
Moon	36081-03-07 22:19 G	14899441.32	14899441.43	14899441.55	0.0528	0.0452
Earth	36081-03-08 01:55 G	14899441.45	14899441.58	14899441.73	0.0528	0.0425 *
Earth	36082-04-13 12:00 G	14899842.83	14899843.00	14899843.18	0.0530	0.0351
Moon	36082-04-13 16:05 G	14899842.99	14899843.17	14899843.35	0.0530	0.0337 *
Mercury	36084-01-18 15:36 G	14900488.06	14900488.15	14900488.24	0.0521	0.0355
Mercury	36084-04-16 20:38 G	14900577.25	14900577.36	14900577.47	0.0519	0.0236
Moon	36087-09-30 06:43 G	14901838.54	14901838.78	14901839.02	0.0496	0.0055
Earth	36087-09-30 09:21 G	14901838.66	14901838.89	14901839.12	0.0496	0.0043 *
Venus	36088-04-30 20:09 G	14902052.18	14902052.34	14902052.50	0.0496	0.0298
Mercury	36090-06-13 19:41 G	14902826.18	14902826.32	14902826.47	0.0507	0.0305
Earth	36093-03-13 04:19 G	14903829.50	14903829.68	14903829.87	0.0528	0.0319
Moon	36093-03-13 08:24 G	14903829.66	14903829.85	14903830.04	0.0528	0.0299 *
Venus	36094-03-04 07:55 G	14904185.64	14904185.83	14904186.03	0.0530	0.0170
Moon	36094-04-18 12:29 G	14904230.89	14904231.02	14904231.17	0.0530	0.0429
Earth	36094-04-18 15:07 G	14904231.02	14904231.13	14904231.26	0.0530	0.0458 *
Mercury	36095-11-06 19:55 G	14904798.30	14904798.33	14904798.37	0.0522	0.0502
Mercury	36096-02-04 00:57 G	14904887.42	14904887.54	14904887.67	0.0519	0.0089
Moon	36098-09-03 02:38 G	14905829.54	14905829.61	14905829.68	0.0499	0.0474
Earth	36098-09-03 02:09 G	14905829.56	14905829.59	14905829.64	0.0499	0.0490 *
Earth	36099-10-04 20:09 G	14906226.12	14906226.34	14906226.57	0.0496	0.0134
Moon	36099-10-04 21:21 G	14906226.17	14906226.39	14906226.61	0.0496	0.0108 *

Venus	36100-01-04 22:19 G	14906318.24	14906318.43	14906318.64	0.0496	0.0110
Mercury	36102-04-02 16:48 G	14907136.02	14907136.20	14907136.38	0.0506	0.0103
Moon	36105-03-19 00:29 G	14908217.30	14908217.52	14908217.75	0.0529	0.0182
Earth	36105-03-19 03:50 G	14908217.45	14908217.66	14908217.87	0.0529	0.0213 *
Venus	36105-11-07 22:19 G	14908451.28	14908451.43	14908451.58	0.0530	0.0342
Mercury	36107-11-24 05:31 G	14909197.60	14909197.73	14909197.85	0.0520	0.0058
Mars	36108-12-18 20:53 G	14909588.11	14909588.37	14909588.63	0.0511	0.0084
Moon	36110-09-08 13:12 G	14910216.91	14910217.05	14910217.20	0.0498	0.0378
Earth	36110-09-08 15:21 G	14910217.02	14910217.14	14910217.29	0.0498	0.0404 *
Moon	36111-10-10 06:57 G	14910613.57	14910613.79	14910614.02	0.0496	0.0202
Earth	36111-10-10 06:57 G	14910613.58	14910613.79	14910614.00	0.0496	0.0223 *
Mercury	36114-01-19 13:26 G	14911445.88	14911446.06	14911446.24	0.0505	0.0102
Earth	36117-03-24 05:45 G	14912605.51	14912605.74	14912605.97	0.0530	0.0102
Moon	36117-03-24 06:43 G	14912605.56	14912605.78	14912606.00	0.0530	0.0116 *
Mercury	36119-09-12 10:19 G	14913507.81	14913507.93	14913508.04	0.0521	0.0197
Mercury	36119-12-10 15:21 G	14913597.06	14913597.14	14913597.23	0.0519	0.0398
Earth	36122-09-13 03:50 G	14914604.49	14914604.66	14914604.85	0.0497	0.0317
Moon	36122-09-13 07:26 G	14914604.64	14914604.81	14914604.99	0.0497	0.0326 *
Moon	36123-10-14 14:53 G	14915000.96	14915001.12	14915001.29	0.0495	0.0327
Earth	36123-10-14 16:33 G	14915001.02	14915001.19	14915001.38	0.0495	0.0308 *
Mercury	36125-11-07 09:50 G	14915755.77	14915755.91	14915756.06	0.0505	0.0310
Earth	36129-03-29 09:36 G	14916993.67	14916993.90	14916994.14	0.0530	0.0014
Moon	36129-03-29 11:31 G	14916993.74	14916993.98	14916994.22	0.0530	0.0014 *
Venus	36129-11-11 01:26 G	14917220.47	14917220.56	14917220.65	0.0531	0.0472
Mercury	36131-07-01 15:07 G	14917818.03	14917818.13	14917818.22	0.0522	0.0336
Mercury	36131-09-28 20:09 G	14917907.23	14917907.34	14917907.45	0.0519	0.0257
Moon	36134-09-17 12:00 G	14918991.80	14918992.00	14918992.19	0.0497	0.0258
Earth	36134-09-17 15:36 G	14918991.95	14918992.15	14918992.36	0.0497	0.0226 *
Venus	36135-09-13 10:48 G	14919352.76	14919352.95	14919353.15	0.0495	0.0142
Earth	36135-10-19 02:53 G	14919388.48	14919388.62	14919388.76	0.0496	0.0394

Moon	36135-10-19 06:14 G	14919388.64	14919388.76	14919388.89	0.0496	0.0415	*
Mercury	36137-11-24 18:29 G	14920156.13	14920156.27	14920156.41	0.0507	0.0317	
Moon	36141-04-03 10:33 G	14921381.72	14921381.94	14921382.16	0.0530	0.0142	
Earth	36141-04-03 13:55 G	14921381.86	14921382.08	14921382.31	0.0530	0.0121	*
Venus	36141-07-16 17:17 G	14921486.02	14921486.22	14921486.42	0.0530	0.0030	
Mercury	36143-04-19 19:12 G	14922128.26	14922128.30	14922128.34	0.0521	0.0489	
Mercury	36143-07-18 00:00 G	14922217.38	14922217.50	14922217.63	0.0519	0.0102	
Earth	36146-09-21 23:02 G	14923379.24	14923379.46	14923379.69	0.0497	0.0142	
Moon	36146-09-22 02:38 G	14923379.39	14923379.61	14923379.84	0.0497	0.0142	*
Venus	36147-05-19 11:31 G	14923618.81	14923618.98	14923619.16	0.0496	0.0272	
Moon	36147-10-23 07:41 G	14923775.73	14923775.82	14923775.90	0.0496	0.0460	
Earth	36147-10-23 11:17 G	14923775.92	14923775.97	14923776.05	0.0496	0.0477	
Mercury	36149-09-12 16:05 G	14924465.99	14924466.17	14924466.35	0.0507	0.0125	
Earth	36153-04-08 17:17 G	14925770.02	14925770.22	14925770.44	0.0530	0.0235	
Moon	36153-04-08 21:21 G	14925770.19	14925770.39	14925770.60	0.0530	0.0263	*
Mercury	36155-05-06 04:33 G	14926527.56	14926527.69	14926527.82	0.0520	0.0045	
Moon	36158-09-26 07:55 G	14927766.59	14927766.83	14927767.08	0.0496	0.0023	
Earth	36158-09-26 10:33 G	14927766.71	14927766.94	14927767.17	0.0496	0.0051	*
Mercury	36161-07-01 13:12 G	14928775.87	14928776.05	14928776.23	0.0506	0.0078	
Earth	36164-03-08 09:50 G	14929756.78	14929756.91	14929757.04	0.0527	0.0433	
Moon	36164-03-08 13:41 G	14929756.96	14929757.07	14929757.19	0.0527	0.0458	*
Moon	36165-04-13 15:07 G	14930157.94	14930158.13	14930158.32	0.0530	0.0325	
Earth	36165-04-13 18:14 G	14930158.09	14930158.26	14930158.44	0.0530	0.0344	*
Mercury	36167-02-22 08:53 G	14930837.76	14930837.87	14930837.99	0.0521	0.0193	
Mercury	36167-05-22 14:09 G	14930927.01	14930927.09	14930927.17	0.0519	0.0402	
Earth	36170-09-30 22:19 G	14932154.20	14932154.43	14932154.66	0.0496	0.0041	
Moon	36170-09-30 23:17 G	14932154.25	14932154.47	14932154.70	0.0496	0.0048	*
Venus	36171-05-21 22:33 G	14932387.32	14932387.44	14932387.57	0.0496	0.0389	
Mercury	36173-04-19 09:50 G	14933085.76	14933085.91	14933086.07	0.0505	0.0281	
Moon	36176-03-13 06:57 G	14934144.61	14934144.79	14934144.99	0.0528	0.0310	

Earth	36176-03-13 10:33 G	14934144.76	14934144.94	14934145.13	0.0528	0.0329	*
Venus	36177-03-24 10:05 G	14934520.74	14934520.92	14934521.09	0.0530	0.0266	
Earth	36177-04-18 21:50 G	14934546.29	14934546.41	14934546.53	0.0530	0.0453	
Moon	36177-04-18 22:33 G	14934546.32	14934546.44	14934546.58	0.0530	0.0432	*
Mercury	36178-12-11 13:55 G	14935147.98	14935148.08	14935148.17	0.0521	0.0331	
Mercury	36179-03-10 18:57 G	14935237.18	14935237.29	14935237.40	0.0519	0.0262	
Moon	36181-09-03 13:41 G	14936145.01	14936145.07	14936145.14	0.0499	0.0475	
Earth	36181-09-03 15:50 G	14936145.15	14936145.16	14936145.19	0.0499	0.0496	
Moon	36182-10-05 09:21 G	14936541.65	14936541.89	14936542.13	0.0496	0.0102	
Earth	36182-10-05 09:07 G	14936541.66	14936541.88	14936542.11	0.0496	0.0130	*
Venus	36183-01-25 00:43 G	14936653.33	14936653.53	14936653.74	0.0495	0.0018	
Mercury	36185-02-05 06:14 G	14937395.73	14937395.76	14937395.81	0.0505	0.0489	
Mercury	36185-05-06 17:31 G	14937486.10	14937486.23	14937486.37	0.0507	0.0333	
Earth	36188-03-18 13:12 G	14938532.84	14938533.05	14938533.26	0.0529	0.0221	
Moon	36188-03-18 14:38 G	14938532.90	14938533.11	14938533.32	0.0529	0.0198	*
Venus	36188-11-27 02:24 G	14938786.43	14938786.60	14938786.79	0.0531	0.0233	
Mercury	36190-09-29 18:43 G	14939458.23	14939458.28	14939458.33	0.0522	0.0470	
Mercury	36190-12-27 23:45 G	14939547.36	14939547.49	14939547.61	0.0520	0.0123	
Earth	36193-09-08 04:33 G	14940532.56	14940532.69	14940532.83	0.0498	0.0408	
Moon	36193-09-08 08:09 G	14940532.69	14940532.84	14940532.99	0.0498	0.0382	*
Venus	36194-09-30 03:07 G	14940919.53	14940919.63	14940919.74	0.0495	0.0423	
Moon	36194-10-09 17:45 G	14940929.04	14940929.24	14940929.45	0.0495	0.0207	
Earth	36194-10-09 19:41 G	14940929.12	14940929.32	14940929.53	0.0495	0.0220	*
Mercury	36197-02-22 15:07 G	14941795.96	14941796.13	14941796.31	0.0506	0.0141	
Earth	36200-03-24 17:45 G	14942921.02	14942921.24	14942921.47	0.0529	0.0109	
Moon	36200-03-24 19:12 G	14942921.07	14942921.30	14942921.54	0.0529	0.0133	*
Mercury	36202-10-17 03:50 G	14943857.53	14943857.66	14943857.79	0.0520	0.0031	
Moon	36205-09-13 08:38 G	14944919.69	14944919.86	14944920.03	0.0498	0.0336	
Earth	36205-09-13 12:29 G	14944919.84	14944920.02	14944920.19	0.0498	0.0325	*
Earth	36206-10-15 03:07 G	14945316.45	14945316.63	14945316.82	0.0496	0.0304	

Moon	36206-10-15 06:29 G	14945316.60	14945316.77	14945316.95	0.0496	0.0330 *
Mercury	36208-12-12 12:43 G	14946105.85	14946106.03	14946106.21	0.0506	0.0055
Moon	36212-03-29 18:29 G	14947309.04	14947309.27	14947309.50	0.0530	0.0017
Earth	36212-03-29 21:36 G	14947309.17	14947309.40	14947309.64	0.0530	0.0008 *
Mercury	36214-08-05 08:24 G	14948167.73	14948167.85	14948167.97	0.0520	0.0176
Mercury	36214-11-02 13:26 G	14948256.98	14948257.06	14948257.13	0.0518	0.0416
Earth	36217-09-18 00:00 G	14949307.30	14949307.50	14949307.71	0.0497	0.0235
Moon	36217-09-18 03:36 G	14949307.46	14949307.65	14949307.85	0.0497	0.0263 *
Venus	36218-10-03 12:14 G	14949687.83	14949688.01	14949688.19	0.0496	0.0228
Moon	36218-10-19 10:19 G	14949703.80	14949703.93	14949704.06	0.0496	0.0412
Earth	36218-10-19 14:09 G	14949703.96	14949704.09	14949704.24	0.0496	0.0392 *
Mercury	36220-09-30 09:36 G	14950415.74	14950415.90	14950416.06	0.0505	0.0256
Earth	36224-04-03 21:50 G	14951697.18	14951697.41	14951697.64	0.0530	0.0116
Moon	36224-04-04 01:41 G	14951697.35	14951697.57	14951697.80	0.0530	0.0140 *
Venus	36224-08-05 20:09 G	14951821.14	14951821.34	14951821.54	0.0530	0.0070
Mercury	36226-05-24 12:43 G	14952477.93	14952478.03	14952478.13	0.0521	0.0323
Mercury	36226-08-21 17:45 G	14952567.13	14952567.24	14952567.35	0.0519	0.0270
Moon	36229-09-22 10:33 G	14953694.71	14953694.94	14953695.17	0.0497	0.0136
Earth	36229-09-22 12:57 G	14953694.82	14953695.04	14953695.26	0.0497	0.0144 *
Venus	36230-06-08 14:38 G	14953953.92	14953954.11	14953954.31	0.0496	0.0178
Earth	36230-10-24 01:12 G	14954091.50	14954091.55	14954091.62	0.0496	0.0478
Moon	36230-10-24 05:17 G	14954091.64	14954091.72	14954091.81	0.0496	0.0457
Mercury	36232-07-19 06:29 G	14954725.70	14954725.77	14954725.85	0.0505	0.0459
Mercury	36232-10-17 17:31 G	14954816.11	14954816.23	14954816.36	0.0507	0.0364
Moon	36236-04-08 21:07 G	14956085.17	14956085.38	14956085.59	0.0530	0.0252
Earth	36236-04-09 00:43 G	14956085.32	14956085.53	14956085.74	0.0530	0.0228 *
Venus	36236-04-10 11:45 G	14956086.88	14956086.99	14956087.11	0.0530	0.0433
Mercury	36238-03-12 17:31 G	14956788.18	14956788.23	14956788.29	0.0522	0.0463
Mercury	36238-06-09 22:33 G	14956877.32	14956877.44	14956877.56	0.0520	0.0129
Earth	36241-09-27 00:43 G	14958082.30	14958082.53	14958082.77	0.0496	0.0054

Moon	36241-09-27 01:41 G	14958082.34	14958082.57	14958082.80	0.0496	0.0024	*
Mercury	36244-08-05 14:24 G	14959125.93	14959126.10	14959126.27	0.0506	0.0158	
Moon	36247-03-09 16:05 G	14960072.06	14960072.17	14960072.28	0.0528	0.0465	
Earth	36247-03-09 19:41 G	14960072.20	14960072.32	14960072.45	0.0528	0.0441	*
Earth	36248-04-14 05:02 G	14960473.54	14960473.71	14960473.89	0.0530	0.0340	
Moon	36248-04-14 06:29 G	14960473.60	14960473.77	14960473.96	0.0530	0.0315	*
Mercury	36250-03-29 03:21 G	14961187.51	14961187.64	14961187.77	0.0520	0.0010	
Earth	36253-10-01 12:00 G	14962469.76	14962470.00	14962470.23	0.0496	0.0038	
Moon	36253-10-01 12:29 G	14962469.77	14962470.02	14962470.26	0.0496	0.0040	*
Venus	36254-06-11 01:12 G	14962722.51	14962722.55	14962722.60	0.0496	0.0481	
Mercury	36256-05-24 12:00 G	14963435.81	14963436.00	14963436.18	0.0506	0.0038	
Earth	36259-03-15 00:00 G	14964460.32	14964460.50	14964460.68	0.0528	0.0334	
Moon	36259-03-15 01:41 G	14964460.40	14964460.57	14964460.76	0.0528	0.0313	*
Venus	36260-04-13 15:36 G	14964856.01	14964856.15	14964856.29	0.0530	0.0384	
Earth	36260-04-19 10:05 G	14964861.80	14964861.92	14964862.05	0.0530	0.0448	
Moon	36260-04-19 10:48 G	14964861.81	14964861.95	14964862.10	0.0530	0.0429	*
Mercury	36262-01-15 07:41 G	14965497.70	14965497.82	14965497.94	0.0520	0.0161	
Mercury	36262-04-14 12:43 G	14965586.96	14965587.03	14965587.10	0.0518	0.0431	
Mars	36263-03-16 12:57 G	14965922.83	14965923.04	14965923.25	0.0510	0.0313	
Moon	36264-09-04 03:07 G	14966460.57	14966460.63	14966460.71	0.0499	0.0477	
Moon	36265-10-05 17:02 G	14966856.98	14966857.21	14966857.43	0.0496	0.0097	
Earth	36265-10-05 18:43 G	14966857.06	14966857.28	14966857.51	0.0496	0.0125	*
Venus	36266-02-14 01:41 G	14966988.37	14966988.57	14966988.77	0.0496	0.0066	
Mercury	36268-03-12 09:07 G	14967745.72	14967745.88	14967746.04	0.0506	0.0235	
Earth	36271-03-20 03:21 G	14968848.43	14968848.64	14968848.85	0.0529	0.0224	
Moon	36271-03-20 04:19 G	14968848.46	14968848.68	14968848.90	0.0529	0.0209	*
Venus	36271-12-18 07:55 G	14969121.64	14969121.83	14969122.03	0.0530	0.0116	
Mercury	36273-11-03 12:00 G	14969807.90	14969808.00	14969808.11	0.0521	0.0306	
Mercury	36274-01-31 17:02 G	14969897.11	14969897.21	14969897.32	0.0518	0.0286	
Moon	36276-09-08 08:24 G	14970847.71	14970847.85	14970847.99	0.0499	0.0393	

Earth	36276-09-08 12:14 G	14970847.89	14970848.01	14970848.14	0.0499	0.0418	*
Earth	36277-10-10 05:45 G	14971244.53	14971244.74	14971244.95	0.0496	0.0215	
Moon	36277-10-10 09:07 G	14971244.67	14971244.88	14971245.10	0.0496	0.0212	*
Venus	36277-10-20 03:50 G	14971254.52	14971254.66	14971254.81	0.0496	0.0341	
Mercury	36279-12-30 06:00 G	14972055.66	14972055.75	14972055.85	0.0505	0.0436	
Mercury	36280-03-29 17:17 G	14972146.11	14972146.22	14972146.34	0.0507	0.0388	
Mars	36281-03-05 21:36 G	14972487.11	14972487.40	14972487.68	0.0515	0.0037	
Moon	36283-03-25 00:14 G	14973236.29	14973236.51	14973236.73	0.0529	0.0144	
Earth	36283-03-25 02:53 G	14973236.40	14973236.62	14973236.85	0.0529	0.0115	*
Mercury	36285-08-22 16:33 G	14974118.13	14974118.19	14974118.25	0.0521	0.0453	
Mercury	36285-11-19 21:21 G	14974207.27	14974207.39	14974207.52	0.0519	0.0140	
Earth	36288-09-13 01:41 G	14975235.40	14975235.57	14975235.75	0.0498	0.0329	
Moon	36288-09-13 05:17 G	14975235.56	14975235.72	14975235.89	0.0498	0.0346	*
Moon	36289-10-14 13:26 G	14975631.89	14975632.06	14975632.24	0.0496	0.0335	
Earth	36289-10-14 17:17 G	14975632.05	14975632.22	14975632.41	0.0496	0.0305	*
Mercury	36292-01-16 14:24 G	14976455.93	14976456.10	14976456.27	0.0506	0.0187	
Earth	36295-03-30 04:33 G	14977624.46	14977624.69	14977624.93	0.0530	0.0007	
Moon	36295-03-30 08:38 G	14977624.62	14977624.86	14977625.09	0.0530	0.0024	*
Mercury	36297-09-08 02:09 G	14978517.46	14978517.59	14978517.72	0.0520	0.0010	
Moon	36300-09-18 12:14 G	14979622.81	14979623.01	14979623.22	0.0497	0.0262	
Earth	36300-09-18 14:38 G	14979622.91	14979623.11	14979623.32	0.0497	0.0239	*
Earth	36301-10-20 03:50 G	14980019.52	14980019.66	14980019.81	0.0496	0.0390	
Moon	36301-10-20 07:41 G	14980019.69	14980019.82	14980019.95	0.0496	0.0407	*
Venus	36301-10-23 14:53 G	14980022.97	14980023.12	14980023.28	0.0496	0.0322	
Mercury	36303-11-05 11:02 G	14980765.78	14980765.96	14980766.14	0.0506	0.0019	
Moon	36307-04-05 04:19 G	14982012.45	14982012.68	14982012.91	0.0530	0.0135	
Earth	36307-04-05 07:55 G	14982012.61	14982012.83	14982013.06	0.0530	0.0111	*
Venus	36307-08-27 00:43 G	14982156.34	14982156.53	14982156.72	0.0530	0.0181	
Mercury	36309-06-28 06:57 G	14982827.67	14982827.79	14982827.92	0.0521	0.0143	
Mercury	36309-09-25 12:14 G	14982916.95	14982917.01	14982917.07	0.0519	0.0451	

Earth	36312-09-23 02:24 G	14984010.38	14984010.60	14984010.83	0.0497	0.0148
Moon	36312-09-23 03:21 G	14984010.42	14984010.64	14984010.85	0.0497	0.0132 *
Venus	36313-06-28 17:17 G	14984289.02	14984289.22	14984289.43	0.0496	0.0085
Moon	36313-10-24 11:31 G	14984406.89	14984406.98	14984407.08	0.0496	0.0454
Earth	36313-10-24 14:24 G	14984407.04	14984407.10	14984407.17	0.0496	0.0476 *
Mercury	36315-08-24 08:24 G	14985075.68	14985075.85	14985076.02	0.0505	0.0216
Earth	36319-04-10 13:26 G	14986400.85	14986401.06	14986401.28	0.0530	0.0225
Moon	36319-04-10 15:21 G	14986400.95	14986401.14	14986401.35	0.0530	0.0239 *
Venus	36319-05-01 17:45 G	14986422.08	14986422.24	14986422.41	0.0530	0.0313
Mercury	36321-04-16 11:31 G	14987137.87	14987137.98	14987138.08	0.0520	0.0291
Mercury	36321-07-14 16:19 G	14987227.08	14987227.18	14987227.29	0.0518	0.0300
Earth	36324-09-27 09:07 G	14988397.64	14988397.88	14988398.11	0.0497	0.0061
Moon	36324-09-27 09:36 G	14988397.65	14988397.90	14988398.14	0.0497	0.0032 *
Mercury	36327-06-12 05:17 G	14989385.62	14989385.72	14989385.82	0.0506	0.0418
Mercury	36327-09-10 16:33 G	14989476.08	14989476.19	14989476.30	0.0508	0.0407
Earth	36330-03-10 10:33 G	14990387.82	14990387.94	14990388.07	0.0527	0.0443
Moon	36330-03-10 12:57 G	14990387.93	14990388.04	14990388.15	0.0527	0.0460 *
Moon	36331-04-15 17:45 G	14990789.05	14990789.24	14990789.44	0.0530	0.0307
Earth	36331-04-15 17:31 G	14990789.06	14990789.23	14990789.41	0.0530	0.0339 *
Mercury	36333-02-02 15:50 G	14991448.10	14991448.16	14991448.23	0.0521	0.0435
Mercury	36333-05-02 20:53 G	14991537.25	14991537.37	14991537.49	0.0519	0.0155
Moon	36336-10-01 18:14 G	14992785.04	14992785.26	14992785.49	0.0496	0.0029
Earth	36336-10-01 20:09 G	14992785.11	14992785.34	14992785.58	0.0496	0.0033 *
Mercury	36339-06-29 13:41 G	14993785.91	14993786.07	14993786.24	0.0507	0.0207
Moon	36342-03-15 09:21 G	14994775.70	14994775.89	14994776.09	0.0528	0.0313
Earth	36342-03-15 09:21 G	14994775.71	14994775.89	14994776.07	0.0528	0.0341 *
Moon	36343-04-20 15:50 G	14995177.03	14995177.16	14995177.29	0.0530	0.0429
Earth	36343-04-20 17:45 G	14995177.12	14995177.24	14995177.37	0.0530	0.0444 *
Venus	36343-05-04 18:14 G	14995191.18	14995191.26	14995191.35	0.0529	0.0482
Mercury	36345-02-19 01:12 G	14995847.42	14995847.55	14995847.68	0.0520	0.0008

Moon	36347-09-05 08:24 G	14996775.80	14996775.85	14996775.91	0.0500	0.0483
Earth	36348-10-06 08:09 G	14997172.61	14997172.84	14997173.06	0.0496	0.0124
Moon	36348-10-06 11:31 G	14997172.75	14997172.98	14997173.21	0.0496	0.0096 *
Venus	36349-03-06 04:33 G	14997323.49	14997323.69	14997323.88	0.0496	0.0158
Mercury	36351-04-17 10:48 G	14998095.76	14998095.95	14998096.13	0.0506	0.0010
Moon	36354-03-20 07:12 G	14999163.60	14999163.80	14999164.01	0.0528	0.0223
Earth	36354-03-20 09:36 G	14999163.70	14999163.90	14999164.12	0.0528	0.0233 *
Venus	36355-01-07 09:50 G	14999456.71	14999456.91	14999457.12	0.0530	0.0022
Mercury	36356-12-08 05:45 G	15000157.62	15000157.74	15000157.86	0.0520	0.0138
Mercury	36357-03-07 10:48 G	15000246.90	15000246.95	15000247.01	0.0518	0.0457
Earth	36359-09-10 01:55 G	15001163.46	15001163.58	15001163.71	0.0499	0.0423
Moon	36359-09-10 05:31 G	15001163.60	15001163.73	15001163.87	0.0499	0.0405 *
Moon	36360-10-10 15:21 G	15001559.93	15001560.14	15001560.35	0.0496	0.0214
Earth	36360-10-10 19:12 G	15001560.09	15001560.30	15001560.51	0.0496	0.0213 *
Venus	36360-11-09 06:29 G	15001589.60	15001589.77	15001589.95	0.0496	0.0248
Mercury	36363-02-03 07:12 G	15002405.63	15002405.80	15002405.97	0.0505	0.0202
Earth	36366-03-25 11:17 G	15003551.75	15003551.97	15003552.20	0.0529	0.0122
Moon	36366-03-25 15:07 G	15003551.90	15003552.13	15003552.36	0.0529	0.0153 *
Venus	36366-09-12 01:55 G	15003722.55	15003722.58	15003722.62	0.0530	0.0520
Mercury	36368-09-26 10:33 G	15004467.84	15004467.94	15004468.05	0.0521	0.0277
Mercury	36368-12-24 15:36 G	15004557.05	15004557.15	15004557.25	0.0519	0.0316
Moon	36371-09-14 12:00 G	15005550.84	15005551.00	15005551.18	0.0498	0.0355
Earth	36371-09-14 14:38 G	15005550.94	15005551.11	15005551.28	0.0498	0.0332 *
Earth	36372-10-15 05:31 G	15005947.55	15005947.73	15005947.91	0.0496	0.0302
Moon	36372-10-15 09:07 G	15005947.71	15005947.88	15005948.05	0.0496	0.0335 *
Mercury	36374-11-22 04:19 G	15006715.57	15006715.68	15006715.79	0.0505	0.0401
Mercury	36375-02-20 15:21 G	15006806.05	15006806.14	15006806.25	0.0507	0.0423
Moon	36378-03-30 12:57 G	15007939.81	15007940.04	15007940.27	0.0530	0.0023
Earth	36378-03-30 16:48 G	15007939.97	15007940.20	15007940.43	0.0530	0.0007 *
Mercury	36380-07-15 15:07 G	15008778.06	15008778.13	15008778.20	0.0521	0.0422

Mercury	36380-10-12 19:55 G	15008867.21	15008867.33	15008867.45	0.0519	0.0167
Mars	36381-09-06 06:43 G	15009195.58	15009195.78	15009195.99	0.0511	0.0321
Earth	36383-09-18 21:21 G	15009938.19	15009938.39	15009938.60	0.0497	0.0246
Moon	36383-09-18 22:19 G	15009938.24	15009938.43	15009938.62	0.0497	0.0267 *
Moon	36384-10-19 08:53 G	15010334.73	15010334.87	15010335.01	0.0496	0.0400
Earth	36384-10-19 11:45 G	15010334.85	15010334.99	15010335.14	0.0496	0.0387 *
Venus	36384-11-11 14:24 G	15010357.98	15010358.10	15010358.22	0.0496	0.0395
Mercury	36386-12-09 12:29 G	15011115.86	15011116.02	15011116.19	0.0507	0.0221
Earth	36390-04-04 20:24 G	15012328.13	15012328.35	15012328.58	0.0530	0.0109
Moon	36390-04-04 22:48 G	15012328.24	15012328.45	15012328.67	0.0530	0.0139 *
Venus	36390-09-15 05:45 G	15012491.57	15012491.74	15012491.91	0.0530	0.0294
Mercury	36392-08-01 00:29 G	15013177.39	15013177.52	15013177.65	0.0519	0.0022
Earth	36395-09-23 08:38 G	15014325.64	15014325.86	15014326.08	0.0497	0.0155
Moon	36395-09-23 09:07 G	15014325.65	15014325.88	15014326.12	0.0497	0.0137 *
Venus	36396-07-17 16:33 G	15014623.98	15014624.19	15014624.39	0.0496	0.0012
Earth	36396-10-23 22:19 G	15014722.37	15014722.43	15014722.50	0.0497	0.0474
Moon	36396-10-23 23:31 G	15014722.39	15014722.48	15014722.57	0.0497	0.0451 *
Mercury	36398-09-27 09:36 G	15015425.72	15015425.90	15015426.09	0.0506	0.0019
Moon	36402-04-09 19:41 G	15016716.10	15016716.32	15016716.54	0.0530	0.0226
Earth	36402-04-09 19:55 G	15016716.12	15016716.33	15016716.55	0.0530	0.0219 *
Venus	36402-05-20 19:41 G	15016757.14	15016757.32	15016757.51	0.0530	0.0218
Mercury	36404-05-20 04:48 G	15017487.57	15017487.70	15017487.82	0.0520	0.0131
Mercury	36404-08-17 09:50 G	15017576.85	15017576.91	15017576.96	0.0518	0.0462
Moon	36407-09-27 18:57 G	15018713.06	15018713.29	15018713.51	0.0497	0.0038
Earth	36407-09-27 20:53 G	15018713.14	15018713.37	15018713.60	0.0497	0.0064 *
Venus	36408-03-22 18:57 G	15018890.19	15018890.29	15018890.40	0.0496	0.0416
Mercury	36410-07-16 06:29 G	15019735.60	15019735.77	15019735.94	0.0506	0.0184
Moon	36413-03-09 14:53 G	15020703.01	15020703.12	15020703.24	0.0527	0.0461
Earth	36413-03-09 15:21 G	15020703.03	15020703.14	15020703.26	0.0527	0.0454 *
Moon	36414-04-14 20:09 G	15021104.15	15021104.34	15021104.52	0.0530	0.0300

Earth	36414-04-14 21:21 G	15021104.22	15021104.39	15021104.58	0.0530	0.0331	*
Mercury	36416-03-08 09:21 G	15021797.78	15021797.89	15021797.99	0.0521	0.0275	
Mercury	36416-06-05 14:24 G	15021887.00	15021887.10	15021887.20	0.0519	0.0318	
Earth	36419-10-02 08:24 G	15023100.61	15023100.85	15023101.08	0.0496	0.0029	
Moon	36419-10-02 11:45 G	15023100.75	15023100.99	15023101.23	0.0496	0.0014	*
Mercury	36422-05-04 02:53 G	15024045.51	15024045.62	15024045.74	0.0505	0.0393	
Mercury	36422-08-02 13:55 G	15024135.99	15024136.08	15024136.18	0.0507	0.0431	
Moon	36425-03-14 13:26 G	15025090.89	15025091.06	15025091.24	0.0528	0.0320	
Earth	36425-03-14 15:21 G	15025090.97	15025091.14	15025091.32	0.0528	0.0351	*
Earth	36426-04-20 00:29 G	15025492.40	15025492.52	15025492.66	0.0530	0.0439	
Moon	36426-04-20 03:50 G	15025492.52	15025492.66	15025492.80	0.0530	0.0428	*
Mercury	36427-12-26 13:55 G	15026108.01	15026108.08	15026108.16	0.0521	0.0415	
Mercury	36428-03-24 18:57 G	15026197.17	15026197.29	15026197.41	0.0519	0.0177	
Moon	36430-09-05 02:38 G	15027091.58	15027091.61	15027091.67	0.0500	0.0488	
Moon	36431-10-06 14:53 G	15027487.89	15027488.12	15027488.35	0.0496	0.0091	
Earth	36431-10-06 18:43 G	15027488.06	15027488.28	15027488.51	0.0496	0.0120	*
Venus	36432-03-25 05:17 G	15027658.54	15027658.72	15027658.90	0.0496	0.0240	
Mercury	36434-05-21 11:17 G	15028445.81	15028445.97	15028446.13	0.0507	0.0232	
Mars	36435-06-01 18:00 G	15028822.09	15028822.25	15028822.42	0.0516	0.0420	
Earth	36437-03-19 19:26 G	15029479.10	15029479.31	15029479.52	0.0529	0.0239	
Moon	36437-03-19 23:02 G	15029479.25	15029479.46	15029479.67	0.0529	0.0231	*
Venus	36438-01-26 14:09 G	15029791.89	15029792.09	15029792.29	0.0530	0.0088	
Mercury	36440-01-11 23:31 G	15030507.35	15030507.48	15030507.60	0.0519	0.0032	
Moon	36442-09-09 04:33 G	15031478.56	15031478.69	15031478.82	0.0499	0.0420	
Earth	36442-09-09 07:12 G	15031478.68	15031478.80	15031478.91	0.0499	0.0432	*
Earth	36443-10-11 00:29 G	15031875.31	15031875.52	15031875.74	0.0496	0.0207	
Moon	36443-10-11 04:05 G	15031875.47	15031875.67	15031875.88	0.0496	0.0212	*
Venus	36443-11-29 04:19 G	15031924.49	15031924.68	15031924.88	0.0496	0.0182	
Mercury	36446-03-09 07:55 G	15032755.64	15032755.83	15032756.01	0.0507	0.0025	
Moon	36449-03-24 18:29 G	15033867.05	15033867.27	15033867.50	0.0529	0.0158	

Earth	36449-03-24 22:33 G	15033867.21	15033867.44	15033867.67	0.0529	0.0126	*
Venus	36449-10-01 06:14 G	15034057.64	15034057.76	15034057.89	0.0530	0.0412	
Mercury	36451-10-31 03:50 G	15034817.54	15034817.66	15034817.79	0.0520	0.0117	
Mercury	36452-01-28 08:53 G	15034906.82	15034906.87	15034906.92	0.0517	0.0474	
Earth	36454-09-13 18:14 G	15035866.10	15035866.26	15035866.44	0.0498	0.0343	
Moon	36454-09-13 19:26 G	15035866.16	15035866.31	15035866.45	0.0498	0.0372	*
Moon	36455-10-15 07:41 G	15036262.64	15036262.82	15036263.00	0.0496	0.0326	
Earth	36455-10-15 10:33 G	15036262.76	15036262.94	15036263.13	0.0496	0.0297	*
Mercury	36457-12-26 04:48 G	15037065.53	15037065.70	15037065.87	0.0506	0.0179	
Earth	36461-03-29 21:21 G	15038255.16	15038255.39	15038255.63	0.0529	0.0017	
Moon	36461-03-30 00:29 G	15038255.29	15038255.52	15038255.74	0.0529	0.0024	*
Mercury	36463-08-19 07:55 G	15039127.73	15039127.83	15039127.94	0.0520	0.0270	
Mercury	36463-11-16 12:57 G	15039216.94	15039217.04	15039217.14	0.0518	0.0322	
Earth	36466-09-18 06:43 G	15040253.58	15040253.78	15040253.99	0.0498	0.0254	
Moon	36466-09-18 07:26 G	15040253.61	15040253.81	15040254.01	0.0498	0.0271	*
Earth	36467-10-19 22:05 G	15040650.27	15040650.42	15040650.57	0.0496	0.0385	
Moon	36467-10-19 23:02 G	15040650.33	15040650.46	15040650.60	0.0496	0.0391	*
Venus	36467-12-01 15:07 G	15040693.08	15040693.13	15040693.19	0.0496	0.0477	
Mercury	36469-10-14 01:26 G	15041375.45	15041375.56	15041375.69	0.0505	0.0383	
Mercury	36470-01-12 12:43 G	15041465.95	15041466.03	15041466.12	0.0507	0.0443	
Moon	36473-04-03 20:53 G	15042643.13	15042643.37	15042643.60	0.0529	0.0127	
Earth	36473-04-03 21:50 G	15042643.19	15042643.41	15042643.64	0.0529	0.0097	*
Venus	36473-10-04 04:33 G	15042826.55	15042826.69	15042826.84	0.0530	0.0371	
Mercury	36475-06-07 12:29 G	15043437.95	15043438.02	15043438.10	0.0521	0.0416	
Mercury	36475-09-04 17:31 G	15043527.11	15043527.23	15043527.35	0.0519	0.0176	
Moon	36478-09-22 16:48 G	15044640.99	15044641.20	15044641.42	0.0497	0.0143	
Earth	36478-09-22 18:43 G	15044641.06	15044641.28	15044641.50	0.0497	0.0163	*
Venus	36479-08-06 17:02 G	15044959.01	15044959.21	15044959.42	0.0496	0.0070	
Earth	36479-10-24 07:55 G	15045037.76	15045037.83	15045037.91	0.0496	0.0470	
Moon	36479-10-24 08:53 G	15045037.77	15045037.87	15045037.99	0.0496	0.0440	*

Mercury	36481-10-31 09:21 G	15045775.73	15045775.89	15045776.05	0.0507	0.0234
Moon	36485-04-08 22:48 G	15047031.25	15047031.45	15047031.66	0.0530	0.0216
Earth	36485-04-08 23:31 G	15047031.27	15047031.48	15047031.70	0.0530	0.0209 *
Venus	36485-06-08 20:09 G	15047092.14	15047092.34	15047092.54	0.0530	0.0132
Mercury	36487-06-23 22:05 G	15047837.29	15047837.42	15047837.55	0.0520	0.0033
Earth	36490-09-27 05:31 G	15049028.49	15049028.73	15049028.96	0.0497	0.0071
Moon	36490-09-27 08:53 G	15049028.63	15049028.87	15049029.10	0.0497	0.0050 *
Venus	36491-04-11 18:29 G	15049225.13	15049225.27	15049225.43	0.0496	0.0340
Mercury	36493-08-19 06:14 G	15050085.58	15050085.76	15050085.95	0.0506	0.0033
Moon	36496-03-08 20:24 G	15051018.25	15051018.35	15051018.45	0.0527	0.0466
Earth	36496-03-08 21:50 G	15051018.30	15051018.41	15051018.52	0.0527	0.0464 *
Earth	36497-04-14 04:33 G	15051419.51	15051419.69	15051419.88	0.0530	0.0325
Moon	36497-04-14 07:26 G	15051419.61	15051419.81	15051420.01	0.0530	0.0292 *
Mercury	36499-04-12 02:38 G	15052147.48	15052147.61	15052147.73	0.0520	0.0112
Mercury	36499-07-10 07:41 G	15052236.77	15052236.82	15052236.87	0.0518	0.0478
Moon	36502-10-02 07:41 G	15053415.58	15053415.82	15053416.05	0.0496	0.0010
Earth	36502-10-02 11:31 G	15053415.74	15053415.98	15053416.21	0.0496	0.0019 *
Mercury	36505-06-08 02:24 G	15054395.43	15054395.60	15054395.78	0.0506	0.0182
Earth	36508-03-14 23:31 G	15055406.32	15055406.48	15055406.65	0.0528	0.0359
Moon	36508-03-15 02:53 G	15055406.43	15055406.62	15055406.81	0.0528	0.0323 *
Moon	36509-04-20 04:33 G	15055807.56	15055807.69	15055807.82	0.0530	0.0432
Earth	36509-04-20 08:24 G	15055807.71	15055807.85	15055807.98	0.0530	0.0435 *
Mercury	36511-01-30 06:57 G	15056457.69	15056457.79	15056457.90	0.0520	0.0260
Mercury	36511-04-29 12:00 G	15056546.90	15056547.00	15056547.10	0.0518	0.0331
Moon	36513-09-04 22:19 G	15057406.43	15057406.43	15057406.44	0.0499	0.0499
Earth	36514-10-06 21:07 G	15057803.15	15057803.38	15057803.61	0.0496	0.0111
Moon	36514-10-07 00:43 G	15057803.31	15057803.53	15057803.76	0.0496	0.0083 *
Venus	36515-04-15 01:41 G	15057993.40	15057993.57	15057993.73	0.0496	0.0297
Mercury	36517-03-26 23:17 G	15058705.35	15058705.47	15058705.59	0.0506	0.0386
Mercury	36517-06-25 10:33 G	15058795.86	15058795.94	15058796.03	0.0508	0.0441

Moon	36520-03-19 18:00 G	15059794.05	15059794.25	15059794.46	0.0528	0.0246
Earth	36520-03-19 21:50 G	15059794.21	15059794.41	15059794.62	0.0528	0.0254 *
Venus	36521-02-15 12:57 G	15060126.85	15060127.04	15060127.23	0.0530	0.0164
Mercury	36522-11-18 11:02 G	15060767.89	15060767.96	15060768.04	0.0521	0.0414
Mercury	36523-02-15 16:05 G	15060857.05	15060857.17	15060857.29	0.0519	0.0176
Earth	36525-09-09 13:26 G	15061793.96	15061794.06	15061794.17	0.0499	0.0443
Moon	36525-09-09 14:24 G	15061794.00	15061794.10	15061794.21	0.0499	0.0441 *
Moon	36526-10-11 05:17 G	15062190.51	15062190.72	15062190.94	0.0496	0.0205
Earth	36526-10-11 08:24 G	15062190.64	15062190.85	15062191.06	0.0496	0.0201 *
Venus	36526-12-19 03:50 G	15062259.46	15062259.66	15062259.86	0.0496	0.0107
Mercury	36529-04-13 07:41 G	15063105.66	15063105.82	15063105.98	0.0507	0.0239
Earth	36532-03-24 21:21 G	15064182.16	15064182.39	15064182.61	0.0529	0.0142
Moon	36532-03-25 00:43 G	15064182.32	15064182.53	15064182.75	0.0529	0.0174 *
Venus	36532-10-21 03:21 G	15064392.49	15064392.64	15064392.80	0.0530	0.0344
Mercury	36534-12-04 20:24 G	15065167.22	15065167.35	15065167.48	0.0520	0.0028
Mars	36535-12-02 07:55 G	15065529.57	15065529.83	15065530.10	0.0511	0.0014
Earth	36537-09-14 01:41 G	15066181.42	15066181.57	15066181.74	0.0498	0.0355
Moon	36537-09-14 02:24 G	15066181.45	15066181.60	15066181.76	0.0498	0.0382 *
Earth	36538-10-15 18:14 G	15066578.08	15066578.26	15066578.46	0.0496	0.0290
Moon	36538-10-15 19:41 G	15066578.15	15066578.32	15066578.49	0.0496	0.0318 *
Mercury	36541-01-30 03:50 G	15067415.48	15067415.66	15067415.85	0.0506	0.0029
Moon	36544-03-29 19:26 G	15068570.07	15068570.31	15068570.55	0.0529	0.0034
Earth	36544-03-29 21:21 G	15068570.16	15068570.39	15068570.62	0.0529	0.0031 *
Mercury	36546-09-23 00:57 G	15069477.42	15069477.54	15069477.66	0.0520	0.0117
Mercury	36546-12-21 06:00 G	15069566.70	15069566.75	15069566.80	0.0518	0.0476
Moon	36549-09-18 11:17 G	15070568.79	15070568.97	15070569.16	0.0498	0.0279
Earth	36549-09-18 13:12 G	15070568.85	15070569.05	15070569.25	0.0498	0.0263 *
Earth	36550-10-20 03:36 G	15070965.51	15070965.65	15070965.80	0.0496	0.0378
Moon	36550-10-20 04:19 G	15070965.53	15070965.68	15070965.85	0.0496	0.0374 *
Mercury	36552-11-18 00:29 G	15071725.35	15071725.52	15071725.70	0.0506	0.0179

Mars	36553-11-19 14:24 G	15072091.97	15072092.10	15072092.26	0.0515	0.0446
Moon	36556-04-04 01:12 G	15072958.33	15072958.55	15072958.77	0.0530	0.0119
Earth	36556-04-04 01:26 G	15072958.33	15072958.56	15072958.79	0.0530	0.0086 *
Venus	36556-10-24 05:17 G	15073161.62	15073161.72	15073161.82	0.0530	0.0458
Mercury	36558-07-12 05:31 G	15073787.62	15073787.73	15073787.84	0.0520	0.0260
Mercury	36558-10-09 10:33 G	15073876.84	15073876.94	15073877.04	0.0518	0.0330
Earth	36561-09-22 19:55 G	15074956.11	15074956.33	15074956.55	0.0497	0.0176
Moon	36561-09-22 23:02 G	15074956.24	15074956.46	15074956.69	0.0497	0.0150 *
Venus	36562-08-26 12:14 G	15075293.81	15075294.01	15075294.21	0.0496	0.0121
Moon	36562-10-24 06:29 G	15075352.67	15075352.77	15075352.89	0.0496	0.0432
Earth	36562-10-24 08:53 G	15075352.79	15075352.87	15075352.96	0.0496	0.0461 *
Mercury	36564-09-05 20:24 G	15076035.24	15076035.35	15076035.46	0.0506	0.0397
Mercury	36564-12-05 07:41 G	15076125.73	15076125.82	15076125.92	0.0508	0.0432
Earth	36568-04-09 04:33 G	15077346.48	15077346.69	15077346.91	0.0530	0.0201
Moon	36568-04-09 06:43 G	15077346.56	15077346.78	15077347.01	0.0530	0.0204 *
Venus	36568-06-28 21:21 G	15077427.18	15077427.39	15077427.59	0.0530	0.0042
Mercury	36570-04-30 10:05 G	15078097.84	15078097.92	15078098.00	0.0521	0.0407
Mercury	36570-07-28 14:53 G	15078187.00	15078187.12	15078187.24	0.0518	0.0182
Moon	36573-09-27 01:55 G	15079343.35	15079343.58	15079343.81	0.0497	0.0065
Earth	36573-09-27 05:45 G	15079343.51	15079343.74	15079343.97	0.0497	0.0083 *
Venus	36574-05-01 13:26 G	15079559.90	15079560.06	15079560.23	0.0496	0.0289
Mercury	36576-09-23 04:48 G	15080435.54	15080435.70	15080435.86	0.0507	0.0228
Earth	36579-03-09 21:36 G	15081333.32	15081333.40	15081333.50	0.0527	0.0484
Moon	36579-03-10 00:29 G	15081333.43	15081333.52	15081333.63	0.0527	0.0479 *
Moon	36580-04-13 23:31 G	15081734.29	15081734.48	15081734.68	0.0530	0.0278
Earth	36580-04-14 03:07 G	15081734.44	15081734.63	15081734.82	0.0530	0.0309 *
Mercury	36582-05-16 18:43 G	15082497.15	15082497.28	15082497.41	0.0519	0.0026
Earth	36585-10-01 16:33 G	15083730.96	15083731.19	15083731.42	0.0497	0.0008
Moon	36585-10-01 20:09 G	15083731.11	15083731.34	15083731.58	0.0497	0.0018 *
Mercury	36588-07-12 01:41 G	15084745.39	15084745.57	15084745.76	0.0506	0.0025

Moon	36591-03-14 16:33 G	15085721.03	15085721.19	15085721.37	0.0527	0.0347
Earth	36591-03-14 20:24 G	15085721.19	15085721.35	15085721.51	0.0527	0.0379 *
Earth	36592-04-19 03:07 G	15086122.50	15086122.63	15086122.78	0.0530	0.0419
Moon	36592-04-19 06:57 G	15086122.66	15086122.79	15086122.93	0.0530	0.0422 *
Mercury	36594-03-04 23:02 G	15086807.34	15086807.46	15086807.58	0.0520	0.0125
Mercury	36594-06-02 04:05 G	15086896.62	15086896.67	15086896.72	0.0518	0.0467
Moon	36597-10-05 23:45 G	15088118.25	15088118.49	15088118.73	0.0496	0.0072
Earth	36597-10-06 02:53 G	15088118.39	15088118.62	15088118.85	0.0496	0.0100 *
Venus	36598-05-03 23:31 G	15088328.34	15088328.48	15088328.62	0.0496	0.0365
Mercury	36600-04-30 21:50 G	15089055.24	15089055.41	15089055.58	0.0506	0.0188
Earth	36603-03-20 18:29 G	15090109.07	15090109.27	15090109.47	0.0528	0.0273
Moon	36603-03-20 22:05 G	15090109.23	15090109.42	15090109.63	0.0528	0.0269 *
Venus	36604-03-07 09:21 G	15090461.71	15090461.89	15090462.08	0.0530	0.0229
Earth	36604-04-25 04:05 G	15090510.65	15090510.67	15090510.71	0.0530	0.0525
Mercury	36605-12-23 03:36 G	15091117.54	15091117.65	15091117.76	0.0521	0.0271
Mercury	36606-03-22 08:38 G	15091206.76	15091206.86	15091206.96	0.0519	0.0322
Earth	36608-09-09 17:31 G	15092109.14	15092109.23	15092109.33	0.0499	0.0456
Moon	36608-09-09 18:00 G	15092109.15	15092109.25	15092109.35	0.0499	0.0452 *
Earth	36609-10-11 12:00 G	15092505.79	15092506.00	15092506.22	0.0496	0.0191
Moon	36609-10-11 13:26 G	15092505.86	15092506.06	15092506.27	0.0496	0.0201 *
Venus	36610-01-08 00:43 G	15092594.32	15092594.53	15092594.73	0.0496	0.0047
Mercury	36612-02-17 18:14 G	15093365.15	15093365.26	15093365.37	0.0505	0.0398
Mercury	36612-05-18 05:31 G	15093455.64	15093455.73	15093455.83	0.0507	0.0429
Moon	36615-03-25 18:29 G	15094497.05	15094497.27	15094497.50	0.0529	0.0190
Earth	36615-03-25 21:07 G	15094497.16	15094497.38	15094497.60	0.0529	0.0158 *
Venus	36615-11-11 01:55 G	15094727.41	15094727.58	15094727.76	0.0530	0.0268
Mercury	36617-10-11 08:09 G	15095427.77	15095427.84	15095427.92	0.0521	0.0413
Mercury	36618-01-08 13:12 G	15095516.93	15095517.05	15095517.17	0.0519	0.0177
Moon	36620-09-14 00:29 G	15096496.39	15096496.52	15096496.65	0.0498	0.0399
Earth	36620-09-14 01:55 G	15096496.43	15096496.58	15096496.74	0.0498	0.0369 *

Venus	36621-09-12 23:45 G	15096860.43	15096860.49	15096860.56	0.0496	0.0466
Earth	36621-10-15 17:31 G	15096893.04	15096893.23	15096893.43	0.0496	0.0278
Moon	36621-10-15 18:00 G	15096893.07	15096893.25	15096893.45	0.0496	0.0303 *
Mercury	36624-03-06 01:26 G	15097765.40	15097765.56	15097765.73	0.0507	0.0213
Earth	36627-03-30 23:17 G	15098885.24	15098885.47	15098885.71	0.0530	0.0046
Moon	36627-03-30 23:45 G	15098885.27	15098885.49	15098885.72	0.0530	0.0045 *
Mercury	36629-10-27 17:31 G	15099827.10	15099827.23	15099827.36	0.0519	0.0029
Earth	36632-09-18 12:00 G	15100883.81	15100884.00	15100884.20	0.0497	0.0279
Moon	36632-09-18 15:07 G	15100883.94	15100884.13	15100884.33	0.0497	0.0288 *
Moon	36633-10-20 00:29 G	15101280.37	15101280.52	15101280.68	0.0496	0.0362
Earth	36633-10-20 02:38 G	15101280.46	15101280.61	15101280.77	0.0496	0.0367 *
Mercury	36635-12-23 22:19 G	15102075.25	15102075.43	15102075.62	0.0507	0.0009
Earth	36639-04-04 21:50 G	15103273.18	15103273.41	15103273.64	0.0529	0.0065
Moon	36639-04-04 23:02 G	15103273.23	15103273.46	15103273.70	0.0529	0.0098 *
Venus	36639-11-14 00:57 G	15103496.50	15103496.54	15103496.58	0.0529	0.0517
Mercury	36641-08-15 21:21 G	15104137.27	15104137.39	15104137.51	0.0520	0.0131
Mercury	36641-11-13 02:09 G	15104226.54	15104226.59	15104226.65	0.0518	0.0461
Moon	36644-09-22 18:43 G	15105271.07	15105271.28	15105271.51	0.0497	0.0163
Earth	36644-09-22 22:33 G	15105271.23	15105271.44	15105271.66	0.0497	0.0191 *
Venus	36645-09-15 09:07 G	15105628.70	15105628.88	15105629.08	0.0496	0.0184
Earth	36645-10-24 12:57 G	15105667.95	15105668.04	15105668.13	0.0496	0.0453
Moon	36645-10-24 16:19 G	15105668.06	15105668.18	15105668.31	0.0496	0.0421 *
Mercury	36647-10-11 19:12 G	15106385.13	15106385.30	15106385.47	0.0506	0.0196
Moon	36651-04-09 18:43 G	15107661.07	15107661.28	15107661.50	0.0530	0.0181
Earth	36651-04-09 21:36 G	15107661.19	15107661.40	15107661.63	0.0530	0.0179 *
Venus	36651-07-19 15:21 G	15107761.94	15107762.14	15107762.34	0.0530	0.0009
Mercury	36653-06-04 01:26 G	15108447.46	15108447.56	15108447.67	0.0521	0.0282
Mercury	36653-09-01 06:29 G	15108536.67	15108536.77	15108536.87	0.0519	0.0309
Earth	36656-09-27 09:07 G	15109658.65	15109658.88	15109659.11	0.0497	0.0098
Moon	36656-09-27 12:57 G	15109658.81	15109659.04	15109659.27	0.0497	0.0082 *

Venus	36657-05-21 10:33 G	15109894.76	15109894.94	15109895.12	0.0496	0.0226
Mercury	36659-07-30 15:07 G	15110695.03	15110695.13	15110695.24	0.0505	0.0410
Mercury	36659-10-29 02:38 G	15110785.51	15110785.61	15110785.71	0.0507	0.0416
Moon	36662-03-09 13:12 G	15111648.00	15111648.05	15111648.12	0.0526	0.0506
Earth	36662-03-09 16:33 G	15111648.13	15111648.19	15111648.25	0.0526	0.0504
Venus	36663-03-24 05:31 G	15112027.67	15112027.73	15112027.80	0.0530	0.0499
Earth	36663-04-14 21:36 G	15112049.20	15112049.40	15112049.59	0.0530	0.0291
Moon	36663-04-15 01:12 G	15112049.35	15112049.55	15112049.76	0.0530	0.0259 *
Mercury	36665-03-23 06:00 G	15112757.68	15112757.75	15112757.82	0.0521	0.0429
Mercury	36665-06-20 10:48 G	15112846.83	15112846.95	15112847.08	0.0519	0.0164
Moon	36668-10-01 15:50 G	15114045.92	15114046.16	15114046.40	0.0496	0.0025
Earth	36668-10-01 18:57 G	15114046.06	15114046.29	15114046.53	0.0496	0.0008 *
Mercury	36671-08-16 23:02 G	15115095.30	15115095.46	15115095.63	0.0507	0.0208
Earth	36674-03-14 17:02 G	15116036.06	15116036.21	15116036.36	0.0528	0.0399
Moon	36674-03-14 20:38 G	15116036.20	15116036.36	15116036.54	0.0528	0.0366 *
Moon	36675-04-19 21:50 G	15116437.27	15116437.41	15116437.57	0.0530	0.0406
Earth	36675-04-20 01:26 G	15116437.41	15116437.56	15116437.71	0.0530	0.0405 *
Mercury	36677-04-08 15:36 G	15117157.02	15117157.15	15117157.28	0.0519	0.0020
Earth	36680-10-06 01:26 G	15118433.33	15118433.56	15118433.79	0.0496	0.0085
Moon	36680-10-06 03:21 G	15118433.41	15118433.64	15118433.86	0.0496	0.0061 *
Venus	36681-05-23 16:48 G	15118663.10	15118663.20	15118663.33	0.0496	0.0408
Mercury	36683-06-04 18:57 G	15119405.10	15119405.29	15119405.47	0.0506	0.0016
Moon	36686-03-19 14:38 G	15120423.92	15120424.11	15120424.32	0.0529	0.0292
Earth	36686-03-19 18:00 G	15120424.06	15120424.25	15120424.44	0.0529	0.0291 *
Venus	36687-03-27 07:55 G	15120796.66	15120796.83	15120796.99	0.0530	0.0303
Earth	36687-04-25 04:19 G	15120825.63	15120825.68	15120825.74	0.0530	0.0514
Mercury	36689-01-25 19:55 G	15121467.21	15121467.33	15121467.46	0.0520	0.0129
Mercury	36689-04-25 00:57 G	15121556.49	15121556.54	15121556.60	0.0518	0.0463
Mars	36690-02-25 18:29 G	15121863.05	15121863.27	15121863.49	0.0510	0.0284
Moon	36691-09-09 14:53 G	15122424.06	15122424.12	15122424.20	0.0499	0.0474

Earth	36691-09-09 16:19 G	15122424.11	15122424.18	15122424.25	0.0499	0.0474	*
Earth	36692-10-10 10:33 G	15122820.72	15122820.94	15122821.15	0.0496	0.0176	
Moon	36692-10-10 10:33 G	15122820.72	15122820.94	15122821.17	0.0496	0.0190	*
Venus	36693-01-26 18:14 G	15122929.06	15122929.26	15122929.47	0.0496	0.0007	
Mercury	36695-03-23 15:36 G	15123714.98	15123715.15	15123715.32	0.0506	0.0217	
Earth	36698-03-24 16:33 G	15124811.97	15124812.19	15124812.41	0.0529	0.0183	
Moon	36698-03-24 17:45 G	15124812.04	15124812.24	15124812.45	0.0529	0.0217	*
Venus	36698-11-29 20:53 G	15125062.19	15125062.37	15125062.56	0.0530	0.0211	
Mercury	36700-11-14 23:45 G	15125777.39	15125777.49	15125777.60	0.0520	0.0289	
Mercury	36701-02-12 04:33 G	15125866.59	15125866.69	15125866.80	0.0518	0.0302	
Earth	36703-09-15 02:24 G	15126811.46	15126811.60	15126811.75	0.0499	0.0388	
Moon	36703-09-15 05:17 G	15126811.59	15126811.72	15126811.85	0.0499	0.0416	*
Venus	36704-10-02 19:55 G	15127195.22	15127195.33	15127195.45	0.0496	0.0407	
Moon	36704-10-15 18:14 G	15127208.08	15127208.26	15127208.45	0.0496	0.0292	
Earth	36704-10-15 20:24 G	15127208.15	15127208.35	15127208.54	0.0496	0.0265	*
Mercury	36707-01-10 12:29 G	15128024.92	15128025.02	15128025.12	0.0505	0.0419	
Mercury	36707-04-11 00:00 G	15128115.39	15128115.50	15128115.61	0.0507	0.0408	
Mars	36708-02-14 16:05 G	15128424.90	15128425.17	15128425.45	0.0515	0.0157	
Earth	36710-03-30 16:05 G	15129199.94	15129200.17	15129200.40	0.0529	0.0070	
Moon	36710-03-30 16:33 G	15129199.95	15129200.19	15129200.43	0.0529	0.0070	*
Mercury	36712-09-03 04:05 G	15130087.60	15130087.67	15130087.73	0.0521	0.0440	
Mercury	36712-12-01 08:53 G	15130176.75	15130176.87	15130176.99	0.0519	0.0150	
Moon	36715-09-19 09:50 G	15131198.74	15131198.91	15131199.10	0.0498	0.0303	
Earth	36715-09-19 13:41 G	15131198.89	15131199.07	15131199.26	0.0498	0.0298	*
Earth	36716-10-20 05:45 G	15131595.58	15131595.74	15131595.90	0.0496	0.0355	
Moon	36716-10-20 08:53 G	15131595.71	15131595.87	15131596.05	0.0496	0.0346	*
Mercury	36719-01-27 20:09 G	15132425.17	15132425.34	15132425.51	0.0506	0.0196	
Moon	36722-04-04 12:43 G	15133587.81	15133588.03	15133588.25	0.0529	0.0074	
Earth	36722-04-04 14:53 G	15133587.89	15133588.12	15133588.35	0.0529	0.0043	*
Mercury	36724-09-19 13:12 G	15134486.92	15134487.05	15134487.18	0.0520	0.0005	

Earth	36727-09-24 00:14 G	15135586.30	15135586.51	15135586.73	0.0497	0.0205
Moon	36727-09-24 04:05 G	15135586.46	15135586.67	15135586.89	0.0497	0.0173 *
Venus	36728-10-05 04:48 G	15135963.52	15135963.70	15135963.88	0.0496	0.0237
Moon	36728-10-24 10:33 G	15135982.82	15135982.94	15135983.08	0.0496	0.0412
Earth	36728-10-24 14:24 G	15135983.00	15135983.10	15135983.21	0.0496	0.0443 *
Mercury	36730-11-15 16:33 G	15136735.00	15136735.19	15136735.37	0.0506	0.0017
Earth	36734-04-09 17:17 G	15137976.00	15137976.22	15137976.45	0.0530	0.0161
Moon	36734-04-09 21:07 G	15137976.16	15137976.38	15137976.61	0.0530	0.0155 *
Venus	36734-08-08 11:31 G	15138096.78	15138096.98	15138097.18	0.0530	0.0070
Mercury	36736-07-08 18:00 G	15138797.12	15138797.25	15138797.37	0.0520	0.0140
Mercury	36736-10-05 22:48 G	15138886.40	15138886.45	15138886.52	0.0518	0.0452
Moon	36739-09-28 05:17 G	15139973.48	15139973.72	15139973.95	0.0496	0.0097
Earth	36739-09-28 08:38 G	15139973.63	15139973.86	15139974.09	0.0496	0.0115 *
Venus	36740-06-10 04:19 G	15140229.49	15140229.68	15140229.87	0.0496	0.0180
Mercury	36742-09-03 12:00 G	15141044.84	15141045.00	15141045.17	0.0506	0.0236
Earth	36745-03-09 14:09 G	15141963.08	15141963.09	15141963.11	0.0527	0.0526
Moon	36745-03-09 18:00 G	15141963.23	15141963.25	15141963.27	0.0527	0.0523
Venus	36746-04-13 03:07 G	15142362.52	15142362.63	15142362.75	0.0530	0.0429
Moon	36746-04-14 16:33 G	15142363.98	15142364.19	15142364.40	0.0530	0.0241
Earth	36746-04-14 20:24 G	15142364.15	15142364.35	15142364.55	0.0530	0.0276 *
Mercury	36748-04-26 22:19 G	15143107.33	15143107.43	15143107.54	0.0521	0.0287
Mercury	36748-07-25 03:21 G	15143196.54	15143196.64	15143196.74	0.0518	0.0305
Earth	36751-10-02 17:45 G	15144361.01	15144361.24	15144361.48	0.0496	0.0022
Moon	36751-10-02 19:55 G	15144361.10	15144361.33	15144361.55	0.0496	0.0042 *
Mercury	36754-06-22 08:38 G	15145354.78	15145354.86	15145354.96	0.0505	0.0442
Mercury	36754-09-20 20:24 G	15145445.23	15145445.35	15145445.47	0.0507	0.0388
Moon	36757-03-14 09:21 G	15146350.74	15146350.89	15146351.05	0.0527	0.0393
Earth	36757-03-14 12:57 G	15146350.91	15146351.04	15146351.18	0.0527	0.0425 *
Earth	36758-04-19 19:26 G	15146752.15	15146752.31	15146752.47	0.0530	0.0382
Moon	36758-04-19 22:05 G	15146752.27	15146752.42	15146752.58	0.0530	0.0385 *

Mercury	36760-02-14 02:09 G	15147417.53	15147417.59	15147417.65	0.0521	0.0447
Mercury	36760-05-13 06:57 G	15147506.67	15147506.79	15147506.91	0.0519	0.0143
Moon	36763-10-07 03:07 G	15148748.39	15148748.63	15148748.87	0.0496	0.0050
Earth	36763-10-07 03:07 G	15148748.40	15148748.63	15148748.87	0.0496	0.0070 *
Venus	36764-06-12 13:12 G	15148997.99	15148998.05	15148998.12	0.0496	0.0468
Mercury	36766-07-09 17:31 G	15149755.06	15149755.23	15149755.40	0.0507	0.0188
Earth	36769-03-19 12:14 G	15150738.82	15150739.01	15150739.20	0.0528	0.0316
Moon	36769-03-19 14:09 G	15150738.92	15150739.09	15150739.28	0.0528	0.0323 *
Venus	36770-04-16 01:12 G	15151131.40	15151131.55	15151131.70	0.0530	0.0350
Earth	36770-04-24 19:55 G	15151140.25	15151140.33	15151140.42	0.0530	0.0491
Moon	36770-04-24 18:57 G	15151140.26	15151140.29	15151140.34	0.0530	0.0521 *
Mercury	36772-03-01 11:17 G	15151816.84	15151816.97	15151817.09	0.0520	0.0020
Earth	36774-09-09 16:33 G	15152739.16	15152739.19	15152739.22	0.0500	0.0494
Moon	36774-09-09 18:57 G	15152739.27	15152739.29	15152739.33	0.0500	0.0496
Moon	36775-10-11 11:17 G	15153135.76	15153135.97	15153136.18	0.0496	0.0182
Earth	36775-10-11 12:57 G	15153135.83	15153136.04	15153136.27	0.0496	0.0163 *
Venus	36776-02-16 14:53 G	15153263.92	15153264.12	15153264.32	0.0496	0.0059
Mercury	36778-04-27 13:41 G	15154064.89	15154065.07	15154065.26	0.0506	0.0026
Moon	36781-03-24 09:21 G	15155126.67	15155126.89	15155127.10	0.0528	0.0239
Earth	36781-03-24 09:50 G	15155126.70	15155126.91	15155127.13	0.0528	0.0206 *
Venus	36781-12-19 15:07 G	15155396.94	15155397.13	15155397.33	0.0530	0.0160
Mercury	36783-12-19 15:36 G	15156127.03	15156127.15	15156127.27	0.0520	0.0157
Mercury	36784-03-17 20:38 G	15156216.29	15156216.36	15156216.43	0.0518	0.0435
Moon	36786-09-14 00:43 G	15157126.43	15157126.53	15157126.65	0.0499	0.0434
Earth	36786-09-14 04:33 G	15157126.55	15157126.69	15157126.83	0.0499	0.0403 *
Earth	36787-10-15 22:19 G	15157523.23	15157523.43	15157523.63	0.0496	0.0253
Moon	36787-10-16 01:26 G	15157523.37	15157523.56	15157523.76	0.0496	0.0280 *
Venus	36787-10-22 16:05 G	15157530.02	15157530.17	15157530.31	0.0496	0.0350
Mercury	36790-02-13 09:50 G	15158374.75	15158374.91	15158375.08	0.0505	0.0237
Moon	36793-03-29 09:36 G	15159514.68	15159514.90	15159515.13	0.0529	0.0092

Earth	36793-03-29 11:02 G	15159514.73	15159514.96	15159515.19	0.0529	0.0091	*
Mercury	36795-10-07 20:24 G	15160437.24	15160437.35	15160437.45	0.0521	0.0299	
Mercury	36796-01-05 01:12 G	15160526.45	15160526.55	15160526.66	0.0519	0.0294	
Earth	36798-09-18 14:38 G	15161513.93	15161514.11	15161514.30	0.0498	0.0314	
Moon	36798-09-18 18:29 G	15161514.10	15161514.27	15161514.45	0.0498	0.0315	*
Moon	36799-10-20 01:55 G	15161910.41	15161910.58	15161910.75	0.0496	0.0334	
Earth	36799-10-20 05:31 G	15161910.56	15161910.73	15161910.90	0.0496	0.0341	*
Mercury	36801-12-02 05:31 G	15162684.66	15162684.73	15162684.81	0.0505	0.0456	
Mercury	36802-03-02 17:02 G	15162775.09	15162775.21	15162775.34	0.0507	0.0372	
Earth	36805-04-03 13:12 G	15163902.82	15163903.05	15163903.29	0.0530	0.0026	
Moon	36805-04-03 16:33 G	15163902.96	15163903.19	15163903.43	0.0530	0.0056	*
Mercury	36807-07-27 00:57 G	15164747.47	15164747.54	15164747.60	0.0521	0.0444	
Mercury	36807-10-24 05:45 G	15164836.62	15164836.74	15164836.86	0.0519	0.0147	
Mars	36808-08-17 11:45 G	15165134.89	15165134.99	15165135.11	0.0512	0.0466	
Moon	36810-09-22 21:21 G	15165901.18	15165901.39	15165901.62	0.0497	0.0192	
Earth	36810-09-23 00:57 G	15165901.33	15165901.54	15165901.75	0.0497	0.0222	*
Earth	36811-10-24 14:24 G	15166297.99	15166298.10	15166298.22	0.0496	0.0430	
Moon	36811-10-24 18:00 G	15166298.12	15166298.25	15166298.39	0.0496	0.0401	*
Venus	36811-10-24 23:17 G	15166298.31	15166298.47	15166298.64	0.0496	0.0288	*
Mercury	36813-12-19 14:09 G	15167084.92	15167085.09	15167085.26	0.0507	0.0170	
Moon	36817-04-08 09:21 G	15168290.67	15168290.89	15168291.12	0.0530	0.0130	
Earth	36817-04-08 13:26 G	15168290.83	15168291.06	15168291.29	0.0530	0.0136	*
Venus	36817-08-27 06:57 G	15168431.60	15168431.79	15168431.99	0.0530	0.0133	
Mercury	36819-08-12 09:21 G	15169146.77	15169146.89	15169147.02	0.0520	0.0021	
Earth	36822-09-27 09:50 G	15170288.69	15170288.91	15170289.14	0.0497	0.0133	
Moon	36822-09-27 12:00 G	15170288.79	15170289.00	15170289.23	0.0497	0.0119	*
Venus	36823-06-30 00:43 G	15170564.34	15170564.53	15170564.74	0.0496	0.0120	
Mercury	36825-10-07 11:17 G	15171394.79	15171394.97	15171395.16	0.0506	0.0030	
Earth	36829-04-13 14:09 G	15172678.89	15172679.09	15172679.30	0.0530	0.0251	
Moon	36829-04-13 17:31 G	15172679.02	15172679.23	15172679.44	0.0530	0.0218	*

Venus	36829-05-01 21:50 G	15172697.27	15172697.41	15172697.55	0.0530	0.0372
Mercury	36831-05-31 13:41 G	15173456.95	15173457.07	15173457.19	0.0520	0.0166
Mercury	36831-08-28 18:43 G	15173546.21	15173546.28	15173546.35	0.0518	0.0426
Moon	36834-10-01 19:55 G	15174676.09	15174676.33	15174676.58	0.0497	0.0061
Earth	36834-10-01 20:24 G	15174676.12	15174676.35	15174676.58	0.0497	0.0037 *
Mercury	36837-07-26 07:41 G	15175704.66	15175704.82	15175704.98	0.0505	0.0239
Earth	36840-03-13 08:24 G	15176665.73	15176665.85	15176665.98	0.0527	0.0446
Moon	36840-03-13 11:17 G	15176665.83	15176665.97	15176666.11	0.0527	0.0415 *
Moon	36841-04-18 11:45 G	15177066.82	15177066.99	15177067.17	0.0530	0.0362
Earth	36841-04-18 13:41 G	15177066.90	15177067.07	15177067.24	0.0530	0.0364 *
Mercury	36843-03-19 18:00 G	15177767.15	15177767.25	15177767.35	0.0521	0.0314
Mercury	36843-06-16 23:02 G	15177856.35	15177856.46	15177856.57	0.0519	0.0279
Mars	36844-05-21 18:29 G	15178196.27	15178196.27	15178196.29	0.0511	0.0510
Moon	36846-10-06 05:02 G	15179063.49	15179063.71	15179063.94	0.0496	0.0042
Earth	36846-10-06 06:43 G	15179063.55	15179063.78	15179064.02	0.0496	0.0057 *
Mercury	36849-05-14 03:50 G	15180014.58	15180014.66	15180014.74	0.0505	0.0451
Mercury	36849-08-12 15:21 G	15180105.02	15180105.14	15180105.26	0.0507	0.0376
Moon	36852-03-18 06:57 G	15181053.61	15181053.79	15181053.97	0.0528	0.0341
Earth	36852-03-18 08:09 G	15181053.67	15181053.84	15181054.02	0.0528	0.0337 *
Moon	36853-04-23 15:50 G	15181455.10	15181455.16	15181455.23	0.0530	0.0507
Earth	36853-04-23 16:48 G	15181455.10	15181455.20	15181455.30	0.0530	0.0476 *
Venus	36853-05-04 21:36 G	15181466.28	15181466.40	15181466.53	0.0530	0.0413
Mercury	36855-01-05 22:48 G	15182077.40	15182077.45	15182077.51	0.0522	0.0455
Mercury	36855-04-05 03:50 G	15182166.53	15182166.66	15182166.78	0.0520	0.0138
Earth	36858-10-10 15:21 G	15183450.92	15183451.14	15183451.36	0.0496	0.0148
Moon	36858-10-10 18:29 G	15183451.04	15183451.27	15183451.49	0.0496	0.0171 *
Venus	36859-03-07 10:33 G	15183598.74	15183598.94	15183599.14	0.0496	0.0116
Mercury	36861-05-31 11:17 G	15184414.80	15184414.97	15184415.15	0.0506	0.0161
Mars	36862-05-09 10:48 G	15184757.67	15184757.95	15184758.24	0.0515	0.0098
Moon	36864-03-23 08:38 G	15185441.67	15185441.86	15185442.06	0.0529	0.0259

Earth	36864-03-23 09:21 G	15185441.68	15185441.89	15185442.10	0.0529	0.0226	*
Venus	36865-01-07 13:41 G	15185731.87	15185732.07	15185732.27	0.0530	0.0083	
Mercury	36867-01-22 08:24 G	15186476.72	15186476.85	15186476.97	0.0520	0.0013	
Earth	36869-09-13 07:26 G	15187441.68	15187441.81	15187441.93	0.0499	0.0419	
Moon	36869-09-13 11:17 G	15187441.87	15187441.97	15187442.07	0.0499	0.0450	*
Moon	36870-10-14 21:21 G	15187838.20	15187838.39	15187838.58	0.0496	0.0268	
Earth	36870-10-15 00:57 G	15187838.34	15187838.54	15187838.74	0.0496	0.0240	*
Venus	36870-11-10 12:00 G	15187864.84	15187865.00	15187865.17	0.0496	0.0291	
Mercury	36873-03-19 08:24 G	15188724.66	15188724.85	15188725.03	0.0506	0.0041	
Earth	36876-03-28 10:05 G	15189829.69	15189829.92	15189830.15	0.0529	0.0114	
Moon	36876-03-28 12:43 G	15189829.80	15189830.03	15189830.27	0.0529	0.0108	*
Mercury	36878-11-10 12:00 G	15190786.88	15190787.00	15190787.12	0.0520	0.0168	
Mercury	36879-02-07 17:02 G	15190876.14	15190876.21	15190876.28	0.0518	0.0424	
Moon	36881-09-17 12:29 G	15191828.85	15191829.02	15191829.21	0.0499	0.0335	
Earth	36881-09-17 16:05 G	15191829.01	15191829.17	15191829.35	0.0499	0.0333	*
Earth	36882-10-19 09:36 G	15192225.73	15192225.90	15192226.08	0.0496	0.0329	
Moon	36882-10-19 13:26 G	15192225.88	15192226.06	15192226.24	0.0496	0.0317	*
Mercury	36885-01-05 05:31 G	15193034.57	15193034.73	15193034.90	0.0506	0.0238	
Moon	36888-04-02 07:26 G	15194217.58	15194217.81	15194218.05	0.0529	0.0035	
Earth	36888-04-02 11:31 G	15194217.74	15194217.98	15194218.21	0.0529	0.0011	*
Mercury	36890-08-29 16:19 G	15195097.09	15195097.18	15195097.28	0.0521	0.0318	
Mercury	36890-11-26 21:21 G	15195186.28	15195186.39	15195186.50	0.0519	0.0274	
Earth	36893-09-22 03:36 G	15196216.45	15196216.65	15196216.86	0.0498	0.0239	
Moon	36893-09-22 06:00 G	15196216.54	15196216.75	15196216.96	0.0498	0.0210	*
Moon	36894-10-23 16:48 G	15196613.06	15196613.20	15196613.35	0.0496	0.0391	
Earth	36894-10-23 19:55 G	15196613.21	15196613.33	15196613.45	0.0496	0.0420	*
Venus	36894-11-12 21:07 G	15196633.25	15196633.38	15196633.53	0.0496	0.0356	
Mercury	36896-10-24 01:55 G	15197344.50	15197344.58	15197344.67	0.0505	0.0447	
Mercury	36897-01-22 13:26 G	15197434.94	15197435.06	15197435.18	0.0507	0.0380	
Earth	36900-04-08 10:19 G	15198605.70	15198605.93	15198606.15	0.0529	0.0118	

Moon	36900-04-08 13:55 G	15198605.86	15198606.08	15198606.31	0.0529	0.0110	*
Venus	36900-09-16 03:21 G	15198766.45	15198766.64	15198766.83	0.0530	0.0195	
Mercury	36902-06-18 20:53 G	15199407.32	15199407.37	15199407.42	0.0522	0.0465	
Mercury	36902-09-16 01:41 G	15199496.45	15199496.57	15199496.70	0.0520	0.0127	
Moon	36905-09-27 14:53 G	15200603.88	15200604.12	15200604.35	0.0497	0.0135	
Earth	36905-09-27 15:21 G	15200603.92	15200604.14	15200604.36	0.0497	0.0143	*
Venus	36906-07-19 23:02 G	15200899.25	15200899.46	15200899.66	0.0496	0.0051	
Mercury	36908-11-11 10:05 G	15201744.75	15201744.92	15201745.09	0.0506	0.0172	
Moon	36912-04-13 09:50 G	15202993.70	15202993.91	15202994.14	0.0530	0.0202	
Earth	36912-04-13 12:29 G	15202993.82	15202994.02	15202994.23	0.0530	0.0236	*
Venus	36912-05-21 19:12 G	15203032.13	15203032.30	15203032.46	0.0530	0.0304	
Mercury	36914-07-05 06:29 G	15203806.64	15203806.77	15203806.90	0.0520	0.0015	
Moon	36917-10-02 00:14 G	15204991.29	15204991.51	15204991.73	0.0497	0.0078	
Earth	36917-10-02 01:41 G	15204991.34	15204991.57	15204991.81	0.0497	0.0051	*
Venus	36918-03-25 00:00 G	15205165.43	15205165.50	15205165.58	0.0496	0.0458	
Mercury	36920-08-30 06:00 G	15206054.57	15206054.75	15206054.94	0.0506	0.0044	
Moon	36923-03-14 07:55 G	15206980.70	15206980.83	15206980.97	0.0527	0.0431	
Earth	36923-03-14 09:50 G	15206980.81	15206980.91	15206981.02	0.0527	0.0464	*
Earth	36924-04-18 15:50 G	15207381.99	15207382.16	15207382.34	0.0530	0.0351	
Moon	36924-04-18 16:05 G	15207382.01	15207382.17	15207382.33	0.0530	0.0357	*
Mercury	36926-04-23 11:17 G	15208116.85	15208116.97	15208117.09	0.0521	0.0158	
Mercury	36926-07-21 16:05 G	15208206.11	15208206.17	15208206.24	0.0518	0.0436	
Earth	36929-10-06 12:00 G	15209378.77	15209379.00	15209379.24	0.0496	0.0046	
Moon	36929-10-06 15:07 G	15209378.89	15209379.13	15209379.37	0.0496	0.0033	*
Mercury	36932-06-18 03:07 G	15210364.47	15210364.63	15210364.79	0.0505	0.0243	
Earth	36935-03-19 11:02 G	15211368.79	15211368.96	15211369.13	0.0527	0.0356	
Moon	36935-03-19 11:02 G	15211368.80	15211368.96	15211369.12	0.0527	0.0364	*
Earth	36936-04-23 17:31 G	15211770.12	15211770.23	15211770.35	0.0530	0.0459	
Moon	36936-04-23 20:09 G	15211770.25	15211770.34	15211770.44	0.0530	0.0487	*
Venus	36936-05-24 20:24 G	15211801.28	15211801.35	15211801.42	0.0530	0.0492	

Mercury	36938-02-09 15:07 G	15212427.03	15212427.13	15212427.23	0.0521	0.0315
Mercury	36938-05-09 19:55 G	15212516.22	15212516.33	15212516.44	0.0519	0.0276
Moon	36941-10-10 16:48 G	15213765.98	15213766.20	15213766.42	0.0497	0.0158
Earth	36941-10-10 20:24 G	15213766.12	15213766.35	15213766.57	0.0497	0.0135 *
Venus	36942-03-27 08:53 G	15213933.68	15213933.87	15213934.06	0.0496	0.0186
Mercury	36944-04-06 00:14 G	15214674.43	15214674.51	15214674.60	0.0505	0.0440
Mercury	36944-07-05 12:00 G	15214764.89	15214765.00	15214765.12	0.0507	0.0389
Earth	36947-03-24 12:14 G	15215756.81	15215757.01	15215757.22	0.0528	0.0243
Moon	36947-03-24 14:38 G	15215756.90	15215757.11	15215757.31	0.0528	0.0271 *
Venus	36948-01-28 12:14 G	15216066.80	15216067.01	15216067.21	0.0529	0.0013
Mercury	36949-11-28 19:26 G	15216737.26	15216737.31	15216737.37	0.0521	0.0463
Mercury	36950-02-26 00:14 G	15216826.39	15216826.51	15216826.64	0.0519	0.0128
Moon	36952-09-13 06:43 G	15217756.71	15217756.78	15217756.87	0.0500	0.0467
Earth	36952-09-13 10:19 G	15217756.83	15217756.93	15217757.05	0.0500	0.0436 *
Earth	36953-10-15 07:12 G	15218153.59	15218153.80	15218154.00	0.0496	0.0230
Moon	36953-10-15 10:48 G	15218153.75	15218153.95	15218154.15	0.0496	0.0253 *
Venus	36953-11-30 10:33 G	15218199.76	15218199.94	15218200.13	0.0496	0.0219
Mercury	36956-04-23 08:38 G	15219074.69	15219074.86	15219075.04	0.0506	0.0183
Moon	36959-03-29 07:12 G	15220144.57	15220144.80	15220145.02	0.0528	0.0119
Earth	36959-03-29 10:48 G	15220144.72	15220144.95	15220145.18	0.0528	0.0130 *
Venus	36959-10-03 02:24 G	15220332.55	15220332.60	15220332.65	0.0530	0.0512
Mercury	36961-12-15 04:48 G	15221136.57	15221136.70	15221136.82	0.0520	0.0024
Mars	36962-11-11 20:38 G	15221468.12	15221468.36	15221468.60	0.0512	0.0209
Earth	36964-09-17 23:31 G	15222144.32	15222144.48	15222144.65	0.0499	0.0343
Moon	36964-09-18 01:55 G	15222144.42	15222144.58	15222144.75	0.0499	0.0342 *
Moon	36965-10-19 14:24 G	15222540.92	15222541.10	15222541.30	0.0496	0.0305
Earth	36965-10-19 17:31 G	15222541.06	15222541.23	15222541.42	0.0496	0.0324 *
Mercury	36968-02-10 05:17 G	15223384.54	15223384.72	15223384.91	0.0506	0.0025
Earth	36971-04-03 12:00 G	15224532.77	15224533.00	15224533.23	0.0529	0.0013
Moon	36971-04-03 15:50 G	15224532.93	15224533.16	15224533.39	0.0529	0.0020 *

Mercury	36973-10-03 09:36 G	15225446.78	15225446.90	15225447.02	0.0521	0.0161
Mercury	36973-12-31 14:24 G	15225536.04	15225536.10	15225536.17	0.0519	0.0434
Moon	36976-09-22 11:17 G	15226531.75	15226531.97	15226532.19	0.0498	0.0221
Earth	36976-09-22 12:00 G	15226531.80	15226532.00	15226532.20	0.0498	0.0250 *
Earth	36977-10-24 03:07 G	15226928.51	15226928.63	15226928.76	0.0496	0.0411
Moon	36977-10-24 05:02 G	15226928.57	15226928.71	15226928.85	0.0496	0.0387 *
Venus	36977-12-02 20:09 G	15226968.25	15226968.34	15226968.45	0.0496	0.0429
Mercury	36979-11-29 01:26 G	15227694.39	15227694.56	15227694.72	0.0505	0.0238
Moon	36983-04-08 11:45 G	15228920.75	15228920.99	15228921.22	0.0530	0.0097
Earth	36983-04-08 14:38 G	15228920.89	15228921.11	15228921.34	0.0530	0.0105 *
Venus	36983-10-06 04:33 G	15229101.52	15229101.69	15229101.86	0.0530	0.0287
Mercury	36985-07-22 14:24 G	15229756.99	15229757.10	15229757.20	0.0521	0.0302
Mercury	36985-10-19 19:12 G	15229846.20	15229846.30	15229846.41	0.0519	0.0291
Moon	36988-09-26 22:05 G	15230919.20	15230919.42	15230919.63	0.0497	0.0155
Earth	36988-09-26 23:31 G	15230919.26	15230919.48	15230919.70	0.0497	0.0153 *
Venus	36989-08-07 22:19 G	15231234.23	15231234.43	15231234.64	0.0496	0.0026
Mercury	36991-09-16 22:19 G	15232004.35	15232004.43	15232004.53	0.0505	0.0437
Mercury	36991-12-16 10:05 G	15232094.81	15232094.92	15232095.04	0.0507	0.0392
Earth	36995-04-13 17:45 G	15233309.03	15233309.24	15233309.45	0.0529	0.0221
Moon	36995-04-13 18:29 G	15233309.07	15233309.27	15233309.48	0.0529	0.0193 *
Venus	36995-06-10 20:09 G	15233367.16	15233367.34	15233367.53	0.0530	0.0210
Mercury	36997-05-10 18:14 G	15234067.20	15234067.26	15234067.32	0.0521	0.0456
Mercury	36997-08-07 23:02 G	15234156.34	15234156.46	15234156.59	0.0519	0.0134
Earth	37000-10-02 07:26 G	15235306.58	15235306.81	15235307.04	0.0497	0.0062
Moon	37000-10-02 10:19 G	15235306.70	15235306.93	15235307.17	0.0497	0.0093 *

38TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 38th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	37001-04-13 22:48	G	15235500.32	15235500.45	15235500.58	0.0496	0.0385	
Mercury	37003-10-05 07:41	G	15236404.65	15236404.82	15236404.99	0.0507	0.0197	
Earth	37006-03-14 17:45	G	15237296.15	15237296.24	15237296.34	0.0526	0.0475	
Moon	37006-03-14 18:14	G	15237296.15	15237296.26	15237296.38	0.0526	0.0446	*
Earth	37007-04-19 20:24	G	15237697.17	15237697.35	15237697.53	0.0529	0.0337	
Moon	37007-04-19 22:19	G	15237697.25	15237697.43	15237697.61	0.0529	0.0352	*
Mercury	37009-05-28 03:36	G	15238466.52	15238466.65	15238466.77	0.0520	0.0017	
Moon	37012-10-06 15:21	G	15239693.91	15239694.14	15239694.37	0.0497	0.0021	
Earth	37012-10-06 18:57	G	15239694.06	15239694.29	15239694.52	0.0497	0.0035	*
Mercury	37015-07-24 04:19	G	15240714.50	15240714.68	15240714.87	0.0506	0.0011	
Earth	37018-03-19 15:36	G	15241683.99	15241684.15	15241684.32	0.0527	0.0368	
Moon	37018-03-19 17:02	G	15241684.05	15241684.21	15241684.38	0.0527	0.0378	*
Moon	37019-04-24 17:02	G	15242085.12	15242085.21	15242085.31	0.0529	0.0480	
Earth	37019-04-24 20:38	G	15242085.24	15242085.36	15242085.48	0.0529	0.0449	*
Mercury	37021-03-16 07:55	G	15242776.71	15242776.83	15242776.95	0.0521	0.0162	
Mercury	37021-06-13 12:57	G	15242865.97	15242866.04	15242866.11	0.0518	0.0432	
Earth	37024-10-11 06:29	G	15244081.55	15244081.77	15244082.00	0.0497	0.0130	
Moon	37024-10-11 10:19	G	15244081.71	15244081.93	15244082.15	0.0497	0.0157	*
Venus	37025-04-16 09:50	G	15244268.74	15244268.91	15244269.08	0.0496	0.0269	
Mercury	37027-05-12 00:57	G	15245024.37	15245024.54	15245024.71	0.0505	0.0214	
Moon	37030-03-24 12:29	G	15246071.83	15246072.02	15246072.21	0.0528	0.0284	
Earth	37030-03-24 15:50	G	15246071.96	15246072.16	15246072.36	0.0528	0.0256	*

Venus	37031-02-17 12:14 G	15246401.81	15246402.01	15246402.22	0.0530	0.0080
Mercury	37033-01-02 12:43 G	15247086.93	15247087.03	15247087.14	0.0521	0.0302
Mercury	37033-04-01 17:45 G	15247176.14	15247176.24	15247176.34	0.0519	0.0292
Earth	37035-09-14 21:07 G	15248072.29	15248072.38	15248072.50	0.0500	0.0445
Moon	37035-09-14 23:45 G	15248072.43	15248072.49	15248072.56	0.0500	0.0474 *
Moon	37036-10-15 14:24 G	15248468.89	15248469.10	15248469.31	0.0496	0.0240
Earth	37036-10-15 17:31 G	15248469.02	15248469.23	15248469.44	0.0496	0.0223 *
Venus	37036-12-20 11:17 G	15248534.78	15248534.97	15248535.17	0.0496	0.0136
Mercury	37039-02-27 21:07 G	15249334.29	15249334.38	15249334.48	0.0505	0.0425
Mercury	37039-05-29 08:38 G	15249424.76	15249424.86	15249424.98	0.0507	0.0403
Earth	37042-03-29 17:17 G	15250460.00	15250460.22	15250460.45	0.0529	0.0142
Moon	37042-03-29 21:21 G	15250460.16	15250460.39	15250460.62	0.0529	0.0123 *
Venus	37042-10-23 04:48 G	15250667.57	15250667.70	15250667.82	0.0530	0.0413
Mercury	37044-10-21 17:45 G	15251397.17	15251397.24	15251397.30	0.0522	0.0440
Mercury	37045-01-18 22:33 G	15251486.32	15251486.44	15251486.56	0.0520	0.0152
Moon	37047-09-19 09:21 G	15252459.72	15252459.89	15252460.07	0.0499	0.0343
Earth	37047-09-19 10:19 G	15252459.76	15252459.93	15252460.09	0.0499	0.0351 *
Earth	37048-10-20 04:05 G	15252856.49	15252856.67	15252856.85	0.0496	0.0317
Moon	37048-10-20 05:45 G	15252856.56	15252856.74	15252856.92	0.0496	0.0294 *
Mercury	37051-03-17 06:14 G	15253734.59	15253734.76	15253734.93	0.0506	0.0207
Moon	37054-04-03 17:45 G	15254848.00	15254848.24	15254848.47	0.0529	0.0012
Earth	37054-04-03 21:07 G	15254848.14	15254848.38	15254848.61	0.0529	0.0025 *
Mercury	37056-11-07 02:38 G	15255796.48	15255796.61	15255796.74	0.0520	0.0007
Moon	37059-09-23 17:02 G	15256847.01	15256847.21	15256847.41	0.0498	0.0235
Earth	37059-09-23 18:14 G	15256847.07	15256847.26	15256847.46	0.0498	0.0261 *
Moon	37060-10-24 11:31 G	15257243.83	15257243.98	15257244.14	0.0497	0.0381
Earth	37060-10-24 12:14 G	15257243.88	15257244.01	15257244.14	0.0497	0.0406 *
Mercury	37063-01-03 03:36 G	15258044.47	15258044.65	15258044.84	0.0506	0.0011
Earth	37066-04-09 00:00 G	15259236.27	15259236.50	15259236.73	0.0529	0.0096
Moon	37066-04-09 01:26 G	15259236.34	15259236.56	15259236.78	0.0529	0.0084 *

Venus	37066-10-26 07:12 G	15259436.66	15259436.80	15259436.94	0.0529	0.0385
Mercury	37068-08-26 07:12 G	15260106.67	15260106.80	15260106.92	0.0520	0.0150
Mercury	37068-11-23 12:00 G	15260195.94	15260196.00	15260196.07	0.0518	0.0442
Earth	37071-09-28 06:29 G	15261234.55	15261234.77	15261234.99	0.0498	0.0164
Moon	37071-09-28 09:36 G	15261234.67	15261234.90	15261235.12	0.0498	0.0171 *
Venus	37072-08-27 22:48 G	15261569.25	15261569.45	15261569.65	0.0497	0.0106
Earth	37072-10-28 23:17 G	15261631.46	15261631.47	15261631.48	0.0497	0.0496
Mercury	37074-10-22 00:29 G	15262354.35	15262354.52	15262354.69	0.0506	0.0192
Earth	37078-04-13 23:45 G	15263624.28	15263624.49	15263624.70	0.0529	0.0212
Moon	37078-04-14 00:57 G	15263624.31	15263624.54	15263624.77	0.0529	0.0187 *
Venus	37078-06-30 21:50 G	15263702.21	15263702.41	15263702.60	0.0529	0.0118
Mercury	37080-06-14 11:31 G	15264416.88	15264416.98	15264417.09	0.0521	0.0296
Mercury	37080-09-11 16:33 G	15264506.08	15264506.19	15264506.29	0.0519	0.0296
Moon	37083-10-02 15:36 G	15265621.93	15265622.15	15265622.38	0.0498	0.0099
Earth	37083-10-02 19:26 G	15265622.08	15265622.31	15265622.54	0.0498	0.0066 *
Venus	37084-05-03 00:57 G	15265835.38	15265835.54	15265835.70	0.0497	0.0296
Mercury	37086-08-09 21:07 G	15266664.27	15266664.38	15266664.49	0.0505	0.0398
Mercury	37086-11-08 08:38 G	15266754.77	15266754.86	15266754.96	0.0507	0.0431
Earth	37089-03-13 23:45 G	15267611.41	15267611.49	15267611.58	0.0526	0.0486
Moon	37089-03-14 00:43 G	15267611.42	15267611.53	15267611.65	0.0526	0.0458 *
Moon	37090-04-18 22:33 G	15268012.28	15268012.44	15268012.62	0.0530	0.0350
Earth	37090-04-19 01:55 G	15268012.40	15268012.58	15268012.76	0.0530	0.0329 *
Mercury	37092-04-02 16:19 G	15268727.12	15268727.18	15268727.25	0.0522	0.0437
Mercury	37092-06-30 21:21 G	15268816.27	15268816.39	15268816.51	0.0520	0.0157
Earth	37095-10-07 07:41 G	15270009.58	15270009.82	15270010.05	0.0497	0.0029
Moon	37095-10-07 11:31 G	15270009.74	15270009.98	15270010.21	0.0497	0.0023 *
Mercury	37098-08-27 05:17 G	15271064.55	15271064.72	15271064.88	0.0506	0.0223
Moon	37101-03-19 21:07 G	15271999.23	15271999.38	15271999.53	0.0527	0.0398
Earth	37101-03-20 00:00 G	15271999.34	15271999.50	15271999.66	0.0527	0.0378 *
Earth	37102-04-25 05:45 G	15272400.62	15272400.74	15272400.87	0.0530	0.0443

Moon	37102-04-25 09:50 G	15272400.81	15272400.91	15272401.02	0.0530	0.0473	*
Mercury	37104-04-20 02:09 G	15273126.46	15273126.59	15273126.71	0.0520	0.0019	
Moon	37107-10-12 15:50 G	15274396.94	15274397.16	15274397.39	0.0496	0.0154	
Earth	37107-10-12 18:57 G	15274397.07	15274397.29	15274397.52	0.0496	0.0126	*
Venus	37108-05-06 11:45 G	15274603.85	15274603.99	15274604.13	0.0496	0.0357	
Mercury	37110-06-16 02:38 G	15275374.42	15275374.61	15275374.79	0.0506	0.0027	
Earth	37113-03-25 03:21 G	15276387.44	15276387.64	15276387.84	0.0527	0.0264	
Moon	37113-03-25 07:12 G	15276387.61	15276387.80	15276388.00	0.0527	0.0288	*
Venus	37114-03-09 16:48 G	15276737.02	15276737.20	15276737.39	0.0529	0.0190	
Mercury	37116-02-07 06:14 G	15277436.64	15277436.76	15277436.88	0.0520	0.0136	
Mercury	37116-05-06 11:02 G	15277525.91	15277525.96	15277526.02	0.0518	0.0456	
Mars	37117-02-07 06:29 G	15277802.52	15277802.77	15277803.02	0.0511	0.0159	
Moon	37118-09-15 03:21 G	15278387.57	15278387.64	15278387.71	0.0500	0.0478	
Earth	37118-09-15 04:19 G	15278387.58	15278387.68	15278387.77	0.0500	0.0455	*
Earth	37119-10-17 02:24 G	15278784.39	15278784.60	15278784.81	0.0497	0.0217	
Moon	37119-10-17 04:05 G	15278784.47	15278784.67	15278784.87	0.0497	0.0227	*
Venus	37120-01-10 11:45 G	15278869.79	15278869.99	15278870.20	0.0497	0.0056	
Mercury	37122-04-03 23:45 G	15279684.32	15279684.49	15279684.67	0.0506	0.0172	
Moon	37125-03-30 02:38 G	15280775.39	15280775.61	15280775.85	0.0528	0.0127	
Earth	37125-03-30 06:14 G	15280775.54	15280775.76	15280775.99	0.0528	0.0147	*
Venus	37125-11-12 09:21 G	15281002.73	15281002.89	15281003.06	0.0529	0.0302	
Mercury	37127-11-26 10:48 G	15281746.85	15281746.95	15281747.06	0.0520	0.0280	
Mercury	37128-02-23 15:36 G	15281836.05	15281836.15	15281836.26	0.0518	0.0311	
Moon	37130-09-19 15:50 G	15282775.01	15282775.16	15282775.33	0.0499	0.0347	
Earth	37130-09-19 17:17 G	15282775.06	15282775.22	15282775.38	0.0499	0.0361	*
Venus	37131-09-15 13:55 G	15283136.01	15283136.08	15283136.16	0.0497	0.0459	
Moon	37131-10-21 13:26 G	15283171.87	15283172.06	15283172.26	0.0497	0.0286	
Earth	37131-10-21 13:55 G	15283171.90	15283172.08	15283172.26	0.0497	0.0313	*
Mercury	37134-01-20 20:38 G	15283994.24	15283994.36	15283994.49	0.0505	0.0374	
Mercury	37134-04-21 08:24 G	15284084.77	15284084.85	15284084.93	0.0507	0.0455	

Mars	37135-01-24 17:31 G	15284362.99	15284363.23	15284363.50	0.0514	0.0244
Earth	37137-04-04 05:31 G	15285163.50	15285163.73	15285163.97	0.0528	0.0033
Moon	37137-04-04 07:41 G	15285163.59	15285163.82	15285164.04	0.0528	0.0009 *
Mercury	37139-09-14 15:21 G	15286057.07	15286057.14	15286057.21	0.0521	0.0428
Mercury	37139-12-12 20:09 G	15286146.22	15286146.34	15286146.46	0.0519	0.0163
Earth	37142-09-24 06:57 G	15287162.60	15287162.79	15287163.00	0.0499	0.0266
Moon	37142-09-24 10:05 G	15287162.72	15287162.92	15287163.14	0.0499	0.0239 *
Moon	37143-10-26 00:43 G	15287559.39	15287559.53	15287559.67	0.0497	0.0388
Earth	37143-10-26 01:55 G	15287559.45	15287559.58	15287559.71	0.0497	0.0406 *
Mercury	37146-02-07 05:17 G	15288394.56	15288394.72	15288394.88	0.0507	0.0253
Earth	37149-04-09 06:57 G	15289551.56	15289551.79	15289552.02	0.0529	0.0088
Moon	37149-04-09 07:26 G	15289551.57	15289551.81	15289552.05	0.0529	0.0068 *
Venus	37149-11-15 09:21 G	15289771.81	15289771.89	15289771.97	0.0529	0.0481
Mercury	37151-10-01 00:57 G	15290456.41	15290456.54	15290456.67	0.0520	0.0024
Moon	37154-09-28 17:02 G	15291549.99	15291550.21	15291550.43	0.0498	0.0178
Earth	37154-09-28 20:53 G	15291550.15	15291550.37	15291550.59	0.0498	0.0168 *
Venus	37155-09-18 01:41 G	15291904.38	15291904.57	15291904.76	0.0496	0.0199
Earth	37155-10-30 12:43 G	15291947.01	15291947.03	15291947.05	0.0496	0.0494
Mercury	37157-11-26 01:55 G	15292704.39	15292704.58	15292704.76	0.0506	0.0046
Moon	37161-04-14 06:57 G	15293939.58	15293939.79	15293940.00	0.0529	0.0184
Earth	37161-04-14 09:50 G	15293939.70	15293939.91	15293940.13	0.0529	0.0206 *
Venus	37161-07-21 01:55 G	15294037.38	15294037.58	15294037.79	0.0530	0.0015
Mercury	37163-07-20 05:45 G	15294766.62	15294766.74	15294766.87	0.0520	0.0116
Mercury	37163-10-17 10:48 G	15294855.90	15294855.95	15294856.00	0.0518	0.0477
Earth	37166-10-03 08:53 G	15295937.64	15295937.87	15295938.10	0.0497	0.0070
Moon	37166-10-03 12:43 G	15295937.80	15295938.03	15295938.26	0.0497	0.0101 *
Venus	37167-05-24 03:36 G	15296170.47	15296170.65	15296170.84	0.0496	0.0204
Mercury	37169-09-13 23:02 G	15297014.29	15297014.46	15297014.64	0.0506	0.0153
Moon	37172-03-14 10:05 G	15297926.83	15297926.92	15297927.02	0.0526	0.0473
Earth	37172-03-14 12:57 G	15297926.96	15297927.04	15297927.12	0.0526	0.0492 *

Venus	37173-03-25 19:12 G	15298303.24	15298303.30	15298303.38	0.0529	0.0496
Earth	37173-04-19 14:24 G	15298327.93	15298328.10	15298328.29	0.0529	0.0326
Moon	37173-04-19 18:29 G	15298328.10	15298328.27	15298328.45	0.0529	0.0350 *
Mercury	37175-05-08 10:05 G	15299076.81	15299076.92	15299077.03	0.0520	0.0265
Mercury	37175-08-05 14:53 G	15299166.03	15299166.12	15299166.22	0.0518	0.0326
Moon	37178-10-07 12:57 G	15300324.81	15300325.04	15300325.28	0.0497	0.0024
Earth	37178-10-07 16:19 G	15300324.94	15300325.18	15300325.41	0.0497	0.0023 *
Mercury	37181-07-02 19:55 G	15301324.20	15301324.33	15301324.47	0.0506	0.0355
Mercury	37181-10-01 07:41 G	15301414.77	15301414.82	15301414.89	0.0508	0.0478
Earth	37184-03-19 15:07 G	15302314.98	15302315.13	15302315.29	0.0526	0.0381
Moon	37184-03-19 18:57 G	15302315.15	15302315.29	15302315.44	0.0526	0.0410 *
Moon	37185-04-24 14:53 G	15302716.01	15302716.12	15302716.23	0.0529	0.0467
Earth	37185-04-24 18:29 G	15302716.15	15302716.27	15302716.40	0.0529	0.0441 *
Mercury	37187-02-24 14:38 G	15303387.04	15303387.11	15303387.19	0.0521	0.0410
Mercury	37187-05-24 19:26 G	15303476.19	15303476.31	15303476.43	0.0519	0.0181
Earth	37190-10-12 03:50 G	15304712.44	15304712.66	15304712.89	0.0497	0.0120
Moon	37190-10-12 05:31 G	15304712.51	15304712.73	15304712.94	0.0497	0.0150 *
Venus	37191-05-26 12:43 G	15304938.93	15304939.03	15304939.12	0.0497	0.0439
Mercury	37193-07-20 05:02 G	15305724.55	15305724.71	15305724.86	0.0507	0.0277
Moon	37196-03-24 10:05 G	15306702.73	15306702.92	15306703.12	0.0527	0.0293
Earth	37196-03-24 13:41 G	15306702.88	15306703.07	15306703.28	0.0527	0.0270 *
Venus	37197-03-28 20:09 G	15307072.17	15307072.34	15307072.51	0.0529	0.0291
Mercury	37199-03-13 00:00 G	15307786.37	15307786.50	15307786.63	0.0520	0.0033
Moon	37201-09-14 15:50 G	15308703.11	15308703.16	15308703.23	0.0500	0.0479
Earth	37201-09-14 17:02 G	15308703.13	15308703.21	15308703.31	0.0500	0.0462 *
Moon	37202-10-16 16:19 G	15309099.97	15309100.18	15309100.40	0.0497	0.0221
Earth	37202-10-16 16:33 G	15309099.98	15309100.19	15309100.40	0.0497	0.0217 *
Venus	37203-01-29 15:07 G	15309204.93	15309205.13	15309205.34	0.0497	0.0039
Mercury	37205-05-08 01:55 G	15310034.39	15310034.58	15310034.76	0.0506	0.0074
Earth	37208-03-29 13:55 G	15311090.86	15311091.08	15311091.30	0.0528	0.0155

Moon	37208-03-29 16:19 G	15311090.96	15311091.18	15311091.40	0.0528	0.0133	*
Venus	37208-12-01 12:00 G	15311337.81	15311338.00	15311338.18	0.0529	0.0205	
Mercury	37210-12-30 04:48 G	15312096.57	15312096.70	15312096.82	0.0520	0.0110	
Mercury	37211-03-29 09:36 G	15312185.86	15312185.90	15312185.95	0.0518	0.0484	
Earth	37213-09-19 07:41 G	15313090.67	15313090.82	15313090.99	0.0499	0.0366	
Moon	37213-09-19 10:48 G	15313090.79	15313090.95	15313091.14	0.0499	0.0341	*
Venus	37214-10-04 17:17 G	15313471.09	15313471.22	15313471.37	0.0497	0.0363	
Moon	37214-10-21 03:07 G	15313487.44	15313487.63	15313487.81	0.0496	0.0284	
Earth	37214-10-21 04:05 G	15313487.50	15313487.67	15313487.86	0.0496	0.0312	*
Mercury	37217-02-23 22:19 G	15314344.25	15314344.43	15314344.61	0.0506	0.0134	
Moon	37220-04-03 15:21 G	15315478.90	15315479.14	15315479.39	0.0529	0.0020	
Earth	37220-04-03 15:21 G	15315478.91	15315479.14	15315479.38	0.0529	0.0039	*
Mercury	37222-10-18 09:36 G	15316406.79	15316406.90	15316407.01	0.0521	0.0248	
Mercury	37223-01-15 14:24 G	15316496.01	15316496.10	15316496.20	0.0519	0.0345	
Moon	37225-09-23 17:17 G	15317478.02	15317478.22	15317478.42	0.0499	0.0243	
Earth	37225-09-23 21:07 G	15317478.19	15317478.38	15317478.58	0.0499	0.0269	*
Earth	37226-10-25 15:07 G	15317875.00	15317875.13	15317875.27	0.0496	0.0404	
Moon	37226-10-25 18:14 G	15317875.11	15317875.26	15317875.40	0.0496	0.0394	*
Mercury	37228-12-12 19:26 G	15318654.17	15318654.31	15318654.45	0.0505	0.0333	
Mercury	37229-03-13 07:12 G	15318744.76	15318744.80	15318744.83	0.0507	0.0496	
Moon	37232-04-08 17:45 G	15319867.02	15319867.24	15319867.47	0.0529	0.0057	
Earth	37232-04-08 20:24 G	15319867.12	15319867.35	15319867.58	0.0529	0.0085	*
Mercury	37234-08-06 13:55 G	15320717.01	15320717.08	15320717.17	0.0521	0.0395	
Mercury	37234-11-03 18:43 G	15320806.16	15320806.28	15320806.40	0.0519	0.0196	
Mars	37235-07-31 08:24 G	15321075.75	15321075.85	15321075.96	0.0512	0.0462	
Earth	37237-09-28 04:33 G	15321865.47	15321865.69	15321865.91	0.0498	0.0176	
Moon	37237-09-28 08:24 G	15321865.64	15321865.85	15321866.07	0.0498	0.0188	*
Venus	37238-10-07 01:55 G	15322239.41	15322239.58	15322239.75	0.0497	0.0278	
Earth	37238-10-29 22:05 G	15322262.40	15322262.42	15322262.46	0.0497	0.0492	
Mercury	37240-12-30 04:05 G	15323054.53	15323054.67	15323054.82	0.0507	0.0296	

Earth	37244-04-14 00:00 G	15324255.29	15324255.50	15324255.71	0.0529	0.0205
Moon	37244-04-14 03:50 G	15324255.44	15324255.66	15324255.88	0.0529	0.0187 *
Venus	37244-08-09 08:09 G	15324372.64	15324372.84	15324373.04	0.0529	0.0109
Mercury	37246-08-22 23:17 G	15325116.35	15325116.47	15325116.60	0.0519	0.0052
Moon	37249-10-02 13:26 G	15326252.83	15326253.06	15326253.30	0.0498	0.0106
Earth	37249-10-02 16:33 G	15326252.96	15326253.19	15326253.43	0.0498	0.0078 *
Venus	37250-06-12 03:50 G	15326505.46	15326505.66	15326505.86	0.0497	0.0127
Mercury	37252-10-18 01:12 G	15327364.37	15327364.55	15327364.73	0.0507	0.0095
Earth	37255-03-14 23:45 G	15328242.43	15328242.49	15328242.57	0.0525	0.0499
Moon	37255-03-15 03:36 G	15328242.57	15328242.65	15328242.74	0.0525	0.0488 *
Venus	37256-04-13 22:48 G	15328638.32	15328638.45	15328638.59	0.0529	0.0393
Moon	37256-04-18 19:41 G	15328643.15	15328643.32	15328643.50	0.0529	0.0344
Earth	37256-04-18 23:45 G	15328643.31	15328643.49	15328643.67	0.0529	0.0320 *
Mercury	37258-06-11 03:50 G	15329426.53	15329426.66	15329426.78	0.0520	0.0100
Mercury	37258-09-08 08:38 G	15329515.82	15329515.86	15329515.90	0.0518	0.0493
Earth	37261-10-07 05:45 G	15330640.50	15330640.74	15330640.97	0.0498	0.0022
Moon	37261-10-07 07:12 G	15330640.57	15330640.80	15330641.02	0.0498	0.0032 *
Mercury	37264-08-05 22:05 G	15331674.24	15331674.42	15331674.60	0.0506	0.0109
Moon	37267-03-19 18:57 G	15332630.15	15332630.29	15332630.43	0.0526	0.0420
Earth	37267-03-19 22:48 G	15332630.30	15332630.45	15332630.61	0.0526	0.0390 *
Earth	37268-04-24 01:12 G	15333031.42	15333031.55	15333031.68	0.0529	0.0435
Moon	37268-04-24 03:50 G	15333031.54	15333031.66	15333031.77	0.0529	0.0454 *
Mercury	37270-03-30 08:24 G	15333736.74	15333736.85	15333736.96	0.0521	0.0241
Mercury	37270-06-27 13:12 G	15333825.96	15333826.05	15333826.15	0.0519	0.0351
Moon	37273-10-11 18:00 G	15335028.02	15335028.25	15335028.49	0.0497	0.0147
Earth	37273-10-11 18:00 G	15335028.03	15335028.25	15335028.48	0.0497	0.0117 *
Mercury	37276-05-24 18:29 G	15335984.13	15335984.27	15335984.41	0.0505	0.0318
Earth	37279-03-24 22:33 G	15337018.24	15337018.44	15337018.64	0.0527	0.0278
Moon	37279-03-25 01:12 G	15337018.37	15337018.55	15337018.74	0.0527	0.0298 *
Venus	37280-04-17 00:00 G	15337407.37	15337407.50	15337407.63	0.0529	0.0396

Moon	37280-04-29 04:05 G	15337419.62	15337419.67	15337419.71	0.0529	0.0518
Mercury	37282-01-16 13:12 G	15338046.97	15338047.05	15338047.14	0.0521	0.0381
Mercury	37282-04-15 18:00 G	15338136.14	15338136.25	15338136.37	0.0519	0.0212
Earth	37284-09-14 06:29 G	15339018.69	15339018.77	15339018.86	0.0500	0.0466
Moon	37284-09-14 09:50 G	15339018.84	15339018.91	15339018.99	0.0500	0.0473 *
Moon	37285-10-16 04:05 G	15339415.47	15339415.67	15339415.87	0.0497	0.0215
Earth	37285-10-16 05:17 G	15339415.52	15339415.72	15339415.94	0.0497	0.0215 *
Venus	37286-02-17 17:31 G	15339540.04	15339540.23	15339540.43	0.0497	0.0129
Mercury	37288-06-11 03:21 G	15340384.50	15340384.64	15340384.79	0.0507	0.0314
Mars	37289-04-20 23:31 G	15340698.24	15340698.48	15340698.74	0.0514	0.0261
Moon	37291-03-30 01:55 G	15341406.35	15341406.58	15341406.82	0.0528	0.0134
Earth	37291-03-30 02:24 G	15341406.38	15341406.60	15341406.83	0.0528	0.0160 *
Venus	37291-12-21 17:31 G	15341673.03	15341673.23	15341673.43	0.0529	0.0090
Mercury	37294-02-01 22:33 G	15342446.31	15342446.44	15342446.57	0.0519	0.0064
Moon	37296-09-18 11:02 G	15343405.80	15343405.96	15343406.13	0.0499	0.0350
Earth	37296-09-18 14:53 G	15343405.97	15343406.12	15343406.28	0.0499	0.0375 *
Earth	37297-10-20 11:45 G	15343802.81	15343802.99	15343803.18	0.0497	0.0307
Moon	37297-10-20 14:38 G	15343802.91	15343803.11	15343803.31	0.0497	0.0277 *
Venus	37297-10-23 16:48 G	15343806.03	15343806.20	15343806.36	0.0497	0.0290
Mercury	37300-03-31 00:14 G	15344694.33	15344694.51	15344694.69	0.0507	0.0109
Moon	37303-04-05 03:21 G	15345794.42	15345794.64	15345794.87	0.0528	0.0031
Earth	37303-04-05 05:31 G	15345794.50	15345794.73	15345794.97	0.0528	0.0040 *
Mercury	37305-11-22 03:07 G	15346756.51	15346756.63	15346756.76	0.0519	0.0081
Mercury	37306-02-19 07:55 G	15346845.81	15346845.83	15346845.85	0.0517	0.0509
Earth	37308-09-24 03:07 G	15347793.44	15347793.63	15347793.83	0.0499	0.0279
Moon	37308-09-24 06:57 G	15347793.60	15347793.79	15347794.00	0.0499	0.0256 *
Moon	37309-10-25 19:12 G	15348190.17	15348190.30	15348190.44	0.0497	0.0397
Earth	37309-10-25 22:48 G	15348190.32	15348190.45	15348190.60	0.0497	0.0401 *
Mercury	37312-01-17 21:07 G	15349004.20	15349004.38	15349004.56	0.0506	0.0094
Earth	37315-04-10 04:33 G	15350182.46	15350182.69	15350182.92	0.0528	0.0078

Moon	37315-04-10 08:24 G	15350182.61	15350182.85	15350183.09	0.0528	0.0045	*
Mercury	37317-09-10 07:26 G	15351066.70	15351066.81	15351066.92	0.0520	0.0232	
Mercury	37317-12-08 12:14 G	15351155.92	15351156.01	15351156.10	0.0518	0.0359	
Moon	37320-09-28 13:26 G	15352180.84	15352181.06	15352181.28	0.0499	0.0198	
Earth	37320-09-28 16:33 G	15352180.97	15352181.19	15352181.41	0.0499	0.0181	*
Venus	37321-10-27 04:19 G	15352574.55	15352574.68	15352574.82	0.0497	0.0367	
Earth	37321-10-30 10:48 G	15352577.93	15352577.95	15352577.99	0.0497	0.0492	
Mercury	37323-11-05 18:00 G	15353314.10	15353314.25	15353314.40	0.0506	0.0298	
Moon	37327-04-15 01:12 G	15354570.33	15354570.55	15354570.77	0.0529	0.0177	
Earth	37327-04-15 05:17 G	15354570.51	15354570.72	15354570.94	0.0529	0.0196	*
Venus	37327-08-30 09:21 G	15354707.71	15354707.89	15354708.08	0.0529	0.0198	
Mercury	37329-06-29 12:00 G	15355376.92	15355377.00	15355377.09	0.0521	0.0376	
Mercury	37329-09-26 16:48 G	15355466.09	15355466.20	15355466.32	0.0519	0.0215	
Earth	37332-10-03 05:31 G	15356568.50	15356568.73	15356568.96	0.0498	0.0083	
Moon	37332-10-03 06:57 G	15356568.57	15356568.79	15356569.01	0.0498	0.0105	*
Venus	37333-07-02 06:14 G	15356840.56	15356840.76	15356840.97	0.0497	0.0036	
Mercury	37335-11-23 02:09 G	15357714.45	15357714.59	15357714.73	0.0507	0.0325	
Moon	37338-03-15 02:53 G	15358557.55	15358557.62	15358557.69	0.0525	0.0500	
Earth	37338-03-15 06:43 G	15358557.73	15358557.78	15358557.84	0.0525	0.0510	
Earth	37339-04-20 06:57 G	15358958.60	15358958.79	15358958.98	0.0529	0.0313	
Moon	37339-04-20 10:05 G	15358958.74	15358958.92	15358959.09	0.0529	0.0341	*
Venus	37339-05-05 01:12 G	15358973.39	15358973.55	15358973.73	0.0529	0.0297	
Mercury	37341-04-17 16:48 G	15359687.19	15359687.20	15359687.22	0.0521	0.0516	
Mercury	37341-07-15 21:36 G	15359776.27	15359776.40	15359776.53	0.0520	0.0074	
Moon	37344-10-07 17:31 G	15360955.98	15360956.23	15360956.47	0.0497	0.0033	
Earth	37344-10-07 17:17 G	15360955.99	15360956.22	15360956.45	0.0497	0.0016	*
Venus	37345-03-07 07:55 G	15361106.75	15361106.83	15361106.93	0.0497	0.0440	
Mercury	37347-09-10 23:02 G	15362024.29	15362024.46	15362024.64	0.0507	0.0125	
Earth	37350-03-20 08:53 G	15362945.73	15362945.87	15362946.03	0.0526	0.0398	
Moon	37350-03-20 12:00 G	15362945.87	15362946.00	15362946.13	0.0526	0.0429	*

Moon	37351-04-25 11:17 G	15363346.84	15363346.97	15363347.11	0.0529	0.0441
Earth	37351-04-25 12:00 G	15363346.87	15363347.00	15363347.14	0.0529	0.0433 *
Mercury	37353-05-04 02:09 G	15364086.47	15364086.59	15364086.72	0.0519	0.0071
Moon	37356-10-11 22:33 G	15365343.22	15365343.44	15365343.66	0.0497	0.0139
Earth	37356-10-11 23:45 G	15365343.27	15365343.49	15365343.72	0.0497	0.0109 *
Mercury	37359-06-29 19:26 G	15366334.13	15366334.31	15366334.49	0.0507	0.0088
Moon	37362-03-25 09:50 G	15367333.72	15367333.91	15367334.12	0.0527	0.0294
Earth	37362-03-25 11:02 G	15367333.76	15367333.96	15367334.15	0.0527	0.0283 *
Moon	37363-04-30 14:09 G	15367735.05	15367735.09	15367735.14	0.0529	0.0517
Venus	37363-05-08 04:48 G	15367742.64	15367742.70	15367742.76	0.0529	0.0504
Mercury	37365-02-20 06:43 G	15368396.67	15368396.78	15368396.90	0.0520	0.0216
Mercury	37365-05-20 11:31 G	15368485.89	15368485.98	15368486.07	0.0518	0.0373
Moon	37367-09-15 07:12 G	15369333.76	15369333.80	15369333.86	0.0500	0.0488
Earth	37367-09-15 11:02 G	15369333.90	15369333.96	15369334.04	0.0500	0.0478
Earth	37368-10-16 10:33 G	15369730.73	15369730.94	15369731.15	0.0497	0.0207
Moon	37368-10-16 13:26 G	15369730.84	15369731.06	15369731.28	0.0497	0.0200 *
Venus	37369-03-09 15:50 G	15369874.97	15369875.16	15369875.35	0.0497	0.0195
Mercury	37371-04-17 16:19 G	15370644.03	15370644.18	15370644.33	0.0506	0.0291
Moon	37374-03-30 07:55 G	15371721.62	15371721.83	15371722.05	0.0527	0.0142
Earth	37374-03-30 09:36 G	15371721.68	15371721.90	15371722.12	0.0527	0.0171 *
Venus	37375-01-10 19:12 G	15372008.10	15372008.30	15372008.50	0.0529	0.0004
Mercury	37376-12-09 11:02 G	15372706.87	15372706.96	15372707.05	0.0520	0.0368
Mercury	37377-03-08 15:36 G	15372796.04	15372796.15	15372796.27	0.0519	0.0222
Earth	37379-09-20 00:29 G	15373721.38	15373721.52	15373721.67	0.0500	0.0385
Moon	37379-09-20 04:33 G	15373721.53	15373721.69	15373721.85	0.0500	0.0356 *
Moon	37380-10-20 18:57 G	15374118.10	15374118.29	15374118.49	0.0497	0.0274
Earth	37380-10-20 22:48 G	15374118.27	15374118.45	15374118.63	0.0497	0.0303 *
Venus	37380-11-12 18:00 G	15374141.07	15374141.25	15374141.44	0.0497	0.0206
Mercury	37383-02-03 12:57 G	15374954.01	15374954.04	15374954.08	0.0505	0.0495
Mercury	37383-05-05 00:57 G	15375044.41	15375044.54	15375044.68	0.0507	0.0340

Earth	37386-04-04 08:53 G	15376109.64	15376109.87	15376110.10	0.0528	0.0053
Moon	37386-04-04 12:14 G	15376109.78	15376110.01	15376110.25	0.0528	0.0047 *
Venus	37386-09-15 10:19 G	15376273.87	15376273.93	15376274.00	0.0529	0.0495
Mercury	37388-09-27 15:36 G	15377017.13	15377017.15	15377017.16	0.0521	0.0514
Mercury	37388-12-25 20:09 G	15377106.22	15377106.34	15377106.47	0.0519	0.0075
Mars	37389-10-25 19:55 G	15377410.08	15377410.33	15377410.59	0.0512	0.0081
Moon	37391-09-24 11:02 G	15378108.76	15378108.96	15378109.16	0.0499	0.0269
Earth	37391-09-24 14:09 G	15378108.90	15378109.09	15378109.28	0.0499	0.0287 *
Earth	37392-10-25 09:36 G	15378505.77	15378505.90	15378506.05	0.0497	0.0397
Moon	37392-10-25 13:26 G	15378505.93	15378506.06	15378506.20	0.0497	0.0401 *
Mercury	37395-02-20 21:21 G	15379354.21	15379354.39	15379354.57	0.0506	0.0129
Moon	37398-04-09 05:02 G	15380497.48	15380497.71	15380497.94	0.0529	0.0034
Earth	37398-04-09 09:07 G	15380497.65	15380497.88	15380498.11	0.0529	0.0066 *
Mercury	37400-10-15 00:57 G	15381416.41	15381416.54	15381416.66	0.0520	0.0067
Earth	37403-09-30 02:09 G	15382496.38	15382496.59	15382496.81	0.0498	0.0188
Moon	37403-09-30 03:36 G	15382496.45	15382496.65	15382496.86	0.0498	0.0213 *
Earth	37404-10-30 19:55 G	15382893.30	15382893.33	15382893.38	0.0497	0.0488
Venus	37404-11-16 04:19 G	15382909.60	15382909.68	15382909.78	0.0497	0.0444
Mercury	37406-12-10 18:14 G	15383664.07	15383664.26	15383664.44	0.0506	0.0076
Earth	37410-04-15 12:57 G	15384885.83	15384886.04	15384886.26	0.0529	0.0190
Moon	37410-04-15 16:33 G	15384885.97	15384886.19	15384886.40	0.0529	0.0179 *
Venus	37410-09-19 12:29 G	15385042.85	15385043.02	15385043.19	0.0529	0.0297
Mercury	37412-08-03 05:31 G	15385726.62	15385726.73	15385726.85	0.0520	0.0211
Mercury	37412-10-31 10:19 G	15385815.84	15385815.93	15385816.02	0.0518	0.0379
Moon	37415-10-04 09:36 G	15386883.66	15386883.90	15386884.14	0.0498	0.0114
Earth	37415-10-04 09:36 G	15386883.67	15386883.90	15386884.13	0.0498	0.0094 *
Venus	37416-07-22 03:21 G	15387175.44	15387175.64	15387175.85	0.0497	0.0025
Mercury	37418-09-28 14:09 G	15387973.94	15387974.09	15387974.24	0.0506	0.0293
Earth	37421-03-15 16:05 G	15388873.14	15388873.17	15388873.21	0.0526	0.0519
Moon	37421-03-15 19:12 G	15388873.27	15388873.30	15388873.36	0.0526	0.0515

Moon	37422-04-20 14:53 G	15389273.94	15389274.12	15389274.31	0.0529	0.0338
Earth	37422-04-20 16:19 G	15389274.00	15389274.18	15389274.37	0.0529	0.0309 *
Venus	37422-05-25 05:02 G	15389308.52	15389308.71	15389308.90	0.0529	0.0193
Mercury	37424-05-22 10:05 G	15390036.83	15390036.92	15390037.01	0.0520	0.0356
Mercury	37424-08-19 14:53 G	15390126.00	15390126.12	15390126.23	0.0518	0.0233
Moon	37427-10-08 18:57 G	15391271.06	15391271.29	15391271.51	0.0497	0.0022
Earth	37427-10-08 20:09 G	15391271.11	15391271.34	15391271.58	0.0497	0.0008 *
Venus	37428-03-27 04:48 G	15391441.57	15391441.70	15391441.83	0.0497	0.0381
Mercury	37430-07-17 10:48 G	15392283.92	15392283.95	15392283.98	0.0506	0.0498
Mercury	37430-10-15 23:02 G	15392374.32	15392374.46	15392374.60	0.0507	0.0339
Moon	37433-03-20 12:14 G	15393260.88	15393261.01	15393261.14	0.0526	0.0441
Earth	37433-03-20 13:55 G	15393260.94	15393261.08	15393261.23	0.0526	0.0413 *
Moon	37434-04-25 14:24 G	15393661.97	15393662.10	15393662.23	0.0529	0.0429
Earth	37434-04-25 15:07 G	15393661.99	15393662.13	15393662.27	0.0529	0.0422 *
Mercury	37436-03-10 14:09 G	15394347.07	15394347.09	15394347.12	0.0521	0.0511
Mercury	37436-06-07 18:57 G	15394436.16	15394436.29	15394436.41	0.0519	0.0078
Earth	37439-10-13 08:09 G	15395658.61	15395658.84	15395659.07	0.0497	0.0102
Moon	37439-10-13 11:02 G	15395658.73	15395658.96	15395659.19	0.0497	0.0127 *
Mercury	37442-08-03 19:55 G	15396684.15	15396684.33	15396684.51	0.0507	0.0135
Moon	37445-03-25 11:17 G	15397648.79	15397648.97	15397649.16	0.0527	0.0305
Earth	37445-03-25 12:14 G	15397648.82	15397649.01	15397649.20	0.0527	0.0301 *
Moon	37446-04-30 17:45 G	15398050.17	15398050.24	15398050.32	0.0529	0.0501
Mercury	37448-03-26 23:17 G	15398746.35	15398746.47	15398746.60	0.0520	0.0070
Earth	37450-09-15 18:43 G	15399649.25	15399649.28	15399649.33	0.0501	0.0491
Moon	37450-09-15 22:48 G	15399649.43	15399649.45	15399649.49	0.0501	0.0497
Moon	37451-10-17 15:50 G	15400045.94	15400046.16	15400046.37	0.0497	0.0185
Earth	37451-10-17 19:26 G	15400046.10	15400046.31	15400046.52	0.0497	0.0200 *
Venus	37452-03-29 15:50 G	15400209.99	15400210.16	15400210.33	0.0497	0.0272
Mercury	37454-05-22 16:05 G	15400993.98	15400994.17	15400994.35	0.0506	0.0078
Earth	37457-03-30 10:19 G	15402036.72	15402036.93	15402037.15	0.0527	0.0187

Moon	37457-03-30 13:26 G	15402036.83	15402037.06	15402037.29	0.0527	0.0153	*
Venus	37458-01-30 18:14 G	15402343.06	15402343.26	15402343.46	0.0529	0.0080	
Mercury	37460-01-14 04:05 G	15403056.55	15403056.67	15403056.78	0.0520	0.0214	
Mercury	37460-04-12 08:38 G	15403145.78	15403145.86	15403145.95	0.0518	0.0379	
Moon	37462-09-20 04:33 G	15404036.53	15404036.69	15404036.86	0.0500	0.0366	
Earth	37462-09-20 07:55 G	15404036.69	15404036.83	15404036.98	0.0500	0.0394	*
Earth	37463-10-22 05:31 G	15404433.55	15404433.73	15404433.92	0.0497	0.0296	
Moon	37463-10-22 09:21 G	15404433.70	15404433.89	15404434.08	0.0497	0.0268	*
Venus	37463-12-03 16:48 G	15404476.01	15404476.20	15404476.40	0.0497	0.0135	
Mercury	37466-03-10 12:29 G	15405303.87	15405304.02	15405304.17	0.0506	0.0286	
Moon	37469-04-04 09:07 G	15406424.66	15406424.88	15406425.11	0.0528	0.0058	
Earth	37469-04-04 13:12 G	15406424.82	15406425.05	15406425.28	0.0528	0.0065	*
Venus	37469-10-05 11:17 G	15406608.84	15406608.97	15406609.10	0.0529	0.0408	
Mercury	37471-11-02 08:38 G	15407366.77	15407366.86	15407366.95	0.0520	0.0356	
Mercury	37472-01-30 13:26 G	15407455.95	15407456.06	15407456.17	0.0518	0.0233	
Earth	37474-09-24 16:19 G	15408424.00	15408424.18	15408424.37	0.0499	0.0302	
Moon	37474-09-24 18:14 G	15408424.07	15408424.26	15408424.44	0.0499	0.0293	*
Moon	37475-10-26 07:55 G	15408820.69	15408820.83	15408820.98	0.0496	0.0388	
Earth	37475-10-26 11:31 G	15408820.83	15408820.98	15408821.12	0.0496	0.0386	*
Mercury	37478-03-27 20:09 G	15409704.21	15409704.34	15409704.48	0.0508	0.0331	
Earth	37481-04-09 15:21 G	15410812.91	15410813.14	15410813.37	0.0529	0.0057	
Moon	37481-04-09 18:57 G	15410813.06	15410813.29	15410813.52	0.0529	0.0027	*
Mercury	37483-08-21 13:12 G	15411677.02	15411677.05	15411677.08	0.0521	0.0501	
Mercury	37483-11-18 17:45 G	15411766.12	15411766.24	15411766.37	0.0519	0.0088	
Moon	37486-09-29 03:07 G	15412811.42	15412811.63	15412811.85	0.0498	0.0231	
Earth	37486-09-29 03:21 G	15412811.43	15412811.64	15412811.85	0.0498	0.0203	*
Earth	37487-10-30 21:21 G	15413208.33	15413208.39	15413208.45	0.0497	0.0478	
Venus	37487-12-06 00:00 G	15413244.49	15413244.50	15413244.51	0.0497	0.0495	
Mercury	37490-01-13 17:02 G	15414014.03	15414014.21	15414014.39	0.0507	0.0126	
Moon	37493-04-14 11:31 G	15415200.75	15415200.98	15415201.21	0.0529	0.0166	

Earth	37493-04-14 13:55 G	15415200.86	15415201.08	15415201.30	0.0529	0.0172	*
Venus	37493-10-08 10:33 G	15415377.80	15415377.94	15415378.09	0.0529	0.0369	
Mercury	37495-09-06 21:50 G	15416076.28	15416076.41	15416076.54	0.0519	0.0070	
Moon	37498-10-03 13:41 G	15417198.85	15417199.07	15417199.29	0.0498	0.0126	
Earth	37498-10-03 14:53 G	15417198.90	15417199.12	15417199.35	0.0498	0.0107	*
Venus	37499-08-11 01:55 G	15417510.38	15417510.58	15417510.78	0.0497	0.0096	
Mercury	37501-11-02 13:55 G	15418323.89	15418324.08	15418324.26	0.0506	0.0079	
Earth	37505-04-20 13:26 G	15419588.86	15419589.06	15419589.25	0.0529	0.0290	
Moon	37505-04-20 13:26 G	15419588.88	15419589.06	15419589.24	0.0529	0.0323	*
Venus	37505-06-14 01:12 G	15419643.36	15419643.55	15419643.75	0.0529	0.0130	
Mercury	37507-06-27 02:09 G	15420386.48	15420386.59	15420386.71	0.0520	0.0220	
Mercury	37507-09-24 06:57 G	15420475.70	15420475.79	15420475.88	0.0518	0.0371	
Earth	37510-10-09 02:24 G	15421586.36	15421586.60	15421586.83	0.0498	0.0008	
Moon	37510-10-09 05:02 G	15421586.47	15421586.71	15421586.95	0.0498	0.0015	*
Venus	37511-04-17 03:21 G	15421776.48	15421776.64	15421776.80	0.0497	0.0310	
Mercury	37513-08-21 09:50 G	15422633.76	15422633.91	15422634.06	0.0506	0.0293	
Earth	37516-03-20 11:45 G	15423575.87	15423575.99	15423576.13	0.0526	0.0433	
Moon	37516-03-20 12:00 G	15423575.90	15423576.00	15423576.10	0.0526	0.0463	*
Earth	37517-04-25 12:57 G	15423976.90	15423977.04	15423977.19	0.0529	0.0407	
Moon	37517-04-25 14:53 G	15423976.97	15423977.12	15423977.27	0.0529	0.0410	*
Mercury	37519-04-15 06:43 G	15424696.69	15424696.78	15424696.87	0.0521	0.0365	
Mercury	37519-07-13 11:31 G	15424785.86	15424785.98	15424786.09	0.0519	0.0225	
Moon	37522-10-13 09:21 G	15425973.67	15425973.89	15425974.12	0.0497	0.0113	
Earth	37522-10-13 12:57 G	15425973.81	15425974.04	15425974.27	0.0497	0.0091	*
Mercury	37525-06-09 06:00 G	15426943.75	15426943.75	15426943.76	0.0505	0.0504	
Mercury	37525-09-07 18:14 G	15427034.12	15427034.26	15427034.40	0.0507	0.0331	
Earth	37528-03-25 12:29 G	15427963.84	15427964.02	15427964.20	0.0527	0.0318	
Moon	37528-03-25 14:53 G	15427963.93	15427964.12	15427964.32	0.0527	0.0314	*
Moon	37529-04-30 13:55 G	15428365.00	15428365.08	15428365.16	0.0529	0.0494	
Earth	37529-04-30 16:48 G	15428365.19	15428365.20	15428365.23	0.0529	0.0526	

Mercury	37531-02-01 11:31 G	15429006.96	15429006.98	15429007.01	0.0521	0.0507
Mercury	37531-05-01 16:05 G	15429096.05	15429096.17	15429096.30	0.0519	0.0083
Earth	37534-10-17 19:26 G	15430361.09	15430361.31	15430361.53	0.0497	0.0185
Moon	37534-10-17 23:02 G	15430361.25	15430361.46	15430361.69	0.0497	0.0166 *
Venus	37535-04-19 10:05 G	15430544.77	15430544.92	15430545.08	0.0496	0.0320
Mercury	37537-06-26 13:55 G	15431343.90	15431344.08	15431344.26	0.0507	0.0110
Moon	37540-03-30 09:36 G	15432351.69	15432351.90	15432352.12	0.0528	0.0169
Earth	37540-03-30 13:26 G	15432351.84	15432352.06	15432352.27	0.0528	0.0203 *
Venus	37541-02-19 18:14 G	15432678.07	15432678.26	15432678.46	0.0529	0.0163
Mercury	37543-02-17 20:38 G	15433406.24	15433406.36	15433406.49	0.0519	0.0065
Mars	37544-01-21 16:05 G	15433743.94	15433744.17	15433744.40	0.0511	0.0229
Earth	37545-09-20 07:26 G	15434351.69	15434351.81	15434351.95	0.0499	0.0413
Moon	37545-09-20 09:36 G	15434351.76	15434351.90	15434352.04	0.0499	0.0385 *
Moon	37546-10-22 01:26 G	15434748.36	15434748.56	15434748.77	0.0497	0.0252
Earth	37546-10-22 05:02 G	15434748.52	15434748.71	15434748.90	0.0497	0.0282 *
Venus	37546-12-23 11:17 G	15434810.77	15434810.97	15434811.17	0.0496	0.0087
Mercury	37549-04-14 10:33 G	15435653.76	15435653.94	15435654.12	0.0506	0.0096
Earth	37552-04-04 11:31 G	15436739.75	15436739.98	15436740.21	0.0528	0.0088
Moon	37552-04-04 15:21 G	15436739.91	15436740.14	15436740.37	0.0528	0.0082 *
Venus	37552-10-25 07:55 G	15436943.68	15436943.83	15436943.99	0.0529	0.0341
Mercury	37554-12-07 00:29 G	15437716.41	15437716.52	15437716.64	0.0520	0.0224
Mercury	37555-03-06 05:17 G	15437805.63	15437805.72	15437805.81	0.0518	0.0366
Moon	37557-09-24 18:29 G	15438739.09	15438739.27	15438739.47	0.0499	0.0314
Earth	37557-09-24 18:43 G	15438739.11	15438739.28	15438739.47	0.0499	0.0320 *
Venus	37558-08-28 12:57 G	15439077.01	15439077.04	15439077.08	0.0497	0.0488
Earth	37558-10-26 15:36 G	15439136.00	15439136.15	15439136.30	0.0497	0.0375
Moon	37558-10-26 17:45 G	15439136.10	15439136.24	15439136.39	0.0497	0.0382 *
Mercury	37561-01-31 07:12 G	15439963.66	15439963.80	15439963.95	0.0506	0.0301
Mars	37562-01-04 13:55 G	15440301.83	15440302.08	15440302.35	0.0513	0.0234
Moon	37564-04-09 07:41 G	15441127.58	15441127.82	15441128.05	0.0528	0.0010

Earth	37564-04-09 10:33 G	15441127.71	15441127.94	15441128.17	0.0528	0.0032	*
Mercury	37566-09-25 04:48 G	15442026.62	15442026.70	15442026.79	0.0521	0.0375	
Mercury	37566-12-23 09:36 G	15442115.78	15442115.90	15442116.01	0.0519	0.0215	
Moon	37569-09-29 05:31 G	15443126.54	15443126.73	15443126.93	0.0499	0.0250	
Earth	37569-09-29 06:43 G	15443126.57	15443126.78	15443126.99	0.0499	0.0220	*
Earth	37570-10-31 01:41 G	15443523.50	15443523.57	15443523.65	0.0497	0.0468	
Moon	37570-10-31 01:12 G	15443523.54	15443523.55	15443523.58	0.0497	0.0494	*
Mercury	37573-02-17 15:21 G	15444364.00	15444364.14	15444364.28	0.0507	0.0319	
Earth	37576-04-14 08:53 G	15445515.65	15445515.87	15445516.09	0.0529	0.0151	
Moon	37576-04-14 09:36 G	15445515.69	15445515.90	15445516.12	0.0529	0.0152	*
Venus	37576-10-28 06:00 G	15445712.63	15445712.75	15445712.87	0.0529	0.0425	
Mercury	37578-10-11 13:55 G	15446425.96	15446426.08	15446426.21	0.0519	0.0071	
Earth	37581-10-03 17:45 G	15447514.02	15447514.24	15447514.47	0.0498	0.0121	
Moon	37581-10-03 20:24 G	15447514.12	15447514.35	15447514.58	0.0498	0.0135	*
Venus	37582-08-30 22:19 G	15447845.23	15447845.43	15447845.62	0.0497	0.0153	
Mercury	37584-12-06 11:31 G	15448673.80	15448673.98	15448674.17	0.0506	0.0109	
Earth	37588-04-19 11:31 G	15449903.78	15449903.98	15449904.17	0.0529	0.0274	
Moon	37588-04-19 12:29 G	15449903.83	15449904.02	15449904.22	0.0529	0.0307	*
Venus	37588-07-02 22:19 G	15449978.23	15449978.43	15449978.63	0.0529	0.0064	
Mercury	37590-07-30 18:43 G	15450736.16	15450736.28	15450736.41	0.0520	0.0075	
Mercury	37590-10-27 23:31 G	15450825.48	15450825.48	15450825.49	0.0517	0.0516	
Moon	37593-10-07 22:19 G	15451901.20	15451901.43	15451901.66	0.0497	0.0003	
Earth	37593-10-08 01:55 G	15451901.34	15451901.58	15451901.81	0.0497	0.0027	*
Venus	37594-05-05 21:21 G	15452111.22	15452111.39	15452111.56	0.0496	0.0263	
Mercury	37596-09-24 06:57 G	15452983.61	15452983.79	15452983.98	0.0506	0.0116	
Earth	37599-03-20 11:17 G	15453890.86	15453890.97	15453891.09	0.0526	0.0454	
Moon	37599-03-20 12:57 G	15453890.96	15453891.04	15453891.14	0.0526	0.0484	*
Moon	37600-04-24 10:48 G	15454291.81	15454291.95	15454292.11	0.0529	0.0398	
Earth	37600-04-24 13:41 G	15454291.92	15454292.07	15454292.23	0.0529	0.0393	*
Mercury	37602-05-18 23:17 G	15455046.35	15455046.47	15455046.58	0.0520	0.0221	

Mercury	37602-08-16 03:50 G	15455135.58	15455135.66	15455135.75	0.0518	0.0369
Earth	37605-10-12 11:31 G	15456288.75	15456288.98	15456289.21	0.0497	0.0074
Moon	37605-10-12 15:07 G	15456288.91	15456289.13	15456289.36	0.0497	0.0092 *
Mercury	37608-07-13 03:36 G	15457293.51	15457293.65	15457293.79	0.0506	0.0323
Moon	37611-03-25 06:14 G	15458278.59	15458278.76	15458278.93	0.0527	0.0343
Earth	37611-03-25 09:21 G	15458278.72	15458278.89	15458279.07	0.0527	0.0345 *
Earth	37612-04-29 12:00 G	15458679.94	15458680.00	15458680.08	0.0529	0.0504
Moon	37612-04-29 15:50 G	15458680.06	15458680.16	15458680.27	0.0529	0.0472 *
Mercury	37614-03-07 03:07 G	15459356.55	15459356.63	15459356.71	0.0520	0.0381
Mercury	37614-06-04 07:41 G	15459445.71	15459445.82	15459445.94	0.0518	0.0209
Moon	37617-10-16 18:00 G	15460676.03	15460676.25	15460676.48	0.0497	0.0150
Earth	37617-10-16 21:36 G	15460676.18	15460676.40	15460676.62	0.0497	0.0170 *
Venus	37618-05-08 06:29 G	15460879.65	15460879.77	15460879.91	0.0497	0.0380
Mercury	37620-07-30 12:29 G	15461693.88	15461694.02	15461694.17	0.0507	0.0310
Earth	37623-03-30 07:41 G	15462666.62	15462666.82	15462667.04	0.0527	0.0229
Moon	37623-03-30 11:45 G	15462666.77	15462666.99	15462667.21	0.0527	0.0194 *
Venus	37624-03-10 12:00 G	15463012.82	15463013.00	15463013.19	0.0529	0.0211
Mercury	37626-03-23 12:00 G	15463755.87	15463756.00	15463756.13	0.0519	0.0057
Moon	37628-09-19 07:41 G	15464666.68	15464666.82	15464666.97	0.0500	0.0402
Earth	37628-09-19 08:24 G	15464666.74	15464666.85	15464666.96	0.0500	0.0434 *
Earth	37629-10-21 07:41 G	15465063.63	15465063.82	15465064.02	0.0497	0.0268
Moon	37629-10-21 10:05 G	15465063.73	15465063.92	15465064.12	0.0497	0.0242 *
Venus	37630-01-11 07:55 G	15465145.62	15465145.83	15465146.03	0.0497	0.0027
Mercury	37632-05-18 08:38 G	15466003.68	15466003.86	15466004.04	0.0506	0.0096
Moon	37635-04-04 01:26 G	15467054.33	15467054.56	15467054.79	0.0528	0.0108
Earth	37635-04-04 05:02 G	15467054.48	15467054.71	15467054.93	0.0528	0.0112 *
Venus	37635-11-14 01:55 G	15467278.42	15467278.58	15467278.76	0.0529	0.0291
Mercury	37638-01-09 16:19 G	15468066.06	15468066.18	15468066.31	0.0520	0.0092
Mercury	37638-04-08 21:07 G	15468155.36	15468155.38	15468155.42	0.0518	0.0500
Moon	37640-09-23 19:26 G	15469054.15	15469054.31	15469054.48	0.0499	0.0333

Earth	37640-09-23 20:24 G	15469054.18	15469054.35	15469054.53	0.0499	0.0335	*
Venus	37641-09-16 08:38 G	15469411.77	15469411.86	15469411.97	0.0497	0.0433	
Moon	37641-10-25 16:33 G	15469451.03	15469451.19	15469451.35	0.0497	0.0371	
Earth	37641-10-25 17:02 G	15469451.06	15469451.21	15469451.38	0.0497	0.0364	*
Mercury	37644-03-06 04:48 G	15470313.52	15470313.70	15470313.88	0.0506	0.0118	
Earth	37647-04-09 05:45 G	15471442.51	15471442.74	15471442.98	0.0529	0.0013	
Moon	37647-04-09 07:26 G	15471442.59	15471442.81	15471443.04	0.0529	0.0021	*
Mercury	37649-10-28 21:07 G	15472376.27	15472376.38	15472376.50	0.0520	0.0234	
Mercury	37650-01-26 01:55 G	15472465.49	15472465.58	15472465.67	0.0518	0.0357	
Earth	37652-09-28 06:14 G	15473441.56	15473441.76	15473441.97	0.0498	0.0239	
Moon	37652-09-28 08:38 G	15473441.66	15473441.86	15473442.06	0.0498	0.0268	*
Moon	37653-10-29 22:33 G	15473838.40	15473838.44	15473838.50	0.0496	0.0480	
Earth	37653-10-30 00:00 G	15473838.41	15473838.50	15473838.60	0.0496	0.0452	*
Mercury	37655-12-24 00:00 G	15474623.37	15474623.50	15474623.64	0.0506	0.0343	
Mercury	37656-03-23 12:00 G	15474713.96	15474714.00	15474714.05	0.0508	0.0492	
Earth	37659-04-14 07:12 G	15475830.58	15475830.80	15475831.03	0.0529	0.0132	
Moon	37659-04-14 07:41 G	15475830.59	15475830.82	15475831.05	0.0529	0.0133	*
Venus	37659-11-17 03:36 G	15476047.58	15476047.65	15476047.72	0.0529	0.0496	
Mercury	37661-08-17 01:41 G	15476686.49	15476686.57	15476686.66	0.0521	0.0379	
Mercury	37661-11-14 06:29 G	15476775.65	15476775.77	15476775.88	0.0519	0.0211	
Moon	37664-10-02 13:12 G	15477828.84	15477829.05	15477829.28	0.0498	0.0152	
Earth	37664-10-02 16:33 G	15477828.97	15477829.19	15477829.42	0.0498	0.0141	*
Venus	37665-09-18 16:05 G	15478179.98	15478180.17	15478180.35	0.0496	0.0197	
Mercury	37668-01-10 08:53 G	15479023.72	15479023.87	15479024.02	0.0507	0.0288	
Moon	37671-04-19 04:33 G	15480218.50	15480218.69	15480218.88	0.0529	0.0281	
Earth	37671-04-19 06:29 G	15480218.56	15480218.77	15480218.98	0.0529	0.0247	*
Venus	37671-07-22 17:31 G	15480313.02	15480313.23	15480313.43	0.0529	0.0011	
Mercury	37673-09-02 10:05 G	15481085.80	15481085.92	15481086.05	0.0519	0.0051	
Earth	37676-10-07 02:09 G	15482216.36	15482216.59	15482216.83	0.0498	0.0045	
Moon	37676-10-07 06:00 G	15482216.52	15482216.75	15482216.99	0.0498	0.0016	*

Venus	37677-05-24 17:02 G	15482446.03	15482446.21	15482446.40	0.0497	0.0206
Mercury	37679-10-29 05:45 G	15483333.56	15483333.74	15483333.93	0.0507	0.0087
Moon	37682-03-19 04:19 G	15484205.64	15484205.68	15484205.73	0.0525	0.0513
Earth	37682-03-19 07:12 G	15484205.71	15484205.80	15484205.89	0.0525	0.0479 *
Venus	37683-03-27 08:24 G	15484578.79	15484578.85	15484578.91	0.0529	0.0502
Earth	37683-04-24 06:14 G	15484606.59	15484606.76	15484606.93	0.0529	0.0367
Moon	37683-04-24 09:36 G	15484606.74	15484606.90	15484607.08	0.0529	0.0366 *
Mercury	37685-06-21 14:24 G	15485395.98	15485396.10	15485396.22	0.0520	0.0103
Mercury	37685-09-18 19:12 G	15485485.26	15485485.30	15485485.34	0.0518	0.0488
Moon	37688-10-11 09:36 G	15486603.66	15486603.90	15486604.13	0.0497	0.0075
Earth	37688-10-11 12:57 G	15486603.81	15486604.04	15486604.28	0.0497	0.0057 *
Mercury	37691-08-17 01:55 G	15487643.40	15487643.58	15487643.76	0.0506	0.0129
Earth	37694-03-24 02:53 G	15488593.46	15488593.62	15488593.79	0.0526	0.0369
Moon	37694-03-24 06:29 G	15488593.61	15488593.77	15488593.95	0.0526	0.0367 *
Moon	37695-04-29 01:12 G	15488994.43	15488994.55	15488994.68	0.0529	0.0449
Earth	37695-04-29 05:02 G	15488994.62	15488994.71	15488994.80	0.0529	0.0483 *
Mercury	37697-04-09 18:43 G	15489706.17	15489706.28	15489706.40	0.0520	0.0252
Mercury	37697-07-07 23:31 G	15489795.39	15489795.48	15489795.58	0.0518	0.0340
Mars	37698-04-15 16:19 G	15490077.06	15490077.18	15490077.31	0.0512	0.0449
Earth	37700-10-16 23:17 G	15490991.25	15490991.47	15490991.69	0.0497	0.0156
Moon	37700-10-17 01:41 G	15490991.36	15490991.57	15490991.79	0.0497	0.0136 *
Venus	37701-05-28 02:09 G	15491214.50	15491214.59	15491214.69	0.0497	0.0433
Mercury	37703-06-05 21:50 G	15491953.28	15491953.41	15491953.55	0.0505	0.0343
Mercury	37703-09-04 09:50 G	15492043.87	15492043.91	15492043.96	0.0507	0.0490
Moon	37706-03-29 22:33 G	15492981.23	15492981.44	15492981.65	0.0527	0.0221
Earth	37706-03-30 02:09 G	15492981.39	15492981.59	15492981.80	0.0527	0.0253 *
Venus	37707-03-31 07:26 G	15493347.63	15493347.81	15493347.98	0.0529	0.0268
Mercury	37709-01-27 23:31 G	15494016.40	15494016.48	15494016.57	0.0521	0.0393
Mercury	37709-04-27 04:19 G	15494105.56	15494105.68	15494105.80	0.0519	0.0198
Moon	37711-09-20 08:24 G	15494981.74	15494981.85	15494981.97	0.0500	0.0424

Earth	37711-09-20 09:07 G	15494981.79	15494981.88	15494981.98	0.0500	0.0453	*
Moon	37712-10-21 06:29 G	15495378.55	15495378.77	15495378.99	0.0496	0.0226	
Earth	37712-10-21 07:26 G	15495378.61	15495378.81	15495379.01	0.0496	0.0250	*
Venus	37713-01-31 02:09 G	15495480.39	15495480.59	15495480.79	0.0496	0.0022	
Mercury	37715-06-23 05:31 G	15496353.57	15496353.73	15496353.89	0.0507	0.0270	
Mars	37716-03-30 02:09 G	15496634.30	15496634.59	15496634.88	0.0514	0.0001	
Earth	37718-04-04 02:24 G	15497369.38	15497369.60	15497369.83	0.0528	0.0135	
Moon	37718-04-04 04:48 G	15497369.48	15497369.70	15497369.92	0.0528	0.0139	*
Venus	37718-12-03 23:17 G	15497613.28	15497613.47	15497613.65	0.0530	0.0223	
Mercury	37721-02-13 08:53 G	15498415.74	15498415.87	15498415.99	0.0519	0.0053	
Earth	37723-09-24 20:24 G	15499369.19	15499369.35	15499369.52	0.0499	0.0355	
Moon	37723-09-24 22:33 G	15499369.27	15499369.44	15499369.61	0.0499	0.0353	*
Venus	37724-10-06 03:07 G	15499746.51	15499746.63	15499746.77	0.0496	0.0382	
Moon	37724-10-25 15:36 G	15499766.00	15499766.15	15499766.31	0.0496	0.0364	
Earth	37724-10-25 16:48 G	15499766.04	15499766.20	15499766.37	0.0496	0.0347	*
Mercury	37727-04-11 02:09 G	15500663.41	15500663.59	15500663.78	0.0507	0.0066	
Moon	37730-04-09 01:26 G	15501757.32	15501757.56	15501757.80	0.0528	0.0049	
Earth	37730-04-09 02:09 G	15501757.35	15501757.59	15501757.82	0.0528	0.0019	*
Mercury	37732-12-02 12:43 G	15502725.90	15502726.03	15502726.15	0.0520	0.0110	
Mercury	37733-03-01 17:17 G	15502815.18	15502815.22	15502815.27	0.0518	0.0481	
Moon	37735-09-29 02:53 G	15503756.43	15503756.62	15503756.80	0.0499	0.0290	
Earth	37735-09-29 06:00 G	15503756.55	15503756.75	15503756.95	0.0499	0.0260	*
Earth	37736-10-30 02:09 G	15504153.48	15504153.59	15504153.70	0.0497	0.0439	
Moon	37736-10-30 04:48 G	15504153.63	15504153.70	15504153.79	0.0497	0.0465	*
Mercury	37739-01-27 23:17 G	15504973.29	15504973.47	15504973.65	0.0506	0.0136	
Moon	37742-04-14 00:43 G	15506145.31	15506145.53	15506145.75	0.0528	0.0107	
Earth	37742-04-14 01:55 G	15506145.36	15506145.58	15506145.81	0.0528	0.0107	*
Mercury	37744-09-20 16:48 G	15507036.10	15507036.20	15507036.31	0.0520	0.0261	
Mercury	37744-12-18 21:36 G	15507125.30	15507125.40	15507125.50	0.0518	0.0330	
Earth	37747-10-03 17:17 G	15508144.00	15508144.22	15508144.44	0.0499	0.0160	

Moon	37747-10-03 21:07 G	15508144.16	15508144.38	15508144.60	0.0499	0.0163 *
Venus	37748-10-08 12:29 G	15508514.85	15508515.02	15508515.20	0.0497	0.0258
Mercury	37750-11-15 19:12 G	15509283.17	15509283.30	15509283.44	0.0505	0.0349
Mercury	37751-02-14 07:12 G	15509373.76	15509373.80	15509373.86	0.0507	0.0485
Earth	37754-04-19 00:00 G	15510533.29	15510533.50	15510533.72	0.0529	0.0225
Moon	37754-04-19 03:07 G	15510533.42	15510533.63	15510533.84	0.0529	0.0257 *
Venus	37754-08-11 11:45 G	15510647.79	15510647.99	15510648.20	0.0529	0.0047
Mercury	37756-07-09 21:21 G	15511346.31	15511346.39	15511346.46	0.0521	0.0409
Mercury	37756-10-07 01:55 G	15511435.46	15511435.58	15511435.70	0.0519	0.0182
Moon	37759-10-08 01:12 G	15512531.31	15512531.55	15512531.79	0.0498	0.0029
Earth	37759-10-08 04:48 G	15512531.47	15512531.70	15512531.93	0.0498	0.0059 *
Venus	37760-06-13 13:26 G	15512780.87	15512781.06	15512781.26	0.0497	0.0148
Mercury	37762-12-03 03:36 G	15513683.50	15513683.65	15513683.81	0.0507	0.0273
Earth	37765-03-19 02:09 G	15514520.53	15514520.59	15514520.66	0.0525	0.0502
Venus	37766-04-16 03:36 G	15514913.55	15514913.65	15514913.76	0.0529	0.0446
Moon	37766-04-23 21:50 G	15514921.24	15514921.41	15514921.59	0.0529	0.0343
Earth	37766-04-24 01:41 G	15514921.40	15514921.57	15514921.75	0.0529	0.0348 *
Mercury	37768-07-26 06:43 G	15515745.65	15515745.78	15515745.91	0.0520	0.0040
Earth	37771-10-12 14:53 G	15516918.88	15516919.12	15516919.35	0.0497	0.0040
Moon	37771-10-12 17:31 G	15516919.00	15516919.23	15516919.45	0.0497	0.0056 *
Mercury	37774-09-20 23:17 G	15517993.28	15517993.47	15517993.65	0.0506	0.0053
Moon	37777-03-23 21:07 G	15518908.23	15518908.38	15518908.54	0.0526	0.0393
Earth	37777-03-24 00:57 G	15518908.39	15518908.54	15518908.70	0.0526	0.0393 *
Earth	37778-04-29 03:50 G	15519309.56	15519309.66	15519309.78	0.0530	0.0467
Moon	37778-04-29 07:12 G	15519309.68	15519309.80	15519309.94	0.0530	0.0434 *
Mercury	37780-05-14 11:17 G	15520055.85	15520055.97	15520056.10	0.0520	0.0106
Mercury	37780-08-11 16:05 G	15520145.13	15520145.17	15520145.22	0.0518	0.0487
Moon	37783-10-16 23:31 G	15521306.25	15521306.48	15521306.72	0.0497	0.0119
Earth	37783-10-17 00:57 G	15521306.31	15521306.54	15521306.76	0.0497	0.0139 *
Venus	37784-06-15 21:50 G	15521549.37	15521549.41	15521549.45	0.0496	0.0487

Mercury	37786-07-09 19:55 G	15522303.16	15522303.33	15522303.51	0.0506	0.0152
Earth	37789-03-29 00:43 G	15523296.34	15523296.53	15523296.73	0.0527	0.0278
Moon	37789-03-29 03:50 G	15523296.46	15523296.66	15523296.86	0.0527	0.0247 *
Venus	37790-04-19 03:50 G	15523682.51	15523682.66	15523682.82	0.0529	0.0334
Mercury	37792-03-02 15:07 G	15524366.03	15524366.13	15524366.24	0.0520	0.0265
Mercury	37792-05-30 19:55 G	15524455.23	15524455.33	15524455.43	0.0518	0.0326
Earth	37794-09-19 08:24 G	15525296.79	15525296.85	15525296.93	0.0501	0.0474
Moon	37794-09-19 10:05 G	15525296.82	15525296.92	15525297.05	0.0501	0.0443 *
Moon	37795-10-21 08:38 G	15525693.66	15525693.86	15525694.07	0.0497	0.0218
Earth	37795-10-21 09:36 G	15525693.70	15525693.90	15525694.11	0.0497	0.0235 *
Venus	37796-02-19 22:48 G	15525815.25	15525815.45	15525815.65	0.0497	0.0084
Mercury	37798-04-27 17:02 G	15526613.08	15526613.21	15526613.34	0.0506	0.0352
Mercury	37798-07-27 05:02 G	15526703.66	15526703.71	15526703.77	0.0507	0.0484
Moon	37801-04-03 23:45 G	15527684.26	15527684.49	15527684.72	0.0527	0.0164
Earth	37801-04-04 00:57 G	15527684.32	15527684.54	15527684.77	0.0527	0.0157 *
Venus	37801-12-23 19:12 G	15527948.11	15527948.30	15527948.50	0.0529	0.0160
Mercury	37803-12-21 19:41 G	15528676.24	15528676.32	15528676.39	0.0521	0.0414
Mercury	37804-03-20 00:14 G	15528765.39	15528765.51	15528765.63	0.0519	0.0176
Moon	37806-09-24 17:45 G	15529684.10	15529684.24	15529684.39	0.0500	0.0378
Earth	37806-09-24 20:53 G	15529684.22	15529684.37	15529684.53	0.0500	0.0375 *
Earth	37807-10-26 20:09 G	15530081.17	15530081.34	15530081.52	0.0497	0.0333
Moon	37807-10-26 23:02 G	15530081.29	15530081.46	15530081.62	0.0497	0.0355 *
Venus	37807-10-27 00:14 G	15530081.35	15530081.51	15530081.66	0.0497	0.0320 *
Mercury	37810-05-16 01:41 G	15531013.41	15531013.57	15531013.72	0.0507	0.0274
Moon	37813-04-08 22:05 G	15532072.20	15532072.42	15532072.64	0.0528	0.0071
Earth	37813-04-08 22:33 G	15532072.21	15532072.44	15532072.67	0.0528	0.0037 *
Mercury	37816-01-07 04:33 G	15533075.57	15533075.69	15533075.82	0.0520	0.0034
Mars	37816-10-06 15:50 G	15533348.96	15533349.16	15533349.37	0.0513	0.0303
Earth	37818-09-29 09:50 G	15534071.72	15534071.91	15534072.11	0.0499	0.0274
Moon	37818-09-29 13:41 G	15534071.88	15534072.07	15534072.25	0.0499	0.0304 *

Moon	37819-10-31 03:07 G	15534468.55	15534468.63	15534468.72	0.0497	0.0458
Earth	37819-10-31 06:29 G	15534468.67	15534468.77	15534468.90	0.0497	0.0430 *
Mercury	37822-03-03 21:50 G	15535323.23	15535323.41	15535323.59	0.0506	0.0062
Earth	37825-04-13 23:02 G	15536460.23	15536460.46	15536460.69	0.0528	0.0086
Moon	37825-04-14 01:26 G	15536460.32	15536460.56	15536460.79	0.0528	0.0090 *
Mercury	37827-10-26 09:21 G	15537385.77	15537385.89	15537386.02	0.0520	0.0115
Mercury	37828-01-23 14:24 G	15537475.05	15537475.10	15537475.14	0.0518	0.0479
Moon	37830-10-03 18:14 G	15538459.04	15538459.26	15538459.48	0.0498	0.0177
Earth	37830-10-03 21:50 G	15538459.19	15538459.41	15538459.63	0.0498	0.0175 *
Venus	37831-10-29 09:21 G	15538849.73	15538849.89	15538850.05	0.0496	0.0319
Mercury	37833-12-20 17:31 G	15539633.06	15539633.23	15539633.41	0.0506	0.0156
Moon	37837-04-18 21:07 G	15540848.17	15540848.38	15540848.58	0.0529	0.0239
Earth	37837-04-19 00:43 G	15540848.32	15540848.53	15540848.74	0.0529	0.0207 *
Venus	37837-08-31 10:48 G	15540982.75	15540982.95	15540983.14	0.0530	0.0124
Mercury	37839-08-14 14:09 G	15541695.98	15541696.09	15541696.20	0.0521	0.0256
Mercury	37839-11-11 18:57 G	15541785.19	15541785.29	15541785.38	0.0519	0.0335
Earth	37842-10-08 09:07 G	15542846.65	15542846.88	15542847.11	0.0498	0.0074
Moon	37842-10-08 11:45 G	15542846.77	15542846.99	15542847.22	0.0498	0.0045 *
Venus	37843-07-04 10:48 G	15543115.75	15543115.95	15543116.15	0.0496	0.0083
Mercury	37845-10-08 14:24 G	15543942.97	15543943.10	15543943.23	0.0505	0.0360
Mercury	37846-01-07 02:24 G	15544033.54	15544033.60	15544033.66	0.0507	0.0475
Earth	37848-03-19 04:19 G	15544835.67	15544835.68	15544835.70	0.0525	0.0523
Earth	37849-04-24 02:09 G	15545236.41	15545236.59	15545236.77	0.0529	0.0327
Moon	37849-04-24 05:45 G	15545236.56	15545236.74	15545236.92	0.0529	0.0317 *
Venus	37849-05-06 02:09 G	15545248.45	15545248.59	15545248.74	0.0529	0.0368
Mercury	37851-06-02 18:14 G	15546006.18	15546006.26	15546006.33	0.0521	0.0414
Mercury	37851-08-30 22:48 G	15546095.33	15546095.45	15546095.57	0.0519	0.0176
Moon	37854-10-12 16:05 G	15547233.92	15547234.17	15547234.41	0.0498	0.0038
Earth	37854-10-12 17:31 G	15547233.99	15547234.23	15547234.46	0.0498	0.0024 *
Venus	37855-03-09 11:02 G	15547381.93	15547381.96	15547381.99	0.0497	0.0490

Mercury	37857-10-25 23:45 G	15548343.34	15548343.49	15548343.64	0.0507	0.0278
Earth	37860-03-24 04:19 G	15549223.54	15549223.68	15549223.83	0.0525	0.0409
Moon	37860-03-24 07:55 G	15549223.68	15549223.83	15549223.97	0.0525	0.0400 *
Moon	37861-04-29 01:12 G	15549624.41	15549624.55	15549624.70	0.0529	0.0413
Earth	37861-04-29 03:50 G	15549624.54	15549624.66	15549624.79	0.0529	0.0448 *
Mercury	37863-06-19 03:07 G	15550405.50	15550405.63	15550405.76	0.0519	0.0028
Moon	37866-10-17 04:19 G	15551621.46	15551621.68	15551621.90	0.0498	0.0102
Earth	37866-10-17 04:48 G	15551621.48	15551621.70	15551621.93	0.0498	0.0126 *
Mercury	37869-08-13 20:09 G	15552653.16	15552653.34	15552653.53	0.0506	0.0071
Mars	37870-06-24 22:33 G	15552968.24	15552968.44	15552968.64	0.0513	0.0368
Moon	37872-03-28 23:17 G	15553611.27	15553611.47	15553611.68	0.0526	0.0264
Earth	37872-03-29 01:12 G	15553611.36	15553611.55	15553611.75	0.0526	0.0296 *
Venus	37873-05-09 01:12 G	15554017.42	15554017.55	15554017.68	0.0529	0.0401
Mercury	37875-04-07 07:41 G	15554715.69	15554715.82	15554715.94	0.0520	0.0122
Mercury	37875-07-05 12:14 G	15554804.97	15554805.01	15554805.07	0.0518	0.0471
Moon	37877-09-19 11:17 G	15555611.89	15555611.97	15555612.06	0.0501	0.0460
Earth	37877-09-19 14:09 G	15555612.05	15555612.09	15555612.15	0.0501	0.0487 *
Earth	37878-10-21 16:19 G	15556008.98	15556009.18	15556009.39	0.0497	0.0227
Moon	37878-10-21 18:57 G	15556009.08	15556009.29	15556009.51	0.0497	0.0214 *
Venus	37879-03-11 21:50 G	15556150.21	15556150.41	15556150.60	0.0497	0.0155
Mercury	37881-06-01 16:33 G	15556963.01	15556963.19	15556963.37	0.0506	0.0140
Earth	37884-04-03 00:43 G	15557999.31	15557999.53	15557999.75	0.0527	0.0176
Moon	37884-04-03 00:43 G	15557999.32	15557999.53	15557999.74	0.0527	0.0185 *
Venus	37885-01-11 17:17 G	15558283.02	15558283.22	15558283.42	0.0529	0.0089
Mercury	37887-01-24 12:29 G	15559025.91	15559026.02	15559026.13	0.0521	0.0262
Mercury	37887-04-23 17:02 G	15559115.12	15559115.21	15559115.31	0.0519	0.0331
Earth	37889-09-24 04:19 G	15559999.54	15559999.68	15559999.83	0.0500	0.0388
Moon	37889-09-24 08:09 G	15559999.70	15559999.84	15559999.98	0.0500	0.0400 *
Moon	37890-10-25 23:31 G	15560396.32	15560396.48	15560396.64	0.0497	0.0347
Earth	37890-10-26 02:53 G	15560396.45	15560396.62	15560396.80	0.0497	0.0323 *

Venus	37890-11-14 22:48 G	15560416.28	15560416.45	15560416.63	0.0497	0.0248
Mercury	37893-03-20 12:29 G	15561272.89	15561273.02	15561273.15	0.0505	0.0356
Mercury	37893-06-19 00:29 G	15561363.46	15561363.52	15561363.58	0.0507	0.0478
Earth	37896-04-08 01:12 G	15562387.32	15562387.55	15562387.78	0.0528	0.0054
Moon	37896-04-08 02:53 G	15562387.39	15562387.62	15562387.86	0.0528	0.0086 *
Mercury	37898-11-12 17:17 G	15563336.14	15563336.22	15563336.30	0.0521	0.0403
Mercury	37899-02-09 21:50 G	15563425.29	15563425.41	15563425.53	0.0519	0.0189
Moon	37901-09-29 13:26 G	15564386.88	15564387.06	15564387.25	0.0499	0.0318
Earth	37901-09-29 17:17 G	15564387.03	15564387.22	15564387.41	0.0499	0.0287 *
Earth	37902-10-31 13:26 G	15564783.94	15564784.06	15564784.18	0.0496	0.0420
Moon	37902-10-31 17:17 G	15564784.12	15564784.22	15564784.32	0.0496	0.0446 *
Mercury	37905-04-07 21:36 G	15565673.25	15565673.40	15565673.56	0.0507	0.0278
Moon	37908-04-14 00:14 G	15566775.28	15566775.51	15566775.73	0.0528	0.0079
Earth	37908-04-14 03:36 G	15566775.42	15566775.65	15566775.88	0.0528	0.0069 *
Mercury	37910-11-30 01:55 G	15567735.45	15567735.58	15567735.71	0.0519	0.0032
Earth	37913-10-04 01:26 G	15568774.34	15568774.56	15568774.78	0.0499	0.0190
Moon	37913-10-04 04:19 G	15568774.47	15568774.68	15568774.89	0.0499	0.0190 *
Venus	37914-11-18 07:41 G	15569184.70	15569184.82	15569184.95	0.0497	0.0390
Mercury	37917-01-24 18:57 G	15569983.10	15569983.29	15569983.47	0.0507	0.0081
Earth	37920-04-19 05:31 G	15571163.51	15571163.73	15571163.95	0.0528	0.0194
Moon	37920-04-19 09:21 G	15571163.68	15571163.89	15571164.10	0.0528	0.0224 *
Venus	37920-09-20 11:02 G	15571317.77	15571317.96	15571318.15	0.0529	0.0209
Mercury	37922-09-18 06:29 G	15572045.64	15572045.77	15572045.89	0.0520	0.0116
Mercury	37922-12-16 11:02 G	15572134.92	15572134.96	15572135.01	0.0518	0.0475
Moon	37925-10-08 12:14 G	15573161.77	15573162.01	15573162.25	0.0499	0.0059
Earth	37925-10-08 13:55 G	15573161.84	15573162.08	15573162.31	0.0499	0.0088 *
Venus	37926-07-24 09:36 G	15573450.70	15573450.90	15573451.11	0.0497	0.0012
Mercury	37928-11-12 15:36 G	15574292.97	15574293.15	15574293.33	0.0506	0.0126
Moon	37932-04-24 01:26 G	15575551.37	15575551.56	15575551.76	0.0529	0.0304
Earth	37932-04-24 04:33 G	15575551.51	15575551.69	15575551.88	0.0529	0.0315 *

Venus	37932-05-26 01:41 G	15575583.40	15575583.57	15575583.74	0.0529	0.0288
Mercury	37934-07-07 10:48 G	15576355.85	15576355.95	15576356.06	0.0521	0.0264
Mercury	37934-10-04 15:36 G	15576445.05	15576445.15	15576445.25	0.0519	0.0328
Moon	37937-10-13 01:55 G	15577549.35	15577549.58	15577549.80	0.0498	0.0020
Earth	37937-10-13 02:24 G	15577549.37	15577549.60	15577549.84	0.0498	0.0019 *
Venus	37938-03-29 11:31 G	15577716.87	15577716.98	15577717.10	0.0497	0.0411
Mercury	37940-08-31 11:45 G	15578602.86	15578602.99	15578603.14	0.0505	0.0335
Mercury	37940-11-30 00:00 G	15578693.47	15578693.50	15578693.53	0.0507	0.0500
Moon	37943-03-25 04:48 G	15579538.56	15579538.70	15579538.85	0.0525	0.0409
Earth	37943-03-25 07:26 G	15579538.67	15579538.81	15579538.94	0.0525	0.0425 *
Earth	37944-04-29 06:00 G	15579939.63	15579939.75	15579939.89	0.0529	0.0437
Moon	37944-04-29 07:26 G	15579939.67	15579939.81	15579939.95	0.0529	0.0407 *
Mercury	37946-04-25 15:36 G	15580666.08	15580666.15	15580666.23	0.0521	0.0405
Mercury	37946-07-23 20:24 G	15580755.23	15580755.35	15580755.47	0.0519	0.0188
Earth	37949-10-17 14:38 G	15581936.89	15581937.11	15581937.34	0.0497	0.0118
Moon	37949-10-17 17:17 G	15581936.99	15581937.22	15581937.46	0.0497	0.0088 *
Mercury	37952-09-17 20:09 G	15583003.19	15583003.34	15583003.50	0.0507	0.0288
Earth	37955-03-30 06:29 G	15583926.58	15583926.77	15583926.96	0.0526	0.0310
Moon	37955-03-30 06:57 G	15583926.60	15583926.79	15583926.98	0.0526	0.0282 *
Venus	37956-05-29 03:07 G	15584352.56	15584352.63	15584352.70	0.0529	0.0494
Mercury	37958-05-12 01:12 G	15585065.43	15585065.55	15585065.68	0.0520	0.0048
Earth	37960-09-20 00:00 G	15585927.48	15585927.50	15585927.54	0.0501	0.0497
Moon	37960-09-20 03:50 G	15585927.59	15585927.66	15585927.74	0.0501	0.0473
Moon	37961-10-21 22:19 G	15586324.23	15586324.43	15586324.65	0.0497	0.0207
Earth	37961-10-22 02:09 G	15586324.38	15586324.59	15586324.80	0.0497	0.0219 *
Venus	37962-03-31 22:05 G	15586485.24	15586485.42	15586485.60	0.0497	0.0235
Mercury	37964-07-06 17:17 G	15587313.04	15587313.22	15587313.41	0.0506	0.0089
Earth	37967-04-04 08:53 G	15588314.66	15588314.87	15588315.09	0.0527	0.0188
Moon	37967-04-04 10:19 G	15588314.71	15588314.93	15588315.15	0.0527	0.0200 *
Venus	37968-02-01 19:41 G	15588618.12	15588618.32	15588618.53	0.0529	0.0015

Mercury	37970-02-28 05:17 G	15589375.60	15589375.72	15589375.85	0.0520	0.0108
Mercury	37970-05-28 10:05 G	15589464.88	15589464.92	15589464.96	0.0518	0.0484
Mars	37971-01-01 16:33 G	15589682.94	15589683.19	15589683.45	0.0513	0.0022
Moon	37972-09-24 05:31 G	15590314.60	15590314.73	15590314.86	0.0501	0.0417
Earth	37972-09-24 09:07 G	15590314.74	15590314.88	15590315.02	0.0501	0.0402 *
Earth	37973-10-26 10:05 G	15590711.74	15590711.92	15590712.10	0.0497	0.0315
Moon	37973-10-26 13:55 G	15590711.91	15590712.08	15590712.25	0.0497	0.0341 *
Venus	37973-12-04 22:05 G	15590751.23	15590751.42	15590751.61	0.0497	0.0175
Mercury	37976-04-24 14:24 G	15591622.92	15591623.10	15591623.29	0.0506	0.0111
Moon	37979-04-09 07:55 G	15592702.61	15592702.83	15592703.06	0.0527	0.0091
Earth	37979-04-09 11:02 G	15592702.73	15592702.96	15592703.19	0.0527	0.0063 *
Venus	37979-10-07 12:29 G	15592883.94	15592884.02	15592884.11	0.0528	0.0474
Mercury	37981-12-17 09:50 G	15593685.80	15593685.91	15593686.02	0.0520	0.0253
Mercury	37982-03-16 14:38 G	15593775.01	15593775.11	15593775.20	0.0518	0.0338
Earth	37984-09-28 22:05 G	15594702.24	15594702.42	15594702.62	0.0500	0.0300
Moon	37984-09-29 01:12 G	15594702.38	15594702.55	15594702.72	0.0500	0.0330 *
Moon	37985-10-30 18:00 G	15595099.14	15595099.25	15595099.36	0.0497	0.0435
Earth	37985-10-30 21:21 G	15595099.27	15595099.39	15595099.53	0.0497	0.0415 *
Mercury	37988-02-11 11:17 G	15595932.82	15595932.97	15595933.11	0.0506	0.0316
Mars	37988-12-13 00:29 G	15596238.42	15596238.52	15596238.65	0.0512	0.0467
Earth	37991-04-14 09:36 G	15597090.67	15597090.90	15597091.14	0.0528	0.0060
Moon	37991-04-14 13:41 G	15597090.84	15597091.07	15597091.30	0.0528	0.0079 *
Mercury	37993-10-05 14:24 G	15597996.02	15597996.10	15597996.18	0.0521	0.0400
Mercury	37994-01-02 18:57 G	15598085.18	15598085.29	15598085.41	0.0519	0.0192
Moon	37996-10-03 10:33 G	15599089.72	15599089.94	15599090.17	0.0499	0.0194
Earth	37996-10-03 12:14 G	15599089.80	15599090.01	15599090.23	0.0499	0.0197 *
Moon	37997-11-04 11:31 G	15599486.96	15599486.98	15599487.02	0.0497	0.0491
Venus	37997-12-07 09:36 G	15599519.85	15599519.90	15599519.96	0.0497	0.0475
Mercury	38000-02-28 19:55 G	15600333.19	15600333.33	15600333.48	0.0507	0.0315

39TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 39th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	38003-04-19 06:57	G	15601478.58	15601478.79	15601479.01	0.0528	0.0213	
Earth	38003-04-19 10:33	G	15601478.72	15601478.94	15601479.16	0.0528	0.0183	*
Venus	38003-10-10 12:00	G	15601652.83	15601653.00	15601653.17	0.0529	0.0296	
Mercury	38005-10-22 00:00	G	15602395.37	15602395.50	15602395.62	0.0520	0.0053	
Moon	38008-10-08 01:26	G	15603477.34	15603477.56	15603477.79	0.0498	0.0068	
Earth	38008-10-08 02:09	G	15603477.36	15603477.59	15603477.82	0.0498	0.0094	*
Venus	38009-08-12 11:31	G	15603785.78	15603785.98	15603786.19	0.0497	0.0077	
Mercury	38011-12-17 16:19	G	15604643.00	15604643.18	15604643.36	0.0506	0.0104	
Earth	38015-04-24 12:43	G	15605866.84	15605867.03	15605867.22	0.0529	0.0306	
Moon	38015-04-24 14:24	G	15605866.92	15605867.10	15605867.29	0.0529	0.0294	*
Venus	38015-06-15 04:33	G	15605918.50	15605918.69	15605918.88	0.0529	0.0189	
Mercury	38017-08-10 04:48	G	15606705.57	15606705.70	15606705.82	0.0520	0.0089	
Mercury	38017-11-07 09:36	G	15606794.87	15606794.90	15606794.93	0.0518	0.0503	
Earth	38020-10-12 14:24	G	15607864.87	15607865.10	15607865.34	0.0498	0.0013	
Moon	38020-10-12 17:17	G	15607864.97	15607865.22	15607865.46	0.0498	0.0009	*
Venus	38021-04-17 13:26	G	15608051.91	15608052.06	15608052.21	0.0497	0.0324	
Mercury	38023-10-05 13:26	G	15608952.88	15608953.06	15608953.24	0.0506	0.0096	
Earth	38026-03-24 18:14	G	15609854.13	15609854.26	15609854.39	0.0525	0.0434	
Moon	38026-03-24 18:57	G	15609854.16	15609854.29	15609854.44	0.0525	0.0414	*
Earth	38027-04-29 16:33	G	15610255.06	15610255.19	15610255.33	0.0529	0.0430	

Moon	38027-04-29 17:17 G	15610255.07	15610255.22	15610255.38	0.0529	0.0403	*
Mercury	38029-05-29 09:07 G	15611015.77	15611015.88	15611015.99	0.0520	0.0240	
Mercury	38029-08-26 13:41 G	15611104.98	15611105.07	15611105.16	0.0518	0.0350	
Moon	38032-10-16 18:43 G	15612252.05	15612252.28	15612252.51	0.0498	0.0077	
Earth	38032-10-16 22:19 G	15612252.20	15612252.43	15612252.66	0.0498	0.0110	*
Mercury	38035-07-24 10:19 G	15613262.78	15613262.93	15613263.08	0.0506	0.0298	
Earth	38038-03-29 20:09 G	15614242.15	15614242.34	15614242.52	0.0526	0.0314	
Moon	38038-03-29 21:07 G	15614242.18	15614242.38	15614242.58	0.0526	0.0286	*
Mercury	38041-03-17 13:41 G	15615325.99	15615326.07	15615326.16	0.0520	0.0384	
Mercury	38041-06-14 18:14 G	15615415.15	15615415.26	15615415.38	0.0518	0.0206	
Moon	38043-09-20 02:09 G	15616242.54	15616242.59	15616242.65	0.0502	0.0487	
Earth	38044-10-21 10:05 G	15616639.72	15616639.92	15616640.14	0.0498	0.0213	
Moon	38044-10-21 14:09 G	15616639.88	15616640.09	15616640.31	0.0498	0.0203	*
Venus	38045-04-19 22:33 G	15616820.28	15616820.44	15616820.60	0.0497	0.0314	
Mercury	38047-05-12 06:57 G	15617572.78	15617572.79	15617572.82	0.0505	0.0502	
Mercury	38047-08-10 19:41 G	15617663.18	15617663.32	15617663.46	0.0507	0.0338	
Moon	38050-04-03 15:36 G	15618629.95	15618630.15	15618630.36	0.0526	0.0215	
Earth	38050-04-03 18:29 G	15618630.05	15618630.27	15618630.48	0.0526	0.0196	*
Venus	38051-02-20 22:33 G	15618953.24	15618953.44	15618953.64	0.0528	0.0107	
Mercury	38053-04-02 22:48 G	15619725.32	15619725.45	15619725.58	0.0519	0.0058	
Earth	38055-09-24 21:07 G	15620630.24	15620630.38	15620630.51	0.0501	0.0408	
Moon	38055-09-24 23:45 G	15620630.38	15620630.49	15620630.61	0.0501	0.0429	*
Moon	38056-10-25 19:41 G	15621027.15	15621027.32	15621027.49	0.0497	0.0339	
Earth	38056-10-25 23:17 G	15621027.29	15621027.47	15621027.65	0.0497	0.0313	*
Venus	38056-12-24 00:43 G	15621086.33	15621086.53	15621086.74	0.0497	0.0085	
Mercury	38059-05-29 16:19 G	15621973.00	15621973.18	15621973.36	0.0506	0.0133	
Earth	38062-04-08 18:00 G	15623018.02	15623018.25	15623018.48	0.0527	0.0073	
Moon	38062-04-08 21:50 G	15623018.18	15623018.41	15623018.64	0.0527	0.0095	*
Venus	38062-10-26 14:24 G	15623218.97	15623219.10	15623219.24	0.0528	0.0381	
Mercury	38065-01-20 03:36 G	15624035.53	15624035.65	15624035.78	0.0520	0.0083	

Mercury	38065-04-19 08:24 G	15624124.83	15624124.85	15624124.87	0.0518	0.0509
Moon	38067-09-29 10:48 G	15625017.77	15625017.95	15625018.13	0.0500	0.0332
Earth	38067-09-29 12:14 G	15625017.83	15625018.01	15625018.20	0.0500	0.0306 *
Venus	38068-08-29 02:53 G	15625352.58	15625352.62	15625352.68	0.0497	0.0481
Earth	38068-10-30 11:17 G	15625414.84	15625414.97	15625415.10	0.0497	0.0411
Moon	38068-10-30 13:12 G	15625414.94	15625415.05	15625415.17	0.0497	0.0424 *
Mercury	38071-03-17 12:43 G	15626282.85	15626283.03	15626283.21	0.0506	0.0077
Moon	38074-04-13 15:36 G	15627405.91	15627406.15	15627406.38	0.0528	0.0072
Earth	38074-04-13 19:12 G	15627406.07	15627406.30	15627406.53	0.0528	0.0051 *
Mercury	38076-11-08 08:38 G	15628345.74	15628345.86	15628345.97	0.0521	0.0221
Mercury	38077-02-05 13:12 G	15628434.97	15628435.05	15628435.14	0.0519	0.0371
Moon	38079-10-04 01:12 G	15629405.35	15629405.55	15629405.76	0.0499	0.0190
Earth	38079-10-04 01:55 G	15629405.36	15629405.58	15629405.79	0.0499	0.0201 *
Moon	38080-11-03 21:50 G	15629802.37	15629802.41	15629802.48	0.0497	0.0481
Mercury	38083-01-03 09:36 G	15630592.75	15630592.90	15630593.06	0.0506	0.0278
Earth	38086-04-18 23:02 G	15631794.25	15631794.46	15631794.68	0.0528	0.0178
Moon	38086-04-19 01:12 G	15631794.35	15631794.55	15631794.76	0.0528	0.0206 *
Venus	38086-10-29 17:17 G	15631988.10	15631988.22	15631988.35	0.0529	0.0408
Mercury	38088-08-27 12:57 G	15632655.96	15632656.04	15632656.13	0.0520	0.0369
Mercury	38088-11-24 17:31 G	15632745.12	15632745.23	15632745.35	0.0518	0.0220
Earth	38091-10-08 09:50 G	15633792.68	15633792.91	15633793.14	0.0499	0.0103
Moon	38091-10-08 12:29 G	15633792.78	15633793.02	15633793.26	0.0499	0.0076 *
Venus	38092-08-31 11:45 G	15634120.80	15634120.99	15634121.19	0.0497	0.0155
Mercury	38094-10-22 06:14 G	15634902.72	15634902.76	15634902.82	0.0506	0.0483
Mercury	38095-01-20 18:57 G	15634993.16	15634993.29	15634993.42	0.0508	0.0359
Moon	38098-04-24 02:53 G	15636182.42	15636182.62	15636182.83	0.0528	0.0285
Earth	38098-04-24 02:38 G	15636182.43	15636182.61	15636182.80	0.0528	0.0305 *
Venus	38098-07-04 10:33 G	15636253.74	15636253.94	15636254.14	0.0528	0.0072
Mercury	38100-06-16 17:45 G	15636966.22	15636966.24	15636966.26	0.0521	0.0512
Mercury	38100-09-13 22:19 G	15637055.30	15637055.43	15637055.55	0.0519	0.0078

Moon	38103-10-13 18:57 G	15638180.06	15638180.29	15638180.52	0.0498	0.0007
Earth	38103-10-13 22:33 G	15638180.20	15638180.44	15638180.67	0.0498	0.0003 *
Venus	38104-05-07 13:41 G	15638386.90	15638387.07	15638387.25	0.0497	0.0246
Mercury	38106-11-09 16:05 G	15639302.99	15639303.17	15639303.34	0.0507	0.0157
Earth	38109-03-25 06:00 G	15640169.63	15640169.75	15640169.87	0.0525	0.0441
Moon	38109-03-25 06:29 G	15640169.63	15640169.77	15640169.92	0.0525	0.0416 *
Moon	38110-04-29 23:31 G	15640570.34	15640570.48	15640570.63	0.0528	0.0405
Earth	38110-04-30 02:09 G	15640570.46	15640570.59	15640570.73	0.0528	0.0425 *
Mercury	38112-07-03 02:38 G	15641365.49	15641365.61	15641365.74	0.0520	0.0073
Earth	38115-10-18 12:00 G	15642567.77	15642568.00	15642568.23	0.0498	0.0107
Moon	38115-10-18 16:05 G	15642567.94	15642568.17	15642568.40	0.0498	0.0075 *
Mercury	38118-08-28 12:43 G	15643612.85	15643613.03	15643613.22	0.0506	0.0048
Moon	38121-03-30 02:09 G	15644557.41	15644557.59	15644557.78	0.0525	0.0303
Earth	38121-03-30 04:33 G	15644557.51	15644557.69	15644557.87	0.0525	0.0324 *
Mercury	38124-04-21 07:26 G	15645675.70	15645675.81	15645675.93	0.0520	0.0214
Mercury	38124-07-19 12:14 G	15645764.92	15645765.01	15645765.09	0.0518	0.0378
Mars	38125-03-29 12:14 G	15646017.88	15646018.01	15646018.15	0.0513	0.0437
Moon	38126-09-20 23:02 G	15646558.45	15646558.46	15646558.48	0.0502	0.0500
Moon	38127-10-22 21:21 G	15646955.18	15646955.39	15646955.61	0.0498	0.0206
Earth	38127-10-23 00:57 G	15646955.34	15646955.54	15646955.76	0.0498	0.0211 *
Venus	38128-05-10 01:55 G	15647155.47	15647155.58	15647155.70	0.0497	0.0408
Mercury	38130-06-16 09:07 G	15647922.72	15647922.88	15647923.04	0.0506	0.0258
Earth	38133-04-04 03:50 G	15648945.45	15648945.66	15648945.88	0.0527	0.0205
Moon	38133-04-04 07:55 G	15648945.62	15648945.83	15648946.04	0.0527	0.0231 *
Venus	38134-03-13 02:38 G	15649288.43	15649288.61	15649288.80	0.0529	0.0213
Mercury	38136-02-08 12:29 G	15649985.93	15649986.02	15649986.11	0.0521	0.0352
Mercury	38136-05-07 17:02 G	15650075.10	15650075.21	15650075.32	0.0519	0.0239
Moon	38138-09-25 09:36 G	15650945.79	15650945.90	15650946.03	0.0501	0.0433
Earth	38138-09-25 11:17 G	15650945.84	15650945.97	15650946.10	0.0501	0.0413 *
Earth	38139-10-27 12:57 G	15651342.86	15651343.04	15651343.23	0.0497	0.0312

Moon	38139-10-27 14:53 G	15651342.97	15651343.12	15651343.29	0.0497	0.0342 *
Venus	38140-01-14 03:50 G	15651421.46	15651421.66	15651421.87	0.0497	0.0011
Mercury	38142-04-04 06:00 G	15652232.68	15652232.75	15652232.83	0.0505	0.0459
Mercury	38142-07-03 18:14 G	15652323.15	15652323.26	15652323.39	0.0507	0.0381
Mars	38143-03-11 08:24 G	15652573.56	15652573.85	15652574.14	0.0513	0.0052
Moon	38145-04-09 03:50 G	15653333.43	15653333.66	15653333.90	0.0527	0.0098
Earth	38145-04-09 07:41 G	15653333.59	15653333.82	15653334.05	0.0527	0.0077 *
Venus	38145-11-15 20:24 G	15653554.18	15653554.35	15653554.53	0.0528	0.0264
Mercury	38147-11-27 17:02 G	15654296.18	15654296.21	15654296.24	0.0521	0.0497
Mercury	38148-02-24 21:36 G	15654385.27	15654385.40	15654385.52	0.0519	0.0092
Moon	38150-09-29 19:41 G	15655333.16	15655333.32	15655333.49	0.0500	0.0337
Earth	38150-09-29 19:55 G	15655333.16	15655333.33	15655333.52	0.0500	0.0315 *
Venus	38151-09-19 03:07 G	15655687.51	15655687.63	15655687.75	0.0497	0.0405
Moon	38151-10-31 19:26 G	15655730.19	15655730.31	15655730.45	0.0497	0.0413
Earth	38151-10-31 20:09 G	15655730.21	15655730.34	15655730.47	0.0497	0.0408 *
Mercury	38154-04-21 15:07 G	15656632.96	15656633.13	15656633.31	0.0507	0.0176
Earth	38157-04-14 10:48 G	15657721.71	15657721.95	15657722.18	0.0528	0.0050
Moon	38157-04-14 13:12 G	15657721.82	15657722.05	15657722.27	0.0528	0.0076 *
Mercury	38159-12-14 02:09 G	15658695.47	15658695.59	15658695.72	0.0519	0.0053
Earth	38162-10-04 09:07 G	15659720.67	15659720.88	15659721.09	0.0500	0.0211
Moon	38162-10-04 11:45 G	15659720.77	15659720.99	15659721.21	0.0500	0.0189 *
Moon	38163-11-05 06:57 G	15660117.74	15660117.79	15660117.86	0.0497	0.0480
Mercury	38166-02-07 12:14 G	15660942.82	15660943.01	15660943.20	0.0507	0.0027
Moon	38169-04-19 09:21 G	15662109.67	15662109.89	15662110.12	0.0528	0.0193
Earth	38169-04-19 09:50 G	15662109.69	15662109.91	15662110.13	0.0528	0.0173 *
Venus	38169-11-18 20:53 G	15662323.33	15662323.37	15662323.43	0.0528	0.0510
Mercury	38171-10-02 06:43 G	15663005.66	15663005.78	15663005.89	0.0520	0.0202
Mercury	38171-12-30 11:17 G	15663094.89	15663094.97	15663095.05	0.0518	0.0388
Moon	38174-10-08 19:41 G	15664108.09	15664108.32	15664108.55	0.0499	0.0081
Earth	38174-10-08 23:17 G	15664108.25	15664108.47	15664108.70	0.0499	0.0107 *

Venus	38175-09-21 15:21 G	15664455.96	15664456.14	15664456.32	0.0497	0.0248
Mercury	38177-11-26 08:53 G	15665252.71	15665252.87	15665253.04	0.0506	0.0232
Moon	38181-04-24 08:09 G	15666497.65	15666497.84	15666498.04	0.0528	0.0272
Earth	38181-04-24 10:19 G	15666497.74	15666497.93	15666498.13	0.0528	0.0297 *
Venus	38181-07-24 12:57 G	15666588.84	15666589.04	15666589.24	0.0528	0.0024
Mercury	38183-07-21 11:17 G	15667315.88	15667315.97	15667316.07	0.0521	0.0345
Mercury	38183-10-18 16:05 G	15667405.05	15667405.17	15667405.28	0.0519	0.0247
Earth	38186-10-13 13:12 G	15668495.81	15668496.05	15668496.28	0.0498	0.0004
Moon	38186-10-13 17:17 G	15668495.98	15668496.22	15668496.45	0.0498	0.0015 *
Venus	38187-05-27 17:17 G	15668722.03	15668722.22	15668722.42	0.0497	0.0150
Mercury	38189-09-14 05:17 G	15669562.63	15669562.72	15669562.81	0.0505	0.0441
Mercury	38189-12-13 17:31 G	15669653.12	15669653.23	15669653.35	0.0507	0.0398
Moon	38192-03-24 12:57 G	15670484.92	15670485.04	15670485.18	0.0525	0.0426
Earth	38192-03-24 15:07 G	15670485.02	15670485.13	15670485.25	0.0525	0.0450 *
Venus	38193-03-29 05:31 G	15670854.63	15670854.73	15670854.82	0.0529	0.0461
Earth	38193-04-29 11:45 G	15670885.86	15670885.99	15670886.14	0.0529	0.0421
Moon	38193-04-29 15:50 G	15670886.01	15670886.16	15670886.31	0.0529	0.0404 *
Mercury	38195-05-09 16:19 G	15671626.14	15671626.18	15671626.22	0.0521	0.0483
Mercury	38195-08-06 20:53 G	15671715.25	15671715.37	15671715.49	0.0519	0.0107
Moon	38198-10-17 22:19 G	15672883.19	15672883.43	15672883.66	0.0498	0.0075
Earth	38198-10-18 01:55 G	15672883.35	15672883.58	15672883.81	0.0498	0.0105 *
Mercury	38201-10-02 14:38 G	15673962.94	15673963.11	15673963.28	0.0507	0.0197
Earth	38204-03-30 17:17 G	15674873.04	15674873.22	15674873.40	0.0526	0.0330
Moon	38204-03-30 20:53 G	15674873.19	15674873.37	15674873.56	0.0526	0.0318 *
Mercury	38207-05-27 01:26 G	15676025.43	15676025.56	15676025.69	0.0519	0.0039
Earth	38210-10-23 08:53 G	15677270.66	15677270.87	15677271.08	0.0498	0.0204
Moon	38210-10-23 10:48 G	15677270.75	15677270.95	15677271.16	0.0498	0.0211 *
Venus	38211-05-31 01:41 G	15677490.53	15677490.57	15677490.62	0.0497	0.0482
Mercury	38213-07-21 11:17 G	15678272.78	15678272.97	15678273.15	0.0507	0.0017
Moon	38216-04-04 15:50 G	15679260.95	15679261.16	15679261.37	0.0526	0.0237

Earth	38216-04-04 19:41 G	15679261.10	15679261.32	15679261.53	0.0526	0.0206	*
Venus	38217-04-02 09:07 G	15679623.72	15679623.88	15679624.04	0.0528	0.0330	
Mercury	38219-03-15 06:14 G	15680335.64	15680335.76	15680335.87	0.0519	0.0183	
Mercury	38219-06-12 10:48 G	15680424.87	15680424.95	15680425.02	0.0517	0.0407	
Earth	38221-09-25 17:45 G	15681261.12	15681261.24	15681261.37	0.0501	0.0424	
Moon	38221-09-25 17:31 G	15681261.13	15681261.23	15681261.33	0.0501	0.0449	*
Moon	38222-10-27 20:09 G	15681658.16	15681658.34	15681658.52	0.0498	0.0335	
Earth	38222-10-27 20:38 G	15681658.18	15681658.36	15681658.55	0.0498	0.0306	*
Venus	38223-02-03 03:36 G	15681756.45	15681756.65	15681756.85	0.0497	0.0082	
Mercury	38225-05-09 07:55 G	15682582.67	15682582.83	15682583.00	0.0506	0.0216	
Earth	38228-04-09 18:00 G	15683649.02	15683649.25	15683649.48	0.0527	0.0086	
Moon	38228-04-09 20:53 G	15683649.15	15683649.37	15683649.59	0.0527	0.0101	*
Venus	38228-12-06 00:00 G	15683889.31	15683889.50	15683889.69	0.0528	0.0162	
Mercury	38231-01-01 10:33 G	15684645.84	15684645.94	15684646.03	0.0520	0.0332	
Mercury	38231-03-31 15:07 G	15684735.02	15684735.13	15684735.24	0.0518	0.0257	
Earth	38233-09-30 08:09 G	15685648.66	15685648.84	15685649.02	0.0500	0.0322	
Moon	38233-09-30 10:33 G	15685648.77	15685648.94	15685649.13	0.0500	0.0334	*
Venus	38234-10-09 06:00 G	15686022.59	15686022.75	15686022.91	0.0498	0.0314	
Moon	38234-11-01 08:24 G	15686045.73	15686045.85	15686045.98	0.0498	0.0410	
Earth	38234-11-01 09:21 G	15686045.77	15686045.89	15686046.03	0.0498	0.0407	*
Mercury	38237-02-25 04:48 G	15686892.60	15686892.70	15686892.80	0.0506	0.0420	
Mercury	38237-05-26 17:17 G	15686983.12	15686983.22	15686983.32	0.0507	0.0420	
Moon	38240-04-14 16:33 G	15688036.95	15688037.19	15688037.43	0.0527	0.0065	
Earth	38240-04-14 17:45 G	15688037.00	15688037.24	15688037.47	0.0527	0.0040	*
Mercury	38242-10-20 15:07 G	15688956.08	15688956.13	15688956.18	0.0521	0.0476	
Mercury	38243-01-17 19:41 G	15689045.20	15689045.32	15689045.45	0.0519	0.0113	
Mars	38243-09-20 15:36 G	15689290.91	15689291.15	15689291.39	0.0514	0.0196	
Moon	38245-10-04 19:12 G	15690036.09	15690036.30	15690036.51	0.0500	0.0192	
Earth	38245-10-04 22:48 G	15690036.24	15690036.45	15690036.66	0.0500	0.0217	*
Moon	38246-11-05 23:45 G	15690433.43	15690433.49	15690433.57	0.0497	0.0475	

Mercury	38249-03-14 13:41 G	15691292.90	15691293.07	15691293.24	0.0507	0.0211
Moon	38252-04-19 16:19 G	15692424.97	15692425.18	15692425.39	0.0528	0.0177
Earth	38252-04-19 17:45 G	15692425.02	15692425.24	15692425.46	0.0528	0.0165 *
Mercury	38254-11-06 00:29 G	15693355.40	15693355.52	15693355.65	0.0520	0.0029
Earth	38257-10-09 12:00 G	15694423.77	15694424.00	15694424.23	0.0499	0.0111
Moon	38257-10-09 16:05 G	15694423.94	15694424.17	15694424.40	0.0499	0.0087 *
Venus	38258-10-11 17:31 G	15694791.08	15694791.23	15694791.38	0.0497	0.0335
Mercury	38260-12-31 10:33 G	15695602.75	15695602.94	15695603.12	0.0506	0.0012
Earth	38264-04-24 21:50 G	15696813.22	15696813.41	15696813.61	0.0528	0.0295
Moon	38264-04-25 01:41 G	15696813.36	15696813.57	15696813.77	0.0528	0.0262 *
Venus	38264-08-13 18:00 G	15696924.06	15696924.25	15696924.45	0.0529	0.0133
Mercury	38266-08-25 05:17 G	15697665.60	15697665.72	15697665.84	0.0519	0.0171
Mercury	38266-11-22 09:50 G	15697754.84	15697754.91	15697754.98	0.0517	0.0418
Moon	38269-10-13 16:05 G	15698810.93	15698811.17	15698811.41	0.0498	0.0024
Earth	38269-10-13 19:41 G	15698811.09	15698811.32	15698811.56	0.0498	0.0011 *
Venus	38270-06-16 16:05 G	15699056.97	15699057.17	15699057.38	0.0497	0.0081
Mercury	38272-10-19 06:29 G	15699912.60	15699912.77	15699912.94	0.0507	0.0208
Earth	38275-03-26 04:33 G	15700800.59	15700800.69	15700800.81	0.0525	0.0457
Moon	38275-03-26 08:09 G	15700800.71	15700800.84	15700800.98	0.0525	0.0425 *
Venus	38276-04-18 11:17 G	15701189.82	15701189.97	15701190.12	0.0528	0.0346
Moon	38276-04-29 21:21 G	15701201.24	15701201.39	15701201.54	0.0528	0.0403
Earth	38276-04-30 01:26 G	15701201.42	15701201.56	15701201.70	0.0528	0.0420 *
Mercury	38278-06-13 09:50 G	15701975.81	15701975.91	15701976.01	0.0520	0.0315
Mercury	38278-09-10 14:24 G	15702064.99	15702065.10	15702065.21	0.0518	0.0274
Earth	38281-10-18 07:26 G	15703198.58	15703198.81	15703199.04	0.0498	0.0095
Moon	38281-10-18 09:36 G	15703198.67	15703198.90	15703199.12	0.0498	0.0071 *
Venus	38282-02-19 17:31 G	15703323.19	15703323.23	15703323.29	0.0498	0.0482
Mercury	38284-08-07 03:21 G	15704222.53	15704222.64	15704222.75	0.0506	0.0412
Mercury	38284-11-05 15:50 G	15704313.07	15704313.16	15704313.26	0.0508	0.0431
Moon	38287-03-30 22:48 G	15705188.28	15705188.45	15705188.63	0.0525	0.0334

Earth	38287-03-31 02:38 G	15705188.44	15705188.61	15705188.79	0.0525	0.0342	*
Mercury	38290-04-01 14:09 G	15706286.04	15706286.09	15706286.15	0.0520	0.0466	
Mercury	38290-06-29 18:43 G	15706375.16	15706375.28	15706375.40	0.0519	0.0122	
Moon	38293-10-22 19:55 G	15707586.11	15707586.33	15707586.55	0.0498	0.0212	
Earth	38293-10-22 20:09 G	15707586.13	15707586.34	15707586.56	0.0498	0.0199	*
Mercury	38296-08-24 12:43 G	15708622.87	15708623.03	15708623.20	0.0507	0.0227	
Earth	38299-04-05 00:57 G	15709576.33	15709576.54	15709576.75	0.0526	0.0220	
Moon	38299-04-05 03:50 G	15709576.47	15709576.66	15709576.87	0.0526	0.0253	*
Venus	38300-04-22 09:36 G	15709958.78	15709958.90	15709959.03	0.0528	0.0414	
Mercury	38302-04-18 23:17 G	15710685.34	15710685.47	15710685.60	0.0519	0.0024	
Earth	38304-09-26 05:02 G	15711576.60	15711576.71	15711576.83	0.0501	0.0434	
Moon	38304-09-26 07:41 G	15711576.73	15711576.82	15711576.91	0.0501	0.0462	*
Moon	38305-10-28 07:26 G	15711973.65	15711973.81	15711973.99	0.0498	0.0333	
Earth	38305-10-28 08:38 G	15711973.68	15711973.86	15711974.05	0.0498	0.0302	*
Venus	38306-02-23 05:31 G	15712091.54	15712091.73	15712091.93	0.0497	0.0171	
Mercury	38308-06-13 09:07 G	15712932.69	15712932.88	15712933.06	0.0506	0.0019	
Moon	38311-04-10 21:50 G	15713964.18	15713964.41	15713964.65	0.0527	0.0112	
Earth	38311-04-10 23:31 G	15713964.25	15713964.48	15713964.71	0.0527	0.0097	*
Venus	38311-12-27 01:26 G	15714224.36	15714224.56	15714224.76	0.0528	0.0073	
Mercury	38314-02-05 04:05 G	15714995.55	15714995.67	15714995.79	0.0520	0.0165	
Mercury	38314-05-05 08:38 G	15715084.79	15715084.86	15715084.93	0.0518	0.0425	
Moon	38316-09-30 15:21 G	15715963.98	15715964.14	15715964.31	0.0500	0.0339	
Earth	38316-09-30 18:57 G	15715964.12	15715964.29	15715964.47	0.0500	0.0330	*
Venus	38317-10-29 07:12 G	15716357.62	15716357.80	15716357.98	0.0497	0.0231	
Earth	38317-11-01 19:55 G	15716361.19	15716361.33	15716361.46	0.0497	0.0403	
Moon	38317-11-01 22:05 G	15716361.29	15716361.42	15716361.58	0.0497	0.0399	*
Mercury	38320-04-01 05:31 G	15717242.56	15717242.73	15717242.91	0.0506	0.0192	
Moon	38323-04-16 01:12 G	15718352.33	15718352.55	15718352.78	0.0528	0.0061	
Earth	38323-04-16 02:24 G	15718352.37	15718352.60	15718352.83	0.0528	0.0032	*
Mercury	38325-11-24 08:53 G	15719305.77	15719305.87	15719305.97	0.0520	0.0308	

Mercury	38326-02-21 13:26 G	15719394.95	15719395.06	15719395.16	0.0518	0.0281
Earth	38328-10-05 03:50 G	15720351.46	15720351.66	15720351.87	0.0499	0.0230
Moon	38328-10-05 07:55 G	15720351.62	15720351.83	15720352.05	0.0499	0.0202 *
Moon	38329-11-05 22:48 G	15720748.38	15720748.45	15720748.53	0.0497	0.0468
Earth	38329-11-06 02:24 G	15720748.60	15720748.60	15720748.60	0.0497	0.0497
Mercury	38332-01-19 01:12 G	15721552.45	15721552.55	15721552.66	0.0506	0.0411
Mercury	38332-04-18 13:55 G	15721642.99	15721643.08	15721643.18	0.0508	0.0433
Earth	38335-04-21 04:48 G	15722740.48	15722740.70	15722740.92	0.0528	0.0159
Moon	38335-04-21 08:10 G	15722740.62	15722740.84	15722741.07	0.0528	0.0162 *
Mercury	38337-09-12 13:26 G	15723616.00	15723616.06	15723616.12	0.0520	0.0452
Mercury	38337-12-10 18:00 G	15723705.13	15723705.25	15723705.37	0.0518	0.0136
Moon	38340-10-09 12:00 G	15724738.77	15724739.00	15724739.24	0.0499	0.0102
Earth	38340-10-09 15:50 G	15724738.93	15724739.16	15724739.39	0.0499	0.0124 *
Venus	38341-10-31 14:53 G	15725126.00	15725126.12	15725126.24	0.0497	0.0396
Mercury	38344-02-05 10:48 G	15725952.79	15725952.95	15725953.12	0.0507	0.0229
Moon	38347-04-25 23:31 G	15727128.28	15727128.48	15727128.69	0.0528	0.0248
Earth	38347-04-26 03:36 G	15727128.46	15727128.65	15727128.85	0.0528	0.0282 *
Venus	38347-09-03 19:12 G	15727259.11	15727259.30	15727259.48	0.0528	0.0221
Mercury	38349-09-28 22:05 G	15728015.30	15728015.42	15728015.55	0.0519	0.0022
Earth	38352-10-14 04:34 G	15729126.46	15729126.69	15729126.93	0.0499	0.0020
Moon	38352-10-14 06:43 G	15729126.56	15729126.78	15729127.01	0.0499	0.0042 *
Venus	38353-07-06 16:48 G	15729392.00	15729392.20	15729392.41	0.0497	0.0003
Mercury	38355-11-24 07:41 G	15730262.63	15730262.82	15730263.00	0.0507	0.0026
Moon	38358-03-26 04:34 G	15731115.57	15731115.69	15731115.82	0.0524	0.0441
Earth	38358-03-26 08:24 G	15731115.76	15731115.85	15731115.95	0.0524	0.0474 *
Earth	38359-05-01 02:53 G	15731516.48	15731516.62	15731516.78	0.0528	0.0406
Moon	38359-05-01 06:43 G	15731516.63	15731516.78	15731516.94	0.0528	0.0393 *
Venus	38359-05-09 10:19 G	15731524.76	15731524.93	15731525.11	0.0528	0.0269
Mercury	38361-07-18 02:38 G	15732325.49	15732325.61	15732325.73	0.0520	0.0165
Mercury	38361-10-15 07:12 G	15732414.73	15732414.80	15732414.87	0.0518	0.0424

Moon	38364-10-18 16:34 G	15733513.95	15733514.19	15733514.44	0.0498	0.0066
Earth	38364-10-18 17:02 G	15733513.98	15733514.21	15733514.44	0.0498	0.0087 *
Venus	38365-03-11 18:29 G	15733658.15	15733658.27	15733658.39	0.0497	0.0400
Mercury	38367-09-12 03:36 G	15734572.48	15734572.65	15734572.83	0.0506	0.0190
Earth	38370-03-31 05:17 G	15735503.55	15735503.72	15735503.88	0.0525	0.0358
Moon	38370-03-31 08:24 G	15735503.69	15735503.85	15735504.02	0.0525	0.0354 *
Earth	38371-05-06 03:07 G	15735904.61	15735904.63	15735904.65	0.0528	0.0525
Mercury	38373-05-06 07:12 G	15736635.71	15736635.80	15736635.91	0.0520	0.0310
Mercury	38373-08-03 12:00 G	15736724.89	15736725.00	15736725.10	0.0518	0.0282
Moon	38376-10-23 03:36 G	15737901.44	15737901.65	15737901.85	0.0498	0.0209
Earth	38376-10-23 04:34 G	15737901.48	15737901.69	15737901.91	0.0498	0.0191 *
Mercury	38379-07-01 00:00 G	15738882.39	15738882.50	15738882.61	0.0506	0.0400
Mercury	38379-09-29 12:29 G	15738972.93	15738973.02	15738973.11	0.0508	0.0442
Moon	38382-04-05 03:50 G	15739891.46	15739891.66	15739891.87	0.0526	0.0264
Earth	38382-04-05 06:00 G	15739891.55	15739891.75	15739891.96	0.0526	0.0233 *
Venus	38383-05-12 11:17 G	15740293.92	15740293.97	15740294.03	0.0529	0.0504
Mercury	38385-02-22 12:00 G	15740945.95	15740946.00	15740946.07	0.0520	0.0451
Mercury	38385-05-22 16:34 G	15741035.07	15741035.19	15741035.31	0.0518	0.0138
Moon	38387-09-26 05:31 G	15741891.68	15741891.73	15741891.80	0.0501	0.0482
Earth	38387-09-26 09:07 G	15741891.78	15741891.88	15741891.99	0.0501	0.0450 *
Earth	38388-10-27 11:17 G	15742288.78	15742288.97	15742289.16	0.0497	0.0289
Moon	38388-10-27 13:26 G	15742288.88	15742289.06	15742289.25	0.0497	0.0318 *
Venus	38389-03-14 02:10 G	15742426.40	15742426.59	15742426.77	0.0497	0.0226
Mercury	38391-07-18 08:10 G	15743282.68	15743282.84	15743283.01	0.0508	0.0222
Moon	38394-04-10 06:43 G	15744279.56	15744279.78	15744280.00	0.0527	0.0114
Earth	38394-04-10 07:12 G	15744279.57	15744279.80	15744280.03	0.0527	0.0109 *
Venus	38395-01-15 04:19 G	15744559.47	15744559.68	15744559.88	0.0529	0.0026
Mercury	38397-03-10 21:07 G	15745345.26	15745345.38	15745345.51	0.0519	0.0013
Mars	38397-12-15 22:34 G	15745625.20	15745625.44	15745625.68	0.0512	0.0166
Earth	38399-09-30 21:07 G	15746279.22	15746279.38	15746279.56	0.0500	0.0347

Moon	38399-10-01 01:26 G	15746279.40	15746279.56	15746279.72	0.0500	0.0354 *
Moon	38400-10-31 18:29 G	15746676.13	15746676.27	15746676.42	0.0497	0.0383
Earth	38400-10-31 21:50 G	15746676.27	15746676.41	15746676.56	0.0497	0.0391 *
Venus	38400-11-17 03:07 G	15746692.44	15746692.63	15746692.82	0.0497	0.0176
Mercury	38403-05-06 05:02 G	15747592.52	15747592.71	15747592.89	0.0507	0.0018
Earth	38406-04-15 05:17 G	15748667.49	15748667.72	15748667.95	0.0527	0.0014
Moon	38406-04-15 08:10 G	15748667.60	15748667.84	15748668.08	0.0527	0.0045 *
Venus	38406-09-19 18:43 G	15748825.19	15748825.28	15748825.37	0.0528	0.0467
Mercury	38408-12-28 01:12 G	15749655.43	15749655.55	15749655.67	0.0519	0.0164
Mercury	38409-03-27 05:46 G	15749744.67	15749744.74	15749744.81	0.0517	0.0426
Moon	38411-10-05 06:00 G	15750666.54	15750666.75	15750666.97	0.0500	0.0218
Earth	38411-10-05 09:50 G	15750666.71	15750666.91	15750667.12	0.0500	0.0245 *
Earth	38412-11-05 09:22 G	15751063.86	15751063.89	15751063.93	0.0497	0.0490
Moon	38412-11-05 12:58 G	15751063.97	15751064.04	15751064.13	0.0497	0.0462
Mercury	38415-02-22 01:41 G	15751902.40	15751902.57	15751902.74	0.0506	0.0190
Mars	38415-11-24 19:12 G	15752178.09	15752178.30	15752178.53	0.0512	0.0339
Moon	38418-04-20 00:14 G	15753055.29	15753055.51	15753055.74	0.0528	0.0144
Earth	38418-04-20 04:05 G	15753055.45	15753055.67	15753055.90	0.0528	0.0140 *
Mercury	38420-10-16 05:46 G	15753965.64	15753965.74	15753965.84	0.0520	0.0312
Mercury	38421-01-13 10:19 G	15754054.82	15754054.93	15754055.03	0.0518	0.0277
Earth	38423-10-09 22:34 G	15755054.21	15755054.44	15755054.66	0.0499	0.0138
Moon	38423-10-10 00:58 G	15755054.32	15755054.54	15755054.76	0.0499	0.0124 *
Venus	38424-11-19 13:55 G	15755461.02	15755461.08	15755461.15	0.0497	0.0468
Mercury	38426-12-10 21:36 G	15756212.29	15756212.40	15756212.51	0.0506	0.0405
Mercury	38427-03-11 10:05 G	15756302.83	15756302.92	15756303.01	0.0507	0.0437
Earth	38430-04-25 02:38 G	15757443.41	15757443.61	15757443.81	0.0528	0.0265
Moon	38430-04-25 06:29 G	15757443.57	15757443.77	15757443.98	0.0528	0.0232 *
Venus	38430-09-22 16:48 G	15757594.03	15757594.20	15757594.37	0.0528	0.0289
Mercury	38432-08-04 10:19 G	15758275.87	15758275.93	15758275.99	0.0521	0.0458
Mercury	38432-11-01 14:53 G	15758365.00	15758365.12	15758365.24	0.0519	0.0132

Moon	38435-10-14 09:50 G	15759441.67	15759441.91	15759442.15	0.0499	0.0057
Earth	38435-10-14 10:34 G	15759441.71	15759441.94	15759442.17	0.0499	0.0031 *
Venus	38436-07-25 15:07 G	15759726.93	15759727.13	15759727.33	0.0497	0.0066
Mercury	38438-12-28 06:29 G	15760612.60	15760612.77	15760612.94	0.0507	0.0226
Earth	38441-03-25 09:36 G	15761430.83	15761430.90	15761430.98	0.0525	0.0493
Moon	38441-03-25 13:12 G	15761430.95	15761431.05	15761431.16	0.0525	0.0459 *
Moon	38442-04-30 02:38 G	15761831.45	15761831.61	15761831.77	0.0529	0.0383
Earth	38442-04-30 05:17 G	15761831.57	15761831.72	15761831.88	0.0529	0.0393 *
Venus	38442-05-28 09:50 G	15761859.72	15761859.91	15761860.10	0.0529	0.0192
Mercury	38444-08-20 19:41 G	15762675.19	15762675.32	15762675.44	0.0519	0.0015
Moon	38447-10-18 17:31 G	15763829.00	15763829.23	15763829.45	0.0498	0.0050
Earth	38447-10-18 18:29 G	15763829.03	15763829.27	15763829.50	0.0498	0.0070 *
Venus	38448-03-30 13:41 G	15763992.93	15763993.07	15763993.22	0.0497	0.0347
Mercury	38450-10-16 01:55 G	15764922.39	15764922.58	15764922.77	0.0507	0.0003
Moon	38453-03-30 06:00 G	15765818.59	15765818.75	15765818.93	0.0526	0.0371
Earth	38453-03-30 08:38 G	15765818.71	15765818.86	15765819.03	0.0526	0.0377 *
Earth	38454-05-05 07:26 G	15766219.77	15766219.81	15766219.87	0.0529	0.0516
Mercury	38456-06-09 00:14 G	15766985.39	15766985.51	15766985.63	0.0519	0.0156
Mercury	38456-09-06 04:34 G	15767074.63	15767074.69	15767074.77	0.0517	0.0433
Earth	38459-10-23 04:48 G	15768216.48	15768216.70	15768216.92	0.0497	0.0174
Moon	38459-10-23 06:58 G	15768216.57	15768216.79	15768217.01	0.0497	0.0193 *
Mercury	38462-08-03 22:19 G	15769232.26	15769232.43	15769232.61	0.0506	0.0206
Earth	38465-04-04 06:29 G	15770206.57	15770206.77	15770206.97	0.0526	0.0257
Moon	38465-04-04 06:58 G	15770206.60	15770206.79	15770206.98	0.0526	0.0288 *
Mercury	38468-03-28 04:05 G	15771295.58	15771295.67	15771295.77	0.0520	0.0315
Mercury	38468-06-25 08:38 G	15771384.76	15771384.86	15771384.97	0.0518	0.0274
Earth	38470-09-25 11:31 G	15772206.91	15772206.98	15772207.06	0.0501	0.0469
Moon	38471-10-27 12:29 G	15772603.85	15772604.02	15772604.21	0.0498	0.0302
Earth	38471-10-27 15:50 G	15772603.97	15772604.16	15772604.35	0.0498	0.0276 *
Venus	38472-04-01 23:46 G	15772761.33	15772761.49	15772761.66	0.0497	0.0292

Mercury	38474-05-22 18:58 G	15773542.19	15773542.29	15773542.40	0.0506	0.0412
Mercury	38474-08-21 07:41 G	15773632.73	15773632.82	15773632.92	0.0508	0.0432
Earth	38477-04-09 04:34 G	15774594.47	15774594.69	15774594.92	0.0526	0.0134
Moon	38477-04-09 06:43 G	15774594.55	15774594.78	15774595.02	0.0526	0.0130 *
Venus	38478-02-02 23:46 G	15774894.29	15774894.49	15774894.70	0.0528	0.0084
Mercury	38480-01-15 08:38 G	15775605.80	15775605.86	15775605.91	0.0520	0.0465
Mercury	38480-04-13 12:58 G	15775694.92	15775695.04	15775695.16	0.0519	0.0124
Moon	38482-09-29 20:38 G	15776594.21	15776594.36	15776594.52	0.0501	0.0375
Earth	38482-09-30 00:29 G	15776594.37	15776594.52	15776594.69	0.0501	0.0366 *
Earth	38483-11-01 02:53 G	15776991.47	15776991.62	15776991.77	0.0497	0.0379
Moon	38483-11-01 06:29 G	15776991.62	15776991.77	15776991.93	0.0497	0.0362 *
Venus	38483-12-07 00:58 G	15777027.34	15777027.54	15777027.74	0.0497	0.0109
Mercury	38486-06-09 03:36 G	15777942.49	15777942.65	15777942.82	0.0507	0.0217
Moon	38489-04-13 22:05 G	15778982.19	15778982.42	15778982.65	0.0527	0.0024
Earth	38489-04-14 01:41 G	15778982.33	15778982.57	15778982.80	0.0527	0.0013 *
Venus	38489-10-08 14:24 G	15779159.97	15779160.10	15779160.23	0.0528	0.0410
Mercury	38492-01-31 17:31 G	15780005.10	15780005.23	15780005.36	0.0519	0.0023
Earth	38494-10-04 13:26 G	15780981.86	15780982.06	15780982.26	0.0500	0.0260
Moon	38494-10-04 16:05 G	15780981.97	15780982.17	15780982.37	0.0500	0.0233 *
Moon	38495-11-05 09:07 G	15781378.79	15781378.88	15781378.99	0.0497	0.0448
Earth	38495-11-05 12:43 G	15781378.98	15781379.03	15781379.10	0.0497	0.0479 *
Mercury	38498-03-27 23:46 G	15782252.31	15782252.49	15782252.68	0.0507	0.0006
Earth	38501-04-20 02:24 G	15783370.38	15783370.60	15783370.83	0.0528	0.0120
Moon	38501-04-20 06:29 G	15783370.55	15783370.77	15783371.00	0.0528	0.0125 *
Mercury	38503-11-20 22:19 G	15784315.31	15784315.43	15784315.55	0.0520	0.0165
Mercury	38504-02-18 02:53 G	15784404.55	15784404.62	15784404.69	0.0518	0.0424
Moon	38506-10-09 21:50 G	15785369.18	15785369.41	15785369.65	0.0499	0.0149
Earth	38506-10-09 23:02 G	15785369.23	15785369.46	15785369.68	0.0499	0.0158 *
Mercury	38510-01-14 18:58 G	15786562.12	15786562.29	15786562.46	0.0506	0.0224
Moon	38513-04-25 00:14 G	15787758.30	15787758.51	15787758.73	0.0529	0.0216

Earth	38513-04-25 03:36 G	15787758.45	15787758.65	15787758.86	0.0529	0.0248	*
Venus	38513-10-12 15:50 G	15787929.01	15787929.16	15787929.31	0.0529	0.0365	
Mercury	38515-09-09 02:53 G	15788625.52	15788625.62	15788625.72	0.0520	0.0311	
Mercury	38515-12-07 07:26 G	15788714.70	15788714.81	15788714.91	0.0518	0.0278	
Moon	38518-10-14 08:53 G	15789756.65	15789756.87	15789757.10	0.0498	0.0080	
Earth	38518-10-14 09:36 G	15789756.67	15789756.90	15789757.14	0.0498	0.0052	*
Venus	38519-08-15 09:07 G	15790061.68	15790061.88	15790062.08	0.0497	0.0112	
Mercury	38521-11-02 15:22 G	15790872.05	15790872.14	15790872.24	0.0506	0.0434	
Mercury	38522-02-01 04:05 G	15790962.57	15790962.67	15790962.78	0.0508	0.0411	
Moon	38524-03-25 04:48 G	15791745.62	15791745.70	15791745.79	0.0524	0.0485	
Earth	38524-03-25 07:55 G	15791745.81	15791745.83	15791745.87	0.0524	0.0520	
Earth	38525-04-30 02:10 G	15792146.43	15792146.59	15792146.77	0.0528	0.0369	
Moon	38525-04-30 03:22 G	15792146.49	15792146.64	15792146.81	0.0528	0.0369	*
Venus	38525-06-17 06:00 G	15792194.55	15792194.75	15792194.95	0.0528	0.0128	
Mercury	38527-06-28 06:43 G	15792935.73	15792935.78	15792935.84	0.0520	0.0470	
Mercury	38527-09-25 11:17 G	15793024.85	15793024.97	15793025.09	0.0518	0.0118	
Earth	38530-10-18 20:10 G	15794144.11	15794144.34	15794144.57	0.0498	0.0052	
Moon	38530-10-18 22:05 G	15794144.18	15794144.42	15794144.67	0.0498	0.0034	*
Venus	38531-04-20 10:19 G	15794327.76	15794327.93	15794328.10	0.0497	0.0287	
Mercury	38533-11-20 00:58 G	15795272.37	15795272.54	15795272.71	0.0507	0.0207	
Earth	38536-03-30 05:31 G	15796133.58	15796133.73	15796133.88	0.0525	0.0402	
Moon	38536-03-30 06:43 G	15796133.64	15796133.78	15796133.92	0.0525	0.0402	*
Earth	38537-05-05 01:26 G	15796534.48	15796534.56	15796534.65	0.0528	0.0491	
Moon	38537-05-05 02:24 G	15796534.57	15796534.60	15796534.64	0.0528	0.0522	*
Mercury	38539-07-14 15:36 G	15797335.02	15797335.15	15797335.28	0.0519	0.0034	
Moon	38542-10-23 04:19 G	15798531.47	15798531.68	15798531.90	0.0498	0.0178	
Earth	38542-10-23 07:26 G	15798531.59	15798531.81	15798532.03	0.0498	0.0157	*
Mercury	38545-09-07 20:53 G	15799582.18	15799582.37	15799582.55	0.0506	0.0011	
Earth	38548-04-04 00:58 G	15800521.35	15800521.54	15800521.74	0.0526	0.0283	
Moon	38548-04-04 01:55 G	15800521.40	15800521.58	15800521.78	0.0526	0.0312	*

Mercury	38551-05-02 19:55 G	15801645.22	15801645.33	15801645.45	0.0520	0.0183
Mercury	38551-07-31 00:29 G	15801734.45	15801734.52	15801734.60	0.0518	0.0409
Mars	38552-03-11 04:48 G	15801958.56	15801958.70	15801958.86	0.0513	0.0413
Earth	38553-09-25 13:12 G	15802522.00	15802522.05	15802522.11	0.0502	0.0488
Earth	38554-10-27 17:46 G	15802919.04	15802919.24	15802919.44	0.0497	0.0262
Moon	38554-10-27 21:36 G	15802919.21	15802919.40	15802919.59	0.0497	0.0283 *
Venus	38555-04-22 19:41 G	15803096.18	15803096.32	15803096.47	0.0497	0.0347
Mercury	38557-06-26 16:48 G	15803892.03	15803892.20	15803892.37	0.0506	0.0226
Moon	38560-04-08 21:07 G	15804909.16	15804909.38	15804909.60	0.0527	0.0155
Earth	38560-04-09 00:00 G	15804909.29	15804909.50	15804909.73	0.0527	0.0159 *
Venus	38561-02-22 19:41 G	15805229.13	15805229.32	15805229.52	0.0529	0.0142
Mercury	38563-02-19 00:43 G	15805955.44	15805955.53	15805955.63	0.0520	0.0325
Mercury	38563-05-19 05:17 G	15806044.62	15806044.72	15806044.83	0.0518	0.0266
Earth	38565-09-30 00:43 G	15806909.39	15806909.53	15806909.69	0.0500	0.0387
Moon	38565-09-30 03:50 G	15806909.52	15806909.66	15806909.81	0.0500	0.0390 *
Moon	38566-10-31 22:05 G	15807306.25	15807306.42	15807306.59	0.0497	0.0341
Earth	38566-11-01 01:26 G	15807306.41	15807306.56	15807306.73	0.0497	0.0361 *
Venus	38566-12-26 18:58 G	15807362.09	15807362.29	15807362.49	0.0497	0.0062
Mercury	38569-04-14 11:46 G	15808201.91	15808201.99	15808202.07	0.0506	0.0454
Mercury	38569-07-14 00:29 G	15808292.41	15808292.52	15808292.64	0.0508	0.0390
Mars	38570-02-17 09:36 G	15808510.61	15808510.90	15808511.19	0.0513	0.0085
Earth	38572-04-13 23:46 G	15809297.26	15809297.49	15809297.72	0.0528	0.0034
Moon	38572-04-14 03:50 G	15809297.42	15809297.66	15809297.89	0.0528	0.0006 *
Venus	38572-10-28 11:46 G	15809494.84	15809494.99	15809495.14	0.0529	0.0342
Mercury	38574-12-08 05:17 G	15810265.68	15810265.72	15810265.78	0.0521	0.0470
Mercury	38575-03-07 09:50 G	15810354.79	15810354.91	15810355.04	0.0519	0.0120
Moon	38577-10-04 11:02 G	15811296.76	15811296.96	15811297.18	0.0499	0.0253
Earth	38577-10-04 12:29 G	15811296.83	15811297.02	15811297.21	0.0499	0.0282 *
Venus	38578-08-31 19:41 G	15811628.26	15811628.32	15811628.40	0.0497	0.0464
Earth	38578-11-05 11:02 G	15811693.88	15811693.96	15811694.05	0.0497	0.0461

Moon	38578-11-05 13:55 G	15811693.97	15811694.08	15811694.19	0.0497	0.0433	*
Mercury	38581-05-01 21:07 G	15812602.21	15812602.38	15812602.55	0.0507	0.0183	
Moon	38584-04-18 18:58 G	15813685.06	15813685.29	15813685.52	0.0528	0.0097	
Earth	38584-04-18 22:48 G	15813685.22	15813685.45	15813685.67	0.0528	0.0092	*
Mercury	38586-12-24 13:41 G	15814664.95	15814665.07	15814665.20	0.0519	0.0043	
Moon	38589-10-08 22:05 G	15815684.21	15815684.42	15815684.63	0.0499	0.0175	
Earth	38589-10-08 22:34 G	15815684.22	15815684.44	15815684.66	0.0499	0.0180	*
Mercury	38593-02-17 18:00 G	15816912.06	15816912.25	15816912.43	0.0507	0.0024	
Earth	38596-04-23 21:36 G	15818073.19	15818073.40	15818073.61	0.0528	0.0219	
Moon	38596-04-23 23:46 G	15818073.28	15818073.49	15818073.70	0.0528	0.0190	*
Venus	38596-10-31 09:36 G	15818263.78	15818263.90	15818264.02	0.0528	0.0413	
Mercury	38598-10-12 18:00 G	15818975.14	15818975.25	15818975.37	0.0520	0.0193	
Mercury	38599-01-09 22:34 G	15819064.36	15819064.44	15819064.52	0.0518	0.0397	
Earth	38601-10-14 10:05 G	15820071.69	15820071.92	15820072.15	0.0499	0.0072	
Moon	38601-10-14 12:00 G	15820071.76	15820072.00	15820072.24	0.0499	0.0101	*
Venus	38602-09-04 05:17 G	15820396.53	15820396.72	15820396.91	0.0497	0.0170	
Mercury	38604-12-07 13:41 G	15821221.91	15821222.07	15821222.24	0.0506	0.0238	
Moon	38607-03-26 04:34 G	15822060.65	15822060.69	15822060.73	0.0524	0.0515	
Earth	38608-04-29 18:58 G	15822461.12	15822461.29	15822461.47	0.0528	0.0344	
Moon	38608-04-29 18:58 G	15822461.12	15822461.29	15822461.48	0.0528	0.0345	*
Venus	38608-07-06 23:46 G	15822529.29	15822529.49	15822529.69	0.0528	0.0081	
Mercury	38610-08-01 22:34 G	15823285.34	15823285.44	15823285.53	0.0520	0.0342	
Mercury	38610-10-30 02:53 G	15823374.51	15823374.62	15823374.74	0.0518	0.0248	
Moon	38613-10-18 18:43 G	15824459.05	15824459.28	15824459.51	0.0498	0.0020	
Earth	38613-10-18 21:36 G	15824459.16	15824459.40	15824459.63	0.0498	0.0035	*
Venus	38614-05-10 06:00 G	15824662.57	15824662.75	15824662.93	0.0497	0.0232	
Mercury	38616-09-25 09:36 G	15825531.82	15825531.90	15825531.98	0.0505	0.0454	
Mercury	38616-12-24 22:19 G	15825622.31	15825622.43	15825622.55	0.0507	0.0388	
Earth	38619-03-30 23:31 G	15826448.36	15826448.48	15826448.62	0.0525	0.0429	
Moon	38619-03-31 00:00 G	15826448.36	15826448.50	15826448.63	0.0525	0.0431	*

Moon	38620-05-04 18:29 G	15826849.20	15826849.27	15826849.33	0.0529	0.0505
Earth	38620-05-04 20:10 G	15826849.24	15826849.34	15826849.45	0.0529	0.0470 *
Mercury	38622-05-21 03:22 G	15827595.59	15827595.64	15827595.68	0.0521	0.0484
Mercury	38622-08-18 07:41 G	15827684.70	15827684.82	15827684.95	0.0519	0.0107
Earth	38625-10-23 06:58 G	15828846.57	15828846.79	15828847.02	0.0497	0.0137
Moon	38625-10-23 10:48 G	15828846.73	15828846.95	15828847.17	0.0497	0.0163 *
Mercury	38628-10-12 17:31 G	15829932.06	15829932.23	15829932.41	0.0507	0.0163
Moon	38631-04-04 19:12 G	15830836.13	15830836.30	15830836.47	0.0526	0.0342
Earth	38631-04-04 21:36 G	15830836.22	15830836.40	15830836.59	0.0526	0.0310 *
Mercury	38634-06-06 12:14 G	15831994.89	15831995.01	15831995.14	0.0519	0.0042
Moon	38637-10-27 13:12 G	15833233.86	15833234.05	15833234.26	0.0497	0.0262
Earth	38637-10-27 17:02 G	15833234.01	15833234.21	15833234.42	0.0497	0.0242 *
Venus	38638-05-12 13:41 G	15833430.95	15833431.07	15833431.20	0.0497	0.0393
Mercury	38640-07-31 14:10 G	15834241.90	15834242.09	15834242.27	0.0507	0.0045
Earth	38643-04-09 20:24 G	15835224.14	15835224.35	15835224.57	0.0526	0.0188
Moon	38643-04-10 00:14 G	15835224.29	15835224.51	15835224.73	0.0526	0.0183 *
Venus	38644-03-14 14:53 G	15835563.94	15835564.12	15835564.31	0.0528	0.0201
Mercury	38646-03-25 16:05 G	15836305.06	15836305.17	15836305.29	0.0520	0.0201
Mercury	38646-06-22 20:38 G	15836394.28	15836394.36	15836394.45	0.0518	0.0389
Moon	38648-09-29 21:07 G	15837224.25	15837224.38	15837224.52	0.0501	0.0408
Earth	38648-09-29 22:48 G	15837224.33	15837224.45	15837224.59	0.0501	0.0411 *
Earth	38649-11-01 02:10 G	15837621.43	15837621.59	15837621.76	0.0497	0.0344
Moon	38649-11-01 05:02 G	15837621.55	15837621.71	15837621.89	0.0497	0.0325 *
Venus	38650-01-15 14:24 G	15837696.90	15837697.10	15837697.31	0.0497	0.0008
Mercury	38652-05-19 10:48 G	15838551.79	15838551.95	15838552.12	0.0506	0.0249
Moon	38655-04-14 15:36 G	15839611.92	15839612.15	15839612.39	0.0527	0.0027
Earth	38655-04-14 19:41 G	15839612.09	15839612.32	15839612.55	0.0527	0.0060 *
Venus	38655-11-18 06:14 G	15839829.59	15839829.76	15839829.93	0.0528	0.0287
Mercury	38658-01-11 20:38 G	15840615.26	15840615.36	15840615.45	0.0520	0.0351
Mercury	38658-04-11 00:58 G	15840704.43	15840704.54	15840704.65	0.0518	0.0238

Moon	38660-10-04 11:02 G	15841611.78	15841611.96	15841612.15	0.0500	0.0276
Earth	38660-10-04 11:17 G	15841611.79	15841611.97	15841612.16	0.0500	0.0305 *
Venus	38661-09-20 15:22 G	15841963.03	15841963.14	15841963.26	0.0497	0.0409
Moon	38661-11-05 11:02 G	15842008.83	15842008.96	15842009.09	0.0497	0.0417
Earth	38661-11-05 12:43 G	15842008.94	15842009.03	15842009.14	0.0497	0.0446 *
Mercury	38664-03-07 06:43 G	15842861.71	15842861.78	15842861.86	0.0505	0.0463
Mercury	38664-06-05 19:26 G	15842952.20	15842952.31	15842952.44	0.0507	0.0380
Earth	38667-04-19 16:19 G	15843999.95	15844000.18	15844000.41	0.0527	0.0066
Moon	38667-04-19 19:12 G	15844000.07	15844000.30	15844000.52	0.0527	0.0066 *
Mercury	38669-10-31 00:58 G	15844925.51	15844925.54	15844925.57	0.0521	0.0501
Mercury	38670-01-28 05:31 G	15845014.60	15845014.73	15845014.85	0.0519	0.0090
Mars	38670-09-01 04:19 G	15845230.50	15845230.68	15845230.86	0.0514	0.0359
Earth	38672-10-08 23:46 G	15845999.28	15845999.49	15845999.71	0.0500	0.0198
Moon	38672-10-09 01:26 G	15845999.34	15845999.56	15845999.79	0.0500	0.0193 *
Mercury	38676-03-24 15:36 G	15847261.97	15847262.15	15847262.33	0.0507	0.0165
Moon	38679-04-24 15:07 G	15848387.91	15848388.13	15848388.37	0.0528	0.0164
Earth	38679-04-24 16:05 G	15848387.95	15848388.17	15848388.39	0.0528	0.0196 *
Venus	38679-11-21 04:34 G	15848598.60	15848598.69	15848598.78	0.0529	0.0467
Mercury	38681-11-16 10:19 G	15849324.80	15849324.93	15849325.05	0.0520	0.0056
Moon	38684-10-13 08:53 G	15850386.65	15850386.87	15850387.09	0.0499	0.0121
Earth	38684-10-13 11:31 G	15850386.75	15850386.98	15850387.21	0.0499	0.0092 *
Venus	38685-09-23 00:14 G	15850731.33	15850731.51	15850731.69	0.0497	0.0221
Mercury	38688-01-11 10:48 G	15851571.77	15851571.95	15851572.14	0.0506	0.0061
Moon	38691-04-29 15:36 G	15852775.98	15852776.15	15852776.33	0.0529	0.0326
Earth	38691-04-29 16:48 G	15852776.02	15852776.20	15852776.39	0.0529	0.0322 *
Venus	38691-07-26 20:38 G	15852864.15	15852864.36	15852864.56	0.0529	0.0019
Mercury	38693-09-04 14:53 G	15853635.00	15853635.12	15853635.24	0.0520	0.0198
Mercury	38693-12-02 19:26 G	15853724.23	15853724.31	15853724.39	0.0518	0.0392
Earth	38696-10-17 22:19 G	15854774.20	15854774.43	15854774.67	0.0498	0.0017
Moon	38696-10-18 02:10 G	15854774.35	15854774.59	15854774.82	0.0498	0.0009 *

Venus	38697-05-29 01:12 G	15854997.36	15854997.55	15854997.74	0.0497	0.0179
Mercury	38699-10-30 07:26 G	15855881.65	15855881.81	15855881.97	0.0506	0.0267
Moon	38702-03-30 19:41 G	15856763.23	15856763.32	15856763.43	0.0525	0.0467
Earth	38702-03-30 21:36 G	15856763.29	15856763.40	15856763.52	0.0525	0.0455 *
Venus	38703-04-01 11:46 G	15857129.93	15857129.99	15857130.06	0.0528	0.0499
Earth	38703-05-05 16:48 G	15857164.08	15857164.20	15857164.33	0.0528	0.0446
Moon	38703-05-05 19:41 G	15857164.23	15857164.32	15857164.42	0.0528	0.0478 *
Mercury	38705-06-24 18:43 G	15857945.19	15857945.28	15857945.37	0.0520	0.0357
Mercury	38705-09-21 23:17 G	15858034.36	15858034.47	15858034.58	0.0518	0.0232
Moon	38708-10-23 03:36 G	15859161.42	15859161.65	15859161.88	0.0498	0.0146
Earth	38708-10-23 07:12 G	15859161.58	15859161.80	15859162.03	0.0498	0.0119 *
Mercury	38711-08-19 04:19 G	15860191.61	15860191.68	15860191.74	0.0506	0.0470
Mercury	38711-11-17 17:02 G	15860282.09	15860282.21	15860282.33	0.0507	0.0375
Earth	38714-04-04 20:38 G	15861151.19	15861151.36	15861151.54	0.0525	0.0333
Moon	38714-04-05 00:14 G	15861151.34	15861151.51	15861151.68	0.0525	0.0364 *
Mercury	38717-04-12 23:17 G	15862255.44	15862255.47	15862255.49	0.0521	0.0507
Mercury	38717-07-11 03:36 G	15862344.53	15862344.65	15862344.78	0.0519	0.0082
Earth	38720-10-27 18:14 G	15863549.06	15863549.26	15863549.48	0.0498	0.0226
Moon	38720-10-27 21:22 G	15863549.19	15863549.39	15863549.59	0.0498	0.0245 *
Venus	38721-06-01 10:05 G	15863765.85	15863765.92	15863766.01	0.0497	0.0453
Mercury	38723-09-05 13:12 G	15864591.88	15864592.05	15864592.23	0.0507	0.0162
Mars	38724-05-14 14:38 G	15864843.85	15864844.11	15864844.38	0.0512	0.0229
Moon	38726-04-09 12:58 G	15865538.83	15865539.04	15865539.25	0.0526	0.0211
Earth	38726-04-09 16:48 G	15865538.99	15865539.20	15865539.42	0.0526	0.0211 *
Venus	38727-04-04 10:05 G	15865898.74	15865898.92	15865899.09	0.0528	0.0254
Mercury	38729-04-29 07:55 G	15866654.71	15866654.83	15866654.96	0.0520	0.0071
Earth	38731-10-01 01:12 G	15867539.43	15867539.55	15867539.67	0.0501	0.0429
Moon	38731-10-01 01:12 G	15867539.44	15867539.55	15867539.68	0.0501	0.0421 *
Moon	38732-11-01 03:36 G	15867936.47	15867936.65	15867936.85	0.0498	0.0311
Earth	38732-11-01 05:46 G	15867936.57	15867936.74	15867936.91	0.0498	0.0331 *

Venus	38733-02-04 11:17 G	15868031.77	15868031.97	15868032.18	0.0497	0.0053
Mercury	38735-06-24 09:22 G	15868901.70	15868901.89	15868902.07	0.0506	0.0053
Earth	38738-04-14 15:22 G	15869926.91	15869927.14	15869927.37	0.0527	0.0084
Moon	38738-04-14 18:43 G	15869927.05	15869927.28	15869927.51	0.0527	0.0053 *
Venus	38738-12-08 01:41 G	15870164.39	15870164.57	15870164.75	0.0528	0.0231
Mercury	38741-02-15 12:43 G	15870964.92	15870965.03	15870965.15	0.0520	0.0210
Mercury	38741-05-15 17:17 G	15871054.14	15871054.22	15871054.31	0.0518	0.0382
Earth	38743-10-05 14:53 G	15871926.94	15871927.12	15871927.30	0.0500	0.0323
Moon	38743-10-05 16:19 G	15871926.99	15871927.18	15871927.38	0.0500	0.0291 *
Venus	38744-10-10 12:00 G	15872297.86	15872298.00	15872298.15	0.0497	0.0347
Moon	38744-11-05 15:36 G	15872324.03	15872324.15	15872324.28	0.0497	0.0410
Earth	38744-11-05 15:36 G	15872324.04	15872324.15	15872324.27	0.0497	0.0431 *
Mercury	38747-04-12 04:48 G	15873211.54	15873211.70	15873211.85	0.0506	0.0275
Moon	38750-04-19 13:12 G	15874314.81	15874315.05	15874315.30	0.0528	0.0039
Earth	38750-04-19 14:53 G	15874314.89	15874315.12	15874315.35	0.0528	0.0044 *
Mercury	38752-12-04 17:31 G	15875275.14	15875275.23	15875275.32	0.0521	0.0352
Mercury	38753-03-03 22:05 G	15875364.31	15875364.42	15875364.53	0.0519	0.0238
Moon	38755-10-10 00:29 G	15876314.32	15876314.52	15876314.73	0.0499	0.0214
Earth	38755-10-10 03:22 G	15876314.43	15876314.64	15876314.85	0.0499	0.0215 *
Mercury	38759-01-29 01:12 G	15877521.50	15877521.55	15877521.61	0.0505	0.0482
Mercury	38759-04-29 13:55 G	15877611.96	15877612.08	15877612.21	0.0507	0.0363
Moon	38762-04-24 15:22 G	15878702.93	15878703.14	15878703.36	0.0528	0.0141
Earth	38762-04-24 15:50 G	15878702.94	15878703.16	15878703.38	0.0528	0.0173 *
Mercury	38764-09-22 21:36 G	15879585.38	15879585.40	15879585.42	0.0521	0.0509
Mercury	38764-12-21 01:55 G	15879674.46	15879674.58	15879674.71	0.0519	0.0082
Earth	38767-10-14 11:46 G	15880701.77	15880701.99	15880702.22	0.0499	0.0111
Moon	38767-10-14 15:22 G	15880701.92	15880702.14	15880702.37	0.0499	0.0141 *
Venus	38768-10-12 20:38 G	15881066.20	15881066.36	15881066.53	0.0497	0.0282
Mercury	38771-02-15 11:02 G	15881921.79	15881921.96	15881922.14	0.0507	0.0162
Earth	38774-04-29 16:48 G	15883091.01	15883091.20	15883091.39	0.0528	0.0302

Moon	38774-04-29 19:12 G	15883091.10	15883091.30	15883091.49	0.0528	0.0306 *
Venus	38774-08-15 18:00 G	15883199.05	15883199.25	15883199.46	0.0528	0.0057
Mercury	38776-10-09 06:29 G	15883984.64	15883984.77	15883984.89	0.0519	0.0069
Moon	38779-10-18 20:10 G	15885089.11	15885089.34	15885089.58	0.0499	0.0013
Earth	38779-10-19 00:00 G	15885089.27	15885089.50	15885089.74	0.0499	0.0003 *
Venus	38780-06-17 22:05 G	15885332.22	15885332.42	15885332.62	0.0498	0.0118
Mercury	38782-12-04 07:26 G	15886231.63	15886231.81	15886232.00	0.0506	0.0049
Earth	38785-03-29 21:50 G	15887078.32	15887078.41	15887078.51	0.0524	0.0474
Moon	38785-03-30 00:58 G	15887078.46	15887078.54	15887078.63	0.0524	0.0487 *
Venus	38786-04-20 08:38 G	15887464.75	15887464.86	15887464.97	0.0528	0.0435
Moon	38786-05-04 11:31 G	15887478.87	15887478.98	15887479.09	0.0528	0.0459
Earth	38786-05-04 14:53 G	15887478.99	15887479.12	15887479.26	0.0528	0.0427 *
Mercury	38788-07-28 10:48 G	15888294.84	15888294.95	15888295.07	0.0520	0.0220
Mercury	38788-10-25 15:22 G	15888384.06	15888384.14	15888384.23	0.0518	0.0372
Earth	38791-10-23 12:29 G	15889476.79	15889477.02	15889477.25	0.0498	0.0107
Moon	38791-10-23 15:22 G	15889476.92	15889477.14	15889477.36	0.0498	0.0138 *
Mercury	38794-09-22 03:36 G	15890541.49	15890541.65	15890541.81	0.0506	0.0262
Moon	38797-04-03 15:22 G	15891466.00	15891466.14	15891466.30	0.0525	0.0389
Earth	38797-04-03 19:26 G	15891466.14	15891466.31	15891466.48	0.0525	0.0354 *
Mercury	38800-05-16 15:50 G	15892605.07	15892605.16	15892605.25	0.0521	0.0361
Mercury	38800-08-13 20:10 G	15892694.23	15892694.34	15892694.46	0.0519	0.0232
Moon	38803-10-27 22:05 G	15893864.21	15893864.42	15893864.64	0.0498	0.0229
Earth	38803-10-28 00:14 G	15893864.30	15893864.51	15893864.72	0.0498	0.0212 *
Mercury	38806-07-10 23:02 G	15894851.41	15894851.46	15894851.52	0.0505	0.0481
Mercury	38806-10-09 11:46 G	15894941.87	15894941.99	15894942.13	0.0507	0.0362
Earth	38809-04-08 17:31 G	15895854.02	15895854.23	15895854.44	0.0526	0.0232
Moon	38809-04-08 21:07 G	15895854.18	15895854.38	15895854.59	0.0526	0.0226 *
Venus	38810-04-23 09:07 G	15896233.72	15896233.88	15896234.04	0.0529	0.0332
Mercury	38812-03-04 20:24 G	15896915.33	15896915.35	15896915.39	0.0521	0.0502
Mercury	38812-06-02 00:58 G	15897004.42	15897004.54	15897004.67	0.0519	0.0090

Earth	38814-09-30 07:12 G	15897854.70	15897854.80	15897854.91	0.0501	0.0444
Moon	38814-09-30 08:38 G	15897854.74	15897854.86	15897854.99	0.0501	0.0429 *
Earth	38815-11-01 11:17 G	15898251.80	15898251.97	15898252.15	0.0497	0.0319
Moon	38815-11-01 11:31 G	15898251.80	15898251.98	15898252.16	0.0497	0.0298 *
Venus	38816-02-24 09:36 G	15898366.70	15898366.90	15898367.10	0.0497	0.0120
Mercury	38818-07-28 08:38 G	15899251.69	15899251.86	15899252.04	0.0507	0.0159
Moon	38821-04-13 16:34 G	15900241.95	15900242.19	15900242.43	0.0526	0.0074
Earth	38821-04-13 18:43 G	15900242.06	15900242.28	15900242.51	0.0526	0.0104 *
Venus	38821-12-27 01:26 G	15900499.36	15900499.56	15900499.75	0.0528	0.0149
Mercury	38824-03-21 05:02 G	15901314.59	15901314.71	15901314.84	0.0519	0.0068
Mars	38824-11-25 16:48 G	15901563.95	15901564.20	15901564.45	0.0514	0.0091
Moon	38826-10-04 13:55 G	15902241.90	15902242.08	15902242.26	0.0501	0.0311
Earth	38826-10-04 16:19 G	15902242.01	15902242.18	15902242.35	0.0501	0.0341 *
Venus	38827-10-30 09:22 G	15902632.72	15902632.89	15902633.06	0.0498	0.0286
Earth	38827-11-05 19:26 G	15902639.19	15902639.31	15902639.44	0.0498	0.0420
Moon	38827-11-05 21:22 G	15902639.25	15902639.39	15902639.54	0.0498	0.0403 *
Mercury	38830-05-16 05:46 G	15903561.55	15903561.74	15903561.93	0.0507	0.0043
Earth	38833-04-18 19:55 G	15904630.10	15904630.33	15904630.56	0.0527	0.0029
Moon	38833-04-18 19:55 G	15904630.11	15904630.33	15904630.56	0.0527	0.0020 *
Mercury	38836-01-08 09:36 G	15905624.79	15905624.90	15905625.02	0.0520	0.0215
Mercury	38836-04-06 14:10 G	15905714.00	15905714.09	15905714.18	0.0518	0.0375
Earth	38838-10-09 05:17 G	15906629.52	15906629.72	15906629.93	0.0500	0.0232
Moon	38838-10-09 08:53 G	15906629.66	15906629.87	15906630.08	0.0500	0.0236 *
Mercury	38842-03-04 02:10 G	15907871.43	15907871.59	15907871.75	0.0506	0.0252
Earth	38845-04-23 17:46 G	15909018.02	15909018.24	15909018.46	0.0527	0.0157
Moon	38845-04-23 19:26 G	15909018.08	15909018.31	15909018.55	0.0527	0.0124 *
Mercury	38847-10-27 14:10 G	15909935.00	15909935.09	15909935.18	0.0520	0.0363
Mercury	38848-01-24 18:29 G	15910024.16	15910024.27	15910024.39	0.0519	0.0228
Moon	38850-10-13 15:22 G	15911016.92	15911017.14	15911017.37	0.0500	0.0153
Earth	38850-10-13 19:12 G	15911017.07	15911017.30	15911017.53	0.0500	0.0122 *

Venus	38851-11-01 20:24 G	15911401.21	15911401.35	15911401.50	0.0497	0.0356
Mercury	38853-12-20 22:19 G	15912181.36	15912181.43	15912181.51	0.0505	0.0463
Mercury	38854-03-21 11:02 G	15912271.85	15912271.96	15912272.09	0.0507	0.0381
Moon	38857-04-28 14:38 G	15913405.93	15913406.11	15913406.30	0.0528	0.0293
Earth	38857-04-28 18:00 G	15913406.05	15913406.25	15913406.44	0.0528	0.0286 *
Venus	38857-09-03 16:48 G	15913534.00	15913534.20	15913534.39	0.0528	0.0128
Mercury	38859-08-15 18:58 G	15914245.26	15914245.29	15914245.32	0.0521	0.0505
Mercury	38859-11-12 23:31 G	15914334.35	15914334.48	15914334.60	0.0519	0.0087
Earth	38862-10-18 08:53 G	15915404.63	15915404.87	15915405.10	0.0499	0.0015
Moon	38862-10-18 11:46 G	15915404.76	15915404.99	15915405.22	0.0499	0.0015 *
Venus	38863-07-07 22:05 G	15915667.21	15915667.42	15915667.62	0.0497	0.0042
Mercury	38866-01-07 07:12 G	15916581.62	15916581.80	15916581.97	0.0507	0.0165
Moon	38868-03-28 21:36 G	15917393.35	15917393.40	15917393.46	0.0524	0.0506
Earth	38868-03-29 01:26 G	15917393.48	15917393.56	15917393.64	0.0524	0.0492
Earth	38869-05-03 18:58 G	15917794.15	15917794.29	15917794.44	0.0528	0.0414
Moon	38869-05-03 22:48 G	15917794.33	15917794.45	15917794.58	0.0528	0.0444 *
Venus	38869-05-09 09:07 G	15917799.73	15917799.88	15917800.03	0.0528	0.0351
Mercury	38871-09-01 04:19 G	15918644.55	15918644.68	15918644.80	0.0520	0.0055
Moon	38874-10-22 18:58 G	15919792.06	15919792.29	15919792.53	0.0498	0.0126
Earth	38874-10-22 21:07 G	15919792.15	15919792.38	15919792.61	0.0498	0.0097 *
Venus	38875-03-12 23:17 G	15919933.39	15919933.47	15919933.58	0.0497	0.0439
Mercury	38877-10-26 04:05 G	15920891.48	15920891.67	15920891.85	0.0506	0.0039
Earth	38880-04-03 02:10 G	15921781.43	15921781.59	15921781.76	0.0525	0.0368
Moon	38880-04-03 06:00 G	15921781.60	15921781.75	15921781.90	0.0525	0.0399 *
Moon	38881-05-08 18:43 G	15922182.28	15922182.28	15922182.30	0.0528	0.0528
Mercury	38883-06-20 08:24 G	15922954.74	15922954.85	15922954.97	0.0520	0.0208
Mercury	38883-09-17 12:58 G	15923043.96	15923044.04	15923044.13	0.0518	0.0381
Earth	38886-10-27 05:02 G	15924179.50	15924179.71	15924179.93	0.0498	0.0201
Moon	38886-10-27 05:31 G	15924179.53	15924179.73	15924179.93	0.0498	0.0213 *
Mercury	38889-08-14 00:43 G	15925201.37	15925201.53	15925201.70	0.0506	0.0242

Moon	38892-04-08 00:43 G	15926169.31	15926169.53	15926169.74	0.0525	0.0228
Earth	38892-04-08 03:22 G	15926169.43	15926169.64	15926169.85	0.0525	0.0241 *
Venus	38893-05-12 11:02 G	15926568.85	15926568.96	15926569.08	0.0528	0.0423
Mercury	38895-04-08 12:58 G	15927264.96	15927265.04	15927265.14	0.0520	0.0354
Mercury	38895-07-06 17:31 G	15927354.12	15927354.23	15927354.34	0.0518	0.0235
Moon	38897-09-29 07:55 G	15928169.74	15928169.83	15928169.94	0.0502	0.0448
Earth	38897-09-29 10:34 G	15928169.85	15928169.94	15928170.03	0.0502	0.0459 *
Earth	38898-10-31 17:02 G	15928567.03	15928567.21	15928567.40	0.0498	0.0310
Moon	38898-10-31 18:58 G	15928567.09	15928567.29	15928567.49	0.0498	0.0282 *
Venus	38899-03-15 08:38 G	15928701.67	15928701.86	15928702.05	0.0498	0.0191
Mercury	38901-06-02 21:22 G	15929511.31	15929511.39	15929511.48	0.0506	0.0447
Mercury	38901-09-01 10:19 G	15929601.82	15929601.93	15929602.04	0.0507	0.0398
Earth	38904-04-14 00:58 G	15930557.31	15930557.54	15930557.77	0.0526	0.0116
Moon	38904-04-14 01:26 G	15930557.34	15930557.56	15930557.79	0.0526	0.0089 *
Venus	38905-01-16 02:10 G	15930834.39	15930834.59	15930834.79	0.0528	0.0063
Mercury	38907-01-26 17:31 G	15931575.21	15931575.23	15931575.26	0.0521	0.0502
Mercury	38907-04-25 22:05 G	15931664.29	15931664.42	15931664.54	0.0519	0.0088
Earth	38909-10-05 01:26 G	15932557.39	15932557.56	15932557.73	0.0501	0.0352
Moon	38909-10-05 04:48 G	15932557.53	15932557.70	15932557.89	0.0501	0.0324 *
Moon	38910-11-06 02:38 G	15932954.48	15932954.61	15932954.75	0.0498	0.0402
Earth	38910-11-06 06:00 G	15932954.62	15932954.75	15932954.88	0.0498	0.0415 *
Venus	38910-11-19 10:34 G	15932967.75	15932967.94	15932968.13	0.0498	0.0204
Mercury	38913-06-20 06:43 G	15933911.61	15933911.78	15933911.96	0.0507	0.0190
Earth	38916-04-19 00:00 G	15934945.27	15934945.50	15934945.73	0.0527	0.0015
Moon	38916-04-19 01:12 G	15934945.31	15934945.55	15934945.79	0.0527	0.0004 *
Mercury	38919-02-12 02:53 G	15935974.49	15935974.62	15935974.75	0.0520	0.0053
Moon	38921-10-09 13:12 G	15936944.84	15936945.05	15936945.25	0.0500	0.0253
Earth	38921-10-09 16:48 G	15936945.00	15936945.20	15936945.41	0.0500	0.0241 *
Mercury	38925-04-08 02:53 G	15938221.43	15938221.62	15938221.81	0.0506	0.0024
Moon	38928-04-23 21:36 G	15939333.17	15939333.40	15939333.62	0.0528	0.0115

Earth	38928-04-24 00:14 G	15939333.29	15939333.51	15939333.73	0.0528	0.0145	*
Mercury	38930-12-01 07:41 G	15940284.71	15940284.82	15940284.94	0.0520	0.0194	
Mercury	38931-02-28 12:14 G	15940373.93	15940374.01	15940374.09	0.0518	0.0398	
Earth	38933-10-14 06:14 G	15941332.54	15941332.76	15941332.99	0.0500	0.0129	
Moon	38933-10-14 09:22 G	15941332.67	15941332.89	15941333.11	0.0500	0.0159	*
Venus	38934-11-21 21:50 G	15941736.32	15941736.41	15941736.51	0.0497	0.0437	
Mercury	38937-01-24 23:46 G	15942531.32	15942531.49	15942531.66	0.0506	0.0227	
Earth	38940-04-29 03:22 G	15943721.44	15943721.64	15943721.84	0.0528	0.0278	
Moon	38940-04-29 07:12 G	15943721.61	15943721.80	15943721.99	0.0528	0.0296	*
Venus	38940-09-23 20:10 G	15943869.17	15943869.34	15943869.53	0.0528	0.0231	
Mercury	38942-09-19 12:14 G	15944594.92	15944595.01	15944595.10	0.0520	0.0343	
Mercury	38942-12-17 16:34 G	15944684.08	15944684.19	15944684.30	0.0518	0.0246	
Moon	38945-10-18 12:29 G	15945719.78	15945720.02	15945720.26	0.0499	0.0024	
Earth	38945-10-18 14:53 G	15945719.88	15945720.12	15945720.35	0.0499	0.0026	*
Venus	38946-07-27 21:22 G	15946002.18	15946002.39	15946002.59	0.0498	0.0032	
Mercury	38948-11-12 20:24 G	15946841.26	15946841.35	15946841.45	0.0506	0.0433	
Mercury	38949-02-11 09:22 G	15946931.79	15946931.89	15946932.00	0.0508	0.0415	
Earth	38951-03-30 14:38 G	15947709.05	15947709.11	15947709.19	0.0524	0.0498	
Moon	38951-03-30 18:43 G	15947709.25	15947709.28	15947709.32	0.0524	0.0515	
Moon	38952-05-04 02:53 G	15948109.50	15948109.62	15948109.76	0.0528	0.0437	
Earth	38952-05-04 06:14 G	15948109.62	15948109.76	15948109.91	0.0528	0.0409	*
Venus	38952-05-29 13:41 G	15948134.89	15948135.07	15948135.25	0.0528	0.0244	
Mercury	38954-07-08 16:48 G	15948905.16	15948905.20	15948905.25	0.0520	0.0487	
Mercury	38954-10-05 21:22 G	15948994.26	15948994.39	15948994.51	0.0518	0.0102	
Earth	38957-10-23 03:22 G	15950107.41	15950107.64	15950107.88	0.0499	0.0087	
Moon	38957-10-23 03:50 G	15950107.44	15950107.66	15950107.88	0.0499	0.0116	*
Venus	38958-04-01 22:48 G	15950268.32	15950268.45	15950268.59	0.0498	0.0367	
Mercury	38960-11-30 06:14 G	15951241.59	15951241.76	15951241.93	0.0507	0.0211	
Moon	38963-04-04 09:07 G	15952096.73	15952096.88	15952097.04	0.0524	0.0403	
Earth	38963-04-04 12:00 G	15952096.85	15952097.00	15952097.17	0.0524	0.0379	*

Moon	38964-05-09 07:26 G	15952497.78	15952497.81	15952497.84	0.0528	0.0520
Mercury	38966-07-25 01:41 G	15953304.45	15953304.57	15953304.70	0.0519	0.0050
Earth	38969-10-27 17:17 G	15954495.00	15954495.22	15954495.43	0.0499	0.0197
Moon	38969-10-27 19:12 G	15954495.07	15954495.30	15954495.52	0.0499	0.0197 *
Mercury	38972-09-18 02:53 G	15955551.43	15955551.62	15955551.81	0.0506	0.0006
Earth	38975-04-09 10:05 G	15956484.72	15956484.92	15956485.13	0.0525	0.0254
Moon	38975-04-09 11:17 G	15956484.77	15956484.97	15956485.17	0.0525	0.0233 *
Venus	38976-06-01 12:43 G	15956903.98	15956904.03	15956904.08	0.0528	0.0511
Mercury	38978-05-13 06:43 G	15957614.66	15957614.78	15957614.89	0.0520	0.0188
Mercury	38978-08-10 11:02 G	15957703.89	15957703.96	15957704.04	0.0518	0.0403
Mars	38979-02-21 04:34 G	15957898.48	15957898.69	15957898.90	0.0514	0.0289
Earth	38980-09-29 23:17 G	15958485.40	15958485.47	15958485.56	0.0502	0.0468
Moon	38980-09-30 02:53 G	15958485.52	15958485.62	15958485.73	0.0502	0.0447 *
Moon	38981-11-01 03:22 G	15958882.45	15958882.64	15958882.83	0.0498	0.0275
Earth	38981-11-01 06:29 G	15958882.59	15958882.77	15958882.96	0.0498	0.0306 *
Venus	38982-04-04 11:17 G	15959036.81	15959036.97	15959037.14	0.0497	0.0281
Mercury	38984-07-06 22:48 G	15959861.29	15959861.45	15959861.63	0.0506	0.0210
Earth	38987-04-14 09:07 G	15960872.66	15960872.88	15960873.11	0.0526	0.0126
Moon	38987-04-14 10:05 G	15960872.68	15960872.92	15960873.15	0.0526	0.0099 *
Venus	38988-02-05 05:17 G	15961169.52	15961169.72	15961169.93	0.0528	0.0037
Mercury	38990-03-01 11:31 G	15961924.89	15961924.98	15961925.08	0.0520	0.0327
Mercury	38990-05-29 16:05 G	15962014.06	15962014.17	15962014.28	0.0519	0.0264
Moon	38992-10-04 10:48 G	15962872.78	15962872.95	15962873.13	0.0501	0.0334
Earth	38992-10-04 14:38 G	15962872.95	15962873.11	15962873.27	0.0501	0.0357 *
Earth	38993-11-05 18:43 G	15963270.15	15963270.28	15963270.41	0.0498	0.0412
Moon	38993-11-05 22:34 G	15963270.31	15963270.44	15963270.58	0.0498	0.0403 *
Venus	38993-12-08 12:58 G	15963302.84	15963303.04	15963303.24	0.0498	0.0115
Mercury	38996-04-24 19:41 G	15964171.22	15964171.32	15964171.43	0.0506	0.0412
Mercury	38996-07-24 08:24 G	15964261.77	15964261.85	15964261.95	0.0507	0.0434
Mars	38997-01-26 18:29 G	15964448.00	15964448.27	15964448.54	0.0511	0.0203

Moon	38999-04-19 09:36 G	15965260.67	15965260.90	15965261.12	0.0527	0.0010
Earth	38999-04-19 12:00 G	15965260.77	15965261.00	15965261.23	0.0527	0.0010 *
Venus	38999-10-10 23:02 G	15965435.36	15965435.46	15965435.58	0.0528	0.0435

40TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 40th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	39001-12-19 16:05 G		15966235.12	15966235.17	15966235.22	0.0520	0.0473	
Mercury	39002-03-18 20:24 G		15966324.23	15966324.35	15966324.48	0.0518	0.0115	
Earth	39004-10-09 23:31 G		15967260.29	15967260.48	15967260.69	0.0500	0.0252	
Moon	39004-10-10 02:38 G		15967260.42	15967260.61	15967260.81	0.0500	0.0270 *	
Mercury	39008-05-13 05:17 G		15968571.56	15968571.72	15968571.89	0.0507	0.0230	
Earth	39011-04-25 14:53 G		15969648.89	15969649.12	15969649.34	0.0527	0.0143	
Moon	39011-04-25 18:29 G		15969649.05	15969649.27	15969649.50	0.0527	0.0120 *	
Mercury	39014-01-05 01:12 G		15970634.42	15970634.55	15970634.68	0.0519	0.0029	
Moon	39016-10-14 11:02 G		15971647.73	15971647.96	15971648.19	0.0500	0.0169	
Earth	39016-10-14 13:12 G		15971647.83	15971648.05	15971648.28	0.0500	0.0140 *	
Mercury	39020-03-01 02:24 G		15972881.41	15972881.60	15972881.78	0.0507	0.0026	
Moon	39023-04-30 10:05 G		15974036.73	15974036.92	15974037.12	0.0527	0.0293	
Earth	39023-04-30 13:41 G		15974036.88	15974037.07	15974037.27	0.0527	0.0271 *	
Venus	39023-10-14 23:46 G		15974204.34	15974204.49	15974204.66	0.0528	0.0330	
Mercury	39025-10-24 05:46 G		15974944.62	15974944.74	15974944.86	0.0520	0.0177	
Mercury	39026-01-21 10:05 G		15975033.85	15975033.92	15975034.00	0.0518	0.0413	

Earth	39028-10-19 03:50 G	15976035.42	15976035.66	15976035.89	0.0500	0.0029
Moon	39028-10-19 04:05 G	15976035.45	15976035.67	15976035.90	0.0500	0.0024 *
Venus	39029-08-17 00:29 G	15976337.32	15976337.52	15976337.72	0.0498	0.0122
Mercury	39031-12-18 23:02 G	15977191.28	15977191.46	15977191.63	0.0506	0.0181
Earth	39034-03-31 00:00 G	15978024.45	15978024.50	15978024.55	0.0523	0.0508
Earth	39035-05-05 13:55 G	15978424.93	15978425.08	15978425.23	0.0528	0.0401
Moon	39035-05-05 16:05 G	15978425.05	15978425.17	15978425.31	0.0528	0.0429 *
Venus	39035-06-19 16:05 G	15978469.97	15978470.17	15978470.36	0.0528	0.0150
Mercury	39037-08-12 10:34 G	15979254.84	15979254.94	15979255.04	0.0520	0.0319
Mercury	39037-11-09 14:53 G	15979344.02	15979344.12	15979344.23	0.0518	0.0272
Earth	39040-10-23 18:00 G	15980423.02	15980423.25	15980423.48	0.0499	0.0084
Moon	39040-10-23 19:55 G	15980423.09	15980423.33	15980423.57	0.0499	0.0110 *
Venus	39041-04-22 02:38 G	15980603.44	15980603.61	15980603.78	0.0498	0.0271
Mercury	39043-10-06 19:12 G	15981501.18	15981501.30	15981501.41	0.0506	0.0393
Mercury	39044-01-05 07:55 G	15981591.75	15981591.83	15981591.91	0.0507	0.0452
Earth	39046-04-04 21:22 G	15982412.24	15982412.39	15982412.55	0.0524	0.0388
Moon	39046-04-04 22:48 G	15982412.31	15982412.45	15982412.59	0.0524	0.0408 *
Moon	39047-05-10 14:53 G	15982813.06	15982813.12	15982813.18	0.0528	0.0509
Mercury	39049-05-31 15:22 G	15983565.09	15983565.14	15983565.20	0.0521	0.0458
Mercury	39049-08-28 19:55 G	15983654.21	15983654.33	15983654.45	0.0519	0.0133
Moon	39052-10-28 03:50 G	15984810.45	15984810.66	15984810.87	0.0498	0.0187
Earth	39052-10-28 07:12 G	15984810.59	15984810.80	15984811.02	0.0498	0.0195 *
Mercury	39055-10-24 05:02 G	15985901.55	15985901.71	15985901.87	0.0507	0.0251
Earth	39058-04-09 23:17 G	15986800.27	15986800.47	15986800.67	0.0525	0.0259
Moon	39058-04-10 00:00 G	15986800.28	15986800.50	15986800.71	0.0525	0.0233 *
Mercury	39061-06-17 00:29 G	15987964.39	15987964.52	15987964.65	0.0519	0.0014
Moon	39063-10-01 03:36 G	15988800.56	15988800.65	15988800.75	0.0502	0.0455
Earth	39063-10-01 07:12 G	15988800.74	15988800.80	15988800.88	0.0502	0.0480 *
Earth	39064-11-01 14:38 G	15989197.93	15989198.11	15989198.30	0.0498	0.0299
Moon	39064-11-01 18:43 G	15989198.08	15989198.28	15989198.48	0.0498	0.0267 *

Venus	39065-04-24 11:31 G	15989371.84	15989371.98	15989372.12	0.0498	0.0356
Mercury	39067-08-12 01:26 G	15990211.38	15990211.56	15990211.75	0.0507	0.0044
Moon	39070-04-14 23:17 G	15991188.25	15991188.47	15991188.69	0.0526	0.0105
Earth	39070-04-15 01:26 G	15991188.34	15991188.56	15991188.79	0.0526	0.0128 *
Venus	39071-02-25 12:14 G	15991504.82	15991505.01	15991505.21	0.0528	0.0153
Mercury	39073-04-05 05:17 G	15992274.60	15992274.72	15992274.84	0.0519	0.0157
Mercury	39073-07-03 09:36 G	15992363.84	15992363.90	15992363.97	0.0517	0.0431
Earth	39075-10-05 21:36 G	15993188.24	15993188.40	15993188.56	0.0501	0.0369
Moon	39075-10-06 00:29 G	15993188.37	15993188.52	15993188.69	0.0501	0.0351 *
Moon	39076-11-05 23:17 G	15993585.33	15993585.47	15993585.61	0.0498	0.0397
Earth	39076-11-06 03:07 G	15993585.50	15993585.63	15993585.77	0.0498	0.0407 *
Venus	39076-12-28 13:12 G	15993637.84	15993638.05	15993638.25	0.0498	0.0040
Mercury	39079-05-30 22:19 G	15994521.26	15994521.43	15994521.61	0.0507	0.0161
Earth	39082-04-20 00:00 G	15995576.26	15995576.50	15995576.73	0.0526	0.0008
Moon	39082-04-20 03:36 G	15995576.41	15995576.65	15995576.88	0.0526	0.0024 *
Venus	39082-10-31 03:36 G	15995770.50	15995770.65	15995770.81	0.0528	0.0329
Mercury	39085-01-22 09:50 G	15996584.80	15996584.91	15996585.01	0.0520	0.0306
Mercury	39085-04-21 14:10 G	15996673.98	15996674.09	15996674.19	0.0518	0.0283
Moon	39087-10-10 10:34 G	15997575.74	15997575.94	15997576.14	0.0501	0.0278
Earth	39087-10-10 12:43 G	15997575.83	15997576.03	15997576.23	0.0501	0.0258 *
Venus	39088-09-02 15:22 G	15997904.05	15997904.14	15997904.25	0.0498	0.0431
Mercury	39091-03-18 18:58 G	15998831.17	15998831.29	15998831.42	0.0506	0.0366
Mercury	39091-06-17 07:55 G	15998921.78	15998921.83	15998921.89	0.0508	0.0481
Moon	39094-04-24 19:41 G	15999964.10	15999964.32	15999964.56	0.0527	0.0114
Earth	39094-04-24 23:31 G	15999964.25	15999964.48	15999964.70	0.0527	0.0133 *
Mercury	39096-11-10 14:24 G	16000895.04	16000895.10	16000895.17	0.0520	0.0449
Mercury	39097-02-07 18:58 G	16000984.17	16000984.29	16000984.41	0.0519	0.0142
Mars	39097-08-14 13:41 G	16001171.88	16001172.07	16001172.26	0.0515	0.0336
Earth	39099-10-15 03:50 G	16001963.44	16001963.66	16001963.89	0.0500	0.0145
Moon	39099-10-15 04:19 G	16001963.47	16001963.68	16001963.89	0.0500	0.0170 *

Mercury	39103-04-06 04:19 G	16003231.52	16003231.68	16003231.84	0.0507	0.0270
Earth	39106-04-30 23:17 G	16004352.27	16004352.47	16004352.68	0.0527	0.0264
Moon	39106-05-01 01:55 G	16004352.39	16004352.58	16004352.77	0.0527	0.0292 *
Venus	39106-11-04 03:36 G	16004539.54	16004539.65	16004539.77	0.0528	0.0431
Mercury	39108-11-27 23:46 G	16005294.37	16005294.49	16005294.62	0.0519	0.0010
Earth	39111-10-20 18:00 G	16006351.01	16006351.25	16006351.48	0.0499	0.0032
Moon	39111-10-20 19:41 G	16006351.08	16006351.32	16006351.57	0.0499	0.0017 *
Venus	39112-09-06 03:36 G	16006672.47	16006672.65	16006672.84	0.0498	0.0213
Mercury	39115-01-23 01:12 G	16007541.36	16007541.55	16007541.73	0.0507	0.0067
Earth	39117-03-31 12:29 G	16008339.99	16008340.02	16008340.06	0.0523	0.0516
Moon	39118-05-06 02:38 G	16008740.47	16008740.61	16008740.76	0.0528	0.0420
Earth	39118-05-06 03:22 G	16008740.50	16008740.64	16008740.80	0.0528	0.0400 *
Venus	39118-07-09 21:50 G	16008805.21	16008805.41	16008805.61	0.0528	0.0038
Mercury	39120-09-16 04:34 G	16009604.57	16009604.69	16009604.81	0.0519	0.0143
Mercury	39120-12-14 08:53 G	16009693.81	16009693.87	16009693.93	0.0517	0.0446
Moon	39123-10-24 22:48 G	16010738.23	16010738.45	16010738.68	0.0499	0.0101
Earth	39123-10-25 02:10 G	16010738.36	16010738.59	16010738.82	0.0499	0.0075 *
Venus	39124-05-12 02:24 G	16010938.41	16010938.60	16010938.79	0.0498	0.0197
Mercury	39126-11-10 21:22 G	16011851.21	16011851.39	16011851.57	0.0507	0.0146
Earth	39129-04-05 13:26 G	16012727.91	16012728.06	16012728.22	0.0524	0.0392
Moon	39129-04-05 13:55 G	16012727.93	16012728.08	16012728.23	0.0524	0.0405 *
Venus	39130-03-14 15:36 G	16013071.10	16013071.15	16013071.21	0.0528	0.0506
Moon	39130-05-11 05:02 G	16013128.66	16013128.71	16013128.77	0.0528	0.0507
Mercury	39132-07-05 09:22 G	16013914.78	16013914.89	16013914.99	0.0519	0.0285
Mercury	39132-10-02 13:41 G	16014003.97	16014004.07	16014004.17	0.0517	0.0303
Earth	39135-10-29 14:38 G	16015125.89	16015126.11	16015126.33	0.0499	0.0187
Moon	39135-10-29 18:43 G	16015126.06	16015126.28	16015126.50	0.0499	0.0175 *
Mercury	39138-08-29 18:00 G	16016161.12	16016161.25	16016161.39	0.0506	0.0351
Mercury	39138-11-28 07:12 G	16016251.77	16016251.80	16016251.83	0.0508	0.0499
Moon	39141-04-10 09:36 G	16017115.70	16017115.90	16017116.10	0.0525	0.0241

Earth	39141-04-10 11:31 G	16017115.79	16017115.98	16017116.18	0.0525	0.0268	*
Mercury	39144-04-23 13:41 G	16018225.01	16018225.07	16018225.14	0.0520	0.0434	
Mercury	39144-07-21 18:00 G	16018314.13	16018314.25	16018314.37	0.0518	0.0154	
Earth	39146-10-01 19:12 G	16019116.26	16019116.30	16019116.36	0.0502	0.0489	
Moon	39146-10-01 22:19 G	16019116.35	16019116.43	16019116.53	0.0502	0.0460	*
Moon	39147-11-03 00:14 G	16019513.32	16019513.51	16019513.72	0.0498	0.0265	
Earth	39147-11-03 04:19 G	16019513.49	16019513.68	16019513.87	0.0498	0.0297	*
Venus	39148-05-14 14:38 G	16019707.03	16019707.11	16019707.20	0.0498	0.0447	
Mercury	39150-09-16 04:05 G	16020561.52	16020561.67	16020561.82	0.0507	0.0295	
Mars	39151-04-26 07:26 G	16020783.60	16020783.81	16020784.02	0.0512	0.0359	
Earth	39153-04-15 09:50 G	16021503.69	16021503.91	16021504.14	0.0525	0.0140	
Moon	39153-04-15 13:26 G	16021503.83	16021504.06	16021504.29	0.0525	0.0124	*
Venus	39154-03-17 14:38 G	16021839.93	16021840.11	16021840.29	0.0528	0.0246	
Mercury	39156-05-09 22:48 G	16022624.32	16022624.45	16022624.57	0.0519	0.0012	
Moon	39158-10-06 09:22 G	16023503.72	16023503.89	16023504.06	0.0502	0.0359	
Earth	39158-10-06 11:17 G	16023503.82	16023503.97	16023504.13	0.0502	0.0377	*
Earth	39159-11-07 17:31 G	16023901.10	16023901.23	16023901.37	0.0498	0.0405	
Moon	39159-11-07 20:24 G	16023901.22	16023901.35	16023901.48	0.0498	0.0407	*
Venus	39160-01-18 16:34 G	16023972.99	16023973.19	16023973.40	0.0498	0.0056	
Mercury	39162-07-05 00:14 G	16024871.33	16024871.51	16024871.70	0.0507	0.0083	
Moon	39165-04-20 04:48 G	16025891.47	16025891.70	16025891.93	0.0526	0.0038	
Earth	39165-04-20 08:38 G	16025891.62	16025891.86	16025892.09	0.0526	0.0011	*
Venus	39165-11-20 06:43 G	16026105.60	16026105.78	16026105.96	0.0528	0.0232	
Mercury	39168-02-27 03:36 G	16026934.53	16026934.65	16026934.77	0.0520	0.0131	
Mercury	39168-05-26 08:10 G	16027023.78	16027023.84	16027023.90	0.0518	0.0460	
Earth	39170-10-11 02:10 G	16027891.39	16027891.59	16027891.79	0.0501	0.0263	
Moon	39170-10-11 02:38 G	16027891.42	16027891.61	16027891.79	0.0501	0.0287	*
Venus	39171-09-23 18:14 G	16028239.12	16028239.26	16028239.41	0.0498	0.0341	
Mercury	39174-04-22 20:53 G	16029181.19	16029181.37	16029181.56	0.0506	0.0123	
Earth	39177-04-25 11:17 G	16030279.75	16030279.97	16030280.20	0.0527	0.0129	

Moon	39177-04-25 14:10 G	16030279.87	16030280.09	16030280.31	0.0527	0.0115	*
Mercury	39179-12-16 08:24 G	16031244.75	16031244.85	16031244.96	0.0519	0.0273	
Mercury	39180-03-14 12:43 G	16031333.94	16031334.03	16031334.13	0.0518	0.0316	
Earth	39182-10-15 11:17 G	16032278.75	16032278.97	16032279.20	0.0500	0.0156	
Moon	39182-10-15 12:58 G	16032278.81	16032279.04	16032279.27	0.0500	0.0173	*
Mercury	39186-02-08 16:48 G	16033491.06	16033491.20	16033491.34	0.0507	0.0341	
Moon	39189-04-30 12:58 G	16034667.84	16034668.04	16034668.24	0.0527	0.0290	
Earth	39189-04-30 14:10 G	16034667.89	16034668.09	16034668.29	0.0527	0.0263	*
Mercury	39191-10-04 13:12 G	16035554.98	16035555.05	16035555.13	0.0520	0.0415	
Mercury	39192-01-01 17:31 G	16035644.11	16035644.23	16035644.35	0.0518	0.0172	
Moon	39194-10-19 21:07 G	16036666.15	16036666.38	16036666.61	0.0499	0.0022	
Earth	39194-10-20 00:14 G	16036666.28	16036666.51	16036666.75	0.0499	0.0044	*
Venus	39195-09-26 02:38 G	16037007.45	16037007.61	16037007.78	0.0498	0.0283	
Mercury	39198-02-26 02:38 G	16037891.47	16037891.61	16037891.77	0.0508	0.0307	
Moon	39201-05-05 12:00 G	16039055.87	16039056.00	16039056.15	0.0527	0.0406	
Earth	39201-05-05 13:12 G	16039055.90	16039056.05	16039056.21	0.0527	0.0391	*
Venus	39201-07-29 01:26 G	16039140.36	16039140.56	16039140.76	0.0528	0.0064	
Mercury	39203-10-20 21:50 G	16039954.29	16039954.41	16039954.54	0.0519	0.0026	
Earth	39206-10-24 13:55 G	16041053.85	16041054.08	16041054.31	0.0499	0.0068	
Moon	39206-10-24 18:00 G	16041054.02	16041054.25	16041054.48	0.0499	0.0093	*
Venus	39207-06-01 04:48 G	16041273.50	16041273.70	16041273.90	0.0498	0.0109	
Mercury	39209-12-14 23:31 G	16042201.30	16042201.48	16042201.67	0.0507	0.0102	
Moon	39212-04-04 19:26 G	16043043.18	16043043.31	16043043.45	0.0524	0.0420	
Earth	39212-04-04 21:07 G	16043043.24	16043043.38	16043043.53	0.0524	0.0406	*
Venus	39213-04-02 17:17 G	16043406.10	16043406.22	16043406.34	0.0527	0.0415	
Earth	39213-05-10 12:58 G	16043444.00	16043444.04	16043444.07	0.0528	0.0520	
Moon	39213-05-10 16:05 G	16043444.09	16043444.17	16043444.26	0.0528	0.0489	
Mercury	39215-08-09 02:38 G	16044264.48	16044264.61	16044264.73	0.0519	0.0124	
Mercury	39215-11-06 06:58 G	16044353.74	16044353.79	16044353.85	0.0517	0.0465	
Moon	39218-10-28 23:46 G	16045441.26	16045441.49	16045441.71	0.0499	0.0169	

Earth	39218-10-29 03:36 G	16045441.43	16045441.65	16045441.87	0.0499	0.0181	*
Mercury	39221-10-02 19:41 G	16046511.14	16046511.32	16046511.50	0.0506	0.0112	
Earth	39224-04-09 18:00 G	16047431.06	16047431.25	16047431.45	0.0525	0.0282	
Moon	39224-04-09 21:07 G	16047431.18	16047431.38	16047431.59	0.0525	0.0251	*
Mercury	39227-05-28 07:26 G	16048574.70	16048574.81	16048574.92	0.0520	0.0266	
Mercury	39227-08-25 11:46 G	16048663.89	16048663.99	16048664.09	0.0518	0.0324	
Moon	39229-10-01 05:02 G	16049431.63	16049431.71	16049431.81	0.0502	0.0464	
Earth	39229-10-01 07:12 G	16049431.77	16049431.80	16049431.84	0.0502	0.0497	*
Earth	39230-11-02 15:50 G	16049828.98	16049829.16	16049829.35	0.0498	0.0293	
Moon	39230-11-02 18:43 G	16049829.09	16049829.28	16049829.47	0.0498	0.0266	*
Mercury	39233-07-21 16:05 G	16050821.03	16050821.17	16050821.32	0.0506	0.0320	
Moon	39236-04-14 15:36 G	16051818.93	16051819.15	16051819.38	0.0526	0.0140	
Earth	39236-04-14 19:26 G	16051819.09	16051819.31	16051819.53	0.0526	0.0148	*
Venus	39237-04-05 18:43 G	16052175.13	16052175.28	16052175.43	0.0528	0.0348	
Mercury	39239-03-16 12:14 G	16052884.93	16052885.01	16052885.09	0.0520	0.0406	
Mercury	39239-06-13 16:34 G	16052974.07	16052974.19	16052974.31	0.0518	0.0181	
Earth	39241-10-05 17:46 G	16053819.11	16053819.24	16053819.40	0.0501	0.0392	
Moon	39241-10-05 18:29 G	16053819.13	16053819.27	16053819.42	0.0501	0.0380	*
Moon	39242-11-06 21:50 G	16054216.27	16054216.41	16054216.56	0.0498	0.0402	
Earth	39242-11-06 23:17 G	16054216.33	16054216.47	16054216.61	0.0498	0.0395	*
Venus	39243-02-06 14:53 G	16054307.93	16054308.12	16054308.32	0.0498	0.0121	
Mercury	39245-08-08 00:58 G	16055221.40	16055221.54	16055221.69	0.0508	0.0310	
Earth	39248-04-19 20:53 G	16056207.13	16056207.37	16056207.60	0.0527	0.0018	
Moon	39248-04-19 23:46 G	16056207.26	16056207.49	16056207.72	0.0527	0.0048	*
Venus	39248-12-09 12:00 G	16056440.80	16056441.00	16056441.19	0.0528	0.0122	
Mercury	39251-04-01 21:22 G	16057284.26	16057284.39	16057284.51	0.0518	0.0041	
Mars	39251-11-10 06:14 G	16057506.51	16057506.76	16057507.01	0.0513	0.0073	
Earth	39253-10-10 07:12 G	16058206.61	16058206.80	16058207.00	0.0501	0.0278	
Moon	39253-10-10 08:24 G	16058206.67	16058206.85	16058207.05	0.0501	0.0304	*
Venus	39254-10-12 16:19 G	16058574.01	16058574.18	16058574.35	0.0498	0.0276	

Mercury	39257-05-26 21:50 G	16059531.22	16059531.41	16059531.59	0.0507	0.0105
Moon	39260-04-24 17:46 G	16060595.00	16060595.24	16060595.47	0.0527	0.0102
Earth	39260-04-24 19:26 G	16060595.08	16060595.31	16060595.54	0.0527	0.0115 *
Mercury	39263-01-19 01:26 G	16061594.44	16061594.56	16061594.69	0.0519	0.0116
Mercury	39263-04-18 06:00 G	16061683.70	16061683.75	16061683.80	0.0517	0.0472
Moon	39265-10-14 17:31 G	16062594.02	16062594.23	16062594.45	0.0500	0.0181
Earth	39265-10-14 20:38 G	16062594.15	16062594.36	16062594.59	0.0500	0.0168 *
Mercury	39269-03-14 18:29 G	16063841.09	16063841.27	16063841.45	0.0507	0.0101
Mars	39269-10-12 22:48 G	16064053.44	16064053.45	16064053.49	0.0511	0.0509
Moon	39272-04-29 17:46 G	16064983.05	16064983.24	16064983.43	0.0527	0.0276
Earth	39272-04-29 18:14 G	16064983.06	16064983.26	16064983.47	0.0527	0.0247 *
Mercury	39274-11-07 06:00 G	16065904.65	16065904.75	16065904.86	0.0519	0.0263
Mercury	39275-02-04 10:19 G	16065993.84	16065993.93	16065994.03	0.0518	0.0327
Earth	39277-10-19 10:34 G	16066981.71	16066981.94	16066982.17	0.0500	0.0054
Moon	39277-10-19 14:38 G	16066981.87	16066982.11	16066982.34	0.0500	0.0026 *
Venus	39278-10-15 04:19 G	16067342.54	16067342.68	16067342.82	0.0498	0.0366
Mercury	39280-12-31 14:24 G	16068150.96	16068151.10	16068151.25	0.0506	0.0315
Earth	39284-05-04 16:48 G	16069371.05	16069371.20	16069371.37	0.0528	0.0379
Moon	39284-05-04 19:55 G	16069371.17	16069371.33	16069371.49	0.0528	0.0383 *
Venus	39284-08-17 01:41 G	16069475.37	16069475.57	16069475.76	0.0528	0.0145
Mercury	39286-08-26 10:48 G	16070214.88	16070214.95	16070215.03	0.0520	0.0406
Mercury	39286-11-23 15:07 G	16070304.01	16070304.13	16070304.25	0.0518	0.0184
Moon	39289-10-23 19:26 G	16071369.08	16071369.31	16071369.55	0.0499	0.0085
Earth	39289-10-23 23:31 G	16071369.25	16071369.48	16071369.71	0.0499	0.0060 *
Venus	39290-06-20 05:17 G	16071608.52	16071608.72	16071608.93	0.0498	0.0032
Mercury	39293-01-17 23:46 G	16072551.35	16072551.49	16072551.64	0.0508	0.0325
Earth	39295-04-05 03:07 G	16073358.49	16073358.63	16073358.77	0.0524	0.0421
Moon	39295-04-05 06:00 G	16073358.62	16073358.75	16073358.89	0.0524	0.0425 *
Venus	39296-04-21 19:12 G	16073741.14	16073741.30	16073741.46	0.0528	0.0325
Moon	39296-05-09 16:05 G	16073759.08	16073759.17	16073759.26	0.0528	0.0479

Earth	39296-05-09 19:55 G	16073759.29	16073759.33	16073759.39	0.0528	0.0513
Mercury	39298-09-11 20:10 G	16074614.21	16074614.34	16074614.46	0.0518	0.0046
Earth	39301-10-29 07:41 G	16075756.60	16075756.82	16075757.04	0.0498	0.0167
Moon	39301-10-29 10:34 G	16075756.73	16075756.94	16075757.17	0.0498	0.0153 *
Venus	39302-02-24 03:50 G	16075874.57	16075874.66	16075874.76	0.0498	0.0440
Mercury	39304-11-06 19:26 G	16076861.13	16076861.31	16076861.49	0.0508	0.0101
Moon	39307-04-10 23:02 G	16077746.26	16077746.46	16077746.66	0.0525	0.0264
Earth	39307-04-11 02:38 G	16077746.42	16077746.61	16077746.81	0.0525	0.0296 *
Mercury	39310-07-02 00:43 G	16078924.41	16078924.53	16078924.65	0.0519	0.0103
Mercury	39310-09-29 05:02 G	16079013.67	16079013.71	16079013.75	0.0517	0.0484
Moon	39312-10-01 11:46 G	16079746.94	16079746.99	16079747.05	0.0502	0.0486
Moon	39313-11-02 17:31 G	16080144.02	16080144.23	16080144.44	0.0498	0.0253
Earth	39313-11-02 18:58 G	16080144.10	16080144.29	16080144.48	0.0498	0.0278 *
Mercury	39316-08-25 16:05 G	16081170.99	16081171.17	16081171.35	0.0507	0.0107
Earth	39319-04-16 00:43 G	16082134.31	16082134.53	16082134.75	0.0526	0.0168
Moon	39319-04-16 03:50 G	16082134.45	16082134.66	16082134.88	0.0526	0.0166 *
Venus	39320-04-25 18:58 G	16082510.18	16082510.29	16082510.41	0.0528	0.0432
Mercury	39322-04-20 04:48 G	16083234.60	16083234.70	16083234.81	0.0519	0.0258
Mercury	39322-07-18 09:22 G	16083323.79	16083323.89	16083323.98	0.0517	0.0331
Earth	39324-10-06 00:14 G	16084134.38	16084134.51	16084134.65	0.0502	0.0408
Moon	39324-10-06 01:26 G	16084134.42	16084134.56	16084134.71	0.0502	0.0401 *
Moon	39325-11-07 06:29 G	16084531.65	16084531.77	16084531.91	0.0498	0.0402
Earth	39325-11-07 07:12 G	16084531.65	16084531.80	16084531.95	0.0498	0.0385 *
Venus	39326-02-26 14:53 G	16084642.93	16084643.12	16084643.31	0.0498	0.0196
Mercury	39328-06-13 12:43 G	16085480.88	16085481.03	16085481.17	0.0506	0.0313
Moon	39331-04-20 20:24 G	16086522.12	16086522.35	16086522.59	0.0526	0.0069
Earth	39331-04-20 22:48 G	16086522.22	16086522.45	16086522.68	0.0526	0.0036 *
Venus	39331-12-30 10:19 G	16086775.73	16086775.93	16086776.13	0.0528	0.0049
Mercury	39334-02-06 09:22 G	16087544.82	16087544.89	16087544.97	0.0520	0.0406
Mercury	39334-05-06 13:41 G	16087633.95	16087634.07	16087634.19	0.0518	0.0182

Moon	39336-10-10 11:17 G	16088521.80	16088521.97	16088522.15	0.0501	0.0324
Earth	39336-10-10 14:10 G	16088521.91	16088522.09	16088522.29	0.0501	0.0294 *
Venus	39337-11-01 16:19 G	16088908.99	16088909.18	16088909.37	0.0498	0.0199
Earth	39337-11-11 18:58 G	16088919.27	16088919.29	16088919.32	0.0498	0.0493
Mercury	39340-06-30 21:36 G	16089881.26	16089881.40	16089881.55	0.0507	0.0323
Earth	39343-04-25 19:55 G	16090910.10	16090910.33	16090910.56	0.0527	0.0096
Moon	39343-04-25 20:10 G	16090910.12	16090910.34	16090910.56	0.0527	0.0088 *
Mercury	39346-02-22 18:14 G	16091944.14	16091944.26	16091944.39	0.0519	0.0042
Earth	39348-10-15 03:50 G	16092909.44	16092909.66	16092909.88	0.0500	0.0180
Moon	39348-10-15 07:41 G	16092909.61	16092909.82	16092910.05	0.0500	0.0189 *
Mercury	39352-04-18 18:00 G	16094191.07	16094191.25	16094191.43	0.0507	0.0110
Earth	39355-04-30 21:07 G	16095298.18	16095298.38	16095298.59	0.0527	0.0233
Moon	39355-04-30 23:31 G	16095298.28	16095298.48	16095298.69	0.0527	0.0263 *
Mercury	39357-12-11 23:17 G	16096254.34	16096254.47	16096254.59	0.0519	0.0105
Mercury	39358-03-11 03:36 G	16096343.61	16096343.65	16096343.69	0.0517	0.0483
Moon	39360-10-19 09:22 G	16097296.66	16097296.89	16097297.13	0.0499	0.0046
Earth	39360-10-19 13:26 G	16097296.83	16097297.06	16097297.29	0.0499	0.0072 *
Venus	39361-11-04 00:00 G	16097677.40	16097677.50	16097677.61	0.0497	0.0419
Mercury	39364-02-05 13:12 G	16098500.86	16098501.05	16098501.23	0.0507	0.0118
Moon	39367-05-05 18:58 G	16099686.13	16099686.29	16099686.45	0.0528	0.0368
Earth	39367-05-05 22:34 G	16099686.28	16099686.44	16099686.61	0.0528	0.0366 *
Venus	39367-09-07 03:07 G	16099810.45	16099810.63	16099810.82	0.0528	0.0235
Mercury	39369-09-30 03:50 G	16100564.55	16100564.66	16100564.77	0.0519	0.0249
Mercury	39369-12-28 08:10 G	16100653.75	16100653.84	16100653.94	0.0517	0.0339
Earth	39372-10-24 00:58 G	16101684.30	16101684.54	16101684.77	0.0499	0.0042
Moon	39372-10-24 04:05 G	16101684.44	16101684.67	16101684.90	0.0499	0.0061 *
Venus	39373-07-10 00:58 G	16101943.33	16101943.54	16101943.74	0.0498	0.0022
Mercury	39375-11-24 09:36 G	16102810.76	16102810.90	16102811.04	0.0507	0.0327
Moon	39378-04-05 01:55 G	16103673.47	16103673.58	16103673.70	0.0524	0.0447
Earth	39378-04-05 05:31 G	16103673.61	16103673.73	16103673.85	0.0524	0.0446 *

Earth	39379-05-10 21:07 G	16104074.31	16104074.38	16104074.47	0.0528	0.0493
Moon	39379-05-11 01:26 G	16104074.44	16104074.56	16104074.67	0.0528	0.0459 *
Venus	39379-05-12 18:00 G	16104076.07	16104076.25	16104076.43	0.0528	0.0248
Mercury	39381-07-19 07:55 G	16104874.76	16104874.83	16104874.91	0.0520	0.0405
Mercury	39381-10-16 12:14 G	16104963.89	16104964.01	16104964.13	0.0518	0.0182
Moon	39384-10-28 10:48 G	16106071.72	16106071.95	16106072.19	0.0499	0.0132
Earth	39384-10-28 12:29 G	16106071.80	16106072.02	16106072.24	0.0499	0.0152 *
Venus	39385-03-15 02:10 G	16106209.46	16106209.59	16106209.73	0.0498	0.0372
Mercury	39387-12-11 19:26 G	16107211.17	16107211.31	16107211.45	0.0508	0.0319
Earth	39390-04-10 02:53 G	16108061.43	16108061.62	16108061.80	0.0525	0.0320
Moon	39390-04-10 06:14 G	16108061.57	16108061.76	16108061.96	0.0525	0.0287 *
Mercury	39393-08-04 16:34 G	16109274.07	16109274.19	16109274.32	0.0518	0.0036
Moon	39396-11-02 00:00 G	16110459.31	16110459.50	16110459.70	0.0498	0.0244
Earth	39396-11-02 00:29 G	16110459.32	16110459.52	16110459.72	0.0498	0.0264 *
Mercury	39399-09-29 15:22 G	16111520.96	16111521.14	16111521.32	0.0507	0.0102
Moon	39402-04-15 19:41 G	16112449.10	16112449.32	16112449.54	0.0525	0.0188
Earth	39402-04-15 22:34 G	16112449.22	16112449.44	16112449.65	0.0525	0.0192 *
Venus	39403-05-16 15:22 G	16112845.08	16112845.14	16112845.22	0.0528	0.0493
Mercury	39405-05-24 21:07 G	16113584.26	16113584.38	16113584.51	0.0519	0.0116
Mercury	39405-08-22 01:41 G	16113673.52	16113673.57	16113673.62	0.0517	0.0474
Mars	39406-02-05 00:43 G	16113840.37	16113840.53	16113840.71	0.0514	0.0376
Moon	39407-10-07 01:55 G	16114449.47	16114449.58	16114449.70	0.0502	0.0427
Earth	39407-10-07 04:48 G	16114449.58	16114449.70	16114449.83	0.0502	0.0424 *
Earth	39408-11-07 11:31 G	16114846.83	16114846.98	16114847.14	0.0498	0.0374
Moon	39408-11-07 13:26 G	16114846.91	16114847.06	16114847.21	0.0498	0.0391 *
Venus	39409-03-18 12:29 G	16114977.85	16114978.02	16114978.20	0.0498	0.0259
Mercury	39411-07-19 11:17 G	16115830.79	16115830.97	16115831.15	0.0507	0.0114
Earth	39414-04-20 21:50 G	16116837.18	16116837.41	16116837.64	0.0526	0.0057
Moon	39414-04-20 22:48 G	16116837.23	16116837.45	16116837.67	0.0526	0.0088 *
Venus	39415-01-19 08:10 G	16117110.64	16117110.84	16117111.05	0.0528	0.0022

Mercury	39417-03-13 02:10 G	16117894.48	16117894.59	16117894.70	0.0519	0.0256
Mercury	39417-06-10 06:29 G	16117983.67	16117983.77	16117983.87	0.0518	0.0332
Earth	39419-10-11 16:05 G	16118836.99	16118837.17	16118837.36	0.0500	0.0315
Moon	39419-10-11 20:10 G	16118837.17	16118837.34	16118837.51	0.0500	0.0347 *
Earth	39420-11-11 19:12 G	16119234.24	16119234.30	16119234.37	0.0497	0.0475
Venus	39420-11-21 11:31 G	16119243.78	16119243.98	16119244.17	0.0497	0.0148
Mercury	39423-05-07 06:14 G	16120140.62	16120140.76	16120140.90	0.0506	0.0344
Mercury	39423-08-05 19:26 G	16120231.30	16120231.31	16120231.31	0.0508	0.0508
Mars	39424-01-08 02:53 G	16120386.35	16120386.62	16120386.90	0.0512	0.0190
Earth	39426-04-25 21:36 G	16121225.17	16121225.40	16121225.63	0.0527	0.0076
Moon	39426-04-25 23:02 G	16121225.23	16121225.46	16121225.70	0.0527	0.0076 *
Venus	39426-09-24 00:43 G	16121376.43	16121376.53	16121376.63	0.0528	0.0453
Mercury	39428-12-30 06:43 G	16122204.70	16122204.78	16122204.86	0.0520	0.0401
Mercury	39429-03-29 11:02 G	16122293.84	16122293.96	16122294.08	0.0518	0.0187
Moon	39431-10-16 00:00 G	16123224.30	16123224.50	16123224.72	0.0500	0.0214
Earth	39431-10-16 04:19 G	16123224.46	16123224.68	16123224.89	0.0500	0.0202 *
Mercury	39435-05-24 15:50 G	16124541.01	16124541.16	16124541.31	0.0508	0.0299
Moon	39438-04-30 16:48 G	16125613.00	16125613.20	16125613.40	0.0527	0.0239
Earth	39438-04-30 20:10 G	16125613.13	16125613.34	16125613.55	0.0527	0.0206 *
Mercury	39441-01-15 15:07 G	16126604.00	16126604.13	16126604.25	0.0518	0.0030
Earth	39443-10-20 15:07 G	16127611.90	16127612.13	16127612.36	0.0500	0.0093
Moon	39443-10-20 18:29 G	16127612.05	16127612.27	16127612.50	0.0500	0.0067 *
Venus	39444-11-23 20:53 G	16128012.33	16128012.37	16128012.43	0.0498	0.0481
Mercury	39447-03-12 12:43 G	16128850.84	16128851.03	16128851.21	0.0507	0.0094
Earth	39450-05-05 18:29 G	16130001.10	16130001.27	16130001.45	0.0527	0.0340
Moon	39450-05-05 22:34 G	16130001.27	16130001.44	16130001.63	0.0527	0.0343 *
Venus	39450-09-26 22:19 G	16130145.27	16130145.43	16130145.60	0.0528	0.0291
Mercury	39452-11-03 19:26 G	16130914.19	16130914.31	16130914.43	0.0519	0.0123
Mercury	39453-01-31 23:46 G	16131003.44	16131003.49	16131003.54	0.0517	0.0465
Moon	39455-10-25 01:26 G	16131999.32	16131999.56	16131999.80	0.0499	0.0037

Earth	39455-10-25 03:22 G	16131999.41	16131999.64	16131999.88	0.0499	0.0022	*
Venus	39456-07-29 22:05 G	16132278.22	16132278.42	16132278.62	0.0498	0.0085	
Mercury	39458-12-29 08:24 G	16133160.67	16133160.85	16133161.03	0.0507	0.0125	
Earth	39461-04-05 01:26 G	16133988.47	16133988.56	16133988.66	0.0523	0.0472	
Moon	39461-04-05 05:17 G	16133988.62	16133988.72	16133988.82	0.0523	0.0465	*
Moon	39462-05-10 12:14 G	16134388.88	16134389.01	16134389.14	0.0528	0.0437	
Earth	39462-05-10 15:50 G	16134389.06	16134389.16	16134389.27	0.0528	0.0470	*
Venus	39462-06-01 12:43 G	16134410.84	16134411.03	16134411.22	0.0528	0.0196	
Mercury	39464-08-22 23:46 G	16135224.39	16135224.49	16135224.60	0.0520	0.0273	
Mercury	39464-11-20 04:19 G	16135313.58	16135313.68	16135313.78	0.0518	0.0317	
Earth	39467-10-29 15:07 G	16136386.90	16136387.13	16136387.35	0.0499	0.0136	
Moon	39467-10-29 14:53 G	16136386.90	16136387.12	16136387.34	0.0499	0.0111	*
Venus	39468-04-03 22:48 G	16136544.30	16136544.45	16136544.61	0.0498	0.0313	
Mercury	39470-10-17 04:19 G	16137470.54	16137470.68	16137470.81	0.0506	0.0343	
Mercury	39471-01-15 17:17 G	16137561.22	16137561.22	16137561.23	0.0508	0.0507	
Moon	39473-04-09 19:41 G	16138376.14	16138376.32	16138376.52	0.0525	0.0312	
Earth	39473-04-09 23:02 G	16138376.29	16138376.46	16138376.63	0.0525	0.0346	*
Mercury	39476-06-11 04:48 G	16139534.62	16139534.70	16139534.77	0.0520	0.0413	
Mercury	39476-09-08 09:07 G	16139623.76	16139623.88	16139624.00	0.0518	0.0176	
Earth	39479-11-03 00:14 G	16140774.31	16140774.51	16140774.72	0.0498	0.0243	
Moon	39479-11-03 01:55 G	16140774.36	16140774.58	16140774.80	0.0498	0.0222	*
Mercury	39482-11-03 12:29 G	16141870.86	16141871.02	16141871.17	0.0508	0.0279	
Earth	39485-04-14 20:38 G	16142764.15	16142764.36	16142764.57	0.0526	0.0219	
Moon	39485-04-14 22:19 G	16142764.23	16142764.43	16142764.63	0.0526	0.0217	*
Mercury	39488-06-27 13:41 G	16143933.94	16143934.07	16143934.20	0.0518	0.0030	
Earth	39490-10-06 04:34 G	16144764.59	16144764.69	16144764.80	0.0501	0.0448	
Moon	39490-10-06 08:24 G	16144764.76	16144764.85	16144764.95	0.0501	0.0455	*
Moon	39491-11-07 07:55 G	16145161.68	16145161.83	16145161.98	0.0498	0.0371	
Earth	39491-11-07 10:19 G	16145161.77	16145161.93	16145162.10	0.0498	0.0353	*
Venus	39492-04-06 06:29 G	16145312.61	16145312.77	16145312.94	0.0497	0.0304	

Mercury	39494-08-22 08:38 G	16146180.68	16146180.86	16146181.05	0.0507	0.0070
Earth	39497-04-19 18:58 G	16147152.06	16147152.29	16147152.52	0.0526	0.0087
Moon	39497-04-19 19:41 G	16147152.08	16147152.32	16147152.56	0.0526	0.0116 *
Venus	39498-02-07 04:05 G	16147445.47	16147445.67	16147445.87	0.0528	0.0082
Mercury	39500-04-16 17:31 G	16148244.11	16148244.23	16148244.36	0.0519	0.0130
Mercury	39500-07-14 22:05 G	16148333.36	16148333.42	16148333.47	0.0517	0.0458
Moon	39502-10-11 11:17 G	16149151.82	16149151.97	16149152.13	0.0501	0.0373
Earth	39502-10-11 15:22 G	16149151.97	16149152.14	16149152.31	0.0501	0.0339 *
Earth	39503-11-12 20:38 G	16149549.27	16149549.36	16149549.44	0.0498	0.0458
Moon	39503-11-13 00:14 G	16149549.45	16149549.51	16149549.56	0.0498	0.0483
Venus	39503-12-12 07:12 G	16149578.60	16149578.80	16149579.00	0.0498	0.0092
Mercury	39506-06-11 05:31 G	16150490.55	16150490.73	16150490.91	0.0507	0.0138
Moon	39509-04-25 14:24 G	16151539.88	16151540.10	16151540.33	0.0526	0.0051
Earth	39509-04-25 17:17 G	16151539.99	16151540.22	16151540.45	0.0526	0.0047 *
Venus	39509-10-13 19:26 G	16151711.18	16151711.31	16151711.44	0.0528	0.0399
Mercury	39512-02-03 21:50 G	16152554.31	16152554.41	16152554.52	0.0519	0.0282
Mercury	39512-05-03 02:10 G	16152643.49	16152643.59	16152643.70	0.0518	0.0308
Earth	39514-10-16 03:50 G	16153539.45	16153539.66	16153539.87	0.0501	0.0226
Moon	39514-10-16 07:26 G	16153539.61	16153539.81	16153540.01	0.0501	0.0234 *
Venus	39515-08-17 07:55 G	16153844.80	16153844.83	16153844.87	0.0498	0.0488
Mercury	39518-03-30 01:12 G	16154800.42	16154800.55	16154800.68	0.0506	0.0355
Mercury	39518-06-28 14:10 G	16154891.06	16154891.09	16154891.14	0.0508	0.0495
Earth	39521-04-30 13:41 G	16155927.85	16155928.07	16155928.29	0.0527	0.0179
Moon	39521-04-30 17:31 G	16155928.02	16155928.23	16155928.45	0.0527	0.0214 *
Mercury	39523-11-23 02:24 G	16156864.53	16156864.60	16156864.67	0.0520	0.0431
Mercury	39524-02-20 06:43 G	16156953.66	16156953.78	16156953.90	0.0518	0.0158
Mars	39524-07-28 06:14 G	16157112.60	16157112.76	16157112.93	0.0515	0.0389
Moon	39526-10-20 14:10 G	16157926.85	16157927.09	16157927.33	0.0500	0.0085
Earth	39526-10-20 16:34 G	16157926.96	16157927.19	16157927.42	0.0500	0.0112 *
Mercury	39530-04-16 10:05 G	16159200.77	16159200.92	16159201.08	0.0507	0.0278

Moon	39533-05-05 09:07 G	16160315.70	16160315.88	16160316.07	0.0528	0.0321
Earth	39533-05-05 13:12 G	16160315.87	16160316.05	16160316.24	0.0528	0.0315 *
Venus	39533-10-16 17:17 G	16160480.07	16160480.22	16160480.38	0.0528	0.0343
Mercury	39535-12-09 11:31 G	16161263.85	16161263.98	16161264.11	0.0519	0.0016
Earth	39538-10-25 03:36 G	16162314.42	16162314.65	16162314.89	0.0499	0.0002
Moon	39538-10-25 03:50 G	16162314.43	16162314.66	16162314.88	0.0499	0.0009 *
Venus	39539-08-19 16:34 G	16162612.99	16162613.19	16162613.39	0.0497	0.0133
Mercury	39542-02-02 05:17 G	16163510.53	16163510.72	16163510.90	0.0507	0.0049
Moon	39544-04-04 18:00 G	16164303.18	16164303.25	16164303.33	0.0524	0.0496
Earth	39544-04-04 21:36 G	16164303.34	16164303.40	16164303.46	0.0524	0.0502
Earth	39545-05-10 13:12 G	16164703.94	16164704.05	16164704.18	0.0528	0.0447
Moon	39545-05-10 15:50 G	16164704.03	16164704.16	16164704.30	0.0528	0.0418 *
Venus	39545-06-21 09:22 G	16164745.69	16164745.89	16164746.08	0.0528	0.0132
Mercury	39547-09-27 16:05 G	16165574.05	16165574.17	16165574.30	0.0519	0.0131
Mercury	39547-12-25 20:38 G	16165663.30	16165663.36	16165663.41	0.0517	0.0459
Earth	39550-10-29 14:24 G	16166701.87	16166702.10	16166702.33	0.0498	0.0114
Moon	39550-10-29 15:50 G	16166701.92	16166702.16	16166702.40	0.0498	0.0085 *
Venus	39551-04-24 17:02 G	16166879.04	16166879.21	16166879.39	0.0497	0.0265
Mercury	39553-11-21 01:26 G	16167820.39	16167820.56	16167820.74	0.0507	0.0163
Earth	39556-04-09 19:41 G	16168691.16	16168691.32	16168691.48	0.0524	0.0377
Moon	39556-04-09 21:50 G	16168691.24	16168691.41	16168691.58	0.0524	0.0345 *
Mercury	39559-07-16 20:10 G	16169884.24	16169884.34	16169884.44	0.0519	0.0289
Mercury	39559-10-14 00:29 G	16169973.42	16169973.52	16169973.62	0.0518	0.0299
Moon	39562-11-02 21:22 G	16171089.19	16171089.39	16171089.60	0.0498	0.0203
Earth	39562-11-02 23:46 G	16171089.29	16171089.49	16171089.71	0.0498	0.0224 *
Mercury	39565-09-08 22:05 G	16172130.30	16172130.42	16172130.55	0.0506	0.0368
Mercury	39565-12-08 11:17 G	16172220.92	16172220.97	16172221.03	0.0508	0.0483
Moon	39568-04-14 17:17 G	16173079.01	16173079.22	16173079.44	0.0525	0.0246
Earth	39568-04-14 17:46 G	16173079.03	16173079.24	16173079.44	0.0525	0.0245 *
Mercury	39571-05-05 00:29 G	16174194.46	16174194.52	16174194.59	0.0520	0.0440

Mercury	39571-08-02 04:48 G	16174283.58	16174283.70	16174283.82	0.0518	0.0148
Moon	39573-10-05 21:50 G	16175079.35	16175079.41	16175079.49	0.0502	0.0480
Earth	39573-10-06 02:10 G	16175079.52	16175079.59	16175079.67	0.0502	0.0473
Earth	39574-11-07 10:48 G	16175476.78	16175476.95	16175477.13	0.0498	0.0335
Moon	39574-11-07 14:10 G	16175476.94	16175477.09	16175477.27	0.0498	0.0357 *
Venus	39575-04-27 02:24 G	16175647.46	16175647.60	16175647.74	0.0498	0.0359
Mercury	39577-09-26 07:26 G	16176530.65	16176530.81	16176530.96	0.0507	0.0267
Mars	39578-04-03 03:36 G	16176719.36	16176719.65	16176719.94	0.0511	0.0110
Moon	39580-04-19 11:17 G	16177466.75	16177466.97	16177467.18	0.0526	0.0146
Earth	39580-04-19 13:12 G	16177466.83	16177467.05	16177467.28	0.0526	0.0115 *
Venus	39581-02-26 21:50 G	16177780.22	16177780.41	16177780.61	0.0528	0.0128
Mercury	39583-05-21 09:07 G	16178593.76	16178593.88	16178594.01	0.0519	0.0013
Earth	39585-10-10 15:50 G	16179467.00	16179467.16	16179467.32	0.0502	0.0360
Moon	39585-10-10 19:41 G	16179467.17	16179467.32	16179467.46	0.0502	0.0392 *
Moon	39586-11-11 18:14 G	16179864.19	16179864.26	16179864.35	0.0498	0.0466
Earth	39586-11-11 22:05 G	16179864.32	16179864.42	16179864.53	0.0498	0.0444 *
Venus	39586-12-31 03:07 G	16179913.42	16179913.63	16179913.83	0.0498	0.0038
Mercury	39589-07-15 03:07 G	16180840.45	16180840.63	16180840.82	0.0507	0.0050
Earth	39592-04-24 11:17 G	16181854.73	16181854.97	16181855.20	0.0526	0.0020
Moon	39592-04-24 14:53 G	16181854.89	16181855.12	16181855.36	0.0526	0.0027 *
Venus	39592-11-01 13:41 G	16182045.92	16182046.07	16182046.22	0.0528	0.0349
Mercury	39595-03-09 13:55 G	16182903.96	16182904.08	16182904.21	0.0519	0.0146
Mercury	39595-06-06 18:29 G	16182993.21	16182993.27	16182993.33	0.0518	0.0445
Moon	39597-10-15 02:24 G	16183854.40	16183854.60	16183854.82	0.0500	0.0253
Earth	39597-10-15 05:02 G	16183854.51	16183854.71	16183854.92	0.0500	0.0248 *
Venus	39598-09-05 03:07 G	16184179.54	16184179.63	16184179.74	0.0497	0.0435
Mercury	39601-05-02 22:05 G	16185150.25	16185150.42	16185150.60	0.0506	0.0179
Moon	39604-04-29 06:00 G	16186242.54	16186242.75	16186242.97	0.0527	0.0187
Earth	39604-04-29 10:05 G	16186242.70	16186242.92	16186243.15	0.0527	0.0153 *
Mercury	39606-12-26 18:43 G	16187214.18	16187214.28	16187214.38	0.0520	0.0289

Mercury	39607-03-25 23:02 G	16187303.36	16187303.46	16187303.56	0.0518	0.0301
Earth	39609-10-19 17:02 G	16188241.99	16188242.21	16188242.44	0.0500	0.0133
Moon	39609-10-19 17:31 G	16188242.01	16188242.23	16188242.45	0.0500	0.0105 *
Mercury	39613-02-18 18:29 G	16189460.15	16189460.27	16189460.39	0.0506	0.0389
Mercury	39613-05-20 07:41 G	16189550.75	16189550.82	16189550.90	0.0508	0.0462
Earth	39616-05-04 09:50 G	16190630.72	16190630.91	16190631.10	0.0527	0.0287
Moon	39616-05-04 12:58 G	16190630.86	16190631.04	16190631.23	0.0527	0.0290 *
Venus	39616-11-04 13:12 G	16190814.92	16190815.05	16190815.18	0.0528	0.0402
Mercury	39618-10-14 22:48 G	16191524.38	16191524.45	16191524.51	0.0520	0.0447
Mercury	39619-01-12 02:53 G	16191613.50	16191613.62	16191613.75	0.0518	0.0142
Earth	39621-10-24 02:10 G	16192629.36	16192629.59	16192629.83	0.0499	0.0023
Moon	39621-10-24 03:22 G	16192629.40	16192629.64	16192629.88	0.0499	0.0016 *
Venus	39622-09-07 11:46 G	16192947.80	16192947.99	16192948.18	0.0498	0.0185
Mercury	39625-03-08 04:34 G	16193860.53	16193860.69	16193860.85	0.0508	0.0258
Moon	39627-04-05 00:00 G	16194618.48	16194618.50	16194618.54	0.0523	0.0518
Moon	39628-05-09 08:38 G	16195018.70	16195018.86	16195019.02	0.0527	0.0391
Earth	39628-05-09 09:50 G	16195018.77	16195018.91	16195019.05	0.0527	0.0422 *
Venus	39628-07-10 04:48 G	16195080.50	16195080.70	16195080.90	0.0528	0.0074
Mercury	39630-10-31 07:26 G	16195923.68	16195923.81	16195923.93	0.0519	0.0015
Moon	39633-10-28 11:46 G	16197016.76	16197016.99	16197017.21	0.0499	0.0065
Earth	39633-10-28 13:55 G	16197016.85	16197017.08	16197017.31	0.0499	0.0094 *
Venus	39634-05-13 12:43 G	16197213.84	16197214.03	16197214.21	0.0498	0.0211
Mercury	39636-12-25 00:29 G	16198170.34	16198170.52	16198170.71	0.0507	0.0045
Moon	39639-04-09 14:53 G	16199005.96	16199006.12	16199006.30	0.0524	0.0371
Earth	39639-04-09 16:19 G	16199006.03	16199006.18	16199006.32	0.0524	0.0402 *
Mercury	39642-08-19 11:46 G	16200233.87	16200233.99	16200234.11	0.0519	0.0160
Mercury	39642-11-16 16:05 G	16200323.10	16200323.17	16200323.24	0.0518	0.0429
Earth	39645-11-02 01:55 G	16201404.38	16201404.58	16201404.80	0.0499	0.0208
Moon	39645-11-02 05:31 G	16201404.51	16201404.73	16201404.95	0.0499	0.0192 *
Mercury	39648-10-12 20:24 G	16202480.18	16202480.35	16202480.53	0.0506	0.0174

Moon	39651-04-14 11:31 G	16203393.80	16203393.98	16203394.17	0.0525	0.0280
Earth	39651-04-14 12:58 G	16203393.84	16203394.04	16203394.24	0.0525	0.0272 *
Mercury	39654-06-07 16:34 G	16204544.09	16204544.19	16204544.29	0.0520	0.0302
Mercury	39654-09-04 20:53 G	16204633.27	16204633.37	16204633.48	0.0518	0.0288
Earth	39656-10-05 04:34 G	16205394.66	16205394.69	16205394.74	0.0502	0.0495
Moon	39656-10-05 08:38 G	16205394.85	16205394.86	16205394.87	0.0502	0.0501
Moon	39657-11-06 09:36 G	16205791.73	16205791.90	16205792.07	0.0498	0.0341
Earth	39657-11-06 13:12 G	16205791.88	16205792.05	16205792.24	0.0498	0.0317 *
Venus	39658-05-15 22:05 G	16205982.32	16205982.42	16205982.54	0.0497	0.0414
Mercury	39660-07-31 15:36 G	16206790.04	16206790.15	16206790.26	0.0506	0.0399
Mercury	39660-10-30 04:48 G	16206880.62	16206880.70	16206880.78	0.0508	0.0450
Earth	39663-04-19 10:19 G	16207781.70	16207781.93	16207782.15	0.0526	0.0142
Moon	39663-04-19 13:41 G	16207781.84	16207782.07	16207782.29	0.0526	0.0173 *
Venus	39664-03-17 18:43 G	16208115.10	16208115.28	16208115.47	0.0528	0.0193
Mercury	39666-03-26 21:22 G	16208854.33	16208854.39	16208854.45	0.0520	0.0446
Mercury	39666-06-24 01:41 G	16208943.45	16208943.57	16208943.69	0.0519	0.0144
Moon	39668-10-09 15:36 G	16209782.01	16209782.15	16209782.29	0.0501	0.0408
Earth	39668-10-09 18:29 G	16209782.12	16209782.27	16209782.42	0.0501	0.0380 *
Earth	39669-11-11 00:00 G	16210179.38	16210179.50	16210179.62	0.0498	0.0427
Moon	39669-11-11 03:07 G	16210179.54	16210179.63	16210179.73	0.0498	0.0447 *
Venus	39670-01-18 23:02 G	16210248.26	16210248.46	16210248.67	0.0497	0.0020
Mercury	39672-08-18 01:12 G	16211190.39	16211190.55	16211190.72	0.0507	0.0243
Moon	39675-04-24 06:14 G	16212169.53	16212169.76	16212169.99	0.0526	0.0006
Earth	39675-04-24 10:19 G	16212169.70	16212169.93	16212170.16	0.0526	0.0006 *
Venus	39675-11-21 10:48 G	16212380.78	16212380.95	16212381.12	0.0528	0.0282
Mercury	39678-04-12 05:46 G	16213253.61	16213253.74	16213253.86	0.0519	0.0016
Mars	39678-10-21 10:48 G	16213445.72	16213445.95	16213446.20	0.0515	0.0160
Earth	39680-10-14 03:36 G	16214169.46	16214169.65	16214169.85	0.0501	0.0271
Moon	39680-10-14 04:34 G	16214169.50	16214169.69	16214169.89	0.0501	0.0268 *
Venus	39681-09-23 22:48 G	16214514.32	16214514.45	16214514.58	0.0498	0.0382

Mercury	39684-06-05 22:05 G	16215500.24	16215500.42	16215500.61	0.0507	0.0039
Earth	39687-04-29 10:34 G	16216557.71	16216557.94	16216558.16	0.0527	0.0132
Moon	39687-04-29 14:10 G	16216557.87	16216558.09	16216558.30	0.0527	0.0165 *
Mercury	39690-01-29 10:05 G	16217563.80	16217563.92	16217564.04	0.0519	0.0163
Mercury	39690-04-28 14:24 G	16217653.03	16217653.10	16217653.17	0.0517	0.0426
Earth	39692-10-18 16:19 G	16218556.96	16218557.18	16218557.40	0.0500	0.0155
Moon	39692-10-18 17:17 G	16218556.99	16218557.22	16218557.46	0.0500	0.0123 *
Mercury	39696-03-24 18:14 G	16219810.09	16219810.26	16219810.44	0.0506	0.0175
Moon	39699-05-04 05:17 G	16220945.52	16220945.72	16220945.93	0.0527	0.0262
Earth	39699-05-04 07:26 G	16220945.61	16220945.81	16220946.01	0.0527	0.0265 *
Venus	39699-11-24 09:07 G	16221149.78	16221149.88	16221149.98	0.0528	0.0460
Mercury	39701-11-18 14:38 G	16221874.01	16221874.11	16221874.21	0.0520	0.0313
Mercury	39702-02-15 18:58 G	16221963.18	16221963.29	16221963.40	0.0518	0.0276
Moon	39704-10-24 03:36 G	16222944.42	16222944.65	16222944.88	0.0500	0.0033
Earth	39704-10-24 05:46 G	16222944.51	16222944.74	16222944.98	0.0500	0.0038 *
Venus	39705-09-27 09:22 G	16223282.72	16223282.89	16223283.07	0.0498	0.0248
Mercury	39708-01-12 14:10 G	16224119.98	16224120.09	16224120.21	0.0506	0.0390
Mercury	39708-04-12 03:22 G	16224210.57	16224210.64	16224210.72	0.0508	0.0461
Moon	39711-05-10 06:29 G	16225333.61	16225333.77	16225333.93	0.0528	0.0371
Earth	39711-05-10 06:43 G	16225333.63	16225333.78	16225333.93	0.0528	0.0400 *
Venus	39711-07-31 00:58 G	16225415.33	16225415.54	16225415.74	0.0528	0.0017
Mercury	39713-09-06 19:26 G	16226184.25	16226184.31	16226184.37	0.0521	0.0456
Mercury	39713-12-04 23:46 G	16226273.37	16226273.49	16226273.61	0.0519	0.0135
Earth	39716-10-28 18:58 G	16227332.06	16227332.29	16227332.52	0.0499	0.0078
Moon	39716-10-28 22:19 G	16227332.19	16227332.43	16227332.66	0.0499	0.0049 *
Venus	39717-06-02 10:19 G	16227548.74	16227548.93	16227549.13	0.0498	0.0146
Mercury	39720-01-29 23:02 G	16228520.29	16228520.46	16228520.62	0.0507	0.0239
Moon	39722-04-09 14:38 G	16229320.97	16229321.11	16229321.25	0.0524	0.0400
Earth	39722-04-09 15:07 G	16229321.00	16229321.13	16229321.27	0.0524	0.0426 *
Venus	39723-04-04 17:02 G	16229681.13	16229681.21	16229681.28	0.0528	0.0488

Mercury	39725-09-23 04:34 G	16230583.56	16230583.69	16230583.82	0.0519	0.0008
Moon	39728-11-02 03:07 G	16231719.41	16231719.63	16231719.85	0.0498	0.0182
Earth	39728-11-02 06:43 G	16231719.57	16231719.78	16231720.00	0.0498	0.0193 *
Mercury	39731-11-17 19:26 G	16232830.13	16232830.31	16232830.50	0.0507	0.0033
Mars	39732-06-27 08:53 G	16233052.71	16233052.87	16233053.04	0.0511	0.0426
Earth	39734-04-14 14:53 G	16233708.93	16233709.12	16233709.31	0.0525	0.0294
Moon	39734-04-14 17:46 G	16233709.05	16233709.24	16233709.44	0.0525	0.0308 *
Mercury	39737-07-12 08:38 G	16234893.74	16234893.86	16234893.98	0.0519	0.0163
Mercury	39737-10-09 12:58 G	16234982.97	16234983.04	16234983.11	0.0517	0.0425
Earth	39740-11-06 14:53 G	16236106.94	16236107.12	16236107.31	0.0498	0.0302
Moon	39740-11-06 18:14 G	16236107.09	16236107.26	16236107.43	0.0498	0.0332 *
Venus	39741-06-04 18:43 G	16236317.23	16236317.28	16236317.35	0.0498	0.0473
Mercury	39743-09-05 16:19 G	16237140.00	16237140.18	16237140.35	0.0507	0.0174
Moon	39746-04-19 11:17 G	16238096.76	16238096.97	16238097.19	0.0525	0.0191
Earth	39746-04-19 15:07 G	16238096.91	16238097.13	16238097.36	0.0525	0.0158 *
Venus	39747-04-07 18:00 G	16238450.08	16238450.25	16238450.43	0.0528	0.0269
Mercury	39749-04-30 13:12 G	16239203.95	16239204.05	16239204.15	0.0520	0.0311
Mercury	39749-07-28 17:31 G	16239293.12	16239293.23	16239293.34	0.0518	0.0278
Earth	39751-10-10 18:00 G	16240097.12	16240097.25	16240097.40	0.0502	0.0401
Moon	39751-10-10 19:26 G	16240097.20	16240097.31	16240097.43	0.0502	0.0428 *
Moon	39752-11-11 00:29 G	16240494.40	16240494.52	16240494.64	0.0498	0.0432
Earth	39752-11-11 02:53 G	16240494.50	16240494.62	16240494.75	0.0498	0.0414 *
Venus	39753-02-07 20:10 G	16240583.14	16240583.34	16240583.54	0.0498	0.0079
Mercury	39755-06-24 12:29 G	16241449.90	16241450.02	16241450.15	0.0506	0.0384
Mercury	39755-09-23 01:55 G	16241540.51	16241540.58	16241540.65	0.0508	0.0468
Earth	39758-04-24 12:00 G	16242484.77	16242485.00	16242485.23	0.0526	0.0025
Moon	39758-04-24 15:50 G	16242484.93	16242485.16	16242485.39	0.0526	0.0018 *
Venus	39758-12-11 08:38 G	16242715.68	16242715.86	16242716.05	0.0527	0.0213
Mercury	39761-02-16 17:46 G	16243514.18	16243514.24	16243514.29	0.0520	0.0461
Mercury	39761-05-16 22:05 G	16243603.29	16243603.42	16243603.54	0.0518	0.0130

Earth	39763-10-15 08:53 G	16244484.68	16244484.87	16244485.07	0.0501	0.0286
Moon	39763-10-15 09:36 G	16244484.70	16244484.90	16244485.11	0.0501	0.0275 *
Venus	39764-10-13 21:36 G	16244849.25	16244849.40	16244849.56	0.0498	0.0312
Mercury	39767-07-11 22:05 G	16245850.26	16245850.42	16245850.58	0.0507	0.0255
Moon	39770-04-29 07:41 G	16246872.59	16246872.82	16246873.05	0.0526	0.0141
Earth	39770-04-29 10:19 G	16246872.71	16246872.93	16246873.16	0.0526	0.0111 *
Mercury	39773-03-05 02:53 G	16247913.49	16247913.62	16247913.74	0.0519	0.0016
Moon	39775-10-19 21:50 G	16248872.19	16248872.41	16248872.63	0.0500	0.0137
Earth	39775-10-20 00:00 G	16248872.28	16248872.50	16248872.72	0.0500	0.0168 *
Mercury	39779-04-29 17:46 G	16250160.05	16250160.24	16250160.42	0.0507	0.0036
Earth	39782-05-04 09:36 G	16251260.70	16251260.90	16251261.11	0.0527	0.0248
Moon	39782-05-04 09:50 G	16251260.72	16251260.91	16251261.11	0.0527	0.0238 *
Mercury	39784-12-22 07:41 G	16252223.70	16252223.82	16252223.94	0.0520	0.0154
Mercury	39785-03-21 12:00 G	16252312.94	16252313.00	16252313.07	0.0518	0.0436
Earth	39787-10-24 13:12 G	16253259.82	16253260.05	16253260.29	0.0500	0.0051
Moon	39787-10-24 16:34 G	16253259.95	16253260.19	16253260.43	0.0500	0.0050 *
Venus	39788-10-16 08:38 G	16253617.70	16253617.86	16253618.01	0.0498	0.0319
Mercury	39791-02-15 14:10 G	16254469.92	16254470.09	16254470.27	0.0506	0.0172
Earth	39794-05-09 11:31 G	16255648.83	16255648.98	16255649.14	0.0527	0.0387
Moon	39794-05-09 13:26 G	16255648.88	16255649.06	16255649.24	0.0527	0.0353 *
Venus	39794-08-19 01:41 G	16255750.37	16255750.57	16255750.77	0.0528	0.0070
Mercury	39796-10-10 12:00 G	16256533.90	16256534.00	16256534.10	0.0520	0.0306
Mercury	39797-01-07 16:19 G	16256623.07	16256623.18	16256623.28	0.0518	0.0282
Moon	39799-10-28 18:00 G	16257647.02	16257647.25	16257647.49	0.0499	0.0032
Earth	39799-10-28 21:50 G	16257647.17	16257647.41	16257647.64	0.0499	0.0063 *
Venus	39800-06-22 07:41 G	16257883.62	16257883.82	16257884.02	0.0498	0.0085
Mercury	39802-12-05 10:48 G	16258779.83	16258779.95	16258780.08	0.0506	0.0378
Mercury	39803-03-06 00:14 G	16258870.45	16258870.51	16258870.57	0.0508	0.0476
Earth	39805-04-10 00:29 G	16259636.39	16259636.52	16259636.64	0.0523	0.0437
Moon	39805-04-10 02:53 G	16259636.48	16259636.62	16259636.77	0.0523	0.0411 *

Venus	39806-04-24 18:58 G	16260016.16	16260016.29	16260016.42	0.0527	0.0397
Earth	39806-05-15 13:41 G	16260037.05	16260037.07	16260037.10	0.0527	0.0522
Mercury	39808-07-30 16:34 G	16260844.13	16260844.19	16260844.25	0.0520	0.0452
Mercury	39808-10-27 20:53 G	16260933.25	16260933.37	16260933.49	0.0518	0.0136
Earth	39811-11-03 10:19 G	16262034.71	16262034.93	16262035.15	0.0499	0.0179
Moon	39811-11-03 13:41 G	16262034.86	16262035.07	16262035.29	0.0499	0.0177 *
Venus	39812-02-26 09:07 G	16262149.82	16262149.88	16262149.93	0.0498	0.0478
Mercury	39814-12-22 20:53 G	16263180.21	16263180.37	16263180.53	0.0507	0.0269
Moon	39817-04-14 17:17 G	16264024.05	16264024.22	16264024.40	0.0524	0.0326
Earth	39817-04-14 20:53 G	16264024.19	16264024.37	16264024.57	0.0524	0.0309 *
Mercury	39820-08-16 01:26 G	16265243.43	16265243.56	16265243.69	0.0519	0.0013
Moon	39823-11-07 21:22 G	16266422.21	16266422.39	16266422.57	0.0499	0.0323
Earth	39823-11-07 23:46 G	16266422.31	16266422.49	16266422.69	0.0499	0.0294 *
Mercury	39826-10-10 17:17 G	16267490.03	16267490.22	16267490.40	0.0507	0.0058
Earth	39829-04-19 18:29 G	16268412.05	16268412.27	16268412.49	0.0525	0.0175
Moon	39829-04-19 22:19 G	16268412.23	16268412.43	16268412.65	0.0525	0.0207 *
Venus	39830-04-27 17:31 G	16268785.08	16268785.23	16268785.38	0.0528	0.0345
Mercury	39832-06-04 06:14 G	16269553.64	16269553.76	16269553.88	0.0520	0.0154
Mercury	39832-09-01 10:34 G	16269642.88	16269642.94	16269643.01	0.0518	0.0436
Mars	39833-01-16 11:46 G	16269779.75	16269779.99	16269780.23	0.0515	0.0165
Earth	39834-10-11 04:05 G	16270412.55	16270412.67	16270412.81	0.0502	0.0413
Moon	39834-10-11 04:48 G	16270412.59	16270412.70	16270412.83	0.0502	0.0436 *
Earth	39835-11-12 13:12 G	16270809.91	16270810.05	16270810.18	0.0498	0.0406
Moon	39835-11-12 14:10 G	16270809.97	16270810.09	16270810.21	0.0498	0.0422 *
Venus	39836-02-28 21:07 G	16270918.19	16270918.38	16270918.58	0.0498	0.0160
Mercury	39838-07-29 12:58 G	16271799.87	16271800.04	16271800.22	0.0506	0.0160
Moon	39841-04-24 13:26 G	16272799.83	16272800.06	16272800.30	0.0526	0.0033
Earth	39841-04-24 16:34 G	16272799.96	16272800.19	16272800.43	0.0526	0.0042 *
Venus	39841-12-31 09:50 G	16273050.71	16273050.91	16273051.10	0.0528	0.0127
Mercury	39844-03-23 11:02 G	16273863.86	16273863.96	16273864.07	0.0520	0.0295

Mercury	39844-06-20 15:36 G	16273953.04	16273953.15	16273953.25	0.0518	0.0296
Moon	39846-10-15 17:02 G	16274800.02	16274800.21	16274800.40	0.0501	0.0283
Earth	39846-10-15 18:58 G	16274800.11	16274800.29	16274800.49	0.0501	0.0295 *
Venus	39847-11-03 22:34 G	16275184.26	16275184.44	16275184.62	0.0498	0.0232
Moon	39847-11-17 02:10 G	16275197.55	16275197.59	16275197.62	0.0498	0.0492
Mercury	39850-05-17 09:36 G	16276109.77	16276109.90	16276110.03	0.0506	0.0366
Mercury	39850-08-15 22:48 G	16276200.41	16276200.45	16276200.51	0.0508	0.0486
Mars	39850-12-15 19:26 G	16276322.20	16276322.31	16276322.43	0.0510	0.0470
Earth	39853-04-29 18:43 G	16277188.05	16277188.28	16277188.50	0.0526	0.0101
Moon	39853-04-29 19:26 G	16277188.09	16277188.31	16277188.53	0.0526	0.0127 *
Mercury	39856-01-10 15:36 G	16278174.09	16278174.15	16278174.22	0.0520	0.0444
Mercury	39856-04-08 19:55 G	16278263.21	16278263.33	16278263.45	0.0518	0.0145
Earth	39858-10-20 04:19 G	16279187.46	16279187.68	16279187.90	0.0501	0.0183
Moon	39858-10-20 07:26 G	16279187.58	16279187.81	16279188.04	0.0501	0.0152 *
Mercury	39862-06-03 19:41 G	16280510.17	16280510.32	16280510.47	0.0508	0.0281
Earth	39865-05-04 20:53 G	16281576.16	16281576.37	16281576.58	0.0527	0.0242
Moon	39865-05-04 22:19 G	16281576.21	16281576.43	16281576.64	0.0527	0.0224 *
Mercury	39868-01-27 00:29 G	16282573.40	16282573.52	16282573.65	0.0518	0.0016
Moon	39870-10-24 14:10 G	16283574.86	16283575.09	16283575.32	0.0500	0.0068
Earth	39870-10-24 18:00 G	16283575.01	16283575.25	16283575.48	0.0500	0.0064 *
Venus	39871-11-06 07:26 G	16283952.69	16283952.81	16283952.95	0.0498	0.0389
Mercury	39874-03-22 16:19 G	16284820.00	16284820.18	16284820.37	0.0507	0.0075
Moon	39877-05-09 16:34 G	16285964.02	16285964.19	16285964.36	0.0527	0.0346
Earth	39877-05-09 19:26 G	16285964.15	16285964.31	16285964.47	0.0527	0.0376 *
Venus	39877-09-08 03:50 G	16286085.46	16286085.66	16286085.85	0.0527	0.0160
Mercury	39879-11-15 05:02 G	16286883.59	16286883.71	16286883.83	0.0519	0.0148
Mercury	39880-02-12 09:22 G	16286972.83	16286972.89	16286972.96	0.0517	0.0440
Earth	39882-10-29 08:24 G	16287962.61	16287962.85	16287963.08	0.0500	0.0055
Moon	39882-10-29 11:31 G	16287962.75	16287962.98	16287963.21	0.0500	0.0027 *
Venus	39883-07-12 09:36 G	16288218.70	16288218.90	16288219.11	0.0498	0.0002

Mercury	39886-01-08 12:43 G	16289129.85	16289130.03	16289130.21	0.0507	0.0135
Moon	39888-04-09 03:36 G	16289951.52	16289951.65	16289951.78	0.0523	0.0427
Earth	39888-04-09 07:12 G	16289951.69	16289951.80	16289951.91	0.0523	0.0451 *
Venus	39889-05-13 19:55 G	16290351.17	16290351.33	16290351.49	0.0527	0.0312
Earth	39889-05-14 18:58 G	16290352.24	16290352.29	16290352.35	0.0527	0.0510
Moon	39889-05-14 22:48 G	16290352.43	16290352.45	16290352.47	0.0527	0.0525
Mercury	39891-09-03 09:50 G	16291193.81	16291193.91	16291194.02	0.0520	0.0291
Mercury	39891-12-01 14:10 G	16291282.99	16291283.09	16291283.20	0.0518	0.0300
Moon	39894-11-02 20:24 G	16292350.13	16292350.35	16292350.58	0.0499	0.0173
Earth	39894-11-02 22:48 G	16292350.24	16292350.45	16292350.67	0.0499	0.0173 *
Venus	39895-03-17 11:31 G	16292484.86	16292484.98	16292485.11	0.0498	0.0389
Mercury	39897-10-27 08:38 G	16293439.73	16293439.86	16293440.00	0.0506	0.0349
Mercury	39898-01-25 21:50 G	16293530.39	16293530.41	16293530.44	0.0508	0.0502
Earth	39900-04-15 03:50 G	16294339.48	16294339.66	16294339.85	0.0524	0.0322
Moon	39900-04-15 07:55 G	16294339.66	16294339.83	16294340.01	0.0524	0.0341 *
Mercury	39903-06-23 14:53 G	16295504.05	16295504.12	16295504.19	0.0520	0.0430
Mercury	39903-09-20 19:12 G	16295593.18	16295593.30	16295593.42	0.0519	0.0160
Earth	39906-11-08 12:00 G	16296737.81	16296738.00	16296738.19	0.0499	0.0289
Moon	39906-11-08 12:58 G	16296737.87	16296738.04	16296738.21	0.0499	0.0320 *
Mercury	39909-11-14 18:43 G	16297840.13	16297840.28	16297840.43	0.0507	0.0299
Moon	39912-04-20 01:55 G	16298727.36	16298727.58	16298727.80	0.0525	0.0212
Earth	39912-04-20 05:17 G	16298727.50	16298727.72	16298727.94	0.0525	0.0184 *
Venus	39913-05-17 21:50 G	16299120.30	16299120.41	16299120.51	0.0528	0.0447
Mercury	39915-07-09 23:46 G	16299903.36	16299903.49	16299903.61	0.0518	0.0017
Moon	39917-10-11 08:24 G	16300727.76	16300727.85	16300727.95	0.0502	0.0452
Earth	39917-10-11 10:19 G	16300727.81	16300727.93	16300728.06	0.0502	0.0426 *
Earth	39918-11-12 19:55 G	16301125.19	16301125.33	16301125.47	0.0499	0.0399
Moon	39918-11-12 20:24 G	16301125.22	16301125.35	16301125.50	0.0499	0.0406 *
Venus	39919-03-20 20:24 G	16301253.18	16301253.35	16301253.54	0.0498	0.0231
Mercury	39921-09-02 15:22 G	16302149.96	16302150.14	16302150.33	0.0508	0.0090

Earth	39924-04-25 07:12 G	16303115.57	16303115.80	16303116.03	0.0526	0.0045
Moon	39924-04-25 08:24 G	16303115.62	16303115.85	16303116.07	0.0526	0.0025 *
Venus	39925-01-20 15:36 G	16303385.95	16303386.15	16303386.35	0.0527	0.0017
Mercury	39927-04-28 04:34 G	16304213.57	16304213.69	16304213.81	0.0519	0.0132
Mercury	39927-07-26 08:38 G	16304302.81	16304302.86	16304302.92	0.0517	0.0456
Earth	39929-10-16 00:43 G	16305115.35	16305115.53	16305115.72	0.0502	0.0309
Moon	39929-10-16 03:50 G	16305115.47	16305115.66	16305115.86	0.0502	0.0292 *
Moon	39930-11-17 05:46 G	16305512.70	16305512.74	16305512.80	0.0498	0.0484
Venus	39930-11-23 22:05 G	16305519.23	16305519.42	16305519.61	0.0498	0.0162
Mercury	39933-06-21 12:14 G	16306459.82	16306460.01	16306460.19	0.0507	0.0115
Earth	39936-04-30 05:17 G	16307503.49	16307503.72	16307503.95	0.0526	0.0092
Moon	39936-04-30 06:14 G	16307503.53	16307503.76	16307504.00	0.0526	0.0116 *
Venus	39936-09-25 07:12 G	16307651.73	16307651.80	16307651.88	0.0527	0.0489
Mercury	39939-02-14 08:53 G	16308523.77	16308523.87	16308523.98	0.0519	0.0281
Mercury	39939-05-14 13:12 G	16308612.95	16308613.05	16308613.16	0.0518	0.0309
Moon	39941-10-20 12:29 G	16309502.80	16309503.02	16309503.24	0.0501	0.0164
Earth	39941-10-20 16:05 G	16309502.96	16309503.17	16309503.39	0.0501	0.0191 *
Mercury	39945-04-09 08:38 G	16310769.72	16310769.86	16310770.01	0.0506	0.0323
Moon	39948-05-05 01:55 G	16311891.38	16311891.58	16311891.79	0.0526	0.0213
Earth	39948-05-05 04:19 G	16311891.48	16311891.68	16311891.90	0.0526	0.0231 *
Mercury	39950-12-03 13:55 G	16312834.01	16312834.08	16312834.15	0.0520	0.0422
Mercury	39951-03-02 18:00 G	16312923.14	16312923.25	16312923.37	0.0518	0.0168
Mars	39951-07-10 20:24 G	16313053.26	16313053.35	16313053.44	0.0516	0.0479
Earth	39953-10-25 07:41 G	16313890.59	16313890.82	16313891.05	0.0500	0.0070
Moon	39953-10-25 11:02 G	16313890.73	16313890.96	16313891.19	0.0500	0.0085 *
Venus	39954-11-26 10:48 G	16314287.91	16314287.95	16314288.01	0.0498	0.0479
Mercury	39957-04-26 18:14 G	16315170.11	16315170.26	16315170.40	0.0507	0.0318
Earth	39960-05-10 04:05 G	16316279.50	16316279.67	16316279.83	0.0527	0.0368
Moon	39960-05-10 07:26 G	16316279.64	16316279.81	16316280.00	0.0527	0.0343 *
Venus	39960-09-28 06:58 G	16316420.62	16316420.79	16316420.97	0.0528	0.0258

Mercury	39962-12-19 23:02 G	16317233.34	16317233.46	16317233.59	0.0519	0.0029
Moon	39965-10-29 19:41 G	16318278.08	16318278.32	16318278.56	0.0500	0.0020
Earth	39965-10-29 22:05 G	16318278.19	16318278.42	16318278.65	0.0500	0.0051 *
Venus	39966-08-01 12:43 G	16318553.83	16318554.03	16318554.23	0.0498	0.0089
Mercury	39969-02-12 14:53 G	16319479.94	16319480.12	16319480.31	0.0507	0.0114
Earth	39971-04-10 18:58 G	16320267.19	16320267.29	16320267.41	0.0523	0.0460
Moon	39971-04-10 23:02 G	16320267.34	16320267.46	16320267.59	0.0523	0.0437 *
Earth	39972-05-15 07:41 G	16320667.76	16320667.82	16320667.88	0.0527	0.0508
Venus	39972-06-03 01:12 G	16320686.37	16320686.55	16320686.74	0.0527	0.0204
Mercury	39974-10-08 03:50 G	16321543.53	16321543.66	16321543.78	0.0519	0.0118
Mercury	39975-01-05 07:55 G	16321632.78	16321632.83	16321632.88	0.0517	0.0470
Earth	39977-11-03 06:29 G	16322665.54	16322665.77	16322665.99	0.0499	0.0164
Moon	39977-11-03 07:26 G	16322665.60	16322665.81	16322666.03	0.0499	0.0168 *
Venus	39978-04-06 11:17 G	16322819.82	16322819.97	16322820.13	0.0498	0.0317
Mercury	39980-12-01 11:17 G	16323789.78	16323789.97	16323790.15	0.0507	0.0099
Moon	39983-04-15 16:34 G	16324655.02	16324655.19	16324655.37	0.0524	0.0347
Earth	39983-04-15 20:10 G	16324655.16	16324655.34	16324655.52	0.0524	0.0326 *
Mercury	39986-07-27 08:38 G	16325853.75	16325853.86	16325853.97	0.0519	0.0260
Mercury	39986-10-24 12:43 G	16325942.94	16325943.03	16325943.13	0.0517	0.0328
Earth	39989-11-07 19:26 G	16327053.12	16327053.31	16327053.50	0.0499	0.0281
Moon	39989-11-07 20:10 G	16327053.15	16327053.34	16327053.53	0.0499	0.0308 *
Mercury	39992-09-19 07:55 G	16328099.69	16328099.83	16328099.98	0.0507	0.0304
Earth	39995-04-20 18:00 G	16329043.04	16329043.25	16329043.47	0.0525	0.0193
Moon	39995-04-20 19:41 G	16329043.11	16329043.32	16329043.52	0.0525	0.0212 *
Mercury	39998-05-15 12:58 G	16330163.97	16330164.04	16330164.12	0.0520	0.0409
Mercury	39998-08-12 17:17 G	16330253.10	16330253.22	16330253.34	0.0518	0.0180
Earth	40000-10-10 22:34 G	16331043.33	16331043.44	16331043.55	0.0503	0.0436
Moon	40000-10-11 01:41 G	16331043.48	16331043.57	16331043.67	0.0503	0.0456 *

41ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 41st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	40001-11-12 06:43	G	16331440.65	16331440.78	16331440.92	0.0499	0.0394	
Earth	40001-11-12 09:22	G	16331440.76	16331440.89	16331441.04	0.0499	0.0397	*
Venus	40002-04-09 00:00	G	16331588.35	16331588.50	16331588.66	0.0498	0.0321	
Mercury	40004-10-06 18:00	G	16332500.12	16332500.25	16332500.39	0.0508	0.0346	
Mars	40005-03-13 08:24	G	16332657.55	16332657.85	16332658.14	0.0511	0.0097	
Earth	40007-04-25 16:19	G	16333430.95	16333431.18	16333431.41	0.0525	0.0056	
Moon	40007-04-25 17:02	G	16333430.96	16333431.21	16333431.45	0.0525	0.0031	*
Venus	40008-02-09 18:14	G	16333721.06	16333721.26	16333721.47	0.0527	0.0079	
Mercury	40010-05-31 22:05	G	16334563.29	16334563.42	16334563.55	0.0519	0.0037	
Moon	40012-10-15 11:17	G	16335430.79	16335430.97	16335431.16	0.0502	0.0297	
Earth	40012-10-15 15:07	G	16335430.95	16335431.13	16335431.31	0.0502	0.0317	*
Moon	40013-11-17 03:22	G	16335828.57	16335828.64	16335828.70	0.0498	0.0478	
Venus	40013-12-13 01:55	G	16335854.38	16335854.58	16335854.79	0.0498	0.0068	
Mercury	40016-07-25 14:24	G	16336809.92	16336810.10	16336810.28	0.0507	0.0133	
Moon	40019-04-30 12:29	G	16337818.80	16337819.02	16337819.24	0.0526	0.0106	
Earth	40019-04-30 14:38	G	16337818.88	16337819.11	16337819.34	0.0526	0.0082	*
Venus	40019-10-15 10:48	G	16337986.81	16337986.95	16337987.08	0.0527	0.0392	
Mercury	40022-03-20 03:07	G	16338873.50	16338873.63	16338873.75	0.0519	0.0103	
Mercury	40022-06-17 07:12	G	16338962.77	16338962.80	16338962.85	0.0517	0.0488	
Earth	40024-10-20 06:29	G	16339818.55	16339818.77	16339818.98	0.0501	0.0195	

Moon	40024-10-20 09:36 G	16339818.69	16339818.90	16339819.12	0.0501	0.0175	*
Venus	40025-08-18 03:36 G	16340120.57	16340120.65	16340120.73	0.0498	0.0456	
Mercury	40028-05-13 11:02 G	16341119.77	16341119.96	16341120.14	0.0507	0.0073	
Earth	40031-05-05 17:17 G	16342207.01	16342207.22	16342207.43	0.0527	0.0227	
Moon	40031-05-05 20:53 G	16342207.15	16342207.37	16342207.59	0.0527	0.0203	*
Mercury	40034-01-06 07:41 G	16343183.72	16343183.82	16343183.94	0.0519	0.0246	
Mercury	40034-04-05 12:00 G	16343272.91	16343273.00	16343273.10	0.0517	0.0342	
Moon	40036-10-24 13:26 G	16344205.82	16344206.06	16344206.29	0.0500	0.0100	
Earth	40036-10-24 15:50 G	16344205.93	16344206.16	16344206.39	0.0500	0.0081	*
Mercury	40040-03-01 06:58 G	16345429.64	16345429.79	16345429.94	0.0507	0.0290	
Moon	40043-05-10 16:34 G	16346595.02	16346595.19	16346595.37	0.0527	0.0348	
Earth	40043-05-10 20:10 G	16346595.18	16346595.34	16346595.51	0.0527	0.0368	*
Venus	40043-10-18 14:24 G	16346755.96	16346756.10	16346756.24	0.0527	0.0375	
Mercury	40045-10-25 12:43 G	16347493.95	16347494.03	16347494.11	0.0519	0.0387	
Mercury	40046-01-22 16:48 G	16347583.09	16347583.20	16347583.32	0.0517	0.0200	
Earth	40048-10-29 05:17 G	16348593.49	16348593.72	16348593.96	0.0500	0.0041	
Moon	40048-10-29 06:29 G	16348593.54	16348593.77	16348593.99	0.0500	0.0013	*
Venus	40049-08-20 12:29 G	16348888.83	16348889.02	16348889.22	0.0498	0.0161	
Mercury	40051-12-19 03:36 G	16349739.62	16349739.65	16349739.69	0.0506	0.0495	
Mercury	40052-03-18 17:17 G	16349830.10	16349830.22	16349830.35	0.0508	0.0364	
Moon	40054-04-10 05:02 G	16350582.59	16350582.71	16350582.82	0.0523	0.0451	
Earth	40054-04-10 08:38 G	16350582.76	16350582.86	16350582.96	0.0523	0.0471	*
Earth	40055-05-15 19:26 G	16350983.24	16350983.31	16350983.38	0.0527	0.0501	
Venus	40055-06-23 06:00 G	16351021.55	16351021.75	16351021.95	0.0527	0.0098	
Mercury	40057-11-10 21:22 G	16351893.26	16351893.39	16351893.52	0.0518	0.0051	
Earth	40060-11-02 19:41 G	16352981.10	16352981.32	16352981.54	0.0500	0.0158	
Moon	40060-11-02 20:24 G	16352981.12	16352981.35	16352981.58	0.0500	0.0168	*
Venus	40061-04-25 14:38 G	16353154.93	16353155.11	16353155.29	0.0499	0.0226	
Mercury	40064-01-05 14:10 G	16354139.91	16354140.09	16354140.26	0.0508	0.0158	
Earth	40066-04-15 06:00 G	16354970.58	16354970.75	16354970.93	0.0524	0.0338	

Moon	40066-04-15 07:55 G	16354970.67	16354970.83	16354970.99	0.0524	0.0366	*
Mercury	40069-08-30 02:10 G	16356203.46	16356203.59	16356203.71	0.0519	0.0093	
Mercury	40069-11-27 06:29 G	16356292.73	16356292.77	16356292.80	0.0517	0.0495	
Moon	40072-11-07 07:26 G	16357368.63	16357368.81	16357368.99	0.0499	0.0304	
Earth	40072-11-07 10:05 G	16357368.73	16357368.92	16357369.12	0.0499	0.0277	*
Mercury	40075-10-24 10:19 G	16358449.74	16358449.93	16358450.11	0.0507	0.0056	
Earth	40078-04-20 02:53 G	16359358.41	16359358.62	16359358.83	0.0525	0.0204	
Moon	40078-04-20 03:07 G	16359358.41	16359358.63	16359358.85	0.0525	0.0216	*
Mercury	40081-06-18 06:58 G	16360513.68	16360513.79	16360513.90	0.0519	0.0233	
Mercury	40081-09-15 11:17 G	16360602.88	16360602.97	16360603.06	0.0518	0.0356	
Moon	40083-10-11 08:38 G	16361358.77	16361358.86	16361358.96	0.0503	0.0459	
Earth	40083-10-11 12:29 G	16361358.91	16361359.02	16361359.13	0.0503	0.0443	*
Earth	40084-11-11 23:02 G	16361756.32	16361756.46	16361756.61	0.0499	0.0394	
Moon	40084-11-12 03:07 G	16361756.48	16361756.63	16361756.78	0.0499	0.0382	*
Venus	40085-04-28 02:53 G	16361923.51	16361923.62	16361923.74	0.0498	0.0410	
Mercury	40087-08-12 06:43 G	16362759.62	16362759.78	16362759.94	0.0507	0.0263	
Moon	40090-04-25 02:24 G	16363746.37	16363746.60	16363746.82	0.0525	0.0034	
Earth	40090-04-25 04:19 G	16363746.45	16363746.68	16363746.91	0.0525	0.0063	*
Venus	40091-02-28 23:46 G	16364056.30	16364056.49	16364056.68	0.0528	0.0186	
Mercury	40093-04-06 11:46 G	16364823.91	16364823.99	16364824.08	0.0519	0.0375	
Mercury	40093-07-04 16:05 G	16364913.06	16364913.17	16364913.29	0.0517	0.0213	
Earth	40095-10-15 23:17 G	16365746.30	16365746.47	16365746.65	0.0502	0.0330	
Moon	40095-10-16 02:38 G	16365746.43	16365746.61	16365746.80	0.0502	0.0303	*
Moon	40096-11-16 02:38 G	16366143.54	16366143.61	16366143.70	0.0498	0.0469	
Venus	40097-01-01 01:26 G	16366189.36	16366189.56	16366189.77	0.0498	0.0009	
Mercury	40099-05-31 02:10 G	16367069.55	16367069.59	16367069.65	0.0507	0.0485	
Mercury	40099-08-29 16:05 G	16367160.05	16367160.17	16367160.30	0.0508	0.0375	
Earth	40102-05-01 06:00 G	16368134.52	16368134.75	16368134.98	0.0526	0.0079	
Moon	40102-05-01 09:22 G	16368134.66	16368134.89	16368135.12	0.0526	0.0096	*
Venus	40102-11-04 17:31 G	16368322.06	16368322.23	16368322.41	0.0527	0.0275	

Mercury	40105-01-24 16:48 G	16369134.19	16369134.20	16369134.21	0.0520	0.0516
Mercury	40105-04-23 20:53 G	16369223.25	16369223.37	16369223.50	0.0518	0.0071
Mars	40105-10-05 17:17 G	16369387.97	16369388.22	16369388.47	0.0514	0.0045
Moon	40107-10-21 11:02 G	16370133.74	16370133.96	16370134.18	0.0501	0.0191
Earth	40107-10-21 13:26 G	16370133.85	16370134.06	16370134.27	0.0501	0.0209 *
Venus	40108-09-07 02:53 G	16370455.50	16370455.62	16370455.75	0.0498	0.0386
Mercury	40111-06-18 12:58 G	16371469.86	16371470.04	16371470.22	0.0508	0.0170
Moon	40114-05-06 01:12 G	16372522.34	16372522.55	16372522.77	0.0526	0.0189
Earth	40114-05-06 05:02 G	16372522.50	16372522.71	16372522.92	0.0526	0.0217 *
Mercury	40117-02-10 01:26 G	16373533.43	16373533.56	16373533.68	0.0518	0.0082
Mercury	40117-05-10 05:31 G	16373622.71	16373622.73	16373622.75	0.0517	0.0507
Earth	40119-10-26 03:50 G	16374521.43	16374521.66	16374521.89	0.0501	0.0090
Moon	40119-10-26 04:48 G	16374521.48	16374521.70	16374521.92	0.0501	0.0112 *
Mercury	40123-04-06 09:36 G	16375779.71	16375779.90	16375780.09	0.0507	0.0036
Earth	40126-05-11 03:50 G	16376910.49	16376910.66	16376910.83	0.0527	0.0356
Moon	40126-05-11 06:29 G	16376910.60	16376910.77	16376910.94	0.0527	0.0344 *
Venus	40126-11-07 16:19 G	16377091.09	16377091.18	16377091.28	0.0527	0.0464
Mercury	40128-11-29 06:00 G	16377843.64	16377843.75	16377843.86	0.0519	0.0224
Mercury	40129-02-26 10:19 G	16377932.84	16377932.93	16377933.02	0.0517	0.0364
Earth	40131-10-30 18:29 G	16378909.04	16378909.27	16378909.51	0.0500	0.0034
Moon	40131-10-30 19:26 G	16378909.06	16378909.31	16378909.55	0.0500	0.0012 *
Venus	40132-09-09 15:50 G	16379223.98	16379224.16	16379224.33	0.0498	0.0252
Mercury	40135-01-23 05:31 G	16380089.58	16380089.73	16380089.90	0.0507	0.0251
Earth	40137-04-10 16:05 G	16380898.09	16380898.17	16380898.26	0.0523	0.0485
Moon	40137-04-10 18:29 G	16380898.18	16380898.27	16380898.36	0.0523	0.0476 *
Moon	40138-05-16 01:26 G	16381298.52	16381298.56	16381298.60	0.0527	0.0520
Earth	40138-05-16 02:53 G	16381298.54	16381298.62	16381298.70	0.0527	0.0493 *
Venus	40138-07-13 08:10 G	16381356.64	16381356.84	16381357.04	0.0527	0.0007
Mercury	40140-09-17 10:48 G	16382153.86	16382153.95	16382154.04	0.0520	0.0366
Mercury	40140-12-15 15:07 G	16382243.01	16382243.13	16382243.24	0.0518	0.0223

Moon	40143-11-04 05:31 G	16383296.52	16383296.73	16383296.95	0.0499	0.0172
Earth	40143-11-04 08:10 G	16383296.62	16383296.84	16383297.07	0.0499	0.0153 *
Venus	40144-05-15 17:02 G	16383490.02	16383490.21	16383490.41	0.0498	0.0139
Mercury	40146-11-11 02:10 G	16384399.51	16384399.59	16384399.66	0.0506	0.0460
Mercury	40147-02-09 15:36 G	16384490.04	16384490.15	16384490.27	0.0508	0.0397
Earth	40149-04-15 15:50 G	16385285.99	16385286.16	16385286.33	0.0524	0.0350
Moon	40149-04-15 15:22 G	16385285.99	16385286.14	16385286.32	0.0524	0.0380 *
Venus	40150-03-18 02:10 G	16385622.50	16385622.59	16385622.69	0.0527	0.0466
Mercury	40152-07-06 15:50 G	16386464.13	16386464.16	16386464.18	0.0520	0.0506
Mercury	40152-10-03 19:55 G	16386553.21	16386553.33	16386553.46	0.0518	0.0081
Earth	40155-11-08 16:48 G	16387684.00	16387684.20	16387684.40	0.0499	0.0265
Moon	40155-11-08 20:38 G	16387684.17	16387684.36	16387684.55	0.0499	0.0290 *
Mercury	40158-11-28 11:17 G	16388799.79	16388799.97	16388800.14	0.0508	0.0175
Moon	40161-04-20 14:10 G	16389673.89	16389674.09	16389674.29	0.0525	0.0224
Earth	40161-04-20 15:50 G	16389673.95	16389674.16	16389674.37	0.0525	0.0214 *
Mercury	40164-07-23 00:43 G	16390863.41	16390863.53	16390863.66	0.0518	0.0062
Earth	40166-10-11 18:43 G	16391674.19	16391674.28	16391674.38	0.0502	0.0460
Moon	40166-10-11 22:05 G	16391674.35	16391674.42	16391674.51	0.0502	0.0467 *
Moon	40167-11-13 00:58 G	16392071.38	16392071.54	16392071.69	0.0498	0.0371
Earth	40167-11-13 04:48 G	16392071.56	16392071.70	16392071.86	0.0498	0.0383 *
Venus	40168-05-18 01:26 G	16392258.50	16392258.56	16392258.62	0.0498	0.0475
Mercury	40170-09-16 07:55 G	16393109.64	16393109.83	16393110.02	0.0508	0.0032
Earth	40173-04-25 14:10 G	16394061.86	16394062.09	16394062.32	0.0525	0.0078
Moon	40173-04-25 17:17 G	16394061.98	16394062.22	16394062.46	0.0525	0.0046 *
Venus	40174-03-21 02:38 G	16394391.45	16394391.61	16394391.79	0.0527	0.0284
Mercury	40176-05-11 05:02 G	16395173.60	16395173.71	16395173.83	0.0519	0.0214
Mercury	40176-08-08 09:22 G	16395262.80	16395262.89	16395262.97	0.0517	0.0373
Moon	40178-10-16 06:29 G	16396061.59	16396061.77	16396061.96	0.0502	0.0313
Earth	40178-10-16 09:07 G	16396061.71	16396061.88	16396062.05	0.0502	0.0343 *
Earth	40179-11-17 17:46 G	16396459.23	16396459.24	16396459.27	0.0499	0.0497

Moon	40179-11-17 21:22 G	16396459.32	16396459.39	16396459.47	0.0499	0.0467
Venus	40180-01-22 03:22 G	16396524.44	16396524.64	16396524.84	0.0498	0.0090
Mercury	40182-07-05 04:34 G	16397419.53	16397419.69	16397419.86	0.0507	0.0238
Moon	40185-04-30 08:38 G	16398449.63	16398449.86	16398450.09	0.0526	0.0073
Earth	40185-04-30 12:14 G	16398449.78	16398450.01	16398450.25	0.0526	0.0063 *
Venus	40185-11-23 18:29 G	16398657.08	16398657.27	16398657.46	0.0527	0.0188
Mercury	40188-02-28 09:50 G	16399483.82	16399483.91	16399483.99	0.0519	0.0361
Mercury	40188-05-27 13:55 G	16399572.97	16399573.08	16399573.19	0.0518	0.0227
Earth	40190-10-21 00:00 G	16400449.29	16400449.50	16400449.71	0.0501	0.0222
Moon	40190-10-21 01:12 G	16400449.34	16400449.55	16400449.75	0.0501	0.0208 *
Venus	40191-09-27 05:02 G	16400790.55	16400790.71	16400790.87	0.0498	0.0299
Mercury	40194-04-23 00:29 G	16401729.44	16401729.52	16401729.61	0.0506	0.0452
Mercury	40194-07-22 14:10 G	16401819.98	16401820.09	16401820.20	0.0508	0.0405
Earth	40197-05-05 09:50 G	16402837.70	16402837.91	16402838.12	0.0526	0.0203
Moon	40197-05-05 12:58 G	16402837.82	16402838.04	16402838.25	0.0526	0.0171 *
Mercury	40199-12-17 14:24 G	16403794.08	16403794.10	16403794.13	0.0520	0.0504
Mercury	40200-03-16 18:43 G	16403883.15	16403883.28	16403883.40	0.0518	0.0085
Earth	40202-10-26 14:24 G	16404836.87	16404837.10	16404837.33	0.0501	0.0099
Moon	40202-10-26 15:07 G	16404836.89	16404837.13	16404837.36	0.0501	0.0122 *
Mercury	40206-05-11 10:34 G	16406129.76	16406129.94	16406130.11	0.0508	0.0194
Moon	40209-05-11 09:50 G	16407225.72	16407225.91	16407226.09	0.0527	0.0334
Earth	40209-05-11 11:31 G	16407225.81	16407225.98	16407226.16	0.0527	0.0346 *
Mercury	40212-01-03 23:31 G	16408193.36	16408193.48	16408193.61	0.0518	0.0059
Moon	40214-10-30 21:50 G	16409224.19	16409224.41	16409224.64	0.0499	0.0007
Earth	40214-10-31 00:14 G	16409224.28	16409224.51	16409224.75	0.0499	0.0018 *
Venus	40215-09-30 13:26 G	16409558.90	16409559.06	16409559.22	0.0498	0.0315
Mercury	40218-02-27 05:46 G	16410439.55	16410439.74	16410439.93	0.0508	0.0033
Moon	40220-04-11 00:29 G	16411213.46	16411213.52	16411213.59	0.0523	0.0500
Earth	40220-04-11 01:12 G	16411213.49	16411213.55	16411213.62	0.0523	0.0502 *
Earth	40221-05-16 13:26 G	16411613.97	16411614.06	16411614.15	0.0528	0.0485

Moon	40221-05-16 12:58 G	16411614.01	16411614.04	16411614.09	0.0528	0.0517	*
Venus	40221-08-02 12:14 G	16411691.81	16411692.01	16411692.21	0.0528	0.0097	
Mercury	40223-10-23 04:19 G	16412503.57	16412503.68	16412503.80	0.0519	0.0200	
Mercury	40224-01-20 08:38 G	16412592.78	16412592.86	16412592.94	0.0517	0.0387	
Earth	40226-11-04 12:29 G	16413611.79	16413612.02	16413612.25	0.0499	0.0136	
Moon	40226-11-04 16:19 G	16413611.95	16413612.18	16413612.40	0.0499	0.0162	*
Venus	40227-06-05 14:24 G	16413824.90	16413825.10	16413825.31	0.0498	0.0077	
Mercury	40229-12-16 02:10 G	16414749.43	16414749.59	16414749.76	0.0507	0.0242	
Moon	40232-04-15 21:36 G	16415601.26	16415601.40	16415601.54	0.0524	0.0405	
Earth	40232-04-15 22:48 G	16415601.29	16415601.45	16415601.62	0.0524	0.0371	*
Venus	40233-04-07 03:50 G	16415957.52	16415957.66	16415957.80	0.0527	0.0375	
Mercury	40235-08-11 08:38 G	16416813.77	16416813.86	16416813.95	0.0519	0.0353	
Mercury	40235-11-08 12:43 G	16416902.92	16416903.03	16416903.15	0.0517	0.0235	
Moon	40238-11-08 21:07 G	16417999.19	16417999.38	16417999.58	0.0499	0.0279	
Earth	40238-11-09 01:12 G	16417999.35	16417999.55	16417999.76	0.0499	0.0254	*
Venus	40239-02-08 15:50 G	16418091.09	16418091.16	16418091.23	0.0499	0.0465	
Mercury	40241-10-03 22:48 G	16419059.37	16419059.45	16419059.54	0.0507	0.0448	
Mercury	40242-01-02 12:29 G	16419149.92	16419150.02	16419150.13	0.0508	0.0411	
Earth	40244-04-20 20:10 G	16419989.14	16419989.34	16419989.55	0.0524	0.0234	
Moon	40244-04-20 23:02 G	16419989.25	16419989.46	16419989.67	0.0524	0.0239	*
Mercury	40247-05-30 13:12 G	16421124.02	16421124.05	16421124.08	0.0520	0.0501	
Mercury	40247-08-27 17:17 G	16421213.10	16421213.22	16421213.35	0.0518	0.0087	
Moon	40249-10-11 23:17 G	16421989.41	16421989.47	16421989.56	0.0503	0.0478	
Earth	40249-10-12 02:10 G	16421989.52	16421989.59	16421989.66	0.0503	0.0477	*
Earth	40250-11-13 13:55 G	16422386.93	16422387.08	16422387.24	0.0499	0.0373	
Moon	40250-11-13 17:31 G	16422387.08	16422387.23	16422387.39	0.0499	0.0359	*
Mercury	40253-10-21 08:38 G	16423459.68	16423459.86	16423460.03	0.0508	0.0195	
Moon	40256-04-25 12:43 G	16424376.80	16424377.03	16424377.26	0.0525	0.0067	
Earth	40256-04-25 16:19 G	16424376.95	16424377.18	16424377.41	0.0525	0.0098	*
Venus	40257-04-10 01:41 G	16424726.43	16424726.57	16424726.72	0.0527	0.0357	

Mercury	40259-06-15 22:05 G	16425523.29	16425523.42	16425523.54	0.0519	0.0060
Mars	40259-12-31 23:46 G	16425722.29	16425722.49	16425722.69	0.0514	0.0316
Earth	40261-10-16 17:02 G	16426377.05	16426377.21	16426377.38	0.0502	0.0357
Moon	40261-10-16 18:14 G	16426377.09	16426377.26	16426377.43	0.0502	0.0327 *
Moon	40262-11-17 23:46 G	16426774.41	16426774.49	16426774.59	0.0498	0.0460
Earth	40262-11-18 02:10 G	16426774.55	16426774.59	16426774.64	0.0498	0.0487 *
Venus	40263-02-11 03:07 G	16426859.44	16426859.63	16426859.82	0.0498	0.0162
Mercury	40265-08-09 04:34 G	16427769.50	16427769.69	16427769.88	0.0507	0.0020
Earth	40268-04-30 16:05 G	16428764.94	16428765.17	16428765.40	0.0526	0.0046
Moon	40268-04-30 19:26 G	16428765.08	16428765.31	16428765.54	0.0526	0.0048 *
Venus	40268-12-13 18:58 G	16428992.09	16428992.29	16428992.49	0.0528	0.0107
Mercury	40271-04-04 02:53 G	16429833.51	16429833.62	16429833.74	0.0519	0.0200
Mercury	40271-07-02 07:12 G	16429922.72	16429922.80	16429922.88	0.0517	0.0388
Earth	40273-10-21 04:34 G	16430764.49	16430764.69	16430764.90	0.0501	0.0241
Moon	40273-10-21 05:02 G	16430764.49	16430764.71	16430764.93	0.0501	0.0229 *
Venus	40274-10-17 01:55 G	16431125.40	16431125.58	16431125.76	0.0498	0.0239
Mercury	40277-05-27 23:31 G	16432079.32	16432079.48	16432079.64	0.0507	0.0250
Mars	40277-11-26 01:26 G	16432261.35	16432261.56	16432261.79	0.0511	0.0348
Moon	40280-05-05 14:10 G	16433152.86	16433153.09	16433153.32	0.0527	0.0152
Earth	40280-05-05 16:19 G	16433152.97	16433153.18	16433153.40	0.0527	0.0187 *
Mercury	40283-01-21 07:41 G	16434143.73	16434143.82	16434143.92	0.0519	0.0343
Mercury	40283-04-20 11:46 G	16434232.88	16434232.99	16434233.11	0.0517	0.0245
Moon	40285-10-25 15:07 G	16435151.91	16435152.13	16435152.35	0.0500	0.0146
Earth	40285-10-25 17:17 G	16435151.99	16435152.22	16435152.45	0.0500	0.0119 *
Mercury	40289-03-15 19:55 G	16436389.26	16436389.33	16436389.41	0.0507	0.0460
Mercury	40289-06-14 09:36 G	16436479.79	16436479.90	16436480.02	0.0508	0.0400
Earth	40292-05-10 14:53 G	16437540.94	16437541.12	16437541.31	0.0527	0.0325
Moon	40292-05-10 15:22 G	16437540.97	16437541.14	16437541.32	0.0527	0.0318 *
Mercury	40294-11-09 12:00 G	16438453.96	16438454.00	16438454.03	0.0519	0.0498
Mercury	40295-02-06 16:05 G	16438543.04	16438543.17	16438543.29	0.0518	0.0089

Earth	40297-10-30 05:31 G	16439539.49	16439539.73	16439539.96	0.0500	0.0006
Moon	40297-10-30 09:07 G	16439539.64	16439539.88	16439540.12	0.0500	0.0011 *
Venus	40298-10-19 12:14 G	16439893.89	16439894.01	16439894.15	0.0498	0.0385
Mercury	40301-04-03 06:14 G	16440789.59	16440789.76	16440789.94	0.0508	0.0193
Earth	40304-05-16 13:26 G	16441928.96	16441929.06	16441929.17	0.0527	0.0463
Moon	40304-05-16 15:07 G	16441929.06	16441929.13	16441929.23	0.0527	0.0492 *
Venus	40304-08-22 10:05 G	16442026.72	16442026.92	16442027.11	0.0527	0.0165
Mercury	40306-11-26 20:24 G	16442853.23	16442853.35	16442853.48	0.0518	0.0063
Moon	40309-11-04 14:24 G	16443926.87	16443927.10	16443927.32	0.0500	0.0147
Earth	40309-11-04 18:29 G	16443927.04	16443927.27	16443927.50	0.0500	0.0120 *
Venus	40310-06-25 13:26 G	16444159.86	16444160.06	16444160.27	0.0498	0.0010
Mercury	40313-01-20 02:10 G	16445099.40	16445099.59	16445099.78	0.0507	0.0025
Earth	40315-04-16 22:19 G	16445916.28	16445916.43	16445916.59	0.0523	0.0394
Moon	40315-04-17 00:43 G	16445916.40	16445916.53	16445916.67	0.0523	0.0426 *
Venus	40316-04-27 00:43 G	16446292.37	16446292.53	16446292.70	0.0527	0.0312
Mercury	40318-09-15 01:12 G	16447163.43	16447163.55	16447163.66	0.0519	0.0209
Mercury	40318-12-13 05:17 G	16447252.64	16447252.72	16447252.81	0.0517	0.0380
Earth	40321-11-09 06:43 G	16448314.58	16448314.78	16448314.99	0.0499	0.0240
Moon	40321-11-09 10:19 G	16448314.74	16448314.93	16448315.13	0.0499	0.0264 *
Venus	40322-02-28 14:24 G	16448425.98	16448426.10	16448426.22	0.0498	0.0397
Mercury	40324-11-07 22:05 G	16449409.25	16449409.42	16449409.58	0.0507	0.0242
Moon	40327-04-21 16:48 G	16450304.01	16450304.20	16450304.40	0.0524	0.0262
Earth	40327-04-21 20:10 G	16450304.15	16450304.34	16450304.55	0.0524	0.0259 *
Mercury	40330-07-04 06:00 G	16451473.66	16451473.75	16451473.84	0.0519	0.0349
Mercury	40330-10-01 10:05 G	16451562.81	16451562.92	16451563.04	0.0517	0.0240
Earth	40332-10-12 05:31 G	16452304.71	16452304.73	16452304.76	0.0502	0.0499
Moon	40332-10-12 06:58 G	16452304.77	16452304.79	16452304.82	0.0502	0.0498
Moon	40333-11-13 13:12 G	16452701.88	16452702.05	16452702.23	0.0498	0.0337
Earth	40333-11-13 15:36 G	16452702.00	16452702.15	16452702.32	0.0498	0.0353 *
Mercury	40336-08-26 16:48 G	16453719.14	16453719.20	16453719.26	0.0507	0.0475

Mercury	40336-11-25 06:29 G	16453809.65	16453809.77	16453809.89	0.0508	0.0385
Earth	40339-04-26 18:14 G	16454692.04	16454692.26	16454692.49	0.0526	0.0122
Moon	40339-04-26 21:50 G	16454692.19	16454692.41	16454692.64	0.0526	0.0090 *
Venus	40340-04-30 01:41 G	16455061.47	16455061.57	16455061.69	0.0528	0.0438
Mercury	40342-04-22 10:48 G	16455783.91	16455783.95	16455783.99	0.0520	0.0493
Mercury	40342-07-20 14:53 G	16455873.00	16455873.12	16455873.25	0.0518	0.0095
Moon	40344-10-16 18:58 G	16456692.12	16456692.29	16456692.47	0.0501	0.0349
Earth	40344-10-16 18:43 G	16456692.14	16456692.28	16456692.44	0.0501	0.0381 *
Earth	40345-11-18 02:24 G	16457089.53	16457089.60	16457089.69	0.0498	0.0468
Moon	40345-11-18 03:07 G	16457089.53	16457089.63	16457089.73	0.0498	0.0446 *
Venus	40346-03-02 22:19 G	16457194.24	16457194.43	16457194.61	0.0498	0.0213
Mercury	40348-09-13 02:53 G	16458119.45	16458119.62	16458119.80	0.0508	0.0174
Moon	40351-05-01 13:55 G	16459079.84	16459080.08	16459080.32	0.0526	0.0019
Earth	40351-05-01 16:48 G	16459079.96	16459080.20	16459080.43	0.0526	0.0020 *
Venus	40352-01-03 16:48 G	16459327.00	16459327.20	16459327.40	0.0528	0.0035
Mercury	40354-05-08 18:58 G	16460183.17	16460183.29	16460183.42	0.0518	0.0063
Moon	40356-10-21 04:34 G	16461079.50	16461079.69	16461079.89	0.0501	0.0259
Earth	40356-10-21 06:29 G	16461079.58	16461079.77	16461079.98	0.0501	0.0263 *
Venus	40357-11-05 23:02 G	16461460.28	16461460.46	16461460.66	0.0498	0.0177
Mercury	40360-07-01 23:31 G	16462429.29	16462429.48	16462429.67	0.0507	0.0034
Earth	40363-05-06 14:38 G	16463467.89	16463468.11	16463468.33	0.0526	0.0160
Moon	40363-05-06 15:50 G	16463467.94	16463468.16	16463468.38	0.0526	0.0128 *
Venus	40363-09-08 08:10 G	16463592.79	16463592.84	16463592.90	0.0527	0.0506
Mercury	40366-02-24 23:17 G	16464493.36	16464493.47	16464493.59	0.0519	0.0214
Mercury	40366-05-25 03:36 G	16464582.56	16464582.65	16464582.73	0.0517	0.0374
Earth	40368-10-25 19:41 G	16465467.09	16465467.32	16465467.54	0.0501	0.0141
Moon	40368-10-25 23:02 G	16465467.24	16465467.46	16465467.69	0.0501	0.0171 *
Mercury	40372-04-19 19:12 G	16466739.14	16466739.30	16466739.47	0.0507	0.0252
Earth	40375-05-11 11:02 G	16467855.77	16467855.96	16467856.15	0.0527	0.0299
Moon	40375-05-11 11:46 G	16467855.80	16467855.99	16467856.20	0.0527	0.0294 *

Mercury	40377-12-14 03:50 G	16468803.57	16468803.66	16468803.75	0.0520	0.0363
Mercury	40378-03-13 08:10 G	16468892.72	16468892.84	16468892.95	0.0518	0.0226
Mars	40378-06-23 14:10 G	16468994.95	16468995.09	16468995.24	0.0516	0.0418
Moon	40380-10-30 04:34 G	16469854.46	16469854.69	16469854.93	0.0500	0.0030
Earth	40380-10-30 08:38 G	16469854.63	16469854.86	16469855.10	0.0500	0.0019 *
Venus	40381-11-08 09:22 G	16470228.80	16470228.89	16470228.98	0.0498	0.0443
Mercury	40384-02-06 14:53 G	16471049.06	16471049.12	16471049.19	0.0506	0.0471
Mercury	40384-05-07 04:34 G	16471139.57	16471139.69	16471139.81	0.0508	0.0387
Moon	40387-05-16 07:41 G	16472243.73	16472243.82	16472243.92	0.0527	0.0472
Earth	40387-05-16 10:48 G	16472243.82	16472243.95	16472244.08	0.0527	0.0440 *
Venus	40387-09-11 06:29 G	16472361.59	16472361.77	16472361.95	0.0528	0.0224
Mercury	40389-10-02 08:53 G	16473113.84	16473113.87	16473113.89	0.0520	0.0504
Mercury	40389-12-30 12:58 G	16473202.91	16473203.04	16473203.16	0.0518	0.0084
Earth	40392-11-03 19:26 G	16474242.08	16474242.31	16474242.54	0.0499	0.0097
Moon	40392-11-03 23:02 G	16474242.24	16474242.46	16474242.69	0.0499	0.0125 *
Venus	40393-07-14 08:24 G	16474494.65	16474494.85	16474495.06	0.0498	0.0047
Mercury	40396-02-23 23:17 G	16475449.30	16475449.47	16475449.65	0.0508	0.0155
Moon	40398-04-15 17:31 G	16476231.13	16476231.23	16476231.34	0.0524	0.0458
Earth	40398-04-15 20:38 G	16476231.23	16476231.36	16476231.50	0.0524	0.0424 *
Venus	40399-05-16 22:34 G	16476627.26	16476627.44	16476627.62	0.0528	0.0242
Mercury	40401-10-18 17:31 G	16477513.11	16477513.23	16477513.36	0.0518	0.0063
Moon	40404-11-08 03:36 G	16478629.45	16478629.65	16478629.87	0.0498	0.0238
Earth	40404-11-08 06:29 G	16478629.56	16478629.77	16478629.99	0.0498	0.0217 *
Venus	40405-03-19 09:07 G	16478760.74	16478760.88	16478761.03	0.0498	0.0347
Mercury	40407-12-12 19:41 G	16479759.13	16479759.32	16479759.51	0.0507	0.0058
Earth	40410-04-20 18:29 G	16480619.07	16480619.27	16480619.46	0.0524	0.0290
Moon	40410-04-20 22:05 G	16480619.23	16480619.42	16480619.62	0.0524	0.0285 *
Mercury	40413-08-06 21:36 G	16481823.29	16481823.40	16481823.52	0.0519	0.0219
Mercury	40413-11-04 01:55 G	16481912.49	16481912.58	16481912.66	0.0517	0.0368
Earth	40416-11-12 16:34 G	16483017.03	16483017.19	16483017.37	0.0499	0.0334

Moon	40416-11-12 17:31 G	16483017.06	16483017.23	16483017.41	0.0499	0.0313	*
Mercury	40419-09-30 16:05 G	16484069.02	16484069.17	16484069.33	0.0507	0.0266	
Moon	40422-04-25 12:58 G	16485006.81	16485007.04	16485007.27	0.0525	0.0116	
Earth	40422-04-25 16:05 G	16485006.95	16485007.17	16485007.39	0.0525	0.0150	*
Venus	40423-05-19 20:38 G	16485396.30	16485396.36	16485396.44	0.0527	0.0491	
Mercury	40425-05-26 02:10 G	16486133.50	16486133.59	16486133.67	0.0519	0.0371	
Mercury	40425-08-23 06:14 G	16486222.64	16486222.76	16486222.87	0.0517	0.0217	
Moon	40427-10-16 16:34 G	16487007.04	16487007.19	16487007.34	0.0502	0.0379	
Earth	40427-10-16 17:46 G	16487007.11	16487007.24	16487007.39	0.0502	0.0406	*
Earth	40428-11-17 04:05 G	16487404.58	16487404.67	16487404.77	0.0498	0.0451	
Moon	40428-11-17 05:17 G	16487404.60	16487404.72	16487404.85	0.0498	0.0428	*
Venus	40429-03-21 18:43 G	16487529.11	16487529.28	16487529.45	0.0498	0.0270	
Mercury	40431-07-19 12:00 G	16488378.95	16488379.00	16488379.05	0.0506	0.0483	
Mercury	40431-10-18 01:41 G	16488469.44	16488469.57	16488469.69	0.0508	0.0375	
Mars	40432-02-20 07:26 G	16488594.51	16488594.81	16488595.12	0.0510	0.0017	
Earth	40434-04-30 11:17 G	16489394.74	16489394.97	16489395.20	0.0525	0.0012	
Moon	40434-04-30 13:12 G	16489394.82	16489395.05	16489395.27	0.0525	0.0011	*
Venus	40435-01-22 11:02 G	16489661.76	16489661.96	16489662.16	0.0527	0.0013	
Mercury	40437-06-11 10:34 G	16490532.82	16490532.94	16490533.07	0.0518	0.0069	
Earth	40439-10-21 07:41 G	16491394.63	16491394.82	16491395.01	0.0502	0.0284	
Moon	40439-10-21 10:48 G	16491394.76	16491394.95	16491395.16	0.0502	0.0288	*
Venus	40440-11-24 19:12 G	16491795.11	16491795.30	16491795.50	0.0498	0.0122	
Mercury	40443-08-05 21:22 G	16492779.21	16492779.39	16492779.57	0.0507	0.0155	
Moon	40446-05-05 09:22 G	16493782.66	16493782.89	16493783.13	0.0526	0.0101	
Earth	40446-05-05 09:22 G	16493782.67	16493782.89	16493783.12	0.0526	0.0132	*
Venus	40446-09-27 03:07 G	16493927.53	16493927.63	16493927.73	0.0527	0.0455	
Mercury	40449-03-30 15:36 G	16494843.02	16494843.15	16494843.27	0.0519	0.0076	
Mercury	40449-06-27 19:41 G	16494932.31	16494932.32	16494932.34	0.0517	0.0513	
Moon	40451-10-25 16:34 G	16495781.98	16495782.19	16495782.41	0.0500	0.0198	
Earth	40451-10-25 20:38 G	16495782.14	16495782.36	16495782.58	0.0500	0.0165	*

Mercury	40455-05-24 16:05 G	16497088.99	16497089.17	16497089.36	0.0507	0.0078
Moon	40458-05-10 05:31 G	16498170.54	16498170.73	16498170.93	0.0527	0.0273
Earth	40458-05-10 07:55 G	16498170.63	16498170.83	16498171.03	0.0527	0.0271 *
Mercury	40461-01-16 20:10 G	16499153.23	16499153.34	16499153.46	0.0519	0.0220
Mercury	40461-04-16 00:29 G	16499242.43	16499242.52	16499242.61	0.0517	0.0368
Earth	40463-10-30 08:24 G	16500169.61	16500169.85	16500170.08	0.0500	0.0043
Moon	40463-10-30 12:14 G	16500169.78	16500170.01	16500170.24	0.0500	0.0053 *
Venus	40464-11-27 03:22 G	16500563.61	16500563.64	16500563.68	0.0497	0.0488
Mercury	40467-03-12 12:14 G	16501398.86	16501399.01	16501399.16	0.0507	0.0291
Earth	40470-05-15 06:43 G	16502558.65	16502558.78	16502558.93	0.0527	0.0412
Moon	40470-05-15 10:34 G	16502558.83	16502558.94	16502559.07	0.0527	0.0446 *
Venus	40470-09-30 02:10 G	16502696.42	16502696.59	16502696.76	0.0528	0.0283
Mercury	40472-11-05 00:14 G	16503463.43	16503463.51	16503463.60	0.0519	0.0378
Mercury	40473-02-02 04:19 G	16503552.57	16503552.68	16503552.80	0.0517	0.0210
Moon	40475-11-03 15:07 G	16504556.89	16504557.13	16504557.37	0.0500	0.0099
Earth	40475-11-03 18:14 G	16504557.03	16504557.26	16504557.49	0.0500	0.0074 *
Venus	40476-08-02 03:36 G	16504829.45	16504829.65	16504829.86	0.0498	0.0097
Mercury	40478-12-29 08:38 G	16505708.84	16505708.86	16505708.89	0.0506	0.0499
Mercury	40479-03-29 22:34 G	16505799.31	16505799.44	16505799.57	0.0508	0.0361
Earth	40481-04-14 18:58 G	16506546.18	16506546.29	16506546.41	0.0523	0.0451
Moon	40481-04-14 22:34 G	16506546.36	16506546.44	16506546.54	0.0523	0.0481 *
Venus	40482-06-04 17:31 G	16506962.05	16506962.23	16506962.42	0.0527	0.0188
Mercury	40484-11-21 08:38 G	16507862.74	16507862.86	16507862.99	0.0518	0.0061
Earth	40487-11-08 05:46 G	16508944.53	16508944.74	16508944.96	0.0499	0.0196
Moon	40487-11-08 06:58 G	16508944.59	16508944.79	16508945.00	0.0499	0.0210 *
Venus	40488-04-07 04:19 G	16509095.52	16509095.68	16509095.85	0.0498	0.0296
Mercury	40491-01-15 18:29 G	16510109.09	16510109.27	16510109.45	0.0507	0.0143
Moon	40493-04-19 09:50 G	16510933.73	16510933.91	16510934.11	0.0524	0.0313
Earth	40493-04-19 13:26 G	16510933.89	16510934.06	16510934.25	0.0524	0.0319 *
Mercury	40496-09-09 13:12 G	16512172.92	16512173.05	16512173.17	0.0519	0.0093

Mercury	40496-12-07 17:17 G	16512262.19	16512262.22	16512262.26	0.0517	0.0495
Earth	40499-11-12 18:00 G	16513332.07	16513332.25	16513332.43	0.0499	0.0315
Moon	40499-11-12 18:43 G	16513332.08	16513332.28	16513332.48	0.0499	0.0289 *
Mercury	40502-11-04 13:55 G	16514418.90	16514419.08	16514419.27	0.0507	0.0078
Earth	40505-04-25 09:50 G	16515321.70	16515321.91	16515322.13	0.0525	0.0181
Moon	40505-04-25 12:14 G	16515321.80	16515322.01	16515322.23	0.0525	0.0148 *
Mercury	40508-06-29 18:00 G	16516483.14	16516483.25	16516483.36	0.0519	0.0235
Mercury	40508-09-26 22:19 G	16516572.33	16516572.43	16516572.52	0.0517	0.0354
Earth	40510-10-16 18:58 G	16517322.18	16517322.29	16517322.42	0.0502	0.0430
Moon	40510-10-16 22:19 G	16517322.28	16517322.43	16517322.57	0.0502	0.0401 *
Moon	40511-11-18 02:24 G	16517719.47	16517719.60	16517719.73	0.0498	0.0408
Earth	40511-11-18 04:34 G	16517719.57	16517719.69	16517719.81	0.0498	0.0429 *
Venus	40512-04-10 13:26 G	16517863.91	16517864.06	16517864.22	0.0497	0.0320
Mercury	40514-08-23 08:53 G	16518728.72	16518728.87	16518729.02	0.0506	0.0308
Moon	40517-04-30 05:46 G	16519709.50	16519709.74	16519709.98	0.0526	0.0042
Earth	40517-04-30 06:43 G	16519709.55	16519709.78	16519710.01	0.0526	0.0043 *
Venus	40518-02-11 06:58 G	16519996.59	16519996.79	16519996.99	0.0528	0.0072
Mercury	40520-04-17 22:48 G	16520793.36	16520793.45	16520793.53	0.0520	0.0380
Mercury	40520-07-16 02:53 G	16520882.51	16520882.62	16520882.74	0.0518	0.0209
Moon	40522-10-21 04:19 G	16521709.50	16521709.68	16521709.87	0.0501	0.0313
Earth	40522-10-21 08:10 G	16521709.66	16521709.84	16521710.03	0.0501	0.0309 *
Venus	40523-12-15 14:10 G	16522129.89	16522130.09	16522130.29	0.0498	0.0072
Mercury	40526-09-09 18:29 G	16523129.14	16523129.27	16523129.42	0.0508	0.0338
Moon	40529-05-05 04:19 G	16524097.46	16524097.68	16524097.91	0.0526	0.0072
Earth	40529-05-05 06:00 G	16524097.52	16524097.75	16524097.97	0.0526	0.0102 *
Venus	40529-10-16 22:34 G	16524262.31	16524262.44	16524262.58	0.0527	0.0397
Mercury	40532-05-04 06:58 G	16525192.66	16525192.79	16525192.91	0.0518	0.0051
Mars	40532-09-16 16:48 G	16525327.97	16525328.20	16525328.43	0.0515	0.0196
Earth	40534-10-25 18:00 G	16526097.03	16526097.25	16526097.47	0.0501	0.0190
Moon	40534-10-25 21:50 G	16526097.21	16526097.41	16526097.62	0.0501	0.0223 *

Venus	40535-08-20 13:41 G	16526396.00	16526396.07	16526396.14	0.0498	0.0467
Mercury	40538-06-28 15:22 G	16527438.96	16527439.14	16527439.32	0.0508	0.0131
Earth	40541-05-10 05:02 G	16528485.51	16528485.71	16528485.92	0.0526	0.0245
Moon	40541-05-10 08:38 G	16528485.66	16528485.86	16528486.07	0.0526	0.0253 *
Mercury	40544-02-21 11:17 G	16529502.85	16529502.97	16529503.10	0.0518	0.0101
Mercury	40544-05-20 15:36 G	16529592.11	16529592.15	16529592.19	0.0517	0.0487
Moon	40546-10-30 02:53 G	16530484.39	16530484.62	16530484.86	0.0500	0.0079
Earth	40546-10-30 06:14 G	16530484.53	16530484.76	16530485.00	0.0500	0.0068 *
Mercury	40550-04-16 11:17 G	16531748.79	16531748.97	16531749.16	0.0507	0.0086
Moon	40553-05-14 21:07 G	16532873.25	16532873.38	16532873.53	0.0527	0.0419
Earth	40553-05-15 01:26 G	16532873.40	16532873.56	16532873.72	0.0527	0.0384 *
Venus	40553-10-19 20:24 G	16533031.19	16533031.35	16533031.51	0.0527	0.0330
Mercury	40555-12-10 15:50 G	16533813.05	16533813.16	16533813.26	0.0519	0.0253
Mercury	40556-03-08 19:55 G	16533902.24	16533902.33	16533902.43	0.0517	0.0337
Earth	40558-11-03 19:26 G	16534872.07	16534872.31	16534872.54	0.0500	0.0055
Moon	40558-11-03 20:53 G	16534872.15	16534872.37	16534872.59	0.0500	0.0082 *
Venus	40559-08-22 23:46 G	16535164.30	16535164.49	16535164.69	0.0498	0.0152
Mercury	40562-02-02 06:58 G	16536058.64	16536058.79	16536058.94	0.0506	0.0306
Moon	40564-04-14 10:19 G	16536860.89	16536860.93	16536860.98	0.0523	0.0511
Earth	40564-04-14 14:10 G	16536861.00	16536861.09	16536861.18	0.0523	0.0480
Earth	40565-05-20 00:00 G	16537261.49	16537261.50	16537261.53	0.0527	0.0524
Venus	40565-06-24 12:00 G	16537296.80	16537297.00	16537297.19	0.0528	0.0139
Mercury	40567-09-28 20:38 G	16538123.28	16538123.36	16538123.44	0.0520	0.0395
Mercury	40567-12-27 00:43 G	16538212.41	16538212.53	16538212.65	0.0518	0.0195
Earth	40570-11-08 07:55 G	16539259.61	16539259.83	16539260.05	0.0499	0.0175
Moon	40570-11-08 08:24 G	16539259.63	16539259.85	16539260.08	0.0499	0.0183 *
Venus	40571-04-28 00:29 G	16539430.34	16539430.52	16539430.70	0.0498	0.0239
Mercury	40574-02-19 15:36 G	16540459.01	16540459.15	16540459.29	0.0508	0.0324
Earth	40576-04-19 09:07 G	16541248.71	16541248.88	16541249.06	0.0524	0.0349
Moon	40576-04-19 12:00 G	16541248.84	16541249.00	16541249.18	0.0524	0.0342 *

Mercury	40579-10-15 05:31 G	16542522.60	16542522.73	16542522.86	0.0519	0.0051
Moon	40582-11-12 17:31 G	16543647.04	16543647.23	16543647.42	0.0498	0.0269
Earth	40582-11-12 19:26 G	16543647.12	16543647.31	16543647.50	0.0498	0.0296 *
Mercury	40585-12-08 12:00 G	16544768.81	16544769.00	16544769.18	0.0507	0.0113
Mars	40586-05-15 22:05 G	16544927.15	16544927.42	16544927.68	0.0511	0.0244
Moon	40588-04-24 06:29 G	16545636.55	16545636.77	16545637.00	0.0525	0.0176
Earth	40588-04-24 08:10 G	16545636.62	16545636.84	16545637.05	0.0525	0.0209 *
Mercury	40591-08-03 09:36 G	16546832.78	16546832.90	16546833.02	0.0519	0.0106
Mercury	40591-10-31 13:41 G	16546922.03	16546922.07	16546922.12	0.0517	0.0481
Moon	40593-10-15 12:29 G	16547636.91	16547637.02	16547637.15	0.0503	0.0427
Earth	40593-10-15 16:19 G	16547637.09	16547637.18	16547637.28	0.0503	0.0456 *
Earth	40594-11-17 03:50 G	16548034.53	16548034.66	16548034.79	0.0499	0.0411
Moon	40594-11-17 06:43 G	16548034.64	16548034.78	16548034.94	0.0499	0.0390 *
Venus	40595-04-30 08:38 G	16548198.73	16548198.86	16548199.00	0.0498	0.0370
Mercury	40597-09-26 08:24 G	16549078.67	16549078.85	16549079.04	0.0507	0.0096
Moon	40600-04-30 06:43 G	16550024.56	16550024.78	16550025.00	0.0525	0.0069
Earth	40600-04-30 07:26 G	16550024.58	16550024.81	16550025.04	0.0525	0.0064 *
Venus	40601-03-03 03:50 G	16550331.46	16550331.66	16550331.86	0.0527	0.0134
Mercury	40603-05-23 14:10 G	16551142.98	16551143.09	16551143.20	0.0519	0.0256
Mercury	40603-08-20 18:14 G	16551232.16	16551232.26	16551232.36	0.0517	0.0332
Earth	40605-10-21 05:31 G	16552024.56	16552024.73	16552024.91	0.0502	0.0333
Moon	40605-10-21 09:50 G	16552024.73	16552024.91	16552025.08	0.0502	0.0338 *
Venus	40607-01-04 09:36 G	16552464.69	16552464.90	16552465.10	0.0498	0.0023
Mercury	40609-07-16 04:34 G	16553388.54	16553388.69	16553388.84	0.0507	0.0310
Earth	40612-05-05 03:22 G	16554412.41	16554412.64	16554412.87	0.0526	0.0076
Moon	40612-05-05 06:29 G	16554412.53	16554412.77	16554413.00	0.0526	0.0046 *
Venus	40612-11-05 18:14 G	16554597.11	16554597.26	16554597.42	0.0527	0.0340
Mercury	40615-03-11 18:29 G	16555453.20	16555453.27	16555453.35	0.0520	0.0407
Mercury	40615-06-08 22:34 G	16555542.33	16555542.44	16555542.56	0.0518	0.0182
Moon	40617-10-25 16:19 G	16556411.97	16556412.18	16556412.39	0.0501	0.0241

Earth	40617-10-25 19:55 G	16556412.12	16556412.33	16556412.55	0.0501	0.0210	*
Venus	40618-09-09 10:34 G	16556730.83	16556730.94	16556731.06	0.0498	0.0409	
Mercury	40621-08-02 13:55 G	16557788.95	16557789.08	16557789.23	0.0508	0.0332	
Moon	40624-05-09 21:07 G	16558800.18	16558800.38	16558800.59	0.0526	0.0225	
Earth	40624-05-10 01:12 G	16558800.34	16558800.55	16558800.76	0.0526	0.0219	*
Mercury	40627-03-28 03:22 G	16559852.52	16559852.64	16559852.77	0.0519	0.0044	
Earth	40629-10-30 10:19 G	16560799.70	16560799.93	16560800.16	0.0500	0.0086	
Moon	40629-10-30 12:14 G	16560799.79	16560800.01	16560800.23	0.0500	0.0089	*
Mercury	40633-05-21 09:22 G	16562098.71	16562098.89	16562099.07	0.0507	0.0106	
Earth	40636-05-14 23:17 G	16563188.31	16563188.47	16563188.64	0.0527	0.0360	
Moon	40636-05-15 03:07 G	16563188.49	16563188.63	16563188.79	0.0527	0.0395	*
Venus	40636-11-08 17:17 G	16563366.09	16563366.22	16563366.36	0.0528	0.0394	
Mercury	40639-01-14 08:10 G	16564162.72	16564162.84	16564162.97	0.0519	0.0105	
Mercury	40639-04-13 12:29 G	16564251.98	16564252.02	16564252.06	0.0517	0.0485	
Earth	40641-11-03 23:17 G	16565187.24	16565187.47	16565187.70	0.0500	0.0038	
Moon	40641-11-03 23:31 G	16565187.24	16565187.48	16565187.72	0.0500	0.0066	*
Venus	40642-09-11 20:53 G	16565499.19	16565499.37	16565499.56	0.0498	0.0211	
Mercury	40645-03-09 05:31 G	16566408.55	16566408.73	16566408.92	0.0507	0.0106	
Earth	40647-04-15 14:38 G	16567176.05	16567176.11	16567176.17	0.0523	0.0504	
Moon	40648-05-19 21:50 G	16567576.35	16567576.41	16567576.48	0.0527	0.0504	
Earth	40648-05-20 00:14 G	16567576.46	16567576.51	16567576.59	0.0527	0.0505	*
Venus	40648-07-14 09:50 G	16567631.71	16567631.91	16567632.11	0.0527	0.0070	
Mercury	40650-11-02 12:29 G	16568472.91	16568473.02	16568473.13	0.0519	0.0259	
Mercury	40651-01-30 16:34 G	16568562.10	16568562.19	16568562.29	0.0517	0.0329	
Moon	40653-11-08 06:00 G	16569574.54	16569574.75	16569574.97	0.0499	0.0164	
Earth	40653-11-08 07:41 G	16569574.60	16569574.82	16569575.05	0.0499	0.0156	*
Venus	40654-05-17 19:55 G	16569765.14	16569765.33	16569765.52	0.0498	0.0188	
Mercury	40656-12-26 02:10 G	16570718.44	16570718.59	16570718.74	0.0507	0.0313	
Moon	40659-04-20 12:00 G	16571563.82	16571564.00	16571564.17	0.0523	0.0358	
Earth	40659-04-20 13:55 G	16571563.92	16571564.08	16571564.25	0.0523	0.0366	*

Mercury	40662-08-21 17:02 G	16572783.14	16572783.21	16572783.29	0.0519	0.0406
Mercury	40662-11-18 21:07 G	16572872.27	16572872.38	16572872.50	0.0518	0.0182
Earth	40665-11-12 19:55 G	16573962.14	16573962.33	16573962.53	0.0499	0.0279
Moon	40665-11-12 22:48 G	16573962.25	16573962.45	16573962.67	0.0499	0.0251 *
Mercury	40669-01-12 12:14 G	16575118.87	16575119.01	16575119.15	0.0508	0.0335
Earth	40671-04-25 09:50 G	16575951.70	16575951.91	16575952.12	0.0524	0.0230
Moon	40671-04-25 09:36 G	16575951.70	16575951.90	16575952.11	0.0524	0.0202 *
Mercury	40674-09-07 01:41 G	16577182.44	16577182.57	16577182.69	0.0518	0.0032
Earth	40676-10-15 19:26 G	16577952.24	16577952.31	16577952.39	0.0503	0.0475
Moon	40676-10-15 23:46 G	16577952.38	16577952.49	16577952.60	0.0503	0.0445 *
Moon	40677-11-17 05:17 G	16578349.58	16578349.72	16578349.88	0.0499	0.0381
Earth	40677-11-17 08:53 G	16578349.74	16578349.87	16578350.02	0.0499	0.0399 *
Venus	40678-05-20 06:58 G	16578533.70	16578533.79	16578533.89	0.0498	0.0435
Mercury	40680-10-31 08:10 G	16579428.66	16579428.84	16579429.02	0.0507	0.0119
Earth	40683-04-30 06:43 G	16580339.55	16580339.78	16580340.00	0.0525	0.0089
Moon	40683-04-30 09:07 G	16580339.64	16580339.88	16580340.11	0.0525	0.0100 *
Venus	40684-03-22 00:43 G	16580666.34	16580666.53	16580666.72	0.0527	0.0196
Mercury	40686-06-26 06:29 G	16581492.65	16581492.77	16581492.89	0.0519	0.0111
Mercury	40686-09-23 10:34 G	16581581.90	16581581.94	16581581.99	0.0517	0.0479
Mars	40686-12-12 05:17 G	16581661.47	16581661.72	16581661.97	0.0516	0.0072
Moon	40688-10-20 08:10 G	16582339.68	16582339.84	16582340.02	0.0502	0.0354
Earth	40688-10-20 12:00 G	16582339.83	16582340.00	16582340.17	0.0502	0.0350 *
Venus	40690-01-23 08:24 G	16582799.64	16582799.85	16582800.05	0.0498	0.0049
Mercury	40692-08-19 03:36 G	16583738.47	16583738.65	16583738.84	0.0507	0.0104
Moon	40695-05-05 00:00 G	16584727.27	16584727.50	16584727.73	0.0526	0.0021
Earth	40695-05-05 03:50 G	16584727.43	16584727.66	16584727.89	0.0526	0.0055 *
Venus	40695-11-25 16:34 G	16584932.02	16584932.19	16584932.36	0.0528	0.0271
Mercury	40698-04-14 11:17 G	16585802.86	16585802.97	16585803.08	0.0520	0.0253
Mercury	40698-07-12 15:36 G	16585892.05	16585892.15	16585892.24	0.0518	0.0337
Earth	40700-10-26 02:24 G	16586727.39	16586727.60	16586727.81	0.0501	0.0225

Moon	40700-10-26 04:34 G	16586727.49	16586727.69	16586727.88	0.0501	0.0253 *
Venus	40701-09-29 09:22 G	16587065.75	16587065.89	16587066.04	0.0498	0.0340
Mercury	40704-06-08 00:00 G	16588048.35	16588048.50	16588048.65	0.0506	0.0314
Earth	40707-05-11 04:48 G	16589115.48	16589115.70	16589115.91	0.0526	0.0201
Moon	40707-05-11 08:38 G	16589115.65	16589115.86	16589116.08	0.0526	0.0210 *
Mercury	40710-02-01 15:36 G	16590113.08	16590113.15	16590113.23	0.0519	0.0405
Mercury	40710-05-01 19:55 G	16590202.21	16590202.33	16590202.44	0.0518	0.0184
Moon	40712-10-30 11:17 G	16591114.73	16591114.97	16591115.21	0.0501	0.0101
Earth	40712-10-30 11:31 G	16591114.75	16591114.98	16591115.21	0.0501	0.0105 *
Mercury	40716-06-25 10:19 G	16592448.79	16592448.93	16592449.07	0.0508	0.0338
Moon	40719-05-16 03:07 G	16593503.47	16593503.63	16593503.79	0.0527	0.0379
Earth	40719-05-16 06:00 G	16593503.59	16593503.75	16593503.93	0.0527	0.0349 *
Venus	40719-11-29 18:29 G	16593701.18	16593701.27	16593701.35	0.0527	0.0477
Mercury	40722-02-18 00:29 G	16594512.40	16594512.52	16594512.65	0.0518	0.0038
Moon	40724-11-03 23:17 G	16595502.24	16595502.47	16595502.69	0.0500	0.0051
Earth	40724-11-04 00:43 G	16595502.30	16595502.53	16595502.77	0.0500	0.0022 *
Venus	40725-10-01 18:14 G	16595834.09	16595834.26	16595834.43	0.0498	0.0270
Mercury	40728-04-13 06:43 G	16596758.60	16596758.78	16596758.97	0.0508	0.0129
Earth	40730-04-15 20:38 G	16597491.36	16597491.36	16597491.38	0.0522	0.0521
Earth	40731-05-21 04:05 G	16597891.58	16597891.67	16597891.75	0.0527	0.0488
Moon	40731-05-21 04:48 G	16597891.61	16597891.70	16597891.79	0.0527	0.0481 *
Venus	40731-08-04 09:36 G	16597966.69	16597966.90	16597967.10	0.0527	0.0014
Mercury	40733-12-07 05:02 G	16598822.59	16598822.71	16598822.83	0.0519	0.0112
Mercury	40734-03-06 09:07 G	16598911.84	16598911.88	16598911.93	0.0517	0.0476
Earth	40736-11-08 14:53 G	16599889.90	16599890.12	16599890.34	0.0500	0.0144
Moon	40736-11-08 17:46 G	16599890.01	16599890.24	16599890.47	0.0500	0.0149 *
Venus	40737-06-06 19:41 G	16600100.12	16600100.32	16600100.52	0.0499	0.0115
Mercury	40740-01-31 02:53 G	16601068.44	16601068.62	16601068.81	0.0507	0.0086
Earth	40742-04-20 16:48 G	16601879.05	16601879.20	16601879.36	0.0523	0.0387
Moon	40742-04-20 17:17 G	16601879.07	16601879.22	16601879.38	0.0523	0.0377 *

Venus	40743-04-09 01:26 G	16602232.47	16602232.56	16602232.66	0.0527	0.0458
Mercury	40745-09-25 09:50 G	16603132.80	16603132.91	16603133.02	0.0519	0.0255
Mercury	40745-12-23 13:55 G	16603221.99	16603222.08	16603222.18	0.0518	0.0335
Moon	40748-11-13 01:41 G	16604277.37	16604277.57	16604277.78	0.0499	0.0239
Earth	40748-11-13 05:17 G	16604277.53	16604277.72	16604277.92	0.0499	0.0268 *
Mercury	40751-11-18 22:34 G	16605378.29	16605378.44	16605378.59	0.0506	0.0305
Earth	40754-04-25 12:43 G	16606266.83	16606267.03	16606267.24	0.0524	0.0249
Moon	40754-04-25 14:38 G	16606266.90	16606267.11	16606267.33	0.0524	0.0223 *
Mercury	40757-07-14 14:38 G	16607443.03	16607443.11	16607443.19	0.0520	0.0396
Mercury	40757-10-11 18:58 G	16607532.17	16607532.29	16607532.40	0.0518	0.0194
Moon	40759-10-17 00:43 G	16608267.44	16608267.53	16608267.64	0.0503	0.0458
Earth	40759-10-17 04:34 G	16608267.64	16608267.69	16608267.76	0.0503	0.0487 *
Earth	40760-11-17 18:00 G	16608665.11	16608665.25	16608665.40	0.0499	0.0390
Moon	40760-11-17 21:36 G	16608665.25	16608665.40	16608665.55	0.0499	0.0383 *
Mercury	40763-12-06 08:53 G	16609778.73	16609778.87	16609779.00	0.0508	0.0346
Moon	40766-04-30 09:50 G	16610654.69	16610654.91	16610655.13	0.0525	0.0121
Earth	40766-04-30 13:26 G	16610654.83	16610655.06	16610655.29	0.0525	0.0103 *
Venus	40767-04-12 02:24 G	16611001.44	16611001.60	16611001.78	0.0527	0.0284
Mercury	40769-07-30 23:17 G	16611842.35	16611842.47	16611842.60	0.0518	0.0045
Earth	40771-10-21 14:53 G	16612654.97	16612655.12	16612655.28	0.0502	0.0368
Moon	40771-10-21 17:17 G	16612655.08	16612655.22	16612655.37	0.0502	0.0378 *
Venus	40773-02-12 06:00 G	16613134.55	16613134.75	16613134.95	0.0498	0.0110
Mercury	40775-09-24 05:17 G	16614088.54	16614088.72	16614088.90	0.0508	0.0137
Earth	40778-05-05 14:38 G	16615042.88	16615043.11	16615043.34	0.0525	0.0046
Moon	40778-05-05 18:43 G	16615043.05	16615043.28	16615043.51	0.0525	0.0015 *
Venus	40778-12-15 20:10 G	16615267.15	16615267.34	16615267.53	0.0527	0.0173
Mercury	40781-05-19 04:05 G	16616152.55	16616152.67	16616152.79	0.0518	0.0101
Mercury	40781-08-16 08:10 G	16616241.80	16616241.84	16616241.88	0.0517	0.0486
Moon	40783-10-26 05:02 G	16617042.51	16617042.71	16617042.92	0.0502	0.0268
Earth	40783-10-26 05:17 G	16617042.52	16617042.72	16617042.93	0.0502	0.0243 *

Venus	40784-10-18 07:26 G	16617400.64	16617400.81	16617400.98	0.0499	0.0277
Mercury	40787-07-13 01:55 G	16618398.39	16618398.58	16618398.76	0.0507	0.0072
Moon	40790-05-10 09:07 G	16619430.66	16619430.88	16619431.10	0.0526	0.0196
Earth	40790-05-10 12:29 G	16619430.81	16619431.02	16619431.24	0.0526	0.0188 *
Mercury	40793-03-07 08:38 G	16620462.75	16620462.86	16620462.97	0.0519	0.0250
Mercury	40793-06-04 12:43 G	16620551.94	16620552.03	16620552.13	0.0517	0.0338
Moon	40795-10-30 18:58 G	16621430.07	16621430.29	16621430.51	0.0501	0.0107
Earth	40795-10-30 20:24 G	16621430.13	16621430.35	16621430.58	0.0501	0.0118 *
Mercury	40799-04-30 22:05 G	16622708.27	16622708.42	16622708.58	0.0507	0.0283
Earth	40802-05-15 10:48 G	16623818.78	16623818.95	16623819.14	0.0526	0.0333
Moon	40802-05-15 12:14 G	16623818.85	16623819.01	16623819.18	0.0526	0.0361 *
Mercury	40804-12-24 13:26 G	16624772.98	16624773.06	16624773.14	0.0520	0.0393
Mercury	40805-03-23 17:31 G	16624862.12	16624862.23	16624862.35	0.0518	0.0197
Earth	40807-11-04 12:14 G	16625817.77	16625818.01	16625818.24	0.0500	0.0011
Moon	40807-11-04 15:07 G	16625817.89	16625818.13	16625818.37	0.0500	0.0043 *
Venus	40808-10-20 20:10 G	16626169.20	16626169.34	16626169.48	0.0498	0.0353
Mercury	40811-02-16 18:00 G	16627018.22	16627018.25	16627018.28	0.0506	0.0499
Mercury	40811-05-18 07:41 G	16627108.69	16627108.82	16627108.96	0.0508	0.0361
Earth	40814-05-20 10:05 G	16628206.82	16628206.92	16628207.01	0.0527	0.0476
Moon	40814-05-20 10:48 G	16628206.84	16628206.95	16628207.08	0.0527	0.0459 *
Venus	40814-08-23 11:02 G	16628301.76	16628301.96	16628302.16	0.0527	0.0094
Mercury	40817-01-09 22:34 G	16629172.32	16629172.44	16629172.57	0.0519	0.0057
Moon	40819-11-08 22:48 G	16630205.23	16630205.45	16630205.67	0.0500	0.0138
Earth	40819-11-09 02:24 G	16630205.37	16630205.60	16630205.82	0.0500	0.0138 *
Venus	40820-06-25 21:36 G	16630435.19	16630435.40	16630435.60	0.0498	0.0034
Mercury	40823-03-06 04:19 G	16631418.50	16631418.68	16631418.86	0.0507	0.0153
Earth	40825-04-20 01:55 G	16632194.44	16632194.58	16632194.74	0.0523	0.0399
Moon	40825-04-20 03:36 G	16632194.49	16632194.65	16632194.82	0.0523	0.0378 *
Venus	40826-04-28 05:02 G	16632567.56	16632567.71	16632567.86	0.0527	0.0361
Mercury	40828-10-29 03:07 G	16633482.51	16633482.63	16633482.76	0.0518	0.0091

Mercury	40829-01-26 07:12 G	16633571.77	16633571.80	16633571.84	0.0517	0.0496
Earth	40831-11-13 10:48 G	16634592.75	16634592.95	16634593.15	0.0499	0.0257
Moon	40831-11-13 14:24 G	16634592.90	16634593.10	16634593.31	0.0499	0.0227 *
Venus	40832-02-29 20:10 G	16634701.24	16634701.34	16634701.44	0.0499	0.0433
Mercury	40834-12-23 00:43 G	16635728.34	16635728.53	16635728.72	0.0508	0.0059
Moon	40837-04-24 23:17 G	16636582.27	16636582.47	16636582.68	0.0524	0.0234
Earth	40837-04-25 02:53 G	16636582.42	16636582.62	16636582.82	0.0524	0.0256 *
Mercury	40840-08-17 07:55 G	16637792.72	16637792.83	16637792.95	0.0519	0.0234
Mercury	40840-11-14 12:00 G	16637881.91	16637882.00	16637882.10	0.0517	0.0354
Mars	40841-03-08 12:00 G	16637995.87	16637996.00	16637996.14	0.0514	0.0430
Moon	40842-10-16 12:00 G	16638582.94	16638583.00	16638583.07	0.0503	0.0481
Moon	40843-11-17 21:07 G	16638980.22	16638980.38	16638980.54	0.0499	0.0375
Earth	40843-11-18 00:00 G	16638980.35	16638980.50	16638980.65	0.0499	0.0380 *
Mercury	40846-10-10 21:22 G	16640038.23	16640038.39	16640038.55	0.0507	0.0266
Earth	40849-04-30 00:29 G	16640970.29	16640970.52	16640970.75	0.0524	0.0114
Moon	40849-04-30 04:34 G	16640970.47	16640970.69	16640970.91	0.0524	0.0136 *
Venus	40850-05-01 05:46 G	16641336.60	16641336.74	16641336.88	0.0527	0.0380
Mercury	40852-06-05 12:29 G	16642102.94	16642103.02	16642103.11	0.0519	0.0383
Mercury	40852-09-02 16:34 G	16642192.08	16642192.19	16642192.31	0.0518	0.0206
Moon	40854-10-21 00:58 G	16642970.39	16642970.54	16642970.69	0.0503	0.0397
Earth	40854-10-21 01:12 G	16642970.41	16642970.55	16642970.72	0.0503	0.0381 *
Venus	40856-03-03 08:24 G	16643469.67	16643469.85	16643470.04	0.0499	0.0196
Mercury	40858-07-29 17:46 G	16644348.18	16644348.24	16644348.30	0.0506	0.0475
Mercury	40858-10-28 07:41 G	16644438.70	16644438.82	16644438.94	0.0508	0.0387
Mars	40859-01-28 16:48 G	16644530.92	16644531.20	16644531.48	0.0510	0.0202
Moon	40861-05-04 18:43 G	16645358.05	16645358.28	16645358.52	0.0525	0.0007
Earth	40861-05-04 22:34 G	16645358.20	16645358.44	16645358.67	0.0525	0.0033 *
Venus	40862-01-03 21:50 G	16645602.21	16645602.41	16645602.62	0.0527	0.0085
Mercury	40864-06-21 21:22 G	16646502.27	16646502.39	16646502.52	0.0518	0.0066
Moon	40866-10-25 16:48 G	16647358.01	16647358.20	16647358.39	0.0502	0.0276

Earth	40866-10-25 18:14 G	16647358.06	16647358.26	16647358.47	0.0502	0.0251	*
Venus	40867-11-07 10:48 G	16647735.76	16647735.95	16647736.14	0.0499	0.0187	
Mercury	40870-08-16 03:36 G	16648748.48	16648748.65	16648748.83	0.0507	0.0172	
Earth	40873-05-09 20:10 G	16649746.13	16649746.34	16649746.56	0.0526	0.0177	
Moon	40873-05-09 22:05 G	16649746.21	16649746.42	16649746.63	0.0526	0.0194	*
Mercury	40876-04-10 02:24 G	16650812.48	16650812.60	16650812.73	0.0519	0.0076	
Mercury	40876-07-08 06:43 G	16650901.76	16650901.78	16650901.79	0.0517	0.0512	
Earth	40878-10-30 09:36 G	16651745.68	16651745.90	16651746.13	0.0501	0.0124	
Moon	40878-10-30 12:43 G	16651745.80	16651746.03	16651746.27	0.0501	0.0107	*
Mercury	40882-06-04 00:14 G	16653058.32	16653058.51	16653058.70	0.0507	0.0036	
Earth	40885-05-14 22:34 G	16654134.26	16654134.44	16654134.62	0.0526	0.0328	
Moon	40885-05-14 23:17 G	16654134.29	16654134.47	16654134.65	0.0526	0.0349	*
Mercury	40888-01-28 07:12 G	16655122.69	16655122.80	16655122.91	0.0519	0.0221	
Mercury	40888-04-26 11:17 G	16655211.88	16655211.97	16655212.06	0.0517	0.0366	
Moon	40890-11-03 15:50 G	16656132.93	16656133.16	16656133.39	0.0500	0.0029	
Earth	40890-11-03 19:26 G	16656133.07	16656133.31	16656133.54	0.0500	0.0009	*
Venus	40891-11-09 19:41 G	16656504.21	16656504.32	16656504.43	0.0498	0.0423	
Mercury	40894-03-22 20:10 G	16657368.18	16657368.34	16657368.51	0.0507	0.0252	
Moon	40897-05-19 22:48 G	16658522.34	16658522.45	16658522.57	0.0527	0.0456	
Earth	40897-05-20 01:12 G	16658522.46	16658522.55	16658522.66	0.0527	0.0476	*
Venus	40897-09-11 17:46 G	16658637.05	16658637.24	16658637.43	0.0527	0.0206	
Mercury	40899-11-16 12:00 G	16659432.91	16659433.00	16659433.09	0.0519	0.0362	
Mercury	40900-02-13 16:05 G	16659522.06	16659522.17	16659522.29	0.0517	0.0225	
Earth	40902-11-09 08:53 G	16660520.65	16660520.87	16660521.10	0.0500	0.0126	
Moon	40902-11-09 12:43 G	16660520.80	16660521.03	16660521.26	0.0500	0.0117	*
Venus	40903-07-16 21:07 G	16660770.18	16660770.38	16660770.58	0.0499	0.0038	
Mercury	40906-01-09 16:48 G	16661678.13	16661678.20	16661678.29	0.0507	0.0458	
Mercury	40906-04-10 06:58 G	16661768.68	16661768.79	16661768.90	0.0509	0.0407	
Moon	40908-04-20 12:14 G	16662509.86	16662510.01	16662510.17	0.0523	0.0384	
Earth	40908-04-20 15:36 G	16662510.01	16662510.15	16662510.29	0.0523	0.0410	*

Venus	40909-05-18 09:36 G	16662902.73	16662902.90	16662903.08	0.0527	0.0257
Mercury	40911-09-05 16:34 G	16663743.17	16663743.19	16663743.21	0.0519	0.0511
Mercury	40911-12-03 20:38 G	16663832.24	16663832.36	16663832.49	0.0518	0.0077
Moon	40914-11-13 20:53 G	16664908.16	16664908.37	16664908.59	0.0500	0.0220
Earth	40914-11-13 23:46 G	16664908.29	16664908.49	16664908.69	0.0500	0.0251 *
Venus	40915-03-21 23:02 G	16665036.32	16665036.46	16665036.62	0.0499	0.0344
Mercury	40918-01-27 03:36 G	16666078.48	16666078.65	16666078.82	0.0508	0.0199
Earth	40920-04-25 12:43 G	16666897.83	16666898.03	16666898.23	0.0523	0.0269
Moon	40920-04-25 16:48 G	16666898.00	16666898.20	16666898.40	0.0523	0.0249 *
Mercury	40923-09-22 01:26 G	16668142.44	16668142.56	16668142.69	0.0518	0.0067
Moon	40925-10-16 22:19 G	16668898.40	16668898.43	16668898.47	0.0504	0.0497
Earth	40926-11-18 14:24 G	16669295.96	16669296.10	16669296.26	0.0499	0.0377
Moon	40926-11-18 16:05 G	16669296.03	16669296.17	16669296.32	0.0499	0.0380 *
Mercury	40929-11-14 23:46 G	16670388.30	16670388.49	16670388.67	0.0507	0.0017
Moon	40932-04-30 05:31 G	16671285.51	16671285.73	16671285.96	0.0524	0.0148
Earth	40932-04-30 09:36 G	16671285.67	16671285.90	16671286.12	0.0524	0.0126 *
Venus	40933-05-21 08:53 G	16671671.79	16671671.87	16671671.97	0.0527	0.0475
Mercury	40935-07-11 06:29 G	16672452.65	16672452.77	16672452.88	0.0519	0.0207
Mercury	40935-10-08 10:34 G	16672541.86	16672541.94	16672542.03	0.0517	0.0382
Moon	40937-10-21 14:10 G	16673285.96	16673286.09	16673286.22	0.0503	0.0413
Earth	40937-10-21 15:36 G	16673286.01	16673286.15	16673286.31	0.0503	0.0387 *
Earth	40938-11-23 04:05 G	16673683.66	16673683.67	16673683.69	0.0499	0.0498
Venus	40939-03-24 12:00 G	16673804.83	16673805.00	16673805.17	0.0498	0.0285
Mercury	40941-09-02 20:10 G	16674698.17	16674698.34	16674698.51	0.0507	0.0224
Earth	40944-05-05 10:34 G	16675673.71	16675673.94	16675674.18	0.0525	0.0026
Moon	40944-05-05 12:43 G	16675673.81	16675674.03	16675674.26	0.0525	0.0007 *
Venus	40945-01-24 03:22 G	16675937.44	16675937.64	16675937.84	0.0527	0.0022
Mercury	40947-04-29 11:17 G	16676762.88	16676762.97	16676763.06	0.0519	0.0349
Mercury	40947-07-27 15:22 G	16676852.03	16676852.14	16676852.25	0.0517	0.0238
Earth	40949-10-26 02:38 G	16677673.41	16677673.61	16677673.81	0.0502	0.0265

Moon	40949-10-26 05:31 G	16677673.54	16677673.73	16677673.93	0.0502	0.0287	*
Venus	40950-11-27 10:34 G	16678070.74	16678070.94	16678071.14	0.0499	0.0114	
Mercury	40953-06-21 15:50 G	16679008.08	16679008.16	16679008.26	0.0507	0.0444	
Mercury	40953-09-20 06:00 G	16679098.65	16679098.75	16679098.85	0.0509	0.0422	
Earth	40956-05-10 12:29 G	16680061.81	16680062.02	16680062.25	0.0526	0.0175	
Moon	40956-05-10 12:58 G	16680061.82	16680062.04	16680062.27	0.0526	0.0200	*
Venus	40956-09-28 21:36 G	16680203.29	16680203.40	16680203.52	0.0527	0.0429	
Mercury	40959-02-15 16:19 G	16681073.14	16681073.18	16681073.22	0.0519	0.0489	
Mercury	40959-05-15 20:24 G	16681162.22	16681162.35	16681162.47	0.0517	0.0098	
Mars	40959-08-31 04:48 G	16681269.47	16681269.70	16681269.94	0.0515	0.0180	
Moon	40961-10-30 13:41 G	16682060.85	16682061.07	16682061.30	0.0501	0.0122	
Earth	40961-10-30 17:17 G	16682061.00	16682061.22	16682061.45	0.0501	0.0137	*
Mercury	40965-07-09 02:53 G	16683408.45	16683408.62	16683408.79	0.0508	0.0216	
Moon	40968-05-15 09:22 G	16684449.72	16684449.89	16684450.07	0.0526	0.0341	
Earth	40968-05-15 11:46 G	16684449.80	16684449.99	16684450.17	0.0526	0.0319	*
Mercury	40971-03-04 00:43 G	16685472.41	16685472.53	16685472.66	0.0518	0.0055	
Earth	40973-11-04 08:10 G	16686448.60	16686448.84	16686449.07	0.0501	0.0010	
Moon	40973-11-04 11:46 G	16686448.76	16686448.99	16686449.22	0.0501	0.0016	*
Mercury	40977-04-26 23:31 G	16687718.29	16687718.48	16687718.67	0.0508	0.0011	
Earth	40980-05-20 10:34 G	16688837.84	16688837.94	16688838.05	0.0526	0.0465	
Moon	40980-05-20 13:55 G	16688837.96	16688838.08	16688838.22	0.0526	0.0441	*
Venus	40980-10-01 20:53 G	16688972.20	16688972.37	16688972.53	0.0527	0.0301	
Mercury	40982-12-21 05:31 G	16689782.62	16689782.73	16689782.85	0.0519	0.0196	
Mercury	40983-03-20 09:36 G	16689871.82	16689871.90	16689871.99	0.0517	0.0393	
Moon	40985-11-08 20:53 G	16690836.14	16690836.37	16690836.61	0.0500	0.0103	
Earth	40985-11-08 23:46 G	16690836.26	16690836.49	16690836.72	0.0500	0.0120	*
Venus	40986-08-05 01:12 G	16691105.36	16691105.55	16691105.75	0.0499	0.0132	
Mercury	40989-02-12 19:41 G	16692028.14	16692028.32	16692028.49	0.0507	0.0205	
Earth	40991-04-21 00:29 G	16692825.40	16692825.52	16692825.67	0.0523	0.0424	
Moon	40991-04-21 04:34 G	16692825.55	16692825.69	16692825.85	0.0523	0.0391	*

Venus	40992-06-06 12:58 G	16693237.84	16693238.04	16693238.23	0.0527	0.0162
Mercury	40994-10-09 10:34 G	16694092.84	16694092.94	16694093.03	0.0519	0.0336
Mercury	40995-01-06 14:38 G	16694182.00	16694182.11	16694182.22	0.0518	0.0253
Earth	40997-11-13 13:55 G	16695223.88	16695224.08	16695224.28	0.0500	0.0248
Moon	40997-11-13 15:07 G	16695223.93	16695224.13	16695224.34	0.0500	0.0221 *
Venus	40998-04-10 02:53 G	16695371.44	16695371.62	16695371.80	0.0499	0.0252
Mercury	41000-12-02 15:50 G	16696338.06	16696338.16	16696338.27	0.0507	0.0415

42ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 42nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	41001-03-03 06:00 G	16696428.66	16696428.75	16696428.83	0.0508	0.0449		
Moon	41003-04-26 20:38 G	16697213.16	16697213.36	16697213.57	0.0524	0.0259		
Earth	41003-04-27 00:29 G	16697213.33	16697213.52	16697213.72	0.0524	0.0279 *		
Mercury	41006-07-29 15:22 G	16698403.10	16698403.14	16698403.19	0.0519	0.0477		
Mercury	41006-10-26 19:26 G	16698492.19	16698492.31	16698492.44	0.0517	0.0112		
Moon	41009-11-18 22:34 G	16699611.28	16699611.44	16699611.61	0.0499	0.0370		
Earth	41009-11-18 22:48 G	16699611.29	16699611.45	16699611.61	0.0499	0.0365 *		
Mercury	41012-12-20 01:41 G	16700738.40	16700738.57	16700738.74	0.0508	0.0228		
Mars	41013-04-26 22:19 G	16700866.21	16700866.43	16700866.66	0.0511	0.0346		
Earth	41015-05-02 00:58 G	16701601.32	16701601.54	16701601.77	0.0525	0.0132		
Moon	41015-05-02 03:22 G	16701601.43	16701601.64	16701601.86	0.0525	0.0158 *		
Mercury	41018-08-15 00:29 G	16702802.39	16702802.52	16702802.64	0.0518	0.0031		

Earth	41020-10-21 23:31 G	16703601.35	16703601.48	16703601.63	0.0502	0.0403
Moon	41020-10-22 02:38 G	16703601.49	16703601.61	16703601.74	0.0502	0.0430 *
Earth	41021-11-23 11:31 G	16703998.94	16703998.98	16703999.03	0.0499	0.0488
Venus	41022-04-13 11:46 G	16704139.85	16704139.99	16704140.13	0.0498	0.0356
Mercury	41024-10-07 22:19 G	16705048.25	16705048.43	16705048.62	0.0508	0.0024
Moon	41027-05-06 23:46 G	16705989.25	16705989.49	16705989.73	0.0525	0.0005
Earth	41027-05-06 23:46 G	16705989.26	16705989.49	16705989.72	0.0525	0.0014 *
Venus	41028-02-14 08:24 G	16706272.65	16706272.85	16706273.05	0.0527	0.0128
Mercury	41030-06-03 05:02 G	16707112.59	16707112.71	16707112.82	0.0518	0.0181
Mercury	41030-08-31 08:53 G	16707201.80	16707201.87	16707201.95	0.0517	0.0407
Moon	41032-10-26 11:02 G	16707988.78	16707988.96	16707989.15	0.0502	0.0298
Earth	41032-10-26 14:53 G	16707988.92	16707989.12	16707989.31	0.0502	0.0276 *
Venus	41033-12-17 13:41 G	16708405.87	16708406.07	16708406.27	0.0499	0.0025
Mercury	41036-07-26 18:58 G	16709358.12	16709358.29	16709358.47	0.0507	0.0185
Moon	41039-05-11 19:55 G	16710377.13	16710377.33	16710377.54	0.0526	0.0192
Earth	41039-05-11 21:50 G	16710377.20	16710377.41	16710377.64	0.0526	0.0162 *
Venus	41039-10-20 00:29 G	16710538.37	16710538.52	16710538.68	0.0527	0.0334
Mercury	41042-03-22 09:36 G	16711422.80	16711422.90	16711423.00	0.0519	0.0325
Mercury	41042-06-19 13:41 G	16711511.96	16711512.07	16711512.18	0.0517	0.0263
Earth	41044-10-31 06:43 G	16712376.55	16712376.78	16712377.00	0.0501	0.0147
Moon	41044-10-31 10:19 G	16712376.70	16712376.93	16712377.16	0.0501	0.0122 *
Venus	41045-08-22 15:36 G	16712672.04	16712672.15	16712672.27	0.0499	0.0406
Mercury	41048-05-14 15:07 G	16713668.02	16713668.13	16713668.24	0.0507	0.0398
Mercury	41048-08-13 05:02 G	16713758.64	16713758.71	16713758.78	0.0508	0.0465
Earth	41051-05-16 19:41 G	16714765.14	16714765.32	16714765.51	0.0526	0.0308
Moon	41051-05-16 23:02 G	16714765.28	16714765.46	16714765.65	0.0526	0.0325 *
Mercury	41054-01-08 14:24 G	16715733.05	16715733.10	16715733.16	0.0520	0.0468
Mercury	41054-04-07 18:29 G	16715822.15	16715822.27	16715822.40	0.0518	0.0123
Moon	41056-11-04 18:58 G	16716764.05	16716764.29	16716764.53	0.0501	0.0005
Earth	41056-11-04 21:36 G	16716764.17	16716764.40	16716764.64	0.0501	0.0018 *

Mercury	41060-06-01 01:26 G	16718068.40	16718068.56	16718068.72	0.0508	0.0255
Moon	41063-05-21 18:00 G	16719153.12	16719153.25	16719153.38	0.0527	0.0432
Earth	41063-05-21 21:36 G	16719153.30	16719153.40	16719153.52	0.0527	0.0460 *
Venus	41063-10-23 01:26 G	16719307.43	16719307.56	16719307.69	0.0527	0.0403
Mercury	41066-01-24 23:31 G	16720132.36	16720132.48	16720132.61	0.0518	0.0021
Earth	41068-11-09 07:41 G	16721151.59	16721151.82	16721152.05	0.0500	0.0106
Moon	41068-11-09 09:07 G	16721151.66	16721151.88	16721152.11	0.0500	0.0086 *
Venus	41069-08-25 00:43 G	16721440.34	16721440.53	16721440.71	0.0498	0.0202
Mercury	41072-03-19 20:53 G	16722378.18	16722378.37	16722378.56	0.0508	0.0029
Moon	41074-04-21 09:50 G	16723140.77	16723140.91	16723141.07	0.0523	0.0404
Earth	41074-04-21 13:55 G	16723140.96	16723141.08	16723141.21	0.0523	0.0436 *
Venus	41075-06-27 19:12 G	16723573.10	16723573.30	16723573.51	0.0527	0.0050
Mercury	41077-11-13 04:34 G	16724442.57	16724442.69	16724442.81	0.0518	0.0161
Mercury	41078-02-10 08:38 G	16724531.79	16724531.86	16724531.93	0.0516	0.0425
Moon	41080-11-13 20:38 G	16725539.14	16725539.36	16725539.59	0.0499	0.0206
Earth	41080-11-13 20:38 G	16725539.16	16725539.36	16725539.57	0.0499	0.0234 *
Venus	41081-04-30 01:55 G	16725706.39	16725706.58	16725706.77	0.0498	0.0183
Mercury	41084-01-06 17:31 G	16726688.05	16726688.23	16726688.41	0.0508	0.0178
Earth	41086-04-26 12:00 G	16727528.81	16727529.00	16727529.19	0.0524	0.0294
Moon	41086-04-26 14:53 G	16727528.93	16727529.12	16727529.31	0.0524	0.0284 *
Venus	41087-03-02 11:17 G	16727838.93	16727838.97	16727839.03	0.0527	0.0508
Mercury	41089-09-01 08:53 G	16728752.77	16728752.87	16728752.97	0.0519	0.0311
Mercury	41089-11-29 12:58 G	16728841.93	16728842.04	16728842.15	0.0517	0.0275
Moon	41092-11-18 08:38 G	16729926.71	16729926.86	16729927.01	0.0499	0.0371
Earth	41092-11-18 10:19 G	16729926.77	16729926.93	16729927.10	0.0499	0.0357 *
Mercury	41095-10-25 14:10 G	16730997.97	16730998.09	16730998.21	0.0507	0.0384
Mercury	41096-01-24 04:05 G	16731088.62	16731088.67	16731088.73	0.0509	0.0481
Moon	41098-05-01 08:53 G	16731916.65	16731916.87	16731917.10	0.0524	0.0178
Earth	41098-05-01 09:36 G	16731916.68	16731916.90	16731917.12	0.0524	0.0148 *
Mercury	41101-06-21 13:26 G	16733063.01	16733063.06	16733063.12	0.0519	0.0458

Mercury	41101-09-18 17:31 G	16733152.11	16733152.23	16733152.36	0.0517	0.0130
Moon	41103-10-23 07:12 G	16733916.70	16733916.80	16733916.91	0.0503	0.0446
Earth	41103-10-23 10:48 G	16733916.82	16733916.95	16733917.08	0.0503	0.0416 *
Earth	41104-11-24 00:00 G	16734314.45	16734314.50	16734314.57	0.0499	0.0482
Venus	41105-05-03 14:24 G	16734475.01	16734475.10	16734475.20	0.0498	0.0443
Mercury	41107-11-13 00:14 G	16735398.35	16735398.51	16735398.67	0.0508	0.0266
Moon	41110-05-07 04:34 G	16736304.46	16736304.69	16736304.91	0.0525	0.0012
Earth	41110-05-07 06:00 G	16736304.52	16736304.75	16736304.99	0.0525	0.0008 *
Venus	41111-03-06 09:50 G	16736607.73	16736607.91	16736608.10	0.0527	0.0214
Mercury	41113-07-07 22:19 G	16737462.31	16737462.43	16737462.56	0.0518	0.0021
Mars	41113-11-26 20:53 G	16737604.15	16737604.37	16737604.60	0.0515	0.0231
Earth	41115-10-28 02:24 G	16738304.41	16738304.60	16738304.80	0.0502	0.0287
Moon	41115-10-28 06:14 G	16738304.57	16738304.76	16738304.95	0.0502	0.0298 *
Venus	41117-01-06 15:36 G	16738740.95	16738741.15	16738741.36	0.0498	0.0059
Mercury	41119-08-31 20:24 G	16739708.16	16739708.35	16739708.54	0.0508	0.0053
Earth	41122-05-12 06:14 G	16740692.54	16740692.76	16740692.99	0.0526	0.0149
Moon	41122-05-12 09:22 G	16740692.67	16740692.89	16740693.12	0.0526	0.0182 *
Venus	41122-11-09 03:36 G	16740873.47	16740873.65	16740873.83	0.0527	0.0240
Mercury	41125-04-26 03:22 G	16741772.52	16741772.64	16741772.76	0.0518	0.0153
Mercury	41125-07-24 07:26 G	16741861.74	16741861.81	16741861.88	0.0516	0.0433
Moon	41127-11-01 11:17 G	16742691.74	16742691.97	16742692.20	0.0501	0.0136
Earth	41127-11-01 14:10 G	16742691.87	16742692.09	16742692.32	0.0501	0.0164 *
Venus	41128-09-11 14:24 G	16743006.96	16743007.10	16743007.26	0.0498	0.0337
Mercury	41131-06-19 15:36 G	16744017.97	16744018.15	16744018.32	0.0508	0.0177
Moon	41134-05-17 03:22 G	16745080.46	16745080.64	16745080.83	0.0527	0.0311
Earth	41134-05-17 07:12 G	16745080.61	16745080.80	16745080.99	0.0527	0.0298 *
Mercury	41137-02-12 08:10 G	16746082.74	16746082.84	16746082.95	0.0518	0.0295
Mercury	41137-05-12 12:14 G	16746171.91	16746172.01	16746172.12	0.0517	0.0291
Earth	41139-11-06 03:36 G	16747079.42	16747079.65	16747079.88	0.0500	0.0034
Moon	41139-11-06 05:02 G	16747079.48	16747079.71	16747079.94	0.0500	0.0019 *

Mercury	41143-04-07 12:00 G	16748327.88	16748328.00	16748328.12	0.0507	0.0386
Mercury	41143-07-07 02:10 G	16748418.53	16748418.59	16748418.65	0.0509	0.0482
Earth	41146-05-22 06:14 G	16749468.64	16749468.76	16749468.88	0.0527	0.0444
Moon	41146-05-22 09:22 G	16749468.75	16749468.89	16749469.03	0.0527	0.0414 *
Venus	41146-11-12 04:05 G	16749642.61	16749642.67	16749642.74	0.0527	0.0496
Mercury	41148-12-01 12:29 G	16750392.97	16750393.02	16750393.09	0.0519	0.0448
Mercury	41149-02-28 16:34 G	16750482.07	16750482.19	16750482.32	0.0517	0.0140
Moon	41151-11-10 16:48 G	16751466.96	16751467.20	16751467.44	0.0500	0.0070
Earth	41151-11-10 16:48 G	16751466.97	16751467.20	16751467.43	0.0500	0.0093 *
Venus	41152-09-14 01:41 G	16751775.41	16751775.57	16751775.75	0.0498	0.0283
Mercury	41155-04-24 22:48 G	16752728.29	16752728.45	16752728.61	0.0508	0.0274
Earth	41157-04-21 20:53 G	16753456.26	16753456.37	16753456.49	0.0523	0.0455
Moon	41157-04-22 00:00 G	16753456.37	16753456.50	16753456.64	0.0523	0.0424 *
Venus	41158-07-17 19:55 G	16753908.12	16753908.33	16753908.53	0.0527	0.0036
Mercury	41160-12-17 21:07 G	16754792.26	16754792.38	16754792.51	0.0518	0.0019
Moon	41163-11-15 05:02 G	16755854.50	16755854.71	16755854.92	0.0500	0.0201
Earth	41163-11-15 06:43 G	16755854.57	16755854.78	16755854.99	0.0500	0.0222 *
Venus	41164-05-20 03:22 G	16756041.44	16756041.64	16756041.84	0.0499	0.0102
Mercury	41167-02-10 18:43 G	16757038.09	16757038.28	16757038.47	0.0508	0.0057
Moon	41169-04-26 14:53 G	16757843.93	16757844.12	16757844.32	0.0523	0.0311
Earth	41169-04-26 16:05 G	16757843.99	16757844.17	16757844.36	0.0523	0.0315 *
Venus	41170-03-22 11:02 G	16758173.85	16758173.96	16758174.08	0.0527	0.0432
Mercury	41172-10-06 01:55 G	16759102.46	16759102.58	16759102.70	0.0518	0.0154
Mercury	41173-01-03 06:00 G	16759191.68	16759191.75	16759191.82	0.0517	0.0434
Earth	41175-11-19 19:41 G	16760242.16	16760242.32	16760242.50	0.0499	0.0348
Moon	41175-11-19 23:17 G	16760242.31	16760242.47	16760242.63	0.0499	0.0370 *
Venus	41176-01-24 04:19 G	16760307.64	16760307.68	16760307.72	0.0499	0.0486
Mercury	41178-11-29 14:38 G	16761347.94	16761348.11	16761348.29	0.0507	0.0159
Moon	41181-05-01 13:26 G	16762231.85	16762232.06	16762232.26	0.0524	0.0200
Earth	41181-05-01 14:24 G	16762231.89	16762232.10	16762232.33	0.0524	0.0167 *

Mercury	41184-07-25 06:58 G	16763412.69	16763412.79	16763412.89	0.0519	0.0293
Mercury	41184-10-22 11:02 G	16763501.86	16763501.96	16763502.06	0.0517	0.0294
Earth	41186-10-22 17:31 G	16764232.11	16764232.23	16764232.34	0.0502	0.0436
Moon	41186-10-22 21:07 G	16764232.30	16764232.38	16764232.47	0.0502	0.0466 *
Moon	41187-11-24 00:43 G	16764629.50	16764629.53	16764629.58	0.0498	0.0491
Earth	41187-11-24 04:48 G	16764629.63	16764629.70	16764629.79	0.0498	0.0465
Mercury	41190-09-17 09:36 G	16765657.78	16765657.90	16765658.02	0.0507	0.0391
Mercury	41190-12-16 23:31 G	16765748.42	16765748.48	16765748.55	0.0509	0.0476
Earth	41193-05-06 13:12 G	16766619.82	16766620.05	16766620.29	0.0526	0.0023
Moon	41193-05-06 16:05 G	16766619.93	16766620.17	16766620.41	0.0526	0.0026 *
Venus	41194-03-25 12:43 G	16766942.87	16766943.03	16766943.20	0.0528	0.0309
Mercury	41196-05-13 11:46 G	16767722.93	16767722.99	16767723.06	0.0519	0.0435
Mercury	41196-08-10 15:50 G	16767812.04	16767812.16	16767812.28	0.0517	0.0151
Moon	41198-10-27 04:19 G	16768619.50	16768619.68	16768619.87	0.0502	0.0313
Earth	41198-10-27 07:26 G	16768619.63	16768619.81	16768620.00	0.0502	0.0307 *
Venus	41200-01-26 12:43 G	16769075.83	16769076.03	16769076.23	0.0498	0.0119
Mercury	41202-10-04 20:10 G	16770058.18	16770058.34	16770058.50	0.0509	0.0266
Moon	41205-05-11 08:10 G	16771007.63	16771007.84	16771008.06	0.0526	0.0159
Earth	41205-05-11 12:00 G	16771007.77	16771008.00	16771008.22	0.0526	0.0127 *
Venus	41205-11-28 04:19 G	16771208.49	16771208.68	16771208.88	0.0527	0.0154
Mercury	41208-05-29 20:10 G	16772122.21	16772122.34	16772122.46	0.0518	0.0011
Earth	41210-10-31 20:10 G	16773007.12	16773007.34	16773007.56	0.0501	0.0182
Moon	41210-10-31 21:50 G	16773007.19	16773007.41	16773007.63	0.0501	0.0152 *
Venus	41211-10-01 13:55 G	16773341.91	16773342.08	16773342.26	0.0499	0.0265
Mercury	41214-07-23 16:48 G	16774368.01	16774368.20	16774368.38	0.0508	0.0058
Earth	41217-05-16 10:05 G	16775395.72	16775395.92	16775396.12	0.0526	0.0276
Moon	41217-05-16 13:26 G	16775395.87	16775396.06	16775396.26	0.0526	0.0281 *
Mercury	41220-03-18 00:29 G	16776432.41	16776432.52	16776432.65	0.0518	0.0154
Mercury	41220-06-15 04:34 G	16776521.63	16776521.69	16776521.76	0.0516	0.0434
Moon	41222-11-05 09:50 G	16777394.66	16777394.91	16777395.15	0.0501	0.0038

Earth	41222-11-05 10:05 G	16777394.68	16777394.92	16777395.15	0.0501	0.0052	*
Mercury	41226-05-11 12:29 G	16778677.85	16778678.02	16778678.20	0.0507	0.0161	
Moon	41229-05-21 04:19 G	16779783.52	16779783.68	16779783.84	0.0527	0.0389	
Earth	41229-05-21 06:29 G	16779783.64	16779783.77	16779783.91	0.0527	0.0423	*
Mercury	41232-01-05 05:17 G	16780742.62	16780742.72	16780742.82	0.0519	0.0300	
Mercury	41232-04-03 09:22 G	16780831.78	16780831.89	16780831.99	0.0517	0.0288	
Mars	41232-05-18 23:02 G	16780877.35	16780877.46	16780877.57	0.0516	0.0459	
Moon	41234-11-09 22:19 G	16781782.20	16781782.43	16781782.65	0.0500	0.0054	
Earth	41234-11-09 23:46 G	16781782.26	16781782.49	16781782.72	0.0500	0.0078	*
Venus	41235-10-04 00:58 G	16782110.40	16782110.54	16782110.69	0.0498	0.0350	
Mercury	41238-02-27 08:24 G	16782987.73	16782987.85	16782987.97	0.0507	0.0378	
Mercury	41238-05-28 22:19 G	16783078.38	16783078.43	16783078.48	0.0509	0.0487	
Moon	41240-04-20 20:38 G	16783771.24	16783771.36	16783771.49	0.0523	0.0449	
Earth	41240-04-20 22:19 G	16783771.35	16783771.43	16783771.53	0.0523	0.0480	*
Venus	41241-08-05 18:43 G	16784243.09	16784243.28	16784243.48	0.0527	0.0107	
Mercury	41243-10-24 10:05 G	16785052.86	16785052.92	16785052.99	0.0519	0.0440	
Mercury	41244-01-21 14:10 G	16785141.97	16785142.09	16785142.21	0.0517	0.0149	
Earth	41246-11-14 10:19 G	16786169.71	16786169.93	16786170.14	0.0499	0.0201	
Moon	41246-11-14 13:26 G	16786169.84	16786170.06	16786170.28	0.0499	0.0187	*
Venus	41247-06-09 00:00 G	16786376.29	16786376.50	16786376.70	0.0498	0.0042	
Mercury	41250-03-16 17:17 G	16787388.05	16787388.22	16787388.38	0.0508	0.0254	
Moon	41252-04-25 18:14 G	16788159.09	16788159.26	16788159.43	0.0524	0.0346	
Earth	41252-04-25 18:43 G	16788159.11	16788159.28	16788159.46	0.0524	0.0341	*
Venus	41253-04-10 11:31 G	16788508.83	16788508.98	16788509.13	0.0528	0.0350	
Mercury	41255-11-09 18:58 G	16789452.17	16789452.29	16789452.42	0.0518	0.0011	
Moon	41258-11-18 18:14 G	16790557.09	16790557.26	16790557.42	0.0499	0.0351	
Earth	41258-11-18 22:05 G	16790557.25	16790557.42	16790557.60	0.0499	0.0326	*
Venus	41259-02-12 00:29 G	16790642.42	16790642.52	16790642.63	0.0498	0.0428	
Mercury	41262-01-02 13:26 G	16791697.87	16791698.06	16791698.25	0.0508	0.0041	
Earth	41264-04-30 16:34 G	16792546.98	16792547.19	16792547.41	0.0524	0.0196	

Moon	41264-04-30 18:58 G	16792547.08	16792547.29	16792547.51	0.0524	0.0228	*
Mercury	41267-08-28 23:17 G	16793762.35	16793762.47	16793762.59	0.0518	0.0151	
Mercury	41267-11-26 03:07 G	16793851.57	16793851.63	16793851.70	0.0516	0.0435	
Moon	41269-10-21 16:48 G	16794547.15	16794547.20	16794547.25	0.0503	0.0488	
Earth	41269-10-21 19:55 G	16794547.24	16794547.33	16794547.43	0.0503	0.0459	*
Earth	41270-11-23 09:07 G	16794944.79	16794944.88	16794944.99	0.0499	0.0449	
Moon	41270-11-23 13:12 G	16794944.98	16794945.05	16794945.12	0.0499	0.0474	*
Mercury	41273-10-21 09:50 G	16796007.74	16796007.91	16796008.09	0.0508	0.0168	
Moon	41276-05-05 11:02 G	16796934.73	16796934.96	16796935.18	0.0525	0.0053	
Earth	41276-05-05 14:24 G	16796934.87	16796935.10	16796935.33	0.0525	0.0047	*
Venus	41277-04-13 09:50 G	16797277.78	16797277.91	16797278.06	0.0527	0.0373	
Mercury	41279-06-17 03:36 G	16798072.55	16798072.65	16798072.75	0.0519	0.0302	
Mercury	41279-09-14 07:41 G	16798161.72	16798161.82	16798161.92	0.0517	0.0285	
Earth	41281-10-26 09:36 G	16798934.73	16798934.90	16798935.09	0.0502	0.0332	
Moon	41281-10-26 11:31 G	16798934.82	16798934.98	16798935.16	0.0502	0.0332	*
Venus	41283-02-14 10:48 G	16799410.76	16799410.95	16799411.14	0.0498	0.0184	
Mercury	41285-08-09 05:46 G	16800317.62	16800317.74	16800317.86	0.0507	0.0386	
Mercury	41285-11-07 19:41 G	16800408.27	16800408.32	16800408.38	0.0509	0.0479	
Mars	41286-01-08 01:41 G	16800469.29	16800469.57	16800469.87	0.0510	0.0160	
Earth	41288-05-10 09:36 G	16801322.68	16801322.90	16801323.13	0.0525	0.0100	
Moon	41288-05-10 13:26 G	16801322.83	16801323.06	16801323.28	0.0525	0.0132	*
Venus	41288-12-17 00:29 G	16801543.32	16801543.52	16801543.72	0.0527	0.0096	
Mercury	41291-04-05 08:10 G	16802382.78	16802382.84	16802382.90	0.0519	0.0452	
Mercury	41291-07-03 12:14 G	16802471.89	16802472.01	16802472.13	0.0518	0.0137	
Moon	41293-10-30 23:31 G	16803322.26	16803322.48	16803322.71	0.0501	0.0171	
Earth	41293-10-31 00:14 G	16803322.29	16803322.51	16803322.72	0.0501	0.0202	*
Venus	41294-10-20 11:46 G	16803676.80	16803676.99	16803677.18	0.0498	0.0202	
Mercury	41297-08-26 15:22 G	16804717.99	16804718.14	16804718.31	0.0508	0.0260	
Moon	41300-05-16 05:31 G	16805710.52	16805710.73	16805710.94	0.0526	0.0251	
Earth	41300-05-16 08:24 G	16805710.64	16805710.85	16805711.05	0.0526	0.0251	*

Mercury	41303-04-22 17:17 G	16806782.09	16806782.22	16806782.34	0.0518	0.0019
Moon	41305-11-05 11:31 G	16807709.76	16807709.98	16807710.21	0.0500	0.0065
Earth	41305-11-05 12:43 G	16807709.80	16807710.03	16807710.26	0.0500	0.0075 *
Mercury	41309-06-15 10:05 G	16809027.73	16809027.92	16809028.11	0.0508	0.0025
Earth	41312-05-21 06:58 G	16810098.64	16810098.79	16810098.94	0.0527	0.0398
Moon	41312-05-21 08:10 G	16810098.68	16810098.84	16810099.00	0.0527	0.0366 *
Mercury	41315-02-08 21:50 G	16811092.29	16811092.41	16811092.53	0.0518	0.0149
Mercury	41315-05-09 01:55 G	16811181.52	16811181.58	16811181.65	0.0516	0.0438
Earth	41317-11-10 00:43 G	16812097.30	16812097.53	16812097.77	0.0500	0.0055
Moon	41317-11-10 03:50 G	16812097.42	16812097.66	16812097.90	0.0500	0.0027 *
Venus	41318-10-23 19:55 G	16812445.21	16812445.33	16812445.45	0.0498	0.0400
Mercury	41321-04-03 06:14 G	16813337.59	16813337.76	16813337.94	0.0507	0.0190
Moon	41323-04-21 21:36 G	16814086.32	16814086.40	16814086.49	0.0523	0.0483
Earth	41323-04-21 21:22 G	16814086.36	16814086.39	16814086.45	0.0523	0.0512 *
Venus	41324-08-25 15:50 G	16814577.97	16814578.16	16814578.36	0.0527	0.0173
Mercury	41326-11-28 01:55 G	16815402.49	16815402.58	16815402.69	0.0519	0.0306
Mercury	41327-02-25 06:00 G	16815491.65	16815491.75	16815491.86	0.0517	0.0282
Moon	41329-11-14 07:41 G	16816484.60	16816484.82	16816485.04	0.0500	0.0167
Earth	41329-11-14 11:31 G	16816484.76	16816484.98	16816485.20	0.0500	0.0180 *
Venus	41330-06-28 20:24 G	16816711.14	16816711.35	16816711.55	0.0498	0.0015
Mercury	41333-01-20 02:38 G	16817647.50	16817647.61	16817647.73	0.0507	0.0399
Mercury	41333-04-20 16:48 G	16817738.13	16817738.20	16817738.27	0.0509	0.0468
Earth	41335-04-26 18:29 G	16818474.11	16818474.27	16818474.44	0.0523	0.0368
Moon	41335-04-26 20:24 G	16818474.19	16818474.35	16818474.52	0.0523	0.0373 *
Venus	41336-04-30 07:41 G	16818843.65	16818843.82	16818843.99	0.0527	0.0289
Mercury	41338-09-16 06:29 G	16819712.71	16819712.77	16819712.83	0.0519	0.0457
Mercury	41338-12-14 10:34 G	16819801.82	16819801.94	16819802.06	0.0517	0.0131
Earth	41341-11-18 23:31 G	16820872.30	16820872.48	16820872.66	0.0499	0.0306
Moon	41341-11-19 03:22 G	16820872.47	16820872.64	16820872.82	0.0499	0.0334 *
Venus	41342-03-03 20:53 G	16820977.24	16820977.37	16820977.51	0.0499	0.0372

Mercury	41345-02-06 12:43 G	16822047.86	16822048.03	16822048.19	0.0508	0.0248
Moon	41347-05-01 10:05 G	16822861.73	16822861.92	16822862.12	0.0524	0.0260
Earth	41347-05-01 12:58 G	16822861.84	16822862.04	16822862.26	0.0524	0.0226 *
Mercury	41350-10-02 14:53 G	16824112.00	16824112.12	16824112.25	0.0518	0.0023
Earth	41352-10-21 21:07 G	16824862.32	16824862.38	16824862.45	0.0503	0.0483
Moon	41353-11-23 08:10 G	16825259.75	16825259.84	16825259.94	0.0499	0.0455
Earth	41353-11-23 11:46 G	16825259.87	16825259.99	16825260.11	0.0499	0.0431 *
Mercury	41356-11-25 08:10 G	16826357.65	16826357.84	16826358.03	0.0508	0.0027
Earth	41359-05-06 09:36 G	16827249.68	16827249.90	16827250.13	0.0525	0.0079
Moon	41359-05-06 13:26 G	16827249.83	16827250.06	16827250.29	0.0525	0.0077 *
Venus	41360-05-03 05:17 G	16827612.60	16827612.72	16827612.84	0.0528	0.0426
Mercury	41362-07-21 19:55 G	16828422.21	16828422.33	16828422.45	0.0519	0.0162
Mercury	41362-10-19 00:00 G	16828511.43	16828511.50	16828511.57	0.0517	0.0426
Moon	41364-10-26 10:48 G	16829249.79	16829249.95	16829250.13	0.0502	0.0355
Earth	41364-10-26 11:46 G	16829249.83	16829249.99	16829250.15	0.0502	0.0356 *
Venus	41366-03-06 06:00 G	16829745.57	16829745.75	16829745.93	0.0498	0.0234
Mercury	41368-09-13 02:38 G	16830667.44	16830667.61	16830667.79	0.0507	0.0210
Moon	41371-05-11 03:07 G	16831637.40	16831637.63	16831637.86	0.0526	0.0100
Earth	41371-05-11 06:29 G	16831637.54	16831637.77	16831638.00	0.0526	0.0068 *
Venus	41372-01-06 20:53 G	16831878.17	16831878.37	16831878.57	0.0528	0.0034
Mercury	41374-05-10 00:29 G	16832732.42	16832732.52	16832732.63	0.0519	0.0307
Mercury	41374-08-07 04:34 G	16832821.59	16832821.69	16832821.80	0.0517	0.0282
Moon	41376-10-31 00:00 G	16833637.30	16833637.50	16833637.71	0.0501	0.0198
Earth	41376-10-31 00:43 G	16833637.33	16833637.53	16833637.74	0.0501	0.0227 *
Venus	41377-11-09 06:29 G	16834011.58	16834011.77	16834011.97	0.0498	0.0152
Mercury	41380-07-01 22:48 G	16834977.35	16834977.45	16834977.55	0.0507	0.0424
Mercury	41380-09-30 12:43 G	16835067.95	16835068.03	16835068.13	0.0509	0.0443
Earth	41383-05-16 05:02 G	16836025.51	16836025.71	16836025.93	0.0526	0.0220
Moon	41383-05-16 07:12 G	16836025.59	16836025.80	16836026.00	0.0526	0.0219 *
Venus	41383-09-11 12:29 G	16836143.96	16836144.02	16836144.10	0.0527	0.0494

Mercury	41386-02-26 04:34 G	16837042.64	16837042.69	16837042.75	0.0519	0.0464
Mercury	41386-05-26 08:38 G	16837131.74	16837131.86	16837131.99	0.0517	0.0125
Mars	41386-08-13 08:53 G	16837210.64	16837210.87	16837211.10	0.0516	0.0204
Earth	41388-11-04 11:02 G	16838024.73	16838024.96	16838025.19	0.0501	0.0101
Moon	41388-11-04 13:41 G	16838024.83	16838025.07	16838025.31	0.0501	0.0096 *
Mercury	41392-07-19 09:22 G	16839377.73	16839377.89	16839378.06	0.0508	0.0234
Moon	41395-05-21 03:36 G	16840413.47	16840413.65	16840413.84	0.0526	0.0337
Earth	41395-05-21 03:50 G	16840413.50	16840413.66	16840413.83	0.0526	0.0370 *
Mercury	41398-03-14 13:12 G	16841441.92	16841442.05	16841442.17	0.0518	0.0032
Moon	41400-11-09 19:41 G	16842412.09	16842412.32	16842412.56	0.0500	0.0009
Earth	41400-11-09 23:31 G	16842412.24	16842412.48	16842412.71	0.0500	0.0030 *
Venus	41401-11-12 15:22 G	16842780.07	16842780.14	16842780.23	0.0498	0.0453
Mercury	41404-05-08 05:17 G	16843687.53	16843687.72	16843687.90	0.0508	0.0016
Moon	41406-04-21 19:12 G	16844401.25	16844401.30	16844401.35	0.0522	0.0508
Moon	41407-05-26 22:05 G	16844801.37	16844801.42	16844801.47	0.0527	0.0513
Earth	41407-05-27 00:00 G	16844801.45	16844801.50	16844801.54	0.0527	0.0514 *
Venus	41407-09-15 09:50 G	16844912.73	16844912.91	16844913.10	0.0527	0.0219
Mercury	41410-01-01 17:31 G	16845752.11	16845752.23	16845752.35	0.0519	0.0179
Mercury	41410-03-31 21:36 G	16845841.32	16845841.40	16845841.47	0.0517	0.0408
Earth	41412-11-14 12:14 G	16846799.79	16846800.01	16846800.23	0.0500	0.0158
Moon	41412-11-14 16:19 G	16846799.95	16846800.18	16846800.40	0.0500	0.0148 *
Venus	41413-07-18 16:19 G	16847045.97	16847046.18	16847046.38	0.0498	0.0068
Mercury	41416-02-25 00:43 G	16847997.36	16847997.53	16847997.70	0.0507	0.0208
Moon	41418-04-26 10:34 G	16848788.80	16848788.94	16848789.08	0.0523	0.0405
Earth	41418-04-26 12:58 G	16848788.90	16848789.04	16848789.19	0.0523	0.0401 *
Venus	41419-05-21 01:41 G	16849178.39	16849178.57	16849178.75	0.0527	0.0242
Mercury	41421-10-20 22:19 G	16850062.33	16850062.43	16850062.53	0.0519	0.0322
Mercury	41422-01-18 02:24 G	16850151.49	16850151.60	16850151.71	0.0517	0.0266
Moon	41424-11-18 20:38 G	16851187.18	16851187.36	16851187.55	0.0499	0.0307
Earth	41424-11-19 00:14 G	16851187.32	16851187.51	16851187.71	0.0499	0.0283 *

Venus	41425-03-23 16:34 G	16851312.03	16851312.19	16851312.34	0.0498	0.0318
Mercury	41427-12-13 19:26 G	16852307.22	16852307.31	16852307.40	0.0506	0.0442
Mercury	41428-03-13 09:22 G	16852397.79	16852397.89	16852397.99	0.0508	0.0423
Earth	41430-05-01 07:41 G	16853176.62	16853176.82	16853177.02	0.0524	0.0260
Moon	41430-05-01 11:17 G	16853176.78	16853176.97	16853177.16	0.0524	0.0292 *
Mercury	41433-08-09 03:07 G	16854372.58	16854372.63	16854372.68	0.0520	0.0467
Mercury	41433-11-06 07:12 G	16854461.68	16854461.80	16854461.92	0.0518	0.0122
Earth	41436-11-23 11:17 G	16855574.85	16855574.97	16855575.11	0.0498	0.0409
Moon	41436-11-23 13:41 G	16855574.95	16855575.07	16855575.18	0.0498	0.0429 *
Mercury	41439-12-31 05:31 G	16856707.56	16856707.73	16856707.90	0.0508	0.0208
Mars	41440-04-03 13:12 G	16856801.76	16856802.05	16856802.35	0.0510	0.0090
Moon	41442-05-06 02:24 G	16857564.37	16857564.60	16857564.83	0.0525	0.0107
Earth	41442-05-06 06:00 G	16857564.53	16857564.75	16857564.98	0.0525	0.0111 *
Venus	41443-05-24 00:43 G	16857947.45	16857947.53	16857947.61	0.0528	0.0482
Mercury	41445-08-25 11:17 G	16858771.84	16858771.97	16858772.10	0.0518	0.0036
Earth	41447-10-27 08:10 G	16859564.70	16859564.84	16859565.00	0.0502	0.0385
Moon	41447-10-27 08:10 G	16859564.70	16859564.84	16859564.99	0.0502	0.0384 *
Venus	41449-03-26 00:43 G	16860080.36	16860080.53	16860080.70	0.0498	0.0281
Mercury	41451-10-19 01:55 G	16861017.39	16861017.58	16861017.77	0.0508	0.0007
Earth	41454-05-11 04:34 G	16861952.46	16861952.69	16861952.93	0.0525	0.0042
Moon	41454-05-11 06:58 G	16861952.57	16861952.79	16861953.02	0.0525	0.0075 *
Venus	41455-01-26 16:34 G	16862212.99	16862213.19	16862213.39	0.0527	0.0022
Mercury	41457-06-13 15:36 G	16863082.04	16863082.15	16863082.27	0.0518	0.0188
Mercury	41457-09-10 19:41 G	16863171.25	16863171.32	16863171.40	0.0517	0.0400
Earth	41459-10-31 21:22 G	16863952.19	16863952.39	16863952.59	0.0502	0.0255
Moon	41459-10-31 23:31 G	16863952.26	16863952.48	16863952.70	0.0502	0.0225 *
Venus	41460-11-29 01:26 G	16864346.36	16864346.56	16864346.76	0.0498	0.0105
Mercury	41463-08-06 21:50 G	16865327.24	16865327.41	16865327.58	0.0507	0.0220
Moon	41466-05-15 23:02 G	16866340.24	16866340.46	16866340.69	0.0526	0.0189
Earth	41466-05-16 00:00 G	16866340.29	16866340.50	16866340.72	0.0526	0.0189 *

Venus	41466-10-01 06:58 G	16866478.69	16866478.79	16866478.90	0.0527	0.0445
Mercury	41469-04-01 20:10 G	16867392.24	16867392.34	16867392.43	0.0519	0.0340
Mercury	41469-06-30 00:14 G	16867481.40	16867481.51	16867481.62	0.0517	0.0249
Moon	41471-11-05 07:41 G	16868339.60	16868339.82	16868340.04	0.0501	0.0125
Earth	41471-11-05 11:17 G	16868339.74	16868339.97	16868340.20	0.0501	0.0124 *
Venus	41472-08-04 02:10 G	16868612.55	16868612.59	16868612.63	0.0499	0.0488
Mercury	41475-05-25 17:17 G	16869637.13	16869637.22	16869637.31	0.0506	0.0441
Mercury	41475-08-24 07:26 G	16869727.71	16869727.81	16869727.91	0.0508	0.0424
Moon	41478-05-20 20:24 G	16870728.18	16870728.35	16870728.54	0.0526	0.0310
Earth	41478-05-20 21:22 G	16870728.22	16870728.39	16870728.57	0.0526	0.0339 *
Mercury	41481-01-19 00:43 G	16871702.49	16871702.53	16871702.58	0.0520	0.0484
Mercury	41481-04-18 05:02 G	16871791.58	16871791.71	16871791.83	0.0518	0.0107
Earth	41483-11-10 00:58 G	16872727.31	16872727.54	16872727.78	0.0500	0.0007
Moon	41483-11-10 05:02 G	16872727.47	16872727.71	16872727.94	0.0500	0.0026 *
Mercury	41487-06-12 02:10 G	16874037.42	16874037.59	16874037.77	0.0508	0.0193
Earth	41490-05-25 18:58 G	16875116.21	16875116.29	16875116.38	0.0527	0.0486
Moon	41490-05-25 22:19 G	16875116.34	16875116.43	16875116.51	0.0527	0.0491 *
Venus	41490-10-04 05:17 G	16875247.55	16875247.72	16875247.90	0.0528	0.0274
Mercury	41493-02-04 09:50 G	16876101.78	16876101.91	16876102.03	0.0518	0.0041
Moon	41495-11-14 09:50 G	16877114.68	16877114.91	16877115.14	0.0500	0.0123
Earth	41495-11-14 13:26 G	16877114.84	16877115.06	16877115.29	0.0500	0.0136 *
Venus	41496-08-06 11:46 G	16877380.79	16877380.99	16877381.19	0.0498	0.0119
Mercury	41499-03-30 22:19 G	16878347.24	16878347.43	16878347.62	0.0507	0.0022
Earth	41501-04-26 10:05 G	16879103.79	16879103.92	16879104.05	0.0523	0.0431
Moon	41501-04-26 13:12 G	16879103.93	16879104.05	16879104.18	0.0523	0.0437 *
Venus	41502-06-09 21:36 G	16879513.21	16879513.40	16879513.59	0.0527	0.0185
Mercury	41504-11-24 13:55 G	16880411.96	16880412.08	16880412.19	0.0518	0.0194
Mercury	41505-02-21 18:00 G	16880501.17	16880501.25	16880501.33	0.0517	0.0393
Earth	41507-11-19 22:05 G	16881502.22	16881502.42	16881502.62	0.0499	0.0261
Moon	41507-11-20 00:29 G	16881502.34	16881502.52	16881502.71	0.0499	0.0286 *

Venus	41508-04-12 10:48 G	16881646.78	16881646.95	16881647.12	0.0498	0.0274
Mercury	41511-01-17 18:43 G	16882657.11	16882657.28	16882657.45	0.0507	0.0232
Moon	41513-05-01 04:48 G	16883491.52	16883491.70	16883491.89	0.0524	0.0315
Earth	41513-05-01 08:24 G	16883491.66	16883491.85	16883492.05	0.0524	0.0284 *
Mercury	41516-09-12 18:14 G	16884722.17	16884722.26	16884722.36	0.0519	0.0345
Mercury	41516-12-10 22:19 G	16884811.32	16884811.43	16884811.54	0.0517	0.0244
Moon	41519-11-24 09:22 G	16885889.75	16885889.89	16885890.04	0.0499	0.0401
Earth	41519-11-24 09:50 G	16885889.77	16885889.91	16885890.06	0.0499	0.0388 *
Mercury	41522-11-05 14:38 G	16886967.03	16886967.11	16886967.20	0.0507	0.0448
Mercury	41523-02-04 04:48 G	16887057.60	16887057.70	16887057.81	0.0508	0.0418
Earth	41525-05-06 03:36 G	16887879.43	16887879.65	16887879.88	0.0524	0.0139
Moon	41525-05-06 06:29 G	16887879.55	16887879.77	16887879.99	0.0524	0.0130 *
Mercury	41528-07-01 22:48 G	16889032.42	16889032.45	16889032.48	0.0520	0.0497
Mercury	41528-09-29 02:53 G	16889121.49	16889121.62	16889121.74	0.0518	0.0093
Earth	41530-10-27 08:38 G	16889879.73	16889879.86	16889880.00	0.0503	0.0408
Moon	41530-10-27 10:19 G	16889879.79	16889879.93	16889880.08	0.0503	0.0401 *
Moon	41531-11-28 20:53 G	16890277.34	16890277.37	16890277.42	0.0499	0.0489
Venus	41532-04-14 21:07 G	16890415.24	16890415.38	16890415.54	0.0498	0.0336
Mercury	41534-11-23 00:29 G	16891367.35	16891367.52	16891367.69	0.0508	0.0198
Moon	41537-05-10 22:19 G	16892267.19	16892267.43	16892267.67	0.0525	0.0043
Earth	41537-05-11 00:00 G	16892267.27	16892267.50	16892267.73	0.0525	0.0011 *
Venus	41538-02-15 11:17 G	16892547.77	16892547.97	16892548.17	0.0527	0.0071
Mercury	41540-07-18 07:41 G	16893431.69	16893431.82	16893431.94	0.0518	0.0053
Mars	41540-11-07 13:26 G	16893543.81	16893544.06	16893544.32	0.0516	0.0028
Moon	41542-10-31 21:07 G	16894267.18	16894267.38	16894267.58	0.0502	0.0248
Earth	41542-11-01 00:14 G	16894267.32	16894267.51	16894267.71	0.0502	0.0277 *
Venus	41543-12-19 22:05 G	16894681.22	16894681.42	16894681.63	0.0498	0.0047
Mercury	41546-09-10 19:26 G	16895677.13	16895677.31	16895677.50	0.0507	0.0035
Earth	41549-05-15 20:10 G	16896655.12	16896655.34	16896655.57	0.0526	0.0160
Moon	41549-05-15 20:10 G	16896655.13	16896655.34	16896655.55	0.0526	0.0159 *

Venus	41549-10-21 02:38 G	16896813.48	16896813.61	16896813.75	0.0527	0.0390
Mercury	41552-05-06 12:29 G	16897741.90	16897742.02	16897742.13	0.0519	0.0195
Mercury	41552-08-03 16:34 G	16897831.11	16897831.19	16897831.27	0.0517	0.0394
Earth	41554-11-05 14:10 G	16898654.87	16898655.09	16898655.32	0.0501	0.0144
Moon	41554-11-05 18:14 G	16898655.04	16898655.26	16898655.48	0.0501	0.0149 *
Venus	41555-08-24 22:48 G	16898947.35	16898947.45	16898947.56	0.0498	0.0430
Mercury	41558-06-29 15:36 G	16899986.99	16899987.15	16899987.32	0.0507	0.0246
Earth	41561-05-20 20:10 G	16901043.16	16901043.34	16901043.53	0.0526	0.0315
Moon	41561-05-20 22:48 G	16901043.25	16901043.45	16901043.65	0.0526	0.0284 *
Mercury	41564-02-23 16:48 G	16902052.10	16902052.20	16902052.29	0.0519	0.0350
Mercury	41564-05-22 20:38 G	16902141.25	16902141.36	16902141.47	0.0517	0.0239
Moon	41566-11-09 19:12 G	16903042.07	16903042.30	16903042.54	0.0501	0.0050
Earth	41566-11-09 23:17 G	16903042.23	16903042.47	16903042.70	0.0501	0.0018 *
Mercury	41570-04-17 12:00 G	16904296.92	16904297.00	16904297.08	0.0507	0.0457
Mercury	41570-07-17 02:10 G	16904387.48	16904387.59	16904387.70	0.0509	0.0411
Moon	41573-05-25 17:02 G	16905431.11	16905431.21	16905431.31	0.0527	0.0475
Earth	41573-05-25 20:53 G	16905431.27	16905431.37	16905431.48	0.0527	0.0467 *
Venus	41573-10-24 03:36 G	16905582.50	16905582.65	16905582.81	0.0527	0.0341
Mercury	41575-12-12 21:07 G	16906362.35	16906362.38	16906362.42	0.0519	0.0498
Mercury	41576-03-11 01:12 G	16906451.43	16906451.55	16906451.68	0.0517	0.0092
Earth	41578-11-14 12:00 G	16907429.77	16907430.00	16907430.23	0.0500	0.0114
Moon	41578-11-14 14:38 G	16907429.89	16907430.11	16907430.34	0.0500	0.0105 *
Venus	41579-08-27 06:58 G	16907715.60	16907715.79	16907715.99	0.0498	0.0169
Mercury	41582-05-04 22:19 G	16908697.26	16908697.43	16908697.60	0.0508	0.0196
Moon	41584-04-25 07:55 G	16909418.73	16909418.83	16909418.93	0.0522	0.0466
Earth	41584-04-25 11:31 G	16909418.87	16909418.98	16909419.10	0.0522	0.0455 *
Venus	41585-06-28 18:29 G	16909848.07	16909848.27	16909848.47	0.0527	0.0124
Mercury	41587-12-29 05:46 G	16910761.61	16910761.74	16910761.86	0.0518	0.0061
Moon	41590-11-19 00:29 G	16911817.32	16911817.52	16911817.73	0.0500	0.0269
Earth	41590-11-19 01:26 G	16911817.36	16911817.56	16911817.76	0.0500	0.0244 *

Venus	41591-05-02 08:24 G	16911981.66	16911981.85	16911982.03	0.0499	0.0213
Mercury	41594-02-20 18:14 G	16913007.07	16913007.26	16913007.45	0.0507	0.0023
Mars	41594-06-29 00:00 G	16913135.36	16913135.50	16913135.65	0.0510	0.0443
Earth	41596-04-30 06:43 G	16913806.60	16913806.78	16913806.98	0.0523	0.0312
Moon	41596-04-30 10:05 G	16913806.75	16913806.92	16913807.10	0.0523	0.0341 *
Mercury	41599-10-17 10:34 G	16915071.82	16915071.94	16915072.05	0.0519	0.0205
Mercury	41600-01-14 14:38 G	16915161.03	16915161.11	16915161.19	0.0517	0.0384
Moon	41602-11-23 13:55 G	16916204.94	16916205.08	16916205.23	0.0499	0.0382
Earth	41602-11-23 15:22 G	16916204.98	16916205.14	16916205.29	0.0499	0.0372 *
Mercury	41605-12-09 13:26 G	16917316.90	16917317.06	16917317.22	0.0507	0.0248
Moon	41608-05-04 23:46 G	16918194.26	16918194.49	16918194.72	0.0524	0.0157
Earth	41608-05-05 01:55 G	16918194.36	16918194.58	16918194.80	0.0524	0.0166 *
Mercury	41611-08-05 15:22 G	16919382.05	16919382.14	16919382.23	0.0520	0.0348
Mercury	41611-11-02 19:26 G	16919471.20	16919471.31	16919471.42	0.0518	0.0242
Moon	41613-10-26 10:48 G	16920194.82	16920194.95	16920195.08	0.0503	0.0414
Earth	41613-10-26 13:55 G	16920194.96	16920195.08	16920195.20	0.0503	0.0426 *
Moon	41614-11-28 06:00 G	16920592.68	16920592.75	16920592.84	0.0499	0.0470
Venus	41615-05-04 18:58 G	16920750.18	16920750.29	16920750.42	0.0498	0.0398
Mercury	41617-09-27 09:36 G	16921626.82	16921626.90	16921626.98	0.0506	0.0460
Mercury	41617-12-26 23:31 G	16921717.38	16921717.48	16921717.60	0.0508	0.0406
Earth	41620-05-10 01:41 G	16922582.34	16922582.57	16922582.80	0.0525	0.0013
Moon	41620-05-10 02:10 G	16922582.37	16922582.59	16922582.81	0.0525	0.0020 *
Venus	41621-03-06 10:05 G	16922882.73	16922882.92	16922883.12	0.0527	0.0142
Mercury	41623-05-24 19:41 G	16923692.29	16923692.32	16923692.36	0.0519	0.0500
Mercury	41623-08-21 23:46 G	16923781.37	16923781.49	16923781.62	0.0518	0.0089
Earth	41625-10-30 23:46 G	16924582.30	16924582.49	16924582.68	0.0502	0.0300
Moon	41625-10-31 03:36 G	16924582.46	16924582.65	16924582.86	0.0502	0.0270 *
Venus	41627-01-07 17:46 G	16925016.04	16925016.24	16925016.45	0.0498	0.0011
Mercury	41629-10-14 20:10 G	16926027.16	16926027.34	16926027.51	0.0508	0.0194
Earth	41632-05-15 02:10 G	16926970.37	16926970.59	16926970.82	0.0525	0.0145

Moon	41632-05-15 04:19 G	16926970.45	16926970.68	16926970.91	0.0525	0.0135	*
Venus	41632-11-09 03:22 G	16927148.48	16927148.64	16927148.81	0.0527	0.0309	
Mercury	41635-06-10 04:34 G	16928091.56	16928091.69	16928091.81	0.0518	0.0059	
Moon	41637-11-04 09:50 G	16928969.69	16928969.91	16928970.13	0.0502	0.0170	
Earth	41637-11-04 13:41 G	16928969.85	16928970.07	16928970.30	0.0502	0.0167	*
Venus	41638-09-12 18:43 G	16929282.16	16929282.28	16929282.42	0.0499	0.0379	
Mercury	41641-08-02 16:19 G	16930337.00	16930337.18	16930337.37	0.0508	0.0021	
Moon	41644-05-19 19:41 G	16931358.13	16931358.32	16931358.53	0.0526	0.0265	
Earth	41644-05-19 23:31 G	16931358.29	16931358.48	16931358.67	0.0526	0.0295	*
Mercury	41647-03-29 08:53 G	16932401.76	16932401.87	16932401.99	0.0519	0.0208	
Mercury	41647-06-26 12:58 G	16932490.96	16932491.04	16932491.12	0.0517	0.0380	
Earth	41649-11-09 04:19 G	16933357.44	16933357.68	16933357.91	0.0501	0.0035	
Moon	41649-11-09 07:12 G	16933357.57	16933357.80	16933358.03	0.0501	0.0064	*
Mercury	41653-05-21 12:14 G	16934646.85	16934647.01	16934647.18	0.0507	0.0234	
Earth	41656-05-24 20:53 G	16935746.26	16935746.37	16935746.50	0.0526	0.0446	
Moon	41656-05-25 00:58 G	16935746.44	16935746.54	16935746.66	0.0526	0.0457	*
Venus	41656-11-12 01:26 G	16935917.43	16935917.56	16935917.69	0.0527	0.0405	
Mercury	41659-01-15 13:41 G	16936711.98	16936712.07	16936712.16	0.0519	0.0352	
Mercury	41659-04-14 17:46 G	16936801.13	16936801.24	16936801.35	0.0518	0.0238	
Moon	41661-11-13 18:29 G	16937745.03	16937745.27	16937745.51	0.0500	0.0098	
Earth	41661-11-13 19:41 G	16937745.09	16937745.32	16937745.55	0.0500	0.0100	*
Venus	41662-09-15 06:58 G	16938050.61	16938050.79	16938050.97	0.0498	0.0239	
Mercury	41665-03-09 07:41 G	16938956.75	16938956.82	16938956.91	0.0506	0.0456	
Mercury	41665-06-07 22:05 G	16939047.31	16939047.42	16939047.52	0.0508	0.0410	
Earth	41667-04-25 12:43 G	16939733.95	16939734.03	16939734.13	0.0522	0.0478	
Moon	41667-04-25 16:19 G	16939734.11	16939734.18	16939734.25	0.0522	0.0497	*
Venus	41668-07-17 17:02 G	16940183.01	16940183.21	16940183.41	0.0527	0.0054	
Mercury	41670-11-03 18:29 G	16941022.24	16941022.27	16941022.31	0.0520	0.0495	
Mercury	41671-01-31 22:34 G	16941111.32	16941111.44	16941111.57	0.0518	0.0098	
Moon	41673-11-18 08:10 G	16942132.65	16942132.84	16942133.03	0.0500	0.0262	

Earth	41673-11-18 09:07 G	16942132.68	16942132.88	16942133.09	0.0500	0.0232	*
Venus	41674-05-21 08:10 G	16942316.64	16942316.84	16942317.03	0.0498	0.0143	
Mercury	41677-03-26 18:14 G	16943357.09	16943357.26	16943357.44	0.0508	0.0199	
Moon	41679-04-30 09:07 G	16944121.71	16944121.88	16944122.06	0.0523	0.0359	
Earth	41679-04-30 11:46 G	16944121.81	16944121.99	16944122.17	0.0523	0.0330	*
Venus	41680-03-22 10:48 G	16944448.89	16944448.95	16944449.01	0.0527	0.0502	
Mercury	41682-11-20 03:07 G	16945421.51	16945421.63	16945421.76	0.0518	0.0056	
Earth	41685-11-22 17:46 G	16946520.08	16946520.24	16946520.40	0.0499	0.0357	
Moon	41685-11-22 20:10 G	16946520.18	16946520.34	16946520.51	0.0499	0.0363	*
Mercury	41689-01-12 14:38 G	16947666.92	16947667.11	16947667.30	0.0508	0.0015	
Earth	41691-05-05 11:46 G	16948509.78	16948509.99	16948510.21	0.0524	0.0178	
Moon	41691-05-05 12:43 G	16948509.82	16948510.03	16948510.24	0.0524	0.0165	*
Mercury	41694-09-08 07:55 G	16949731.72	16949731.83	16949731.95	0.0518	0.0198	
Mercury	41694-12-06 12:00 G	16949820.92	16949821.00	16949821.08	0.0516	0.0388	
Mars	41695-02-01 08:38 G	16949877.67	16949877.86	16949878.05	0.0515	0.0325	
Earth	41696-10-25 15:07 G	16950510.03	16950510.13	16950510.24	0.0503	0.0449	
Moon	41696-10-25 19:12 G	16950510.18	16950510.30	16950510.42	0.0503	0.0428	*
Moon	41697-11-27 03:07 G	16950907.54	16950907.63	16950907.72	0.0499	0.0457	
Earth	41697-11-27 06:14 G	16950907.72	16950907.76	16950907.82	0.0499	0.0486	*
Venus	41698-05-23 16:34 G	16951085.11	16951085.19	16951085.27	0.0499	0.0456	
Mercury	41700-11-01 11:02 G	16951976.79	16951976.96	16951977.13	0.0507	0.0224	
Earth	41703-05-11 09:07 G	16952897.65	16952897.88	16952898.11	0.0524	0.0028	
Moon	41703-05-11 10:34 G	16952897.70	16952897.94	16952898.18	0.0524	0.0001	*
Venus	41704-03-26 11:02 G	16953217.78	16953217.96	16953218.15	0.0527	0.0225	
Mercury	41706-06-28 12:29 G	16954041.93	16954042.02	16954042.11	0.0519	0.0349	
Mercury	41706-09-25 16:34 G	16954131.08	16954131.19	16954131.30	0.0517	0.0240	
Moon	41708-10-31 02:53 G	16954897.42	16954897.62	16954897.81	0.0503	0.0286	
Earth	41708-10-31 06:43 G	16954897.60	16954897.78	16954897.97	0.0503	0.0317	*
Venus	41710-01-27 18:14 G	16955351.06	16955351.26	16955351.46	0.0499	0.0079	
Mercury	41712-08-20 07:12 G	16956286.71	16956286.80	16956286.90	0.0507	0.0437	

Mercury	41712-11-18 21:22 G	16956377.29	16956377.39	16956377.49	0.0508	0.0431
Mars	41712-12-15 23:02 G	16956404.43	16956404.46	16956404.53	0.0509	0.0501
Moon	41715-05-16 03:07 G	16957285.41	16957285.63	16957285.85	0.0525	0.0109
Earth	41715-05-16 06:14 G	16957285.54	16957285.76	16957285.99	0.0525	0.0126 *
Venus	41715-11-30 03:07 G	16957483.45	16957483.63	16957483.81	0.0527	0.0233
Mercury	41718-04-16 17:17 G	16958352.18	16958352.22	16958352.26	0.0520	0.0493
Mercury	41718-07-14 21:22 G	16958441.27	16958441.39	16958441.51	0.0518	0.0097
Earth	41720-11-04 23:17 G	16959285.26	16959285.47	16959285.69	0.0502	0.0180
Moon	41720-11-05 02:24 G	16959285.39	16959285.60	16959285.81	0.0502	0.0187 *
Venus	41721-10-02 20:10 G	16959617.18	16959617.34	16959617.51	0.0499	0.0299
Mercury	41724-09-06 17:02 G	16960687.04	16960687.21	16960687.38	0.0508	0.0211
Earth	41727-05-21 03:36 G	16961673.45	16961673.65	16961673.84	0.0526	0.0278
Moon	41727-05-21 07:41 G	16961673.61	16961673.82	16961674.02	0.0526	0.0248 *
Mercury	41730-05-03 02:10 G	16962751.47	16962751.59	16962751.72	0.0518	0.0047
Moon	41732-11-09 13:26 G	16963672.81	16963673.06	16963673.30	0.0501	0.0072
Earth	41732-11-09 14:38 G	16963672.87	16963673.11	16963673.34	0.0501	0.0044 *
Mercury	41736-06-25 13:26 G	16964996.87	16964997.06	16964997.25	0.0507	0.0008
Moon	41739-05-26 01:26 G	16966061.44	16966061.56	16966061.69	0.0526	0.0443
Earth	41739-05-26 05:17 G	16966061.59	16966061.72	16966061.85	0.0526	0.0435 *
Venus	41739-12-03 03:50 G	16966252.60	16966252.66	16966252.73	0.0527	0.0494
Mercury	41742-02-19 06:58 G	16967061.67	16967061.79	16967061.90	0.0518	0.0191
Mercury	41742-05-19 10:48 G	16967150.88	16967150.95	16967151.03	0.0517	0.0396
Moon	41744-11-13 23:02 G	16968060.24	16968060.46	16968060.69	0.0500	0.0090
Earth	41744-11-14 00:00 G	16968060.27	16968060.50	16968060.73	0.0500	0.0083 *
Venus	41745-10-05 05:02 G	16968385.54	16968385.71	16968385.87	0.0498	0.0301
Mercury	41748-04-13 09:36 G	16969306.73	16969306.90	16969307.07	0.0508	0.0216
Moon	41750-04-25 22:48 G	16970049.41	16970049.45	16970049.50	0.0522	0.0510
Earth	41750-04-26 01:26 G	16970049.49	16970049.56	16970049.64	0.0522	0.0489 *
Venus	41751-08-07 21:50 G	16970518.21	16970518.41	16970518.61	0.0527	0.0049
Mercury	41753-12-08 11:46 G	16971371.90	16971371.99	16971372.09	0.0519	0.0334

Mercury	41754-03-07 15:36 G	16971461.05	16971461.15	16971461.26	0.0517	0.0254
Earth	41756-11-18 13:26 G	16972447.85	16972448.06	16972448.28	0.0500	0.0217
Moon	41756-11-18 16:05 G	16972447.96	16972448.17	16972448.38	0.0500	0.0248 *
Venus	41757-06-10 06:14 G	16972651.56	16972651.76	16972651.96	0.0499	0.0080
Mercury	41760-01-31 06:00 G	16973616.66	16973616.75	16973616.86	0.0507	0.0425
Mercury	41760-04-30 20:24 G	16973707.26	16973707.35	16973707.44	0.0509	0.0446
Earth	41762-04-30 22:34 G	16974437.27	16974437.44	16974437.62	0.0523	0.0344
Moon	41762-04-30 23:31 G	16974437.33	16974437.48	16974437.65	0.0523	0.0372 *
Venus	41763-04-12 13:55 G	16974783.95	16974784.08	16974784.21	0.0526	0.0407
Mercury	41765-09-26 16:19 G	16975682.14	16975682.18	16975682.22	0.0519	0.0483
Mercury	41765-12-24 20:10 G	16975771.22	16975771.34	16975771.47	0.0517	0.0107
Moon	41768-11-23 00:43 G	16976835.37	16976835.53	16976835.69	0.0500	0.0354
Earth	41768-11-23 04:05 G	16976835.51	16976835.67	16976835.84	0.0500	0.0348 *
Venus	41769-02-13 07:55 G	16976917.75	16976917.83	16976917.91	0.0499	0.0456
Mercury	41772-02-17 16:48 G	16978017.03	16978017.20	16978017.37	0.0508	0.0234
Earth	41774-05-05 19:26 G	16978825.09	16978825.31	16978825.52	0.0523	0.0195
Moon	41774-05-05 20:24 G	16978825.12	16978825.35	16978825.58	0.0523	0.0176 *
Mercury	41777-10-13 01:12 G	16980081.42	16980081.55	16980081.67	0.0518	0.0042
Moon	41779-10-26 22:19 G	16980825.33	16980825.43	16980825.55	0.0504	0.0441
Earth	41779-10-27 02:24 G	16980825.51	16980825.60	16980825.70	0.0504	0.0462 *
Earth	41780-11-27 18:58 G	16981223.23	16981223.29	16981223.35	0.0499	0.0479
Moon	41780-11-27 22:34 G	16981223.35	16981223.44	16981223.55	0.0499	0.0450 *
Mercury	41783-12-06 12:43 G	16982326.84	16982327.03	16982327.22	0.0507	0.0017
Moon	41786-05-10 12:43 G	16983212.81	16983213.03	16983213.26	0.0524	0.0021
Earth	41786-05-10 15:36 G	16983212.92	16983213.15	16983213.39	0.0524	0.0045 *
Venus	41787-04-15 12:43 G	16983552.87	16983553.03	16983553.20	0.0527	0.0310
Mercury	41789-08-01 06:00 G	16984391.63	16984391.75	16984391.87	0.0519	0.0179
Mercury	41789-10-29 10:05 G	16984480.85	16984480.92	16984481.00	0.0517	0.0410
Earth	41791-10-31 18:58 G	16985213.11	16985213.29	16985213.47	0.0503	0.0326
Moon	41791-10-31 22:05 G	16985213.24	16985213.42	16985213.60	0.0503	0.0299 *

Venus	41793-02-15 20:38 G	16985686.17	16985686.36	16985686.55	0.0498	0.0162
Mercury	41795-09-24 09:07 G	16986636.70	16986636.88	16986637.05	0.0507	0.0194
Earth	41798-05-15 16:19 G	16987600.96	16987601.18	16987601.41	0.0525	0.0116
Moon	41798-05-15 20:24 G	16987601.12	16987601.35	16987601.58	0.0525	0.0092 *
Venus	41798-12-19 06:58 G	16987818.59	16987818.79	16987818.98	0.0527	0.0136
Mercury	41801-05-21 10:48 G	16988701.86	16988701.95	16988702.05	0.0519	0.0324
Mercury	41801-08-18 14:53 G	16988791.01	16988791.12	16988791.23	0.0517	0.0264
Moon	41803-11-06 04:19 G	16989600.46	16989600.68	16989600.90	0.0502	0.0207
Earth	41803-11-06 05:46 G	16989600.53	16989600.74	16989600.96	0.0502	0.0197 *
Venus	41804-10-22 19:12 G	16989952.12	16989952.30	16989952.48	0.0499	0.0231
Mercury	41807-07-14 04:48 G	16990946.60	16990946.70	16990946.81	0.0507	0.0413
Mercury	41807-10-12 19:12 G	16991037.22	16991037.30	16991037.38	0.0509	0.0458
Moon	41810-05-21 14:38 G	16991988.90	16991989.11	16991989.32	0.0526	0.0243
Earth	41810-05-21 18:14 G	16991989.07	16991989.26	16991989.47	0.0526	0.0274 *
Mercury	41813-03-09 15:50 G	16993012.10	16993012.16	16993012.21	0.0519	0.0464
Mercury	41813-06-06 19:41 G	16993101.20	16993101.32	16993101.45	0.0517	0.0123
Mars	41813-07-26 21:36 G	16993151.21	16993151.40	16993151.60	0.0516	0.0315
Moon	41815-11-10 19:41 G	16993988.10	16993988.32	16993988.55	0.0501	0.0086
Earth	41815-11-10 20:24 G	16993988.12	16993988.35	16993988.59	0.0501	0.0061 *
Mercury	41819-07-31 15:50 G	16995347.00	16995347.16	16995347.33	0.0509	0.0251
Earth	41822-05-26 17:02 G	16996377.08	16996377.21	16996377.35	0.0526	0.0425
Moon	41822-05-26 19:12 G	16996377.19	16996377.30	16996377.43	0.0526	0.0442 *
Mercury	41825-03-26 00:14 G	16997411.39	16997411.51	16997411.64	0.0518	0.0030
Earth	41827-11-15 11:31 G	16998375.75	16998375.98	16998376.21	0.0501	0.0074
Moon	41827-11-15 14:10 G	16998375.85	16998376.09	16998376.33	0.0501	0.0087 *
Venus	41828-10-25 07:41 G	16998720.69	16998720.82	16998720.95	0.0499	0.0386
Mercury	41831-05-19 12:29 G	16999656.83	16999657.02	16999657.21	0.0508	0.0041
Earth	41833-04-26 11:46 G	17000364.93	17000364.99	17000365.04	0.0522	0.0504
Venus	41834-08-28 00:14 G	17000853.32	17000853.51	17000853.71	0.0527	0.0140
Mercury	41837-01-12 05:02 G	17001721.60	17001721.71	17001721.83	0.0518	0.0170

Mercury	41837-04-11 09:07 G	17001810.81	17001810.88	17001810.95	0.0517	0.0418
Moon	41839-11-19 23:46 G	17002763.30	17002763.49	17002763.70	0.0500	0.0243
Earth	41839-11-20 03:22 G	17002763.43	17002763.64	17002763.85	0.0500	0.0210 *
Venus	41840-06-30 09:50 G	17002986.70	17002986.91	17002987.11	0.0499	0.0012
Mercury	41843-03-07 08:24 G	17003966.68	17003966.85	17003967.03	0.0507	0.0175
Earth	41845-05-01 06:58 G	17004752.62	17004752.79	17004752.96	0.0523	0.0359
Moon	41845-05-01 07:26 G	17004752.65	17004752.81	17004752.98	0.0523	0.0379 *
Venus	41846-05-02 16:19 G	17005119.03	17005119.18	17005119.35	0.0527	0.0317
Mercury	41848-10-31 10:05 G	17006031.82	17006031.92	17006032.02	0.0519	0.0310
Mercury	41849-01-28 14:10 G	17006120.98	17006121.09	17006121.19	0.0517	0.0279
Earth	41851-11-24 17:46 G	17007151.07	17007151.24	17007151.41	0.0500	0.0344
Moon	41851-11-24 21:36 G	17007151.23	17007151.40	17007151.57	0.0500	0.0341 *
Venus	41852-03-05 11:17 G	17007252.84	17007252.97	17007253.11	0.0499	0.0368
Mercury	41854-12-24 04:48 G	17008276.58	17008276.70	17008276.82	0.0507	0.0385
Mercury	41855-03-24 18:58 G	17008367.24	17008367.29	17008367.35	0.0509	0.0484
Moon	41857-05-06 03:50 G	17009140.45	17009140.66	17009140.87	0.0524	0.0181
Earth	41857-05-06 06:29 G	17009140.56	17009140.77	17009140.99	0.0524	0.0206 *
Mercury	41860-08-19 14:53 G	17010342.07	17010342.12	17010342.18	0.0519	0.0453
Mercury	41860-11-16 18:58 G	17010431.17	17010431.29	17010431.41	0.0517	0.0136
Earth	41862-10-27 10:48 G	17011140.89	17011140.95	17011141.03	0.0503	0.0478
Moon	41862-10-27 14:10 G	17011141.00	17011141.09	17011141.19	0.0503	0.0455 *
Moon	41863-11-28 23:17 G	17011538.36	17011538.47	17011538.59	0.0499	0.0437
Earth	41863-11-29 02:24 G	17011538.53	17011538.60	17011538.69	0.0499	0.0469 *
Mercury	41867-01-10 14:53 G	17012676.96	17012677.12	17012677.28	0.0509	0.0264
Mars	41867-03-14 00:43 G	17012739.23	17012739.53	17012739.83	0.0510	0.0031
Earth	41869-05-11 07:12 G	17013528.57	17013528.80	17013529.03	0.0525	0.0051
Moon	41869-05-11 11:17 G	17013528.74	17013528.97	17013529.20	0.0525	0.0032 *
Venus	41870-05-05 19:55 G	17013888.22	17013888.33	17013888.46	0.0527	0.0424
Mercury	41872-09-05 00:00 G	17014741.37	17014741.50	17014741.62	0.0517	0.0013
Moon	41874-11-01 00:43 G	17015528.35	17015528.53	17015528.73	0.0502	0.0321

Earth	41874-11-01 02:38 G	17015528.44	17015528.61	17015528.78	0.0502	0.0343	*
Venus	41876-03-07 20:24 G	17016021.17	17016021.35	17016021.53	0.0499	0.0232	
Mercury	41878-10-29 11:31 G	17016986.80	17016986.98	17016987.17	0.0508	0.0057	
Moon	41881-05-16 02:10 G	17017916.36	17017916.59	17017916.82	0.0525	0.0080	
Earth	41881-05-16 06:00 G	17017916.53	17017916.75	17017916.98	0.0525	0.0105	*
Venus	41882-01-08 12:14 G	17018153.81	17018154.01	17018154.21	0.0527	0.0030	
Mercury	41884-06-24 04:34 G	17019051.57	17019051.69	17019051.81	0.0518	0.0154	
Mercury	41884-09-21 08:24 G	17019140.79	17019140.85	17019140.92	0.0516	0.0432	
Moon	41886-11-05 17:17 G	17019916.02	17019916.22	17019916.42	0.0502	0.0229	
Earth	41886-11-05 18:00 G	17019916.04	17019916.25	17019916.46	0.0502	0.0208	*
Venus	41887-11-11 22:19 G	17020287.24	17020287.43	17020287.63	0.0499	0.0143	
Mercury	41890-08-17 08:10 G	17021296.66	17021296.84	17021297.02	0.0508	0.0151	
Earth	41893-05-21 04:19 G	17022304.48	17022304.68	17022304.88	0.0525	0.0261	
Moon	41893-05-21 06:43 G	17022304.58	17022304.78	17022304.98	0.0525	0.0238	*
Venus	41893-09-13 04:34 G	17022419.61	17022419.69	17022419.77	0.0526	0.0482	
Mercury	41896-04-12 09:07 G	17023361.78	17023361.88	17023361.99	0.0519	0.0299	
Mercury	41896-07-10 13:12 G	17023450.95	17023451.05	17023451.15	0.0517	0.0290	
Earth	41898-11-10 10:19 G	17024303.69	17024303.93	17024304.16	0.0501	0.0069	
Moon	41898-11-10 12:58 G	17024303.80	17024304.04	17024304.28	0.0501	0.0091	*
Mercury	41902-06-06 04:05 G	17025606.55	17025606.67	17025606.81	0.0507	0.0366	
Mercury	41902-09-04 18:14 G	17025697.25	17025697.26	17025697.29	0.0509	0.0504	
Moon	41905-05-27 01:41 G	17026692.43	17026692.57	17026692.70	0.0526	0.0435	
Earth	41905-05-27 01:55 G	17026692.44	17026692.58	17026692.72	0.0526	0.0414	*
Mercury	41908-01-31 14:10 G	17027672.03	17027672.09	17027672.15	0.0519	0.0440	
Mercury	41908-04-29 18:14 G	17027761.14	17027761.26	17027761.38	0.0518	0.0150	
Moon	41910-11-15 22:19 G	17028691.20	17028691.43	17028691.66	0.0501	0.0084	
Earth	41910-11-16 01:41 G	17028691.34	17028691.57	17028691.81	0.0501	0.0069	*
Venus	41911-11-15 11:02 G	17029055.91	17029055.96	17029056.03	0.0498	0.0474	
Mercury	41914-06-23 14:53 G	17030006.97	17030007.12	17030007.27	0.0508	0.0293	
Earth	41916-04-26 22:48 G	17030680.43	17030680.45	17030680.49	0.0522	0.0517	

Venus	41917-09-17 05:31 G	17031188.55	17031188.73	17031188.91	0.0527	0.0242
Mercury	41920-02-16 23:02 G	17032071.34	17032071.46	17032071.59	0.0517	0.0018
Earth	41922-11-20 11:46 G	17033078.78	17033078.99	17033079.21	0.0500	0.0196
Moon	41922-11-20 15:36 G	17033078.94	17033079.15	17033079.36	0.0500	0.0225 *
Venus	41923-07-21 09:36 G	17033321.70	17033321.90	17033322.11	0.0498	0.0084
Mercury	41926-04-11 10:19 G	17034316.75	17034316.93	17034317.12	0.0508	0.0069
Moon	41928-05-01 19:26 G	17035068.16	17035068.31	17035068.46	0.0523	0.0382
Earth	41928-05-01 21:50 G	17035068.25	17035068.41	17035068.58	0.0523	0.0370 *
Venus	41929-05-22 23:46 G	17035454.30	17035454.49	17035454.68	0.0527	0.0201
Mercury	41931-12-06 04:05 G	17036381.55	17036381.67	17036381.79	0.0518	0.0132
Mercury	41932-03-04 08:10 G	17036470.78	17036470.84	17036470.89	0.0516	0.0453
Moon	41934-11-24 22:05 G	17037466.24	17037466.42	17037466.61	0.0499	0.0321
Earth	41934-11-25 01:26 G	17037466.39	17037466.56	17037466.74	0.0499	0.0331 *
Venus	41935-03-26 11:02 G	17037587.80	17037587.96	17037588.13	0.0499	0.0296
Mercury	41938-01-28 06:58 G	17038626.61	17038626.79	17038626.98	0.0508	0.0139
Earth	41940-05-06 20:10 G	17039456.13	17039456.34	17039456.55	0.0524	0.0219
Moon	41940-05-07 00:00 G	17039456.29	17039456.50	17039456.72	0.0524	0.0187 *
Mercury	41943-09-24 08:38 G	17040691.76	17040691.86	17040691.97	0.0518	0.0282
Mercury	41943-12-22 12:29 G	17040780.92	17040781.02	17040781.13	0.0516	0.0306
Moon	41945-10-27 20:38 G	17041456.28	17041456.36	17041456.46	0.0504	0.0467
Earth	41945-10-27 22:34 G	17041456.40	17041456.44	17041456.50	0.0504	0.0492 *
Earth	41946-11-29 15:36 G	17041854.07	17041854.15	17041854.24	0.0499	0.0462
Moon	41946-11-29 17:17 G	17041854.12	17041854.22	17041854.34	0.0499	0.0435 *
Mercury	41949-11-16 03:36 G	17042936.52	17042936.65	17042936.79	0.0507	0.0345
Moon	41952-05-11 13:55 G	17043843.85	17043844.08	17043844.31	0.0524	0.0047
Earth	41952-05-11 18:00 G	17043844.02	17043844.25	17043844.48	0.0524	0.0064 *
Venus	41953-05-25 23:02 G	17044223.43	17044223.46	17044223.50	0.0527	0.0517
Mercury	41955-07-13 13:26 G	17045001.99	17045002.06	17045002.13	0.0519	0.0427
Mercury	41955-10-10 17:17 G	17045091.10	17045091.22	17045091.34	0.0517	0.0162
Moon	41957-11-01 14:53 G	17045843.96	17045844.12	17045844.28	0.0503	0.0343

Earth	41957-11-01 15:22 G	17045843.98	17045844.14	17045844.31	0.0503	0.0355	*
Venus	41959-03-29 00:00 G	17046356.35	17046356.50	17046356.66	0.0499	0.0324	
Mercury	41961-12-03 14:10 G	17047336.94	17047337.09	17047337.24	0.0508	0.0311	
Earth	41964-05-16 14:24 G	17048231.88	17048232.10	17048232.33	0.0525	0.0092	
Moon	41964-05-16 17:31 G	17048232.00	17048232.23	17048232.45	0.0525	0.0066	*
Venus	41965-01-28 14:53 G	17048488.92	17048489.12	17048489.32	0.0527	0.0061	
Mercury	41967-07-29 22:19 G	17049401.30	17049401.43	17049401.55	0.0518	0.0022	
Mars	41967-10-22 17:02 G	17049485.96	17049486.21	17049486.45	0.0516	0.0118	
Earth	41969-11-06 07:41 G	17050231.61	17050231.82	17050232.03	0.0502	0.0216	
Moon	41969-11-06 10:05 G	17050231.72	17050231.92	17050232.14	0.0502	0.0244	*
Venus	41970-12-02 01:41 G	17050622.37	17050622.57	17050622.78	0.0499	0.0055	
Mercury	41973-09-21 10:19 G	17051646.75	17051646.93	17051647.12	0.0508	0.0099	
Moon	41976-05-21 14:24 G	17052619.89	17052620.10	17052620.32	0.0526	0.0236	
Earth	41976-05-21 15:07 G	17052619.93	17052620.13	17052620.34	0.0526	0.0252	*
Venus	41976-10-03 08:53 G	17052754.73	17052754.87	17052755.01	0.0527	0.0383	
Mercury	41979-05-18 03:22 G	17053711.52	17053711.64	17053711.76	0.0518	0.0121	
Mercury	41979-08-15 07:12 G	17053800.75	17053800.80	17053800.85	0.0516	0.0465	
Moon	41981-11-10 16:05 G	17054618.95	17054619.17	17054619.40	0.0501	0.0108	
Earth	41981-11-10 19:26 G	17054619.08	17054619.31	17054619.55	0.0501	0.0086	*
Venus	41982-08-07 00:29 G	17054888.43	17054888.52	17054888.61	0.0499	0.0443	
Mercury	41985-07-10 05:31 G	17055956.55	17055956.73	17055956.92	0.0508	0.0131	
Moon	41988-05-26 14:38 G	17057008.00	17057008.11	17057008.24	0.0527	0.0439	
Earth	41988-05-26 16:34 G	17057008.05	17057008.19	17057008.34	0.0527	0.0408	*
Mercury	41991-03-06 08:10 G	17058021.74	17058021.84	17058021.95	0.0518	0.0261	
Mercury	41991-06-03 12:14 G	17058110.91	17058111.01	17058111.10	0.0516	0.0325	
Earth	41993-11-15 09:36 G	17059006.66	17059006.90	17059007.13	0.0500	0.0053	
Moon	41993-11-15 13:26 G	17059006.82	17059007.06	17059007.29	0.0500	0.0072	*
Mercury	41997-04-28 02:10 G	17060266.45	17060266.59	17060266.73	0.0508	0.0338	
Venus	42000-10-06 10:19 G	17061523.78	17061523.93	17061524.08	0.0527	0.0345	

43RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 43rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	42002-12-23 12:43	G	17062331.96	17062332.03	17062332.11	0.0519	0.0411	
Mercury	42003-03-22 16:34	G	17062421.08	17062421.19	17062421.31	0.0517	0.0176	
Moon	42005-11-19 20:10	G	17063394.13	17063394.34	17063394.56	0.0500	0.0210	
Earth	42005-11-19 23:31	G	17063394.27	17063394.48	17063394.70	0.0500	0.0187	*
Venus	42006-08-09 12:14	G	17063656.83	17063657.01	17063657.21	0.0499	0.0170	
Mercury	42009-05-15 13:12	G	17064666.91	17064667.05	17064667.20	0.0509	0.0329	
Earth	42011-05-02 08:10	G	17065383.69	17065383.84	17065384.00	0.0523	0.0386	
Moon	42011-05-02 11:46	G	17065383.85	17065383.99	17065384.16	0.0523	0.0388	*
Venus	42012-06-11 02:24	G	17065789.40	17065789.60	17065789.80	0.0527	0.0108	
Mercury	42015-01-08 21:22	G	17066731.26	17066731.39	17066731.52	0.0517	0.0030	
Earth	42017-11-24 14:10	G	17067781.92	17067782.09	17067782.27	0.0500	0.0323	
Moon	42017-11-24 16:05	G	17067781.99	17067782.17	17067782.35	0.0500	0.0305	*
Venus	42018-04-14 14:24	G	17067922.91	17067923.10	17067923.28	0.0499	0.0207	
Mercury	42021-03-03 09:22	G	17068976.71	17068976.89	17068977.07	0.0508	0.0112	
Moon	42023-05-06 23:46	G	17069771.28	17069771.49	17069771.70	0.0523	0.0204	
Earth	42023-05-07 03:50	G	17069771.45	17069771.66	17069771.87	0.0523	0.0236	*
Mercury	42026-10-28 02:10	G	17071041.47	17071041.59	17071041.71	0.0518	0.0114	
Mercury	42027-01-25 06:00	G	17071130.71	17071130.75	17071130.80	0.0516	0.0474	
Moon	42028-10-27 10:34	G	17071771.88	17071771.94	17071772.01	0.0504	0.0478	
Earth	42028-10-27 11:02	G	17071771.96	17071771.96	17071771.97	0.0504	0.0503	*

Moon	42029-11-29 03:36 G	17072169.53	17072169.65	17072169.78	0.0499	0.0426
Earth	42029-11-29 04:05 G	17072169.58	17072169.67	17072169.77	0.0499	0.0456 *
Mercury	42032-12-20 05:31 G	17073286.54	17073286.73	17073286.91	0.0508	0.0102
Earth	42035-05-12 02:38 G	17074159.38	17074159.61	17074159.84	0.0524	0.0079
Moon	42035-05-12 05:46 G	17074159.52	17074159.74	17074159.97	0.0524	0.0066 *
Mercury	42038-08-16 07:12 G	17075351.69	17075351.80	17075351.91	0.0518	0.0253
Mercury	42038-11-13 11:02 G	17075440.87	17075440.96	17075441.06	0.0516	0.0335
Earth	42040-11-01 00:29 G	17076159.38	17076159.52	17076159.69	0.0502	0.0373
Moon	42040-11-01 03:07 G	17076159.47	17076159.63	17076159.80	0.0502	0.0365 *
Venus	42042-04-16 23:17 G	17076691.35	17076691.47	17076691.60	0.0498	0.0392
Mercury	42044-10-08 00:14 G	17077596.38	17077596.51	17077596.66	0.0508	0.0335
Moon	42047-05-17 00:58 G	17078547.30	17078547.54	17078547.78	0.0526	0.0050
Earth	42047-05-17 02:10 G	17078547.36	17078547.59	17078547.82	0.0526	0.0078 *
Venus	42048-02-17 20:10 G	17078824.15	17078824.34	17078824.54	0.0527	0.0169
Mercury	42050-06-04 12:14 G	17079661.93	17079662.01	17079662.09	0.0518	0.0393
Mercury	42050-09-01 16:05 G	17079751.05	17079751.17	17079751.29	0.0517	0.0193
Moon	42052-11-05 12:00 G	17080546.80	17080547.00	17080547.19	0.0502	0.0265
Earth	42052-11-05 15:22 G	17080546.93	17080547.14	17080547.35	0.0502	0.0235 *
Venus	42053-12-21 00:43 G	17080957.32	17080957.53	17080957.73	0.0498	0.0017
Mercury	42056-10-25 11:31 G	17081996.83	17081996.98	17081997.12	0.0509	0.0331
Moon	42059-05-22 00:00 G	17082935.30	17082935.50	17082935.70	0.0526	0.0229
Earth	42059-05-22 01:12 G	17082935.35	17082935.55	17082935.76	0.0526	0.0235 *
Venus	42059-10-23 12:29 G	17083089.85	17083090.02	17083090.19	0.0527	0.0284
Mercury	42062-06-20 20:38 G	17084061.23	17084061.36	17084061.48	0.0517	0.0045
Earth	42064-11-10 05:02 G	17084934.48	17084934.71	17084934.95	0.0501	0.0100
Moon	42064-11-10 09:07 G	17084934.65	17084934.88	17084935.11	0.0501	0.0117 *
Venus	42065-08-26 01:55 G	17085223.45	17085223.58	17085223.73	0.0499	0.0362
Mercury	42068-08-13 08:10 G	17086306.65	17086306.84	17086307.02	0.0508	0.0123
Earth	42071-05-26 23:46 G	17087323.33	17087323.49	17087323.64	0.0526	0.0391
Moon	42071-05-27 02:38 G	17087323.48	17087323.61	17087323.76	0.0526	0.0423 *

Mercury	42074-04-09 01:12 G	17088371.43	17088371.55	17088371.67	0.0518	0.0105
Mercury	42074-07-07 05:02 G	17088460.67	17088460.71	17088460.76	0.0516	0.0480
Moon	42076-11-14 16:19 G	17089321.94	17089322.18	17089322.42	0.0501	0.0061
Earth	42076-11-14 19:41 G	17089322.09	17089322.32	17089322.56	0.0501	0.0040 *
Mercury	42080-06-01 04:05 G	17090616.48	17090616.67	17090616.85	0.0508	0.0095
Venus	42083-10-26 10:48 G	17091858.83	17091858.95	17091859.07	0.0527	0.0424
Mercury	42086-01-26 06:00 G	17092681.64	17092681.75	17092681.86	0.0518	0.0251
Mercury	42086-04-25 09:50 G	17092770.82	17092770.91	17092771.01	0.0517	0.0336
Earth	42088-11-19 10:05 G	17093709.70	17093709.92	17093710.14	0.0500	0.0176
Moon	42088-11-19 12:00 G	17093709.80	17093710.00	17093710.21	0.0500	0.0194 *
Venus	42089-08-28 13:41 G	17093991.90	17093992.07	17093992.26	0.0498	0.0249
Mercury	42092-03-20 00:00 G	17094926.35	17094926.50	17094926.65	0.0507	0.0311
Moon	42094-05-01 10:19 G	17095698.78	17095698.93	17095699.07	0.0523	0.0409
Earth	42094-05-01 14:10 G	17095698.95	17095699.09	17095699.24	0.0523	0.0407 *
Venus	42095-07-01 04:05 G	17096124.46	17096124.67	17096124.87	0.0527	0.0024
Mercury	42097-11-14 11:02 G	17096991.88	17096991.96	17096992.04	0.0519	0.0390
Mercury	42098-02-11 14:53 G	17097081.01	17097081.12	17097081.24	0.0517	0.0198
Moon	42100-11-24 20:10 G	17098097.14	17098097.34	17098097.54	0.0499	0.0282
Earth	42100-11-24 20:38 G	17098097.18	17098097.36	17098097.55	0.0499	0.0305 *
Venus	42101-05-04 12:58 G	17098257.85	17098258.04	17098258.24	0.0498	0.0139
Mercury	42104-04-07 09:07 G	17099326.74	17099326.88	17099327.03	0.0509	0.0328
Earth	42106-05-07 11:17 G	17100086.77	17100086.97	17100087.17	0.0524	0.0258
Moon	42106-05-07 14:38 G	17100086.91	17100087.11	17100087.32	0.0524	0.0225 *
Venus	42107-03-06 21:07 G	17100390.29	17100390.38	17100390.47	0.0527	0.0468
Mercury	42109-12-01 19:55 G	17101391.20	17101391.33	17101391.45	0.0517	0.0058
Moon	42111-10-28 20:10 G	17102087.30	17102087.34	17102087.40	0.0503	0.0492
Moon	42112-11-29 08:24 G	17102484.73	17102484.85	17102484.98	0.0499	0.0413
Earth	42112-11-29 09:22 G	17102484.78	17102484.89	17102485.00	0.0499	0.0437 *
Mercury	42116-01-25 05:31 G	17103636.55	17103636.73	17103636.92	0.0509	0.0117
Moon	42118-05-12 07:55 G	17104474.59	17104474.83	17104475.07	0.0525	0.0095

Earth	42118-05-12 09:36 G	17104474.68	17104474.90	17104475.13	0.0525	0.0103	*
Mercury	42121-09-20 00:14 G	17105701.38	17105701.51	17105701.63	0.0518	0.0098	
Mercury	42121-12-18 04:05 G	17105790.63	17105790.67	17105790.71	0.0516	0.0488	
Mars	42122-01-17 05:17 G	17105820.70	17105820.72	17105820.75	0.0515	0.0512	
Moon	42123-11-02 04:05 G	17106474.53	17106474.67	17106474.82	0.0503	0.0387	
Earth	42123-11-02 07:41 G	17106474.67	17106474.82	17106474.97	0.0503	0.0391	*
Venus	42125-05-06 23:46 G	17107026.42	17107026.49	17107026.56	0.0498	0.0465	
Mercury	42127-11-13 02:10 G	17107946.40	17107946.59	17107946.78	0.0508	0.0092	
Moon	42130-05-17 06:43 G	17108862.56	17108862.78	17108863.01	0.0525	0.0029	
Earth	42130-05-17 07:41 G	17108862.59	17108862.82	17108863.05	0.0525	0.0057	*
Venus	42131-03-09 20:24 G	17109159.17	17109159.35	17109159.53	0.0527	0.0246	
Mercury	42133-07-09 04:48 G	17110011.59	17110011.70	17110011.81	0.0518	0.0246	
Mercury	42133-10-06 08:38 G	17110100.77	17110100.86	17110100.95	0.0516	0.0340	
Earth	42135-11-06 22:05 G	17110862.22	17110862.42	17110862.62	0.0502	0.0253	
Moon	42135-11-07 01:55 G	17110862.39	17110862.58	17110862.78	0.0502	0.0283	*
Venus	42137-01-10 00:58 G	17111292.34	17111292.54	17111292.74	0.0499	0.0089	
Mercury	42139-08-31 22:05 G	17112256.27	17112256.42	17112256.57	0.0507	0.0310	
Mars	42139-11-27 04:48 G	17112343.50	17112343.70	17112343.93	0.0509	0.0361	
Earth	42142-05-22 03:22 G	17113250.43	17113250.64	17113250.85	0.0526	0.0211	
Moon	42142-05-22 06:00 G	17113250.54	17113250.75	17113250.97	0.0526	0.0209	*
Venus	42142-11-12 11:17 G	17113424.78	17113424.97	17113425.15	0.0527	0.0213	
Mercury	42145-04-27 09:22 G	17114321.81	17114321.89	17114321.97	0.0519	0.0394	
Mercury	42145-07-25 13:12 G	17114410.94	17114411.05	17114411.17	0.0517	0.0195	
Moon	42147-11-11 09:36 G	17115249.67	17115249.90	17115250.13	0.0501	0.0129	
Earth	42147-11-11 12:58 G	17115249.82	17115250.04	17115250.27	0.0501	0.0116	*
Venus	42148-09-15 02:10 G	17115558.42	17115558.59	17115558.76	0.0499	0.0289	
Mercury	42151-09-18 08:10 G	17116656.70	17116656.84	17116656.98	0.0509	0.0344	
Moon	42154-05-26 23:02 G	17117638.32	17117638.46	17117638.61	0.0526	0.0403	
Earth	42154-05-27 02:38 G	17117638.45	17117638.61	17117638.77	0.0526	0.0370	*
Mercury	42157-05-13 18:14 G	17118721.14	17118721.26	17118721.39	0.0517	0.0056	

Earth	42159-11-16 01:26 G	17119637.32	17119637.56	17119637.79	0.0500	0.0017
Moon	42159-11-16 03:36 G	17119637.42	17119637.65	17119637.88	0.0500	0.0045 *
Mercury	42163-07-07 02:53 G	17120966.43	17120966.62	17120966.80	0.0508	0.0107
Earth	42166-06-01 01:41 G	17122026.56	17122026.57	17122026.60	0.0527	0.0526
Venus	42166-11-15 12:14 G	17122193.96	17122194.01	17122194.06	0.0528	0.0510
Mercury	42169-03-01 23:17 G	17123031.34	17123031.47	17123031.59	0.0518	0.0089
Mercury	42169-05-30 03:07 G	17123120.60	17123120.63	17123120.66	0.0516	0.0497
Moon	42171-11-20 13:26 G	17124024.84	17124025.06	17124025.30	0.0500	0.0170
Earth	42171-11-20 14:24 G	17124024.87	17124025.10	17124025.32	0.0500	0.0154 *
Venus	42172-09-17 10:34 G	17124326.79	17124326.94	17124327.11	0.0498	0.0306
Mercury	42175-04-24 23:02 G	17125276.28	17125276.46	17125276.65	0.0508	0.0106
Earth	42177-05-01 17:31 G	17126014.11	17126014.23	17126014.36	0.0523	0.0435
Moon	42177-05-01 21:22 G	17126014.27	17126014.39	17126014.52	0.0523	0.0435 *
Venus	42178-07-21 03:50 G	17126459.46	17126459.66	17126459.86	0.0527	0.0057
Mercury	42180-12-19 03:22 G	17127341.53	17127341.64	17127341.75	0.0518	0.0243
Mercury	42181-03-18 07:26 G	17127430.71	17127430.81	17127430.90	0.0516	0.0344
Moon	42183-11-25 01:12 G	17128412.36	17128412.55	17128412.74	0.0499	0.0265
Earth	42183-11-25 01:41 G	17128412.39	17128412.57	17128412.77	0.0499	0.0288 *
Venus	42184-05-23 11:31 G	17128592.78	17128592.98	17128593.18	0.0498	0.0073
Mercury	42187-02-10 19:26 G	17129586.17	17129586.31	17129586.46	0.0508	0.0315
Moon	42189-05-06 12:29 G	17130401.81	17130402.02	17130402.23	0.0523	0.0251
Earth	42189-05-06 14:53 G	17130401.93	17130402.12	17130402.32	0.0523	0.0282 *
Venus	42190-03-25 19:41 G	17130725.19	17130725.32	17130725.46	0.0527	0.0396
Mercury	42192-10-07 07:55 G	17131651.75	17131651.83	17131651.91	0.0518	0.0393
Mercury	42193-01-04 11:46 G	17131740.88	17131740.99	17131741.11	0.0517	0.0195
Earth	42195-11-29 14:24 G	17132799.99	17132800.10	17132800.23	0.0499	0.0421
Moon	42195-11-29 16:48 G	17132800.07	17132800.20	17132800.35	0.0499	0.0400 *
Venus	42196-01-27 12:14 G	17132858.93	17132859.01	17132859.10	0.0499	0.0451
Mercury	42199-02-28 05:46 G	17133986.60	17133986.74	17133986.88	0.0509	0.0339
Earth	42201-05-12 09:36 G	17134789.68	17134789.90	17134790.13	0.0524	0.0129

Moon	42201-05-12 09:36 G	17134789.69	17134789.90	17134790.12	0.0524	0.0131	*
Mercury	42204-10-24 16:19 G	17136051.06	17136051.18	17136051.31	0.0517	0.0050	
Earth	42206-11-02 12:00 G	17136789.88	17136790.00	17136790.14	0.0503	0.0413	
Moon	42206-11-02 16:05 G	17136790.04	17136790.17	17136790.31	0.0503	0.0409	*
Mercury	42210-12-18 01:26 G	17138296.38	17138296.56	17138296.75	0.0508	0.0118	
Earth	42213-05-17 06:58 G	17139177.56	17139177.79	17139178.02	0.0525	0.0029	
Moon	42213-05-17 09:07 G	17139177.64	17139177.88	17139178.12	0.0525	0.0010	*
Venus	42214-03-29 18:00 G	17139494.09	17139494.25	17139494.41	0.0527	0.0310	
Mercury	42216-08-12 21:22 G	17140361.27	17140361.39	17140361.52	0.0518	0.0096	
Mercury	42216-11-10 01:26 G	17140450.52	17140450.56	17140450.59	0.0516	0.0491	
Moon	42218-11-06 22:48 G	17141177.27	17141177.45	17141177.65	0.0502	0.0307	
Earth	42218-11-07 02:38 G	17141177.42	17141177.61	17141177.81	0.0502	0.0277	*
Venus	42220-01-30 21:36 G	17141627.20	17141627.40	17141627.59	0.0498	0.0147	
Mercury	42222-10-05 19:55 G	17142606.15	17142606.33	17142606.52	0.0508	0.0120	
Moon	42225-05-22 00:43 G	17143565.32	17143565.53	17143565.75	0.0526	0.0179	
Earth	42225-05-22 04:05 G	17143565.45	17143565.67	17143565.89	0.0526	0.0184	*
Venus	42225-12-02 09:50 G	17143759.72	17143759.91	17143760.11	0.0528	0.0141	
Mercury	42228-06-01 02:10 G	17144671.48	17144671.59	17144671.70	0.0518	0.0239	
Mercury	42228-08-29 06:14 G	17144760.67	17144760.76	17144760.85	0.0516	0.0349	
Earth	42230-11-11 16:05 G	17145564.94	17145565.17	17145565.39	0.0501	0.0140	
Moon	42230-11-11 18:29 G	17145565.05	17145565.27	17145565.49	0.0501	0.0144	*
Venus	42231-10-05 22:19 G	17145893.25	17145893.43	17145893.61	0.0498	0.0233	
Mercury	42234-07-24 16:05 G	17146916.03	17146916.17	17146916.31	0.0507	0.0335	
Earth	42237-05-27 02:53 G	17147953.45	17147953.62	17147953.80	0.0526	0.0342	
Moon	42237-05-27 06:43 G	17147953.62	17147953.78	17147953.95	0.0526	0.0375	*
Mercury	42240-03-20 06:29 G	17148981.69	17148981.77	17148981.85	0.0519	0.0394	
Mercury	42240-06-17 10:19 G	17149070.82	17149070.93	17149071.05	0.0517	0.0193	
Mars	42240-07-10 01:41 G	17149093.35	17149093.57	17149093.80	0.0516	0.0218	
Moon	42242-11-16 02:10 G	17149952.35	17149952.59	17149952.83	0.0501	0.0024	
Earth	42242-11-16 03:07 G	17149952.40	17149952.63	17149952.87	0.0501	0.0007	*

Mercury	42246-08-11 02:53 G	17151316.48	17151316.62	17151316.77	0.0509	0.0329
Moon	42249-05-31 22:19 G	17152341.37	17152341.43	17152341.51	0.0527	0.0502
Earth	42249-06-01 01:26 G	17152341.50	17152341.56	17152341.64	0.0527	0.0499 *
Mercury	42252-04-05 14:53 G	17153380.99	17153381.12	17153381.24	0.0517	0.0043
Moon	42254-11-20 15:22 G	17154339.93	17154340.14	17154340.36	0.0500	0.0147
Earth	42254-11-20 15:50 G	17154339.94	17154340.16	17154340.39	0.0500	0.0132 *
Venus	42255-10-08 07:41 G	17154661.69	17154661.82	17154661.97	0.0498	0.0365
Mercury	42258-05-29 22:48 G	17155626.26	17155626.45	17155626.63	0.0508	0.0108
Moon	42260-05-01 12:58 G	17156328.95	17156329.04	17156329.16	0.0522	0.0466
Earth	42260-05-01 16:05 G	17156329.07	17156329.17	17156329.28	0.0522	0.0464 *
Venus	42261-08-09 23:17 G	17156794.27	17156794.47	17156794.67	0.0527	0.0110
Mercury	42264-01-23 19:12 G	17157691.18	17157691.30	17157691.43	0.0518	0.0110
Mercury	42264-04-21 23:17 G	17157780.42	17157780.47	17157780.51	0.0516	0.0477
Earth	42266-11-25 04:48 G	17158727.51	17158727.70	17158727.90	0.0500	0.0268
Moon	42266-11-25 06:58 G	17158727.58	17158727.79	17158728.01	0.0500	0.0243 *
Venus	42267-06-13 08:38 G	17158927.65	17158927.86	17158928.06	0.0498	0.0014
Mercury	42270-03-17 18:14 G	17159936.08	17159936.26	17159936.44	0.0508	0.0115
Earth	42272-05-06 11:31 G	17160716.80	17160716.98	17160717.17	0.0523	0.0315
Moon	42272-05-06 12:14 G	17160716.83	17160717.01	17160717.20	0.0523	0.0287 *
Venus	42273-04-14 15:22 G	17161059.98	17161060.14	17161060.29	0.0527	0.0342
Mercury	42275-11-12 00:14 G	17162001.40	17162001.51	17162001.62	0.0519	0.0251
Mercury	42276-02-09 04:05 G	17162090.58	17162090.67	17162090.77	0.0517	0.0337
Moon	42278-11-29 13:12 G	17163114.90	17163115.05	17163115.20	0.0499	0.0381
Earth	42278-11-29 16:34 G	17163115.05	17163115.19	17163115.34	0.0499	0.0398 *
Venus	42279-02-16 08:24 G	17163193.73	17163193.85	17163193.98	0.0498	0.0394
Mercury	42282-01-03 12:43 G	17164245.89	17164246.03	17164246.16	0.0507	0.0352
Earth	42284-05-11 06:29 G	17165104.55	17165104.77	17165104.99	0.0525	0.0163
Moon	42284-05-11 07:55 G	17165104.60	17165104.83	17165105.06	0.0525	0.0168 *
Mercury	42287-08-31 05:02 G	17166311.63	17166311.71	17166311.79	0.0519	0.0395
Mercury	42287-11-28 08:53 G	17166400.76	17166400.87	17166400.99	0.0517	0.0194

Moon	42289-11-01 10:19 G	17167104.83	17167104.93	17167105.06	0.0503	0.0437
Earth	42289-11-01 14:10 G	17167104.99	17167105.09	17167105.21	0.0503	0.0438 *
Mercury	42294-01-20 23:02 G	17168646.31	17168646.46	17168646.61	0.0509	0.0304
Mars	42294-02-20 00:29 G	17168676.22	17168676.52	17168676.82	0.0509	0.0071
Moon	42296-05-16 01:55 G	17169492.35	17169492.58	17169492.81	0.0525	0.0039
Earth	42296-05-16 04:48 G	17169492.47	17169492.70	17169492.93	0.0525	0.0007 *
Venus	42297-04-17 14:24 G	17169828.96	17169829.10	17169829.24	0.0528	0.0371
Mercury	42299-09-16 13:12 G	17170710.92	17170711.05	17170711.17	0.0517	0.0039
Earth	42301-11-07 01:12 G	17171492.37	17171492.55	17171492.74	0.0502	0.0304
Moon	42301-11-07 03:50 G	17171492.50	17171492.66	17171492.84	0.0502	0.0335 *
Venus	42303-02-19 17:02 G	17171962.03	17171962.21	17171962.40	0.0498	0.0197
Mercury	42305-11-09 19:26 G	17172956.13	17172956.31	17172956.50	0.0508	0.0093
Earth	42308-05-22 02:53 G	17173880.40	17173880.62	17173880.85	0.0525	0.0156
Moon	42308-05-22 06:43 G	17173880.56	17173880.78	17173881.01	0.0525	0.0155 *
Venus	42308-12-22 06:14 G	17174094.56	17174094.76	17174094.96	0.0527	0.0083
Mercury	42311-07-06 17:31 G	17175021.11	17175021.23	17175021.35	0.0518	0.0115
Mercury	42311-10-03 21:22 G	17175110.35	17175110.39	17175110.44	0.0516	0.0471
Moon	42313-11-11 12:58 G	17175879.81	17175880.04	17175880.27	0.0502	0.0169
Earth	42313-11-11 14:24 G	17175879.88	17175880.10	17175880.32	0.0502	0.0167 *
Venus	42314-10-25 17:46 G	17176228.05	17176228.24	17176228.43	0.0499	0.0182
Mercury	42317-08-28 15:22 G	17177265.95	17177266.14	17177266.32	0.0508	0.0128
Moon	42320-05-26 18:58 G	17178268.11	17178268.29	17178268.47	0.0526	0.0341
Earth	42320-05-26 22:19 G	17178268.25	17178268.43	17178268.62	0.0526	0.0310 *
Mercury	42323-04-24 22:05 G	17179331.31	17179331.42	17179331.52	0.0518	0.0268
Mercury	42323-07-23 01:55 G	17179420.48	17179420.58	17179420.68	0.0517	0.0320
Earth	42325-11-16 04:05 G	17180267.43	17180267.67	17180267.90	0.0501	0.0031
Moon	42325-11-16 03:50 G	17180267.43	17180267.66	17180267.89	0.0501	0.0001 *
Mercury	42329-06-16 10:34 G	17181575.81	17181575.94	17181576.08	0.0507	0.0351
Earth	42332-05-31 19:41 G	17182656.22	17182656.32	17182656.43	0.0527	0.0468
Moon	42332-05-31 21:50 G	17182656.31	17182656.41	17182656.51	0.0527	0.0468 *

Mercury	42335-02-11 02:53 G	17183641.54	17183641.62	17183641.69	0.0519	0.0411
Mercury	42335-05-11 06:43 G	17183730.67	17183730.78	17183730.90	0.0517	0.0179
Earth	42337-11-20 17:31 G	17184655.00	17184655.23	17184655.46	0.0500	0.0107
Moon	42337-11-20 19:12 G	17184655.07	17184655.30	17184655.54	0.0500	0.0117 *
Venus	42338-10-28 03:07 G	17184996.52	17184996.63	17184996.75	0.0498	0.0414
Mercury	42341-07-03 19:41 G	17185976.16	17185976.32	17185976.47	0.0508	0.0285
Earth	42343-05-02 10:19 G	17186643.88	17186643.93	17186644.00	0.0522	0.0501
Moon	42343-05-02 12:00 G	17186643.95	17186644.00	17186644.07	0.0522	0.0498 *
Venus	42344-08-29 18:43 G	17187129.09	17187129.28	17187129.47	0.0528	0.0165
Mercury	42347-02-27 11:31 G	17188040.86	17188040.98	17188041.11	0.0518	0.0035
Moon	42349-11-25 02:24 G	17189042.39	17189042.60	17189042.81	0.0499	0.0216
Earth	42349-11-25 05:31 G	17189042.53	17189042.73	17189042.94	0.0499	0.0244 *
Venus	42350-07-03 03:36 G	17189262.45	17189262.65	17189262.86	0.0498	0.0037
Mercury	42353-04-21 15:36 G	17190285.96	17190286.15	17190286.34	0.0508	0.0067
Earth	42355-05-07 07:55 G	17191031.66	17191031.83	17191032.00	0.0523	0.0348
Moon	42355-05-07 08:38 G	17191031.67	17191031.86	17191032.05	0.0523	0.0318 *
Venus	42356-05-04 10:48 G	17191394.78	17191394.95	17191395.12	0.0527	0.0286
Mercury	42358-12-16 15:50 G	17192351.03	17192351.16	17192351.28	0.0518	0.0124
Mercury	42359-03-15 19:41 G	17192440.27	17192440.32	17192440.37	0.0516	0.0463
Earth	42361-11-29 14:38 G	17193429.96	17193430.11	17193430.27	0.0499	0.0374
Moon	42361-11-29 18:43 G	17193430.12	17193430.28	17193430.44	0.0499	0.0362 *
Venus	42362-03-08 02:53 G	17193528.48	17193528.62	17193528.77	0.0499	0.0350
Mercury	42365-02-07 12:00 G	17194595.82	17194596.00	17194596.18	0.0508	0.0144
Moon	42367-05-12 03:22 G	17195419.44	17195419.64	17195419.85	0.0524	0.0197
Earth	42367-05-12 06:00 G	17195419.53	17195419.75	17195419.96	0.0524	0.0191 *
Mercury	42370-10-04 20:10 G	17196661.24	17196661.34	17196661.45	0.0518	0.0274
Mercury	42371-01-02 00:00 G	17196750.41	17196750.50	17196750.60	0.0516	0.0314
Earth	42372-11-01 09:50 G	17197419.84	17197419.91	17197420.01	0.0503	0.0469
Moon	42372-11-01 12:58 G	17197419.98	17197420.04	17197420.12	0.0503	0.0475 *
Mercury	42376-11-26 07:41 G	17198905.69	17198905.82	17198905.95	0.0507	0.0363

Earth	42379-05-17 00:43 G	17199807.30	17199807.53	17199807.76	0.0524	0.0037
Moon	42379-05-17 04:19 G	17199807.44	17199807.68	17199807.91	0.0524	0.0070 *
Venus	42380-05-07 08:38 G	17200163.74	17200163.86	17200163.98	0.0527	0.0416
Mercury	42382-07-24 00:29 G	17200971.45	17200971.52	17200971.59	0.0519	0.0428
Mercury	42382-10-21 04:34 G	17201060.57	17201060.69	17201060.81	0.0517	0.0162
Moon	42384-11-05 22:48 G	17201807.29	17201807.45	17201807.62	0.0503	0.0361
Earth	42384-11-06 00:29 G	17201807.35	17201807.52	17201807.70	0.0503	0.0332 *
Venus	42386-03-10 12:58 G	17202296.86	17202297.04	17202297.22	0.0498	0.0248
Mercury	42388-12-13 17:31 G	17203306.08	17203306.23	17203306.39	0.0508	0.0286
Moon	42391-05-21 17:02 G	17204194.99	17204195.21	17204195.44	0.0525	0.0121
Earth	42391-05-21 20:53 G	17204195.15	17204195.37	17204195.60	0.0525	0.0121 *
Venus	42392-01-11 00:00 G	17204429.29	17204429.50	17204429.70	0.0527	0.0039
Mercury	42394-08-09 09:22 G	17205370.76	17205370.89	17205371.01	0.0518	0.0019
Mars	42394-10-04 05:31 G	17205426.48	17205426.73	17205426.98	0.0517	0.0013
Earth	42396-11-10 15:36 G	17206194.94	17206195.15	17206195.38	0.0502	0.0193
Moon	42396-11-10 15:50 G	17206194.96	17206195.16	17206195.37	0.0502	0.0194 *
Venus	42397-11-13 13:41 G	17206562.87	17206563.07	17206563.27	0.0498	0.0128
Mercury	42400-10-01 12:14 G	17207615.82	17207616.01	17207616.20	0.0508	0.0051
Earth	42403-05-26 16:34 G	17208583.00	17208583.19	17208583.39	0.0526	0.0277
Moon	42403-05-26 19:12 G	17208583.13	17208583.30	17208583.49	0.0526	0.0310 *
Venus	42403-09-15 14:38 G	17208695.05	17208695.11	17208695.19	0.0527	0.0494
Mercury	42406-05-28 14:10 G	17209680.97	17209681.09	17209681.21	0.0518	0.0127
Mercury	42406-08-25 18:00 G	17209770.20	17209770.25	17209770.31	0.0516	0.0461
Earth	42408-11-15 05:17 G	17210582.48	17210582.72	17210582.95	0.0501	0.0054
Moon	42408-11-15 06:43 G	17210582.53	17210582.78	17210583.02	0.0501	0.0024 *
Mercury	42412-07-20 08:10 G	17211925.66	17211925.84	17211926.02	0.0507	0.0167
Moon	42415-05-31 14:53 G	17212970.99	17212971.12	17212971.26	0.0527	0.0436
Earth	42415-05-31 16:05 G	17212971.05	17212971.17	17212971.30	0.0527	0.0438 *
Mercury	42418-03-16 18:14 G	17213991.16	17213991.26	17213991.37	0.0518	0.0283
Mercury	42418-06-13 22:19 G	17214080.33	17214080.43	17214080.53	0.0517	0.0305

Moon	42420-11-19 11:31 G	17214969.75	17214969.98	17214970.21	0.0500	0.0087
Earth	42420-11-19 14:24 G	17214969.87	17214970.10	17214970.33	0.0500	0.0081 *
Venus	42421-11-15 21:36 G	17215331.32	17215331.40	17215331.48	0.0498	0.0457
Mercury	42424-05-08 04:19 G	17216235.56	17216235.68	17216235.81	0.0507	0.0379
Mercury	42424-08-06 18:43 G	17216326.25	17216326.28	17216326.33	0.0509	0.0495
Moon	42426-05-01 11:31 G	17216958.95	17216958.98	17216959.03	0.0522	0.0513
Venus	42427-09-18 15:22 G	17217463.95	17217464.14	17217464.32	0.0527	0.0223
Mercury	42430-01-02 22:48 G	17218301.38	17218301.45	17218301.52	0.0519	0.0433
Mercury	42430-04-02 02:38 G	17218390.49	17218390.61	17218390.73	0.0517	0.0156
Earth	42432-11-24 02:38 G	17219357.40	17219357.61	17219357.82	0.0500	0.0218
Moon	42432-11-24 06:29 G	17219357.55	17219357.77	17219357.99	0.0500	0.0188 *
Venus	42433-07-21 22:05 G	17219597.22	17219597.42	17219597.62	0.0498	0.0080
Mercury	42436-05-25 14:53 G	17220635.96	17220636.12	17220636.28	0.0508	0.0276
Moon	42438-05-06 04:05 G	17221346.51	17221346.67	17221346.84	0.0522	0.0348
Earth	42438-05-06 06:00 G	17221346.60	17221346.75	17221346.92	0.0522	0.0378 *
Venus	42439-05-24 05:46 G	17221729.56	17221729.74	17221729.92	0.0527	0.0235
Mercury	42442-01-19 07:12 G	17222700.67	17222700.80	17222700.92	0.0518	0.0007
Moon	42444-11-28 11:46 G	17223744.82	17223744.99	17223745.16	0.0500	0.0338
Earth	42444-11-28 15:36 G	17223744.99	17223745.15	17223745.32	0.0500	0.0354 *
Venus	42445-03-26 23:02 G	17223863.30	17223863.46	17223863.63	0.0499	0.0297
Mercury	42448-03-13 10:19 G	17224945.75	17224945.93	17224946.12	0.0508	0.0055
Mars	42448-05-16 01:12 G	17225009.28	17225009.55	17225009.82	0.0509	0.0242
Earth	42450-05-11 01:12 G	17225734.34	17225734.55	17225734.76	0.0523	0.0225
Moon	42450-05-11 04:19 G	17225734.47	17225734.68	17225734.89	0.0523	0.0230 *
Mercury	42453-11-07 12:00 G	17227010.88	17227011.00	17227011.12	0.0518	0.0142
Mercury	42454-02-04 15:50 G	17227100.10	17227100.16	17227100.23	0.0517	0.0447
Moon	42455-11-01 09:50 G	17227734.91	17227734.91	17227734.93	0.0504	0.0503
Earth	42455-11-01 12:00 G	17227734.96	17227735.00	17227735.05	0.0504	0.0493
Earth	42456-12-03 04:48 G	17228132.66	17228132.70	17228132.75	0.0499	0.0486
Mercury	42459-12-31 05:17 G	17229255.54	17229255.72	17229255.90	0.0507	0.0178

Moon	42462-05-15 15:50 G	17230121.93	17230122.16	17230122.39	0.0525	0.0103
Earth	42462-05-15 19:41 G	17230122.09	17230122.32	17230122.55	0.0525	0.0071 *
Venus	42463-05-27 03:50 G	17230498.57	17230498.66	17230498.75	0.0528	0.0468
Mercury	42465-08-26 16:48 G	17231321.09	17231321.20	17231321.30	0.0519	0.0286
Mercury	42465-11-23 20:38 G	17231410.26	17231410.36	17231410.47	0.0517	0.0304
Earth	42467-11-06 02:53 G	17232122.46	17232122.62	17232122.79	0.0503	0.0354
Moon	42467-11-06 03:22 G	17232122.50	17232122.64	17232122.79	0.0503	0.0386 *
Venus	42469-03-29 09:07 G	17232631.72	17232631.88	17232632.04	0.0498	0.0301
Mercury	42471-10-19 01:12 G	17233565.43	17233565.55	17233565.67	0.0507	0.0394
Mercury	42472-01-17 15:22 G	17233656.09	17233656.14	17233656.21	0.0509	0.0478
Earth	42474-05-20 18:29 G	17234510.04	17234510.27	17234510.50	0.0525	0.0092
Moon	42474-05-20 21:36 G	17234510.18	17234510.40	17234510.62	0.0525	0.0100 *
Venus	42475-01-29 20:10 G	17234764.14	17234764.34	17234764.55	0.0527	0.0022
Mercury	42477-06-14 21:07 G	17235631.31	17235631.38	17235631.44	0.0519	0.0440
Mercury	42477-09-12 00:58 G	17235720.42	17235720.54	17235720.66	0.0517	0.0149
Earth	42479-11-10 12:43 G	17236509.82	17236510.03	17236510.24	0.0502	0.0220
Moon	42479-11-10 13:41 G	17236509.85	17236510.07	17236510.29	0.0502	0.0219 *
Venus	42480-12-02 07:55 G	17236897.63	17236897.83	17236898.04	0.0498	0.0086
Mercury	42483-11-05 12:00 G	17237965.84	17237966.00	17237966.16	0.0509	0.0265
Moon	42486-05-25 16:48 G	17238898.00	17238898.20	17238898.40	0.0526	0.0287
Earth	42486-05-25 18:29 G	17238898.07	17238898.27	17238898.47	0.0526	0.0255 *
Venus	42486-10-04 13:12 G	17239029.93	17239030.05	17239030.17	0.0527	0.0425
Mercury	42489-07-01 05:31 G	17240030.61	17240030.73	17240030.86	0.0517	0.0012
Moon	42491-11-14 23:31 G	17240897.25	17240897.48	17240897.71	0.0501	0.0052
Earth	42491-11-15 02:10 G	17240897.36	17240897.59	17240897.82	0.0501	0.0081 *
Venus	42492-08-07 08:24 G	17241163.78	17241163.85	17241163.93	0.0499	0.0464
Mercury	42495-08-24 07:55 G	17242275.64	17242275.83	17242276.02	0.0508	0.0049
Earth	42498-05-30 14:53 G	17243285.98	17243286.12	17243286.26	0.0526	0.0411
Moon	42498-05-30 14:53 G	17243285.99	17243286.12	17243286.26	0.0526	0.0411 *
Mercury	42501-04-20 10:05 G	17244340.80	17244340.92	17244341.04	0.0518	0.0153

Mercury	42501-07-18 13:55 G	17244430.01	17244430.08	17244430.15	0.0516	0.0435
Earth	42503-11-20 15:50 G	17245284.93	17245285.16	17245285.40	0.0501	0.0060
Moon	42503-11-20 19:55 G	17245285.09	17245285.33	17245285.56	0.0501	0.0058 *
Mercury	42507-06-13 03:36 G	17246585.48	17246585.65	17246585.83	0.0507	0.0172
Venus	42510-10-08 10:34 G	17247798.77	17247798.94	17247799.12	0.0527	0.0274
Mercury	42513-02-06 14:38 G	17248651.01	17248651.11	17248651.22	0.0519	0.0298
Mercury	42513-05-06 18:43 G	17248740.18	17248740.28	17248740.38	0.0517	0.0292
Moon	42515-11-25 02:53 G	17249672.40	17249672.62	17249672.85	0.0500	0.0167
Earth	42515-11-25 06:58 G	17249672.57	17249672.79	17249673.00	0.0500	0.0199 *
Venus	42516-08-10 19:55 G	17249932.13	17249932.33	17249932.52	0.0498	0.0141
Mercury	42519-03-31 22:48 G	17250895.34	17250895.45	17250895.56	0.0507	0.0399
Mercury	42519-06-30 12:58 G	17250985.98	17250986.04	17250986.11	0.0508	0.0472
Earth	42521-05-06 02:53 G	17251661.48	17251661.62	17251661.77	0.0522	0.0409
Moon	42521-05-06 05:46 G	17251661.58	17251661.74	17251661.91	0.0522	0.0376 *
Venus	42522-06-13 01:41 G	17252064.38	17252064.57	17252064.77	0.0527	0.0181
Mercury	42524-11-25 19:26 G	17252961.25	17252961.31	17252961.38	0.0519	0.0442
Mercury	42525-02-22 23:31 G	17253050.36	17253050.48	17253050.60	0.0518	0.0149
Earth	42527-11-29 19:41 G	17254060.15	17254060.32	17254060.50	0.0499	0.0337
Moon	42527-11-29 23:02 G	17254060.29	17254060.46	17254060.63	0.0499	0.0326 *
Venus	42528-04-15 20:38 G	17254198.19	17254198.36	17254198.55	0.0498	0.0237
Mercury	42531-04-18 09:07 G	17255295.72	17255295.88	17255296.04	0.0508	0.0257
Moon	42533-05-10 21:36 G	17256049.20	17256049.40	17256049.60	0.0523	0.0258
Earth	42533-05-11 01:12 G	17256049.35	17256049.55	17256049.76	0.0523	0.0251 *
Mercury	42536-12-12 03:50 G	17257360.54	17257360.66	17257360.79	0.0518	0.0019
Moon	42539-12-04 02:10 G	17258447.55	17258447.59	17258447.64	0.0499	0.0488
Earth	42539-12-04 04:05 G	17258447.60	17258447.67	17258447.76	0.0499	0.0466 *
Mercury	42543-02-04 05:17 G	17259605.54	17259605.72	17259605.91	0.0508	0.0044
Earth	42545-05-16 00:43 G	17260437.31	17260437.53	17260437.76	0.0524	0.0089
Moon	42545-05-16 04:05 G	17260437.45	17260437.67	17260437.90	0.0524	0.0119 *
Mercury	42548-09-30 08:38 G	17261670.74	17261670.86	17261670.98	0.0518	0.0150

Mars	42548-12-28 13:12 G	17261759.83	17261760.05	17261760.26	0.0516	0.0258
Mercury	42548-12-28 12:29 G	17261759.96	17261760.02	17261760.09	0.0516	0.0436 *
Earth	42550-11-06 01:12 G	17262437.40	17262437.55	17262437.70	0.0503	0.0381
Moon	42550-11-06 01:41 G	17262437.44	17262437.57	17262437.71	0.0503	0.0410 *
Venus	42552-04-18 04:48 G	17262966.55	17262966.70	17262966.84	0.0498	0.0350
Mercury	42554-11-23 01:26 G	17263915.39	17263915.56	17263915.74	0.0508	0.0173
Moon	42557-05-20 19:12 G	17264825.06	17264825.30	17264825.54	0.0525	0.0079
Earth	42557-05-20 21:22 G	17264825.16	17264825.39	17264825.62	0.0525	0.0069 *
Venus	42558-02-18 18:43 G	17265099.08	17265099.28	17265099.48	0.0527	0.0088
Mercury	42560-07-19 13:12 G	17265980.94	17265981.05	17265981.15	0.0519	0.0303
Mercury	42560-10-16 17:02 G	17266070.11	17266070.21	17266070.31	0.0517	0.0286
Moon	42562-11-10 13:26 G	17266824.87	17266825.06	17266825.27	0.0502	0.0239
Earth	42562-11-10 15:50 G	17266824.96	17266825.16	17266825.37	0.0502	0.0243 *
Venus	42563-12-23 06:14 G	17267232.55	17267232.76	17267232.96	0.0499	0.0025
Mercury	42566-09-10 21:22 G	17268225.28	17268225.39	17268225.52	0.0507	0.0389
Mercury	42566-12-10 12:00 G	17268315.94	17268316.00	17268316.05	0.0509	0.0484
Earth	42569-05-25 18:00 G	17269213.04	17269213.25	17269213.46	0.0525	0.0228
Moon	42569-05-25 18:43 G	17269213.08	17269213.28	17269213.47	0.0525	0.0262 *
Venus	42569-10-24 10:19 G	17269364.79	17269364.93	17269365.08	0.0527	0.0363
Mercury	42572-05-07 17:46 G	17270291.18	17270291.24	17270291.31	0.0519	0.0448
Mercury	42572-08-04 21:50 G	17270380.29	17270380.41	17270380.53	0.0517	0.0143
Earth	42574-11-15 08:10 G	17271212.61	17271212.84	17271213.07	0.0502	0.0099
Moon	42574-11-15 12:00 G	17271212.76	17271213.00	17271213.23	0.0502	0.0069 *
Venus	42575-08-28 07:55 G	17271498.70	17271498.83	17271498.95	0.0499	0.0395
Mercury	42578-09-28 07:12 G	17272625.64	17272625.80	17272625.97	0.0508	0.0259
Earth	42581-05-30 14:24 G	17273600.95	17273601.10	17273601.26	0.0526	0.0388
Moon	42581-05-30 15:36 G	17273601.00	17273601.15	17273601.32	0.0526	0.0381 *
Mercury	42584-05-24 02:38 G	17274690.49	17274690.61	17274690.74	0.0518	0.0014
Moon	42586-11-19 18:43 G	17275600.04	17275600.28	17275600.52	0.0501	0.0040
Earth	42586-11-19 22:48 G	17275600.21	17275600.45	17275600.68	0.0501	0.0044 *

Mercury	42590-07-17 03:22 G	17276935.46	17276935.64	17276935.83	0.0508	0.0045
Moon	42593-06-04 12:00 G	17277988.98	17277989.00	17277989.03	0.0527	0.0522
Venus	42593-10-27 10:19 G	17278133.78	17278133.93	17278134.08	0.0527	0.0347
Mercury	42596-03-12 07:12 G	17279000.68	17279000.80	17279000.92	0.0518	0.0151
Mercury	42596-06-09 11:17 G	17279089.90	17279089.97	17279090.03	0.0516	0.0437
Earth	42598-11-24 07:55 G	17279987.61	17279987.83	17279988.05	0.0500	0.0178
Moon	42598-11-24 11:17 G	17279987.75	17279987.97	17279988.19	0.0500	0.0147 *
Venus	42599-08-30 16:05 G	17280266.98	17280267.17	17280267.36	0.0498	0.0192
Mercury	42602-05-05 23:31 G	17281245.30	17281245.48	17281245.66	0.0508	0.0173
Moon	42604-05-06 07:55 G	17281976.69	17281976.83	17281976.99	0.0522	0.0397
Earth	42604-05-06 11:31 G	17281976.85	17281976.98	17281977.12	0.0522	0.0426 *
Venus	42605-07-03 04:05 G	17282399.47	17282399.67	17282399.87	0.0527	0.0094
Mercury	42607-12-31 12:00 G	17283310.90	17283311.00	17283311.10	0.0518	0.0295
Mercury	42608-03-29 15:50 G	17283400.06	17283400.16	17283400.27	0.0516	0.0293
Moon	42610-11-29 18:43 G	17284375.09	17284375.28	17284375.48	0.0500	0.0306
Earth	42610-11-29 21:07 G	17284375.20	17284375.38	17284375.56	0.0500	0.0317 *
Venus	42611-05-06 17:02 G	17284533.02	17284533.21	17284533.40	0.0499	0.0184
Mercury	42614-02-21 19:41 G	17285555.21	17285555.32	17285555.45	0.0507	0.0385
Mercury	42614-05-23 10:19 G	17285645.89	17285645.93	17285645.98	0.0509	0.0491
Earth	42616-05-11 08:10 G	17286364.64	17286364.84	17286365.04	0.0523	0.0271
Moon	42616-05-11 11:46 G	17286364.80	17286364.99	17286365.18	0.0523	0.0286 *
Mercury	42619-10-19 16:34 G	17287621.13	17287621.19	17287621.25	0.0519	0.0446
Mercury	42620-01-16 20:24 G	17287710.23	17287710.35	17287710.47	0.0517	0.0143
Earth	42622-12-04 11:02 G	17288762.87	17288762.96	17288763.06	0.0500	0.0453
Moon	42622-12-04 11:02 G	17288762.90	17288762.96	17288763.02	0.0500	0.0481 *
Mercury	42626-03-11 06:29 G	17289955.61	17289955.77	17289955.93	0.0508	0.0275
Moon	42628-05-16 01:55 G	17290752.35	17290752.58	17290752.81	0.0524	0.0141
Earth	42628-05-16 04:19 G	17290752.46	17290752.68	17290752.91	0.0524	0.0113 *
Mercury	42631-11-05 01:12 G	17292020.43	17292020.55	17292020.68	0.0518	0.0012
Moon	42633-11-06 06:43 G	17292752.67	17292752.78	17292752.90	0.0504	0.0427

Earth	42633-11-06 08:53 G	17292752.73	17292752.87	17292753.02	0.0504	0.0399	*
Venus	42635-05-09 05:31 G	17293301.62	17293301.73	17293301.84	0.0498	0.0423	
Mercury	42637-12-28 01:55 G	17294265.40	17294265.58	17294265.77	0.0508	0.0055	
Earth	42640-05-21 00:00 G	17295140.27	17295140.50	17295140.73	0.0525	0.0047	
Moon	42640-05-21 00:58 G	17295140.32	17295140.54	17295140.77	0.0525	0.0060	*
Venus	42641-03-10 18:00 G	17295434.06	17295434.25	17295434.44	0.0527	0.0159	
Mercury	42643-08-24 06:14 G	17296330.64	17296330.76	17296330.88	0.0518	0.0144	
Mercury	42643-11-21 10:05 G	17296419.86	17296419.92	17296419.98	0.0517	0.0445	
Earth	42645-11-11 00:58 G	17297140.34	17297140.54	17297140.75	0.0503	0.0256	
Moon	42645-11-11 04:34 G	17297140.49	17297140.69	17297140.91	0.0503	0.0240	*
Venus	42647-01-12 06:43 G	17297567.58	17297567.78	17297567.98	0.0498	0.0050	
Mercury	42649-10-15 22:05 G	17298575.25	17298575.42	17298575.61	0.0507	0.0162	
Earth	42652-05-26 00:00 G	17299528.29	17299528.50	17299528.72	0.0525	0.0213	
Moon	42652-05-26 00:58 G	17299528.33	17299528.54	17299528.75	0.0525	0.0242	*
Venus	42652-11-13 11:46 G	17299699.82	17299699.99	17299700.16	0.0527	0.0282	
Mercury	42655-06-12 10:48 G	17300640.85	17300640.95	17300641.06	0.0518	0.0290	
Mercury	42655-09-09 14:38 G	17300730.01	17300730.11	17300730.22	0.0517	0.0298	
Moon	42657-11-15 07:41 G	17301527.59	17301527.82	17301528.05	0.0502	0.0090	
Earth	42657-11-15 11:31 G	17301527.76	17301527.98	17301528.22	0.0502	0.0121	*
Venus	42658-09-17 05:17 G	17301833.57	17301833.72	17301833.87	0.0499	0.0337	
Mercury	42661-08-03 18:00 G	17302885.13	17302885.25	17302885.38	0.0508	0.0380	
Mercury	42661-11-02 08:38 G	17302975.82	17302975.86	17302975.90	0.0509	0.0496	
Moon	42664-05-30 22:48 G	17303916.29	17303916.45	17303916.61	0.0526	0.0365	
Earth	42664-05-31 01:41 G	17303916.41	17303916.57	17303916.73	0.0526	0.0379	*
Mercury	42667-03-31 15:36 G	17304951.09	17304951.15	17304951.22	0.0519	0.0433	
Mars	42667-06-21 17:17 G	17305033.09	17305033.22	17305033.36	0.0517	0.0433	
Mercury	42667-06-28 19:41 G	17305040.20	17305040.32	17305040.44	0.0517	0.0155	
Earth	42669-11-20 01:55 G	17305915.34	17305915.58	17305915.81	0.0501	0.0025	
Moon	42669-11-20 05:17 G	17305915.49	17305915.72	17305915.95	0.0501	0.0019	*
Mercury	42673-08-21 05:02 G	17307285.56	17307285.71	17307285.87	0.0509	0.0287	

Moon	42676-06-05 03:50 G	17308304.61	17308304.66	17308304.72	0.0526	0.0510
Venus	42676-11-16 12:43 G	17308468.92	17308469.03	17308469.15	0.0527	0.0435
Mercury	42679-04-17 00:14 G	17309350.38	17309350.51	17309350.63	0.0517	0.0010
Moon	42681-11-24 14:24 G	17310302.86	17310303.10	17310303.33	0.0501	0.0135
Earth	42681-11-24 16:34 G	17310302.97	17310303.19	17310303.42	0.0501	0.0165 *
Venus	42682-09-19 17:02 G	17310602.04	17310602.21	17310602.39	0.0499	0.0268
Mercury	42685-06-09 01:26 G	17311595.38	17311595.56	17311595.75	0.0508	0.0073
Earth	42687-05-06 18:43 G	17312292.17	17312292.28	17312292.41	0.0522	0.0445
Moon	42687-05-06 22:19 G	17312292.31	17312292.43	17312292.57	0.0522	0.0421 *
Venus	42688-07-22 04:48 G	17312734.49	17312734.70	17312734.90	0.0527	0.0014
Mercury	42691-02-03 05:02 G	17313660.59	17313660.71	17313660.83	0.0518	0.0138
Mercury	42691-05-03 08:53 G	17313749.81	17313749.87	17313749.93	0.0516	0.0449
Earth	42693-11-29 08:24 G	17314690.66	17314690.85	17314691.03	0.0500	0.0308
Moon	42693-11-29 08:24 G	17314690.67	17314690.85	17314691.02	0.0500	0.0309 *
Venus	42694-05-25 19:12 G	17314868.10	17314868.30	17314868.50	0.0499	0.0102
Mercury	42697-03-27 21:22 G	17315905.21	17315905.39	17315905.57	0.0507	0.0146
Moon	42699-05-11 10:48 G	17316679.76	17316679.95	17316680.14	0.0523	0.0311
Earth	42699-05-11 13:41 G	17316679.88	17316680.07	17316680.27	0.0523	0.0290 *
Venus	42700-03-27 20:24 G	17317000.26	17317000.35	17317000.45	0.0527	0.0462
Mercury	42702-11-23 09:50 G	17317970.81	17317970.91	17317971.02	0.0519	0.0281
Mercury	42703-02-20 13:55 G	17318059.98	17318060.08	17318060.18	0.0517	0.0309
Earth	42705-12-04 22:19 G	17319078.34	17319078.43	17319078.54	0.0499	0.0447
Moon	42705-12-05 00:29 G	17319078.46	17319078.52	17319078.60	0.0499	0.0476 *
Venus	42706-01-29 20:24 G	17319134.30	17319134.35	17319134.42	0.0499	0.0474
Mercury	42709-01-14 17:31 G	17320215.10	17320215.23	17320215.36	0.0507	0.0359
Earth	42711-05-17 12:58 G	17321067.81	17321068.04	17321068.26	0.0524	0.0127
Moon	42711-05-17 14:10 G	17321067.87	17321068.09	17321068.30	0.0524	0.0153 *
Mercury	42714-09-11 14:38 G	17322281.05	17322281.11	17322281.19	0.0519	0.0425
Mercury	42714-12-09 18:43 G	17322370.16	17322370.28	17322370.40	0.0517	0.0164
Earth	42716-11-06 15:07 G	17323068.00	17323068.13	17323068.26	0.0503	0.0420

Moon	42716-11-06 18:29 G	17323068.16	17323068.27	17323068.39	0.0503	0.0441	*
Venus	42718-05-29 03:50 G	17323636.62	17323636.66	17323636.71	0.0498	0.0486	
Mars	42721-01-28 21:22 G	17324612.14	17324612.39	17324612.64	0.0509	0.0295	
Mercury	42721-02-01 03:50 G	17324615.51	17324615.66	17324615.81	0.0509	0.0295	
Earth	42723-05-22 13:41 G	17325455.84	17325456.07	17325456.30	0.0525	0.0037	
Moon	42723-05-22 14:10 G	17325455.86	17325456.09	17325456.33	0.0525	0.0056	*
Venus	42724-03-30 23:46 G	17325769.32	17325769.49	17325769.67	0.0527	0.0265	
Mercury	42726-09-27 23:31 G	17326680.36	17326680.48	17326680.61	0.0517	0.0027	
Moon	42728-11-11 02:38 G	17327455.41	17327455.61	17327455.81	0.0502	0.0257	
Earth	42728-11-11 06:29 G	17327455.58	17327455.77	17327455.97	0.0502	0.0276	*
Venus	42730-02-01 05:17 G	17327902.52	17327902.72	17327902.92	0.0499	0.0114	
Mercury	42732-11-20 00:29 G	17328925.33	17328925.52	17328925.70	0.0509	0.0087	
Moon	42735-05-27 09:36 G	17329843.69	17329843.90	17329844.10	0.0525	0.0224	
Earth	42735-05-27 12:00 G	17329843.79	17329844.00	17329844.22	0.0525	0.0200	*
Venus	42735-12-04 16:05 G	17330034.98	17330035.17	17330035.36	0.0527	0.0182	
Mercury	42738-07-17 04:05 G	17330990.55	17330990.67	17330990.80	0.0518	0.0128	
Mercury	42738-10-14 07:55 G	17331079.78	17331079.83	17331079.89	0.0516	0.0460	
Earth	42740-11-15 21:50 G	17331843.19	17331843.41	17331843.64	0.0502	0.0134	
Moon	42740-11-16 01:26 G	17331843.33	17331843.56	17331843.79	0.0502	0.0105	*
Venus	42741-10-07 07:12 G	17332168.63	17332168.80	17332168.98	0.0499	0.0256	
Mercury	42744-09-07 20:53 G	17333235.19	17333235.37	17333235.55	0.0508	0.0124	
Earth	42747-06-01 10:05 G	17334231.75	17334231.92	17334232.09	0.0526	0.0364	
Moon	42747-06-01 13:55 G	17334231.91	17334232.08	17334232.26	0.0526	0.0340	*
Mercury	42750-05-05 08:53 G	17335300.77	17335300.87	17335300.98	0.0518	0.0271	
Mercury	42750-08-02 12:58 G	17335389.94	17335390.04	17335390.14	0.0517	0.0318	
Moon	42752-11-20 12:00 G	17336230.76	17336231.00	17336231.24	0.0501	0.0006	
Earth	42752-11-20 14:24 G	17336230.86	17336231.10	17336231.33	0.0501	0.0013	*
Mercury	42756-06-26 16:48 G	17337545.06	17337545.20	17337545.34	0.0507	0.0341	
Moon	42759-06-06 03:22 G	17338619.57	17338619.64	17338619.73	0.0526	0.0494	
Earth	42759-06-06 07:12 G	17338619.79	17338619.80	17338619.83	0.0526	0.0524	

Venus	42759-12-07 14:53 G	17338804.09	17338804.12	17338804.15	0.0527	0.0520
Mercury	42762-02-21 13:55 G	17339611.00	17339611.08	17339611.15	0.0519	0.0413
Mercury	42762-05-21 17:46 G	17339700.12	17339700.24	17339700.36	0.0517	0.0177
Earth	42764-11-25 05:46 G	17340618.52	17340618.74	17340618.96	0.0501	0.0158
Moon	42764-11-25 05:46 G	17340618.53	17340618.74	17340618.96	0.0501	0.0133 *
Venus	42765-10-09 20:10 G	17340937.19	17340937.34	17340937.48	0.0498	0.0352
Mercury	42768-07-14 03:36 G	17341945.51	17341945.65	17341945.79	0.0509	0.0322
Moon	42770-05-07 01:55 G	17342607.46	17342607.58	17342607.71	0.0522	0.0440
Earth	42770-05-07 04:48 G	17342607.61	17342607.70	17342607.82	0.0522	0.0460 *
Venus	42771-08-12 08:53 G	17343069.67	17343069.87	17343070.07	0.0527	0.0083
Mercury	42774-03-09 22:48 G	17344010.32	17344010.45	17344010.57	0.0517	0.0035
Earth	42776-11-29 15:36 G	17345005.96	17345006.15	17345006.34	0.0500	0.0292
Moon	42776-11-29 17:31 G	17345006.04	17345006.23	17345006.43	0.0500	0.0302 *
Venus	42777-06-14 18:43 G	17345203.07	17345203.28	17345203.48	0.0499	0.0034
Mercury	42780-05-01 23:17 G	17346255.28	17346255.47	17346255.65	0.0509	0.0098
Earth	42782-05-12 04:05 G	17346995.49	17346995.67	17346995.87	0.0523	0.0302
Moon	42782-05-12 05:31 G	17346995.56	17346995.73	17346995.91	0.0523	0.0330 *
Venus	42783-04-17 03:07 G	17347335.49	17347335.63	17347335.79	0.0527	0.0351
Mercury	42785-12-27 03:50 G	17348320.53	17348320.66	17348320.78	0.0517	0.0107
Mercury	42786-03-26 07:41 G	17348409.77	17348409.82	17348409.86	0.0516	0.0479
Moon	42788-12-04 02:24 G	17349393.52	17349393.60	17349393.69	0.0499	0.0464
Earth	42788-12-04 05:31 G	17349393.62	17349393.73	17349393.85	0.0499	0.0432 *
Venus	42789-02-17 19:55 G	17349469.22	17349469.33	17349469.45	0.0499	0.0405
Mercury	42792-02-18 19:55 G	17350565.14	17350565.33	17350565.51	0.0508	0.0110
Earth	42794-05-17 02:38 G	17351383.39	17351383.61	17351383.83	0.0524	0.0140
Moon	42794-05-17 02:53 G	17351383.39	17351383.62	17351383.85	0.0524	0.0162 *
Mercury	42797-10-15 08:10 G	17352630.74	17352630.84	17352630.95	0.0518	0.0256
Mercury	42798-01-12 12:14 G	17352719.91	17352720.01	17352720.10	0.0516	0.0332
Moon	42799-11-06 22:19 G	17353383.34	17353383.43	17353383.54	0.0504	0.0453
Earth	42799-11-07 02:24 G	17353383.48	17353383.60	17353383.72	0.0504	0.0434 *

Mercury	42803-12-07 16:19 G	17354875.04	17354875.18	17354875.33	0.0508	0.0319
Moon	42806-05-21 22:05 G	17355771.19	17355771.42	17355771.64	0.0524	0.0046
Earth	42806-05-22 00:14 G	17355771.28	17355771.51	17355771.74	0.0524	0.0023 *
Venus	42807-04-20 02:53 G	17356104.48	17356104.62	17356104.77	0.0527	0.0357
Mercury	42809-08-03 12:58 G	17356940.97	17356941.04	17356941.12	0.0519	0.0401
Mercury	42809-10-31 17:02 G	17357030.09	17357030.21	17357030.32	0.0517	0.0189
Earth	42811-11-11 19:12 G	17357771.11	17357771.30	17357771.49	0.0503	0.0288
Moon	42811-11-11 22:48 G	17357771.25	17357771.45	17357771.65	0.0503	0.0265 *
Venus	42813-02-20 09:07 G	17358237.69	17358237.88	17358238.07	0.0499	0.0204
Mercury	42815-12-25 02:53 G	17359275.49	17359275.62	17359275.76	0.0509	0.0342
Earth	42818-05-26 20:38 G	17360159.14	17360159.36	17360159.58	0.0525	0.0186
Moon	42818-05-27 00:29 G	17360159.30	17360159.52	17360159.73	0.0525	0.0204 *
Venus	42818-12-23 18:43 G	17360370.08	17360370.28	17360370.48	0.0527	0.0093
Mercury	42821-08-19 21:50 G	17361340.29	17361340.41	17361340.54	0.0518	0.0050
Mars	42821-09-16 10:19 G	17361367.68	17361367.93	17361368.18	0.0517	0.0009
Moon	42823-11-16 09:22 G	17362158.66	17362158.89	17362159.13	0.0502	0.0116
Earth	42823-11-16 11:46 G	17362158.77	17362158.99	17362159.22	0.0502	0.0142 *
Venus	42824-10-26 10:48 G	17362503.76	17362503.95	17362504.15	0.0499	0.0167
Mercury	42827-10-12 23:17 G	17363585.29	17363585.47	17363585.65	0.0508	0.0128
Moon	42830-05-31 17:31 G	17364547.05	17364547.23	17364547.41	0.0526	0.0328
Earth	42830-05-31 21:22 G	17364547.23	17364547.39	17364547.57	0.0526	0.0355 *
Mercury	42833-06-08 02:53 G	17365650.50	17365650.62	17365650.75	0.0517	0.0095
Mercury	42833-09-05 06:43 G	17365739.75	17365739.78	17365739.82	0.0516	0.0492
Earth	42835-11-20 23:31 G	17366546.24	17366546.48	17366546.71	0.0501	0.0003
Moon	42835-11-20 23:46 G	17366546.27	17366546.49	17366546.72	0.0501	0.0021 *
Mercury	42839-07-31 18:43 G	17367895.09	17367895.28	17367895.46	0.0508	0.0099
Earth	42842-06-05 23:02 G	17368935.43	17368935.46	17368935.50	0.0527	0.0520
Moon	42842-06-06 01:55 G	17368935.51	17368935.58	17368935.65	0.0527	0.0497
Mercury	42845-03-27 07:55 G	17369960.72	17369960.83	17369960.94	0.0518	0.0234
Mercury	42845-06-24 11:46 G	17370049.90	17370049.99	17370050.08	0.0516	0.0353

Earth	42847-11-25 13:55 G	17370933.86	17370934.08	17370934.31	0.0500	0.0141
Moon	42847-11-25 15:50 G	17370933.93	17370934.16	17370934.40	0.0500	0.0118 *
Venus	42848-10-28 19:41 G	17371272.22	17371272.32	17371272.43	0.0498	0.0422
Mercury	42851-05-19 15:07 G	17372204.99	17372205.13	17372205.29	0.0508	0.0307
Earth	42853-05-06 18:43 G	17372923.19	17372923.28	17372923.38	0.0522	0.0476
Moon	42853-05-06 20:24 G	17372923.25	17372923.35	17372923.45	0.0522	0.0464 *
Venus	42854-08-31 14:24 G	17373404.92	17373405.10	17373405.29	0.0527	0.0191
Mercury	42857-01-13 12:29 G	17374270.94	17374271.02	17374271.11	0.0518	0.0383
Mercury	42857-04-12 16:19 G	17374360.07	17374360.18	17374360.30	0.0516	0.0205
Moon	42859-11-30 01:12 G	17375321.37	17375321.55	17375321.74	0.0500	0.0297
Earth	42859-11-30 04:19 G	17375321.49	17375321.68	17375321.88	0.0500	0.0283 *
Venus	42860-07-03 21:50 G	17375538.20	17375538.41	17375538.61	0.0499	0.0055
Mercury	42863-06-06 02:38 G	17376605.48	17376605.61	17376605.74	0.0509	0.0364
Earth	42865-05-11 15:50 G	17377310.98	17377311.16	17377311.35	0.0523	0.0317
Moon	42865-05-11 15:50 G	17377310.99	17377311.16	17377311.35	0.0523	0.0343 *
Venus	42866-05-06 06:43 G	17377670.61	17377670.78	17377670.96	0.0527	0.0255
Mercury	42869-01-29 21:07 G	17378670.26	17378670.38	17378670.51	0.0517	0.0061
Earth	42871-12-04 19:26 G	17379709.20	17379709.31	17379709.44	0.0500	0.0426
Moon	42871-12-04 23:17 G	17379709.39	17379709.47	17379709.57	0.0500	0.0457 *
Venus	42872-03-08 23:46 G	17379804.34	17379804.49	17379804.65	0.0499	0.0315
Mercury	42875-03-24 22:34 G	17380915.26	17380915.44	17380915.62	0.0508	0.0148
Mars	42875-04-26 09:36 G	17380947.65	17380947.90	17380948.15	0.0509	0.0289
Moon	42877-05-16 09:36 G	17381698.70	17381698.90	17381699.12	0.0524	0.0174
Earth	42877-05-16 11:46 G	17381698.77	17381698.99	17381699.21	0.0524	0.0157 *
Mercury	42880-11-18 02:10 G	17382980.46	17382980.59	17382980.71	0.0518	0.0084
Mercury	42881-02-15 06:00 G	17383069.73	17383069.75	17383069.77	0.0516	0.0504
Earth	42882-11-06 15:50 G	17383699.06	17383699.16	17383699.28	0.0504	0.0445
Moon	42882-11-06 19:26 G	17383699.22	17383699.31	17383699.41	0.0504	0.0459 *
Mercury	42887-01-10 18:43 G	17385225.10	17385225.28	17385225.47	0.0508	0.0068
Earth	42889-05-21 10:48 G	17386086.72	17386086.95	17386087.18	0.0525	0.0012

Moon	42889-05-21 14:24 G	17386086.87	17386087.10	17386087.34	0.0525	0.0042 *
Venus	42890-05-09 07:26 G	17386439.71	17386439.81	17386439.91	0.0527	0.0455
Mercury	42892-09-06 07:12 G	17387290.69	17387290.80	17387290.91	0.0518	0.0222
Mercury	42892-12-04 11:02 G	17387379.87	17387379.96	17387380.05	0.0516	0.0365
Moon	42894-11-11 03:07 G	17388086.43	17388086.63	17388086.83	0.0502	0.0282
Earth	42894-11-11 05:46 G	17388086.55	17388086.74	17388086.92	0.0502	0.0306 *
Venus	42896-03-11 09:07 G	17388572.71	17388572.88	17388573.05	0.0498	0.0276
Mercury	42898-10-29 13:55 G	17389534.93	17389535.08	17389535.23	0.0508	0.0297
Moon	42901-05-27 06:58 G	17390474.58	17390474.79	17390475.01	0.0526	0.0191
Earth	42901-05-27 11:02 G	17390474.74	17390474.96	17390475.18	0.0526	0.0176 *
Venus	42902-01-13 01:26 G	17390705.35	17390705.56	17390705.76	0.0527	0.0023
Mercury	42904-06-26 12:14 G	17391600.92	17391601.01	17391601.10	0.0518	0.0361
Mercury	42904-09-23 16:05 G	17391690.06	17391690.17	17391690.28	0.0516	0.0226
Earth	42906-11-16 20:53 G	17392474.15	17392474.37	17392474.59	0.0501	0.0160
Moon	42906-11-16 21:22 G	17392474.17	17392474.39	17392474.60	0.0501	0.0142 *
Venus	42907-11-16 10:48 G	17392838.75	17392838.95	17392839.15	0.0498	0.0094
Mercury	42910-08-18 10:19 G	17393844.92	17393844.93	17393844.95	0.0508	0.0506
Mercury	42910-11-17 01:12 G	17393935.43	17393935.55	17393935.68	0.0509	0.0374
Earth	42913-06-01 10:19 G	17394862.76	17394862.93	17394863.11	0.0526	0.0342
Moon	42913-06-01 13:26 G	17394862.89	17394863.06	17394863.25	0.0526	0.0315 *
Venus	42913-09-17 17:46 G	17394971.13	17394971.24	17394971.37	0.0527	0.0422
Mercury	42916-04-14 16:34 G	17395911.18	17395911.19	17395911.21	0.0519	0.0512
Mercury	42916-07-12 20:38 G	17396000.23	17396000.36	17396000.48	0.0517	0.0078
Earth	42918-11-21 11:17 G	17396861.73	17396861.97	17396862.20	0.0501	0.0015
Moon	42918-11-21 12:58 G	17396861.80	17396862.04	17396862.29	0.0501	0.0040 *
Venus	42919-07-22 12:14 G	17397104.94	17397105.01	17397105.09	0.0499	0.0463
Mercury	42922-09-04 21:50 G	17398245.23	17398245.41	17398245.59	0.0509	0.0166
Moon	42925-06-06 07:41 G	17399250.74	17399250.82	17399250.92	0.0526	0.0486
Earth	42925-06-06 09:07 G	17399250.82	17399250.88	17399250.94	0.0526	0.0506 *
Mercury	42928-05-01 01:12 G	17400310.43	17400310.55	17400310.68	0.0517	0.0071

Moon	42930-11-25 23:31 G	17401249.25	17401249.48	17401249.70	0.0501	0.0109
Earth	42930-11-26 02:38 G	17401249.39	17401249.61	17401249.84	0.0501	0.0132 *
Mercury	42934-06-23 18:00 G	17402555.06	17402555.25	17402555.44	0.0508	0.0051
Moon	42936-05-07 03:07 G	17403238.55	17403238.63	17403238.72	0.0522	0.0482
Earth	42936-05-07 03:36 G	17403238.58	17403238.65	17403238.72	0.0522	0.0494 *
Venus	42937-09-20 16:34 G	17403740.02	17403740.19	17403740.37	0.0527	0.0277
Mercury	42940-02-18 06:00 G	17404620.64	17404620.75	17404620.87	0.0518	0.0214
Mercury	42940-05-17 10:05 G	17404709.83	17404709.92	17404710.00	0.0516	0.0374
Earth	42942-11-30 17:31 G	17405637.03	17405637.23	17405637.43	0.0500	0.0275
Moon	42942-11-30 21:22 G	17405637.20	17405637.39	17405637.58	0.0500	0.0294 *
Venus	42943-07-25 00:43 G	17405873.34	17405873.53	17405873.73	0.0499	0.0140
Mercury	42946-04-11 13:55 G	17406864.93	17406865.08	17406865.25	0.0508	0.0267
Moon	42948-05-11 23:31 G	17407626.32	17407626.48	17407626.64	0.0523	0.0363
Earth	42948-05-12 01:12 G	17407626.37	17407626.55	17407626.73	0.0523	0.0333 *
Venus	42949-05-26 10:19 G	17408005.74	17408005.93	17408006.12	0.0527	0.0161
Mercury	42951-12-07 11:17 G	17408930.88	17408930.97	17408931.06	0.0518	0.0352
Mercury	42952-03-05 15:07 G	17409020.02	17409020.13	17409020.24	0.0516	0.0235
Moon	42954-12-05 00:29 G	17410024.41	17410024.52	17410024.64	0.0499	0.0437
Earth	42954-12-05 04:19 G	17410024.55	17410024.68	17410024.81	0.0499	0.0409 *
Venus	42955-03-30 00:00 G	17410139.32	17410139.50	17410139.68	0.0498	0.0240
Mercury	42958-01-28 08:53 G	17411174.84	17411174.87	17411174.90	0.0508	0.0500
Mercury	42958-04-28 23:31 G	17411265.36	17411265.48	17411265.61	0.0509	0.0380
Earth	42960-05-16 23:02 G	17412014.24	17412014.46	17412014.68	0.0524	0.0174
Moon	42960-05-17 02:24 G	17412014.38	17412014.60	17412014.83	0.0524	0.0179 *
Mercury	42963-09-25 16:05 G	17413241.14	17413241.17	17413241.21	0.0518	0.0493
Mercury	42963-12-23 20:10 G	17413330.21	17413330.34	17413330.46	0.0517	0.0096
Moon	42965-11-06 22:48 G	17414014.38	17414014.45	17414014.53	0.0503	0.0475
Earth	42965-11-07 01:26 G	17414014.47	17414014.56	17414014.65	0.0503	0.0463 *
Mercury	42970-02-14 20:10 G	17415575.16	17415575.34	17415575.52	0.0509	0.0169
Moon	42972-05-21 18:00 G	17416402.02	17416402.25	17416402.49	0.0525	0.0025

Earth	42972-05-21 22:05 G	17416402.19	17416402.42	17416402.65	0.0525	0.0009	*
Mercury	42975-10-12 00:43 G	17417640.40	17417640.53	17417640.65	0.0517	0.0057	
Mars	42975-12-13 06:43 G	17417702.66	17417702.78	17417702.93	0.0516	0.0434	
Earth	42977-11-11 15:36 G	17418401.98	17418402.15	17418402.34	0.0503	0.0322	
Moon	42977-11-11 16:34 G	17418402.01	17418402.19	17418402.37	0.0503	0.0297	*
Venus	42979-04-01 11:17 G	17418907.83	17418907.97	17418908.11	0.0498	0.0357	
Mercury	42981-12-03 16:48 G	17419885.01	17419885.20	17419885.39	0.0508	0.0039	
Earth	42984-05-26 20:10 G	17420790.12	17420790.34	17420790.56	0.0525	0.0159	
Moon	42984-05-26 23:31 G	17420790.26	17420790.48	17420790.69	0.0525	0.0171	*
Venus	42985-02-01 03:50 G	17421040.46	17421040.66	17421040.86	0.0527	0.0110	
Mercury	42987-07-31 05:17 G	17421950.60	17421950.72	17421950.83	0.0518	0.0202	
Mercury	42987-10-28 09:07 G	17422039.80	17422039.88	17422039.96	0.0516	0.0384	
Earth	42989-11-16 06:58 G	17422789.57	17422789.79	17422790.02	0.0502	0.0175	
Moon	42989-11-16 08:53 G	17422789.64	17422789.87	17422790.10	0.0502	0.0164	*
Venus	42990-12-05 13:12 G	17423173.84	17423174.05	17423174.25	0.0499	0.0013	
Mercury	42993-09-21 12:43 G	17424194.87	17424195.03	17424195.20	0.0508	0.0256	
Moon	42996-05-31 14:24 G	17425177.91	17425178.10	17425178.30	0.0526	0.0295	
Earth	42996-05-31 16:34 G	17425178.00	17425178.19	17425178.37	0.0526	0.0323	*
Venus	42996-10-06 18:58 G	17425306.14	17425306.29	17425306.45	0.0527	0.0340	
Mercury	42999-05-19 10:05 G	17426260.82	17426260.92	17426261.01	0.0518	0.0349	
Mercury	42999-08-16 13:55 G	17426349.97	17426350.08	17426350.19	0.0517	0.0240	

44TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 44th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Moon	43001-11-21 19:26 G	17427177.08	17427177.31	17427177.54	0.0501	0.0056
Earth	43001-11-21 22:34 G	17427177.21	17427177.44	17427177.68	0.0501	0.0028 *
Venus	43002-08-11 14:24 G	17427439.97	17427440.10	17427440.24	0.0499	0.0381
Mercury	43005-07-11 08:38 G	17428504.80	17428504.86	17428504.93	0.0507	0.0473
Mercury	43005-10-09 23:17 G	17428595.36	17428595.47	17428595.59	0.0509	0.0405
Moon	43008-06-06 15:36 G	17429566.06	17429566.15	17429566.24	0.0526	0.0483
Earth	43008-06-06 16:05 G	17429566.10	17429566.17	17429566.26	0.0526	0.0491 *
Mercury	43011-03-08 15:07 G	17430571.09	17430571.13	17430571.17	0.0519	0.0487
Mercury	43011-06-05 18:58 G	17430660.17	17430660.29	17430660.41	0.0517	0.0101
Earth	43013-11-26 10:48 G	17431564.73	17431564.95	17431565.19	0.0500	0.0113
Moon	43013-11-26 14:53 G	17431564.89	17431565.12	17431565.35	0.0500	0.0092 *
Mercury	43017-07-28 18:00 G	17432905.08	17432905.25	17432905.43	0.0509	0.0170
Moon	43019-05-08 09:50 G	17433553.88	17433553.91	17433553.95	0.0522	0.0515
Earth	43019-05-08 11:02 G	17433553.94	17433553.96	17433553.99	0.0522	0.0518 *
Venus	43020-10-10 20:38 G	17434075.23	17434075.36	17434075.51	0.0528	0.0376
Mercury	43023-03-25 00:00 G	17434970.37	17434970.50	17434970.62	0.0517	0.0041
Moon	43025-11-30 20:38 G	17435952.17	17435952.36	17435952.56	0.0499	0.0274
Earth	43025-12-01 00:29 G	17435952.32	17435952.52	17435952.73	0.0499	0.0256 *
Venus	43026-08-13 23:31 G	17436208.29	17436208.48	17436208.67	0.0498	0.0206
Mercury	43029-05-16 14:24 G	17437214.91	17437215.10	17437215.29	0.0509	0.0043
Earth	43031-05-13 09:07 G	17437941.71	17437941.88	17437942.05	0.0523	0.0357
Moon	43031-05-13 12:14 G	17437941.86	17437942.01	17437942.17	0.0523	0.0388 *
Venus	43032-06-15 12:58 G	17438340.84	17438341.04	17438341.24	0.0527	0.0068
Mercury	43035-01-11 04:19 G	17439280.56	17439280.68	17439280.80	0.0518	0.0191
Mercury	43035-04-10 08:10 G	17439369.76	17439369.84	17439369.92	0.0516	0.0394
Earth	43037-12-05 12:58 G	17440339.90	17440340.04	17440340.19	0.0499	0.0396
Moon	43037-12-05 15:36 G	17440340.04	17440340.15	17440340.28	0.0499	0.0419 *
Venus	43038-04-19 00:43 G	17440474.34	17440474.53	17440474.73	0.0499	0.0164

Mercury	43041-03-04 11:02 G	17441524.80	17441524.96	17441525.12	0.0508	0.0251
Moon	43043-05-18 02:38 G	17442329.40	17442329.61	17442329.83	0.0524	0.0196
Earth	43043-05-18 06:43 G	17442329.57	17442329.78	17442330.00	0.0524	0.0194 *
Venus	43044-02-19 05:02 G	17442606.67	17442606.71	17442606.76	0.0527	0.0511
Mercury	43046-10-30 08:53 G	17443590.78	17443590.87	17443590.97	0.0518	0.0340
Mercury	43047-01-27 12:43 G	17443679.92	17443680.03	17443680.14	0.0516	0.0247
Earth	43048-11-07 08:24 G	17444329.79	17444329.85	17444329.92	0.0504	0.0483
Moon	43048-11-07 09:22 G	17444329.85	17444329.89	17444329.94	0.0504	0.0491 *
Mercury	43052-12-21 06:58 G	17445834.72	17445834.79	17445834.86	0.0507	0.0468
Mercury	43053-03-21 21:36 G	17445925.29	17445925.40	17445925.51	0.0509	0.0410
Earth	43055-05-23 01:55 G	17446717.35	17446717.58	17446717.81	0.0524	0.0033
Moon	43055-05-23 05:31 G	17446717.50	17446717.73	17446717.96	0.0524	0.0005 *
Mercury	43058-08-18 13:26 G	17447901.03	17447901.06	17447901.10	0.0519	0.0489
Mercury	43058-11-15 17:31 G	17447990.10	17447990.23	17447990.35	0.0517	0.0101
Earth	43060-11-12 00:14 G	17448717.35	17448717.51	17448717.69	0.0503	0.0339
Moon	43060-11-12 01:55 G	17448717.39	17448717.58	17448717.77	0.0503	0.0309 *
Venus	43062-04-21 12:00 G	17449242.90	17449243.00	17449243.10	0.0498	0.0431
Mercury	43065-01-07 17:31 G	17450235.05	17450235.23	17450235.40	0.0509	0.0190
Moon	43067-05-27 21:36 G	17451105.18	17451105.40	17451105.63	0.0525	0.0146
Earth	43067-05-28 00:00 G	17451105.28	17451105.50	17451105.73	0.0525	0.0136 *
Venus	43068-02-22 04:05 G	17451375.48	17451375.67	17451375.86	0.0527	0.0187
Mercury	43070-09-03 22:34 G	17452300.31	17452300.44	17452300.56	0.0517	0.0039
Moon	43072-11-16 11:46 G	17453104.77	17453104.99	17453105.20	0.0501	0.0190
Earth	43072-11-16 14:38 G	17453104.90	17453105.11	17453105.33	0.0501	0.0196 *
Venus	43073-12-25 11:31 G	17453508.78	17453508.98	17453509.19	0.0498	0.0055
Mercury	43076-10-26 12:00 G	17454544.81	17454545.00	17454545.19	0.0508	0.0049
Moon	43079-06-01 21:50 G	17455493.22	17455493.41	17455493.60	0.0526	0.0273
Earth	43079-06-01 21:50 G	17455493.23	17455493.41	17455493.61	0.0526	0.0301 *
Venus	43079-10-27 20:24 G	17455641.18	17455641.35	17455641.53	0.0528	0.0255
Mercury	43082-06-23 03:36 G	17456610.53	17456610.65	17456610.76	0.0518	0.0181

Mercury	43082-09-20 07:12 G	17456699.73	17456699.80	17456699.88	0.0516	0.0406
Earth	43084-11-21 04:48 G	17457492.46	17457492.70	17457492.93	0.0501	0.0050
Moon	43084-11-21 08:38 G	17457492.62	17457492.86	17457493.09	0.0501	0.0079 *
Venus	43085-08-30 12:29 G	17457774.87	17457775.02	17457775.18	0.0498	0.0316
Mercury	43088-08-14 08:10 G	17458854.68	17458854.84	17458855.00	0.0508	0.0263
Earth	43091-06-06 21:22 G	17459881.29	17459881.39	17459881.50	0.0527	0.0467
Moon	43091-06-06 23:46 G	17459881.39	17459881.49	17459881.61	0.0527	0.0465 *
Mercury	43094-04-11 07:55 G	17460920.73	17460920.83	17460920.92	0.0518	0.0334
Mars	43094-06-05 12:58 G	17460975.82	17460976.04	17460976.26	0.0517	0.0255
Mercury	43094-07-09 11:46 G	17461009.88	17461009.99	17461010.10	0.0516	0.0253
Moon	43096-11-25 12:58 G	17461879.80	17461880.04	17461880.27	0.0500	0.0074
Earth	43096-11-25 16:48 G	17461879.97	17461880.20	17461880.43	0.0500	0.0094 *
Mercury	43100-06-03 04:34 G	17463164.63	17463164.69	17463164.76	0.0508	0.0472
Mercury	43100-09-01 19:26 G	17463255.20	17463255.31	17463255.42	0.0509	0.0408
Venus	43103-10-31 20:10 G	17464410.24	17464410.34	17464410.45	0.0527	0.0449
Mercury	43106-01-29 12:14 G	17465230.97	17465231.01	17465231.06	0.0518	0.0485
Mercury	43106-04-28 16:05 G	17465320.05	17465320.17	17465320.30	0.0517	0.0106
Earth	43108-12-01 06:00 G	17466267.55	17466267.75	17466267.96	0.0500	0.0238
Moon	43108-12-01 08:53 G	17466267.68	17466267.87	17466268.07	0.0500	0.0263 *
Venus	43109-09-02 22:48 G	17466543.28	17466543.45	17466543.62	0.0498	0.0274
Mercury	43112-06-20 15:22 G	17467564.96	17467565.14	17467565.31	0.0509	0.0188
Moon	43114-05-13 07:26 G	17468256.68	17468256.81	17468256.95	0.0522	0.0418
Earth	43114-05-13 11:17 G	17468256.82	17468256.97	17468257.13	0.0523	0.0384 *
Venus	43115-07-06 10:48 G	17468675.75	17468675.95	17468676.15	0.0527	0.0005
Mercury	43118-02-14 20:53 G	17469630.24	17469630.37	17469630.49	0.0517	0.0048
Moon	43120-12-05 18:14 G	17470655.12	17470655.26	17470655.41	0.0499	0.0397
Earth	43120-12-05 19:26 G	17470655.17	17470655.31	17470655.47	0.0499	0.0381 *
Venus	43121-05-09 00:00 G	17470809.30	17470809.50	17470809.70	0.0498	0.0097
Mercury	43124-04-08 10:48 G	17471874.77	17471874.95	17471875.14	0.0508	0.0037
Earth	43126-05-18 07:26 G	17472644.60	17472644.81	17472645.02	0.0524	0.0223

Moon	43126-05-18 11:17 G	17472644.76	17472644.97	17472645.18	0.0524	0.0221	*
Venus	43127-03-11 03:07 G	17472941.52	17472941.63	17472941.74	0.0527	0.0445	
Mercury	43129-12-04 01:41 G	17473940.46	17473940.57	17473940.69	0.0518	0.0187	
Mercury	43130-03-03 05:46 G	17474029.66	17474029.74	17474029.81	0.0516	0.0401	
Moon	43131-11-08 15:50 G	17474645.14	17474645.16	17474645.18	0.0503	0.0502	
Moon	43132-12-10 06:43 G	17475042.77	17475042.78	17475042.81	0.0498	0.0496	
Venus	43133-01-11 23:46 G	17475075.43	17475075.49	17475075.56	0.0498	0.0470	
Mercury	43136-01-26 05:17 G	17476184.56	17476184.72	17476184.88	0.0508	0.0274	
Moon	43138-05-23 00:00 G	17477032.26	17477032.50	17477032.74	0.0525	0.0031	
Earth	43138-05-23 02:53 G	17477032.39	17477032.62	17477032.85	0.0525	0.0063	*
Mercury	43141-09-22 06:43 G	17478250.68	17478250.78	17478250.87	0.0518	0.0329	
Mercury	43141-12-20 10:34 G	17478339.83	17478339.94	17478340.05	0.0516	0.0259	
Moon	43143-11-13 02:38 G	17479032.44	17479032.61	17479032.78	0.0502	0.0332	
Earth	43143-11-13 05:31 G	17479032.57	17479032.73	17479032.89	0.0502	0.0362	*
Venus	43145-05-11 08:38 G	17479577.82	17479577.86	17479577.90	0.0498	0.0486	
Mercury	43147-11-14 01:12 G	17480494.51	17480494.55	17480494.60	0.0507	0.0489	
Mars	43148-01-09 05:46 G	17480550.48	17480550.74	17480551.01	0.0509	0.0254	
Mercury	43148-02-12 15:50 G	17480585.05	17480585.16	17480585.29	0.0509	0.0391	
Earth	43150-05-28 01:41 G	17481420.34	17481420.57	17481420.79	0.0525	0.0107	
Moon	43150-05-28 02:10 G	17481420.38	17481420.59	17481420.81	0.0525	0.0110	*
Venus	43151-03-14 02:53 G	17481710.45	17481710.62	17481710.80	0.0528	0.0259	
Mercury	43153-07-11 11:02 G	17482560.91	17482560.96	17482561.00	0.0519	0.0484	
Mercury	43153-10-08 14:53 G	17482649.99	17482650.12	17482650.24	0.0517	0.0106	
Earth	43155-11-17 17:02 G	17483420.00	17483420.21	17483420.42	0.0502	0.0219	
Moon	43155-11-17 20:53 G	17483420.16	17483420.37	17483420.59	0.0502	0.0214	*
Venus	43157-01-14 09:07 G	17483843.68	17483843.88	17483844.08	0.0498	0.0114	
Mercury	43159-12-01 12:29 G	17484894.84	17484895.02	17484895.20	0.0509	0.0179	
Earth	43162-06-01 23:46 G	17485808.30	17485808.49	17485808.69	0.0526	0.0275	
Moon	43162-06-02 01:41 G	17485808.36	17485808.57	17485808.78	0.0526	0.0244	*
Venus	43162-11-16 18:43 G	17485976.09	17485976.28	17485976.47	0.0527	0.0187	

Mercury	43165-07-27 19:12 G	17486960.18	17486960.30	17486960.43	0.0517	0.0049
Moon	43167-11-22 02:38 G	17487807.38	17487807.61	17487807.84	0.0501	0.0103
Earth	43167-11-22 06:43 G	17487807.55	17487807.78	17487808.01	0.0501	0.0073 *
Venus	43168-09-19 10:05 G	17488109.74	17488109.92	17488110.09	0.0499	0.0258
Mercury	43171-09-19 08:24 G	17489204.66	17489204.85	17489205.03	0.0508	0.0043
Moon	43174-06-06 16:05 G	17490196.05	17490196.17	17490196.30	0.0526	0.0435
Earth	43174-06-06 19:26 G	17490196.19	17490196.31	17490196.44	0.0526	0.0438 *
Mercury	43177-05-15 23:46 G	17491270.37	17491270.49	17491270.61	0.0518	0.0197
Mercury	43177-08-13 03:36 G	17491359.57	17491359.65	17491359.73	0.0516	0.0390
Earth	43179-11-26 20:24 G	17492195.12	17492195.35	17492195.58	0.0501	0.0072
Moon	43179-11-26 23:31 G	17492195.25	17492195.48	17492195.71	0.0501	0.0062 *
Mercury	43183-07-08 03:36 G	17493514.50	17493514.65	17493514.82	0.0508	0.0266
Venus	43186-11-19 16:34 G	17494745.14	17494745.19	17494745.25	0.0528	0.0505
Mercury	43189-03-04 04:48 G	17495580.60	17495580.70	17495580.79	0.0519	0.0340
Mercury	43189-06-01 08:38 G	17495669.75	17495669.86	17495669.97	0.0517	0.0249
Moon	43191-12-01 07:55 G	17496582.62	17496582.83	17496583.05	0.0500	0.0241
Earth	43191-12-01 09:36 G	17496582.69	17496582.90	17496583.11	0.0500	0.0214 *
Venus	43192-09-21 19:26 G	17496878.16	17496878.31	17496878.46	0.0498	0.0329
Mercury	43195-04-25 22:05 G	17497824.41	17497824.42	17497824.44	0.0507	0.0504
Mercury	43195-07-25 12:43 G	17497914.91	17497915.03	17497915.16	0.0509	0.0374
Earth	43197-05-12 08:10 G	17498571.71	17498571.84	17498571.98	0.0523	0.0420
Moon	43197-05-12 12:00 G	17498571.90	17498572.00	17498572.12	0.0523	0.0454 *
Venus	43198-07-25 07:55 G	17499010.63	17499010.83	17499011.03	0.0528	0.0060
Mercury	43200-12-21 09:36 G	17499890.86	17499890.90	17499890.94	0.0519	0.0484
Mercury	43201-03-20 13:26 G	17499979.94	17499980.06	17499980.18	0.0517	0.0106
Earth	43203-12-05 21:50 G	17500970.25	17500970.41	17500970.57	0.0499	0.0356
Moon	43203-12-05 21:36 G	17500970.26	17500970.40	17500970.56	0.0499	0.0374 *
Venus	43204-05-27 20:10 G	17501144.13	17501144.34	17501144.54	0.0498	0.0043
Mercury	43207-05-13 08:38 G	17502224.69	17502224.86	17502225.04	0.0509	0.0156
Moon	43209-05-17 02:24 G	17502959.40	17502959.60	17502959.81	0.0524	0.0259

Earth	43209-05-17 06:00 G	17502959.55	17502959.75	17502959.95	0.0524	0.0257	*
Venus	43210-03-30 00:00 G	17503276.36	17503276.50	17503276.64	0.0527	0.0383	
Mercury	43213-01-06 17:46 G	17504290.11	17504290.24	17504290.36	0.0517	0.0051	
Earth	43215-12-10 07:55 G	17505357.80	17505357.83	17505357.86	0.0499	0.0494	
Moon	43215-12-10 09:22 G	17505357.81	17505357.89	17505357.97	0.0499	0.0470	*
Venus	43216-01-31 19:41 G	17505410.21	17505410.32	17505410.43	0.0499	0.0419	
Mercury	43219-03-01 05:02 G	17506534.53	17506534.71	17506534.90	0.0508	0.0057	
Earth	43221-05-22 03:36 G	17507347.43	17507347.65	17507347.88	0.0524	0.0091	
Moon	43221-05-22 05:02 G	17507347.49	17507347.71	17507347.94	0.0524	0.0061	*
Mercury	43224-10-25 22:05 G	17508600.31	17508600.42	17508600.54	0.0518	0.0202	
Mercury	43225-01-23 01:55 G	17508689.50	17508689.58	17508689.66	0.0516	0.0385	
Earth	43226-11-12 03:36 G	17509347.51	17509347.65	17509347.80	0.0503	0.0392	
Moon	43226-11-12 07:12 G	17509347.64	17509347.80	17509347.98	0.0503	0.0358	*
Mercury	43230-12-18 00:58 G	17510844.38	17510844.54	17510844.70	0.0508	0.0277	
Earth	43233-05-26 22:34 G	17511735.21	17511735.44	17511735.67	0.0525	0.0074	
Moon	43233-05-26 23:46 G	17511735.25	17511735.49	17511735.73	0.0525	0.0070	*
Venus	43234-04-01 21:50 G	17512045.25	17512045.41	17512045.58	0.0527	0.0308	
Mercury	43236-08-14 02:38 G	17512910.52	17512910.61	17512910.70	0.0518	0.0355	
Mercury	43236-11-11 06:29 G	17512999.66	17512999.77	17512999.88	0.0517	0.0234	
Moon	43238-11-16 13:55 G	17513734.88	17513735.08	17513735.29	0.0502	0.0241	
Earth	43238-11-16 18:00 G	17513735.05	17513735.25	17513735.46	0.0502	0.0246	*
Venus	43240-02-03 05:31 G	17514178.54	17514178.73	17514178.93	0.0498	0.0169	
Mercury	43242-10-05 20:10 G	17515154.32	17515154.34	17515154.37	0.0507	0.0501	
Mercury	43243-01-04 10:48 G	17515244.83	17515244.95	17515245.08	0.0509	0.0377	
Moon	43245-05-31 16:05 G	17516122.97	17516123.17	17516123.38	0.0526	0.0208	
Earth	43245-05-31 18:58 G	17516123.09	17516123.29	17516123.50	0.0526	0.0241	*
Venus	43245-12-05 13:12 G	17516310.86	17516311.05	17516311.25	0.0527	0.0139	
Mercury	43248-06-02 07:26 G	17517220.78	17517220.81	17517220.84	0.0519	0.0499	
Mars	43248-08-30 00:43 G	17517309.28	17517309.53	17517309.78	0.0517	0.0016	
Mercury	43248-08-30 11:17 G	17517309.85	17517309.97	17517310.10	0.0517	0.0092	

Earth	43250-11-21 08:53 G	17518122.64	17518122.87	17518123.10	0.0501	0.0099
Moon	43250-11-21 12:14 G	17518122.79	17518123.01	17518123.23	0.0501	0.0128 *
Venus	43251-10-09 06:14 G	17518444.58	17518444.76	17518444.95	0.0498	0.0203
Mercury	43254-10-23 05:17 G	17519554.54	17519554.72	17519554.90	0.0508	0.0138
Earth	43257-06-05 14:53 G	17520510.97	17520511.12	17520511.27	0.0527	0.0404
Moon	43257-06-05 18:29 G	17520511.13	17520511.27	17520511.43	0.0527	0.0402 *
Mercury	43260-06-18 16:05 G	17521620.05	17521620.17	17521620.30	0.0518	0.0053
Moon	43262-11-25 20:10 G	17522510.10	17522510.34	17522510.58	0.0500	0.0041
Earth	43262-11-25 22:05 G	17522510.19	17522510.42	17522510.66	0.0500	0.0048 *
Mercury	43266-08-11 01:12 G	17523864.36	17523864.55	17523864.74	0.0508	0.0082
Mercury	43272-04-06 20:24 G	17525930.23	17525930.35	17525930.46	0.0518	0.0209
Mercury	43272-07-05 00:14 G	17526019.42	17526019.51	17526019.59	0.0516	0.0378
Earth	43274-11-30 07:41 G	17526897.61	17526897.82	17526898.04	0.0500	0.0188
Moon	43274-11-30 08:10 G	17526897.64	17526897.84	17526898.04	0.0500	0.0218 *
Venus	43275-10-11 14:10 G	17527212.96	17527213.09	17527213.23	0.0498	0.0374
Mercury	43278-05-29 21:22 G	17528174.24	17528174.39	17528174.55	0.0508	0.0295
Moon	43280-05-11 05:02 G	17528886.63	17528886.71	17528886.81	0.0522	0.0481
Earth	43280-05-11 08:38 G	17528886.75	17528886.86	17528886.99	0.0522	0.0448 *
Venus	43281-08-13 04:19 G	17529345.48	17529345.68	17529345.88	0.0527	0.0117
Mercury	43284-01-25 00:43 G	17530240.44	17530240.53	17530240.62	0.0518	0.0361
Mercury	43284-04-23 04:34 G	17530329.58	17530329.69	17530329.81	0.0516	0.0228
Earth	43286-12-04 19:41 G	17531285.15	17531285.32	17531285.50	0.0500	0.0331
Moon	43286-12-04 20:53 G	17531285.20	17531285.37	17531285.55	0.0500	0.0346 *
Venus	43287-06-16 14:53 G	17531478.91	17531479.12	17531479.32	0.0498	0.0011
Mercury	43290-06-16 07:55 G	17532574.70	17532574.83	17532574.96	0.0509	0.0364
Earth	43292-05-16 03:07 G	17533274.44	17533274.63	17533274.83	0.0523	0.0290
Moon	43292-05-16 05:17 G	17533274.54	17533274.72	17533274.91	0.0523	0.0289 *
Venus	43293-04-17 18:43 G	17533611.12	17533611.28	17533611.44	0.0527	0.0334
Mercury	43295-11-13 05:02 G	17534550.70	17534550.71	17534550.72	0.0519	0.0515
Mercury	43296-02-10 09:07 G	17534639.75	17534639.88	17534640.00	0.0517	0.0076

Moon	43298-12-09 06:00 G	17535672.66	17535672.75	17535672.85	0.0499	0.0449
Earth	43298-12-09 08:24 G	17535672.78	17535672.85	17535672.93	0.0499	0.0472 *
Venus	43299-02-19 15:22 G	17535745.01	17535745.14	17535745.28	0.0499	0.0368
Mars	43302-04-04 08:10 G	17536883.54	17536883.84	17536884.15	0.0508	0.0067
Mercury	43302-04-05 03:22 G	17536884.46	17536884.64	17536884.82	0.0508	0.0139
Moon	43304-05-21 22:19 G	17537662.19	17537662.43	17537662.67	0.0524	0.0098
Earth	43304-05-21 22:05 G	17537662.20	17537662.42	17537662.65	0.0524	0.0127 *
Mercury	43307-11-30 13:55 G	17538949.95	17538950.08	17538950.20	0.0518	0.0069
Moon	43309-11-12 00:58 G	17539662.40	17539662.54	17539662.70	0.0503	0.0388
Earth	43309-11-12 05:02 G	17539662.59	17539662.71	17539662.84	0.0503	0.0419 *
Mercury	43314-01-21 21:50 G	17541194.23	17541194.41	17541194.60	0.0508	0.0099
Moon	43316-05-26 14:10 G	17542049.87	17542050.09	17542050.31	0.0525	0.0031
Earth	43316-05-26 16:19 G	17542049.95	17542050.18	17542050.41	0.0525	0.0036 *
Venus	43317-04-21 16:34 G	17542380.04	17542380.19	17542380.34	0.0528	0.0356
Mercury	43319-09-18 18:43 G	17543260.16	17543260.28	17543260.39	0.0518	0.0214
Mercury	43319-12-16 22:34 G	17543349.36	17543349.44	17543349.53	0.0516	0.0374
Earth	43321-11-16 19:26 G	17544050.11	17544050.31	17544050.51	0.0502	0.0271
Moon	43321-11-16 23:02 G	17544050.26	17544050.46	17544050.65	0.0502	0.0271 *
Venus	43323-02-23 00:58 G	17544513.36	17544513.54	17544513.73	0.0498	0.0218
Mercury	43325-11-09 17:31 G	17545504.09	17545504.23	17545504.38	0.0507	0.0318
Earth	43328-05-31 14:38 G	17546437.90	17546438.11	17546438.33	0.0526	0.0208
Moon	43328-05-31 18:14 G	17546438.04	17546438.26	17546438.49	0.0526	0.0173 *
Venus	43328-12-25 08:38 G	17546645.66	17546645.86	17546646.06	0.0527	0.0087
Mercury	43331-07-07 22:48 G	17547570.37	17547570.45	17547570.54	0.0518	0.0371
Mercury	43331-10-05 02:53 G	17547659.50	17547659.62	17547659.73	0.0517	0.0219
Moon	43333-11-21 02:53 G	17548437.40	17548437.62	17548437.86	0.0502	0.0159
Earth	43333-11-21 05:31 G	17548437.50	17548437.73	17548437.96	0.0502	0.0129 *
Venus	43334-10-29 00:14 G	17548779.32	17548779.51	17548779.70	0.0498	0.0162
Mercury	43337-11-27 04:34 G	17549904.55	17549904.69	17549904.83	0.0509	0.0347
Moon	43340-06-05 10:19 G	17550825.77	17550825.93	17550826.10	0.0526	0.0374

Earth	43340-06-05 14:24 G	17550825.94	17550826.10	17550826.26	0.0526	0.0377	*
Venus	43340-08-30 00:58 G	17550911.53	17550911.54	17550911.55	0.0527	0.0525	
Mercury	43343-07-24 07:26 G	17551969.68	17551969.81	17551969.93	0.0517	0.0071	
Earth	43345-11-25 18:14 G	17552825.02	17552825.26	17552825.49	0.0501	0.0020	
Moon	43345-11-25 18:58 G	17552825.06	17552825.29	17552825.51	0.0501	0.0018	*
Mercury	43349-09-15 00:29 G	17554214.34	17554214.52	17554214.70	0.0508	0.0127	
Mercury	43355-05-12 11:46 G	17556279.86	17556279.99	17556280.11	0.0518	0.0085	
Mercury	43355-08-09 15:36 G	17556369.12	17556369.15	17556369.17	0.0516	0.0501	
Earth	43357-11-30 07:26 G	17557212.59	17557212.81	17557213.04	0.0500	0.0163	
Moon	43357-11-30 08:24 G	17557212.62	17557212.85	17557213.07	0.0500	0.0192	*
Venus	43358-10-31 10:05 G	17557547.81	17557547.92	17557548.02	0.0498	0.0423	
Mercury	43361-07-03 19:55 G	17558524.14	17558524.33	17558524.51	0.0508	0.0098	
Earth	43363-05-12 04:19 G	17559201.59	17559201.68	17559201.76	0.0522	0.0483	
Moon	43363-05-12 06:58 G	17559201.76	17559201.79	17559201.83	0.0522	0.0515	*
Venus	43364-09-01 22:05 G	17559680.23	17559680.42	17559680.62	0.0527	0.0160	
Mercury	43367-02-28 16:34 G	17560590.07	17560590.19	17560590.30	0.0518	0.0231	
Mercury	43367-05-28 20:24 G	17560679.26	17560679.35	17560679.44	0.0517	0.0359	
Moon	43369-12-04 19:26 G	17561600.14	17561600.31	17561600.49	0.0500	0.0322	
Earth	43369-12-04 21:50 G	17561600.22	17561600.41	17561600.59	0.0500	0.0309	*
Venus	43370-07-06 11:02 G	17561813.76	17561813.96	17561814.16	0.0498	0.0056	
Mercury	43373-04-21 14:38 G	17562833.97	17562834.11	17562834.25	0.0507	0.0331	
Moon	43375-05-16 19:55 G	17563589.15	17563589.33	17563589.53	0.0523	0.0322	
Earth	43375-05-16 20:53 G	17563589.19	17563589.37	17563589.55	0.0523	0.0328	*
Venus	43376-05-07 12:43 G	17563945.87	17563946.03	17563946.20	0.0527	0.0289	
Mercury	43378-12-17 21:07 G	17564900.30	17564900.38	17564900.47	0.0519	0.0377	
Mercury	43379-03-17 01:12 G	17564989.43	17564989.55	17564989.66	0.0517	0.0215	
Earth	43381-12-09 10:05 G	17565987.83	17565987.92	17565988.02	0.0499	0.0451	
Moon	43381-12-09 13:41 G	17565987.95	17565988.07	17565988.20	0.0499	0.0423	*
Venus	43382-03-11 11:46 G	17566079.83	17566079.99	17566080.15	0.0498	0.0315	
Mercury	43385-05-09 00:58 G	17567234.40	17567234.54	17567234.69	0.0509	0.0327	

Moon	43387-05-21 17:02 G	17567977.00	17567977.21	17567977.43	0.0524	0.0131
Earth	43387-05-21 18:43 G	17567977.06	17567977.28	17567977.50	0.0524	0.0160 *
Mercury	43391-01-03 05:31 G	17569299.60	17569299.73	17569299.85	0.0517	0.0060
Earth	43392-11-11 00:58 G	17569977.45	17569977.54	17569977.65	0.0503	0.0451
Moon	43392-11-11 04:48 G	17569977.58	17569977.70	17569977.83	0.0503	0.0420 *
Mercury	43397-02-24 21:07 G	17571544.20	17571544.38	17571544.57	0.0509	0.0112
Earth	43399-05-26 17:46 G	17572365.01	17572365.24	17572365.47	0.0525	0.0011
Moon	43399-05-26 21:07 G	17572365.14	17572365.38	17572365.61	0.0525	0.0011 *
Venus	43400-05-11 14:10 G	17572714.96	17572715.09	17572715.21	0.0527	0.0417
Mercury	43402-10-23 10:05 G	17573609.80	17573609.92	17573610.04	0.0517	0.0089
Mars	43402-11-25 02:10 G	17573642.37	17573642.59	17573642.82	0.0517	0.0233
Mercury	43403-01-20 13:55 G	17573699.05	17573699.08	17573699.11	0.0516	0.0497
Moon	43404-11-16 12:14 G	17574364.82	17574365.01	17574365.20	0.0503	0.0306
Earth	43404-11-16 15:07 G	17574364.94	17574365.13	17574365.32	0.0503	0.0303 *
Venus	43406-03-14 19:12 G	17574848.13	17574848.30	17574848.48	0.0498	0.0258
Mercury	43408-12-14 17:17 G	17575854.03	17575854.22	17575854.40	0.0508	0.0107
Moon	43411-06-01 10:05 G	17576752.70	17576752.92	17576753.14	0.0525	0.0143
Earth	43411-06-01 13:41 G	17576752.86	17576753.07	17576753.29	0.0525	0.0177 *
Venus	43412-01-15 04:34 G	17576980.49	17576980.69	17576980.89	0.0527	0.0032
Mercury	43414-08-11 14:24 G	17577919.99	17577920.10	17577920.21	0.0518	0.0243
Mercury	43414-11-08 18:14 G	17578009.17	17578009.26	17578009.35	0.0516	0.0346
Earth	43416-11-21 05:17 G	17578752.50	17578752.72	17578752.95	0.0502	0.0156
Moon	43416-11-21 06:14 G	17578752.56	17578752.76	17578752.98	0.0502	0.0187 *
Venus	43417-11-17 20:24 G	17579114.15	17579114.35	17579114.55	0.0499	0.0109
Mercury	43420-10-02 12:43 G	17580163.89	17580164.03	17580164.18	0.0507	0.0328
Earth	43423-06-06 09:50 G	17581140.74	17581140.91	17581141.09	0.0526	0.0344
Moon	43423-06-06 13:12 G	17581140.89	17581141.05	17581141.23	0.0526	0.0348 *
Venus	43423-09-19 19:41 G	17581246.24	17581246.32	17581246.41	0.0527	0.0476
Mercury	43426-05-30 19:12 G	17582230.22	17582230.30	17582230.38	0.0519	0.0389
Mercury	43426-08-27 23:02 G	17582319.35	17582319.46	17582319.58	0.0517	0.0202

Earth	43428-11-25 20:53 G	17583140.14	17583140.37	17583140.61	0.0501	0.0010
Moon	43428-11-25 21:22 G	17583140.15	17583140.39	17583140.64	0.0501	0.0013 *
Venus	43429-07-23 21:36 G	17583380.35	17583380.40	17583380.47	0.0499	0.0476
Mercury	43432-10-19 22:19 G	17584564.29	17584564.43	17584564.58	0.0508	0.0319
Earth	43435-06-11 05:31 G	17585528.68	17585528.73	17585528.79	0.0527	0.0509
Mercury	43438-06-16 03:50 G	17586629.54	17586629.66	17586629.79	0.0518	0.0059
Moon	43440-11-30 08:53 G	17587527.66	17587527.87	17587528.09	0.0500	0.0172
Earth	43440-11-30 10:48 G	17587527.73	17587527.95	17587528.18	0.0500	0.0142 *
Venus	43441-11-20 06:43 G	17587882.73	17587882.78	17587882.84	0.0498	0.0478
Mercury	43444-08-07 18:14 G	17588874.08	17588874.26	17588874.45	0.0508	0.0100
Earth	43446-05-12 02:38 G	17589516.58	17589516.61	17589516.65	0.0522	0.0514
Venus	43447-09-22 18:58 G	17590015.11	17590015.29	17590015.48	0.0528	0.0218
Mercury	43450-04-04 08:24 G	17590939.72	17590939.85	17590939.97	0.0518	0.0096
Mercury	43450-07-02 12:14 G	17591028.97	17591029.01	17591029.04	0.0516	0.0491
Earth	43452-12-04 19:41 G	17591915.13	17591915.32	17591915.51	0.0500	0.0283
Moon	43452-12-04 23:02 G	17591915.27	17591915.46	17591915.66	0.0500	0.0288 *
Venus	43453-07-26 05:31 G	17592148.53	17592148.73	17592148.93	0.0498	0.0098
Mercury	43456-05-26 14:24 G	17593183.91	17593184.10	17593184.28	0.0508	0.0118
Mars	43456-06-28 07:41 G	17593216.61	17593216.82	17593217.02	0.0509	0.0376
Moon	43458-05-17 00:00 G	17593904.34	17593904.50	17593904.68	0.0523	0.0339
Earth	43458-05-17 00:58 G	17593904.38	17593904.54	17593904.72	0.0523	0.0351 *
Venus	43459-05-28 12:14 G	17594280.83	17594281.01	17594281.20	0.0527	0.0217
Mercury	43462-01-21 12:58 G	17595249.93	17595250.04	17595250.15	0.0518	0.0243
Mercury	43462-04-20 16:48 G	17595339.11	17595339.20	17595339.30	0.0516	0.0345
Moon	43464-12-09 04:19 G	17596302.55	17596302.68	17596302.83	0.0499	0.0397
Earth	43464-12-09 08:10 G	17596302.73	17596302.84	17596302.97	0.0499	0.0428 *
Venus	43465-03-31 06:14 G	17596414.59	17596414.76	17596414.93	0.0499	0.0272
Mercury	43468-03-14 10:34 G	17597493.79	17597493.94	17597494.08	0.0508	0.0333
Earth	43470-05-21 21:07 G	17598292.17	17598292.38	17598292.60	0.0523	0.0187
Moon	43470-05-22 00:00 G	17598292.27	17598292.50	17598292.73	0.0523	0.0155 *

Mercury	43473-11-09 17:31 G	17599560.15	17599560.23	17599560.31	0.0519	0.0396
Mercury	43474-02-06 21:22 G	17599649.27	17599649.39	17599649.51	0.0517	0.0194
Moon	43475-11-11 23:02 G	17600292.36	17600292.46	17600292.58	0.0504	0.0449
Earth	43475-11-12 02:10 G	17600292.53	17600292.59	17600292.67	0.0504	0.0478 *
Mercury	43480-03-31 20:53 G	17601894.23	17601894.37	17601894.52	0.0509	0.0327
Moon	43482-05-26 13:12 G	17602679.82	17602680.05	17602680.28	0.0524	0.0026
Earth	43482-05-26 16:48 G	17602679.97	17602680.20	17602680.43	0.0524	0.0020 *
Venus	43483-05-31 10:05 G	17603049.84	17603049.92	17603050.01	0.0527	0.0472
Mercury	43485-11-26 02:10 G	17603959.46	17603959.59	17603959.71	0.0517	0.0050
Earth	43487-11-16 19:12 G	17604680.12	17604680.30	17604680.48	0.0503	0.0326
Moon	43487-11-16 20:24 G	17604680.19	17604680.35	17604680.52	0.0503	0.0338 *
Venus	43489-04-02 17:46 G	17605183.08	17605183.24	17605183.40	0.0498	0.0321
Mercury	43492-01-18 16:05 G	17606203.99	17606204.17	17606204.36	0.0508	0.0100
Earth	43494-05-31 11:31 G	17607067.76	17607067.98	17607068.20	0.0525	0.0147
Moon	43494-05-31 15:07 G	17607067.91	17607068.13	17607068.36	0.0525	0.0116 *
Venus	43495-02-03 00:58 G	17607315.34	17607315.54	17607315.74	0.0527	0.0025
Mercury	43497-09-14 06:58 G	17608269.67	17608269.79	17608269.91	0.0518	0.0095
Mercury	43497-12-12 10:48 G	17608358.92	17608358.95	17608358.99	0.0516	0.0493
Earth	43499-11-21 10:34 G	17609067.73	17609067.94	17609068.17	0.0502	0.0175
Moon	43499-11-21 10:48 G	17609067.73	17609067.95	17609068.18	0.0502	0.0206 *
Venus	43500-12-07 18:58 G	17609449.08	17609449.29	17609449.49	0.0498	0.0048
Mercury	43503-11-07 12:14 G	17610513.82	17610514.01	17610514.19	0.0508	0.0119
Moon	43506-06-06 08:24 G	17611455.67	17611455.85	17611456.04	0.0526	0.0327
Earth	43506-06-06 11:02 G	17611455.78	17611455.96	17611456.15	0.0526	0.0321 *
Venus	43506-10-09 18:00 G	17611581.13	17611581.25	17611581.39	0.0527	0.0411
Mercury	43509-07-04 11:31 G	17612579.87	17612579.98	17612580.09	0.0518	0.0245
Mercury	43509-10-01 15:22 G	17612669.05	17612669.14	17612669.23	0.0516	0.0343
Moon	43511-11-26 19:12 G	17613455.07	17613455.30	17613455.53	0.0501	0.0034
Earth	43511-11-26 20:53 G	17613455.13	17613455.37	17613455.60	0.0501	0.0033 *
Venus	43512-08-12 17:02 G	17613715.11	17613715.21	17613715.32	0.0499	0.0428

Mercury	43515-08-26 07:55 G	17614823.69	17614823.83	17614823.97	0.0508	0.0339
Earth	43518-06-11 12:14 G	17615843.93	17615844.01	17615844.09	0.0526	0.0493
Mercury	43521-04-22 16:19 G	17616890.10	17616890.18	17616890.26	0.0518	0.0390
Mercury	43521-07-20 20:10 G	17616979.22	17616979.34	17616979.45	0.0516	0.0199
Earth	43523-12-01 10:19 G	17617842.70	17617842.93	17617843.16	0.0501	0.0117
Moon	43523-12-01 13:41 G	17617842.84	17617843.07	17617843.30	0.0501	0.0147 *
Mercury	43527-09-12 18:58 G	17619224.15	17619224.29	17619224.44	0.0509	0.0329
Venus	43530-10-12 18:58 G	17620350.12	17620350.29	17620350.46	0.0527	0.0292
Mercury	43533-05-09 00:43 G	17621289.40	17621289.53	17621289.65	0.0517	0.0051
Moon	43535-12-05 20:38 G	17622230.16	17622230.36	17622230.56	0.0500	0.0265
Earth	43535-12-06 00:29 G	17622230.33	17622230.52	17622230.73	0.0500	0.0264 *
Venus	43536-08-15 04:19 G	17622483.48	17622483.68	17622483.87	0.0499	0.0162
Mercury	43539-07-01 14:53 G	17623533.94	17623534.12	17623534.31	0.0508	0.0113
Earth	43541-05-17 04:05 G	17624219.51	17624219.67	17624219.83	0.0522	0.0377
Moon	43541-05-17 06:43 G	17624219.60	17624219.78	17624219.95	0.0522	0.0358 *
Venus	43542-06-17 10:34 G	17624615.74	17624615.94	17624616.13	0.0527	0.0151
Mercury	43545-02-25 05:17 G	17625599.60	17625599.72	17625599.85	0.0518	0.0099
Mercury	43545-05-25 09:07 G	17625688.85	17625688.88	17625688.92	0.0516	0.0490
Earth	43547-12-10 15:36 G	17626618.03	17626618.15	17626618.29	0.0500	0.0414
Moon	43547-12-10 19:26 G	17626618.16	17626618.31	17626618.46	0.0500	0.0382 *
Venus	43548-04-20 06:14 G	17626749.58	17626749.76	17626749.95	0.0499	0.0202
Mercury	43551-04-19 10:34 G	17627843.76	17627843.94	17627844.12	0.0508	0.0113
Moon	43553-05-21 18:58 G	17628607.08	17628607.29	17628607.50	0.0523	0.0183
Earth	43553-05-21 22:19 G	17628607.22	17628607.43	17628607.64	0.0523	0.0215 *
Mercury	43556-12-14 10:19 G	17629909.82	17629909.93	17629910.04	0.0519	0.0242
Mercury	43557-03-13 14:10 G	17629999.00	17629999.09	17629999.18	0.0517	0.0348
Earth	43558-11-12 09:36 G	17630607.87	17630607.90	17630607.95	0.0504	0.0497
Moon	43558-11-12 11:17 G	17630607.90	17630607.97	17630608.05	0.0504	0.0472 *
Mercury	43563-02-05 06:29 G	17632153.63	17632153.77	17632153.92	0.0507	0.0329
Earth	43565-05-26 20:38 G	17632995.13	17632995.36	17632995.60	0.0524	0.0043

Moon	43565-05-27 00:29 G	17632995.29	17632995.52	17632995.75	0.0524	0.0053	*
Mercury	43568-10-02 14:53 G	17634220.04	17634220.12	17634220.21	0.0518	0.0389	
Mercury	43568-12-30 18:43 G	17634309.17	17634309.28	17634309.40	0.0517	0.0202	
Earth	43570-11-16 21:50 G	17634995.24	17634995.41	17634995.57	0.0503	0.0352	
Moon	43570-11-16 21:36 G	17634995.24	17634995.40	17634995.57	0.0503	0.0364	*
Venus	43572-04-22 14:24 G	17635517.97	17635518.10	17635518.24	0.0498	0.0374	
Mercury	43575-02-22 17:02 G	17636554.07	17636554.21	17636554.35	0.0509	0.0330	
Moon	43577-05-31 18:29 G	17637383.04	17637383.27	17637383.50	0.0525	0.0103	
Earth	43577-05-31 21:22 G	17637383.17	17637383.39	17637383.62	0.0525	0.0132	*
Venus	43578-02-23 04:34 G	17637650.49	17637650.69	17637650.88	0.0527	0.0117	
Mercury	43580-10-18 23:46 G	17638619.36	17638619.49	17638619.61	0.0517	0.0058	
Moon	43582-11-21 11:17 G	17639382.77	17639382.97	17639383.17	0.0502	0.0231	
Earth	43582-11-21 12:43 G	17639382.81	17639383.03	17639383.24	0.0502	0.0201	*
Venus	43583-12-27 15:50 G	17639783.95	17639784.16	17639784.36	0.0498	0.0012	
Mercury	43586-12-11 13:26 G	17640863.88	17640864.06	17640864.25	0.0509	0.0118	
Earth	43589-06-05 19:12 G	17641771.12	17641771.30	17641771.50	0.0525	0.0303	
Moon	43589-06-05 20:24 G	17641771.18	17641771.35	17641771.53	0.0525	0.0318	*
Venus	43589-10-28 20:24 G	17641916.19	17641916.35	17641916.51	0.0527	0.0323	
Mercury	43592-08-07 04:19 G	17642929.55	17642929.68	17642929.80	0.0517	0.0093	
Mercury	43592-11-04 08:10 G	17643018.80	17643018.84	17643018.87	0.0516	0.0494	
Earth	43594-11-26 03:36 G	17643770.42	17643770.65	17643770.89	0.0502	0.0052	
Moon	43594-11-26 06:43 G	17643770.54	17643770.78	17643771.02	0.0502	0.0043	*
Venus	43595-09-01 17:17 G	17644050.08	17644050.22	17644050.37	0.0499	0.0357	
Mercury	43598-09-29 09:36 G	17645173.72	17645173.90	17645174.09	0.0508	0.0097	
Earth	43601-06-10 16:48 G	17646159.11	17646159.20	17646159.31	0.0526	0.0472	
Moon	43601-06-10 17:31 G	17646159.16	17646159.23	17646159.30	0.0526	0.0501	*
Mercury	43604-05-26 09:07 G	17647239.77	17647239.88	17647239.99	0.0518	0.0238	
Mercury	43604-08-23 12:58 G	17647328.95	17647329.04	17647329.13	0.0516	0.0351	
Moon	43606-11-30 16:05 G	17648157.94	17648158.17	17648158.39	0.0501	0.0132	
Earth	43606-11-30 19:55 G	17648158.10	17648158.33	17648158.56	0.0501	0.0103	*

Mercury	43610-07-18 05:31 G	17649483.58	17649483.73	17649483.87	0.0507	0.0317
Venus	43613-10-31 18:43 G	17650685.14	17650685.28	17650685.43	0.0527	0.0366
Mercury	43616-03-14 13:55 G	17651550.00	17651550.08	17651550.16	0.0519	0.0382
Mercury	43616-06-11 17:46 G	17651639.13	17651639.24	17651639.36	0.0517	0.0209
Earth	43618-12-05 10:48 G	17652545.75	17652545.95	17652546.16	0.0500	0.0253
Moon	43618-12-05 14:24 G	17652545.91	17652546.10	17652546.31	0.0500	0.0250 *
Venus	43619-09-04 05:46 G	17652818.56	17652818.74	17652818.92	0.0498	0.0238
Mercury	43622-08-04 16:05 G	17653884.04	17653884.17	17653884.31	0.0509	0.0348
Moon	43624-05-16 07:41 G	17654534.67	17654534.82	17654534.98	0.0522	0.0380
Earth	43624-05-16 11:02 G	17654534.81	17654534.96	17654535.11	0.0522	0.0397 *
Venus	43625-07-06 12:29 G	17654950.82	17654951.02	17654951.22	0.0527	0.0067
Mercury	43628-03-30 22:34 G	17655949.32	17655949.44	17655949.57	0.0517	0.0066
Moon	43630-12-09 17:31 G	17656933.06	17656933.23	17656933.40	0.0500	0.0362
Earth	43630-12-09 20:38 G	17656933.21	17656933.36	17656933.50	0.0500	0.0394 *
Venus	43631-05-10 04:19 G	17657084.48	17657084.68	17657084.88	0.0499	0.0141
Mercury	43634-05-23 11:46 G	17658193.81	17658193.99	17658194.18	0.0509	0.0124
Earth	43636-05-21 10:05 G	17658922.72	17658922.92	17658923.13	0.0523	0.0230
Moon	43636-05-21 13:55 G	17658922.87	17658923.08	17658923.30	0.0523	0.0202 *
Venus	43637-03-11 06:43 G	17659216.71	17659216.78	17659216.85	0.0527	0.0493
Mercury	43640-01-18 03:36 G	17660259.53	17660259.65	17660259.77	0.0517	0.0077
Mercury	43640-04-16 07:26 G	17660348.79	17660348.81	17660348.82	0.0515	0.0508
Moon	43641-11-11 14:38 G	17660923.07	17660923.11	17660923.16	0.0504	0.0494
Mercury	43646-03-11 08:24 G	17662503.66	17662503.85	17662504.04	0.0508	0.0086
Moon	43648-05-26 05:17 G	17663310.48	17663310.72	17663310.95	0.0524	0.0077
Earth	43648-05-26 08:24 G	17663310.62	17663310.85	17663311.08	0.0524	0.0058 *
Mercury	43651-11-06 08:10 G	17664569.73	17664569.84	17664569.95	0.0518	0.0227
Mercury	43652-02-03 12:00 G	17664658.91	17664659.00	17664659.09	0.0516	0.0361
Moon	43653-11-16 05:17 G	17665310.58	17665310.72	17665310.87	0.0503	0.0387
Earth	43653-11-16 06:29 G	17665310.62	17665310.77	17665310.94	0.0503	0.0370 *
Venus	43655-05-12 16:05 G	17665853.09	17665853.17	17665853.26	0.0498	0.0451

Mercury	43657-12-28 04:48 G	17666813.55	17666813.70	17666813.85	0.0508	0.0298
Earth	43660-05-31 05:31 G	17667698.51	17667698.73	17667698.96	0.0525	0.0114
Moon	43660-05-31 06:58 G	17667698.57	17667698.79	17667699.01	0.0525	0.0089 *
Venus	43661-03-14 06:14 G	17667985.58	17667985.76	17667985.95	0.0527	0.0201
Mercury	43663-08-25 12:58 G	17668879.95	17668880.04	17668880.12	0.0518	0.0372
Mercury	43663-11-22 16:48 G	17668969.09	17668969.20	17668969.31	0.0517	0.0217
Earth	43665-11-20 23:17 G	17669698.27	17669698.47	17669698.69	0.0503	0.0216
Moon	43665-11-21 02:24 G	17669698.39	17669698.60	17669698.81	0.0503	0.0241 *
Venus	43667-01-15 18:14 G	17670119.06	17670119.26	17670119.47	0.0499	0.0091
Mercury	43670-01-14 15:22 G	17671214.01	17671214.14	17671214.27	0.0509	0.0364
Earth	43672-06-05 01:26 G	17672086.38	17672086.56	17672086.76	0.0525	0.0285
Moon	43672-06-05 01:55 G	17672086.38	17672086.58	17672086.77	0.0525	0.0300 *
Venus	43672-11-16 21:50 G	17672251.23	17672251.41	17672251.59	0.0527	0.0242
Mercury	43675-06-13 17:46 G	17673190.23	17673190.24	17673190.25	0.0519	0.0517
Mars	43675-08-12 05:02 G	17673249.47	17673249.71	17673249.96	0.0518	0.0133
Mercury	43675-09-10 21:36 G	17673279.28	17673279.40	17673279.53	0.0517	0.0077
Moon	43677-11-25 12:00 G	17674085.77	17674086.00	17674086.24	0.0502	0.0048
Earth	43677-11-25 15:50 G	17674085.93	17674086.16	17674086.40	0.0502	0.0063 *
Venus	43678-09-20 20:10 G	17674385.17	17674385.34	17674385.51	0.0499	0.0274
Mercury	43681-11-02 11:31 G	17675523.80	17675523.98	17675524.16	0.0508	0.0150
Moon	43684-06-10 00:00 G	17676474.43	17676474.50	17676474.59	0.0526	0.0488
Earth	43684-06-10 02:10 G	17676474.48	17676474.59	17676474.70	0.0526	0.0460 *
Mercury	43687-06-30 02:38 G	17677589.49	17677589.61	17677589.74	0.0517	0.0067
Earth	43689-11-30 03:07 G	17678473.40	17678473.63	17678473.86	0.0501	0.0083
Moon	43689-11-30 06:43 G	17678473.56	17678473.78	17678474.01	0.0501	0.0114 *
Mercury	43693-08-21 06:58 G	17679833.61	17679833.79	17679833.98	0.0509	0.0078
Venus	43696-11-20 01:26 G	17681020.47	17681020.56	17681020.64	0.0528	0.0472
Mercury	43699-04-18 07:41 G	17681899.71	17681899.82	17681899.94	0.0518	0.0207
Mercury	43699-07-16 11:31 G	17681988.90	17681988.98	17681989.06	0.0516	0.0379
Moon	43701-12-05 14:38 G	17682860.90	17682861.11	17682861.33	0.0500	0.0230

Earth	43701-12-05 17:46 G	17682861.03	17682861.24	17682861.45	0.0500	0.0235	*
Venus	43702-09-24 04:48 G	17683153.54	17683153.70	17683153.86	0.0498	0.0303	
Mercury	43705-06-10 03:36 G	17684143.50	17684143.65	17684143.81	0.0508	0.0286	
Earth	43707-05-18 00:00 G	17684850.37	17684850.50	17684850.65	0.0522	0.0415	
Moon	43707-05-18 03:50 G	17684850.51	17684850.66	17684850.82	0.0522	0.0390	*
Venus	43708-07-26 17:31 G	17685286.03	17685286.23	17685286.44	0.0527	0.0038	
Mercury	43711-02-05 12:14 G	17686209.92	17686210.01	17686210.10	0.0518	0.0357	
Mercury	43711-05-05 16:05 G	17686299.06	17686299.17	17686299.28	0.0516	0.0231	
Earth	43713-12-10 07:55 G	17687248.69	17687248.83	17687248.99	0.0500	0.0384	
Moon	43713-12-10 09:22 G	17687248.73	17687248.89	17687249.05	0.0500	0.0356	*
Venus	43714-05-30 06:43 G	17687419.58	17687419.78	17687419.99	0.0499	0.0059	
Mercury	43717-03-29 00:14 G	17688453.47	17688453.51	17688453.55	0.0508	0.0495	
Mercury	43717-06-27 14:53 G	17688544.01	17688544.12	17688544.25	0.0509	0.0388	
Moon	43719-05-22 17:46 G	17689238.04	17689238.24	17689238.46	0.0523	0.0224	
Earth	43719-05-22 21:07 G	17689238.18	17689238.38	17689238.59	0.0523	0.0246	*
Venus	43720-03-31 09:50 G	17689551.78	17689551.91	17689552.04	0.0527	0.0401	
Mercury	43722-11-24 17:02 G	17690520.18	17690520.21	17690520.24	0.0519	0.0503	
Mercury	43723-02-21 20:53 G	17690609.25	17690609.37	17690609.50	0.0517	0.0088	
Venus	43726-02-02 08:38 G	17691685.76	17691685.86	17691685.98	0.0499	0.0420	
Mars	43729-03-13 07:55 G	17692820.52	17692820.83	17692821.13	0.0508	0.0042	
Mercury	43729-04-15 11:02 G	17692853.78	17692853.96	17692854.14	0.0509	0.0169	
Earth	43731-05-27 16:34 G	17693625.97	17693626.19	17693626.42	0.0524	0.0077	
Moon	43731-05-27 18:29 G	17693626.05	17693626.27	17693626.49	0.0524	0.0102	*
Mercury	43734-12-11 01:55 G	17694919.45	17694919.58	17694919.70	0.0518	0.0057	
Earth	43736-11-16 19:55 G	17695626.18	17695626.33	17695626.48	0.0504	0.0382	
Moon	43736-11-16 22:34 G	17695626.31	17695626.44	17695626.60	0.0504	0.0403	*
Mercury	43741-02-01 07:12 G	17697163.61	17697163.80	17697163.99	0.0508	0.0046	
Moon	43743-06-01 16:05 G	17698013.93	17698014.17	17698014.40	0.0525	0.0077	
Earth	43743-06-01 16:05 G	17698013.94	17698014.17	17698014.39	0.0525	0.0100	*
Venus	43744-04-03 10:34 G	17698320.77	17698320.94	17698321.11	0.0527	0.0296	

Mercury	43746-09-29 06:58 G	17699229.67	17699229.79	17699229.90	0.0518	0.0197
Mercury	43746-12-27 10:34 G	17699318.86	17699318.94	17699319.03	0.0516	0.0391
Moon	43748-11-21 05:31 G	17700013.53	17700013.73	17700013.93	0.0502	0.0256
Earth	43748-11-21 09:22 G	17700013.68	17700013.89	17700014.10	0.0502	0.0234 *
Venus	43750-02-04 18:14 G	17700454.07	17700454.26	17700454.46	0.0498	0.0161
Mercury	43752-11-20 02:24 G	17701473.44	17701473.60	17701473.76	0.0508	0.0276
Moon	43755-06-06 14:38 G	17702401.93	17702402.11	17702402.30	0.0526	0.0296
Earth	43755-06-06 16:19 G	17702401.99	17702402.18	17702402.38	0.0526	0.0275 *
Venus	43755-12-08 04:34 G	17702586.49	17702586.69	17702586.89	0.0527	0.0131
Mercury	43758-07-18 12:00 G	17703539.90	17703540.00	17703540.09	0.0518	0.0335
Mercury	43758-10-15 15:36 G	17703629.05	17703629.15	17703629.26	0.0516	0.0253
Earth	43760-11-26 00:43 G	17704401.30	17704401.53	17704401.76	0.0501	0.0081
Moon	43760-11-26 04:19 G	17704401.45	17704401.68	17704401.91	0.0501	0.0058 *
Venus	43761-10-10 19:55 G	17704720.15	17704720.33	17704720.52	0.0498	0.0203
Mercury	43764-09-07 22:48 G	17705783.41	17705783.45	17705783.51	0.0508	0.0484
Mercury	43764-12-07 13:55 G	17705873.97	17705874.08	17705874.20	0.0510	0.0400
Earth	43767-06-11 16:05 G	17706790.06	17706790.17	17706790.29	0.0526	0.0448
Moon	43767-06-11 19:41 G	17706790.22	17706790.32	17706790.43	0.0526	0.0468 *
Mercury	43770-05-06 16:34 G	17707850.15	17707850.19	17707850.23	0.0518	0.0485
Mercury	43770-08-03 20:24 G	17707939.22	17707939.35	17707939.47	0.0517	0.0105
Moon	43772-11-30 12:14 G	17708788.78	17708789.01	17708789.25	0.0501	0.0100
Earth	43772-11-30 15:22 G	17708788.91	17708789.14	17708789.37	0.0501	0.0071 *
Mercury	43776-09-25 10:34 G	17710183.76	17710183.94	17710184.11	0.0509	0.0191
Mercury	43782-05-23 01:12 G	17712249.42	17712249.55	17712249.67	0.0517	0.0044
Earth	43784-12-05 07:12 G	17713176.59	17713176.80	17713177.01	0.0501	0.0226
Moon	43784-12-05 08:24 G	17713176.65	17713176.85	17713177.06	0.0501	0.0216 *
Venus	43785-10-13 08:38 G	17713488.74	17713488.86	17713488.99	0.0498	0.0391
Mercury	43788-07-14 06:43 G	17714493.59	17714493.78	17714493.96	0.0508	0.0029
Moon	43790-05-17 06:14 G	17715165.62	17715165.76	17715165.91	0.0522	0.0406
Earth	43790-05-17 09:50 G	17715165.78	17715165.91	17715166.04	0.0522	0.0432 *

Venus	43791-08-15 20:24 G	17715621.15	17715621.35	17715621.54	0.0527	0.0124
Mercury	43794-03-11 06:00 G	17716559.63	17716559.75	17716559.87	0.0518	0.0185
Mercury	43794-06-08 09:50 G	17716648.83	17716648.91	17716648.98	0.0516	0.0403
Earth	43796-12-09 22:19 G	17717564.28	17717564.43	17717564.58	0.0500	0.0377
Moon	43796-12-09 23:17 G	17717564.30	17717564.47	17717564.65	0.0500	0.0351 *
Venus	43797-06-18 10:19 G	17717754.73	17717754.93	17717755.14	0.0499	0.0031
Mercury	43800-05-03 02:38 G	17718803.45	17718803.61	17718803.78	0.0508	0.0242
Earth	43802-05-23 07:41 G	17719553.62	17719553.82	17719554.02	0.0523	0.0262
Moon	43802-05-23 09:36 G	17719553.70	17719553.90	17719554.10	0.0523	0.0249 *
Venus	43803-04-21 13:55 G	17719886.92	17719887.08	17719887.25	0.0527	0.0306
Mercury	43805-12-29 11:02 G	17720869.87	17720869.96	17720870.06	0.0518	0.0324
Mercury	43806-03-28 14:53 G	17720959.01	17720959.12	17720959.23	0.0516	0.0264
Venus	43809-02-22 09:36 G	17722020.75	17722020.90	17722021.05	0.0498	0.0343
Mercury	43812-02-19 21:36 G	17723113.34	17723113.40	17723113.47	0.0508	0.0474
Mercury	43812-05-20 12:29 G	17723203.92	17723204.02	17723204.14	0.0510	0.0411
Moon	43814-05-28 06:00 G	17723941.51	17723941.75	17723941.98	0.0524	0.0119
Earth	43814-05-28 06:14 G	17723941.53	17723941.76	17723941.99	0.0524	0.0091 *
Mercury	43817-10-17 16:05 G	17725180.12	17725180.17	17725180.23	0.0518	0.0463
Mercury	43818-01-14 19:55 G	17725269.21	17725269.33	17725269.45	0.0516	0.0127
Moon	43819-11-18 02:24 G	17725941.49	17725941.60	17725941.73	0.0503	0.0427
Earth	43819-11-18 06:14 G	17725941.62	17725941.76	17725941.90	0.0503	0.0400 *
Mercury	43824-03-08 09:07 G	17727513.71	17727513.88	17727514.06	0.0509	0.0201
Moon	43826-06-02 04:05 G	17728329.45	17728329.67	17728329.89	0.0525	0.0067
Earth	43826-06-02 05:31 G	17728329.51	17728329.73	17728329.96	0.0525	0.0085 *
Venus	43827-04-24 16:19 G	17728656.05	17728656.18	17728656.31	0.0527	0.0401
Mercury	43829-11-03 00:29 G	17729579.40	17729579.52	17729579.65	0.0517	0.0028
Mars	43829-11-08 04:19 G	17729584.50	17729584.68	17729584.88	0.0517	0.0332
Earth	43831-11-22 21:07 G	17730329.18	17730329.38	17730329.58	0.0502	0.0248
Moon	43831-11-23 00:43 G	17730329.34	17730329.53	17730329.73	0.0502	0.0264 *
Venus	43833-02-24 21:07 G	17730789.21	17730789.38	17730789.56	0.0498	0.0246

Mercury	43835-12-26 06:00 G	17731823.56	17731823.75	17731823.93	0.0509	0.0014
Earth	43838-06-07 03:50 G	17732717.46	17732717.66	17732717.86	0.0525	0.0260
Moon	43838-06-07 07:12 G	17732717.60	17732717.80	17732718.00	0.0525	0.0288 *
Venus	43838-12-28 08:24 G	17732921.65	17732921.85	17732922.05	0.0527	0.0036
Mercury	43841-08-22 05:17 G	17733889.60	17733889.72	17733889.84	0.0517	0.0169
Mercury	43841-11-19 09:07 G	17733978.81	17733978.88	17733978.95	0.0516	0.0417
Moon	43843-11-27 10:05 G	17734716.68	17734716.92	17734717.16	0.0502	0.0070
Earth	43843-11-27 12:58 G	17734716.81	17734717.04	17734717.28	0.0502	0.0094 *
Venus	43844-10-30 23:31 G	17735055.28	17735055.48	17735055.68	0.0499	0.0116
Mercury	43847-10-14 01:55 G	17736133.42	17736133.58	17736133.75	0.0508	0.0224
Moon	43850-06-11 20:38 G	17737105.25	17737105.36	17737105.49	0.0526	0.0447
Earth	43850-06-12 00:43 G	17737105.40	17737105.53	17737105.66	0.0526	0.0432 *
Venus	43850-09-01 23:46 G	17737187.40	17737187.49	17737187.57	0.0527	0.0475
Mercury	43853-06-10 10:05 G	17738199.82	17738199.92	17738200.02	0.0518	0.0315
Mercury	43853-09-07 13:55 G	17738288.98	17738289.08	17738289.19	0.0516	0.0275
Earth	43855-12-02 04:48 G	17739104.47	17739104.70	17739104.94	0.0501	0.0063
Moon	43855-12-02 06:14 G	17739104.54	17739104.76	17739104.98	0.0501	0.0085 *
Venus	43856-07-06 00:58 G	17739321.49	17739321.54	17739321.60	0.0499	0.0477
Mercury	43859-08-01 22:05 G	17740443.33	17740443.42	17740443.51	0.0508	0.0439
Mercury	43859-10-31 12:43 G	17740533.95	17740534.03	17740534.13	0.0509	0.0443
Mercury	43865-03-29 15:07 G	17742510.08	17742510.13	17742510.19	0.0518	0.0454
Mercury	43865-06-26 19:12 G	17742599.17	17742599.30	17742599.42	0.0517	0.0138
Earth	43867-12-06 17:17 G	17743492.01	17743492.22	17743492.44	0.0500	0.0209
Moon	43867-12-06 18:14 G	17743492.03	17743492.26	17743492.48	0.0500	0.0190 *
Venus	43868-11-02 08:53 G	17743823.80	17743823.87	17743823.95	0.0498	0.0462
Mercury	43871-08-19 07:41 G	17744843.65	17744843.82	17744843.99	0.0509	0.0209
Earth	43873-05-17 20:38 G	17745481.25	17745481.36	17745481.48	0.0523	0.0453
Moon	43873-05-17 22:48 G	17745481.32	17745481.45	17745481.58	0.0523	0.0423 *
Venus	43874-09-05 02:10 G	17745956.41	17745956.59	17745956.78	0.0528	0.0231
Mercury	43877-04-15 00:14 G	17746909.38	17746909.51	17746909.63	0.0517	0.0011

Moon	43879-12-11 04:34 G	17747879.53	17747879.69	17747879.86	0.0499	0.0338
Earth	43879-12-11 07:12 G	17747879.65	17747879.80	17747879.97	0.0499	0.0361 *
Venus	43880-07-08 10:34 G	17748089.74	17748089.94	17748090.14	0.0498	0.0101
Mercury	43883-06-07 04:19 G	17749153.49	17749153.68	17749153.87	0.0509	0.0009
Mars	43883-06-09 06:43 G	17749155.71	17749155.78	17749155.87	0.0509	0.0490
Moon	43885-05-22 18:58 G	17749869.08	17749869.29	17749869.49	0.0523	0.0271
Earth	43885-05-22 19:26 G	17749869.11	17749869.31	17749869.50	0.0523	0.0281 *
Venus	43886-05-10 18:58 G	17750222.10	17750222.29	17750222.48	0.0527	0.0203
Mercury	43889-02-01 04:48 G	17751219.58	17751219.70	17751219.82	0.0517	0.0153
Mercury	43889-05-01 08:24 G	17751308.79	17751308.85	17751308.92	0.0515	0.0433
Venus	43892-03-13 12:00 G	17752355.83	17752356.00	17752356.17	0.0499	0.0261
Mercury	43895-03-26 00:58 G	17753463.37	17753463.54	17753463.71	0.0508	0.0211
Moon	43897-05-27 16:05 G	17754256.95	17754257.17	17754257.38	0.0524	0.0137
Earth	43897-05-27 17:17 G	17754256.99	17754257.22	17754257.45	0.0524	0.0106 *
Mercury	43900-11-21 09:22 G	17755529.79	17755529.89	17755529.99	0.0518	0.0300
Mercury	43901-02-18 13:12 G	17755618.94	17755619.05	17755619.15	0.0516	0.0288
Earth	43902-11-18 16:34 G	17756257.06	17756257.19	17756257.32	0.0503	0.0416
Moon	43902-11-18 20:10 G	17756257.24	17756257.34	17756257.45	0.0503	0.0448 *
Mercury	43907-01-12 20:53 G	17757773.28	17757773.37	17757773.48	0.0508	0.0426
Mercury	43907-04-13 11:46 G	17757863.91	17757863.99	17757864.07	0.0509	0.0457
Earth	43909-06-02 12:58 G	17758644.82	17758645.04	17758645.27	0.0525	0.0066
Moon	43909-06-02 16:05 G	17758644.94	17758645.17	17758645.41	0.0525	0.0056 *
Venus	43910-05-14 18:00 G	17758991.17	17758991.25	17758991.33	0.0527	0.0483
Mercury	43912-09-09 14:10 G	17759840.03	17759840.09	17759840.15	0.0519	0.0447
Mercury	43912-12-07 18:00 G	17759929.13	17759929.25	17759929.37	0.0517	0.0143
Moon	43914-11-23 06:00 G	17760644.55	17760644.75	17760644.95	0.0503	0.0276
Earth	43914-11-23 09:07 G	17760644.68	17760644.88	17760645.08	0.0503	0.0262 *
Venus	43916-03-16 23:46 G	17761124.34	17761124.49	17761124.65	0.0498	0.0327
Mercury	43919-01-30 07:41 G	17762173.66	17762173.82	17762173.99	0.0509	0.0239
Moon	43921-06-07 07:55 G	17763032.64	17763032.83	17763033.03	0.0525	0.0273

Earth	43921-06-07 11:46 G	17763032.79	17763032.99	17763033.20	0.0525	0.0242	*
Venus	43922-01-17 10:48 G	17763256.75	17763256.95	17763257.16	0.0527	0.0053	
Mercury	43924-09-25 23:02 G	17764239.34	17764239.46	17764239.59	0.0517	0.0010	
Earth	43926-11-27 23:17 G	17765032.24	17765032.47	17765032.70	0.0501	0.0112	
Moon	43926-11-28 00:58 G	17765032.31	17765032.54	17765032.76	0.0501	0.0088	*
Venus	43927-11-20 23:46 G	17765390.28	17765390.49	17765390.69	0.0498	0.0042	
Mercury	43930-11-18 02:24 G	17766483.41	17766483.60	17766483.79	0.0509	0.0001	
Earth	43933-06-12 10:34 G	17767420.81	17767420.94	17767421.09	0.0527	0.0416	
Moon	43933-06-12 14:10 G	17767420.96	17767421.09	17767421.22	0.0527	0.0428	*
Venus	43933-09-22 03:36 G	17767522.51	17767522.65	17767522.79	0.0528	0.0379	
Mercury	43936-07-15 04:05 G	17768549.55	17768549.67	17768549.79	0.0517	0.0135	
Mercury	43936-10-12 07:55 G	17768638.77	17768638.83	17768638.89	0.0515	0.0450	
Earth	43938-12-02 13:55 G	17769419.85	17769420.08	17769420.32	0.0500	0.0043	
Moon	43938-12-02 14:38 G	17769419.87	17769420.11	17769420.35	0.0500	0.0058	*
Venus	43939-07-27 00:58 G	17769656.43	17769656.54	17769656.66	0.0498	0.0404	
Mercury	43942-09-05 22:48 G	17770793.28	17770793.45	17770793.62	0.0508	0.0211	
Mars	43948-05-01 17:31 G	17772858.04	17772858.23	17772858.43	0.0518	0.0323	
Mercury	43948-05-03 08:38 G	17772859.76	17772859.86	17772859.96	0.0518	0.0286	
Mercury	43948-07-31 12:29 G	17772948.92	17772949.02	17772949.12	0.0516	0.0301	
Moon	43950-12-07 00:14 G	17773807.30	17773807.51	17773807.73	0.0500	0.0170	
Earth	43950-12-07 02:53 G	17773807.41	17773807.62	17773807.84	0.0500	0.0195	*
Mercury	43954-06-24 19:26 G	17775103.21	17775103.31	17775103.42	0.0508	0.0419	
Mercury	43954-09-23 10:19 G	17775193.86	17775193.93	17775194.01	0.0510	0.0466	
Moon	43956-05-18 05:46 G	17775796.61	17775796.74	17775796.87	0.0522	0.0437	
Earth	43956-05-18 06:29 G	17775796.68	17775796.77	17775796.87	0.0522	0.0471	*
Venus	43957-09-25 04:19 G	17776291.52	17776291.68	17776291.85	0.0527	0.0317	
Mercury	43960-02-20 13:12 G	17777169.99	17777170.05	17777170.12	0.0518	0.0435	
Mercury	43960-05-19 17:02 G	17777259.09	17777259.21	17777259.33	0.0516	0.0154	
Earth	43962-12-11 16:48 G	17778195.04	17778195.20	17778195.37	0.0500	0.0347	
Moon	43962-12-11 20:38 G	17778195.18	17778195.36	17778195.54	0.0500	0.0326	*

Venus	43963-07-29 12:00 G	17778424.81	17778425.00	17778425.19	0.0498	0.0178
Mercury	43966-07-12 06:14 G	17779503.60	17779503.76	17779503.93	0.0509	0.0247
Moon	43968-05-23 00:43 G	17780184.35	17780184.53	17780184.71	0.0523	0.0299
Earth	43968-05-23 01:26 G	17780184.38	17780184.56	17780184.75	0.0523	0.0304 *
Venus	43969-05-30 19:26 G	17780557.11	17780557.31	17780557.50	0.0527	0.0125
Mercury	43972-03-07 21:50 G	17781569.28	17781569.41	17781569.53	0.0517	0.0017
Earth	43974-12-16 07:12 G	17782582.77	17782582.80	17782582.83	0.0499	0.0495
Venus	43975-04-03 13:26 G	17782690.87	17782691.06	17782691.25	0.0499	0.0184
Mercury	43978-04-30 02:10 G	17783813.40	17783813.59	17783813.78	0.0509	0.0026
Earth	43980-05-27 22:34 G	17784572.21	17784572.44	17784572.66	0.0524	0.0131
Moon	43980-05-28 01:12 G	17784572.32	17784572.55	17784572.78	0.0524	0.0161 *
Mercury	43983-12-26 02:53 G	17785879.50	17785879.62	17785879.74	0.0517	0.0133
Mercury	43984-03-24 06:43 G	17785968.72	17785968.78	17785968.83	0.0516	0.0454
Moon	43985-11-17 23:02 G	17786572.37	17786572.46	17786572.55	0.0503	0.0467
Earth	43985-11-18 02:10 G	17786572.48	17786572.59	17786572.71	0.0503	0.0436 *
Mercury	43990-02-15 20:38 G	17788123.19	17788123.36	17788123.53	0.0508	0.0213
Moon	43992-06-01 15:07 G	17788959.90	17788960.13	17788960.36	0.0525	0.0036
Earth	43992-06-01 18:58 G	17788960.06	17788960.29	17788960.52	0.0525	0.0040 *
Mercury	43995-10-14 07:55 G	17790189.72	17790189.83	17790189.93	0.0518	0.0274
Mercury	43996-01-11 11:31 G	17790278.89	17790278.98	17790279.08	0.0516	0.0315
Earth	43997-11-22 17:17 G	17790960.03	17790960.22	17790960.42	0.0502	0.0282
Moon	43997-11-22 19:12 G	17790960.11	17790960.30	17790960.48	0.0502	0.0292 *
Venus	43999-04-05 22:34 G	17791459.32	17791459.44	17791459.57	0.0498	0.0391

45TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 45th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mars	44001-11-26 07:41 G		17792424.70	17792424.82	17792424.93	0.0508	0.0467	
Mercury	44001-12-04 16:48 G		17792433.10	17792433.20	17792433.30	0.0508	0.0427	
Mercury	44002-03-05 07:41 G		17792523.74	17792523.82	17792523.90	0.0510	0.0458	
Earth	44004-06-06 18:00 G		17793348.05	17793348.25	17793348.47	0.0526	0.0219	
Moon	44004-06-06 21:36 G		17793348.21	17793348.40	17793348.61	0.0526	0.0254	*
Venus	44005-02-05 12:29 G		17793591.83	17793592.02	17793592.22	0.0528	0.0139	
Mercury	44007-08-02 12:14 G		17794499.94	17794500.01	17794500.08	0.0518	0.0426	
Mercury	44007-10-30 16:05 G		17794589.05	17794589.17	17794589.29	0.0516	0.0162	
Earth	44009-11-27 06:00 G		17795347.53	17795347.75	17795347.98	0.0502	0.0131	
Moon	44009-11-27 06:29 G		17795347.53	17795347.77	17795348.01	0.0502	0.0104	*
Venus	44010-12-09 23:31 G		17795725.28	17795725.48	17795725.69	0.0498	0.0030	
Mercury	44013-12-22 04:19 G		17796833.51	17796833.68	17796833.84	0.0509	0.0248	
Moon	44016-06-11 14:10 G		17797735.94	17797736.09	17797736.24	0.0526	0.0405	
Earth	44016-06-11 16:48 G		17797736.05	17797736.20	17797736.36	0.0526	0.0396	*
Venus	44016-10-11 04:34 G		17797857.53	17797857.69	17797857.86	0.0527	0.0298	
Mercury	44019-08-18 20:38 G		17798899.23	17798899.36	17798899.49	0.0517	0.0014	
Moon	44021-12-01 17:46 G		17799735.01	17799735.24	17799735.47	0.0501	0.0033	
Earth	44021-12-01 20:10 G		17799735.10	17799735.34	17799735.58	0.0501	0.0024	*
Venus	44022-08-15 00:43 G		17799991.38	17799991.53	17799991.68	0.0499	0.0336	
Mercury	44025-10-10 00:14 G		17801143.32	17801143.51	17801143.70	0.0509	0.0028	
Mercury	44031-06-07 01:12 G		17803209.43	17803209.55	17803209.67	0.0518	0.0136	
Mercury	44031-09-04 05:02 G		17803298.65	17803298.71	17803298.77	0.0516	0.0450	
Earth	44033-12-06 10:34 G		17804122.72	17804122.94	17804123.16	0.0500	0.0178	
Moon	44033-12-06 14:10 G		17804122.87	17804123.09	17804123.32	0.0500	0.0149	*
Mercury	44037-07-28 19:55 G		17805453.15	17805453.33	17805453.50	0.0508	0.0195	
Moon	44039-05-18 08:38 G		17806111.77	17806111.86	17806111.96	0.0522	0.0469	

Earth	44039-05-18 08:53 G	17806111.82	17806111.87	17806111.95	0.0522	0.0500	*
Venus	44040-10-14 03:22 G	17806626.51	17806626.64	17806626.78	0.0528	0.0386	
Mercury	44043-03-26 06:14 G	17807519.65	17807519.76	17807519.87	0.0518	0.0277	
Mercury	44043-06-23 10:05 G	17807608.82	17807608.92	17807609.02	0.0516	0.0312	
Moon	44045-12-10 19:26 G	17808510.13	17808510.31	17808510.50	0.0499	0.0303	
Earth	44045-12-10 23:31 G	17808510.31	17808510.48	17808510.66	0.0499	0.0326	*
Venus	44046-08-17 10:19 G	17808759.76	17808759.93	17808760.11	0.0498	0.0242	
Mercury	44049-05-16 14:10 G	17809763.00	17809763.09	17809763.19	0.0508	0.0434	
Mercury	44049-08-15 05:02 G	17809853.62	17809853.71	17809853.80	0.0510	0.0449	
Earth	44051-05-23 02:38 G	17810499.44	17810499.61	17810499.79	0.0523	0.0337	
Moon	44051-05-23 05:02 G	17810499.53	17810499.71	17810499.89	0.0523	0.0334	*
Venus	44052-06-18 19:12 G	17810892.09	17810892.30	17810892.50	0.0528	0.0051	
Mercury	44055-01-12 11:02 G	17811829.89	17811829.96	17811830.04	0.0518	0.0420	
Mercury	44055-04-11 14:53 G	17811919.01	17811919.12	17811919.24	0.0516	0.0171	
Earth	44057-12-15 12:14 G	17812897.94	17812898.01	17812898.08	0.0499	0.0474	
Moon	44057-12-15 15:50 G	17812898.13	17812898.16	17812898.18	0.0499	0.0495	
Venus	44058-04-22 11:31 G	17813025.79	17813025.98	17813026.18	0.0498	0.0121	
Mercury	44061-06-03 01:12 G	17814163.38	17814163.55	17814163.71	0.0509	0.0233	
Moon	44063-05-27 21:36 G	17814887.19	17814887.40	17814887.61	0.0524	0.0193	
Earth	44063-05-28 01:12 G	17814887.33	17814887.55	17814887.77	0.0524	0.0161	*
Venus	44064-02-22 11:17 G	17815157.90	17815157.97	17815158.05	0.0527	0.0483	
Mercury	44067-01-28 19:26 G	17816229.18	17816229.31	17816229.43	0.0517	0.0019	
Earth	44068-11-17 05:31 G	17816887.65	17816887.73	17816887.83	0.0503	0.0461	
Moon	44068-11-17 07:26 G	17816887.78	17816887.81	17816887.87	0.0503	0.0493	*
Venus	44069-12-26 11:46 G	17817291.96	17817291.99	17817292.03	0.0499	0.0488	
Mercury	44073-03-21 21:36 G	17818473.21	17818473.40	17818473.59	0.0509	0.0021	
Earth	44075-06-01 23:02 G	17819275.23	17819275.46	17819275.70	0.0525	0.0019	
Moon	44075-06-02 02:53 G	17819275.39	17819275.62	17819275.85	0.0525	0.0020	*
Mercury	44078-11-17 00:00 G	17820539.38	17820539.50	17820539.62	0.0517	0.0134	
Mercury	44079-02-14 03:36 G	17820628.60	17820628.65	17820628.71	0.0515	0.0452	

Moon	44080-11-21 19:55 G	17821275.14	17821275.33	17821275.52	0.0503	0.0311
Earth	44080-11-21 19:55 G	17821275.15	17821275.33	17821275.52	0.0503	0.0307 *
Venus	44082-04-24 20:53 G	17821794.29	17821794.37	17821794.46	0.0498	0.0452
Mercury	44085-01-07 17:31 G	17822783.05	17822783.23	17822783.40	0.0508	0.0199
Moon	44087-06-06 15:22 G	17823662.93	17823663.14	17823663.36	0.0525	0.0221
Earth	44087-06-06 18:29 G	17823663.06	17823663.27	17823663.49	0.0525	0.0189 *
Venus	44088-02-25 09:50 G	17823926.72	17823926.91	17823927.10	0.0527	0.0198
Mercury	44090-09-05 04:19 G	17824849.58	17824849.68	17824849.79	0.0518	0.0286
Mercury	44090-12-03 08:10 G	17824938.74	17824938.84	17824938.94	0.0516	0.0303
Moon	44092-11-26 08:24 G	17825662.63	17825662.85	17825663.07	0.0502	0.0126
Earth	44092-11-26 10:34 G	17825662.71	17825662.94	17825663.16	0.0502	0.0154 *
Venus	44093-12-28 22:05 G	17826060.22	17826060.42	17826060.62	0.0498	0.0091
Mercury	44096-10-26 12:58 G	17827092.94	17827093.04	17827093.15	0.0508	0.0422
Mercury	44097-01-25 03:36 G	17827183.58	17827183.65	17827183.74	0.0509	0.0462
Earth	44099-06-11 15:22 G	17828050.99	17828051.14	17828051.32	0.0526	0.0365
Moon	44099-06-11 16:48 G	17828051.05	17828051.20	17828051.37	0.0526	0.0373 *
Venus	44099-10-31 01:41 G	17828192.39	17828192.57	17828192.75	0.0527	0.0239
Mercury	44102-06-25 09:22 G	17829159.82	17829159.89	17829159.96	0.0519	0.0429
Mars	44102-07-27 17:31 G	17829191.98	17829192.23	17829192.48	0.0518	0.0014
Mercury	44102-09-22 13:12 G	17829248.93	17829249.05	17829249.17	0.0517	0.0162
Earth	44104-12-02 01:12 G	17830050.32	17830050.55	17830050.79	0.0501	0.0004
Moon	44104-12-02 04:48 G	17830050.47	17830050.70	17830050.94	0.0501	0.0012 *
Venus	44105-09-03 22:34 G	17830326.27	17830326.44	17830326.62	0.0498	0.0274
Mercury	44108-11-13 22:05 G	17831493.25	17831493.42	17831493.59	0.0509	0.0219
Moon	44111-06-17 13:12 G	17832438.99	17832439.05	17832439.12	0.0527	0.0506
Mercury	44114-07-11 18:00 G	17833559.13	17833559.25	17833559.38	0.0517	0.0025
Moon	44116-12-06 10:34 G	17834437.72	17834437.94	17834438.17	0.0500	0.0125
Earth	44116-12-06 14:38 G	17834437.89	17834438.11	17834438.34	0.0500	0.0155 *
Mercury	44120-09-01 18:00 G	17835803.06	17835803.25	17835803.44	0.0509	0.0001
Moon	44122-05-18 09:50 G	17836426.85	17836426.91	17836426.98	0.0522	0.0500

Venus	44123-11-04 01:12 G	17836961.45	17836961.55	17836961.66	0.0528	0.0450
Mercury	44126-04-29 22:19 G	17837869.31	17837869.43	17837869.55	0.0517	0.0136
Mercury	44126-07-28 02:10 G	17837958.53	17837958.59	17837958.65	0.0515	0.0450
Earth	44128-12-11 01:12 G	17838825.36	17838825.55	17838825.73	0.0500	0.0303
Moon	44128-12-11 04:48 G	17838825.51	17838825.70	17838825.89	0.0500	0.0286 *
Venus	44129-09-06 06:58 G	17839094.63	17839094.79	17839094.96	0.0498	0.0295
Mercury	44132-06-20 14:24 G	17840112.93	17840113.10	17840113.27	0.0508	0.0212
Moon	44134-05-23 02:24 G	17840814.44	17840814.60	17840814.76	0.0523	0.0368
Earth	44134-05-23 05:46 G	17840814.57	17840814.74	17840814.90	0.0523	0.0362 *
Venus	44135-07-09 17:02 G	17841227.01	17841227.21	17841227.42	0.0528	0.0015
Mercury	44138-02-16 02:53 G	17842179.52	17842179.62	17842179.72	0.0518	0.0287
Mercury	44138-05-16 06:43 G	17842268.68	17842268.78	17842268.88	0.0516	0.0301
Moon	44140-12-15 10:34 G	17843212.88	17843212.94	17843213.03	0.0499	0.0474
Earth	44140-12-15 13:26 G	17843212.96	17843213.06	17843213.15	0.0499	0.0452 *
Venus	44141-05-12 07:55 G	17843360.63	17843360.83	17843361.04	0.0498	0.0069
Mercury	44144-04-08 10:05 G	17844422.83	17844422.92	17844423.02	0.0508	0.0432
Mercury	44144-07-08 00:58 G	17844513.46	17844513.54	17844513.63	0.0509	0.0452
Earth	44146-05-28 00:14 G	17845202.30	17845202.51	17845202.73	0.0523	0.0193
Moon	44146-05-28 04:05 G	17845202.47	17845202.67	17845202.88	0.0523	0.0226 *
Venus	44147-03-14 07:26 G	17845492.69	17845492.81	17845492.93	0.0527	0.0427
Mercury	44149-12-05 07:12 G	17846489.74	17846489.80	17846489.87	0.0519	0.0442
Mercury	44150-03-04 11:02 G	17846578.84	17846578.96	17846579.08	0.0517	0.0150
Earth	44151-11-18 06:58 G	17847202.74	17847202.79	17847202.84	0.0504	0.0489
Venus	44153-01-15 08:53 G	17847626.77	17847626.87	17847626.97	0.0499	0.0432
Mars	44156-02-20 21:22 G	17848758.10	17848758.39	17848758.69	0.0508	0.0095
Mercury	44156-04-25 20:24 G	17848823.18	17848823.35	17848823.52	0.0509	0.0225
Moon	44158-06-01 16:19 G	17849589.94	17849590.18	17849590.41	0.0524	0.0023
Earth	44158-06-01 19:41 G	17849590.09	17849590.32	17849590.56	0.0524	0.0023 *
Mercury	44161-12-21 16:05 G	17850889.04	17850889.17	17850889.29	0.0517	0.0013
Moon	44163-11-22 21:22 G	17851590.23	17851590.39	17851590.57	0.0503	0.0332

Earth	44163-11-22 23:17 G	17851590.30	17851590.47	17851590.65	0.0503	0.0334	*
Mercury	44168-02-12 14:53 G	17853132.93	17853133.12	17853133.30	0.0508	0.0019	
Earth	44170-06-06 13:55 G	17853977.86	17853978.08	17853978.30	0.0526	0.0151	
Moon	44170-06-06 16:05 G	17853977.96	17853978.17	17853978.38	0.0526	0.0183	*
Venus	44171-03-17 05:31 G	17854261.55	17854261.73	17854261.91	0.0528	0.0252	
Mercury	44173-10-09 20:53 G	17855199.25	17855199.37	17855199.49	0.0518	0.0138	
Mercury	44174-01-07 00:29 G	17855288.47	17855288.52	17855288.59	0.0516	0.0450	
Earth	44175-11-27 13:26 G	17855977.85	17855978.06	17855978.29	0.0502	0.0179	
Moon	44175-11-27 17:02 G	17855977.98	17855978.21	17855978.44	0.0502	0.0146	*
Venus	44177-01-17 18:14 G	17856395.07	17856395.26	17856395.46	0.0497	0.0142	
Mercury	44179-12-01 10:34 G	17857442.77	17857442.94	17857443.11	0.0508	0.0236	
Earth	44182-06-11 12:43 G	17858365.85	17858366.03	17858366.21	0.0526	0.0331	
Moon	44182-06-11 12:58 G	17858365.85	17858366.04	17858366.23	0.0526	0.0331	*
Venus	44182-11-19 21:36 G	17858527.21	17858527.40	17858527.59	0.0528	0.0184	
Mercury	44185-07-29 01:12 G	17859509.45	17859509.55	17859509.65	0.0518	0.0294	
Mercury	44185-10-26 05:02 G	17859598.60	17859598.71	17859598.81	0.0516	0.0295	
Moon	44187-12-01 20:10 G	17860365.10	17860365.34	17860365.57	0.0501	0.0021	
Earth	44187-12-02 00:00 G	17860365.27	17860365.50	17860365.74	0.0501	0.0029	*
Venus	44188-09-22 17:46 G	17860661.06	17860661.24	17860661.42	0.0498	0.0228	
Mercury	44191-09-19 06:43 G	17861752.70	17861752.78	17861752.87	0.0508	0.0450	
Mercury	44191-12-18 21:36 G	17861843.31	17861843.40	17861843.50	0.0510	0.0435	
Moon	44194-06-16 09:22 G	17862753.80	17862753.89	17862753.99	0.0527	0.0478	
Earth	44194-06-16 11:46 G	17862753.94	17862753.99	17862754.06	0.0527	0.0510	*
Mercury	44197-05-17 05:31 G	17863819.67	17863819.73	17863819.80	0.0518	0.0446	
Mercury	44197-08-14 09:22 G	17863908.77	17863908.89	17863909.01	0.0516	0.0145	
Earth	44199-12-06 12:29 G	17864752.79	17864753.02	17864753.25	0.0500	0.0126	
Moon	44199-12-06 16:19 G	17864752.95	17864753.18	17864753.41	0.0500	0.0098	*
Mercury	44203-10-07 17:31 G	17866153.06	17866153.23	17866153.40	0.0509	0.0213	
Venus	44206-11-23 20:10 G	17867296.28	17867296.34	17867296.41	0.0528	0.0498	
Mercury	44209-06-03 13:55 G	17868218.95	17868219.08	17868219.20	0.0517	0.0016	

Moon	44211-12-11 22:48 G	17869140.25	17869140.45	17869140.66	0.0500	0.0263
Earth	44211-12-12 01:41 G	17869140.38	17869140.57	17869140.77	0.0500	0.0277 *
Venus	44212-09-26 03:07 G	17869429.49	17869429.63	17869429.78	0.0498	0.0346
Mercury	44215-07-26 12:58 G	17870462.85	17870463.04	17870463.23	0.0508	0.0017
Earth	44217-05-23 01:12 G	17871129.41	17871129.55	17871129.70	0.0522	0.0400
Moon	44217-05-23 05:02 G	17871129.57	17871129.71	17871129.86	0.0522	0.0411 *
Venus	44218-07-29 11:17 G	17871561.76	17871561.97	17871562.17	0.0528	0.0060
Mercury	44221-03-22 18:43 G	17872529.16	17872529.28	17872529.40	0.0518	0.0154
Mercury	44221-06-19 22:34 G	17872618.37	17872618.44	17872618.50	0.0516	0.0434
Earth	44223-12-16 15:07 G	17873528.02	17873528.13	17873528.26	0.0499	0.0429
Moon	44223-12-16 16:19 G	17873528.09	17873528.18	17873528.27	0.0499	0.0456 *
Venus	44224-06-01 04:19 G	17873695.48	17873695.68	17873695.88	0.0498	0.0016
Mercury	44227-05-14 07:12 G	17874772.64	17874772.80	17874772.97	0.0508	0.0252
Moon	44229-05-27 13:55 G	17875516.88	17875517.08	17875517.28	0.0524	0.0269
Earth	44229-05-27 17:46 G	17875517.04	17875517.24	17875517.45	0.0524	0.0234 *
Venus	44230-04-03 01:26 G	17875827.43	17875827.56	17875827.70	0.0528	0.0384
Mercury	44233-01-08 23:31 G	17876839.38	17876839.48	17876839.58	0.0519	0.0300
Mercury	44233-04-08 03:22 G	17876928.53	17876928.64	17876928.74	0.0517	0.0291
Venus	44236-02-05 04:48 G	17877961.58	17877961.70	17877961.84	0.0498	0.0380
Mercury	44239-03-02 02:53 G	17879082.56	17879082.62	17879082.69	0.0507	0.0473
Mercury	44239-05-31 17:46 G	17879173.13	17879173.24	17879173.35	0.0509	0.0410
Earth	44241-06-01 15:22 G	17879904.91	17879905.14	17879905.37	0.0524	0.0057
Moon	44241-06-01 18:00 G	17879905.03	17879905.25	17879905.47	0.0524	0.0057 *
Mercury	44244-10-28 03:50 G	17881149.60	17881149.66	17881149.71	0.0519	0.0456
Mercury	44245-01-25 07:41 G	17881238.70	17881238.82	17881238.94	0.0517	0.0136
Earth	44246-11-22 19:55 G	17881905.17	17881905.33	17881905.49	0.0503	0.0366
Moon	44246-11-22 23:02 G	17881905.30	17881905.46	17881905.63	0.0503	0.0357 *
Mercury	44251-03-19 13:55 G	17883482.91	17883483.08	17883483.26	0.0509	0.0194
Moon	44253-06-06 13:26 G	17884292.84	17884293.06	17884293.30	0.0525	0.0152
Earth	44253-06-06 14:10 G	17884292.87	17884293.09	17884293.32	0.0525	0.0123 *

Venus	44254-04-06 02:24 G	17884596.44	17884596.60	17884596.77	0.0528	0.0309
Mars	44256-10-20 19:55 G	17885525.12	17885525.33	17885525.56	0.0518	0.0246
Mercury	44256-11-13 12:14 G	17885548.88	17885549.01	17885549.13	0.0517	0.0023
Moon	44258-11-27 05:17 G	17886292.51	17886292.72	17886292.95	0.0502	0.0181
Earth	44258-11-27 09:22 G	17886292.68	17886292.89	17886293.10	0.0502	0.0212 *
Venus	44260-02-07 12:14 G	17886729.82	17886730.01	17886730.20	0.0498	0.0182
Mercury	44263-01-05 09:50 G	17887792.72	17887792.91	17887793.10	0.0508	0.0027
Moon	44265-06-11 08:10 G	17888680.65	17888680.84	17888681.02	0.0525	0.0293
Earth	44265-06-11 09:50 G	17888680.72	17888680.91	17888681.10	0.0525	0.0297 *
Venus	44265-12-09 16:48 G	17888862.00	17888862.20	17888862.40	0.0527	0.0133
Mercury	44268-09-01 16:34 G	17889859.07	17889859.19	17889859.30	0.0518	0.0170
Mercury	44268-11-29 20:10 G	17889948.27	17889948.34	17889948.42	0.0516	0.0419
Earth	44270-12-01 23:02 G	17890680.23	17890680.46	17890680.70	0.0502	0.0058
Moon	44270-12-02 03:07 G	17890680.39	17890680.63	17890680.86	0.0502	0.0052 *
Venus	44271-10-13 13:26 G	17890995.87	17890996.06	17890996.25	0.0498	0.0179
Mercury	44274-10-24 05:17 G	17892102.56	17892102.72	17892102.88	0.0508	0.0252
Earth	44277-06-16 05:46 G	17893068.65	17893068.74	17893068.85	0.0526	0.0472
Moon	44277-06-16 09:22 G	17893068.76	17893068.89	17893069.02	0.0526	0.0438 *
Mercury	44280-06-20 21:07 G	17894169.28	17894169.38	17894169.48	0.0518	0.0317
Mercury	44280-09-18 00:58 G	17894258.44	17894258.54	17894258.65	0.0517	0.0275
Moon	44282-12-06 11:02 G	17895067.73	17895067.96	17895068.20	0.0501	0.0072
Earth	44282-12-06 14:10 G	17895067.86	17895068.09	17895068.32	0.0501	0.0100 *
Mercury	44286-08-12 00:00 G	17896412.45	17896412.50	17896412.55	0.0507	0.0486
Mercury	44286-11-10 14:38 G	17896502.99	17896503.11	17896503.23	0.0509	0.0394
Mercury	44292-04-09 01:55 G	17898479.53	17898479.58	17898479.63	0.0519	0.0463
Mercury	44292-07-07 05:46 G	17898568.62	17898568.74	17898568.87	0.0517	0.0130
Earth	44294-12-11 03:36 G	17899455.44	17899455.65	17899455.85	0.0500	0.0254
Moon	44294-12-11 04:48 G	17899455.50	17899455.70	17899455.90	0.0500	0.0249 *
Venus	44295-10-15 23:02 G	17899764.34	17899764.46	17899764.59	0.0497	0.0394
Mercury	44298-08-29 10:19 G	17900812.76	17900812.93	17900813.11	0.0508	0.0173

Moon	44300-05-22 16:48 G	17901444.09	17901444.20	17901444.33	0.0522	0.0447
Earth	44300-05-22 20:53 G	17901444.25	17901444.37	17901444.50	0.0522	0.0437 *
Venus	44301-08-18 06:29 G	17901896.57	17901896.77	17901896.96	0.0528	0.0108
Mercury	44304-04-26 10:19 G	17902878.80	17902878.93	17902879.05	0.0517	0.0029
Earth	44306-12-16 12:14 G	17903842.88	17903843.01	17903843.15	0.0499	0.0400
Moon	44306-12-16 12:29 G	17903842.90	17903843.02	17903843.15	0.0499	0.0427 *
Venus	44307-06-21 22:05 G	17904030.21	17904030.42	17904030.62	0.0498	0.0023
Mars	44310-05-17 12:58 G	17905090.76	17905091.04	17905091.33	0.0508	0.0181
Mercury	44310-06-18 06:29 G	17905122.58	17905122.77	17905122.96	0.0508	0.0046
Earth	44312-05-27 19:12 G	17905832.10	17905832.30	17905832.50	0.0523	0.0262
Moon	44312-05-27 22:19 G	17905832.24	17905832.43	17905832.62	0.0523	0.0295 *
Venus	44313-04-22 23:02 G	17906162.31	17906162.46	17906162.63	0.0527	0.0322
Mercury	44316-02-13 14:53 G	17907189.00	17907189.12	17907189.24	0.0518	0.0175
Mercury	44316-05-12 18:29 G	17907278.20	17907278.27	17907278.35	0.0516	0.0414
Venus	44319-02-24 22:34 G	17908296.29	17908296.44	17908296.58	0.0498	0.0342
Mercury	44322-04-06 02:24 G	17909432.44	17909432.60	17909432.76	0.0508	0.0264
Moon	44324-06-01 13:12 G	17910219.81	17910220.05	17910220.28	0.0524	0.0088
Earth	44324-06-01 14:38 G	17910219.88	17910220.11	17910220.34	0.0524	0.0090 *
Mercury	44327-12-02 19:12 G	17911499.20	17911499.30	17911499.39	0.0518	0.0329
Mercury	44328-02-29 23:02 G	17911588.35	17911588.46	17911588.57	0.0516	0.0261
Moon	44329-11-22 14:38 G	17912219.98	17912220.11	17912220.26	0.0504	0.0394
Earth	44329-11-22 18:29 G	17912220.13	17912220.27	17912220.42	0.0504	0.0399 *
Mercury	44334-01-22 21:50 G	17913742.37	17913742.41	17913742.47	0.0507	0.0486
Mercury	44334-04-23 12:43 G	17913832.91	17913833.03	17913833.15	0.0509	0.0396
Moon	44336-06-06 08:53 G	17914607.66	17914607.87	17914608.09	0.0525	0.0115
Earth	44336-06-06 09:50 G	17914607.69	17914607.91	17914608.14	0.0525	0.0086 *
Venus	44337-04-25 20:53 G	17914931.22	17914931.37	17914931.52	0.0528	0.0353
Mercury	44339-09-20 23:46 G	17915809.45	17915809.49	17915809.54	0.0519	0.0478
Mercury	44339-12-19 03:50 G	17915898.53	17915898.66	17915898.78	0.0517	0.0116
Earth	44341-11-27 10:48 G	17916607.75	17916607.95	17916608.16	0.0503	0.0240

Moon	44341-11-27 14:53 G	17916607.91	17916608.12	17916608.33	0.0503	0.0207	*
Venus	44343-02-27 09:07 G	17917064.70	17917064.88	17917065.06	0.0498	0.0236	
Mercury	44346-02-09 07:41 G	17918142.64	17918142.82	17918143.00	0.0508	0.0162	
Earth	44348-06-11 03:50 G	17918995.46	17918995.66	17918995.86	0.0526	0.0260	
Moon	44348-06-11 06:43 G	17918995.58	17918995.78	17918995.99	0.0526	0.0253	*
Venus	44348-12-29 10:48 G	17919196.76	17919196.95	17919197.16	0.0528	0.0091	
Mercury	44351-10-07 08:38 G	17920208.73	17920208.86	17920208.98	0.0518	0.0034	
Moon	44353-12-01 22:19 G	17920995.20	17920995.43	17920995.67	0.0502	0.0079	
Earth	44353-12-02 01:41 G	17920995.34	17920995.57	17920995.81	0.0502	0.0082	*
Venus	44354-11-02 10:05 G	17921330.73	17921330.92	17921331.12	0.0498	0.0126	
Mercury	44357-11-28 03:22 G	17922452.45	17922452.64	17922452.83	0.0508	0.0059	
Moon	44360-06-15 23:02 G	17923383.33	17923383.46	17923383.62	0.0526	0.0408	
Earth	44360-06-16 03:07 G	17923383.51	17923383.63	17923383.75	0.0526	0.0441	*
Venus	44360-09-03 03:22 G	17923462.61	17923462.64	17923462.68	0.0527	0.0519	
Mercury	44363-07-26 12:58 G	17924518.93	17924519.04	17924519.16	0.0518	0.0183	
Mercury	44363-10-23 16:48 G	17924608.12	17924608.20	17924608.28	0.0516	0.0405	
Earth	44365-12-06 11:17 G	17925382.74	17925382.97	17925383.21	0.0501	0.0070	
Moon	44365-12-06 13:12 G	17925382.82	17925383.05	17925383.27	0.0501	0.0041	*
Mercury	44369-09-15 23:17 G	17926762.31	17926762.47	17926762.63	0.0508	0.0279	
Mercury	44375-05-14 17:46 G	17928829.14	17928829.24	17928829.33	0.0518	0.0331	
Mercury	44375-08-11 21:22 G	17928918.29	17928918.39	17928918.50	0.0516	0.0259	
Moon	44377-12-11 00:14 G	17929770.29	17929770.51	17929770.73	0.0500	0.0218	
Earth	44377-12-11 00:14 G	17929770.31	17929770.51	17929770.73	0.0500	0.0224	*
Venus	44378-11-04 17:17 G	17930099.13	17930099.22	17930099.32	0.0498	0.0434	
Mercury	44381-07-04 19:12 G	17931072.27	17931072.30	17931072.34	0.0507	0.0495	
Mercury	44381-10-03 10:05 G	17931162.80	17931162.92	17931163.04	0.0509	0.0389	
Earth	44383-05-22 23:17 G	17931759.37	17931759.47	17931759.57	0.0522	0.0467	
Moon	44383-05-23 02:38 G	17931759.52	17931759.61	17931759.70	0.0522	0.0478	*
Venus	44384-09-06 03:36 G	17932231.46	17932231.65	17932231.85	0.0527	0.0168	
Mercury	44387-03-02 22:05 G	17933139.38	17933139.42	17933139.46	0.0519	0.0486	

Mercury	44387-05-31 01:55 G	17933228.46	17933228.58	17933228.70	0.0517	0.0106
Moon	44389-12-15 12:29 G	17934157.89	17934158.02	17934158.15	0.0500	0.0406
Earth	44389-12-15 13:41 G	17934157.92	17934158.07	17934158.23	0.0500	0.0376 *
Venus	44390-07-10 18:29 G	17934365.07	17934365.27	17934365.48	0.0498	0.0076
Mercury	44393-07-22 05:46 G	17935472.57	17935472.74	17935472.92	0.0509	0.0167
Moon	44395-05-27 15:36 G	17936146.97	17936147.15	17936147.34	0.0523	0.0327
Earth	44395-05-27 17:46 G	17936147.06	17936147.24	17936147.44	0.0523	0.0297 *
Venus	44396-05-11 18:43 G	17936497.11	17936497.28	17936497.46	0.0527	0.0269
Mercury	44399-03-19 06:43 G	17937538.65	17937538.78	17937538.90	0.0518	0.0043
Venus	44402-03-15 20:24 G	17938631.18	17938631.35	17938631.51	0.0499	0.0283
Mercury	44405-05-10 00:58 G	17939782.35	17939782.54	17939782.73	0.0508	0.0063
Moon	44407-06-01 10:48 G	17940534.74	17940534.95	17940535.17	0.0524	0.0119
Earth	44407-06-01 11:02 G	17940534.74	17940534.96	17940535.19	0.0524	0.0125 *
Mercury	44411-01-05 11:17 G	17941848.86	17941848.97	17941849.09	0.0518	0.0188
Mars	44411-01-15 03:22 G	17941858.60	17941858.64	17941858.71	0.0518	0.0504
Mercury	44411-04-04 15:07 G	17941938.06	17941938.13	17941938.21	0.0516	0.0404
Earth	44412-11-21 22:34 G	17942535.31	17942535.44	17942535.57	0.0504	0.0422
Moon	44412-11-22 02:24 G	17942535.48	17942535.60	17942535.74	0.0504	0.0413 *
Mercury	44417-02-25 20:53 G	17944092.21	17944092.37	17944092.52	0.0507	0.0283
Earth	44419-06-06 09:07 G	17944922.65	17944922.88	17944923.11	0.0525	0.0055
Moon	44419-06-06 11:46 G	17944922.75	17944922.99	17944923.22	0.0525	0.0086 *
Venus	44420-05-14 18:00 G	17945266.13	17945266.25	17945266.39	0.0528	0.0412
Mercury	44422-10-24 16:05 G	17946159.07	17946159.17	17946159.26	0.0518	0.0337
Mercury	44423-01-21 19:41 G	17946248.22	17946248.32	17946248.44	0.0516	0.0255
Moon	44424-11-26 06:14 G	17946922.55	17946922.76	17946922.97	0.0503	0.0241
Earth	44424-11-26 09:36 G	17946922.71	17946922.90	17946923.11	0.0503	0.0272 *
Venus	44426-03-18 03:50 G	17947399.49	17947399.66	17947399.83	0.0498	0.0279
Mercury	44428-12-14 16:34 G	17948402.18	17948402.19	17948402.21	0.0508	0.0505
Mercury	44429-03-15 07:26 G	17948492.69	17948492.81	17948492.93	0.0509	0.0380
Moon	44431-06-11 05:46 G	17949310.54	17949310.74	17949310.94	0.0525	0.0232

Earth	44431-06-11 09:22 G	17949310.68	17949310.89	17949311.10	0.0525	0.0239	*
Venus	44432-01-18 11:31 G	17949531.78	17949531.98	17949532.18	0.0527	0.0013	
Mercury	44434-08-12 20:38 G	17950469.32	17950469.36	17950469.41	0.0518	0.0483	
Mercury	44434-11-10 00:29 G	17950558.40	17950558.52	17950558.65	0.0517	0.0110	
Earth	44436-12-01 00:00 G	17951310.27	17951310.50	17951310.73	0.0502	0.0113	
Moon	44436-12-01 01:55 G	17951310.36	17951310.58	17951310.81	0.0502	0.0118	*
Venus	44437-11-21 05:02 G	17951665.51	17951665.71	17951665.91	0.0498	0.0082	
Mercury	44441-01-01 03:36 G	17952802.47	17952802.65	17952802.83	0.0509	0.0164	
Earth	44443-06-16 06:43 G	17953698.65	17953698.78	17953698.92	0.0526	0.0416	
Moon	44443-06-16 10:34 G	17953698.79	17953698.94	17953699.10	0.0526	0.0384	*
Venus	44443-09-23 02:53 G	17953797.52	17953797.62	17953797.73	0.0527	0.0446	
Mercury	44446-08-29 05:02 G	17954868.59	17954868.71	17954868.84	0.0517	0.0044	
Moon	44448-12-05 13:55 G	17955697.83	17955698.08	17955698.32	0.0501	0.0014	
Earth	44448-12-05 14:10 G	17955697.86	17955698.09	17955698.33	0.0501	0.0045	*
Venus	44449-07-27 06:14 G	17955931.66	17955931.76	17955931.85	0.0499	0.0440	
Mercury	44452-10-19 23:31 G	17957112.29	17957112.48	17957112.67	0.0508	0.0055	
Mercury	44458-06-17 09:50 G	17959178.79	17959178.91	17959179.03	0.0518	0.0190	
Mercury	44458-09-14 13:41 G	17959267.99	17959268.07	17959268.15	0.0516	0.0399	
Moon	44460-12-10 04:48 G	17960085.49	17960085.70	17960085.91	0.0501	0.0202	
Earth	44460-12-10 06:00 G	17960085.54	17960085.75	17960085.97	0.0501	0.0204	*
Venus	44461-11-23 16:34 G	17960434.19	17960434.19	17960434.19	0.0498	0.0497	
Mercury	44464-08-07 18:58 G	17961422.14	17961422.29	17961422.45	0.0507	0.0280	
Moon	44466-05-21 20:10 G	17962074.29	17962074.34	17962074.40	0.0521	0.0507	
Earth	44466-05-21 22:48 G	17962074.40	17962074.45	17962074.52	0.0521	0.0499	*
Venus	44467-09-26 00:43 G	17962566.35	17962566.53	17962566.71	0.0528	0.0226	
Mercury	44470-04-05 14:38 G	17963489.01	17963489.11	17963489.20	0.0519	0.0337	
Mercury	44470-07-03 18:29 G	17963578.16	17963578.27	17963578.38	0.0517	0.0255	
Earth	44472-12-14 20:24 G	17964473.19	17964473.35	17964473.51	0.0500	0.0360	
Moon	44472-12-14 22:48 G	17964473.31	17964473.45	17964473.61	0.0500	0.0390	*
Venus	44473-07-29 17:46 G	17964700.04	17964700.24	17964700.44	0.0498	0.0140	

Mercury	44476-05-26 14:53 G	17965732.09	17965732.12	17965732.16	0.0507	0.0498
Mercury	44476-08-25 05:46 G	17965822.62	17965822.74	17965822.86	0.0509	0.0384
Earth	44478-05-26 19:55 G	17966462.15	17966462.33	17966462.51	0.0522	0.0324
Moon	44478-05-26 20:24 G	17966462.18	17966462.35	17966462.51	0.0522	0.0352 *
Venus	44479-05-31 17:46 G	17966832.06	17966832.24	17966832.43	0.0527	0.0202
Mercury	44482-01-22 19:12 G	17967799.26	17967799.30	17967799.35	0.0519	0.0485
Mercury	44482-04-21 23:17 G	17967888.34	17967888.47	17967888.59	0.0517	0.0108
Venus	44485-04-03 16:19 G	17968966.00	17968966.18	17968966.36	0.0498	0.0232
Mercury	44488-06-13 01:26 G	17970132.38	17970132.56	17970132.73	0.0509	0.0160
Earth	44490-05-31 19:12 G	17970850.07	17970850.30	17970850.52	0.0524	0.0147
Moon	44490-05-31 21:07 G	17970850.15	17970850.38	17970850.62	0.0524	0.0129 *
Mercury	44494-02-08 04:05 G	17972198.55	17972198.67	17972198.80	0.0517	0.0036
Moon	44495-11-21 19:55 G	17972850.22	17972850.33	17972850.44	0.0504	0.0444
Earth	44495-11-21 23:31 G	17972850.38	17972850.48	17972850.59	0.0504	0.0452 *
Mercury	44500-04-01 21:36 G	17974442.22	17974442.40	17974442.59	0.0509	0.0054
Moon	44502-06-06 13:26 G	17975237.83	17975238.06	17975238.28	0.0524	0.0064
Earth	44502-06-06 16:48 G	17975237.97	17975238.20	17975238.43	0.0524	0.0033 *
Venus	44503-06-04 19:26 G	17975601.24	17975601.31	17975601.38	0.0528	0.0491
Mercury	44505-11-28 08:38 G	17976508.74	17976508.86	17976508.97	0.0518	0.0187
Mercury	44506-02-25 12:14 G	17976597.94	17976598.01	17976598.09	0.0516	0.0401
Earth	44507-11-27 14:38 G	17977237.92	17977238.11	17977238.30	0.0503	0.0296
Moon	44507-11-27 17:02 G	17977238.02	17977238.21	17977238.40	0.0503	0.0269 *
Venus	44509-04-07 03:07 G	17977734.49	17977734.63	17977734.78	0.0498	0.0345
Mercury	44512-01-19 17:46 G	17978752.08	17978752.24	17978752.40	0.0508	0.0269
Earth	44514-06-11 13:26 G	17979625.85	17979626.06	17979626.27	0.0525	0.0213
Moon	44514-06-11 17:17 G	17979626.01	17979626.22	17979626.44	0.0525	0.0204 *
Venus	44515-02-07 10:48 G	17979866.75	17979866.95	17979867.16	0.0527	0.0059
Mercury	44517-09-16 13:12 G	17980818.96	17980819.05	17980819.15	0.0518	0.0335
Mercury	44517-12-14 17:02 G	17980908.10	17980908.21	17980908.32	0.0516	0.0257
Moon	44519-12-02 06:43 G	17981625.55	17981625.78	17981626.02	0.0502	0.0143

Earth	44519-12-02 07:12 G	17981625.58	17981625.80	17981626.03	0.0502	0.0132	*
Venus	44520-12-11 05:31 G	17982000.53	17982000.73	17982000.94	0.0498	0.0010	
Mercury	44523-11-07 13:26 G	17983062.02	17983062.06	17983062.11	0.0507	0.0489	
Mercury	44524-02-06 04:19 G	17983152.56	17983152.68	17983152.80	0.0509	0.0393	
Moon	44526-06-16 05:31 G	17984013.56	17984013.73	17984013.90	0.0526	0.0359	
Earth	44526-06-16 08:53 G	17984013.72	17984013.87	17984014.03	0.0526	0.0391	*
Venus	44526-10-13 01:41 G	17984132.44	17984132.57	17984132.71	0.0527	0.0379	
Mercury	44529-07-05 18:00 G	17985129.21	17985129.25	17985129.30	0.0519	0.0481	
Mars	44529-07-07 23:17 G	17985131.25	17985131.47	17985131.70	0.0519	0.0236	
Mercury	44529-10-02 22:05 G	17985218.29	17985218.42	17985218.54	0.0517	0.0114	
Moon	44531-12-06 22:05 G	17986013.19	17986013.42	17986013.65	0.0502	0.0003	
Earth	44531-12-06 23:02 G	17986013.23	17986013.46	17986013.70	0.0502	0.0029	*
Venus	44532-08-16 06:58 G	17986266.65	17986266.79	17986266.93	0.0499	0.0368	
Mercury	44535-11-25 00:14 G	17987462.34	17987462.51	17987462.69	0.0509	0.0175	
Mercury	44541-07-22 02:53 G	17989528.49	17989528.62	17989528.74	0.0517	0.0033	
Earth	44543-12-11 09:50 G	17990400.69	17990400.91	17990401.13	0.0500	0.0180	
Moon	44543-12-11 12:14 G	17990400.79	17990401.01	17990401.24	0.0500	0.0181	*
Mercury	44547-09-12 19:41 G	17991772.14	17991772.32	17991772.51	0.0509	0.0053	
Earth	44549-05-22 08:38 G	17992389.86	17992389.86	17992389.88	0.0522	0.0521	
Venus	44550-10-16 05:02 G	17992901.55	17992901.71	17992901.87	0.0528	0.0320	
Mercury	44553-05-10 07:41 G	17993838.71	17993838.82	17993838.94	0.0517	0.0175	
Mercury	44553-08-07 11:31 G	17993927.91	17993927.98	17993928.05	0.0515	0.0413	
Moon	44555-12-15 20:24 G	17994788.20	17994788.35	17994788.51	0.0500	0.0367	
Earth	44555-12-16 00:00 G	17994788.33	17994788.50	17994788.68	0.0500	0.0337	*
Venus	44556-08-18 15:07 G	17995034.95	17995035.13	17995035.32	0.0498	0.0196	
Mercury	44559-07-01 16:05 G	17996082.02	17996082.17	17996082.34	0.0508	0.0264	
Earth	44561-05-27 06:14 G	17996777.59	17996777.76	17996777.94	0.0523	0.0346	
Moon	44561-05-27 07:55 G	17996777.67	17996777.83	17996778.01	0.0523	0.0367	*
Venus	44562-06-20 21:07 G	17997167.19	17997167.38	17997167.58	0.0527	0.0109	
Mercury	44565-02-26 12:14 G	17998148.92	17998149.01	17998149.11	0.0518	0.0325	

Mercury	44565-05-26 16:05 G	17998238.07	17998238.17	17998238.28	0.0516	0.0265
Earth	44567-12-20 13:55 G	17999176.05	17999176.08	17999176.12	0.0500	0.0491
Moon	44567-12-20 17:46 G	17999176.20	17999176.24	17999176.28	0.0500	0.0491
Venus	44568-04-23 17:02 G	17999301.02	17999301.21	17999301.40	0.0499	0.0159
Mercury	44571-04-19 12:29 G	18000391.96	18000392.02	18000392.09	0.0508	0.0475
Mercury	44571-07-19 03:22 G	18000482.54	18000482.64	18000482.76	0.0509	0.0412
Moon	44573-05-31 23:46 G	18001165.28	18001165.49	18001165.71	0.0523	0.0149
Earth	44573-06-01 02:53 G	18001165.41	18001165.62	18001165.84	0.0523	0.0169 *
Mercury	44576-12-15 17:02 G	18002459.16	18002459.21	18002459.26	0.0519	0.0472
Mercury	44577-03-14 20:53 G	18002548.25	18002548.37	18002548.49	0.0517	0.0121
Earth	44578-11-22 08:10 G	18003165.77	18003165.84	18003165.92	0.0504	0.0472
Moon	44578-11-22 10:34 G	18003165.86	18003165.94	18003166.05	0.0504	0.0457 *
Mars	44583-01-28 12:14 G	18004693.80	18004694.01	18004694.23	0.0507	0.0353
Mercury	44583-05-06 23:17 G	18004792.30	18004792.47	18004792.65	0.0509	0.0190
Earth	44585-06-05 21:50 G	18005553.18	18005553.41	18005553.64	0.0524	0.0010
Moon	44585-06-06 01:41 G	18005553.34	18005553.57	18005553.81	0.0524	0.0041 *
Mercury	44589-01-01 01:55 G	18006858.45	18006858.58	18006858.70	0.0518	0.0030
Moon	44590-11-27 00:58 G	18007553.34	18007553.54	18007553.74	0.0503	0.0286
Earth	44590-11-27 01:26 G	18007553.38	18007553.56	18007553.75	0.0503	0.0311 *
Venus	44592-04-26 05:17 G	18008069.61	18008069.72	18008069.83	0.0498	0.0421
Mercury	44595-02-22 19:26 G	18009102.12	18009102.31	18009102.50	0.0508	0.0028
Moon	44597-06-10 17:17 G	18009941.01	18009941.22	18009941.45	0.0525	0.0181
Earth	44597-06-10 21:07 G	18009941.16	18009941.38	18009941.59	0.0525	0.0194 *
Venus	44598-02-26 13:12 G	18010201.86	18010202.05	18010202.25	0.0528	0.0142
Mercury	44600-10-21 06:43 G	18011168.66	18011168.78	18011168.90	0.0518	0.0167
Mercury	44601-01-18 10:34 G	18011257.87	18011257.94	18011258.01	0.0516	0.0421
Moon	44602-12-02 13:26 G	18011940.85	18011941.06	18011941.27	0.0502	0.0170
Earth	44602-12-02 14:10 G	18011940.87	18011941.09	18011941.32	0.0502	0.0156 *
Venus	44604-01-01 04:19 G	18012335.47	18012335.68	18012335.88	0.0498	0.0054
Mercury	44606-12-12 14:38 G	18013411.95	18013412.11	18013412.28	0.0508	0.0257

Earth	44609-06-16 21:36 G	18014329.24	18014329.40	18014329.56	0.0526	0.0379
Moon	44609-06-16 23:17 G	18014329.31	18014329.47	18014329.64	0.0526	0.0355 *
Venus	44609-11-02 07:12 G	18014467.63	18014467.80	18014467.98	0.0527	0.0277
Mercury	44612-08-09 11:46 G	18015478.89	18015478.99	18015479.09	0.0518	0.0307
Mercury	44612-11-06 15:36 G	18015568.05	18015568.15	18015568.25	0.0516	0.0282
Earth	44614-12-07 05:31 G	18016328.49	18016328.73	18016328.97	0.0501	0.0006
Moon	44614-12-07 07:55 G	18016328.59	18016328.83	18016329.07	0.0501	0.0023 *
Venus	44615-09-06 05:46 G	18016601.58	18016601.74	18016601.90	0.0498	0.0303
Mercury	44618-09-30 11:17 G	18017721.90	18017721.97	18017722.04	0.0508	0.0466
Mercury	44618-12-30 02:10 G	18017812.49	18017812.59	18017812.70	0.0510	0.0422
Mercury	44624-05-28 16:19 G	18019789.13	18019789.18	18019789.24	0.0518	0.0457
Mercury	44624-08-25 20:10 G	18019878.22	18019878.34	18019878.46	0.0516	0.0134
Moon	44626-12-11 16:34 G	18020715.97	18020716.19	18020716.41	0.0501	0.0173
Earth	44626-12-11 19:55 G	18020716.11	18020716.33	18020716.56	0.0501	0.0166 *
Mercury	44630-10-17 22:48 G	18022122.28	18022122.45	18022122.62	0.0509	0.0210
Venus	44633-11-05 07:41 G	18023236.70	18023236.82	18023236.95	0.0527	0.0407
Mercury	44636-06-14 00:58 G	18024188.42	18024188.54	18024188.67	0.0517	0.0013
Earth	44638-12-16 11:46 G	18025103.81	18025103.99	18025104.17	0.0500	0.0326
Moon	44638-12-16 15:22 G	18025103.99	18025104.14	18025104.31	0.0500	0.0356 *
Venus	44639-09-08 18:00 G	18025370.09	18025370.25	18025370.43	0.0498	0.0279
Mercury	44642-08-05 18:43 G	18026432.09	18026432.28	18026432.47	0.0508	0.0009
Moon	44644-05-27 11:17 G	18027092.83	18027092.97	18027093.12	0.0522	0.0390
Earth	44644-05-27 14:10 G	18027092.94	18027093.09	18027093.26	0.0522	0.0368 *
Venus	44645-07-10 22:48 G	18027502.25	18027502.45	18027502.66	0.0527	0.0028
Mercury	44648-04-02 05:46 G	18028498.62	18028498.74	18028498.86	0.0518	0.0157
Mercury	44648-06-30 09:36 G	18028587.83	18028587.90	18028587.97	0.0516	0.0432
Moon	44650-12-20 23:46 G	18029491.42	18029491.49	18029491.56	0.0500	0.0478
Earth	44650-12-21 02:53 G	18029491.57	18029491.62	18029491.68	0.0500	0.0483
Venus	44651-05-14 20:10 G	18029636.14	18029636.34	18029636.54	0.0498	0.0077
Mercury	44654-05-24 14:53 G	18030741.95	18030742.12	18030742.29	0.0508	0.0226

Earth	44656-06-01 12:00 G	18031480.79	18031481.00	18031481.22	0.0523	0.0188
Moon	44656-06-01 16:05 G	18031480.95	18031481.17	18031481.39	0.0523	0.0163 *
Venus	44657-03-15 16:19 G	18031768.08	18031768.18	18031768.28	0.0527	0.0449
Mercury	44660-01-20 10:48 G	18032808.85	18032808.95	18032809.06	0.0518	0.0298
Mercury	44660-04-18 14:38 G	18032898.01	18032898.11	18032898.21	0.0516	0.0292
Moon	44661-11-22 17:17 G	18033481.14	18033481.22	18033481.31	0.0504	0.0469
Earth	44661-11-22 18:00 G	18033481.22	18033481.25	18033481.30	0.0504	0.0494 *
Venus	44663-01-17 19:12 G	18033902.21	18033902.30	18033902.40	0.0499	0.0442
Mercury	44666-03-12 09:50 G	18035051.83	18035051.91	18035051.99	0.0508	0.0457
Mercury	44666-06-11 00:43 G	18035142.44	18035142.53	18035142.64	0.0510	0.0431
Moon	44668-06-06 07:26 G	18035868.57	18035868.81	18035869.04	0.0525	0.0021
Earth	44668-06-06 11:02 G	18035868.73	18035868.96	18035869.19	0.0525	0.0007 *
Mercury	44671-11-08 15:50 G	18037119.10	18037119.16	18037119.23	0.0518	0.0437
Mercury	44672-02-05 19:41 G	18037208.20	18037208.32	18037208.44	0.0516	0.0154
Moon	44673-11-27 09:50 G	18037868.73	18037868.91	18037869.09	0.0503	0.0310
Earth	44673-11-27 10:34 G	18037868.77	18037868.94	18037869.12	0.0503	0.0332 *
Venus	44675-05-17 04:48 G	18038404.67	18038404.70	18038404.74	0.0498	0.0488
Mercury	44678-03-29 21:22 G	18039452.22	18039452.39	18039452.56	0.0510	0.0221
Earth	44680-06-11 10:34 G	18040256.72	18040256.94	18040257.15	0.0525	0.0179
Moon	44680-06-11 12:29 G	18040256.81	18040257.02	18040257.24	0.0525	0.0157 *
Venus	44681-03-18 18:58 G	18040537.11	18040537.29	18040537.47	0.0528	0.0246
Mars	44683-10-03 18:43 G	18041466.05	18041466.28	18041466.50	0.0518	0.0215
Mercury	44683-11-25 00:29 G	18041518.39	18041518.52	18041518.64	0.0517	0.0014
Earth	44685-12-02 01:41 G	18042256.34	18042256.57	18042256.79	0.0502	0.0171
Moon	44685-12-02 03:50 G	18042256.44	18042256.66	18042256.89	0.0502	0.0188 *
Venus	44687-01-20 06:58 G	18042670.59	18042670.79	18042670.98	0.0498	0.0135
Mercury	44690-01-15 18:00 G	18043762.06	18043762.25	18043762.44	0.0509	0.0012
Moon	44692-06-16 08:38 G	18044644.68	18044644.86	18044645.04	0.0526	0.0340
Earth	44692-06-16 08:38 G	18044644.70	18044644.86	18044645.03	0.0526	0.0364 *
Venus	44692-11-21 11:02 G	18044802.77	18044802.96	18044803.15	0.0527	0.0183

Mercury	44695-09-13 05:02 G	18045828.59	18045828.71	18045828.84	0.0517	0.0142
Mercury	44695-12-11 08:53 G	18045917.81	18045917.87	18045917.93	0.0515	0.0446
Moon	44697-12-06 14:24 G	18046643.87	18046644.10	18046644.33	0.0502	0.0032
Earth	44697-12-06 17:46 G	18046644.01	18046644.24	18046644.48	0.0502	0.0011 *
Venus	44698-09-25 09:07 G	18046936.70	18046936.88	18046937.07	0.0499	0.0218
Mercury	44701-11-04 14:10 G	18048071.92	18048072.09	18048072.26	0.0508	0.0207
Mercury	44707-07-03 10:05 G	18050138.81	18050138.92	18050139.02	0.0518	0.0287
Mercury	44707-09-30 13:41 G	18050227.97	18050228.07	18050228.18	0.0516	0.0304
Earth	44709-12-12 09:36 G	18051031.68	18051031.90	18051032.13	0.0501	0.0155
Moon	44709-12-12 13:26 G	18051031.84	18051032.06	18051032.28	0.0501	0.0175 *
Mercury	44713-08-23 10:19 G	18052381.83	18052381.93	18052382.03	0.0508	0.0422
Mercury	44713-11-22 01:12 G	18052472.47	18052472.55	18052472.62	0.0510	0.0464
Venus	44716-11-25 11:46 G	18053571.93	18053571.99	18053572.05	0.0528	0.0499
Mercury	44719-04-21 15:07 G	18054449.06	18054449.13	18054449.20	0.0518	0.0426
Mercury	44719-07-19 18:58 G	18054538.17	18054538.29	18054538.41	0.0516	0.0165
Moon	44721-12-16 18:29 G	18055419.10	18055419.27	18055419.46	0.0500	0.0337
Earth	44721-12-16 21:50 G	18055419.23	18055419.41	18055419.60	0.0500	0.0308 *
Venus	44722-09-28 18:29 G	18055705.13	18055705.27	18055705.42	0.0498	0.0350
Mercury	44725-09-09 20:10 G	18056782.17	18056782.34	18056782.51	0.0510	0.0230
Earth	44727-05-29 02:10 G	18057408.44	18057408.59	18057408.75	0.0523	0.0387
Moon	44727-05-29 06:14 G	18057408.61	18057408.76	18057408.91	0.0523	0.0404 *
Venus	44728-07-31 05:17 G	18057837.52	18057837.72	18057837.92	0.0528	0.0080
Mercury	44731-05-08 00:00 G	18058848.38	18058848.50	18058848.63	0.0517	0.0028
Earth	44733-12-21 12:00 G	18059806.92	18059807.00	18059807.09	0.0499	0.0466
Moon	44733-12-21 13:55 G	18059807.01	18059807.08	18059807.18	0.0499	0.0460 *
Venus	44734-06-03 20:24 G	18059971.15	18059971.35	18059971.56	0.0498	0.0010
Mars	44737-04-26 10:48 G	18061028.67	18061028.95	18061029.23	0.0508	0.0173
Mercury	44737-06-28 16:48 G	18061092.01	18061092.20	18061092.39	0.0509	0.0021
Moon	44739-06-02 21:36 G	18061796.19	18061796.40	18061796.62	0.0524	0.0181
Earth	44739-06-03 01:26 G	18061796.35	18061796.56	18061796.77	0.0524	0.0205 *

Venus	44740-04-04 22:05 G	18062103.27	18062103.42	18062103.57	0.0527	0.0344
Mercury	44743-02-24 04:34 G	18063158.57	18063158.69	18063158.82	0.0517	0.0124
Mercury	44743-05-24 08:24 G	18063247.80	18063247.85	18063247.90	0.0515	0.0464
Moon	44744-11-23 05:02 G	18063796.65	18063796.71	18063796.78	0.0504	0.0483
Venus	44746-02-06 21:50 G	18064237.28	18064237.41	18064237.56	0.0499	0.0360
Mercury	44749-04-16 13:26 G	18065401.88	18065402.06	18065402.23	0.0509	0.0189
Earth	44751-06-07 23:17 G	18066184.24	18066184.47	18066184.70	0.0524	0.0021
Moon	44751-06-08 01:41 G	18066184.34	18066184.57	18066184.79	0.0524	0.0005 *
Mercury	44754-12-13 09:22 G	18067468.79	18067468.89	18067469.00	0.0518	0.0269
Mercury	44755-03-12 13:12 G	18067557.95	18067558.05	18067558.15	0.0516	0.0319
Earth	44756-11-27 22:19 G	18068184.26	18068184.43	18068184.60	0.0503	0.0346
Moon	44756-11-28 00:43 G	18068184.34	18068184.53	18068184.71	0.0503	0.0326 *
Mercury	44761-02-02 09:36 G	18069711.79	18069711.90	18069712.01	0.0508	0.0404
Mercury	44761-05-04 00:29 G	18069802.47	18069802.52	18069802.58	0.0510	0.0483
Moon	44763-06-12 18:58 G	18070572.06	18070572.29	18070572.52	0.0525	0.0132
Earth	44763-06-12 19:26 G	18070572.09	18070572.31	18070572.53	0.0525	0.0161 *
Venus	44764-04-07 21:36 G	18070872.24	18070872.40	18070872.56	0.0528	0.0332
Mercury	44766-10-01 14:10 G	18071779.02	18071779.09	18071779.16	0.0518	0.0417
Mercury	44766-12-29 18:00 G	18071868.13	18071868.25	18071868.37	0.0517	0.0175
Moon	44768-12-02 11:31 G	18072571.77	18072571.98	18072572.20	0.0502	0.0206
Earth	44768-12-02 15:07 G	18072571.91	18072572.13	18072572.35	0.0502	0.0183 *
Venus	44770-02-09 10:19 G	18073005.75	18073005.93	18073006.11	0.0498	0.0220
Mercury	44773-02-19 20:24 G	18074112.19	18074112.35	18074112.52	0.0509	0.0265
Moon	44775-06-17 17:17 G	18074960.05	18074960.22	18074960.39	0.0526	0.0328
Earth	44775-06-17 18:29 G	18074960.10	18074960.27	18074960.44	0.0526	0.0347 *
Venus	44775-12-12 14:38 G	18075137.91	18075138.11	18075138.31	0.0527	0.0092
Mercury	44778-10-17 23:02 G	18076178.34	18076178.46	18076178.59	0.0517	0.0040
Earth	44780-12-07 05:02 G	18076959.48	18076959.71	18076959.95	0.0501	0.0025
Moon	44780-12-07 08:53 G	18076959.64	18076959.87	18076960.10	0.0501	0.0042 *
Venus	44781-10-15 10:19 G	18077271.73	18077271.93	18077272.12	0.0498	0.0142

Mercury	44784-12-08 15:22 G	18078421.95	18078422.14	18078422.33	0.0509	0.0029
Venus	44787-08-17 07:26 G	18079403.77	18079403.81	18079403.86	0.0527	0.0513
Mercury	44790-08-06 04:19 G	18080488.55	18080488.68	18080488.80	0.0517	0.0102
Mercury	44790-11-03 07:55 G	18080577.79	18080577.83	18080577.87	0.0515	0.0484
Moon	44792-12-11 16:48 G	18081346.98	18081347.20	18081347.43	0.0500	0.0160
Earth	44792-12-11 20:10 G	18081347.12	18081347.34	18081347.57	0.0500	0.0138 *
Venus	44793-06-20 12:00 G	18081537.98	18081538.00	18081538.01	0.0498	0.0496
Mercury	44796-09-26 11:46 G	18082731.82	18082731.99	18082732.17	0.0509	0.0183
Mars	44802-03-27 09:07 G	18084739.74	18084739.88	18084740.02	0.0519	0.0432
Mercury	44802-05-25 08:53 G	18084798.76	18084798.87	18084798.98	0.0517	0.0252
Mercury	44802-08-22 12:29 G	18084887.93	18084888.02	18084888.12	0.0516	0.0337
Earth	44804-12-16 09:36 G	18085734.72	18085734.90	18085735.10	0.0500	0.0297
Moon	44804-12-16 11:46 G	18085734.82	18085734.99	18085735.16	0.0500	0.0324 *
Venus	44805-10-17 21:07 G	18086040.29	18086040.38	18086040.49	0.0498	0.0430
Mercury	44808-07-15 08:24 G	18087041.74	18087041.85	18087041.97	0.0508	0.0390
Mercury	44808-10-13 23:31 G	18087132.45	18087132.48	18087132.52	0.0510	0.0499
Moon	44810-05-28 10:48 G	18087723.82	18087723.95	18087724.10	0.0522	0.0417
Earth	44810-05-28 14:38 G	18087723.97	18087724.11	18087724.26	0.0522	0.0402 *
Venus	44811-08-20 09:07 G	18088172.69	18088172.88	18088173.07	0.0528	0.0173
Mercury	44814-03-13 13:26 G	18089108.98	18089109.06	18089109.14	0.0518	0.0400
Mercury	44814-06-10 17:17 G	18089198.10	18089198.22	18089198.34	0.0516	0.0191
Moon	44816-12-21 00:00 G	18090122.39	18090122.50	18090122.61	0.0500	0.0442
Earth	44816-12-21 00:14 G	18090122.42	18090122.51	18090122.60	0.0500	0.0456 *
Venus	44817-06-22 23:17 G	18090306.27	18090306.47	18090306.67	0.0498	0.0078
Mercury	44820-08-01 19:41 G	18091442.16	18091442.32	18091442.48	0.0509	0.0281
Earth	44822-06-02 10:05 G	18092111.72	18092111.92	18092112.13	0.0523	0.0226
Moon	44822-06-02 12:58 G	18092111.83	18092112.04	18092112.25	0.0523	0.0197 *
Venus	44823-04-25 00:14 G	18092438.33	18092438.51	18092438.69	0.0527	0.0260
Mercury	44826-03-29 22:05 G	18093508.29	18093508.42	18093508.55	0.0517	0.0045
Moon	44827-11-23 19:55 G	18094112.29	18094112.33	18094112.39	0.0504	0.0494

Venus	44829-02-26 00:58 G	18094572.37	18094572.54	18094572.71	0.0499	0.0276
Mercury	44832-05-20 15:36 G	18095751.96	18095752.15	18095752.34	0.0509	0.0061
Moon	44834-06-07 06:58 G	18096499.55	18096499.79	18096500.03	0.0524	0.0033
Earth	44834-06-07 07:41 G	18096499.59	18096499.82	18096500.05	0.0524	0.0041 *
Mercury	44838-01-16 03:22 G	18097818.51	18097818.64	18097818.76	0.0517	0.0095
Mercury	44838-04-15 06:58 G	18097907.76	18097907.79	18097907.82	0.0515	0.0493
Moon	44839-11-28 06:43 G	18098499.62	18098499.78	18098499.95	0.0503	0.0352
Earth	44839-11-28 10:05 G	18098499.76	18098499.92	18098500.08	0.0503	0.0365 *
Mercury	44844-03-08 10:05 G	18100061.75	18100061.92	18100062.10	0.0509	0.0178
Moon	44846-06-12 04:05 G	18100887.45	18100887.67	18100887.89	0.0526	0.0111
Earth	44846-06-12 05:02 G	18100887.49	18100887.71	18100887.93	0.0526	0.0141 *
Venus	44847-04-28 02:10 G	18101207.48	18101207.59	18101207.71	0.0528	0.0430
Mercury	44849-11-04 08:24 G	18102128.74	18102128.85	18102128.96	0.0518	0.0234
Mercury	44850-02-01 12:00 G	18102217.91	18102218.00	18102218.09	0.0516	0.0355
Earth	44851-12-03 01:41 G	18102887.36	18102887.57	18102887.79	0.0502	0.0200
Moon	44851-12-03 05:31 G	18102887.52	18102887.73	18102887.94	0.0502	0.0228 *
Venus	44853-02-28 10:19 G	18103340.77	18103340.93	18103341.10	0.0497	0.0290
Mercury	44855-12-26 06:29 G	18104371.65	18104371.77	18104371.89	0.0508	0.0389
Mercury	44856-03-25 21:36 G	18104462.37	18104462.40	18104462.43	0.0510	0.0500
Earth	44858-06-17 04:48 G	18105275.52	18105275.70	18105275.88	0.0526	0.0329
Moon	44858-06-17 07:26 G	18105275.62	18105275.81	18105276.00	0.0526	0.0315 *
Venus	44858-12-31 18:43 G	18105473.08	18105473.28	18105473.48	0.0528	0.0005
Mercury	44861-08-23 12:43 G	18106438.95	18106439.03	18106439.12	0.0518	0.0385
Mercury	44861-11-20 16:34 G	18106528.08	18106528.19	18106528.31	0.0516	0.0206
Moon	44863-12-07 12:00 G	18107274.76	18107275.00	18107275.24	0.0501	0.0056
Earth	44863-12-07 15:22 G	18107274.91	18107275.14	18107275.38	0.0501	0.0040 *
Venus	44864-11-03 12:00 G	18107606.80	18107607.00	18107607.20	0.0498	0.0065
Mercury	44868-01-12 18:14 G	18108772.11	18108772.26	18108772.41	0.0510	0.0291
Earth	44870-06-22 03:50 G	18109663.62	18109663.66	18109663.72	0.0526	0.0514
Venus	44870-09-05 10:48 G	18109738.83	18109738.95	18109739.07	0.0527	0.0422

Mercury	44873-09-08 21:22 G	18110838.26	18110838.39	18110838.51	0.0516	0.0059
Earth	44875-12-12 05:46 G	18111662.51	18111662.74	18111662.97	0.0501	0.0123
Moon	44875-12-12 07:55 G	18111662.61	18111662.83	18111663.05	0.0501	0.0148 *
Venus	44876-07-09 13:26 G	18111872.95	18111873.06	18111873.17	0.0499	0.0419
Mercury	44879-10-31 14:24 G	18113081.91	18113082.10	18113082.28	0.0509	0.0073
Mercury	44885-06-28 01:55 G	18115148.46	18115148.58	18115148.71	0.0517	0.0091
Mercury	44885-09-25 05:46 G	18115237.71	18115237.74	18115237.77	0.0515	0.0497
Moon	44887-12-16 20:24 G	18116050.16	18116050.35	18116050.55	0.0500	0.0304
Earth	44887-12-16 20:53 G	18116050.17	18116050.37	18116050.56	0.0500	0.0283 *
Mercury	44891-08-19 10:05 G	18117391.74	18117391.92	18117392.10	0.0508	0.0149
Earth	44893-05-27 21:07 G	18118039.25	18118039.38	18118039.51	0.0522	0.0426
Moon	44893-05-28 00:00 G	18118039.38	18118039.50	18118039.63	0.0522	0.0432 *
Venus	44894-09-08 10:19 G	18118507.76	18118507.93	18118508.11	0.0528	0.0254
Mercury	44897-04-16 07:12 G	18119458.68	18119458.80	18119458.91	0.0518	0.0230
Mercury	44897-07-14 10:48 G	18119547.86	18119547.95	18119548.04	0.0516	0.0359
Moon	44899-12-21 07:55 G	18120437.71	18120437.83	18120437.96	0.0499	0.0419
Earth	44899-12-21 09:36 G	18120437.80	18120437.90	18120438.02	0.0499	0.0438 *
Venus	44900-07-12 23:31 G	18120641.28	18120641.48	18120641.67	0.0497	0.0149
Mercury	44903-06-08 04:34 G	18121701.57	18121701.69	18121701.81	0.0508	0.0388
Mercury	44903-09-06 19:26 G	18121792.28	18121792.31	18121792.35	0.0510	0.0501
Moon	44905-06-02 14:24 G	18122426.89	18122427.10	18122427.32	0.0524	0.0222
Earth	44905-06-02 15:50 G	18122426.96	18122427.16	18122427.36	0.0524	0.0253 *
Venus	44906-05-15 02:38 G	18122773.41	18122773.61	18122773.80	0.0528	0.0174
Mercury	44909-02-03 12:00 G	18123768.92	18123769.00	18123769.09	0.0518	0.0371
Mercury	44909-05-03 15:50 G	18123858.05	18123858.16	18123858.28	0.0516	0.0221
Venus	44912-03-18 00:58 G	18124907.35	18124907.54	18124907.73	0.0498	0.0205
Mercury	44915-06-25 15:36 G	18126102.00	18126102.15	18126102.31	0.0510	0.0286
Moon	44917-06-07 14:10 G	18126814.87	18126815.09	18126815.31	0.0525	0.0060
Earth	44917-06-07 14:38 G	18126814.88	18126815.11	18126815.34	0.0525	0.0066 *
Mercury	44921-02-19 20:24 G	18128168.23	18128168.35	18128168.47	0.0516	0.0069

Earth	44922-11-28 17:31 G	18128815.09	18128815.23	18128815.39	0.0503	0.0384
Moon	44922-11-28 21:22 G	18128815.24	18128815.39	18128815.55	0.0503	0.0380 *
Mercury	44927-04-13 12:14 G	18130411.83	18130412.01	18130412.20	0.0509	0.0076
Earth	44929-06-12 13:12 G	18131202.83	18131203.05	18131203.28	0.0525	0.0122
Moon	44929-06-12 15:36 G	18131202.91	18131203.15	18131203.38	0.0525	0.0090 *
Venus	44930-05-18 03:50 G	18131542.62	18131542.66	18131542.71	0.0528	0.0510
Mercury	44932-12-09 00:58 G	18132478.42	18132478.54	18132478.67	0.0517	0.0080
Mercury	44933-03-08 04:34 G	18132567.68	18132567.69	18132567.72	0.0515	0.0506
Moon	44934-12-03 05:02 G	18133202.51	18133202.71	18133202.92	0.0502	0.0252
Earth	44934-12-03 08:24 G	18133202.64	18133202.85	18133203.06	0.0502	0.0221 *
Venus	44936-03-20 10:48 G	18133675.81	18133675.95	18133676.09	0.0498	0.0360
Mercury	44939-01-30 08:24 G	18134721.67	18134721.85	18134722.03	0.0508	0.0144
Moon	44941-06-17 05:46 G	18135590.55	18135590.74	18135590.93	0.0526	0.0295
Earth	44941-06-17 09:07 G	18135590.70	18135590.88	18135591.08	0.0526	0.0304 *
Venus	44942-01-20 18:14 G	18135808.06	18135808.26	18135808.47	0.0528	0.0078
Mercury	44944-09-27 05:31 G	18136788.62	18136788.73	18136788.85	0.0518	0.0231
Mercury	44944-12-25 09:22 G	18136877.80	18136877.89	18136877.98	0.0516	0.0358
Earth	44946-12-07 23:31 G	18137590.25	18137590.48	18137590.71	0.0502	0.0058
Moon	44946-12-08 01:41 G	18137590.35	18137590.57	18137590.80	0.0502	0.0071 *
Venus	44947-11-24 12:29 G	18137941.82	18137942.02	18137942.23	0.0498	0.0013
Mercury	44950-11-18 04:05 G	18139031.54	18139031.67	18139031.80	0.0508	0.0365
Earth	44953-06-22 06:58 G	18139978.71	18139978.79	18139978.88	0.0526	0.0488
Moon	44953-06-22 10:48 G	18139978.92	18139978.95	18139978.98	0.0526	0.0522
Venus	44953-09-25 10:19 G	18140073.78	18140073.93	18140074.08	0.0527	0.0351
Mars	44956-06-21 21:22 G	18141074.14	18141074.39	18141074.64	0.0519	0.0024
Mercury	44956-07-16 10:34 G	18141098.86	18141098.94	18141099.03	0.0518	0.0372
Mercury	44956-10-13 14:24 G	18141187.99	18141188.10	18141188.22	0.0516	0.0220
Moon	44958-12-12 13:26 G	18141977.83	18141978.06	18141978.30	0.0500	0.0127
Earth	44958-12-12 14:10 G	18141977.86	18141978.09	18141978.32	0.0500	0.0103 *
Venus	44959-07-30 13:12 G	18142207.91	18142208.05	18142208.20	0.0498	0.0349

Mercury	44962-12-05 13:12 G	18143431.90	18143432.05	18143432.21	0.0509	0.0281
Mercury	44968-05-04 15:36 G	18145409.14	18145409.15	18145409.16	0.0519	0.0514
Mercury	44968-08-01 19:26 G	18145498.19	18145498.31	18145498.43	0.0517	0.0079
Moon	44970-12-17 02:38 G	18146365.42	18146365.61	18146365.80	0.0499	0.0278
Earth	44970-12-17 04:05 G	18146365.47	18146365.67	18146365.87	0.0499	0.0264 *
Mercury	44974-09-23 09:22 G	18147741.71	18147741.89	18147742.08	0.0509	0.0064
Moon	44976-05-27 22:34 G	18148354.33	18148354.44	18148354.56	0.0523	0.0455
Earth	44976-05-28 00:14 G	18148354.41	18148354.51	18148354.63	0.0523	0.0457 *
Venus	44977-09-28 10:48 G	18148842.80	18148842.95	18148843.11	0.0528	0.0330
Mercury	44980-05-21 00:00 G	18149808.37	18149808.50	18149808.62	0.0517	0.0076
Mercury	44980-08-18 03:36 G	18149897.64	18149897.65	18149897.66	0.0515	0.0511
Earth	44982-12-21 15:22 G	18150753.02	18150753.14	18150753.27	0.0499	0.0420
Moon	44982-12-21 18:43 G	18150753.14	18150753.28	18150753.43	0.0499	0.0393 *
Venus	44983-08-01 22:19 G	18150976.25	18150976.43	18150976.62	0.0498	0.0212
Mercury	44986-07-12 06:00 G	18152051.57	18152051.75	18152051.93	0.0509	0.0149
Moon	44988-06-01 22:05 G	18152742.22	18152742.42	18152742.62	0.0523	0.0243
Earth	44988-06-01 22:05 G	18152742.23	18152742.42	18152742.62	0.0523	0.0276 *
Venus	44989-06-03 02:53 G	18153108.42	18153108.62	18153108.82	0.0528	0.0098
Mercury	44992-03-09 04:19 G	18154118.57	18154118.68	18154118.80	0.0517	0.0226
Mercury	44992-06-06 08:10 G	18154207.75	18154207.84	18154207.93	0.0516	0.0363
Venus	44995-04-06 23:31 G	18155242.29	18155242.48	18155242.68	0.0498	0.0144
Mercury	44998-04-30 01:55 G	18156361.45	18156361.58	18156361.71	0.0508	0.0367
Earth	45000-06-07 17:17 G	18157130.00	18157130.22	18157130.45	0.0524	0.0096
Moon	45000-06-07 19:12 G	18157130.06	18157130.30	18157130.54	0.0524	0.0091 *

46TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 46th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	45003-12-28 08:53	G	18158428.79	18158428.87	18158428.96	0.0518	0.0378	
Mercury	45004-03-26 12:43	G	18158517.92	18158518.03	18158518.14	0.0516	0.0213	
Moon	45005-11-28 18:58	G	18159130.16	18159130.29	18159130.44	0.0503	0.0409	
Earth	45005-11-28 22:34	G	18159130.31	18159130.44	18159130.58	0.0503	0.0409	*
Venus	45006-12-12 00:43	G	18159508.53	18159508.53	18159508.55	0.0499	0.0498	
Mars	45010-01-09 09:36	G	18160632.66	18160632.90	18160633.16	0.0507	0.0276	
Mercury	45010-05-18 12:14	G	18160761.86	18160762.01	18160762.17	0.0509	0.0296	
Moon	45012-06-12 10:34	G	18161517.71	18161517.94	18161518.16	0.0525	0.0058	
Earth	45012-06-12 13:41	G	18161517.84	18161518.07	18161518.30	0.0525	0.0089	*
Mercury	45016-01-13 17:46	G	18162828.11	18162828.24	18162828.36	0.0517	0.0073	
Earth	45017-12-03 14:53	G	18163517.91	18163518.12	18163518.33	0.0502	0.0244	
Moon	45017-12-03 17:02	G	18163518.03	18163518.21	18163518.41	0.0502	0.0277	*
Venus	45019-04-10 09:07	G	18164010.77	18164010.88	18164010.99	0.0497	0.0419	
Mercury	45022-03-06 06:43	G	18165071.59	18165071.78	18165071.96	0.0509	0.0053	
Earth	45024-06-17 08:24	G	18165905.65	18165905.85	18165906.05	0.0526	0.0270	
Moon	45024-06-17 12:14	G	18165905.81	18165906.01	18165906.21	0.0526	0.0270	*
Venus	45025-02-09 16:19	G	18166142.98	18166143.18	18166143.38	0.0529	0.0141	
Mercury	45027-11-01 22:34	G	18167138.32	18167138.44	18167138.57	0.0517	0.0072	
Moon	45029-12-08 04:34	G	18167905.45	18167905.69	18167905.94	0.0501	0.0090	
Earth	45029-12-08 05:31	G	18167905.50	18167905.73	18167905.96	0.0501	0.0080	*
Venus	45030-12-14 10:19	G	18168276.73	18168276.93	18168277.14	0.0497	0.0067	
Mercury	45033-12-23 02:38	G	18169381.43	18169381.61	18169381.79	0.0508	0.0166	
Moon	45036-06-22 04:34	G	18170293.61	18170293.69	18170293.77	0.0527	0.0491	
Earth	45036-06-22 07:55	G	18170293.72	18170293.83	18170293.94	0.0527	0.0458	*
Venus	45036-10-15 08:24	G	18170408.69	18170408.85	18170409.03	0.0528	0.0286	

Mercury	45039-08-21 02:53 G	18171448.51	18171448.62	18171448.74	0.0518	0.0226
Mercury	45039-11-18 06:43 G	18171537.69	18171537.78	18171537.87	0.0516	0.0364
Moon	45041-12-12 15:36 G	18172292.93	18172293.15	18172293.37	0.0501	0.0105
Earth	45041-12-12 16:34 G	18172292.96	18172293.19	18172293.43	0.0501	0.0079 *
Venus	45042-08-19 10:19 G	18172542.77	18172542.93	18172543.10	0.0498	0.0295
Mercury	45045-10-10 22:48 G	18173691.33	18173691.45	18173691.58	0.0508	0.0379
Mercury	45051-06-09 07:26 G	18175758.73	18175758.81	18175758.90	0.0518	0.0377
Mercury	45051-09-06 11:17 G	18175847.86	18175847.97	18175848.08	0.0516	0.0214
Earth	45053-12-17 05:17 G	18176680.52	18176680.72	18176680.93	0.0500	0.0239
Moon	45053-12-17 08:24 G	18176680.64	18176680.85	18176681.06	0.0500	0.0247 *
Mercury	45057-10-28 09:50 G	18178091.75	18178091.91	18178092.06	0.0509	0.0288
Earth	45059-05-29 01:41 G	18178669.50	18178669.57	18178669.66	0.0522	0.0489
Moon	45059-05-29 02:10 G	18178669.51	18178669.59	18178669.67	0.0522	0.0485 *
Venus	45060-10-18 07:26 G	18179177.68	18179177.81	18179177.95	0.0528	0.0386
Mercury	45063-06-25 15:50 G	18180158.03	18180158.16	18180158.28	0.0517	0.0063
Moon	45065-12-21 14:53 G	18181067.96	18181068.12	18181068.27	0.0500	0.0369
Earth	45065-12-21 18:43 G	18181068.14	18181068.28	18181068.42	0.0500	0.0397 *
Venus	45066-08-21 19:55 G	18181311.16	18181311.33	18181311.50	0.0498	0.0269
Mercury	45069-08-16 05:17 G	18182401.53	18182401.72	18182401.90	0.0509	0.0062
Earth	45071-06-02 20:10 G	18183057.16	18183057.34	18183057.53	0.0523	0.0312
Moon	45071-06-02 21:36 G	18183057.20	18183057.40	18183057.60	0.0523	0.0278 *
Venus	45072-06-22 22:48 G	18183443.25	18183443.45	18183443.65	0.0528	0.0045
Mercury	45075-04-13 20:38 G	18184468.24	18184468.36	18184468.48	0.0518	0.0082
Mercury	45075-07-12 00:29 G	18184557.50	18184557.52	18184557.54	0.0516	0.0506
Venus	45078-04-26 21:07 G	18185577.18	18185577.38	18185577.58	0.0498	0.0086
Mercury	45081-06-03 23:31 G	18186711.30	18186711.48	18186711.66	0.0508	0.0180
Moon	45083-06-07 10:19 G	18187444.72	18187444.93	18187445.15	0.0524	0.0134
Earth	45083-06-07 12:58 G	18187444.82	18187445.04	18187445.27	0.0524	0.0136 *
Venus	45084-02-26 12:43 G	18187708.95	18187709.03	18187709.12	0.0528	0.0479
Mercury	45087-01-31 01:26 G	18188778.45	18188778.56	18188778.68	0.0518	0.0227

Mercury	45087-04-30 05:17 G	18188867.63	18188867.72	18188867.81	0.0516	0.0363
Earth	45088-11-28 02:53 G	18189445.51	18189445.62	18189445.74	0.0503	0.0433
Moon	45088-11-28 05:31 G	18189445.62	18189445.73	18189445.84	0.0503	0.0437 *
Venus	45089-12-30 22:05 G	18189843.33	18189843.42	18189843.52	0.0498	0.0441
Mercury	45093-03-22 19:12 G	18191021.19	18191021.30	18191021.42	0.0508	0.0400
Mercury	45093-06-21 10:05 G	18191111.88	18191111.92	18191111.98	0.0510	0.0488
Earth	45095-06-12 11:02 G	18191832.73	18191832.96	18191833.19	0.0525	0.0054
Moon	45095-06-12 14:38 G	18191832.88	18191833.11	18191833.34	0.0525	0.0022 *
Mercury	45098-11-19 05:46 G	18193088.66	18193088.74	18193088.83	0.0518	0.0383
Mercury	45099-02-16 09:36 G	18193177.79	18193177.90	18193178.02	0.0516	0.0210
Moon	45100-12-03 12:58 G	18193832.85	18193833.04	18193833.24	0.0502	0.0304
Earth	45100-12-03 14:24 G	18193832.90	18193833.10	18193833.30	0.0502	0.0274 *
Venus	45102-04-30 04:48 G	18194345.64	18194345.70	18194345.77	0.0497	0.0466
Mercury	45105-04-10 06:29 G	18195421.61	18195421.77	18195421.93	0.0509	0.0272
Moon	45107-06-18 06:14 G	18196220.56	18196220.76	18196220.98	0.0526	0.0242
Earth	45107-06-18 10:05 G	18196220.71	18196220.92	18196221.12	0.0526	0.0242 *
Venus	45108-03-01 14:10 G	18196477.90	18196478.09	18196478.28	0.0528	0.0201
Mars	45110-09-17 10:05 G	18197407.70	18197407.92	18197408.14	0.0518	0.0260
Mercury	45110-12-06 14:10 G	18197487.97	18197488.09	18197488.22	0.0517	0.0059
Moon	45112-12-08 02:53 G	18198220.40	18198220.62	18198220.84	0.0502	0.0117
Earth	45112-12-08 03:36 G	18198220.42	18198220.65	18198220.88	0.0502	0.0112 *
Venus	45114-01-03 05:46 G	18198611.54	18198611.74	18198611.94	0.0498	0.0111
Mercury	45117-01-27 02:24 G	18199731.41	18199731.60	18199731.78	0.0509	0.0051
Earth	45119-06-23 05:31 G	18200608.60	18200608.73	18200608.87	0.0526	0.0424
Moon	45119-06-23 08:10 G	18200608.73	18200608.84	18200608.95	0.0526	0.0458 *
Venus	45119-11-05 04:19 G	18200743.50	18200743.68	18200743.87	0.0527	0.0233
Mercury	45122-09-24 18:29 G	18201798.15	18201798.27	18201798.40	0.0517	0.0097
Mercury	45122-12-22 22:19 G	18201887.40	18201887.43	18201887.46	0.0515	0.0492
Earth	45124-12-12 17:17 G	18202607.98	18202608.22	18202608.45	0.0501	0.0050
Moon	45124-12-12 19:55 G	18202608.10	18202608.33	18202608.57	0.0501	0.0080 *

Venus	45125-09-08 06:43 G	18202877.60	18202877.78	18202877.96	0.0498	0.0243
Mercury	45128-11-14 21:50 G	18204041.23	18204041.41	18204041.58	0.0508	0.0177
Mercury	45134-07-13 23:17 G	18206108.36	18206108.47	18206108.58	0.0518	0.0242
Mercury	45134-10-11 03:07 G	18206197.54	18206197.63	18206197.72	0.0516	0.0349
Moon	45136-12-17 04:05 G	18206995.47	18206995.67	18206995.89	0.0500	0.0222
Earth	45136-12-17 07:55 G	18206995.62	18206995.83	18206996.05	0.0500	0.0214 *
Mercury	45140-09-02 16:19 G	18208351.07	18208351.18	18208351.28	0.0507	0.0415
Mercury	45140-12-02 06:58 G	18208441.72	18208441.79	18208441.86	0.0509	0.0471
Venus	45143-11-08 01:55 G	18209512.47	18209512.58	18209512.70	0.0529	0.0431
Mercury	45146-05-02 04:05 G	18210418.59	18210418.67	18210418.75	0.0519	0.0389
Mercury	45146-07-30 07:55 G	18210507.72	18210507.83	18210507.95	0.0517	0.0205
Earth	45148-12-21 21:07 G	18211383.23	18211383.38	18211383.53	0.0499	0.0374
Moon	45148-12-22 00:58 G	18211383.38	18211383.54	18211383.72	0.0499	0.0346 *
Venus	45149-09-10 16:05 G	18211646.02	18211646.17	18211646.33	0.0497	0.0318
Mercury	45152-09-20 02:38 G	18212751.45	18212751.61	18212751.78	0.0509	0.0248
Moon	45154-06-02 13:41 G	18213371.90	18213372.07	18213372.25	0.0523	0.0321
Earth	45154-06-02 15:50 G	18213371.99	18213372.16	18213372.33	0.0523	0.0351 *
Venus	45155-07-13 18:00 G	18213778.05	18213778.25	18213778.45	0.0528	0.0005
Mercury	45158-05-18 12:14 G	18214817.89	18214818.01	18214818.14	0.0517	0.0053
Venus	45161-05-16 15:36 G	18215911.95	18215912.15	18215912.35	0.0498	0.0045
Mars	45164-04-04 06:00 G	18216965.45	18216965.75	18216966.05	0.0507	0.0015
Mercury	45164-07-08 22:48 G	18217061.26	18217061.45	18217061.64	0.0509	0.0030
Earth	45166-06-07 13:55 G	18217759.87	18217760.08	18217760.30	0.0524	0.0166
Moon	45166-06-07 17:46 G	18217760.02	18217760.24	18217760.46	0.0524	0.0171 *
Venus	45167-03-18 10:19 G	18218043.81	18218043.93	18218044.06	0.0527	0.0419
Mercury	45170-03-06 16:48 G	18219128.08	18219128.20	18219128.33	0.0517	0.0102
Mercury	45170-06-03 20:38 G	18219217.32	18219217.36	18219217.40	0.0515	0.0486
Moon	45171-11-28 20:53 G	18219760.29	18219760.37	18219760.46	0.0504	0.0470
Earth	45171-11-28 22:34 G	18219760.37	18219760.44	18219760.53	0.0504	0.0470 *
Venus	45173-01-19 15:50 G	18220178.05	18220178.16	18220178.29	0.0498	0.0403

Mercury	45176-04-26 18:29 G	18221371.10	18221371.27	18221371.45	0.0508	0.0191
Moon	45178-06-12 05:46 G	18222147.50	18222147.74	18222147.97	0.0524	0.0019
Earth	45178-06-12 09:22 G	18222147.66	18222147.89	18222148.12	0.0524	0.0019 *
Mercury	45181-12-23 21:07 G	18223438.28	18223438.38	18223438.49	0.0518	0.0257
Mercury	45182-03-23 00:58 G	18223527.45	18223527.54	18223527.64	0.0516	0.0334
Earth	45183-12-03 12:43 G	18224147.85	18224148.03	18224148.23	0.0503	0.0308
Moon	45183-12-03 12:43 G	18224147.87	18224148.03	18224148.20	0.0503	0.0337 *
Mercury	45188-02-13 14:10 G	18225680.98	18225681.09	18225681.20	0.0507	0.0415
Mercury	45188-05-14 05:02 G	18225771.64	18225771.71	18225771.78	0.0509	0.0472
Earth	45190-06-17 04:34 G	18226535.48	18226535.69	18226535.91	0.0525	0.0201
Moon	45190-06-17 07:41 G	18226535.61	18226535.82	18226536.03	0.0525	0.0202 *
Venus	45191-03-21 07:55 G	18226812.66	18226812.83	18226813.02	0.0528	0.0244
Mercury	45193-10-12 01:55 G	18227748.50	18227748.58	18227748.66	0.0519	0.0405
Mercury	45194-01-09 05:46 G	18227837.62	18227837.74	18227837.86	0.0517	0.0189
Earth	45195-12-08 04:48 G	18228535.48	18228535.70	18228535.93	0.0502	0.0141
Moon	45195-12-08 07:12 G	18228535.57	18228535.80	18228536.04	0.0502	0.0137 *
Venus	45197-01-22 02:10 G	18228946.40	18228946.59	18228946.78	0.0497	0.0162
Mercury	45200-03-01 23:31 G	18230081.31	18230081.48	18230081.65	0.0509	0.0232
Moon	45202-06-21 20:53 G	18230923.22	18230923.37	18230923.51	0.0526	0.0413
Earth	45202-06-21 22:19 G	18230923.28	18230923.43	18230923.59	0.0526	0.0383 *
Venus	45202-11-23 21:50 G	18231078.22	18231078.41	18231078.60	0.0528	0.0193
Mercury	45205-10-28 10:34 G	18232147.82	18232147.94	18232148.07	0.0517	0.0043
Moon	45207-12-12 15:36 G	18232922.92	18232923.15	18232923.38	0.0501	0.0056
Earth	45207-12-12 19:12 G	18232923.07	18232923.30	18232923.54	0.0501	0.0025 *
Venus	45208-09-27 03:07 G	18233212.44	18233212.63	18233212.82	0.0498	0.0192
Mercury	45211-12-19 19:12 G	18234391.11	18234391.30	18234391.49	0.0508	0.0009
Mercury	45217-08-16 14:53 G	18236458.00	18236458.12	18236458.25	0.0518	0.0113
Mercury	45217-11-13 18:43 G	18236547.24	18236547.28	18236547.33	0.0515	0.0476
Earth	45219-12-17 04:48 G	18237310.48	18237310.70	18237310.92	0.0500	0.0181
Moon	45219-12-17 08:53 G	18237310.65	18237310.87	18237311.09	0.0500	0.0190 *

Mercury	45223-10-07 15:07 G	18238700.96	18238701.13	18238701.30	0.0508	0.0211
Venus	45226-11-26 23:31 G	18239847.41	18239847.48	18239847.56	0.0528	0.0488
Mercury	45229-06-04 19:26 G	18240768.21	18240768.31	18240768.42	0.0518	0.0263
Mercury	45229-09-01 23:17 G	18240857.38	18240857.47	18240857.57	0.0516	0.0328
Moon	45231-12-21 13:26 G	18241697.88	18241698.06	18241698.25	0.0500	0.0315
Earth	45231-12-21 17:17 G	18241698.05	18241698.22	18241698.39	0.0500	0.0342 *
Venus	45232-09-29 09:50 G	18241980.77	18241980.91	18241981.06	0.0497	0.0355
Mercury	45235-07-26 11:02 G	18243010.86	18243010.96	18243011.06	0.0508	0.0429
Mercury	45235-10-25 01:55 G	18243101.50	18243101.58	18243101.66	0.0510	0.0459
Earth	45237-06-01 15:36 G	18243687.00	18243687.15	18243687.31	0.0522	0.0386
Moon	45237-06-01 18:58 G	18243687.12	18243687.29	18243687.47	0.0522	0.0355 *
Venus	45238-08-01 13:55 G	18244112.88	18244113.08	18244113.28	0.0528	0.0056
Mercury	45241-03-23 23:46 G	18245078.42	18245078.49	18245078.57	0.0518	0.0419
Mercury	45241-06-21 03:36 G	18245167.54	18245167.65	18245167.77	0.0517	0.0176
Moon	45243-12-26 07:55 G	18246085.79	18246085.83	18246085.88	0.0499	0.0488
Venus	45244-06-04 11:02 G	18246246.76	18246246.96	18246247.17	0.0498	0.0009
Mercury	45247-08-12 21:22 G	18247411.23	18247411.39	18247411.56	0.0509	0.0233
Moon	45249-06-06 06:14 G	18248074.55	18248074.76	18248074.98	0.0523	0.0214
Earth	45249-06-06 10:19 G	18248074.71	18248074.93	18248075.14	0.0523	0.0205 *
Venus	45250-04-06 04:48 G	18248378.56	18248378.70	18248378.84	0.0527	0.0373
Mercury	45253-04-09 08:24 G	18249477.73	18249477.85	18249477.98	0.0517	0.0029
Earth	45254-11-27 23:02 G	18250075.44	18250075.46	18250075.49	0.0504	0.0501
Venus	45256-02-08 12:43 G	18250512.89	18250513.03	18250513.17	0.0498	0.0349
Mercury	45259-05-31 16:19 G	18251720.99	18251721.18	18251721.37	0.0508	0.0005
Earth	45261-06-11 02:38 G	18252462.38	18252462.61	18252462.84	0.0524	0.0025
Moon	45261-06-11 06:00 G	18252462.53	18252462.75	18252462.98	0.0524	0.0059 *
Mars	45264-12-10 12:58 G	18253740.99	18253741.04	18253741.11	0.0519	0.0501
Mercury	45265-01-26 13:12 G	18253787.93	18253788.05	18253788.17	0.0518	0.0120
Mercury	45265-04-25 17:02 G	18253877.16	18253877.21	18253877.26	0.0516	0.0471
Earth	45266-12-02 14:53 G	18254462.95	18254463.12	18254463.30	0.0503	0.0335

Moon	45266-12-02 16:48 G	18254463.04	18254463.20	18254463.38	0.0503	0.0362	*
Mercury	45271-03-19 12:00 G	18256030.83	18256031.00	18256031.17	0.0508	0.0225	
Moon	45273-06-15 22:19 G	18256850.20	18256850.43	18256850.66	0.0525	0.0162	
Earth	45273-06-16 00:29 G	18256850.30	18256850.52	18256850.74	0.0525	0.0165	*
Venus	45274-04-09 03:22 G	18257147.48	18257147.64	18257147.81	0.0528	0.0292	
Mercury	45276-11-14 17:31 G	18258098.13	18258098.23	18258098.34	0.0518	0.0273	
Mercury	45277-02-11 21:22 G	18258187.30	18258187.39	18258187.49	0.0516	0.0319	
Moon	45278-12-06 22:19 G	18258850.22	18258850.43	18258850.65	0.0502	0.0172	
Earth	45278-12-07 01:41 G	18258850.35	18258850.57	18258850.79	0.0502	0.0177	*
Venus	45280-02-10 19:55 G	18259281.14	18259281.33	18259281.51	0.0498	0.0200	
Mercury	45283-01-05 07:41 G	18260340.74	18260340.82	18260340.91	0.0508	0.0447	
Mercury	45283-04-05 22:34 G	18260431.35	18260431.44	18260431.54	0.0510	0.0441	
Earth	45285-06-21 00:14 G	18261238.34	18261238.51	18261238.68	0.0526	0.0355	
Moon	45285-06-21 00:00 G	18261238.35	18261238.50	18261238.65	0.0526	0.0386	*
Venus	45285-12-12 20:24 G	18261413.15	18261413.35	18261413.54	0.0528	0.0129	
Mercury	45288-09-02 22:19 G	18262408.36	18262408.43	18262408.50	0.0518	0.0421	
Mercury	45288-12-01 02:10 G	18262497.47	18262497.59	18262497.71	0.0516	0.0171	
Earth	45290-12-11 15:07 G	18263237.90	18263238.13	18263238.37	0.0501	0.0014	
Moon	45290-12-11 19:12 G	18263238.07	18263238.30	18263238.54	0.0501	0.0024	*
Venus	45291-10-16 20:38 G	18263547.17	18263547.36	18263547.56	0.0498	0.0155	
Mercury	45295-01-22 18:29 G	18264741.11	18264741.27	18264741.45	0.0509	0.0222	
Mercury	45300-09-20 06:29 G	18266807.65	18266807.77	18266807.90	0.0517	0.0019	
Moon	45302-12-17 00:43 G	18267625.31	18267625.53	18267625.76	0.0501	0.0161	
Earth	45302-12-17 04:48 G	18267625.47	18267625.70	18267625.92	0.0501	0.0152	*
Mercury	45306-11-11 14:24 G	18269050.91	18269051.10	18269051.29	0.0508	0.0006	
Mercury	45312-07-09 11:17 G	18271117.85	18271117.97	18271118.09	0.0518	0.0131	
Mercury	45312-10-06 14:53 G	18271207.07	18271207.12	18271207.18	0.0516	0.0459	
Earth	45314-12-21 19:55 G	18272013.15	18272013.33	18272013.51	0.0500	0.0318	
Moon	45314-12-21 22:34 G	18272013.25	18272013.44	18272013.62	0.0500	0.0291	*
Venus	45315-10-20 07:12 G	18272315.69	18272315.80	18272315.92	0.0497	0.0409	

Mars	45318-06-29 04:48 G	18273298.48	18273298.70	18273298.94	0.0506	0.0325
Mercury	45318-08-30 09:22 G	18273360.73	18273360.89	18273361.06	0.0507	0.0232
Moon	45320-06-01 07:41 G	18274001.67	18274001.82	18274001.97	0.0522	0.0396
Earth	45320-06-01 11:17 G	18274001.85	18274001.97	18274002.11	0.0522	0.0426 *
Venus	45321-08-21 08:24 G	18274447.65	18274447.85	18274448.05	0.0528	0.0101
Mercury	45324-04-27 15:50 G	18275428.06	18275428.16	18275428.27	0.0519	0.0279
Mercury	45324-07-25 19:41 G	18275517.23	18275517.32	18275517.42	0.0517	0.0315
Moon	45326-12-26 08:38 G	18276400.79	18276400.86	18276400.95	0.0499	0.0471
Earth	45326-12-26 09:36 G	18276400.84	18276400.90	18276400.96	0.0499	0.0479 *
Venus	45327-06-25 08:38 G	18276581.65	18276581.86	18276582.06	0.0498	0.0058
Mercury	45330-06-18 05:17 G	18277670.64	18277670.72	18277670.80	0.0507	0.0452
Mercury	45330-09-16 19:55 G	18277761.24	18277761.33	18277761.43	0.0509	0.0433
Earth	45332-06-06 07:55 G	18278389.63	18278389.83	18278390.03	0.0523	0.0241
Moon	45332-06-06 11:31 G	18278389.78	18278389.98	18278390.18	0.0523	0.0252 *
Venus	45333-04-26 00:58 G	18278713.38	18278713.54	18278713.70	0.0528	0.0321
Mercury	45336-02-14 20:38 G	18279738.29	18279738.36	18279738.42	0.0519	0.0430
Mercury	45336-05-14 00:29 G	18279827.40	18279827.52	18279827.64	0.0517	0.0164
Venus	45339-02-28 06:58 G	18280847.63	18280847.79	18280847.95	0.0498	0.0307
Mercury	45342-07-05 15:36 G	18282070.98	18282071.15	18282071.33	0.0509	0.0209
Moon	45344-06-11 04:05 G	18282777.44	18282777.67	18282777.91	0.0524	0.0086
Earth	45344-06-11 06:58 G	18282777.56	18282777.79	18282778.02	0.0524	0.0053 *
Mercury	45348-03-02 05:17 G	18284137.59	18284137.72	18284137.84	0.0517	0.0025
Moon	45349-12-02 09:22 G	18284777.76	18284777.89	18284778.03	0.0503	0.0401
Earth	45349-12-02 12:29 G	18284777.87	18284778.02	18284778.18	0.0503	0.0372 *
Mercury	45354-04-23 11:46 G	18286380.80	18286380.99	18286381.18	0.0509	0.0013
Earth	45356-06-16 04:05 G	18287165.44	18287165.67	18287165.89	0.0525	0.0135
Moon	45356-06-16 04:34 G	18287165.47	18287165.69	18287165.90	0.0525	0.0140 *
Venus	45357-04-29 02:10 G	18287482.45	18287482.59	18287482.74	0.0528	0.0358
Mercury	45359-12-20 09:36 G	18288447.78	18288447.90	18288448.02	0.0517	0.0136
Mercury	45360-03-18 13:12 G	18288537.00	18288537.05	18288537.11	0.0516	0.0454

Earth	45361-12-07 02:53 G	18289165.40	18289165.62	18289165.83	0.0503	0.0207
Moon	45361-12-07 06:58 G	18289165.57	18289165.79	18289166.01	0.0503	0.0198 *
Venus	45363-03-02 17:02 G	18289616.03	18289616.21	18289616.38	0.0498	0.0254
Mercury	45366-02-09 07:41 G	18290690.66	18290690.82	18290690.99	0.0508	0.0228
Earth	45368-06-21 00:00 G	18291553.32	18291553.50	18291553.69	0.0525	0.0323
Moon	45368-06-21 02:10 G	18291553.41	18291553.59	18291553.77	0.0525	0.0351 *
Venus	45369-01-01 17:17 G	18291748.02	18291748.22	18291748.42	0.0527	0.0071
Mercury	45371-10-08 14:10 G	18292757.99	18292758.09	18292758.20	0.0518	0.0285
Mercury	45372-01-05 18:00 G	18292847.15	18292847.25	18292847.35	0.0516	0.0308
Moon	45373-12-11 15:07 G	18293552.89	18293553.13	18293553.37	0.0502	0.0006
Earth	45373-12-11 19:12 G	18293553.06	18293553.30	18293553.53	0.0502	0.0038 *
Venus	45374-11-05 19:12 G	18293882.10	18293882.30	18293882.50	0.0498	0.0095
Mercury	45377-11-28 03:07 G	18295000.55	18295000.63	18295000.72	0.0507	0.0453
Mercury	45378-02-26 18:00 G	18295091.15	18295091.25	18295091.35	0.0509	0.0432
Moon	45380-06-25 15:22 G	18295941.08	18295941.14	18295941.21	0.0526	0.0501
Earth	45380-06-25 18:43 G	18295941.23	18295941.28	18295941.35	0.0526	0.0507
Venus	45380-09-06 07:12 G	18296013.75	18296013.80	18296013.86	0.0527	0.0502
Mars	45383-06-02 19:41 G	18297013.12	18297013.32	18297013.53	0.0520	0.0308
Mercury	45383-07-27 18:58 G	18297068.22	18297068.29	18297068.36	0.0519	0.0433
Mercury	45383-10-24 22:48 G	18297157.33	18297157.45	18297157.57	0.0517	0.0163
Earth	45385-12-16 10:05 G	18297940.69	18297940.92	18297941.15	0.0501	0.0131
Moon	45385-12-16 12:58 G	18297940.82	18297941.04	18297941.26	0.0501	0.0133 *
Venus	45386-07-11 20:24 G	18298148.26	18298148.35	18298148.44	0.0499	0.0446
Mercury	45389-12-15 13:41 G	18299400.90	18299401.07	18299401.24	0.0509	0.0211
Mercury	45395-08-13 03:36 G	18301467.52	18301467.65	18301467.78	0.0517	0.0014
Moon	45397-12-20 19:12 G	18302328.09	18302328.30	18302328.51	0.0500	0.0258
Earth	45397-12-20 20:24 G	18302328.16	18302328.35	18302328.54	0.0500	0.0288 *
Venus	45398-11-08 02:38 G	18302650.53	18302650.61	18302650.69	0.0497	0.0454
Mercury	45401-10-04 09:22 G	18303710.70	18303710.89	18303711.07	0.0509	0.0020
Earth	45403-06-02 17:31 G	18304317.12	18304317.23	18304317.34	0.0522	0.0453

Moon	45403-06-02 21:07 G	18304317.25	18304317.38	18304317.52	0.0522	0.0424 *
Venus	45404-09-10 10:05 G	18304782.73	18304782.92	18304783.11	0.0528	0.0182
Mercury	45407-06-02 08:24 G	18305777.73	18305777.85	18305777.97	0.0517	0.0130
Mercury	45407-08-30 12:14 G	18305866.95	18305867.01	18305867.06	0.0515	0.0458
Moon	45409-12-26 08:53 G	18306715.78	18306715.87	18306715.98	0.0499	0.0448
Earth	45409-12-26 09:36 G	18306715.81	18306715.90	18306716.01	0.0499	0.0451 *
Venus	45410-07-15 04:05 G	18306916.47	18306916.67	18306916.87	0.0498	0.0104
Mercury	45413-07-23 05:31 G	18308020.56	18308020.73	18308020.90	0.0508	0.0230
Moon	45415-06-07 11:31 G	18308704.79	18308704.98	18308705.19	0.0523	0.0279
Earth	45415-06-07 14:38 G	18308704.92	18308705.11	18308705.31	0.0523	0.0269 *
Venus	45416-05-16 01:55 G	18309048.40	18309048.58	18309048.76	0.0527	0.0242
Mercury	45419-03-21 12:58 G	18310087.93	18310088.04	18310088.14	0.0518	0.0282
Mercury	45419-06-18 16:48 G	18310177.10	18310177.20	18310177.30	0.0516	0.0309
Venus	45422-03-20 05:17 G	18311182.55	18311182.72	18311182.90	0.0498	0.0247
Mercury	45425-05-11 01:41 G	18312330.49	18312330.57	18312330.66	0.0508	0.0445
Mercury	45425-08-09 16:34 G	18312421.10	18312421.19	18312421.28	0.0510	0.0443
Earth	45427-06-12 10:34 G	18313092.71	18313092.94	18313093.17	0.0524	0.0081
Moon	45427-06-12 11:46 G	18313092.77	18313092.99	18313093.20	0.0524	0.0110 *
Mercury	45431-01-07 17:31 G	18314398.17	18314398.23	18314398.30	0.0519	0.0432
Mercury	45431-04-06 21:22 G	18314487.28	18314487.39	18314487.51	0.0517	0.0163
Earth	45432-12-02 17:31 G	18315093.09	18315093.23	18315093.38	0.0504	0.0397
Moon	45432-12-02 21:36 G	18315093.28	18315093.40	18315093.53	0.0504	0.0425 *
Mercury	45437-05-28 12:14 G	18316730.84	18316731.01	18316731.18	0.0509	0.0217
Earth	45439-06-17 05:02 G	18317480.48	18317480.71	18317480.93	0.0524	0.0104
Moon	45439-06-17 06:14 G	18317480.53	18317480.76	18317481.00	0.0524	0.0116 *
Venus	45440-05-19 00:00 G	18317817.38	18317817.50	18317817.63	0.0528	0.0418
Mercury	45443-01-24 02:10 G	18318797.47	18318797.59	18318797.72	0.0517	0.0026
Moon	45444-12-07 06:14 G	18319480.55	18319480.76	18319480.97	0.0503	0.0221
Earth	45444-12-07 10:05 G	18319480.72	18319480.92	18319481.14	0.0503	0.0228 *
Venus	45446-03-22 16:48 G	18319951.05	18319951.20	18319951.36	0.0498	0.0321

Mercury	45449-03-16 08:10 G	18321040.65	18321040.84	18321041.03	0.0508	0.0007
Moon	45451-06-22 00:14 G	18321868.34	18321868.51	18321868.69	0.0525	0.0327
Earth	45451-06-22 03:22 G	18321868.46	18321868.64	18321868.84	0.0525	0.0297 *
Venus	45452-01-22 16:48 G	18322083.00	18322083.20	18322083.41	0.0528	0.0009
Mercury	45454-11-12 07:12 G	18323107.68	18323107.80	18323107.92	0.0518	0.0130
Mercury	45455-02-09 10:48 G	18323196.90	18323196.95	18323197.01	0.0515	0.0460
Earth	45456-12-11 22:19 G	18323868.20	18323868.43	18323868.67	0.0502	0.0067
Moon	45456-12-12 01:26 G	18323868.33	18323868.56	18323868.79	0.0502	0.0037 *
Venus	45457-11-25 16:05 G	18324216.96	18324217.17	18324217.37	0.0498	0.0040
Mercury	45461-01-02 03:22 G	18325350.48	18325350.64	18325350.81	0.0508	0.0232
Earth	45463-06-27 04:05 G	18326256.59	18326256.67	18326256.76	0.0526	0.0489
Moon	45463-06-27 08:10 G	18326256.75	18326256.84	18326256.94	0.0526	0.0479 *
Venus	45463-09-27 10:34 G	18326348.81	18326348.94	18326349.06	0.0527	0.0413
Mercury	45466-08-31 12:00 G	18327417.90	18327418.00	18327418.11	0.0518	0.0272
Mercury	45466-11-28 15:50 G	18327507.06	18327507.16	18327507.26	0.0516	0.0319
Moon	45468-12-16 11:46 G	18328255.75	18328255.99	18328256.23	0.0501	0.0097
Earth	45468-12-16 13:12 G	18328255.82	18328256.05	18328256.28	0.0501	0.0103 *
Venus	45469-07-31 17:17 G	18328483.10	18328483.22	18328483.35	0.0498	0.0390
Mercury	45472-10-21 00:00 G	18329660.41	18329660.50	18329660.59	0.0508	0.0443
Mercury	45473-01-19 14:53 G	18329751.03	18329751.12	18329751.21	0.0510	0.0447
Mercury	45478-06-19 16:34 G	18331728.12	18331728.19	18331728.26	0.0518	0.0423
Mercury	45478-09-16 20:24 G	18331817.23	18331817.35	18331817.47	0.0516	0.0170
Moon	45480-12-21 02:38 G	18332643.42	18332643.61	18332643.81	0.0500	0.0239
Earth	45480-12-21 03:22 G	18332643.44	18332643.64	18332643.83	0.0500	0.0269 *
Mercury	45484-11-07 11:02 G	18334060.80	18334060.96	18334061.13	0.0509	0.0232
Moon	45486-06-01 21:50 G	18334632.29	18334632.41	18334632.53	0.0521	0.0447
Earth	45486-06-02 01:12 G	18334632.46	18334632.55	18334632.64	0.0521	0.0477 *
Venus	45487-09-30 10:48 G	18335117.78	18335117.95	18335118.13	0.0528	0.0258
Mercury	45490-07-06 01:12 G	18336127.42	18336127.55	18336127.68	0.0517	0.0023
Earth	45492-12-25 18:29 G	18337031.17	18337031.27	18337031.39	0.0500	0.0436

Moon	45492-12-25 20:38 G	18337031.25	18337031.36	18337031.48	0.0500	0.0433	*
Venus	45493-08-03 05:02 G	18337251.52	18337251.71	18337251.90	0.0498	0.0177	
Mercury	45496-08-26 06:58 G	18338370.60	18338370.79	18338370.98	0.0508	0.0010	
Earth	45498-06-06 18:58 G	18339020.11	18339020.29	18339020.49	0.0522	0.0297	
Moon	45498-06-06 20:38 G	18339020.19	18339020.36	18339020.54	0.0522	0.0310	*
Venus	45499-06-05 01:26 G	18339383.37	18339383.56	18339383.76	0.0527	0.0172	
Mercury	45502-04-25 06:00 G	18340437.63	18340437.75	18340437.87	0.0518	0.0123	
Mercury	45502-07-23 09:50 G	18340526.86	18340526.91	18340526.96	0.0516	0.0467	
Venus	45505-04-09 06:58 G	18341517.60	18341517.79	18341517.98	0.0498	0.0172	
Mercury	45508-06-15 02:53 G	18342680.45	18342680.62	18342680.80	0.0508	0.0210	
Earth	45510-06-12 16:34 G	18343407.97	18343408.19	18343408.42	0.0523	0.0106	
Moon	45510-06-12 17:31 G	18343408.00	18343408.23	18343408.46	0.0523	0.0130	*
Mercury	45514-02-11 11:02 G	18344747.85	18344747.96	18344748.06	0.0518	0.0267	
Mercury	45514-05-11 14:38 G	18344837.02	18344837.11	18344837.21	0.0516	0.0325	
Moon	45515-12-03 20:10 G	18345408.25	18345408.34	18345408.45	0.0504	0.0454	
Earth	45515-12-04 00:14 G	18345408.39	18345408.51	18345408.64	0.0504	0.0424	*
Mercury	45520-04-02 22:05 G	18346990.33	18346990.42	18346990.52	0.0508	0.0440	
Mercury	45520-07-02 12:58 G	18347080.96	18347081.04	18347081.13	0.0510	0.0451	
Moon	45522-06-17 12:43 G	18347795.81	18347796.03	18347796.26	0.0525	0.0104	
Earth	45522-06-17 15:50 G	18347795.93	18347796.16	18347796.38	0.0525	0.0085	*
Venus	45523-06-09 05:02 G	18348152.67	18348152.71	18348152.75	0.0528	0.0515	
Mercury	45525-11-30 15:50 G	18349058.09	18349058.16	18349058.24	0.0518	0.0408	
Mercury	45526-02-27 19:41 G	18349147.21	18349147.32	18349147.44	0.0516	0.0186	
Earth	45527-12-08 16:19 G	18349795.98	18349796.18	18349796.39	0.0503	0.0254	
Moon	45527-12-08 19:41 G	18349796.12	18349796.32	18349796.52	0.0503	0.0242	*
Venus	45529-04-11 15:22 G	18350286.01	18350286.14	18350286.27	0.0497	0.0380	
Mercury	45532-04-20 09:36 G	18351390.74	18351390.90	18351391.07	0.0510	0.0238	
Earth	45534-06-22 14:53 G	18352183.93	18352184.12	18352184.32	0.0525	0.0278	
Moon	45534-06-22 18:58 G	18352184.10	18352184.29	18352184.48	0.0526	0.0308	*
Venus	45535-02-11 21:22 G	18352418.19	18352418.39	18352418.59	0.0528	0.0096	

Mars	45537-08-29 06:58 G	18353347.54	18353347.79	18353348.04	0.0519	0.0104
Mercury	45537-12-17 00:29 G	18353457.39	18353457.52	18353457.64	0.0517	0.0040
Moon	45539-12-13 05:46 G	18354183.50	18354183.74	18354183.98	0.0502	0.0059
Earth	45539-12-13 07:12 G	18354183.57	18354183.80	18354184.04	0.0502	0.0085 *
Venus	45540-12-15 17:17 G	18354552.02	18354552.22	18354552.42	0.0498	0.0034
Mercury	45544-02-07 06:00 G	18355700.57	18355700.75	18355700.94	0.0509	0.0029
Moon	45546-06-27 09:07 G	18356571.78	18356571.88	18356572.00	0.0526	0.0459
Earth	45546-06-27 13:12 G	18356571.95	18356572.05	18356572.15	0.0526	0.0470 *
Venus	45546-10-17 13:12 G	18356683.89	18356684.05	18356684.21	0.0527	0.0326
Mercury	45549-10-05 05:02 G	18357767.59	18357767.71	18357767.84	0.0517	0.0112
Mercury	45550-01-02 08:53 G	18357856.82	18357856.87	18357856.91	0.0515	0.0477
Moon	45551-12-17 22:48 G	18358571.23	18358571.45	18358571.68	0.0501	0.0075
Earth	45551-12-17 23:17 G	18358571.24	18358571.47	18358571.71	0.0501	0.0087 *
Venus	45552-08-20 19:26 G	18358818.15	18358818.31	18358818.47	0.0499	0.0313
Mercury	45555-11-26 02:10 G	18360010.42	18360010.59	18360010.76	0.0508	0.0193
Mercury	45561-07-24 09:50 G	18362077.81	18362077.91	18362078.02	0.0518	0.0258
Mercury	45561-10-21 13:41 G	18362166.98	18362167.07	18362167.17	0.0516	0.0334
Earth	45563-12-22 15:07 G	18362958.93	18362959.13	18362959.33	0.0501	0.0257
Moon	45563-12-22 17:02 G	18362959.00	18362959.21	18362959.43	0.0501	0.0226 *
Mercury	45567-09-13 22:05 G	18364320.32	18364320.42	18364320.54	0.0508	0.0410
Mercury	45567-12-13 12:58 G	18364410.99	18364411.04	18364411.11	0.0510	0.0479
Earth	45569-06-02 09:07 G	18364947.83	18364947.88	18364947.95	0.0521	0.0501
Moon	45569-06-02 11:02 G	18364947.88	18364947.96	18364948.05	0.0521	0.0477 *
Venus	45570-10-20 13:26 G	18365452.91	18365453.06	18365453.22	0.0528	0.0342
Mercury	45573-05-12 14:53 G	18366388.05	18366388.12	18366388.20	0.0518	0.0400
Mercury	45573-08-09 18:43 G	18366477.17	18366477.28	18366477.40	0.0516	0.0194
Moon	45575-12-26 23:46 G	18367346.37	18367346.49	18367346.62	0.0499	0.0417
Earth	45575-12-27 02:53 G	18367346.49	18367346.62	18367346.75	0.0499	0.0414 *
Venus	45576-08-23 04:34 G	18367586.52	18367586.69	18367586.87	0.0497	0.0243
Mercury	45579-10-01 08:10 G	18368720.68	18368720.84	18368721.01	0.0510	0.0246

Earth	45581-06-07 06:14 G	18369335.58	18369335.76	18369335.95	0.0523	0.0317
Moon	45581-06-07 06:43 G	18369335.60	18369335.78	18369335.97	0.0523	0.0337 *
Venus	45582-06-25 07:12 G	18369718.60	18369718.80	18369719.00	0.0528	0.0070
Mercury	45585-05-29 00:00 G	18370787.37	18370787.50	18370787.62	0.0517	0.0056
Venus	45588-04-28 06:43 G	18371852.58	18371852.78	18371852.98	0.0498	0.0104
Mars	45591-03-14 02:38 G	18372902.32	18372902.61	18372902.90	0.0506	0.0127
Mercury	45591-07-20 04:48 G	18373030.51	18373030.70	18373030.89	0.0509	0.0035
Moon	45593-06-12 02:38 G	18373723.40	18373723.61	18373723.83	0.0524	0.0146
Earth	45593-06-12 05:17 G	18373723.50	18373723.72	18373723.95	0.0524	0.0126 *
Venus	45594-02-27 23:46 G	18373984.42	18373984.49	18373984.57	0.0527	0.0485
Mercury	45597-03-17 04:34 G	18375097.57	18375097.69	18375097.81	0.0517	0.0094
Mercury	45597-06-14 08:10 G	18375186.81	18375186.84	18375186.88	0.0515	0.0493
Earth	45598-12-03 10:48 G	18375723.84	18375723.95	18375724.07	0.0504	0.0441
Moon	45598-12-03 14:10 G	18375724.01	18375724.09	18375724.18	0.0504	0.0465 *
Venus	45600-01-02 08:10 G	18376118.76	18376118.84	18376118.93	0.0499	0.0452
Mercury	45603-05-08 01:26 G	18377340.38	18377340.56	18377340.73	0.0509	0.0175
Earth	45605-06-17 03:07 G	18378111.40	18378111.63	18378111.86	0.0524	0.0068
Moon	45605-06-17 07:12 G	18378111.56	18378111.80	18378112.02	0.0524	0.0094 *
Mercury	45609-01-03 09:22 G	18379407.78	18379407.89	18379408.00	0.0518	0.0242
Mercury	45609-04-02 12:58 G	18379496.95	18379497.04	18379497.14	0.0516	0.0349
Moon	45610-12-08 01:41 G	18380111.37	18380111.57	18380111.79	0.0503	0.0252
Earth	45610-12-08 03:36 G	18380111.45	18380111.65	18380111.85	0.0503	0.0270 *
Venus	45612-04-30 18:14 G	18380621.19	18380621.26	18380621.34	0.0498	0.0461
Mercury	45615-02-23 21:36 G	18381650.28	18381650.40	18381650.52	0.0508	0.0391
Mercury	45615-05-25 12:29 G	18381740.99	18381741.02	18381741.06	0.0510	0.0499
Moon	45617-06-21 19:26 G	18382499.11	18382499.31	18382499.50	0.0525	0.0286
Earth	45617-06-21 23:17 G	18382499.27	18382499.47	18382499.67	0.0525	0.0257 *
Venus	45618-03-02 23:31 G	18382753.29	18382753.48	18382753.67	0.0528	0.0178
Mercury	45620-10-22 13:55 G	18383718.00	18383718.08	18383718.17	0.0518	0.0390
Mercury	45621-01-19 17:46 G	18383807.13	18383807.24	18383807.36	0.0517	0.0206

Moon	45622-12-12 19:41 G	18384499.10	18384499.32	18384499.55	0.0502	0.0076
Earth	45622-12-12 20:10 G	18384499.11	18384499.34	18384499.57	0.0502	0.0098 *
Venus	45624-01-04 20:38 G	18384887.16	18384887.36	18384887.56	0.0498	0.0116
Mercury	45627-03-13 08:24 G	18386050.70	18386050.85	18386051.01	0.0509	0.0280
Earth	45629-06-26 22:19 G	18386887.32	18386887.43	18386887.55	0.0526	0.0453
Moon	45629-06-27 00:58 G	18386887.42	18386887.54	18386887.67	0.0526	0.0436 *
Venus	45629-11-05 16:19 G	18387019.01	18387019.18	18387019.37	0.0528	0.0238
Mercury	45632-11-07 23:02 G	18388117.34	18388117.46	18388117.59	0.0517	0.0065
Earth	45634-12-17 10:05 G	18388886.68	18388886.92	18388887.15	0.0501	0.0068
Moon	45634-12-17 12:00 G	18388886.76	18388887.00	18388887.24	0.0501	0.0050 *
Venus	45635-09-09 20:24 G	18389153.17	18389153.35	18389153.53	0.0498	0.0238
Mercury	45638-12-30 03:22 G	18390360.45	18390360.64	18390360.83	0.0509	0.0044
Mercury	45644-08-27 04:05 G	18392427.55	18392427.67	18392427.80	0.0517	0.0075
Mercury	45644-11-24 07:55 G	18392516.82	18392516.83	18392516.83	0.0515	0.0514
Moon	45646-12-21 22:05 G	18393274.22	18393274.42	18393274.63	0.0500	0.0210
Earth	45646-12-22 01:12 G	18393274.35	18393274.55	18393274.76	0.0500	0.0238 *
Mercury	45650-10-18 00:00 G	18394670.32	18394670.50	18394670.68	0.0509	0.0166
Moon	45652-06-01 21:50 G	18395263.36	18395263.41	18395263.48	0.0522	0.0504
Earth	45652-06-01 21:36 G	18395263.40	18395263.40	18395263.43	0.0522	0.0521 *
Venus	45653-11-08 19:26 G	18395788.21	18395788.31	18395788.42	0.0528	0.0445
Mercury	45656-06-15 08:53 G	18396737.75	18396737.87	18396737.98	0.0517	0.0223
Mercury	45656-09-12 12:29 G	18396826.93	18396827.02	18396827.11	0.0515	0.0367
Earth	45658-12-26 15:07 G	18397661.99	18397662.13	18397662.26	0.0500	0.0403
Moon	45658-12-26 18:43 G	18397662.16	18397662.28	18397662.41	0.0500	0.0416 *
Venus	45659-09-12 07:26 G	18397921.66	18397921.81	18397921.97	0.0498	0.0323
Mercury	45662-08-05 20:38 G	18398980.24	18398980.36	18398980.49	0.0508	0.0374
Moon	45664-06-06 17:02 G	18399651.05	18399651.21	18399651.37	0.0523	0.0361
Earth	45664-06-06 19:26 G	18399651.13	18399651.31	18399651.49	0.0523	0.0332 *
Venus	45665-07-14 11:31 G	18400053.78	18400053.98	18400054.19	0.0528	0.0025
Mercury	45668-04-03 13:26 G	18401047.98	18401048.06	18401048.15	0.0518	0.0370

Mercury	45668-07-01 17:17 G	18401137.11	18401137.22	18401137.33	0.0516	0.0222
Venus	45671-05-18 09:50 G	18402187.71	18402187.91	18402188.12	0.0498	0.0022
Mercury	45674-08-23 07:55 G	18403380.68	18403380.83	18403380.98	0.0509	0.0300
Earth	45676-06-11 14:53 G	18404038.90	18404039.12	18404039.35	0.0523	0.0146
Moon	45676-06-11 18:43 G	18404039.06	18404039.28	18404039.51	0.0523	0.0162 *
Venus	45677-03-19 02:24 G	18404319.48	18404319.60	18404319.74	0.0527	0.0399
Mercury	45680-04-19 22:05 G	18405447.30	18405447.42	18405447.55	0.0517	0.0076
Moon	45681-12-02 22:05 G	18406039.34	18406039.42	18406039.50	0.0504	0.0471
Earth	45681-12-02 23:46 G	18406039.40	18406039.49	18406039.59	0.0504	0.0457 *
Venus	45683-01-21 11:46 G	18406453.86	18406453.99	18406454.13	0.0499	0.0367
Mercury	45686-06-11 03:50 G	18407690.48	18407690.66	18407690.85	0.0509	0.0081
Moon	45688-06-16 08:53 G	18408426.64	18408426.87	18408427.10	0.0524	0.0072
Earth	45688-06-16 12:58 G	18408426.81	18408427.04	18408427.27	0.0524	0.0049 *
Mercury	45692-02-07 03:22 G	18409757.51	18409757.64	18409757.76	0.0517	0.0065
Moon	45693-12-07 15:36 G	18410426.96	18410427.15	18410427.34	0.0503	0.0263
Earth	45693-12-07 15:50 G	18410426.97	18410427.16	18410427.36	0.0503	0.0288 *
Mercury	45698-03-29 22:34 G	18412000.26	18412000.44	18412000.62	0.0509	0.0157
Earth	45700-06-22 10:48 G	18412814.75	18412814.95	18412815.16	0.0526	0.0240
Moon	45700-06-22 13:41 G	18412814.88	18412815.07	18412815.27	0.0526	0.0262 *
Venus	45701-03-23 05:02 G	18413088.54	18413088.71	18413088.89	0.0529	0.0280
Mercury	45703-11-27 08:24 G	18414067.74	18414067.85	18414067.97	0.0517	0.0201
Mercury	45704-02-24 12:00 G	18414156.93	18414157.00	18414157.09	0.0515	0.0389
Earth	45705-12-13 07:55 G	18414814.60	18414814.83	18414815.06	0.0502	0.0115
Moon	45705-12-13 09:50 G	18414814.68	18414814.91	18414815.16	0.0502	0.0096 *
Venus	45707-01-24 21:22 G	18415222.21	18415222.39	18415222.58	0.0497	0.0189
Mercury	45710-01-16 19:12 G	18416310.17	18416310.30	18416310.43	0.0508	0.0367
Moon	45712-06-27 10:05 G	18417202.78	18417202.92	18417203.08	0.0527	0.0412
Earth	45712-06-27 11:02 G	18417202.84	18417202.96	18417203.09	0.0527	0.0439 *
Venus	45712-11-25 22:05 G	18417354.22	18417354.42	18417354.61	0.0528	0.0137
Mercury	45715-09-15 12:58 G	18418377.95	18418378.04	18418378.13	0.0518	0.0351

Mercury	45715-12-13 16:48 G	18418467.09	18418467.20	18418467.31	0.0516	0.0240
Moon	45717-12-17 18:58 G	18419202.06	18419202.29	18419202.52	0.0501	0.0036
Earth	45717-12-17 22:05 G	18419202.19	18419202.42	18419202.65	0.0501	0.0055 *
Venus	45718-09-29 23:17 G	18419488.27	18419488.47	18419488.66	0.0498	0.0158
Mercury	45722-02-03 06:58 G	18420710.64	18420710.79	18420710.94	0.0510	0.0316
Mercury	45727-07-04 17:31 G	18422688.21	18422688.23	18422688.27	0.0518	0.0501
Mercury	45727-10-01 21:36 G	18422777.27	18422777.40	18422777.52	0.0516	0.0094
Earth	45729-12-22 12:43 G	18423589.83	18423590.03	18423590.25	0.0500	0.0226
Moon	45729-12-22 16:34 G	18423589.98	18423590.19	18423590.41	0.0500	0.0204 *
Mercury	45733-11-22 03:07 G	18425020.45	18425020.63	18425020.82	0.0509	0.0099
Venus	45736-11-28 22:05 G	18426123.42	18426123.42	18426123.42	0.0528	0.0528
Mercury	45739-07-21 02:24 G	18427087.47	18427087.60	18427087.72	0.0517	0.0056
Moon	45741-12-27 00:43 G	18427977.40	18427977.53	18427977.67	0.0500	0.0411
Earth	45741-12-27 04:05 G	18427977.54	18427977.67	18427977.82	0.0500	0.0393 *
Venus	45742-10-02 10:48 G	18428256.83	18428256.95	18428257.07	0.0498	0.0404
Mars	45745-06-09 10:05 G	18429237.77	18429237.92	18429238.07	0.0506	0.0436
Mercury	45745-09-09 23:02 G	18429330.28	18429330.46	18429330.65	0.0508	0.0121
Earth	45747-06-08 04:19 G	18429966.51	18429966.68	18429966.85	0.0522	0.0354
Moon	45747-06-08 08:10 G	18429966.68	18429966.84	18429966.99	0.0522	0.0386 *
Venus	45748-08-03 14:24 G	18430388.91	18430389.10	18430389.30	0.0528	0.0112
Mercury	45751-05-09 07:26 G	18431397.69	18431397.81	18431397.93	0.0518	0.0193
Mercury	45751-08-06 11:17 G	18431486.89	18431486.97	18431487.05	0.0516	0.0398
Venus	45754-06-07 11:17 G	18432522.77	18432522.97	18432523.18	0.0497	0.0055
Mercury	45757-06-28 17:46 G	18433640.11	18433640.24	18433640.37	0.0508	0.0360
Moon	45759-06-12 19:55 G	18434354.12	18434354.33	18434354.55	0.0524	0.0187
Earth	45759-06-13 00:00 G	18434354.28	18434354.50	18434354.72	0.0524	0.0169 *
Venus	45760-04-08 06:43 G	18434654.62	18434654.78	18434654.95	0.0528	0.0305
Mercury	45763-02-25 12:29 G	18435707.93	18435708.02	18435708.12	0.0518	0.0332
Mercury	45763-05-25 16:19 G	18435797.07	18435797.18	18435797.29	0.0516	0.0260
Moon	45764-12-03 12:00 G	18436354.95	18436355.00	18436355.08	0.0504	0.0481

Earth	45764-12-03 12:29 G	18436354.95	18436355.02	18436355.10	0.0504	0.0472	*
Venus	45766-02-10 13:12 G	18436788.88	18436789.05	18436789.21	0.0498	0.0291	
Mercury	45769-07-16 05:02 G	18438040.57	18438040.71	18438040.86	0.0510	0.0320	
Earth	45771-06-17 23:17 G	18438742.24	18438742.47	18438742.70	0.0525	0.0029	
Moon	45771-06-18 02:38 G	18438742.38	18438742.61	18438742.83	0.0525	0.0056	*
Mercury	45774-12-14 17:02 G	18440018.17	18440018.21	18440018.26	0.0518	0.0483	
Mercury	45775-03-13 20:53 G	18440107.25	18440107.37	18440107.50	0.0516	0.0111	
Earth	45776-12-08 02:38 G	18440742.43	18440742.61	18440742.80	0.0503	0.0304	
Moon	45776-12-08 04:34 G	18440742.49	18440742.69	18440742.90	0.0503	0.0273	*
Mercury	45781-05-04 01:41 G	18442350.39	18442350.57	18442350.76	0.0509	0.0110	
Moon	45783-06-22 21:07 G	18443130.16	18443130.38	18443130.59	0.0525	0.0237	
Earth	45783-06-22 22:19 G	18443130.23	18443130.43	18443130.64	0.0525	0.0226	*
Venus	45784-04-11 08:53 G	18443423.73	18443423.87	18443424.02	0.0528	0.0371	
Mercury	45786-12-31 01:41 G	18444417.44	18444417.57	18444417.69	0.0517	0.0038	
Moon	45788-12-12 14:53 G	18445129.90	18445130.12	18445130.35	0.0502	0.0115	
Earth	45788-12-12 18:00 G	18445130.02	18445130.25	18445130.48	0.0502	0.0132	*
Venus	45790-02-12 23:31 G	18445557.31	18445557.48	18445557.66	0.0498	0.0265	
Mercury	45793-02-19 22:05 G	18446660.23	18446660.42	18446660.60	0.0509	0.0108	
Moon	45795-06-27 18:00 G	18447518.11	18447518.25	18447518.41	0.0526	0.0388	
Earth	45795-06-27 18:43 G	18447518.15	18447518.28	18447518.43	0.0526	0.0417	*
Venus	45795-12-15 23:46 G	18447689.29	18447689.49	18447689.69	0.0528	0.0055	
Mercury	45798-10-19 06:14 G	18448727.64	18448727.76	18448727.88	0.0518	0.0187	
Mercury	45799-01-16 10:05 G	18448816.84	18448816.92	18448816.99	0.0516	0.0403	
Earth	45800-12-18 09:36 G	18449517.66	18449517.90	18449518.13	0.0501	0.0041	
Moon	45800-12-18 13:12 G	18449517.82	18449518.05	18449518.29	0.0501	0.0017	*
Venus	45801-10-20 01:41 G	18449823.37	18449823.57	18449823.77	0.0498	0.0079	
Mercury	45804-12-09 17:46 G	18450970.10	18450970.24	18450970.39	0.0508	0.0327	
Venus	45807-08-21 15:50 G	18451955.08	18451955.16	18451955.25	0.0527	0.0472	
Mars	45810-05-18 14:24 G	18452955.85	18452956.10	18452956.35	0.0520	0.0097	
Mercury	45810-08-08 11:17 G	18453037.88	18453037.97	18453038.07	0.0518	0.0327	

Mercury	45810-11-05 15:07 G	18453127.03	18453127.13	18453127.24	0.0516	0.0266
Moon	45812-12-22 20:38 G	18453905.14	18453905.36	18453905.58	0.0500	0.0190
Earth	45812-12-23 00:14 G	18453905.29	18453905.51	18453905.72	0.0500	0.0208 *
Venus	45813-06-25 02:24 G	18454089.50	18454089.60	18454089.71	0.0498	0.0427
Mercury	45816-12-27 03:07 G	18455370.49	18455370.63	18455370.78	0.0510	0.0323
Mercury	45822-05-27 16:19 G	18457348.13	18457348.18	18457348.24	0.0519	0.0468
Mercury	45822-08-24 20:24 G	18457437.22	18457437.35	18457437.47	0.0517	0.0128
Earth	45824-12-27 14:24 G	18458292.95	18458293.10	18458293.26	0.0499	0.0376
Moon	45824-12-27 16:48 G	18458293.07	18458293.20	18458293.34	0.0499	0.0402 *
Venus	45825-10-22 11:02 G	18458591.90	18458591.96	18458592.02	0.0497	0.0472
Mercury	45828-10-14 23:31 G	18459680.30	18459680.48	18459680.67	0.0509	0.0107
Moon	45830-06-08 07:55 G	18460281.69	18460281.83	18460281.97	0.0523	0.0413
Earth	45830-06-08 11:46 G	18460281.84	18460281.99	18460282.15	0.0523	0.0379 *
Venus	45831-08-24 17:31 G	18460724.05	18460724.23	18460724.42	0.0529	0.0200
Mercury	45834-06-13 00:58 G	18461747.41	18461747.54	18461747.66	0.0517	0.0030
Venus	45837-06-27 12:29 G	18462857.82	18462858.02	18462858.21	0.0497	0.0126
Mercury	45840-08-02 20:10 G	18463990.16	18463990.34	18463990.53	0.0509	0.0103
Earth	45842-06-13 10:05 G	18464669.71	18464669.92	18464670.14	0.0524	0.0186
Moon	45842-06-13 13:26 G	18464669.86	18464670.06	18464670.28	0.0524	0.0197 *
Venus	45843-04-29 09:36 G	18464989.72	18464989.90	18464990.09	0.0528	0.0219
Mercury	45846-04-01 05:31 G	18466057.61	18466057.73	18466057.85	0.0517	0.0173
Mercury	45846-06-29 09:07 G	18466146.81	18466146.88	18466146.96	0.0515	0.0416
Earth	45847-12-04 19:26 G	18466670.28	18466670.31	18466670.37	0.0504	0.0494
Moon	45847-12-04 21:36 G	18466670.36	18466670.40	18466670.45	0.0504	0.0494 *
Venus	45849-03-02 13:55 G	18467123.90	18467124.08	18467124.26	0.0498	0.0221
Mercury	45852-05-21 16:19 G	18468300.04	18468300.18	18468300.33	0.0508	0.0320
Moon	45854-06-18 04:05 G	18469057.43	18469057.67	18469057.91	0.0524	0.0033
Earth	45854-06-18 06:00 G	18469057.52	18469057.75	18469057.98	0.0524	0.0007 *
Mercury	45858-01-18 10:05 G	18470367.82	18470367.92	18470368.02	0.0518	0.0325
Mercury	45858-04-17 13:55 G	18470456.97	18470457.08	18470457.18	0.0516	0.0267

Moon	45859-12-09 08:38 G	18471057.68	18471057.86	18471058.05	0.0503	0.0295
Earth	45859-12-09 11:31 G	18471057.81	18471057.98	18471058.17	0.0503	0.0324 *
Mars	45863-11-28 04:05 G	18472507.57	18472507.67	18472507.80	0.0505	0.0466
Mercury	45864-06-08 03:07 G	18472700.49	18472700.63	18472700.77	0.0509	0.0349
Moon	45866-06-23 02:38 G	18473445.41	18473445.61	18473445.82	0.0525	0.0205
Earth	45866-06-23 02:53 G	18473445.41	18473445.62	18473445.84	0.0525	0.0198 *
Venus	45867-05-02 09:07 G	18473758.78	18473758.88	18473759.00	0.0529	0.0444
Mercury	45869-11-06 14:53 G	18474678.08	18474678.12	18474678.18	0.0519	0.0468
Mercury	45870-02-03 18:58 G	18474767.17	18474767.29	18474767.41	0.0517	0.0128
Earth	45871-12-14 03:50 G	18475445.43	18475445.66	18475445.88	0.0502	0.0151
Moon	45871-12-14 07:26 G	18475445.59	18475445.81	18475446.04	0.0502	0.0141 *
Venus	45873-03-04 23:46 G	18475892.34	18475892.49	18475892.64	0.0497	0.0333
Mercury	45876-03-26 21:22 G	18477010.21	18477010.39	18477010.58	0.0509	0.0106
Earth	45878-06-27 22:34 G	18477833.29	18477833.44	18477833.60	0.0527	0.0390
Moon	45878-06-28 00:29 G	18477833.35	18477833.52	18477833.70	0.0527	0.0357 *
Venus	45879-01-05 00:29 G	18478024.31	18478024.52	18478024.72	0.0529	0.0023
Mercury	45881-11-23 00:00 G	18479077.37	18479077.50	18479077.62	0.0517	0.0015
Moon	45883-12-18 15:36 G	18479832.91	18479833.15	18479833.39	0.0501	0.0007
Earth	45883-12-18 19:12 G	18479833.06	18479833.30	18479833.53	0.0501	0.0023 *
Venus	45884-11-08 01:41 G	18480158.36	18480158.57	18480158.77	0.0497	0.0015
Mercury	45888-01-13 17:31 G	18481320.05	18481320.23	18481320.42	0.0509	0.0111
Venus	45890-09-09 16:48 G	18482290.07	18482290.20	18482290.33	0.0528	0.0395
Mercury	45893-09-11 04:19 G	18483387.57	18483387.68	18483387.80	0.0517	0.0167
Mercury	45893-12-09 08:10 G	18483476.77	18483476.84	18483476.91	0.0515	0.0424
Earth	45895-12-23 06:58 G	18484220.57	18484220.79	18484221.01	0.0500	0.0190
Moon	45895-12-23 09:22 G	18484220.68	18484220.89	18484221.11	0.0500	0.0178 *
Venus	45896-07-14 02:10 G	18484424.45	18484424.59	18484424.73	0.0498	0.0362
Mercury	45899-11-01 13:55 G	18485629.94	18485630.08	18485630.23	0.0508	0.0323
Mercury	45905-07-01 08:53 G	18487697.78	18487697.87	18487697.97	0.0518	0.0317
Mercury	45905-09-28 12:43 G	18487786.93	18487787.03	18487787.14	0.0516	0.0276

Moon	45907-12-28 18:58 G	18488608.13	18488608.29	18488608.44	0.0500	0.0380
Earth	45907-12-28 20:10 G	18488608.18	18488608.34	18488608.51	0.0500	0.0357 *
Mercury	45911-11-20 00:58 G	18490030.41	18490030.54	18490030.68	0.0510	0.0351
Earth	45913-06-08 16:48 G	18490597.06	18490597.20	18490597.35	0.0522	0.0407
Moon	45913-06-08 20:24 G	18490597.24	18490597.35	18490597.48	0.0522	0.0439 *
Venus	45914-09-13 16:34 G	18491059.02	18491059.19	18491059.37	0.0528	0.0268
Mercury	45917-04-19 13:26 G	18492008.01	18492008.06	18492008.11	0.0519	0.0471
Mercury	45917-07-17 17:17 G	18492097.10	18492097.22	18492097.34	0.0517	0.0125
Venus	45920-07-17 12:00 G	18493192.82	18493193.00	18493193.19	0.0497	0.0192
Mercury	45923-09-07 20:38 G	18494340.18	18494340.36	18494340.55	0.0509	0.0126
Moon	45925-06-13 09:50 G	18494984.70	18494984.91	18494985.13	0.0523	0.0223
Earth	45925-06-13 12:14 G	18494984.80	18494985.01	18494985.22	0.0523	0.0219 *
Venus	45926-05-19 08:10 G	18495324.64	18495324.84	18495325.03	0.0528	0.0154
Mercury	45929-05-05 22:19 G	18496407.30	18496407.43	18496407.56	0.0517	0.0017
Venus	45932-03-22 13:12 G	18497458.86	18497459.05	18497459.25	0.0497	0.0155
Mercury	45935-06-26 14:53 G	18498649.94	18498650.12	18498650.31	0.0508	0.0118
Earth	45937-06-18 05:31 G	18499372.50	18499372.73	18499372.96	0.0525	0.0032
Moon	45937-06-18 06:00 G	18499372.52	18499372.75	18499372.97	0.0525	0.0010 *
Mercury	45941-02-22 03:07 G	18500717.52	18500717.63	18500717.75	0.0518	0.0162
Mercury	45941-05-22 06:58 G	18500806.73	18500806.79	18500806.86	0.0516	0.0430
Earth	45942-12-09 19:26 G	18501373.14	18501373.31	18501373.48	0.0503	0.0344
Moon	45942-12-09 23:02 G	18501373.28	18501373.46	18501373.65	0.0503	0.0313 *
Mercury	45947-04-14 11:02 G	18502959.82	18502959.96	18502960.10	0.0508	0.0336
Earth	45949-06-23 04:19 G	18503760.46	18503760.68	18503760.90	0.0526	0.0167
Moon	45949-06-23 05:46 G	18503760.52	18503760.74	18503760.97	0.0526	0.0172 *
Venus	45950-05-22 08:24 G	18504093.81	18504093.85	18504093.91	0.0529	0.0510
Mercury	45952-12-11 07:41 G	18505027.72	18505027.82	18505027.92	0.0518	0.0314
Mercury	45953-03-10 11:31 G	18505116.87	18505116.98	18505117.08	0.0516	0.0278
Moon	45954-12-14 03:50 G	18505760.44	18505760.66	18505760.89	0.0502	0.0172
Earth	45954-12-14 07:41 G	18505760.60	18505760.82	18505761.04	0.0502	0.0175 *

Venus	45956-03-24 21:36 G	18506227.28	18506227.40	18506227.53	0.0497	0.0389
Mercury	45959-05-01 22:19 G	18507360.29	18507360.43	18507360.57	0.0510	0.0341
Moon	45961-06-28 00:29 G	18508148.36	18508148.52	18508148.70	0.0526	0.0335
Earth	45961-06-28 03:22 G	18508148.48	18508148.64	18508148.81	0.0526	0.0367 *
Venus	45962-01-25 00:14 G	18508359.31	18508359.51	18508359.71	0.0528	0.0092
Mars	45964-08-12 16:34 G	18509289.98	18509290.19	18509290.42	0.0519	0.0264
Mercury	45964-09-29 12:14 G	18509337.96	18509338.01	18509338.06	0.0518	0.0466
Mercury	45964-12-27 16:05 G	18509427.05	18509427.17	18509427.29	0.0516	0.0128
Earth	45966-12-18 21:07 G	18510148.14	18510148.38	18510148.61	0.0501	0.0010
Moon	45966-12-18 23:46 G	18510148.26	18510148.49	18510148.72	0.0501	0.0036 *
Venus	45967-11-28 23:02 G	18510493.25	18510493.46	18510493.66	0.0497	0.0043
Mercury	45971-02-17 18:14 G	18511670.08	18511670.26	18511670.45	0.0509	0.0120
Venus	45973-09-29 14:38 G	18512624.95	18512625.11	18512625.27	0.0528	0.0333
Mercury	45976-10-15 20:38 G	18513737.23	18513737.36	18513737.48	0.0517	0.0032
Moon	45978-12-23 09:22 G	18514535.66	18514535.89	18514536.12	0.0501	0.0152
Earth	45978-12-23 10:48 G	18514535.73	18514535.95	18514536.18	0.0501	0.0165 *
Venus	45979-08-04 00:14 G	18514759.35	18514759.51	18514759.67	0.0498	0.0303
Mercury	45982-12-06 13:41 G	18515979.89	18515980.07	18515980.26	0.0508	0.0107
Mercury	45988-08-04 01:26 G	18518047.44	18518047.56	18518047.68	0.0518	0.0170
Mercury	45988-11-01 05:02 G	18518136.65	18518136.71	18518136.79	0.0516	0.0422
Earth	45990-12-28 01:41 G	18518923.40	18518923.57	18518923.75	0.0500	0.0334
Moon	45990-12-28 01:26 G	18518923.41	18518923.56	18518923.72	0.0500	0.0361 *
Mercury	45994-09-24 08:10 G	18520289.71	18520289.84	18520289.98	0.0508	0.0346
Moon	45996-06-07 10:05 G	18520911.83	18520911.92	18520912.02	0.0522	0.0478
Earth	45996-06-07 12:58 G	18520911.93	18520912.04	18520912.17	0.0522	0.0448 *
Venus	45997-10-02 12:58 G	18521393.88	18521394.04	18521394.20	0.0529	0.0321
Mercury	46000-05-23 06:14 G	18522357.66	18522357.76	18522357.86	0.0519	0.0316
Mercury	46000-08-20 10:05 G	18522446.82	18522446.92	18522447.03	0.0516	0.0278

47TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 47th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	46003-08-06 09:50	G	18523527.73	18523527.91	18523528.08	0.0497	0.0247	
Mercury	46006-10-11 18:43	G	18524690.14	18524690.28	18524690.43	0.0509	0.0322	
Earth	46008-06-12 10:05	G	18525299.72	18525299.92	18525300.13	0.0523	0.0257	
Moon	46008-06-12 11:02	G	18525299.77	18525299.96	18525300.16	0.0523	0.0255	*
Venus	46009-06-07 05:02	G	18525659.51	18525659.71	18525659.91	0.0529	0.0098	
Mercury	46012-03-11 10:34	G	18526667.89	18526667.94	18526667.99	0.0519	0.0470	
Mercury	46012-06-08 14:24	G	18526756.98	18526757.10	18526757.23	0.0517	0.0127	
Venus	46015-04-11 09:36	G	18527793.70	18527793.90	18527794.10	0.0497	0.0106	
Mars	46018-02-21 12:14	G	18528840.72	18528841.01	18528841.30	0.0506	0.0126	
Mercury	46018-07-30 15:07	G	18528999.94	18529000.13	18529000.31	0.0509	0.0105	
Earth	46020-06-17 08:38	G	18529687.63	18529687.86	18529688.09	0.0524	0.0060	
Moon	46020-06-17 09:36	G	18529687.66	18529687.90	18529688.14	0.0524	0.0027	*
Venus	46021-02-09 21:07	G	18529925.34	18529925.38	18529925.43	0.0528	0.0512	
Mercury	46024-03-27 18:58	G	18531067.17	18531067.29	18531067.42	0.0517	0.0029	
Moon	46025-12-08 14:24	G	18531687.93	18531688.10	18531688.27	0.0503	0.0347	
Earth	46025-12-08 18:14	G	18531688.11	18531688.26	18531688.41	0.0503	0.0377	*
Venus	46026-12-15 10:19	G	18532059.85	18532059.93	18532060.01	0.0498	0.0455	
Mercury	46030-05-18 11:02	G	18533309.77	18533309.96	18533310.14	0.0508	0.0116	
Moon	46032-06-22 01:55	G	18534075.36	18534075.58	18534075.80	0.0525	0.0137	
Earth	46032-06-22 04:19	G	18534075.46	18534075.68	18534075.90	0.0525	0.0132	*

Mercury	46036-01-14 23:17 G	18535377.36	18535377.47	18535377.59	0.0518	0.0183
Mercury	46036-04-13 03:07 G	18535466.56	18535466.63	18535466.71	0.0516	0.0409
Earth	46037-12-13 08:10 G	18536075.63	18536075.84	18536076.06	0.0503	0.0207
Moon	46037-12-13 11:02 G	18536075.76	18536075.96	18536076.17	0.0503	0.0210 *
Venus	46039-04-13 18:29 G	18536562.18	18536562.27	18536562.37	0.0497	0.0440
Mercury	46042-03-06 06:29 G	18537619.63	18537619.77	18537619.91	0.0508	0.0341
Earth	46044-06-26 23:46 G	18538463.32	18538463.49	18538463.68	0.0526	0.0327
Moon	46044-06-27 03:36 G	18538463.46	18538463.65	18538463.84	0.0526	0.0295 *
Venus	46045-02-12 19:26 G	18538694.11	18538694.31	18538694.50	0.0528	0.0140
Mercury	46047-11-03 04:05 G	18539687.58	18539687.67	18539687.77	0.0519	0.0329
Mercury	46048-01-31 07:55 G	18539776.73	18539776.83	18539776.94	0.0516	0.0266
Moon	46049-12-17 22:19 G	18540463.19	18540463.43	18540463.68	0.0502	0.0064
Earth	46049-12-18 00:14 G	18540463.28	18540463.51	18540463.75	0.0502	0.0031 *
Venus	46050-12-17 20:10 G	18540828.14	18540828.34	18540828.54	0.0497	0.0098
Mercury	46054-03-23 15:36 G	18542020.01	18542020.15	18542020.31	0.0509	0.0307
Moon	46056-07-01 14:10 G	18542851.04	18542851.09	18542851.14	0.0527	0.0512
Earth	46056-07-01 17:46 G	18542851.20	18542851.24	18542851.29	0.0527	0.0516
Venus	46056-10-18 08:53 G	18542959.70	18542959.87	18542960.04	0.0528	0.0290
Mercury	46059-08-22 08:53 G	18543997.82	18543997.87	18543997.92	0.0519	0.0477
Mercury	46059-11-19 12:43 G	18544086.91	18544087.03	18544087.16	0.0517	0.0121
Earth	46061-12-22 14:24 G	18544850.87	18544851.10	18544851.33	0.0500	0.0141
Moon	46061-12-22 14:24 G	18544850.88	18544851.10	18544851.32	0.0500	0.0133 *
Venus	46062-08-22 21:22 G	18545094.21	18545094.39	18545094.57	0.0497	0.0250
Mercury	46066-01-09 11:31 G	18546329.79	18546329.98	18546330.16	0.0508	0.0084
Mercury	46071-09-07 17:17 G	18548397.09	18548397.22	18548397.34	0.0517	0.0035
Earth	46073-12-27 00:14 G	18549238.33	18549238.51	18549238.70	0.0500	0.0305
Moon	46073-12-27 02:24 G	18549238.41	18549238.60	18549238.78	0.0500	0.0331 *
Mercury	46077-10-28 07:26 G	18550639.63	18550639.81	18550639.99	0.0508	0.0136
Earth	46079-06-07 15:07 G	18551227.04	18551227.13	18551227.22	0.0522	0.0479
Moon	46079-06-07 16:19 G	18551227.15	18551227.18	18551227.24	0.0522	0.0511 *

Venus	46080-10-21 10:48 G	18551728.81	18551728.95	18551729.09	0.0529	0.0379
Mercury	46083-06-26 21:50 G	18552707.29	18552707.41	18552707.52	0.0518	0.0186
Mercury	46083-09-24 01:26 G	18552796.49	18552796.56	18552796.64	0.0516	0.0405
Moon	46085-12-31 09:07 G	18553625.82	18553625.88	18553625.94	0.0499	0.0481
Earth	46085-12-31 12:29 G	18553625.95	18553626.02	18553626.10	0.0499	0.0470
Venus	46086-08-25 04:05 G	18553862.51	18553862.67	18553862.84	0.0497	0.0287
Mercury	46089-08-16 03:22 G	18554949.51	18554949.64	18554949.78	0.0508	0.0356
Earth	46091-06-12 10:05 G	18555614.73	18555614.92	18555615.11	0.0523	0.0293
Moon	46091-06-12 10:19 G	18555614.74	18555614.93	18555615.14	0.0523	0.0287 *
Venus	46092-06-26 00:58 G	18555994.34	18555994.54	18555994.74	0.0528	0.0045
Mercury	46095-04-15 01:55 G	18557017.49	18557017.58	18557017.68	0.0518	0.0344
Mercury	46095-07-13 06:00 G	18557106.64	18557106.75	18557106.86	0.0516	0.0251
Venus	46098-04-30 05:17 G	18558128.52	18558128.72	18558128.93	0.0498	0.0060
Mercury	46101-09-03 13:41 G	18559349.92	18559350.07	18559350.22	0.0509	0.0308
Moon	46103-06-18 02:53 G	18560002.39	18560002.62	18560002.84	0.0524	0.0071
Earth	46103-06-18 04:34 G	18560002.46	18560002.69	18560002.92	0.0524	0.0103 *
Venus	46104-03-01 15:22 G	18560260.05	18560260.14	18560260.24	0.0527	0.0468
Mercury	46107-02-02 06:43 G	18561327.74	18561327.78	18561327.82	0.0519	0.0493
Mercury	46107-05-02 10:34 G	18561416.82	18561416.94	18561417.07	0.0517	0.0107
Earth	46108-12-08 18:58 G	18562003.16	18562003.29	18562003.43	0.0504	0.0410
Moon	46108-12-08 22:05 G	18562003.27	18562003.42	18562003.57	0.0504	0.0380 *
Venus	46110-01-04 07:12 G	18562394.68	18562394.80	18562394.92	0.0498	0.0402
Mercury	46113-06-22 08:24 G	18563659.66	18563659.85	18563660.03	0.0508	0.0068
Earth	46115-06-22 20:38 G	18564390.14	18564390.36	18564390.59	0.0525	0.0088
Moon	46115-06-23 00:00 G	18564390.27	18564390.50	18564390.73	0.0525	0.0088 *
Mercury	46119-02-18 15:22 G	18565727.02	18565727.14	18565727.27	0.0518	0.0044
Moon	46120-12-13 08:24 G	18566390.64	18566390.85	18566391.07	0.0503	0.0237
Earth	46120-12-13 10:34 G	18566390.74	18566390.94	18566391.15	0.0503	0.0235 *
Venus	46122-05-03 14:53 G	18566897.09	18566897.12	18566897.16	0.0497	0.0487
Mercury	46125-04-10 03:50 G	18567969.49	18567969.66	18567969.84	0.0508	0.0157

Moon	46127-06-27 14:53 G	18568777.92	18568778.12	18568778.33	0.0526	0.0253
Earth	46127-06-27 18:43 G	18568778.09	18568778.28	18568778.47	0.0526	0.0286 *
Venus	46128-03-04 13:55 G	18569028.90	18569029.08	18569029.28	0.0529	0.0184
Mercury	46130-12-07 19:55 G	18570037.21	18570037.33	18570037.44	0.0518	0.0197
Mercury	46131-03-06 23:31 G	18570126.41	18570126.48	18570126.56	0.0516	0.0395
Earth	46132-12-17 21:22 G	18570778.15	18570778.39	18570778.62	0.0502	0.0068
Moon	46132-12-17 21:50 G	18570778.19	18570778.41	18570778.63	0.0502	0.0098 *
Venus	46134-01-06 14:10 G	18571162.89	18571163.09	18571163.29	0.0497	0.0135
Mercury	46137-01-26 23:46 G	18572279.37	18572279.49	18572279.62	0.0508	0.0377
Earth	46139-07-02 18:14 G	18573166.18	18573166.26	18573166.35	0.0527	0.0486
Moon	46139-07-02 21:22 G	18573166.31	18573166.39	18573166.47	0.0527	0.0489 *
Venus	46139-11-08 06:29 G	18573294.59	18573294.77	18573294.96	0.0528	0.0231
Mercury	46142-09-26 00:29 G	18574347.43	18574347.52	18574347.61	0.0518	0.0348
Mercury	46142-12-24 04:19 G	18574436.57	18574436.68	18574436.79	0.0516	0.0246
Earth	46144-12-22 10:05 G	18575165.69	18575165.92	18575166.16	0.0501	0.0104
Moon	46144-12-22 11:31 G	18575165.75	18575165.98	18575166.23	0.0501	0.0101 *
Venus	46145-09-11 14:53 G	18575428.93	18575429.12	18575429.30	0.0498	0.0214
Mercury	46149-02-13 10:34 G	18576679.79	18576679.94	18576680.10	0.0509	0.0293
Mercury	46154-07-15 04:34 G	18578657.67	18578657.69	18578657.72	0.0519	0.0506
Mercury	46154-10-12 08:38 G	18578746.73	18578746.86	18578746.98	0.0517	0.0091
Moon	46156-12-26 19:55 G	18579553.15	18579553.33	18579553.52	0.0500	0.0303
Earth	46156-12-26 23:17 G	18579553.27	18579553.47	18579553.66	0.0500	0.0273 *
Mercury	46160-12-02 06:14 G	18580989.57	18580989.76	18580989.94	0.0509	0.0067
Earth	46162-06-07 11:46 G	18581541.99	18581541.99	18581542.01	0.0521	0.0521
Venus	46163-11-11 04:48 G	18582063.58	18582063.70	18582063.82	0.0529	0.0421
Mercury	46166-07-31 13:12 G	18583056.93	18583057.05	18583057.18	0.0518	0.0059
Earth	46168-12-31 13:41 G	18583940.98	18583941.07	18583941.19	0.0500	0.0445
Moon	46168-12-31 18:00 G	18583941.15	18583941.25	18583941.35	0.0500	0.0452 *
Venus	46169-09-14 00:43 G	18584197.38	18584197.53	18584197.68	0.0497	0.0336
Mars	46172-05-17 06:43 G	18585173.50	18585173.78	18585174.06	0.0505	0.0161

Mercury	46172-09-20 00:58 G	18585299.36	18585299.54	18585299.72	0.0508	0.0169
Moon	46174-06-12 01:55 G	18585929.41	18585929.58	18585929.75	0.0522	0.0337
Earth	46174-06-12 02:53 G	18585929.45	18585929.62	18585929.80	0.0522	0.0339 *
Venus	46175-07-16 18:00 G	18586329.05	18586329.25	18586329.45	0.0528	0.0009
Mercury	46178-05-19 18:00 G	18587367.13	18587367.25	18587367.36	0.0518	0.0207
Mercury	46178-08-16 21:50 G	18587456.33	18587456.41	18587456.49	0.0516	0.0387
Venus	46181-05-20 01:55 G	18588463.38	18588463.58	18588463.79	0.0497	0.0011
Mercury	46184-07-08 20:38 G	18589609.24	18589609.36	18589609.48	0.0507	0.0392
Mercury	46184-10-07 11:31 G	18589699.94	18589699.98	18589700.01	0.0509	0.0497
Earth	46186-06-16 23:31 G	18590317.26	18590317.48	18590317.70	0.0523	0.0145
Moon	46186-06-17 02:24 G	18590317.36	18590317.60	18590317.83	0.0523	0.0113 *
Venus	46187-03-21 10:05 G	18590594.80	18590594.92	18590595.04	0.0528	0.0424
Mercury	46190-03-07 22:19 G	18591677.35	18591677.43	18591677.52	0.0519	0.0361
Mercury	46190-06-05 02:10 G	18591766.48	18591766.59	18591766.71	0.0516	0.0236
Moon	46191-12-08 13:26 G	18592317.93	18592318.06	18592318.19	0.0504	0.0417
Earth	46191-12-08 15:50 G	18592318.06	18592318.16	18592318.27	0.0504	0.0450 *
Venus	46193-01-23 00:43 G	18592729.39	18592729.53	18592729.67	0.0498	0.0365
Mercury	46196-07-26 06:58 G	18594009.64	18594009.79	18594009.96	0.0509	0.0274
Moon	46198-06-21 18:29 G	18594705.04	18594705.27	18594705.50	0.0525	0.0050
Earth	46198-06-21 22:19 G	18594705.20	18594705.43	18594705.66	0.0525	0.0054 *
Mercury	46201-12-26 03:07 G	18595987.61	18595987.63	18595987.65	0.0519	0.0510
Mercury	46202-03-25 06:58 G	18596076.67	18596076.79	18596076.91	0.0517	0.0087
Earth	46203-12-14 06:00 G	18596705.56	18596705.75	18596705.95	0.0503	0.0276
Moon	46203-12-14 07:12 G	18596705.61	18596705.80	18596705.99	0.0503	0.0278 *
Mercury	46208-05-15 03:07 G	18598319.44	18598319.63	18598319.82	0.0509	0.0053
Earth	46210-06-27 18:58 G	18599093.09	18599093.29	18599093.49	0.0525	0.0250
Moon	46210-06-27 22:19 G	18599093.22	18599093.43	18599093.64	0.0525	0.0218 *
Venus	46211-03-25 11:02 G	18599363.78	18599363.96	18599364.14	0.0528	0.0240
Mercury	46214-01-11 11:17 G	18600386.85	18600386.97	18600387.10	0.0517	0.0069
Earth	46215-12-18 19:41 G	18601093.09	18601093.32	18601093.56	0.0502	0.0103

Moon	46215-12-18 20:38 G	18601093.13	18601093.36	18601093.60	0.0502	0.0131	*
Venus	46217-01-26 09:50 G	18601497.71	18601497.91	18601498.10	0.0497	0.0181	
Mercury	46220-03-02 22:48 G	18602629.28	18602629.45	18602629.63	0.0508	0.0171	
Moon	46222-07-02 12:00 G	18603480.88	18603481.00	18603481.14	0.0526	0.0443	
Earth	46222-07-02 14:38 G	18603480.99	18603481.11	18603481.23	0.0526	0.0446	*
Venus	46222-11-28 01:26 G	18603629.37	18603629.56	18603629.76	0.0528	0.0183	
Mercury	46225-10-30 16:05 G	18604697.05	18604697.17	18604697.28	0.0518	0.0220	
Mercury	46226-01-27 19:41 G	18604786.24	18604786.32	18604786.41	0.0516	0.0375	
Moon	46227-12-23 08:38 G	18605480.64	18605480.86	18605481.09	0.0501	0.0077	
Earth	46227-12-23 11:31 G	18605480.75	18605480.98	18605481.22	0.0501	0.0074	*
Venus	46228-10-01 11:46 G	18605763.79	18605763.99	18605764.18	0.0498	0.0161	
Mercury	46231-12-20 18:00 G	18606939.14	18606939.25	18606939.37	0.0507	0.0401	
Mercury	46232-03-20 08:38 G	18607029.81	18607029.86	18607029.92	0.0509	0.0487	
Mars	46237-04-28 15:36 G	18608894.96	18608895.15	18608895.34	0.0522	0.0343	
Mercury	46237-08-18 20:38 G	18609007.27	18609007.36	18609007.45	0.0519	0.0370	
Mercury	46237-11-16 00:29 G	18609096.41	18609096.52	18609096.63	0.0517	0.0228	
Earth	46239-12-28 01:41 G	18609868.37	18609868.57	18609868.78	0.0501	0.0248	
Moon	46239-12-28 05:46 G	18609868.55	18609868.74	18609868.94	0.0501	0.0280	*
Mercury	46244-01-07 04:19 G	18611339.52	18611339.68	18611339.84	0.0509	0.0262	
Venus	46246-12-01 00:14 G	18612398.43	18612398.51	18612398.61	0.0529	0.0469	
Mercury	46249-09-04 05:02 G	18613406.59	18613406.71	18613406.84	0.0517	0.0078	
Moon	46252-01-01 07:26 G	18614255.69	18614255.81	18614255.94	0.0500	0.0421	
Earth	46252-01-01 11:46 G	18614255.85	18614255.99	18614256.12	0.0500	0.0410	*
Venus	46252-10-03 18:29 G	18614532.15	18614532.27	18614532.41	0.0497	0.0374	
Mercury	46255-10-26 00:00 G	18615649.31	18615649.50	18615649.69	0.0509	0.0037	
Earth	46257-06-12 05:46 G	18616244.58	18616244.74	18616244.90	0.0522	0.0372	
Moon	46257-06-12 08:10 G	18616244.68	18616244.84	18616245.02	0.0522	0.0364	*
Venus	46258-08-05 17:17 G	18616664.02	18616664.22	18616664.42	0.0528	0.0058	
Mercury	46261-06-23 09:50 G	18617716.79	18617716.91	18617717.04	0.0517	0.0070	
Venus	46264-06-08 19:55 G	18618798.12	18618798.33	18618798.53	0.0497	0.0030	

Mercury	46267-08-13 19:55 G	18619959.16	18619959.33	18619959.51	0.0508	0.0182
Moon	46269-06-16 22:48 G	18620632.24	18620632.45	18620632.67	0.0523	0.0149
Earth	46269-06-17 02:24 G	18620632.39	18620632.60	18620632.82	0.0523	0.0179 *
Venus	46270-04-10 08:38 G	18620929.71	18620929.86	18620930.01	0.0527	0.0358
Mercury	46273-04-11 14:10 G	18622026.98	18622027.09	18622027.21	0.0518	0.0226
Mercury	46273-07-09 18:00 G	18622116.16	18622116.25	18622116.34	0.0516	0.0367
Earth	46274-12-08 15:22 G	18622633.08	18622633.14	18622633.20	0.0504	0.0485
Moon	46274-12-08 16:48 G	18622633.11	18622633.20	18622633.30	0.0504	0.0456 *
Venus	46276-02-12 20:53 G	18623064.22	18623064.37	18623064.53	0.0498	0.0315
Mercury	46279-06-01 15:50 G	18624269.05	18624269.16	18624269.28	0.0508	0.0401
Mercury	46279-08-31 06:43 G	18624359.74	18624359.78	18624359.83	0.0510	0.0490
Earth	46281-06-21 21:36 G	18625020.17	18625020.40	18625020.64	0.0524	0.0020
Moon	46281-06-22 01:26 G	18625020.33	18625020.56	18625020.78	0.0524	0.0011 *
Mercury	46285-01-28 18:43 G	18626337.20	18626337.28	18626337.37	0.0519	0.0377
Mercury	46285-04-27 22:48 G	18626426.33	18626426.45	18626426.56	0.0517	0.0220
Earth	46286-12-13 07:55 G	18627020.65	18627020.83	18627021.02	0.0504	0.0307
Moon	46286-12-13 08:24 G	18627020.66	18627020.85	18627021.04	0.0504	0.0312 *
Mercury	46291-06-19 02:10 G	18628669.43	18628669.59	18628669.75	0.0509	0.0259
Moon	46293-06-26 12:14 G	18629407.79	18629408.01	18629408.24	0.0525	0.0176
Earth	46293-06-26 15:07 G	18629407.93	18629408.13	18629408.35	0.0525	0.0211 *
Venus	46294-04-13 06:00 G	18629698.58	18629698.75	18629698.92	0.0528	0.0286
Mercury	46297-02-14 03:22 G	18630736.52	18630736.64	18630736.77	0.0518	0.0073
Moon	46298-12-17 21:07 G	18631408.17	18631408.38	18631408.60	0.0503	0.0158
Earth	46298-12-17 23:46 G	18631408.26	18631408.49	18631408.72	0.0503	0.0130 *
Venus	46300-02-15 07:41 G	18631832.64	18631832.82	18631833.00	0.0497	0.0237
Mercury	46303-04-07 21:50 G	18632979.22	18632979.41	18632979.60	0.0508	0.0036
Earth	46305-07-02 13:12 G	18633795.91	18633796.05	18633796.20	0.0526	0.0411
Moon	46305-07-02 14:24 G	18633795.97	18633796.10	18633796.24	0.0526	0.0413 *
Venus	46305-12-17 22:19 G	18633964.23	18633964.43	18633964.63	0.0528	0.0128
Mercury	46308-12-04 08:10 G	18635046.72	18635046.84	18635046.96	0.0518	0.0077

Mercury	46309-03-03 11:46 G	18635135.99	18635135.99	18635136.00	0.0515	0.0514
Earth	46310-12-23 11:17 G	18635795.73	18635795.97	18635796.20	0.0501	0.0039
Moon	46310-12-23 15:07 G	18635795.89	18635796.13	18635796.37	0.0501	0.0047 *
Venus	46311-10-22 06:43 G	18636098.58	18636098.78	18636098.98	0.0498	0.0117
Mercury	46315-01-24 17:17 G	18637289.04	18637289.22	18637289.39	0.0508	0.0193
Mercury	46320-09-22 12:58 G	18639356.93	18639357.04	18639357.16	0.0518	0.0222
Mercury	46320-12-20 16:48 G	18639446.11	18639446.20	18639446.29	0.0516	0.0370
Moon	46322-12-27 21:07 G	18640183.18	18640183.38	18640183.59	0.0500	0.0245
Earth	46322-12-28 01:12 G	18640183.34	18640183.55	18640183.77	0.0500	0.0213 *
Venus	46323-06-27 07:41 G	18640364.75	18640364.82	18640364.90	0.0498	0.0461
Mercury	46326-11-12 13:26 G	18641598.95	18641599.06	18641599.18	0.0508	0.0408
Mercury	46327-02-11 04:19 G	18641689.63	18641689.68	18641689.74	0.0510	0.0485
Mercury	46332-07-11 17:31 G	18643667.14	18643667.23	18643667.31	0.0518	0.0377
Mercury	46332-10-08 21:22 G	18643756.27	18643756.39	18643756.50	0.0516	0.0219
Earth	46335-01-01 14:38 G	18644570.96	18644571.11	18644571.26	0.0500	0.0384
Moon	46335-01-01 18:00 G	18644571.12	18644571.25	18644571.40	0.0500	0.0393 *
Venus	46335-10-24 16:19 G	18644867.09	18644867.18	18644867.29	0.0497	0.0430
Mercury	46338-11-30 00:29 G	18645999.36	18645999.52	18645999.68	0.0509	0.0265
Moon	46340-06-12 05:46 G	18646559.60	18646559.74	18646559.89	0.0522	0.0393
Earth	46340-06-12 09:07 G	18646559.74	18646559.88	18646560.03	0.0522	0.0404 *
Venus	46341-08-25 15:22 G	18646998.95	18646999.14	18646999.34	0.0528	0.0121
Mercury	46344-07-28 01:55 G	18648066.46	18648066.58	18648066.71	0.0517	0.0072
Venus	46347-06-29 18:43 G	18649133.08	18649133.28	18649133.48	0.0498	0.0091
Mercury	46350-09-17 20:10 G	18650309.15	18650309.34	18650309.52	0.0508	0.0040
Earth	46352-06-17 02:24 G	18650947.39	18650947.60	18650947.81	0.0523	0.0215
Moon	46352-06-17 06:00 G	18650947.54	18650947.75	18650947.97	0.0523	0.0186 *
Venus	46353-04-30 05:17 G	18651264.56	18651264.72	18651264.89	0.0527	0.0303
Mercury	46356-05-16 06:43 G	18652376.66	18652376.78	18652376.90	0.0518	0.0078
Mercury	46356-08-13 10:34 G	18652465.93	18652465.94	18652465.95	0.0516	0.0514
Moon	46357-12-08 20:53 G	18652948.31	18652948.37	18652948.45	0.0505	0.0484

Venus	46359-03-04 20:10 G	18653399.17	18653399.34	18653399.52	0.0498	0.0252
Mercury	46362-07-06 15:50 G	18654618.99	18654619.16	18654619.34	0.0508	0.0183
Moon	46364-06-21 20:10 G	18655335.11	18655335.34	18655335.58	0.0524	0.0027
Earth	46364-06-21 23:31 G	18655335.24	18655335.48	18655335.71	0.0524	0.0018 *
Mercury	46368-03-04 11:31 G	18656686.87	18656686.98	18656687.09	0.0518	0.0224
Mercury	46368-06-01 15:22 G	18656776.05	18656776.14	18656776.23	0.0516	0.0368
Moon	46369-12-13 08:38 G	18657335.70	18657335.86	18657336.02	0.0503	0.0355
Earth	46369-12-13 10:48 G	18657335.78	18657335.95	18657336.12	0.0503	0.0341 *
Mercury	46374-04-24 11:02 G	18658928.86	18658928.96	18658929.07	0.0508	0.0413
Mercury	46374-07-24 01:55 G	18659019.53	18659019.58	18659019.65	0.0510	0.0480
Earth	46376-06-26 22:34 G	18659723.22	18659723.44	18659723.65	0.0525	0.0185
Moon	46376-06-27 00:14 G	18659723.29	18659723.51	18659723.72	0.0525	0.0155 *
Venus	46377-05-03 08:38 G	18660033.71	18660033.86	18660034.00	0.0529	0.0369
Mercury	46379-12-22 16:19 G	18660997.10	18660997.18	18660997.27	0.0518	0.0369
Mercury	46380-03-20 20:24 G	18661086.23	18661086.35	18661086.46	0.0516	0.0227
Earth	46381-12-18 02:10 G	18661723.37	18661723.59	18661723.81	0.0502	0.0162
Moon	46381-12-18 05:46 G	18661723.53	18661723.74	18661723.97	0.0502	0.0190 *
Venus	46383-03-07 04:05 G	18662167.50	18662167.67	18662167.83	0.0497	0.0287
Mercury	46386-05-11 22:19 G	18663329.27	18663329.43	18663329.60	0.0509	0.0265
Earth	46388-07-01 21:07 G	18664111.23	18664111.38	18664111.54	0.0526	0.0387
Moon	46388-07-01 21:50 G	18664111.25	18664111.41	18664111.57	0.0526	0.0394 *
Venus	46389-01-06 00:29 G	18664299.32	18664299.52	18664299.72	0.0528	0.0045
Mars	46391-07-24 13:26 G	18665228.81	18665229.06	18665229.32	0.0520	0.0012
Mercury	46392-01-08 00:58 G	18665396.41	18665396.54	18665396.66	0.0517	0.0078
Moon	46393-12-22 12:29 G	18666110.78	18666111.02	18666111.25	0.0502	0.0021
Earth	46393-12-22 16:34 G	18666110.95	18666111.19	18666111.42	0.0502	0.0014 *
Venus	46394-11-10 05:46 G	18666433.54	18666433.74	18666433.94	0.0498	0.0054
Mercury	46398-02-27 18:43 G	18667639.09	18667639.28	18667639.47	0.0509	0.0049
Venus	46400-09-10 15:50 G	18668565.06	18668565.16	18668565.26	0.0527	0.0459
Mercury	46403-10-27 05:31 G	18669706.61	18669706.73	18669706.85	0.0517	0.0072

Earth	46405-12-27 08:10 G	18670498.62	18670498.84	18670499.06	0.0501	0.0192
Moon	46405-12-27 11:31 G	18670498.78	18670498.98	18670499.19	0.0501	0.0224 *
Venus	46406-07-16 07:55 G	18670699.70	18670699.83	18670699.95	0.0499	0.0394
Mercury	46409-12-16 14:24 G	18671948.93	18671949.10	18671949.28	0.0508	0.0174
Mercury	46415-08-15 10:19 G	18674016.81	18674016.93	18674017.04	0.0518	0.0222
Mercury	46415-11-12 13:55 G	18674106.00	18674106.08	18674106.17	0.0516	0.0373
Moon	46417-12-31 21:22 G	18674886.23	18674886.39	18674886.55	0.0500	0.0367
Earth	46417-12-31 23:31 G	18674886.32	18674886.48	18674886.64	0.0500	0.0367 *
Venus	46418-11-12 17:02 G	18675202.21	18675202.21	18675202.22	0.0497	0.0497
Mercury	46421-10-04 10:19 G	18676258.82	18676258.93	18676259.06	0.0507	0.0393
Mercury	46422-01-03 01:12 G	18676349.52	18676349.55	18676349.59	0.0509	0.0498
Earth	46423-06-12 13:41 G	18676874.95	18676875.07	18676875.20	0.0521	0.0434
Moon	46423-06-12 17:17 G	18676875.09	18676875.22	18676875.37	0.0521	0.0414 *
Venus	46424-09-13 15:36 G	18677333.97	18677334.15	18677334.34	0.0528	0.0194
Mercury	46427-06-03 15:07 G	18678327.04	18678327.13	18678327.22	0.0518	0.0366
Mercury	46427-08-31 18:58 G	18678416.18	18678416.29	18678416.41	0.0516	0.0230
Venus	46430-07-18 16:34 G	18679467.99	18679468.19	18679468.38	0.0497	0.0149
Mercury	46433-10-21 20:24 G	18680659.19	18680659.35	18680659.51	0.0509	0.0265
Moon	46435-06-17 07:26 G	18681262.60	18681262.81	18681263.03	0.0523	0.0214
Earth	46435-06-17 11:02 G	18681262.75	18681262.96	18681263.16	0.0523	0.0242 *
Venus	46436-05-19 09:07 G	18681599.69	18681599.88	18681600.06	0.0528	0.0212
Mercury	46439-03-22 20:10 G	18682637.32	18682637.34	18682637.36	0.0519	0.0508
Mercury	46439-06-20 00:00 G	18682726.38	18682726.50	18682726.63	0.0517	0.0091
Venus	46442-03-23 18:14 G	18683734.07	18683734.26	18683734.45	0.0498	0.0192
Mars	46445-01-29 10:05 G	18684776.74	18684776.92	18684777.13	0.0505	0.0383
Mercury	46445-08-09 16:48 G	18684969.02	18684969.20	18684969.39	0.0509	0.0053
Earth	46447-06-22 09:36 G	18685650.67	18685650.90	18685651.13	0.0524	0.0039
Moon	46447-06-22 11:31 G	18685650.76	18685650.98	18685651.20	0.0524	0.0053 *
Mercury	46451-04-08 04:34 G	18687036.57	18687036.69	18687036.82	0.0517	0.0064
Earth	46452-12-12 18:00 G	18687651.10	18687651.25	18687651.42	0.0504	0.0364

Moon	46452-12-12 21:36 G	18687651.26	18687651.40	18687651.56	0.0504	0.0385 *
Mercury	46457-05-28 13:26 G	18689278.88	18689279.06	18689279.24	0.0508	0.0161
Moon	46459-06-27 07:12 G	18690038.57	18690038.80	18690039.04	0.0525	0.0136
Earth	46459-06-27 07:12 G	18690038.58	18690038.80	18690039.02	0.0525	0.0163 *
Venus	46460-05-22 10:34 G	18690368.83	18690368.94	18690369.05	0.0528	0.0448
Mercury	46463-01-25 09:22 G	18691346.78	18691346.89	18691347.01	0.0518	0.0210
Mercury	46463-04-24 13:12 G	18691435.97	18691436.05	18691436.13	0.0516	0.0383
Moon	46464-12-17 06:29 G	18692038.56	18692038.77	18692038.99	0.0503	0.0213
Earth	46464-12-17 10:34 G	18692038.72	18692038.94	18692039.16	0.0503	0.0183 *
Venus	46466-03-26 05:31 G	18692502.59	18692502.73	18692502.87	0.0497	0.0359
Mercury	46469-03-16 09:36 G	18693588.77	18693588.90	18693589.02	0.0508	0.0378
Moon	46471-07-02 00:14 G	18694426.36	18694426.51	18694426.67	0.0525	0.0377
Earth	46471-07-02 02:38 G	18694426.45	18694426.61	18694426.78	0.0525	0.0360 *
Venus	46472-01-26 00:58 G	18694634.33	18694634.54	18694634.74	0.0528	0.0030
Mercury	46474-11-13 13:55 G	18695657.00	18695657.08	18695657.18	0.0519	0.0360
Mercury	46475-02-10 18:00 G	18695746.14	18695746.25	18695746.36	0.0517	0.0237
Earth	46476-12-22 02:53 G	18696426.39	18696426.62	18696426.86	0.0502	0.0006
Moon	46476-12-22 06:43 G	18696426.54	18696426.78	18696427.01	0.0502	0.0010 *
Venus	46477-11-29 07:41 G	18696768.62	18696768.82	18696769.03	0.0498	0.0021
Mercury	46481-04-02 20:24 G	18697989.19	18697989.35	18697989.50	0.0509	0.0292
Venus	46483-09-30 17:31 G	18698900.09	18698900.23	18698900.37	0.0528	0.0380
Mercury	46486-09-01 18:58 G	18699967.27	18699967.29	18699967.32	0.0519	0.0502
Mercury	46486-11-29 23:02 G	18700056.34	18700056.46	18700056.58	0.0517	0.0096
Moon	46488-12-26 13:41 G	18700813.85	18700814.07	18700814.30	0.0501	0.0196
Earth	46488-12-26 16:05 G	18700813.95	18700814.17	18700814.40	0.0501	0.0168 *
Venus	46489-08-04 07:26 G	18701034.66	18701034.81	18701034.96	0.0498	0.0326
Mercury	46493-01-19 15:22 G	18702298.95	18702299.14	18702299.32	0.0509	0.0058
Mercury	46498-09-18 04:05 G	18704366.55	18704366.67	18704366.80	0.0517	0.0045
Earth	46501-01-01 07:12 G	18705201.63	18705201.80	18705201.97	0.0500	0.0344
Moon	46501-01-01 07:12 G	18705201.64	18705201.80	18705201.98	0.0500	0.0337 *

Mercury	46504-11-08 11:46 G	18706608.81	18706608.99	18706609.17	0.0509	0.0155
Moon	46506-06-12 21:22 G	18707190.27	18707190.39	18707190.53	0.0522	0.0433
Earth	46506-06-13 01:12 G	18707190.44	18707190.55	18707190.66	0.0522	0.0457 *
Venus	46507-10-04 20:38 G	18707669.20	18707669.36	18707669.53	0.0529	0.0290
Mercury	46510-07-08 08:38 G	18708676.75	18708676.86	18708676.98	0.0518	0.0194
Mercury	46510-10-05 12:29 G	18708765.94	18708766.02	18708766.10	0.0515	0.0398
Moon	46513-01-05 22:34 G	18709589.39	18709589.44	18709589.50	0.0499	0.0485
Venus	46513-08-07 18:14 G	18709803.08	18709803.26	18709803.44	0.0497	0.0222
Mercury	46516-08-27 08:24 G	18710918.73	18710918.85	18710918.99	0.0508	0.0364
Earth	46518-06-17 22:19 G	18711578.23	18711578.43	18711578.63	0.0523	0.0260
Moon	46518-06-18 00:29 G	18711578.32	18711578.52	18711578.72	0.0523	0.0235 *
Venus	46519-06-09 12:43 G	18711934.83	18711935.03	18711935.23	0.0528	0.0123
Mercury	46522-04-26 13:26 G	18712986.97	18712987.06	18712987.15	0.0518	0.0342
Mercury	46522-07-24 17:17 G	18713076.11	18713076.22	18713076.33	0.0516	0.0252
Venus	46525-04-12 20:38 G	18714069.16	18714069.36	18714069.56	0.0498	0.0116
Mercury	46528-09-13 19:26 G	18715319.17	18715319.31	18715319.46	0.0509	0.0311
Moon	46530-06-22 17:17 G	18715965.99	18715966.22	18715966.46	0.0523	0.0080
Earth	46530-06-22 17:46 G	18715966.01	18715966.24	18715966.47	0.0523	0.0063 *
Mercury	46534-02-12 18:00 G	18717297.22	18717297.25	18717297.29	0.0519	0.0493
Mercury	46534-05-12 22:05 G	18717386.30	18717386.42	18717386.54	0.0517	0.0106
Moon	46535-12-14 01:41 G	18717966.44	18717966.57	18717966.71	0.0504	0.0406
Earth	46535-12-14 05:46 G	18717966.59	18717966.74	18717966.90	0.0504	0.0381 *
Venus	46536-12-16 22:48 G	18718335.36	18718335.45	18718335.53	0.0499	0.0453
Mercury	46540-07-02 15:36 G	18719628.96	18719629.15	18719629.33	0.0509	0.0091
Moon	46542-06-27 13:41 G	18720353.85	18720354.07	18720354.28	0.0525	0.0119
Earth	46542-06-27 15:36 G	18720353.93	18720354.15	18720354.37	0.0525	0.0140 *
Mars	46545-10-19 07:26 G	18721563.71	18721563.81	18721563.92	0.0520	0.0473
Mercury	46546-03-01 03:07 G	18721696.51	18721696.63	18721696.76	0.0517	0.0035
Earth	46547-12-18 21:07 G	18722354.17	18722354.38	18722354.60	0.0502	0.0205
Moon	46547-12-19 00:58 G	18722354.34	18722354.54	18722354.75	0.0502	0.0230 *

Venus	46549-04-15 05:46 G	18722837.64	18722837.74	18722837.85	0.0497	0.0427
Mercury	46552-04-20 10:19 G	18723938.75	18723938.93	18723939.11	0.0509	0.0146
Earth	46554-07-02 13:55 G	18724741.91	18724742.08	18724742.26	0.0526	0.0342
Moon	46554-07-02 17:46 G	18724742.07	18724742.24	18724742.41	0.0526	0.0367 *
Venus	46555-02-15 06:14 G	18724969.56	18724969.76	18724969.95	0.0529	0.0127
Mercury	46557-12-18 08:10 G	18726006.73	18726006.84	18726006.96	0.0518	0.0175
Mercury	46558-03-17 12:00 G	18726095.93	18726096.00	18726096.07	0.0515	0.0418
Moon	46559-12-23 11:02 G	18726741.72	18726741.96	18726742.21	0.0501	0.0011
Earth	46559-12-23 13:41 G	18726741.83	18726742.07	18726742.30	0.0501	0.0023 *
Venus	46560-12-19 08:10 G	18727103.64	18727103.84	18727104.04	0.0497	0.0091
Mercury	46564-02-07 06:58 G	18728248.66	18728248.79	18728248.93	0.0508	0.0356
Venus	46566-10-20 22:48 G	18729235.29	18729235.45	18729235.63	0.0528	0.0281
Mercury	46569-10-06 12:58 G	18730316.94	18730317.04	18730317.14	0.0518	0.0323
Mercury	46570-01-03 16:48 G	18730406.09	18730406.20	18730406.30	0.0516	0.0270
Earth	46571-12-28 03:50 G	18731129.43	18731129.66	18731129.88	0.0501	0.0154
Moon	46571-12-28 04:05 G	18731129.46	18731129.67	18731129.88	0.0501	0.0178 *
Venus	46572-08-24 09:50 G	18731369.74	18731369.91	18731370.09	0.0498	0.0249
Mercury	46576-02-24 18:43 G	18732649.14	18732649.28	18732649.42	0.0510	0.0328
Mercury	46581-07-25 17:31 G	18734627.18	18734627.23	18734627.28	0.0519	0.0473
Mercury	46581-10-22 21:36 G	18734716.27	18734716.40	18734716.52	0.0517	0.0125
Earth	46584-01-01 18:43 G	18735517.11	18735517.28	18735517.46	0.0500	0.0333
Moon	46584-01-01 20:24 G	18735517.17	18735517.35	18735517.55	0.0500	0.0315 *
Mercury	46587-12-13 14:53 G	18736958.94	18736959.12	18736959.31	0.0509	0.0111
Earth	46589-06-12 11:02 G	18737505.88	18737505.96	18737506.06	0.0521	0.0479
Moon	46589-06-12 13:41 G	18737505.96	18737506.07	18737506.18	0.0521	0.0453 *
Venus	46590-10-23 23:17 G	18738004.33	18738004.47	18738004.61	0.0528	0.0372
Mercury	46593-08-11 02:10 G	18739026.47	18739026.59	18739026.72	0.0517	0.0027
Moon	46596-01-06 07:12 G	18739904.75	18739904.80	18739904.88	0.0500	0.0478
Venus	46596-08-26 21:36 G	18740138.24	18740138.40	18740138.56	0.0497	0.0303
Mars	46599-04-27 14:38 G	18741111.83	18741112.11	18741112.39	0.0505	0.0162

Mercury	46599-10-01 11:02 G	18741268.77	18741268.96	18741269.14	0.0508	0.0109
Moon	46601-06-18 06:58 G	18741893.59	18741893.79	18741894.00	0.0523	0.0261
Earth	46601-06-18 07:41 G	18741893.63	18741893.82	18741894.02	0.0523	0.0282 *
Venus	46602-06-29 15:50 G	18742269.95	18742270.16	18742270.36	0.0528	0.0037
Mercury	46605-05-31 07:26 G	18743336.69	18743336.81	18743336.93	0.0518	0.0164
Mercury	46605-08-28 11:02 G	18743425.90	18743425.96	18743426.03	0.0516	0.0428
Venus	46608-05-02 22:05 G	18744404.22	18744404.42	18744404.63	0.0497	0.0041
Mercury	46611-07-21 05:46 G	18745578.60	18745578.74	18745578.88	0.0508	0.0346
Moon	46613-06-23 02:10 G	18746281.38	18746281.59	18746281.81	0.0524	0.0111
Earth	46613-06-23 03:50 G	18746281.44	18746281.66	18746281.89	0.0524	0.0086 *
Venus	46614-03-04 08:10 G	18746535.73	18746535.84	18746535.95	0.0528	0.0444
Mercury	46617-03-19 12:29 G	18747646.92	18747647.02	18747647.12	0.0518	0.0303
Mercury	46617-06-16 16:19 G	18747736.08	18747736.18	18747736.28	0.0516	0.0291
Earth	46618-12-14 18:29 G	18748282.13	18748282.27	18748282.42	0.0503	0.0397
Moon	46618-12-14 22:19 G	18748282.31	18748282.43	18748282.56	0.0503	0.0424 *
Venus	46620-01-07 00:14 G	18748670.38	18748670.51	18748670.65	0.0498	0.0377
Mercury	46623-08-07 17:17 G	18749979.08	18749979.22	18749979.36	0.0510	0.0336
Earth	46625-06-28 03:36 G	18750669.43	18750669.65	18750669.88	0.0525	0.0123
Moon	46625-06-28 07:12 G	18750669.57	18750669.80	18750670.03	0.0525	0.0108 *
Mercury	46629-01-05 17:02 G	18751957.16	18751957.21	18751957.27	0.0518	0.0453
Mercury	46629-04-04 21:07 G	18752046.26	18752046.38	18752046.50	0.0516	0.0144
Moon	46630-12-19 06:43 G	18752669.57	18752669.78	18752669.99	0.0503	0.0239
Earth	46630-12-19 09:22 G	18752669.68	18752669.89	18752670.10	0.0503	0.0219 *
Mercury	46635-05-26 13:55 G	18754288.90	18754289.08	18754289.26	0.0509	0.0126
Moon	46637-07-02 22:48 G	18755057.28	18755057.45	18755057.62	0.0526	0.0354
Earth	46637-07-03 02:53 G	18755057.44	18755057.62	18755057.80	0.0526	0.0328 *
Venus	46638-03-07 10:48 G	18755304.77	18755304.95	18755305.14	0.0529	0.0221
Mercury	46641-01-22 01:41 G	18756356.45	18756356.57	18756356.70	0.0517	0.0011
Earth	46642-12-24 00:43 G	18757057.30	18757057.53	18757057.77	0.0502	0.0039
Moon	46642-12-24 01:12 G	18757057.32	18757057.55	18757057.78	0.0502	0.0016 *

Venus	46644-01-09 11:02 G	18757438.77	18757438.96	18757439.15	0.0497	0.0169
Mercury	46647-03-14 10:19 G	18758598.74	18758598.93	18758599.11	0.0508	0.0090
Venus	46649-11-10 01:41 G	18759570.39	18759570.57	18759570.76	0.0528	0.0196
Mercury	46652-11-10 06:29 G	18760666.65	18760666.77	18760666.89	0.0518	0.0154
Mercury	46653-02-07 10:05 G	18760755.86	18760755.92	18760755.99	0.0516	0.0438
Earth	46654-12-28 16:34 G	18761444.97	18761445.19	18761445.42	0.0501	0.0141
Moon	46654-12-28 18:14 G	18761445.03	18761445.26	18761445.50	0.0501	0.0160 *
Venus	46655-09-14 13:12 G	18761704.86	18761705.05	18761705.24	0.0498	0.0167
Mercury	46658-12-31 06:14 G	18762908.61	18762908.76	18762908.91	0.0508	0.0308
Mars	46664-04-11 12:58 G	18764836.81	18764837.04	18764837.28	0.0521	0.0216
Mercury	46664-08-29 11:31 G	18764976.88	18764976.98	18764977.08	0.0518	0.0294
Mercury	46664-11-26 15:22 G	18765066.04	18765066.14	18765066.24	0.0516	0.0301
Moon	46667-01-02 04:19 G	18765832.50	18765832.68	18765832.87	0.0500	0.0297
Earth	46667-01-02 06:58 G	18765832.62	18765832.79	18765832.98	0.0500	0.0317 *
Mercury	46671-01-17 15:36 G	18767309.02	18767309.15	18767309.29	0.0510	0.0345
Moon	46672-06-12 18:00 G	18767821.17	18767821.25	18767821.35	0.0522	0.0477
Earth	46672-06-12 19:12 G	18767821.25	18767821.30	18767821.36	0.0522	0.0505 *
Venus	46673-11-13 03:50 G	18768339.57	18768339.66	18768339.76	0.0530	0.0467
Mercury	46676-06-17 16:34 G	18769287.13	18769287.19	18769287.26	0.0519	0.0434
Mercury	46676-09-14 20:38 G	18769376.24	18769376.36	18769376.47	0.0516	0.0164
Earth	46679-01-06 21:50 G	18770220.38	18770220.41	18770220.45	0.0499	0.0491
Moon	46679-01-07 01:26 G	18770220.48	18770220.56	18770220.65	0.0499	0.0465
Venus	46679-09-16 22:48 G	18770473.32	18770473.45	18770473.59	0.0497	0.0374
Mercury	46682-11-05 12:14 G	18771618.83	18771619.01	18771619.19	0.0509	0.0131
Moon	46684-06-17 16:34 G	18772209.01	18772209.19	18772209.38	0.0523	0.0294
Earth	46684-06-17 18:00 G	18772209.06	18772209.25	18772209.44	0.0523	0.0304 *
Venus	46685-07-18 20:38 G	18772605.16	18772605.36	18772605.56	0.0529	0.0059
Mercury	46688-07-04 01:12 G	18773686.42	18773686.55	18773686.68	0.0517	0.0014
Venus	46691-05-23 00:43 G	18774739.32	18774739.53	18774739.73	0.0497	0.0037
Mercury	46694-08-24 08:53 G	18775928.69	18775928.87	18775929.06	0.0509	0.0079

Earth	46696-06-22 16:34 G	18776596.97	18776597.19	18776597.42	0.0524	0.0100
Moon	46696-06-22 19:55 G	18776597.11	18776597.33	18776597.56	0.0524	0.0131 *
Venus	46697-03-23 12:43 G	18776870.88	18776871.03	18776871.18	0.0528	0.0350
Mercury	46700-04-23 05:46 G	18777996.62	18777996.74	18777996.87	0.0517	0.0136
Mercury	46700-07-21 09:36 G	18778085.84	18778085.90	18778085.96	0.0515	0.0455
Moon	46701-12-15 01:41 G	18778597.46	18778597.57	18778597.69	0.0504	0.0441
Earth	46701-12-15 04:34 G	18778597.56	18778597.69	18778597.83	0.0504	0.0415 *
Venus	46703-01-27 02:24 G	18779005.44	18779005.60	18779005.77	0.0498	0.0302
Mercury	46706-06-13 05:17 G	18780238.57	18780238.72	18780238.88	0.0508	0.0293
Moon	46708-06-28 08:53 G	18780984.64	18780984.87	18780985.10	0.0525	0.0085
Earth	46708-06-28 12:58 G	18780984.81	18780985.04	18780985.27	0.0525	0.0101 *
Mercury	46712-02-10 10:34 G	18782306.83	18782306.94	18782307.04	0.0518	0.0287
Mercury	46712-05-09 14:10 G	18782396.00	18782396.09	18782396.20	0.0516	0.0309
Earth	46713-12-19 20:53 G	18782985.16	18782985.37	18782985.58	0.0503	0.0236
Moon	46713-12-19 21:22 G	18782985.20	18782985.39	18782985.59	0.0503	0.0247 *
Mercury	46718-06-30 16:05 G	18784639.05	18784639.17	18784639.30	0.0509	0.0379
Earth	46720-07-03 10:34 G	18785372.75	18785372.94	18785373.13	0.0526	0.0305
Moon	46720-07-03 14:10 G	18785372.92	18785373.09	18785373.27	0.0526	0.0333 *
Venus	46721-03-27 12:58 G	18785639.88	18785640.04	18785640.21	0.0529	0.0302
Mercury	46723-11-29 15:36 G	18786617.08	18786617.15	18786617.22	0.0519	0.0427
Mercury	46724-02-26 19:26 G	18786706.19	18786706.31	18786706.43	0.0517	0.0170
Earth	46725-12-24 12:58 G	18787372.81	18787373.04	18787373.28	0.0502	0.0056
Moon	46725-12-24 14:38 G	18787372.87	18787373.11	18787373.36	0.0502	0.0027 *
Venus	46727-01-29 12:29 G	18787773.85	18787774.02	18787774.20	0.0497	0.0243
Mercury	46730-04-18 10:34 G	18788948.76	18788948.94	18788949.12	0.0509	0.0137
Moon	46732-07-08 05:02 G	18789760.68	18789760.71	18789760.74	0.0527	0.0522
Earth	46732-07-08 07:12 G	18789760.74	18789760.80	18789760.86	0.0527	0.0507 *
Venus	46732-11-30 04:34 G	18789905.49	18789905.69	18789905.89	0.0529	0.0111
Mercury	46735-12-16 00:43 G	18791016.40	18791016.53	18791016.65	0.0517	0.0035
Moon	46737-12-29 01:55 G	18791760.36	18791760.58	18791760.80	0.0500	0.0144

Earth	46737-12-29 04:48 G	18791760.47	18791760.70	18791760.93	0.0500	0.0126	*
Venus	46738-10-04 14:53 G	18792039.92	18792040.12	18792040.32	0.0497	0.0093	
Mercury	46742-02-04 06:58 G	18793258.60	18793258.79	18793258.98	0.0509	0.0078	
Venus	46744-08-04 21:07 G	18794171.35	18794171.38	18794171.43	0.0528	0.0516	
Mercury	46747-10-04 05:17 G	18795326.59	18795326.72	18795326.84	0.0517	0.0120	
Mercury	46748-01-01 08:53 G	18795415.82	18795415.87	18795415.92	0.0515	0.0470	
Earth	46750-01-02 17:17 G	18796148.04	18796148.22	18796148.41	0.0500	0.0303	
Moon	46750-01-02 21:07 G	18796148.18	18796148.38	18796148.58	0.0500	0.0279	*
Venus	46750-06-09 15:50 G	18796306.07	18796306.16	18796306.26	0.0498	0.0435	
Mercury	46753-11-23 03:36 G	18797568.50	18797568.65	18797568.81	0.0508	0.0287	
Moon	46755-06-14 06:00 G	18798136.69	18798136.75	18798136.82	0.0522	0.0494	
Earth	46755-06-14 06:58 G	18798136.79	18798136.79	18798136.80	0.0522	0.0521	*
Mercury	46759-07-23 09:50 G	18799636.80	18799636.91	18799637.02	0.0518	0.0270	
Mercury	46759-10-20 13:41 G	18799725.97	18799726.07	18799726.16	0.0516	0.0324	
Moon	46762-01-07 03:36 G	18800535.55	18800535.65	18800535.74	0.0499	0.0454	
Earth	46762-01-07 07:12 G	18800535.74	18800535.80	18800535.87	0.0499	0.0477	*
Venus	46762-10-07 00:14 G	18800808.42	18800808.51	18800808.60	0.0497	0.0444	
Mercury	46765-09-11 00:00 G	18801878.48	18801878.50	18801878.53	0.0508	0.0501	
Mercury	46765-12-10 14:38 G	18801969.00	18801969.11	18801969.24	0.0510	0.0391	
Earth	46767-06-19 02:24 G	18802524.43	18802524.60	18802524.78	0.0522	0.0327	
Moon	46767-06-19 05:46 G	18802524.55	18802524.74	18802524.92	0.0522	0.0325	*
Venus	46768-08-07 21:50 G	18802940.22	18802940.41	18802940.61	0.0529	0.0136	
Mercury	46771-05-11 14:10 G	18803947.03	18803947.09	18803947.17	0.0519	0.0424	
Mercury	46771-08-08 18:14 G	18804036.14	18804036.26	18804036.38	0.0517	0.0174	
Venus	46774-06-12 02:24 G	18805074.40	18805074.60	18805074.80	0.0497	0.0110	
Mercury	46777-09-28 10:34 G	18806278.76	18806278.94	18806279.12	0.0509	0.0167	
Moon	46779-06-23 18:43 G	18806912.06	18806912.28	18806912.50	0.0524	0.0161	
Earth	46779-06-23 22:48 G	18806912.22	18806912.45	18806912.67	0.0524	0.0127	*
Venus	46780-04-12 13:41 G	18807205.90	18807206.07	18807206.24	0.0528	0.0275	
Mercury	46783-05-27 23:17 G	18808346.35	18808346.47	18808346.60	0.0517	0.0034	

Earth	46784-12-14 15:36 G	18808913.04	18808913.15	18808913.27	0.0504	0.0434
Moon	46784-12-14 16:19 G	18808913.10	18808913.18	18808913.27	0.0504	0.0463 *
Venus	46786-02-15 03:50 G	18809340.48	18809340.66	18809340.84	0.0497	0.0228
Mercury	46789-07-17 05:02 G	18810588.52	18810588.71	18810588.90	0.0508	0.0076
Earth	46791-06-28 16:34 G	18811299.97	18811300.19	18811300.42	0.0525	0.0072
Moon	46791-06-28 20:38 G	18811300.13	18811300.36	18811300.58	0.0525	0.0059 *
Mercury	46795-03-16 04:19 G	18812656.56	18812656.68	18812656.80	0.0518	0.0108
Mercury	46795-06-13 08:10 G	18812745.80	18812745.84	18812745.88	0.0516	0.0484
Earth	46796-12-19 08:24 G	18813300.65	18813300.85	18813301.05	0.0503	0.0251
Moon	46796-12-19 09:50 G	18813300.70	18813300.91	18813301.13	0.0503	0.0252 *
Mercury	46801-05-05 01:12 G	18814898.40	18814898.55	18814898.71	0.0508	0.0292
Moon	46803-07-03 13:26 G	18815687.88	18815688.06	18815688.26	0.0526	0.0307
Earth	46803-07-03 16:19 G	18815687.99	18815688.18	18815688.38	0.0526	0.0280 *
Venus	46804-04-15 15:07 G	18815974.99	18815975.13	18815975.27	0.0529	0.0381
Mercury	46807-01-02 08:53 G	18816966.76	18816966.87	18816966.98	0.0518	0.0260
Mercury	46807-04-01 12:43 G	18817055.93	18817056.03	18817056.12	0.0516	0.0334
Moon	46808-12-23 18:29 G	18817688.04	18817688.27	18817688.50	0.0502	0.0044
Earth	46808-12-23 21:07 G	18817688.15	18817688.38	18817688.62	0.0502	0.0075 *
Venus	46810-02-17 12:43 G	18818108.88	18818109.03	18818109.20	0.0497	0.0308
Mercury	46813-02-20 21:50 G	18819208.39	18819208.41	18819208.44	0.0508	0.0501
Mercury	46813-05-22 12:43 G	18819298.91	18819299.03	18819299.15	0.0510	0.0391
Earth	46815-07-08 15:50 G	18820076.08	18820076.16	18820076.25	0.0527	0.0488
Moon	46815-07-08 16:05 G	18820076.10	18820076.17	18820076.24	0.0527	0.0497 *
Venus	46815-12-20 06:58 G	18820240.59	18820240.79	18820241.00	0.0529	0.0032
Mars	46818-07-08 05:17 G	18821171.49	18821171.72	18821171.95	0.0521	0.0227
Mercury	46818-10-21 13:26 G	18821276.98	18821277.06	18821277.13	0.0518	0.0411
Mercury	46819-01-18 17:17 G	18821366.11	18821366.22	18821366.34	0.0516	0.0185
Earth	46820-12-28 11:02 G	18822075.73	18822075.96	18822076.19	0.0501	0.0106
Moon	46820-12-28 14:53 G	18822075.88	18822076.12	18822076.35	0.0501	0.0120 *
Venus	46821-10-23 14:38 G	18822374.90	18822375.11	18822375.31	0.0497	0.0031

Mercury	46825-03-10 08:53 G	18823608.69	18823608.87	18823609.05	0.0509	0.0171
Venus	46827-08-24 21:36 G	18824506.29	18824506.40	18824506.51	0.0528	0.0443
Mercury	46830-11-06 21:50 G	18825676.28	18825676.41	18825676.54	0.0517	0.0033
Moon	46833-01-01 21:36 G	18826463.20	18826463.40	18826463.60	0.0500	0.0257
Earth	46833-01-02 01:12 G	18826463.36	18826463.55	18826463.75	0.0500	0.0283 *
Venus	46833-06-28 16:19 G	18826641.04	18826641.18	18826641.31	0.0498	0.0367
Mercury	46836-12-27 04:34 G	18827918.50	18827918.69	18827918.88	0.0508	0.0053
Moon	46838-06-13 13:41 G	18828452.07	18828452.07	18828452.09	0.0521	0.0520
Mercury	46842-08-26 02:53 G	18829986.50	18829986.62	18829986.74	0.0518	0.0110
Mercury	46842-11-23 06:29 G	18830075.73	18830075.77	18830075.82	0.0516	0.0483
Earth	46845-01-06 16:05 G	18830851.09	18830851.17	18830851.27	0.0499	0.0459
Moon	46845-01-06 18:58 G	18830851.19	18830851.29	18830851.39	0.0499	0.0447 *
Mercury	46848-10-14 23:02 G	18832228.31	18832228.46	18832228.61	0.0508	0.0294
Moon	46850-06-17 22:48 G	18832839.30	18832839.45	18832839.62	0.0523	0.0363
Earth	46850-06-18 02:38 G	18832839.45	18832839.61	18832839.78	0.0523	0.0364 *
Venus	46851-08-27 20:53 G	18833275.18	18833275.37	18833275.55	0.0529	0.0201
Mercury	46854-06-14 07:41 G	18834296.71	18834296.82	18834296.93	0.0518	0.0254
Mercury	46854-09-11 11:31 G	18834385.89	18834385.98	18834386.08	0.0516	0.0342
Venus	46857-07-01 02:10 G	18835409.40	18835409.59	18835409.78	0.0496	0.0173
Mercury	46860-11-01 09:50 G	18836628.79	18836628.91	18836629.04	0.0509	0.0379
Earth	46862-06-23 00:29 G	18837227.31	18837227.52	18837227.75	0.0524	0.0160
Moon	46862-06-23 04:34 G	18837227.48	18837227.69	18837227.91	0.0524	0.0192 *
Venus	46863-05-02 12:58 G	18837540.86	18837541.04	18837541.23	0.0529	0.0209
Mercury	46866-04-02 12:14 G	18838606.93	18838607.01	18838607.09	0.0519	0.0407
Mercury	46866-06-30 16:05 G	18838696.06	18838696.17	18838696.29	0.0516	0.0190
Earth	46867-12-14 20:53 G	18839228.28	18839228.37	18839228.47	0.0504	0.0459
Moon	46867-12-14 22:05 G	18839228.36	18839228.42	18839228.48	0.0504	0.0487 *
Venus	46869-03-06 02:24 G	18839675.41	18839675.60	18839675.80	0.0497	0.0170
Mars	46872-01-11 01:26 G	18840716.32	18840716.56	18840716.82	0.0504	0.0268
Mercury	46872-08-20 06:14 G	18840938.58	18840938.76	18840938.94	0.0509	0.0165

Moon	46874-06-27 20:24 G	18841615.11	18841615.35	18841615.59	0.0525	0.0037
Earth	46874-06-27 23:31 G	18841615.25	18841615.48	18841615.71	0.0525	0.0048 *
Mercury	46878-04-18 20:38 G	18843006.24	18843006.36	18843006.49	0.0517	0.0044
Moon	46879-12-19 08:38 G	18843615.68	18843615.86	18843616.06	0.0503	0.0282
Earth	46879-12-19 11:17 G	18843615.78	18843615.97	18843616.17	0.0503	0.0280 *
Mercury	46884-06-08 02:24 G	18845248.41	18845248.60	18845248.79	0.0508	0.0055
Earth	46886-07-02 19:41 G	18846003.12	18846003.32	18846003.53	0.0525	0.0249
Moon	46886-07-02 20:24 G	18846003.17	18846003.35	18846003.55	0.0525	0.0281 *
Venus	46887-05-05 13:41 G	18846309.96	18846310.07	18846310.18	0.0529	0.0443
Mercury	46890-02-05 01:12 G	18847316.43	18847316.55	18847316.67	0.0518	0.0115
Mercury	46890-05-05 04:48 G	18847405.66	18847405.70	18847405.75	0.0516	0.0477
Earth	46891-12-24 01:41 G	18848003.34	18848003.57	18848003.80	0.0502	0.0101
Moon	46891-12-24 05:17 G	18848003.48	18848003.72	18848003.96	0.0502	0.0069 *
Venus	46893-03-08 11:46 G	18848443.85	18848443.99	18848444.13	0.0497	0.0367
Mercury	46896-03-26 22:05 G	18849558.26	18849558.42	18849558.58	0.0508	0.0278
Earth	46898-07-07 15:50 G	18850391.06	18850391.16	18850391.29	0.0526	0.0454
Moon	46898-07-07 17:02 G	18850391.11	18850391.21	18850391.34	0.0526	0.0457 *
Venus	46899-01-08 04:19 G	18850575.48	18850575.68	18850575.89	0.0529	0.0031
Mercury	46901-11-25 06:00 G	18851626.64	18851626.75	18851626.86	0.0518	0.0261
Mercury	46902-02-22 09:50 G	18851715.82	18851715.91	18851716.01	0.0516	0.0335
Moon	46903-12-29 14:10 G	18852390.85	18852391.09	18852391.32	0.0501	0.0092
Earth	46903-12-29 17:46 G	18852391.01	18852391.24	18852391.48	0.0501	0.0084 *
Venus	46904-11-12 13:41 G	18852709.87	18852710.07	18852710.28	0.0497	0.0032
Mercury	46908-04-14 07:12 G	18853958.67	18853958.80	18853958.93	0.0509	0.0370
Venus	46910-09-13 17:46 G	18854841.11	18854841.24	18854841.38	0.0528	0.0391
Mercury	46913-09-13 10:48 G	18855936.87	18855936.95	18855937.03	0.0519	0.0407
Mercury	46913-12-11 14:53 G	18856026.00	18856026.12	18856026.23	0.0517	0.0192
Earth	46916-01-03 08:10 G	18856778.64	18856778.84	18856779.04	0.0500	0.0263
Moon	46916-01-03 11:02 G	18856778.76	18856778.96	18856779.16	0.0500	0.0234 *
Venus	46916-07-18 15:07 G	18856975.97	18856976.13	18856976.29	0.0497	0.0306

Mercury	46920-02-01 02:53 G	18858268.45	18858268.62	18858268.81	0.0509	0.0149
Mercury	46925-09-29 19:12 G	18860336.18	18860336.30	18860336.43	0.0517	0.0039
Moon	46928-01-07 16:48 G	18861166.08	18861166.20	18861166.34	0.0499	0.0420
Earth	46928-01-07 18:43 G	18861166.17	18861166.28	18861166.40	0.0499	0.0434 *
Mercury	46931-11-19 23:17 G	18862578.29	18862578.47	18862578.66	0.0508	0.0068
Earth	46933-06-18 07:26 G	18863154.66	18863154.81	18863154.96	0.0522	0.0391
Moon	46933-06-18 11:31 G	18863154.83	18863154.98	18863155.13	0.0522	0.0391 *
Venus	46934-09-16 20:24 G	18863610.17	18863610.35	18863610.52	0.0529	0.0267
Mercury	46937-07-18 23:46 G	18864646.37	18864646.49	18864646.61	0.0518	0.0113
Mercury	46937-10-16 03:36 G	18864735.60	18864735.65	18864735.69	0.0515	0.0478
Venus	46940-07-20 22:34 G	18865744.25	18865744.44	18865744.62	0.0497	0.0221
Mercury	46943-09-07 19:26 G	18866888.15	18866888.31	18866888.46	0.0508	0.0287
Moon	46945-06-22 23:31 G	18867542.27	18867542.48	18867542.69	0.0523	0.0225
Earth	46945-06-23 02:53 G	18867542.41	18867542.62	18867542.84	0.0523	0.0193 *
Venus	46946-05-22 10:34 G	18867875.75	18867875.94	18867876.14	0.0528	0.0150
Mercury	46949-05-07 04:05 G	18868956.56	18868956.67	18868956.78	0.0518	0.0270
Mercury	46949-08-04 07:55 G	18869045.74	18869045.83	18869045.93	0.0516	0.0325
Earth	46950-12-14 22:05 G	18869543.37	18869543.42	18869543.47	0.0505	0.0493
Venus	46952-03-25 23:46 G	18870010.29	18870010.49	18870010.69	0.0497	0.0116
Mercury	46955-09-25 05:46 G	18871288.62	18871288.74	18871288.86	0.0509	0.0379
Earth	46957-06-27 21:50 G	18871930.18	18871930.41	18871930.64	0.0524	0.0010
Moon	46957-06-27 23:17 G	18871930.25	18871930.47	18871930.70	0.0524	0.0011 *
Mercury	46961-02-23 08:53 G	18873266.80	18873266.87	18873266.94	0.0519	0.0419
Mercury	46961-05-23 12:43 G	18873355.92	18873356.03	18873356.15	0.0517	0.0181
Earth	46962-12-19 14:53 G	18873930.94	18873931.12	18873931.31	0.0503	0.0309
Moon	46962-12-19 18:14 G	18873931.08	18873931.26	18873931.46	0.0503	0.0307 *
Venus	46963-11-30 01:41 G	18874276.49	18874276.57	18874276.66	0.0498	0.0452
Mercury	46967-07-14 00:14 G	18875598.32	18875598.51	18875598.69	0.0508	0.0136
Earth	46969-07-02 14:10 G	18876317.88	18876318.09	18876318.31	0.0525	0.0206
Moon	46969-07-02 14:38 G	18876317.90	18876318.11	18876318.33	0.0525	0.0237 *

Venus	46970-05-25 08:24 G	18876644.78	18876644.85	18876644.93	0.0530	0.0488
Mercury	46973-03-11 17:31 G	18877666.11	18877666.23	18877666.36	0.0518	0.0037
Moon	46974-12-24 02:38 G	18878318.38	18878318.61	18878318.84	0.0502	0.0095
Earth	46974-12-24 06:29 G	18878318.54	18878318.77	18878319.00	0.0502	0.0125 *
Venus	46976-03-28 09:07 G	18878778.78	18878778.88	18878778.99	0.0496	0.0419
Mercury	46979-05-01 19:55 G	18879908.14	18879908.33	18879908.51	0.0508	0.0087
Moon	46981-07-07 10:19 G	18880705.80	18880705.93	18880706.07	0.0526	0.0421
Earth	46981-07-07 12:29 G	18880705.88	18880706.02	18880706.16	0.0526	0.0415 *
Venus	46982-01-28 00:14 G	18880910.31	18880910.51	18880910.71	0.0529	0.0078
Mercury	46984-12-28 22:05 G	18881976.30	18881976.42	18881976.54	0.0518	0.0120
Mercury	46985-03-28 01:55 G	18882065.53	18882065.58	18882065.63	0.0516	0.0472
Earth	46986-12-28 17:31 G	18882706.00	18882706.23	18882706.47	0.0501	0.0051
Moon	46986-12-28 20:53 G	18882706.14	18882706.37	18882706.60	0.0501	0.0053 *
Venus	46987-12-02 09:07 G	18883044.68	18883044.88	18883045.08	0.0497	0.0075
Mercury	46991-02-17 16:05 G	18884218.02	18884218.17	18884218.32	0.0508	0.0305
Venus	46993-10-02 16:19 G	18885176.03	18885176.18	18885176.34	0.0528	0.0329
Mercury	46996-10-17 02:38 G	18886286.50	18886286.61	18886286.72	0.0518	0.0272
Mercury	46997-01-14 06:29 G	18886375.67	18886375.77	18886375.87	0.0516	0.0323
Moon	46999-01-02 04:05 G	18887093.45	18887093.67	18887093.90	0.0500	0.0198
Earth	46999-01-02 06:14 G	18887093.55	18887093.76	18887093.97	0.0500	0.0229 *
Venus	46999-08-07 09:50 G	18887310.74	18887310.91	18887311.08	0.0498	0.0265

48TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 48th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	47003-03-08 02:53 G	18888618.49	18888618.62	18888618.75	0.0509	0.0367
Mercury	47008-08-06 06:43 G	18890596.72	18890596.78	18890596.85	0.0519	0.0432
Mercury	47008-11-03 10:48 G	18890685.83	18890685.95	18890686.07	0.0517	0.0168
Earth	47011-01-07 18:58 G	18891481.16	18891481.29	18891481.43	0.0500	0.0404
Moon	47011-01-07 19:41 G	18891481.19	18891481.32	18891481.46	0.0500	0.0394 *
Mercury	47014-12-24 22:19 G	18892928.25	18892928.43	18892928.61	0.0509	0.0139
Moon	47016-06-18 00:58 G	18893469.42	18893469.54	18893469.68	0.0521	0.0432
Earth	47016-06-18 04:48 G	18893469.58	18893469.70	18893469.84	0.0521	0.0434 *
Venus	47017-10-06 14:53 G	18893944.96	18893945.12	18893945.29	0.0529	0.0312
Mercury	47020-08-22 15:36 G	18894996.02	18894996.15	18894996.27	0.0518	0.0023
Venus	47023-08-10 19:26 G	18896079.14	18896079.31	18896079.48	0.0497	0.0272
Mars	47026-04-07 03:22 G	18897049.35	18897049.64	18897049.94	0.0504	0.0044
Mercury	47026-10-12 16:48 G	18897238.02	18897238.20	18897238.39	0.0508	0.0101
Earth	47028-06-22 19:55 G	18897857.13	18897857.33	18897857.53	0.0523	0.0241
Moon	47028-06-22 22:19 G	18897857.24	18897857.43	18897857.62	0.0523	0.0272 *
Venus	47029-06-11 04:05 G	18898210.47	18898210.67	18898210.86	0.0529	0.0112
Mercury	47032-06-10 20:10 G	18899306.22	18899306.34	18899306.46	0.0518	0.0130
Mercury	47032-09-08 00:00 G	18899395.45	18899395.50	18899395.55	0.0516	0.0465
Venus	47035-04-15 20:53 G	18900345.16	18900345.37	18900345.57	0.0497	0.0066
Mercury	47038-07-31 12:29 G	18901547.88	18901548.02	18901548.17	0.0507	0.0324
Moon	47040-06-27 16:19 G	18902244.94	18902245.18	18902245.42	0.0524	0.0034
Earth	47040-06-27 16:34 G	18902244.96	18902245.19	18902245.42	0.0524	0.0037 *
Venus	47041-02-13 19:41 G	18902476.29	18902476.32	18902476.36	0.0528	0.0518
Mercury	47044-03-30 00:43 G	18903616.42	18903616.53	18903616.63	0.0519	0.0284
Mercury	47044-06-27 04:34 G	18903705.59	18903705.69	18903705.79	0.0516	0.0313
Moon	47045-12-19 09:07 G	18904245.71	18904245.88	18904246.05	0.0504	0.0347
Earth	47045-12-19 12:43 G	18904245.87	18904246.03	18904246.21	0.0504	0.0347 *
Venus	47046-12-19 19:55 G	18904611.22	18904611.33	18904611.45	0.0498	0.0412

Mercury	47050-08-17 23:02 G	18905948.33	18905948.46	18905948.60	0.0509	0.0345
Moon	47052-07-02 13:55 G	18906632.87	18906633.08	18906633.28	0.0525	0.0206
Earth	47052-07-02 15:22 G	18906632.93	18906633.14	18906633.36	0.0525	0.0172 *
Mercury	47056-01-17 05:17 G	18907926.65	18907926.72	18907926.78	0.0519	0.0436
Mercury	47056-04-15 09:07 G	18908015.76	18908015.88	18908016.00	0.0517	0.0163
Earth	47057-12-24 02:24 G	18908633.38	18908633.60	18908633.83	0.0503	0.0166
Moon	47057-12-24 06:00 G	18908633.52	18908633.75	18908633.97	0.0503	0.0136 *
Venus	47059-04-18 03:07 G	18909113.55	18909113.63	18909113.71	0.0496	0.0455
Mercury	47062-06-05 19:12 G	18910258.11	18910258.30	18910258.48	0.0509	0.0124
Earth	47064-07-07 11:46 G	18911020.84	18911020.99	18911021.16	0.0526	0.0377
Moon	47064-07-07 14:53 G	18911020.96	18911021.12	18911021.29	0.0526	0.0380 *
Venus	47065-02-16 20:38 G	18911245.16	18911245.36	18911245.56	0.0529	0.0131
Mercury	47068-02-02 13:26 G	18912325.94	18912326.06	18912326.19	0.0517	0.0008
Moon	47069-12-28 13:26 G	18913020.82	18913021.06	18913021.30	0.0502	0.0014
Earth	47069-12-28 15:50 G	18913020.93	18913021.16	18913021.40	0.0502	0.0014 *
Venus	47070-12-22 04:19 G	18913379.49	18913379.68	18913379.88	0.0497	0.0120
Mercury	47074-03-24 14:38 G	18914567.93	18914568.11	18914568.30	0.0508	0.0103
Venus	47076-10-22 10:48 G	18915510.78	18915510.95	18915511.12	0.0528	0.0284
Mercury	47079-11-21 18:00 G	18916636.13	18916636.25	18916636.38	0.0518	0.0145
Mercury	47080-02-18 21:50 G	18916725.36	18916725.41	18916725.47	0.0516	0.0451
Earth	47082-01-02 07:12 G	18917408.59	18917408.80	18917409.02	0.0501	0.0199
Moon	47082-01-02 08:10 G	18917408.63	18917408.84	18917409.06	0.0501	0.0169 *
Venus	47082-08-27 06:14 G	18917645.58	18917645.76	18917645.95	0.0498	0.0216
Mercury	47086-01-10 09:36 G	18918877.76	18918877.90	18918878.04	0.0507	0.0337
Mars	47091-03-24 07:55 G	18920776.65	18920776.83	18920777.03	0.0523	0.0354
Mercury	47091-09-09 22:48 G	18920946.34	18920946.45	18920946.55	0.0519	0.0295
Mercury	47091-12-08 02:38 G	18921035.51	18921035.61	18921035.71	0.0517	0.0304
Earth	47094-01-06 21:07 G	18921796.24	18921796.38	18921796.54	0.0500	0.0378
Moon	47094-01-06 21:50 G	18921796.25	18921796.41	18921796.58	0.0500	0.0369 *
Mercury	47098-01-27 19:55 G	18923278.18	18923278.33	18923278.47	0.0509	0.0327

Earth	47099-06-17 23:31 G	18923784.40	18923784.48	18923784.57	0.0521	0.0480
Moon	47099-06-18 02:24 G	18923784.52	18923784.60	18923784.69	0.0521	0.0483 *
Venus	47100-10-26 09:22 G	18924279.74	18924279.89	18924280.04	0.0529	0.0353
Mercury	47103-06-30 03:07 G	18925256.57	18925256.63	18925256.70	0.0519	0.0449
Mercury	47103-09-27 07:12 G	18925345.68	18925345.80	18925345.92	0.0517	0.0151
Venus	47106-08-30 13:12 G	18926413.89	18926414.05	18926414.21	0.0497	0.0308
Mercury	47109-11-16 15:36 G	18927587.96	18927588.15	18927588.33	0.0509	0.0102
Moon	47111-06-23 19:55 G	18928172.15	18928172.33	18928172.53	0.0523	0.0308
Earth	47111-06-23 20:53 G	18928172.18	18928172.37	18928172.57	0.0523	0.0278 *
Venus	47112-07-01 01:55 G	18928545.38	18928545.58	18928545.79	0.0529	0.0052
Mercury	47115-07-16 11:46 G	18929655.87	18929655.99	18929656.12	0.0517	0.0020
Venus	47118-05-05 14:10 G	18930679.88	18930680.09	18930680.29	0.0497	0.0030
Mercury	47121-09-04 11:31 G	18931897.80	18931897.98	18931898.17	0.0508	0.0119
Moon	47123-06-28 16:05 G	18932559.95	18932560.17	18932560.40	0.0524	0.0071
Earth	47123-06-28 17:17 G	18932559.99	18932560.22	18932560.45	0.0524	0.0075 *
Venus	47124-03-05 16:48 G	18932811.11	18932811.20	18932811.30	0.0528	0.0460
Mercury	47127-05-04 16:05 G	18933966.05	18933966.17	18933966.29	0.0518	0.0156
Mercury	47127-08-01 19:55 G	18934055.27	18934055.33	18934055.40	0.0516	0.0438
Earth	47128-12-19 10:19 G	18934560.78	18934560.93	18934561.08	0.0504	0.0387
Moon	47128-12-19 13:41 G	18934560.93	18934561.07	18934561.23	0.0504	0.0379 *
Venus	47130-01-08 15:07 G	18934945.99	18934946.13	18934946.27	0.0498	0.0368
Mercury	47133-06-23 07:26 G	18936207.67	18936207.81	18936207.95	0.0507	0.0340
Earth	47135-07-03 12:14 G	18936947.78	18936948.01	18936948.23	0.0524	0.0129
Moon	47135-07-03 14:53 G	18936947.89	18936948.12	18936948.34	0.0524	0.0162 *
Mercury	47139-02-20 20:38 G	18938276.26	18938276.36	18938276.46	0.0519	0.0308
Mercury	47139-05-21 00:43 G	18938365.42	18938365.53	18938365.63	0.0517	0.0291
Moon	47140-12-23 23:46 G	18938948.27	18938948.49	18938948.72	0.0503	0.0171
Earth	47140-12-24 02:38 G	18938948.39	18938948.61	18938948.82	0.0503	0.0202 *
Mercury	47145-07-10 17:02 G	18940608.07	18940608.21	18940608.36	0.0509	0.0316
Moon	47147-07-08 01:26 G	18941335.39	18941335.56	18941335.74	0.0525	0.0332

Earth	47147-07-08 05:02 G	18941335.53	18941335.71	18941335.89	0.0525	0.0329	*
Venus	47148-03-08 13:41 G	18941579.88	18941580.07	18941580.27	0.0529	0.0168	
Mercury	47150-12-10 01:12 G	18942586.50	18942586.55	18942586.61	0.0520	0.0461	
Mercury	47151-03-09 05:17 G	18942675.60	18942675.72	18942675.84	0.0518	0.0142	
Earth	47152-12-28 17:46 G	18943336.00	18943336.24	18943336.48	0.0502	0.0016	
Moon	47152-12-28 18:58 G	18943336.07	18943336.29	18943336.52	0.0502	0.0022	*
Venus	47154-01-11 01:12 G	18943714.36	18943714.55	18943714.75	0.0497	0.0170	
Mercury	47157-04-28 12:43 G	18944917.84	18944918.03	18944918.21	0.0508	0.0090	
Moon	47159-07-13 06:14 G	18945723.71	18945723.76	18945723.82	0.0526	0.0508	
Venus	47159-11-12 05:31 G	18945845.55	18945845.73	18945845.91	0.0528	0.0240	
Mercury	47162-12-26 09:50 G	18946985.79	18946985.91	18946986.04	0.0518	0.0013	
Earth	47165-01-02 04:48 G	18947723.47	18947723.70	18947723.92	0.0501	0.0159	
Moon	47165-01-02 04:48 G	18947723.47	18947723.70	18947723.94	0.0501	0.0129	*
Venus	47165-09-16 00:14 G	18947980.32	18947980.51	18947980.70	0.0497	0.0176	
Mercury	47169-02-14 08:10 G	18949227.66	18949227.84	18949228.02	0.0508	0.0137	
Mercury	47174-10-14 14:38 G	18951295.99	18951296.11	18951296.23	0.0518	0.0158	
Mercury	47175-01-11 18:29 G	18951385.20	18951385.27	18951385.33	0.0516	0.0436	
Moon	47177-01-06 15:50 G	18952111.00	18952111.16	18952111.33	0.0500	0.0336	
Earth	47177-01-06 18:00 G	18952111.08	18952111.25	18952111.42	0.0500	0.0339	*
Mars	47180-07-01 05:02 G	18953382.51	18953382.71	18953382.92	0.0504	0.0360	
Mercury	47180-12-03 04:19 G	18953537.55	18953537.68	18953537.82	0.0508	0.0354	
Earth	47182-06-18 01:55 G	18954099.56	18954099.58	18954099.61	0.0521	0.0517	
Venus	47183-11-15 07:26 G	18954614.69	18954614.81	18954614.94	0.0529	0.0413	
Mercury	47186-08-02 18:58 G	18955606.19	18955606.29	18955606.39	0.0519	0.0315	
Mercury	47186-10-30 22:48 G	18955695.35	18955695.45	18955695.56	0.0516	0.0282	
Venus	47189-09-18 08:53 G	18956748.73	18956748.87	18956749.02	0.0497	0.0354	
Mercury	47192-12-20 14:53 G	18957937.98	18957938.12	18957938.27	0.0509	0.0316	
Moon	47194-06-22 19:55 G	18958487.17	18958487.33	18958487.50	0.0522	0.0349	
Earth	47194-06-22 20:24 G	18958487.17	18958487.35	18958487.54	0.0522	0.0318	*
Venus	47195-07-20 21:50 G	18958880.21	18958880.41	18958880.62	0.0528	0.0010	

Mercury	47198-05-21 23:17 G	18959916.43	18959916.47	18959916.53	0.0519	0.0469
Mercury	47198-08-19 03:22 G	18960005.52	18960005.64	18960005.77	0.0517	0.0135
Venus	47201-05-24 11:17 G	18961014.77	18961014.97	18961015.18	0.0497	0.0022
Mercury	47204-10-08 10:19 G	18962247.74	18962247.93	18962248.11	0.0508	0.0085
Earth	47206-06-27 12:58 G	18962874.82	18962875.04	18962875.27	0.0523	0.0121
Moon	47206-06-27 15:07 G	18962874.89	18962875.13	18962875.36	0.0523	0.0115 *
Venus	47207-03-25 11:17 G	18963145.84	18963145.97	18963146.09	0.0528	0.0417
Mercury	47210-06-07 08:10 G	18964315.71	18964315.84	18964315.96	0.0518	0.0019
Moon	47211-12-19 09:36 G	18964875.77	18964875.90	18964876.05	0.0505	0.0407
Earth	47211-12-19 12:29 G	18964875.90	18964876.02	18964876.16	0.0505	0.0421 *
Venus	47213-01-27 12:43 G	18965280.87	18965281.03	18965281.19	0.0498	0.0314
Mercury	47216-07-27 06:00 G	18966557.57	18966557.75	18966557.93	0.0508	0.0139
Moon	47218-07-02 06:14 G	18967262.54	18967262.76	18967262.98	0.0524	0.0119
Earth	47218-07-02 09:36 G	18967262.67	18967262.90	18967263.13	0.0524	0.0087 *
Mercury	47222-03-26 12:43 G	18968625.92	18968626.03	18968626.15	0.0518	0.0168
Mercury	47222-06-23 16:34 G	18968715.13	18968715.19	18968715.26	0.0516	0.0428
Earth	47223-12-24 01:41 G	18969263.37	18969263.57	18969263.78	0.0503	0.0242
Moon	47223-12-24 03:22 G	18969263.44	18969263.64	18969263.85	0.0503	0.0212 *
Mercury	47228-05-15 01:26 G	18970867.43	18970867.56	18970867.69	0.0508	0.0369
Earth	47230-07-07 08:24 G	18971650.67	18971650.85	18971651.05	0.0526	0.0298
Moon	47230-07-07 12:14 G	18971650.82	18971651.01	18971651.20	0.0526	0.0291 *
Venus	47231-03-28 13:41 G	18971914.90	18971915.07	18971915.26	0.0529	0.0238
Mercury	47234-01-12 17:31 G	18972936.14	18972936.23	18972936.33	0.0518	0.0314
Mercury	47234-04-11 21:36 G	18973025.29	18973025.40	18973025.50	0.0516	0.0284
Moon	47235-12-28 16:19 G	18973650.94	18973651.18	18973651.42	0.0502	0.0059
Earth	47235-12-28 16:34 G	18973650.95	18973651.19	18973651.42	0.0502	0.0055 *
Venus	47237-01-29 19:41 G	18974049.14	18974049.32	18974049.51	0.0497	0.0210
Mercury	47240-06-01 12:14 G	18975267.86	18975268.01	18975268.16	0.0509	0.0307
Moon	47242-07-12 03:50 G	18976038.56	18976038.66	18976038.76	0.0526	0.0473
Earth	47242-07-12 06:43 G	18976038.73	18976038.78	18976038.84	0.0526	0.0508 *

Venus	47242-12-01 05:31 G	18976180.53	18976180.73	18976180.92	0.0528	0.0170
Mars	47245-06-17 18:14 G	18977110.01	18977110.26	18977110.52	0.0522	0.0053
Mercury	47245-10-31 21:50 G	18977246.37	18977246.41	18977246.47	0.0519	0.0470
Mercury	47246-01-29 01:55 G	18977335.46	18977335.58	18977335.70	0.0517	0.0131
Moon	47248-01-02 04:34 G	18978038.46	18978038.69	18978038.91	0.0501	0.0099
Earth	47248-01-02 06:14 G	18978038.53	18978038.76	18978038.98	0.0501	0.0128 *
Venus	47248-10-04 21:07 G	18978315.18	18978315.38	18978315.58	0.0498	0.0125
Mercury	47252-03-20 08:24 G	18979577.66	18979577.85	18979578.04	0.0509	0.0087
Mercury	47257-11-17 06:43 G	18981645.65	18981645.78	18981645.90	0.0518	0.0028
Earth	47260-01-06 21:07 G	18982426.20	18982426.38	18982426.57	0.0501	0.0312
Moon	47260-01-07 00:43 G	18982426.35	18982426.53	18982426.71	0.0501	0.0318 *
Venus	47260-06-09 23:02 G	18982581.39	18982581.46	18982581.54	0.0499	0.0458
Mercury	47264-01-07 04:05 G	18983887.49	18983887.67	18983887.85	0.0508	0.0139
Venus	47266-12-04 03:22 G	18984949.55	18984949.64	18984949.74	0.0529	0.0463
Mercury	47269-09-05 11:17 G	18985955.85	18985955.97	18985956.09	0.0519	0.0172
Mercury	47269-12-03 15:07 G	18986045.06	18986045.13	18986045.20	0.0516	0.0425
Earth	47272-01-11 11:46 G	18986813.96	18986813.99	18986814.04	0.0500	0.0492
Venus	47272-10-07 07:41 G	18987083.71	18987083.82	18987083.94	0.0497	0.0412
Mercury	47275-10-25 23:46 G	18988197.36	18988197.49	18988197.63	0.0507	0.0361
Earth	47277-06-21 20:53 G	18988802.20	18988802.37	18988802.53	0.0522	0.0357
Moon	47277-06-21 22:19 G	18988802.28	18988802.43	18988802.60	0.0522	0.0387 *
Venus	47278-08-08 19:26 G	18989215.11	18989215.31	18989215.51	0.0529	0.0058
Mercury	47281-06-24 15:50 G	18990266.07	18990266.16	18990266.26	0.0519	0.0320
Mercury	47281-09-21 19:55 G	18990355.22	18990355.33	18990355.43	0.0517	0.0279
Venus	47284-06-12 07:12 G	18991349.60	18991349.80	18991350.00	0.0497	0.0070
Mercury	47287-11-12 09:36 G	18992597.75	18992597.90	18992598.06	0.0509	0.0298
Moon	47289-06-26 15:07 G	18993189.91	18993190.13	18993190.35	0.0523	0.0147
Earth	47289-06-26 18:00 G	18993190.03	18993190.25	18993190.48	0.0523	0.0154 *
Venus	47290-04-13 12:14 G	18993480.86	18993481.01	18993481.17	0.0528	0.0341
Mercury	47293-04-12 20:53 G	18994576.32	18994576.37	18994576.42	0.0519	0.0464

Mercury	47293-07-11 00:43 G	18994665.41	18994665.53	18994665.66	0.0517	0.0138
Earth	47294-12-18 14:38 G	18995191.02	18995191.11	18995191.21	0.0504	0.0456
Moon	47294-12-18 16:34 G	18995191.09	18995191.19	18995191.31	0.0504	0.0440 *
Venus	47296-02-16 08:38 G	18995615.69	18995615.86	18995616.04	0.0498	0.0264
Mercury	47299-08-31 06:00 G	18996907.56	18996907.75	18996907.94	0.0509	0.0082
Earth	47301-07-02 16:05 G	18997577.94	18997578.17	18997578.40	0.0524	0.0057
Moon	47301-07-02 19:55 G	18997578.10	18997578.33	18997578.55	0.0524	0.0088 *
Mercury	47305-04-30 05:17 G	18998975.60	18998975.72	18998975.85	0.0517	0.0020
Moon	47306-12-24 04:48 G	18999578.49	18999578.70	18999578.92	0.0504	0.0242
Earth	47306-12-24 05:17 G	18999578.53	18999578.72	18999578.92	0.0504	0.0272 *
Mercury	47311-06-20 02:24 G	19001217.42	19001217.60	19001217.78	0.0508	0.0134
Moon	47313-07-07 09:50 G	19001965.71	19001965.91	19001966.12	0.0525	0.0255
Earth	47313-07-07 12:58 G	19001965.85	19001966.04	19001966.25	0.0525	0.0268 *
Venus	47314-04-17 13:26 G	19002249.90	19002250.06	19002250.23	0.0529	0.0305
Mercury	47317-02-16 09:50 G	19003285.80	19003285.91	19003286.03	0.0518	0.0168
Mercury	47317-05-16 13:41 G	19003375.01	19003375.07	19003375.14	0.0516	0.0428
Moon	47318-12-28 19:55 G	19003966.11	19003966.33	19003966.56	0.0503	0.0092
Earth	47318-12-28 21:22 G	19003966.16	19003966.39	19003966.62	0.0503	0.0083 *
Venus	47320-02-19 19:12 G	19004384.13	19004384.30	19004384.47	0.0497	0.0272
Mercury	47323-04-07 22:19 G	19005527.30	19005527.43	19005527.56	0.0507	0.0354
Earth	47325-07-12 07:55 G	19006353.73	19006353.83	19006353.93	0.0526	0.0472
Moon	47325-07-12 09:36 G	19006353.79	19006353.90	19006354.03	0.0526	0.0442 *
Venus	47325-12-21 03:22 G	19006515.44	19006515.64	19006515.84	0.0528	0.0109
Mercury	47328-12-05 14:38 G	19007596.01	19007596.11	19007596.21	0.0519	0.0319
Mercury	47329-03-04 18:29 G	19007685.17	19007685.27	19007685.38	0.0517	0.0281
Earth	47331-01-02 13:12 G	19008353.82	19008354.05	19008354.28	0.0502	0.0104
Moon	47331-01-02 16:34 G	19008353.95	19008354.19	19008354.43	0.0502	0.0077 *
Venus	47331-10-25 21:07 G	19008650.18	19008650.38	19008650.59	0.0498	0.0060
Mercury	47335-04-25 08:38 G	19009927.72	19009927.86	19009928.01	0.0509	0.0314
Venus	47337-08-25 19:26 G	19010781.26	19010781.31	19010781.36	0.0527	0.0510

Mercury	47340-09-23 19:26 G	19011906.26	19011906.31	19011906.36	0.0519	0.0465
Mercury	47340-12-21 23:31 G	19011995.36	19011995.48	19011995.60	0.0517	0.0137
Moon	47343-01-06 21:36 G	19012741.21	19012741.40	19012741.60	0.0500	0.0289
Earth	47343-01-07 01:41 G	19012741.38	19012741.57	19012741.77	0.0500	0.0281 *
Venus	47343-06-30 20:53 G	19012916.25	19012916.37	19012916.49	0.0498	0.0400
Mercury	47347-02-11 03:50 G	19014237.47	19014237.66	19014237.85	0.0509	0.0079
Mercury	47352-10-10 04:34 G	19016305.56	19016305.69	19016305.81	0.0517	0.0011
Earth	47355-01-11 16:05 G	19017129.09	19017129.17	19017129.26	0.0499	0.0463
Moon	47355-01-11 19:55 G	19017129.32	19017129.33	19017129.36	0.0499	0.0497
Venus	47355-10-28 05:02 G	19017418.64	19017418.71	19017418.78	0.0496	0.0465
Mercury	47358-11-30 00:14 G	19018547.33	19018547.51	19018547.69	0.0508	0.0134
Moon	47360-06-22 02:38 G	19019117.48	19019117.61	19019117.75	0.0522	0.0415
Earth	47360-06-22 05:17 G	19019117.57	19019117.72	19019117.88	0.0522	0.0385 *
Venus	47361-08-28 22:34 G	19019550.24	19019550.44	19019550.63	0.0529	0.0144
Mercury	47364-07-29 09:07 G	19020615.76	19020615.88	19020616.00	0.0518	0.0157
Mercury	47364-10-26 12:43 G	19020704.97	19020705.03	19020705.10	0.0516	0.0437
Venus	47367-07-03 06:58 G	19021684.60	19021684.79	19021684.99	0.0497	0.0134
Mercury	47370-09-17 20:53 G	19022857.23	19022857.37	19022857.51	0.0508	0.0345
Earth	47372-06-27 02:10 G	19023505.38	19023505.59	19023505.81	0.0523	0.0178
Moon	47372-06-27 06:00 G	19023505.53	19023505.75	19023505.97	0.0523	0.0161 *
Venus	47373-05-03 14:10 G	19023815.91	19023816.09	19023816.26	0.0528	0.0262
Mercury	47376-05-17 13:41 G	19024925.97	19024926.07	19024926.17	0.0518	0.0308
Mercury	47376-08-14 17:31 G	19025015.13	19025015.23	19025015.34	0.0516	0.0290
Moon	47377-12-18 20:24 G	19025506.26	19025506.35	19025506.45	0.0505	0.0463
Earth	47377-12-18 21:22 G	19025506.32	19025506.39	19025506.45	0.0505	0.0482 *
Venus	47379-03-08 09:07 G	19025950.70	19025950.88	19025951.07	0.0498	0.0197
Mercury	47382-10-05 07:41 G	19027257.68	19027257.82	19027257.96	0.0509	0.0327
Moon	47384-07-01 17:31 G	19027893.00	19027893.23	19027893.47	0.0524	0.0054
Earth	47384-07-01 21:07 G	19027893.15	19027893.38	19027893.61	0.0524	0.0027 *
Mercury	47388-03-05 18:14 G	19029236.20	19029236.26	19029236.32	0.0519	0.0460

Mercury	47388-06-02 22:19 G	19029325.31	19029325.43	19029325.55	0.0517	0.0142
Moon	47389-12-23 12:58 G	19029893.85	19029894.04	19029894.24	0.0504	0.0271
Earth	47389-12-23 14:10 G	19029893.90	19029894.09	19029894.28	0.0504	0.0295 *
Mercury	47394-07-24 03:36 G	19031567.46	19031567.65	19031567.83	0.0508	0.0105
Earth	47396-07-06 18:29 G	19032281.07	19032281.27	19032281.48	0.0525	0.0239
Moon	47396-07-06 20:38 G	19032281.16	19032281.36	19032281.57	0.0525	0.0225 *
Venus	47397-05-06 14:24 G	19032584.96	19032585.10	19032585.24	0.0529	0.0378
Mars	47399-09-13 02:10 G	19033444.41	19033444.59	19033444.78	0.0522	0.0363
Mercury	47400-03-23 03:22 G	19033635.51	19033635.64	19033635.76	0.0518	0.0012
Earth	47401-12-29 05:02 G	19034281.48	19034281.71	19034281.94	0.0502	0.0110
Moon	47401-12-29 08:10 G	19034281.61	19034281.84	19034282.07	0.0502	0.0127 *
Venus	47403-03-11 18:00 G	19034719.10	19034719.25	19034719.40	0.0497	0.0333
Mercury	47406-05-12 22:34 G	19035877.26	19035877.44	19035877.62	0.0508	0.0131
Moon	47408-07-12 16:34 G	19036669.05	19036669.19	19036669.33	0.0526	0.0419
Earth	47408-07-12 17:02 G	19036669.10	19036669.21	19036669.33	0.0526	0.0450 *
Venus	47409-01-10 06:58 G	19036850.59	19036850.79	19036851.00	0.0529	0.0022
Mercury	47412-01-10 08:24 G	19037945.73	19037945.85	19037945.97	0.0518	0.0141
Mercury	47412-04-08 12:00 G	19038034.95	19038035.00	19038035.06	0.0516	0.0453
Moon	47414-01-02 17:17 G	19038668.98	19038669.22	19038669.45	0.0501	0.0052
Earth	47414-01-02 21:07 G	19038669.15	19038669.38	19038669.62	0.0501	0.0079 *
Venus	47414-11-14 20:24 G	19038985.14	19038985.35	19038985.55	0.0497	0.0006
Mercury	47418-02-28 18:58 G	19040187.16	19040187.29	19040187.43	0.0508	0.0342
Venus	47420-09-14 23:31 G	19041116.36	19041116.48	19041116.61	0.0528	0.0419
Mercury	47423-10-29 12:58 G	19042255.94	19042256.04	19042256.14	0.0518	0.0293
Mercury	47424-01-26 16:48 G	19042345.10	19042345.20	19042345.30	0.0516	0.0304
Earth	47426-01-07 10:48 G	19043056.76	19043056.95	19043057.16	0.0501	0.0264
Moon	47426-01-07 14:53 G	19043056.93	19043057.12	19043057.31	0.0501	0.0275 *
Venus	47426-07-20 21:50 G	19043251.26	19043251.41	19043251.56	0.0498	0.0330
Mercury	47430-03-18 06:29 G	19044587.63	19044587.77	19044587.91	0.0509	0.0341
Mercury	47435-08-17 17:31 G	19046566.17	19046566.23	19046566.30	0.0519	0.0443

Mercury	47435-11-14 21:36 G	19046655.28	19046655.40	19046655.52	0.0517	0.0157
Moon	47438-01-11 22:48 G	19047444.39	19047444.45	19047444.53	0.0500	0.0477
Earth	47438-01-12 01:55 G	19047444.49	19047444.58	19047444.69	0.0500	0.0448 *
Mercury	47442-01-04 02:38 G	19048897.43	19048897.61	19048897.80	0.0509	0.0122
Earth	47443-06-23 13:26 G	19049432.92	19049433.06	19049433.20	0.0521	0.0411
Moon	47443-06-23 17:02 G	19049433.09	19049433.21	19049433.34	0.0521	0.0433 *
Venus	47444-09-17 23:46 G	19049885.30	19049885.49	19049885.67	0.0529	0.0219
Mercury	47447-09-03 02:10 G	19050965.47	19050965.59	19050965.72	0.0518	0.0016
Venus	47450-07-23 09:22 G	19052019.70	19052019.89	19052020.07	0.0497	0.0209
Mars	47453-03-16 16:48 G	19052986.91	19052987.20	19052987.49	0.0503	0.0069
Mercury	47453-10-22 22:48 G	19053207.26	19053207.45	19053207.63	0.0508	0.0099
Moon	47455-06-28 06:14 G	19053820.55	19053820.76	19053820.99	0.0523	0.0184
Earth	47455-06-28 09:50 G	19053820.70	19053820.91	19053821.13	0.0523	0.0205 *
Venus	47456-05-23 16:05 G	19054150.98	19054151.17	19054151.36	0.0528	0.0182
Mercury	47459-06-22 07:26 G	19055275.68	19055275.81	19055275.93	0.0518	0.0135
Mercury	47459-09-19 11:02 G	19055364.91	19055364.96	19055365.02	0.0516	0.0460
Moon	47460-12-19 06:43 G	19055821.73	19055821.78	19055821.85	0.0505	0.0486
Venus	47462-03-28 09:36 G	19056285.71	19056285.90	19056286.10	0.0497	0.0127
Mercury	47465-08-10 17:31 G	19057517.09	19057517.23	19057517.37	0.0508	0.0335
Earth	47467-07-03 06:14 G	19058208.53	19058208.76	19058208.99	0.0524	0.0003
Moon	47467-07-03 08:38 G	19058208.64	19058208.86	19058209.09	0.0524	0.0029 *
Mercury	47471-04-10 12:29 G	19059585.91	19059586.02	19059586.12	0.0518	0.0274
Mercury	47471-07-08 16:19 G	19059675.08	19059675.18	19059675.28	0.0516	0.0322
Earth	47472-12-24 01:12 G	19060209.37	19060209.55	19060209.74	0.0503	0.0315
Moon	47472-12-24 04:05 G	19060209.48	19060209.67	19060209.87	0.0503	0.0297 *
Venus	47473-12-01 12:00 G	19060551.92	19060552.00	19060552.08	0.0498	0.0456
Mercury	47477-08-28 04:48 G	19061917.57	19061917.70	19061917.84	0.0510	0.0348
Moon	47479-07-08 05:17 G	19062596.50	19062596.72	19062596.94	0.0525	0.0201
Earth	47479-07-08 06:14 G	19062596.55	19062596.76	19062596.97	0.0525	0.0220 *
Venus	47480-05-26 19:41 G	19062920.23	19062920.32	19062920.41	0.0529	0.0474

Mercury	47483-01-27 17:02 G	19063896.14	19063896.21	19063896.28	0.0519	0.0425
Mercury	47483-04-26 21:07 G	19063985.26	19063985.38	19063985.49	0.0517	0.0175
Moon	47484-12-28 12:00 G	19064596.78	19064597.00	19064597.23	0.0502	0.0151
Earth	47484-12-28 16:05 G	19064596.94	19064597.17	19064597.40	0.0502	0.0126 *
Venus	47486-03-30 20:10 G	19065054.22	19065054.34	19065054.45	0.0497	0.0405
Mercury	47489-06-16 01:41 G	19066227.39	19066227.57	19066227.75	0.0509	0.0137
Moon	47491-07-13 03:36 G	19066984.52	19066984.65	19066984.80	0.0526	0.0412
Earth	47491-07-13 05:02 G	19066984.59	19066984.71	19066984.84	0.0526	0.0435 *
Venus	47492-01-30 11:31 G	19067185.77	19067185.98	19067186.18	0.0529	0.0071
Mercury	47495-02-13 01:41 G	19068295.45	19068295.57	19068295.70	0.0517	0.0028
Earth	47497-01-02 07:26 G	19068984.58	19068984.81	19068985.05	0.0502	0.0063
Moon	47497-01-02 11:31 G	19068984.74	19068984.98	19068985.21	0.0502	0.0038 *
Venus	47497-12-03 22:34 G	19069320.24	19069320.44	19069320.65	0.0497	0.0078
Mercury	47501-04-04 22:05 G	19070537.23	19070537.42	19070537.60	0.0508	0.0080
Venus	47503-10-06 01:55 G	19071451.43	19071451.58	19071451.74	0.0528	0.0337
Mercury	47506-12-03 06:29 G	19072605.64	19072605.77	19072605.89	0.0518	0.0125
Mercury	47507-03-02 10:19 G	19072694.88	19072694.93	19072694.97	0.0516	0.0470
Moon	47509-01-07 20:10 G	19073372.14	19073372.34	19073372.55	0.0501	0.0261
Earth	47509-01-07 23:17 G	19073372.27	19073372.47	19073372.68	0.0501	0.0249 *
Venus	47509-08-10 00:43 G	19073586.36	19073586.53	19073586.71	0.0498	0.0251
Mercury	47513-01-21 18:14 G	19074847.10	19074847.26	19074847.41	0.0508	0.0298
Mars	47518-03-06 22:48 G	19076717.27	19076717.45	19076717.64	0.0523	0.0365
Mercury	47518-09-21 11:31 G	19076915.87	19076915.98	19076916.09	0.0518	0.0265
Mercury	47518-12-19 15:22 G	19077005.05	19077005.14	19077005.24	0.0516	0.0332
Earth	47521-01-12 13:26 G	19077759.95	19077760.06	19077760.18	0.0499	0.0429
Moon	47521-01-12 14:38 G	19077760.02	19077760.11	19077760.20	0.0499	0.0456 *
Mercury	47525-02-08 03:36 G	19079247.51	19079247.65	19079247.78	0.0510	0.0357
Moon	47526-06-23 18:29 G	19079748.15	19079748.27	19079748.38	0.0522	0.0456
Earth	47526-06-23 21:50 G	19079748.29	19079748.41	19079748.54	0.0522	0.0438 *
Venus	47527-10-09 04:19 G	19080220.52	19080220.68	19080220.85	0.0530	0.0312

Mercury	47530-07-10 16:34 G	19081226.11	19081226.19	19081226.27	0.0519	0.0405
Mercury	47530-10-07 20:38 G	19081315.24	19081315.36	19081315.47	0.0517	0.0195
Venus	47533-08-12 10:34 G	19082354.77	19082354.94	19082355.11	0.0496	0.0279
Mercury	47536-11-27 00:00 G	19083557.32	19083557.50	19083557.68	0.0509	0.0144
Earth	47538-06-28 20:53 G	19084136.16	19084136.37	19084136.58	0.0523	0.0227
Moon	47538-06-28 23:31 G	19084136.27	19084136.48	19084136.69	0.0523	0.0199 *
Venus	47539-06-13 21:22 G	19084486.19	19084486.39	19084486.59	0.0529	0.0088
Mercury	47542-07-27 01:12 G	19085625.43	19085625.55	19085625.68	0.0517	0.0046
Moon	47543-12-20 22:19 G	19086137.39	19086137.43	19086137.48	0.0505	0.0493
Venus	47545-04-17 12:14 G	19086620.81	19086621.01	19086621.22	0.0497	0.0052
Mercury	47548-09-14 20:53 G	19087867.18	19087867.37	19087867.56	0.0509	0.0066
Moon	47550-07-03 18:29 G	19088524.03	19088524.27	19088524.51	0.0524	0.0012
Earth	47550-07-03 19:41 G	19088524.09	19088524.32	19088524.55	0.0524	0.0014 *
Venus	47551-02-16 13:26 G	19088751.99	19088752.06	19088752.14	0.0528	0.0486
Mercury	47554-05-15 06:00 G	19089935.62	19089935.75	19089935.87	0.0518	0.0104
Mercury	47554-08-12 09:36 G	19090024.87	19090024.90	19090024.94	0.0515	0.0489
Moon	47555-12-25 07:55 G	19090524.65	19090524.83	19090525.01	0.0504	0.0320
Earth	47555-12-25 11:46 G	19090524.82	19090524.99	19090525.17	0.0504	0.0332 *
Venus	47556-12-21 14:24 G	19090886.97	19090887.10	19090887.23	0.0498	0.0381
Mercury	47560-07-03 17:17 G	19092177.07	19092177.22	19092177.38	0.0508	0.0280
Moon	47562-07-08 15:07 G	19092911.92	19092912.13	19092912.34	0.0525	0.0177
Earth	47562-07-08 16:05 G	19092911.96	19092912.17	19092912.38	0.0525	0.0198 *
Mercury	47566-03-03 10:34 G	19094245.83	19094245.94	19094246.05	0.0518	0.0255
Mercury	47566-05-31 14:24 G	19094335.01	19094335.10	19094335.19	0.0516	0.0342
Earth	47567-12-30 04:05 G	19094912.44	19094912.67	19094912.90	0.0503	0.0143
Moon	47567-12-30 07:55 G	19094912.61	19094912.83	19094913.05	0.0503	0.0171 *
Venus	47569-04-19 23:02 G	19095389.42	19095389.46	19095389.51	0.0497	0.0483
Mercury	47572-04-21 13:26 G	19096487.03	19096487.06	19096487.10	0.0507	0.0496
Mercury	47572-07-21 04:05 G	19096577.56	19096577.67	19096577.79	0.0509	0.0395
Earth	47574-07-13 13:55 G	19097299.94	19097300.08	19097300.22	0.0526	0.0412

Moon	47574-07-13 16:48 G	19097300.06	19097300.20	19097300.36	0.0526	0.0396 *
Venus	47575-02-19 14:10 G	19097520.90	19097521.09	19097521.28	0.0529	0.0153
Mercury	47577-12-20 15:36 G	19098556.07	19098556.15	19098556.23	0.0519	0.0397
Mercury	47578-03-19 19:26 G	19098645.20	19098645.31	19098645.43	0.0517	0.0205
Moon	47580-01-03 17:02 G	19099299.97	19099300.21	19099300.46	0.0501	0.0024
Earth	47580-01-03 20:24 G	19099300.11	19099300.35	19099300.58	0.0501	0.0046 *
Venus	47580-12-24 00:29 G	19099655.33	19099655.52	19099655.72	0.0497	0.0153
Mercury	47584-05-08 22:48 G	19100887.27	19100887.45	19100887.63	0.0509	0.0153
Venus	47586-10-25 05:31 G	19101786.56	19101786.73	19101786.91	0.0529	0.0251
Mercury	47590-01-06 00:43 G	19102955.41	19102955.53	19102955.66	0.0517	0.0065
Earth	47592-01-08 12:14 G	19103687.80	19103688.01	19103688.22	0.0500	0.0235
Moon	47592-01-08 13:26 G	19103687.87	19103688.06	19103688.26	0.0500	0.0255 *
Venus	47592-08-29 02:53 G	19103921.43	19103921.62	19103921.82	0.0497	0.0176
Mercury	47596-02-25 19:12 G	19105197.11	19105197.30	19105197.49	0.0509	0.0060
Mercury	47601-10-25 05:31 G	19107265.60	19107265.73	19107265.85	0.0518	0.0086
Mercury	47602-01-22 09:07 G	19107354.87	19107354.88	19107354.90	0.0515	0.0508
Earth	47604-01-13 01:26 G	19108075.44	19108075.56	19108075.69	0.0500	0.0418
Moon	47604-01-13 02:24 G	19108075.49	19108075.60	19108075.73	0.0500	0.0437 *
Mars	47607-06-12 11:46 G	19109321.83	19109321.99	19109322.14	0.0504	0.0424
Mercury	47607-12-14 16:05 G	19109507.01	19109507.17	19109507.33	0.0508	0.0268
Earth	47609-06-23 11:31 G	19110063.86	19110063.98	19110064.09	0.0522	0.0452
Moon	47609-06-23 14:10 G	19110063.99	19110064.09	19110064.19	0.0522	0.0464 *
Venus	47610-10-28 09:22 G	19110555.76	19110555.89	19110556.02	0.0529	0.0403
Mercury	47613-08-13 10:05 G	19111575.81	19111575.92	19111576.03	0.0518	0.0234
Mercury	47613-11-10 13:55 G	19111664.99	19111665.08	19111665.17	0.0516	0.0361
Venus	47616-08-31 12:43 G	19112689.89	19112690.03	19112690.18	0.0497	0.0352
Mercury	47619-10-02 12:43 G	19113816.97	19113817.03	19113817.09	0.0507	0.0480
Mercury	47620-01-01 03:22 G	19113907.53	19113907.64	19113907.75	0.0509	0.0412
Moon	47621-06-28 05:46 G	19114451.53	19114451.74	19114451.96	0.0522	0.0219
Earth	47621-06-28 07:26 G	19114451.60	19114451.81	19114452.01	0.0522	0.0248 *

Venus	47622-07-03 00:00 G	19114821.29	19114821.50	19114821.70	0.0529	0.0007
Mercury	47625-06-01 14:38 G	19115886.03	19115886.11	19115886.19	0.0519	0.0388
Mercury	47625-08-29 18:29 G	19115975.16	19115975.27	19115975.39	0.0517	0.0213
Venus	47628-05-06 15:07 G	19116955.93	19116956.13	19116956.34	0.0497	0.0026
Mercury	47631-10-19 23:17 G	19118217.29	19118217.47	19118217.64	0.0509	0.0190
Moon	47633-07-03 03:22 G	19118839.42	19118839.64	19118839.86	0.0524	0.0021
Earth	47633-07-03 03:50 G	19118839.43	19118839.66	19118839.89	0.0524	0.0037 *
Venus	47634-03-07 15:36 G	19119087.02	19119087.15	19119087.28	0.0528	0.0405
Mercury	47637-06-17 23:46 G	19120285.36	19120285.49	19120285.61	0.0517	0.0073
Earth	47638-12-25 00:29 G	19120840.35	19120840.52	19120840.69	0.0504	0.0349
Moon	47638-12-25 04:19 G	19120840.51	19120840.68	19120840.86	0.0504	0.0341 *
Venus	47640-01-10 16:48 G	19121222.04	19121222.20	19121222.36	0.0497	0.0304
Mercury	47643-08-07 17:46 G	19122527.05	19122527.24	19122527.43	0.0508	0.0052
Earth	47645-07-07 22:34 G	19123227.23	19123227.44	19123227.66	0.0525	0.0173
Moon	47645-07-08 01:26 G	19123227.33	19123227.56	19123227.79	0.0525	0.0144 *
Mercury	47649-04-06 04:48 G	19124595.58	19124595.70	19124595.83	0.0518	0.0067
Moon	47650-12-29 14:24 G	19125227.88	19125228.10	19125228.33	0.0502	0.0184
Earth	47650-12-29 17:46 G	19125228.02	19125228.24	19125228.46	0.0502	0.0156 *
Mercury	47655-05-26 14:10 G	19126836.93	19126837.09	19126837.25	0.0508	0.0266
Moon	47657-07-12 18:58 G	19127615.13	19127615.29	19127615.45	0.0526	0.0377
Earth	47657-07-12 22:48 G	19127615.30	19127615.45	19127615.61	0.0526	0.0392 *
Venus	47658-03-10 17:46 G	19127856.06	19127856.24	19127856.43	0.0530	0.0240
Mercury	47661-01-23 09:22 G	19128905.78	19128905.89	19128906.01	0.0518	0.0218
Mercury	47661-04-22 13:12 G	19128994.97	19128995.05	19128995.14	0.0516	0.0378
Earth	47663-01-03 07:12 G	19129615.57	19129615.80	19129616.04	0.0501	0.0032
Moon	47663-01-03 08:38 G	19129615.63	19129615.86	19129616.09	0.0501	0.0017 *
Venus	47664-01-13 02:24 G	19129990.42	19129990.60	19129990.79	0.0496	0.0223
Mercury	47667-03-14 11:02 G	19131146.90	19131146.96	19131147.03	0.0508	0.0473
Mercury	47667-06-13 01:41 G	19131237.47	19131237.57	19131237.68	0.0510	0.0420
Venus	47669-11-13 10:05 G	19132121.73	19132121.92	19132122.11	0.0529	0.0161

Mars	47672-06-01 00:43 G	19133052.28	19133052.53	19133052.78	0.0522	0.0140
Mercury	47672-11-11 13:55 G	19133216.00	19133216.08	19133216.17	0.0519	0.0370
Mercury	47673-02-08 18:00 G	19133305.14	19133305.25	19133305.36	0.0516	0.0230
Earth	47675-01-07 21:36 G	19134003.19	19134003.40	19134003.61	0.0501	0.0218
Moon	47675-01-07 22:19 G	19134003.22	19134003.43	19134003.65	0.0501	0.0244 *
Venus	47675-09-18 04:19 G	19134256.48	19134256.68	19134256.88	0.0497	0.0107
Mercury	47679-03-31 22:05 G	19135547.25	19135547.42	19135547.59	0.0509	0.0202
Mercury	47684-11-27 22:34 G	19137615.31	19137615.44	19137615.56	0.0517	0.0079
Moon	47687-01-12 09:36 G	19138390.78	19138390.90	19138391.02	0.0500	0.0421
Earth	47687-01-12 12:00 G	19138390.87	19138391.00	19138391.15	0.0500	0.0403 *
Venus	47687-05-24 06:14 G	19138522.67	19138522.76	19138522.86	0.0498	0.0435
Mercury	47691-01-17 18:00 G	19139857.06	19139857.25	19139857.44	0.0508	0.0020
Moon	47692-06-22 17:02 G	19140379.13	19140379.21	19140379.29	0.0521	0.0487
Earth	47692-06-22 18:43 G	19140379.19	19140379.28	19140379.37	0.0521	0.0479 *
Venus	47693-11-16 10:34 G	19140890.86	19140890.94	19140891.03	0.0530	0.0477
Mercury	47696-09-16 03:36 G	19141925.52	19141925.65	19141925.77	0.0518	0.0063
Venus	47699-09-20 14:10 G	19143024.99	19143025.09	19143025.20	0.0496	0.0422
Mercury	47702-11-06 12:29 G	19144166.86	19144167.02	19144167.18	0.0508	0.0261
Earth	47704-06-28 11:02 G	19144766.76	19144766.96	19144767.15	0.0523	0.0280
Moon	47704-06-28 11:02 G	19144766.76	19144766.96	19144767.15	0.0523	0.0252 *
Venus	47705-07-23 00:58 G	19145156.34	19145156.54	19145156.74	0.0530	0.0069
Mercury	47708-07-06 08:38 G	19146235.74	19146235.86	19146235.97	0.0519	0.0205
Mercury	47708-10-03 12:29 G	19146324.94	19146325.02	19146325.10	0.0516	0.0392
Venus	47711-05-27 16:48 G	19147291.00	19147291.20	19147291.40	0.0496	0.0096
Mercury	47714-08-25 08:53 G	19148476.81	19148476.87	19148476.93	0.0507	0.0474
Mercury	47714-11-23 23:17 G	19148567.37	19148567.47	19148567.58	0.0509	0.0418
Earth	47716-07-03 09:36 G	19149154.67	19149154.90	19149155.13	0.0524	0.0064
Moon	47716-07-03 12:00 G	19149154.76	19149155.00	19149155.24	0.0524	0.0057 *
Venus	47717-03-27 17:17 G	19149422.07	19149422.22	19149422.38	0.0529	0.0330
Mercury	47720-04-24 13:12 G	19150545.96	19150546.05	19150546.14	0.0519	0.0357

Mercury	47720-07-22 17:02 G	19150635.10	19150635.21	19150635.32	0.0517	0.0243
Moon	47721-12-25 06:14 G	19151155.60	19151155.76	19151155.93	0.0504	0.0360
Earth	47721-12-25 09:50 G	19151155.75	19151155.91	19151156.07	0.0504	0.0368 *
Venus	47723-01-30 17:46 G	19151557.06	19151557.24	19151557.42	0.0497	0.0237
Mars	47725-12-01 02:24 G	19152592.44	19152592.60	19152592.77	0.0503	0.0412
Mercury	47726-09-11 20:10 G	19152877.17	19152877.34	19152877.51	0.0509	0.0205
Moon	47728-07-08 05:02 G	19153542.49	19153542.71	19153542.94	0.0525	0.0122
Earth	47728-07-08 08:53 G	19153542.65	19153542.87	19153543.09	0.0525	0.0155 *
Mercury	47732-02-11 17:46 G	19154856.22	19154856.24	19154856.26	0.0519	0.0510
Mercury	47732-05-10 21:50 G	19154945.28	19154945.41	19154945.53	0.0517	0.0093
Earth	47733-12-30 00:29 G	19155543.30	19155543.52	19155543.74	0.0503	0.0178
Moon	47733-12-30 02:10 G	19155543.38	19155543.59	19155543.80	0.0503	0.0206 *
Mercury	47738-06-30 16:19 G	19157186.99	19157187.18	19157187.37	0.0508	0.0015
Earth	47740-07-13 05:46 G	19157930.57	19157930.74	19157930.90	0.0526	0.0366
Moon	47740-07-13 09:36 G	19157930.74	19157930.90	19157931.07	0.0526	0.0355 *
Venus	47741-03-30 18:43 G	19158191.12	19158191.28	19158191.45	0.0529	0.0313
Mercury	47744-02-28 02:10 G	19159255.47	19159255.59	19159255.72	0.0518	0.0064
Earth	47746-01-03 15:22 G	19159930.90	19159931.14	19159931.37	0.0502	0.0011
Moon	47746-01-03 16:05 G	19159930.92	19159931.17	19159931.41	0.0502	0.0009 *
Venus	47747-02-02 03:22 G	19160325.47	19160325.64	19160325.81	0.0497	0.0290
Mercury	47750-04-18 12:14 G	19161496.85	19161497.01	19161497.18	0.0508	0.0235
Venus	47752-12-03 09:50 G	19162456.71	19162456.91	19162457.11	0.0529	0.0093
Mercury	47755-12-17 07:12 G	19163565.69	19163565.80	19163565.92	0.0519	0.0206
Mercury	47756-03-15 11:02 G	19163654.88	19163654.96	19163655.04	0.0516	0.0392
Moon	47758-01-08 05:02 G	19164318.51	19164318.71	19164318.92	0.0501	0.0230
Earth	47758-01-08 07:26 G	19164318.60	19164318.81	19164319.03	0.0501	0.0201 *
Venus	47758-10-08 05:17 G	19164591.52	19164591.72	19164591.93	0.0497	0.0040
Mercury	47762-02-04 06:43 G	19165806.72	19165806.78	19165806.85	0.0507	0.0474
Mercury	47762-05-05 21:22 G	19165897.28	19165897.39	19165897.50	0.0509	0.0416
Venus	47764-08-07 23:31 G	19166722.42	19166722.48	19166722.54	0.0528	0.0502

Mercury	47767-10-05 12:00 G	19167875.91	19167876.00	19167876.10	0.0519	0.0351
Mercury	47768-01-02 16:05 G	19167965.06	19167965.17	19167965.28	0.0517	0.0251
Earth	47770-01-12 22:19 G	19168706.28	19168706.43	19168706.58	0.0500	0.0388
Moon	47770-01-13 01:55 G	19168706.44	19168706.58	19168706.72	0.0500	0.0402 *
Venus	47770-06-13 07:26 G	19168857.67	19168857.81	19168857.95	0.0497	0.0366
Mercury	47774-02-21 17:17 G	19170207.05	19170207.22	19170207.40	0.0509	0.0197
Earth	47775-06-23 20:53 G	19170694.34	19170694.37	19170694.42	0.0521	0.0513
Moon	47775-06-23 21:36 G	19170694.39	19170694.40	19170694.41	0.0521	0.0521 *
Mercury	47779-07-24 16:34 G	19172186.17	19172186.19	19172186.22	0.0519	0.0504
Mercury	47779-10-21 20:38 G	19172275.24	19172275.36	19172275.48	0.0517	0.0099
Venus	47782-10-10 13:41 G	19173360.02	19173360.07	19173360.12	0.0496	0.0480
Mercury	47785-12-10 13:55 G	19174516.89	19174517.08	19174517.27	0.0508	0.0018
Earth	47787-06-28 19:12 G	19175082.11	19175082.30	19175082.49	0.0523	0.0303
Moon	47787-06-28 21:07 G	19175082.18	19175082.38	19175082.59	0.0523	0.0272 *
Venus	47788-08-11 02:53 G	19175491.42	19175491.62	19175491.81	0.0529	0.0145
Mercury	47791-08-10 01:12 G	19176585.43	19176585.55	19176585.68	0.0518	0.0053
Venus	47794-06-15 15:22 G	19177625.95	19177626.14	19177626.34	0.0497	0.0152
Mercury	47797-09-28 10:05 G	19178826.76	19178826.92	19178827.09	0.0508	0.0235
Moon	47799-07-03 11:46 G	19179469.77	19179469.99	19179470.22	0.0523	0.0093
Earth	47799-07-03 15:22 G	19179469.91	19179470.14	19179470.37	0.0523	0.0093 *
Venus	47800-04-16 17:17 G	19179757.05	19179757.22	19179757.40	0.0528	0.0260
Mercury	47803-05-30 05:31 G	19180895.62	19180895.73	19180895.85	0.0518	0.0209
Mercury	47803-08-27 09:22 G	19180984.82	19180984.89	19180984.98	0.0516	0.0389
Earth	47804-12-25 14:24 G	19181470.96	19181471.10	19181471.25	0.0504	0.0397
Moon	47804-12-25 16:19 G	19181471.05	19181471.18	19181471.33	0.0504	0.0396 *
Venus	47806-02-19 17:02 G	19181892.02	19181892.21	19181892.40	0.0497	0.0177
Mercury	47809-07-18 06:00 G	19183136.67	19183136.75	19183136.83	0.0507	0.0455
Mercury	47809-10-16 20:38 G	19183227.26	19183227.36	19183227.45	0.0509	0.0436
Earth	47811-07-09 10:48 G	19183857.72	19183857.95	19183858.17	0.0524	0.0119
Moon	47811-07-09 14:53 G	19183857.89	19183858.12	19183858.34	0.0525	0.0086 *

Mercury	47815-03-18 10:19 G	19185205.84	19185205.93	19185206.02	0.0519	0.0356
Mercury	47815-06-15 14:24 G	19185294.99	19185295.10	19185295.21	0.0517	0.0246
Earth	47816-12-30 07:55 G	19185858.61	19185858.83	19185859.04	0.0503	0.0202
Moon	47816-12-30 08:10 G	19185858.63	19185858.84	19185859.06	0.0503	0.0230 *
Mercury	47821-08-04 14:53 G	19187536.95	19187537.12	19187537.30	0.0508	0.0191
Moon	47823-07-14 00:00 G	19188245.32	19188245.50	19188245.69	0.0526	0.0312
Earth	47823-07-14 03:50 G	19188245.48	19188245.66	19188245.84	0.0526	0.0327 *
Venus	47824-04-19 15:50 G	19188526.02	19188526.16	19188526.31	0.0530	0.0367
Mercury	47827-01-04 15:07 G	19189516.11	19189516.13	19189516.16	0.0520	0.0504
Mercury	47827-04-03 19:26 G	19189605.18	19189605.31	19189605.43	0.0518	0.0103
Moon	47829-01-03 21:22 G	19190246.16	19190246.39	19190246.62	0.0502	0.0012
Earth	47829-01-03 23:46 G	19190246.25	19190246.49	19190246.72	0.0502	0.0014 *
Venus	47830-02-22 02:38 G	19190660.47	19190660.61	19190660.76	0.0496	0.0349
Mercury	47833-05-23 11:02 G	19191846.77	19191846.96	19191847.14	0.0508	0.0032
Venus	47835-12-24 07:55 G	19192791.62	19192791.83	19192792.03	0.0529	0.0036
Mercury	47839-01-20 23:46 G	19193915.37	19193915.49	19193915.62	0.0518	0.0055
Earth	47841-01-08 11:31 G	19194633.76	19194633.98	19194634.20	0.0501	0.0174
Moon	47841-01-08 14:53 G	19194633.90	19194634.12	19194634.34	0.0501	0.0206 *
Venus	47841-10-28 03:07 G	19194926.43	19194926.63	19194926.84	0.0497	0.0016
Mercury	47845-03-11 07:26 G	19196156.64	19196156.81	19196156.97	0.0508	0.0246
Venus	47847-08-29 00:00 G	19197057.39	19197057.50	19197057.62	0.0528	0.0431
Mercury	47850-11-09 04:19 G	19198225.57	19198225.68	19198225.80	0.0518	0.0205
Mercury	47851-02-06 08:10 G	19198314.77	19198314.84	19198314.93	0.0516	0.0393
Moon	47853-01-12 20:24 G	19199021.20	19199021.35	19199021.51	0.0500	0.0373
Earth	47853-01-13 00:14 G	19199021.35	19199021.51	19199021.68	0.0500	0.0359 *
Venus	47853-07-03 04:19 G	19199192.52	19199192.68	19199192.83	0.0498	0.0317
Mercury	47856-12-28 03:36 G	19200466.58	19200466.65	19200466.73	0.0507	0.0462
Mercury	47857-03-28 18:00 G	19200557.16	19200557.25	19200557.36	0.0509	0.0430
Mercury	47862-08-28 08:38 G	19202535.77	19202535.86	19202535.95	0.0519	0.0363
Mercury	47862-11-25 12:43 G	19202624.92	19202625.03	19202625.14	0.0517	0.0238

Mercury	47869-01-14 13:41 G	19204866.90	19204867.07	19204867.25	0.0509	0.0203
Moon	47870-06-28 16:19 G	19205397.01	19205397.18	19205397.37	0.0522	0.0312
Earth	47870-06-28 19:26 G	19205397.14	19205397.31	19205397.49	0.0522	0.0342 *
Venus	47871-08-31 23:17 G	19205826.29	19205826.47	19205826.66	0.0529	0.0198
Mercury	47874-06-16 13:26 G	19206846.04	19206846.06	19206846.07	0.0520	0.0513
Mercury	47874-09-13 17:31 G	19206935.11	19206935.23	19206935.35	0.0518	0.0092
Venus	47877-07-05 13:55 G	19207960.89	19207961.08	19207961.27	0.0496	0.0208
Mars	47880-02-25 15:36 G	19208925.87	19208926.15	19208926.44	0.0502	0.0055
Mercury	47880-11-02 08:10 G	19209176.66	19209176.84	19209177.03	0.0508	0.0041
Earth	47882-07-03 10:34 G	19209784.72	19209784.94	19209785.16	0.0523	0.0139
Moon	47882-07-03 14:38 G	19209784.89	19209785.11	19209785.33	0.0523	0.0139 *
Venus	47883-05-06 12:00 G	19210091.82	19210092.00	19210092.19	0.0529	0.0217
Mercury	47886-07-02 22:19 G	19211245.30	19211245.43	19211245.55	0.0518	0.0057
Moon	47887-12-25 20:10 G	19211786.21	19211786.34	19211786.47	0.0505	0.0427
Earth	47887-12-25 20:24 G	19211786.22	19211786.35	19211786.47	0.0505	0.0423 *
Venus	47889-03-10 15:36 G	19212226.95	19212227.15	19212227.35	0.0497	0.0120
Mercury	47892-08-21 04:05 G	19213486.51	19213486.67	19213486.83	0.0507	0.0262
Moon	47894-07-08 03:50 G	19214172.43	19214172.66	19214172.90	0.0525	0.0044
Earth	47894-07-08 07:41 G	19214172.60	19214172.82	19214173.05	0.0525	0.0078 *
Mercury	47898-04-21 02:38 G	19215555.50	19215555.61	19215555.73	0.0519	0.0211
Mercury	47898-07-19 06:29 G	19215644.70	19215644.77	19215644.86	0.0516	0.0389
Moon	47899-12-30 06:58 G	19216173.60	19216173.79	19216173.99	0.0503	0.0267
Earth	47899-12-30 08:53 G	19216173.67	19216173.87	19216174.08	0.0503	0.0237 *
Venus	47900-11-14 15:07 G	19216493.06	19216493.13	19216493.21	0.0498	0.0457
Mercury	47904-06-10 00:14 G	19217796.46	19217796.51	19217796.57	0.0507	0.0479
Mercury	47904-09-08 14:53 G	19217887.01	19217887.12	19217887.23	0.0509	0.0412
Earth	47906-07-14 06:58 G	19218560.60	19218560.79	19218560.98	0.0526	0.0296
Moon	47906-07-14 09:22 G	19218560.70	19218560.89	19218561.08	0.0526	0.0290 *
Venus	47907-05-10 15:07 G	19218861.01	19218861.13	19218861.25	0.0530	0.0429
Mercury	47910-02-08 07:12 G	19219865.71	19219865.80	19219865.89	0.0519	0.0363

Mercury	47910-05-08 11:17 G	19219954.86	19219954.97	19219955.08	0.0517	0.0238
Earth	47912-01-04 22:34 G	19220561.20	19220561.44	19220561.67	0.0502	0.0047
Moon	47912-01-05 01:55 G	19220561.34	19220561.58	19220561.82	0.0502	0.0045 *
Venus	47913-03-13 22:05 G	19220995.30	19220995.42	19220995.55	0.0496	0.0390
Mercury	47916-06-27 10:48 G	19222196.78	19222196.95	19222197.13	0.0509	0.0191
Earth	47918-07-19 03:36 G	19222948.60	19222948.65	19222948.71	0.0526	0.0509
Venus	47919-01-13 05:17 G	19223126.52	19223126.72	19223126.92	0.0529	0.0022
Mercury	47922-02-24 15:36 G	19224265.02	19224265.15	19224265.27	0.0517	0.0082
Moon	47924-01-09 07:55 G	19224948.62	19224948.83	19224949.05	0.0501	0.0171
Earth	47924-01-09 11:46 G	19224948.77	19224948.99	19224949.22	0.0501	0.0140 *
Venus	47924-11-16 23:31 G	19225261.28	19225261.48	19225261.69	0.0497	0.0063
Mercury	47928-04-15 06:29 G	19226506.58	19226506.77	19226506.96	0.0508	0.0035
Venus	47930-09-17 19:26 G	19227392.17	19227392.31	19227392.45	0.0528	0.0383
Mercury	47933-12-13 20:10 G	19228575.22	19228575.34	19228575.47	0.0518	0.0069
Earth	47936-01-14 03:07 G	19229336.46	19229336.63	19229336.81	0.0500	0.0331
Moon	47936-01-14 06:43 G	19229336.61	19229336.78	19229336.95	0.0500	0.0339 *
Venus	47936-07-23 01:41 G	19229527.40	19229527.57	19229527.74	0.0498	0.0264
Mercury	47940-02-02 01:12 G	19230816.39	19230816.55	19230816.71	0.0507	0.0273
Mars	47945-02-16 13:12 G	19232657.87	19232658.05	19232658.24	0.0525	0.0371
Mercury	47945-10-02 00:43 G	19232885.42	19232885.53	19232885.65	0.0519	0.0221
Mercury	47945-12-30 04:48 G	19232974.62	19232974.70	19232974.79	0.0517	0.0381
Moon	47948-01-18 14:38 G	19233724.06	19233724.11	19233724.17	0.0499	0.0486
Mercury	47951-11-20 21:07 G	19235126.34	19235126.38	19235126.41	0.0506	0.0495
Mercury	47952-02-19 11:17 G	19235216.86	19235216.97	19235217.09	0.0509	0.0393
Earth	47953-06-28 14:38 G	19235711.96	19235712.11	19235712.26	0.0521	0.0389
Moon	47953-06-28 18:29 G	19235712.10	19235712.27	19235712.44	0.0521	0.0355 *
Venus	47954-09-20 18:00 G	19236161.08	19236161.25	19236161.44	0.0530	0.0241
Mercury	47957-07-21 05:17 G	19237195.64	19237195.72	19237195.81	0.0519	0.0374
Mercury	47957-10-18 09:22 G	19237284.78	19237284.89	19237285.00	0.0517	0.0228
Venus	47960-07-25 08:38 G	19238295.68	19238295.86	19238296.04	0.0496	0.0248

Mercury	47963-12-08 07:12 G	19239526.63	19239526.80	19239526.98	0.0509	0.0170
Moon	47965-07-03 08:24 G	19240099.63	19240099.85	19240100.07	0.0523	0.0174
Earth	47965-07-03 12:29 G	19240099.80	19240100.02	19240100.24	0.0523	0.0176 *
Venus	47966-05-26 10:34 G	19240426.74	19240426.94	19240427.13	0.0529	0.0156
Mercury	47969-08-06 13:55 G	19241594.96	19241595.08	19241595.21	0.0517	0.0078
Moon	47970-12-25 15:22 G	19242101.08	19242101.14	19242101.22	0.0505	0.0479
Earth	47970-12-25 17:02 G	19242101.12	19242101.21	19242101.30	0.0505	0.0466 *
Venus	47972-03-30 09:36 G	19242561.69	19242561.90	19242562.10	0.0497	0.0082
Mercury	47975-09-26 03:22 G	19243836.45	19243836.64	19243836.83	0.0508	0.0051
Earth	47977-07-08 08:24 G	19244487.62	19244487.85	19244488.08	0.0524	0.0038
Moon	47977-07-08 11:17 G	19244487.75	19244487.97	19244488.20	0.0524	0.0013 *
Mercury	47981-05-25 18:14 G	19245905.14	19245905.26	19245905.38	0.0518	0.0081
Mercury	47981-08-22 22:05 G	19245994.41	19245994.42	19245994.43	0.0516	0.0514
Earth	47982-12-30 06:58 G	19246488.59	19246488.79	19246488.98	0.0504	0.0277
Moon	47982-12-30 09:50 G	19246488.72	19246488.91	19246489.11	0.0504	0.0308 *
Venus	47983-12-04 10:19 G	19246827.83	19246827.93	19246828.05	0.0498	0.0413
Mercury	47987-07-14 23:02 G	19248146.31	19248146.46	19248146.62	0.0507	0.0275
Moon	47989-07-13 02:24 G	19248875.39	19248875.60	19248875.82	0.0525	0.0248
Earth	47989-07-13 03:36 G	19248875.45	19248875.65	19248875.85	0.0525	0.0251 *
Venus	47990-05-29 09:36 G	19249195.81	19249195.90	19249195.99	0.0530	0.0471
Mercury	47993-03-13 22:48 G	19250215.34	19250215.45	19250215.56	0.0519	0.0233
Mercury	47993-06-11 02:38 G	19250304.53	19250304.61	19250304.70	0.0517	0.0368
Moon	47995-01-03 19:12 G	19250876.08	19250876.30	19250876.54	0.0503	0.0084
Earth	47995-01-03 23:02 G	19250876.23	19250876.46	19250876.69	0.0503	0.0082 *
Venus	47996-04-01 18:29 G	19251330.19	19251330.27	19251330.38	0.0496	0.0439
Mercury	47999-08-01 08:24 G	19252546.73	19252546.85	19252546.98	0.0508	0.0379

49TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 49th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	48001-07-17 18:29	G	19253263.21	19253263.27	19253263.36	0.0526	0.0492	
Earth	48001-07-17 19:41	G	19253263.22	19253263.32	19253263.44	0.0526	0.0459	*
Venus	48002-01-31 22:05	G	19253461.21	19253461.42	19253461.62	0.0529	0.0057	
Mercury	48004-12-31 03:22	G	19254525.56	19254525.64	19254525.72	0.0520	0.0387	
Mercury	48005-03-30 07:26	G	19254614.70	19254614.81	19254614.92	0.0518	0.0218	
Earth	48007-01-08 13:55	G	19255263.86	19255264.08	19255264.32	0.0502	0.0110	
Moon	48007-01-08 17:46	G	19255264.02	19255264.24	19255264.47	0.0502	0.0140	*
Venus	48007-12-06 20:24	G	19255596.15	19255596.35	19255596.55	0.0497	0.0112	
Mercury	48011-05-20 04:05	G	19256856.49	19256856.67	19256856.85	0.0508	0.0152	
Venus	48013-10-06 13:26	G	19257726.91	19257727.06	19257727.21	0.0528	0.0343	
Mercury	48017-01-16 12:00	G	19258924.87	19258925.00	19258925.12	0.0518	0.0065	
Moon	48019-01-12 21:50	G	19259651.22	19259651.41	19259651.61	0.0500	0.0294	
Earth	48019-01-13 00:43	G	19259651.34	19259651.53	19259651.73	0.0500	0.0292	*
Venus	48019-08-11 19:41	G	19259862.14	19259862.32	19259862.50	0.0497	0.0226	
Mercury	48023-03-07 23:46	G	19261166.30	19261166.49	19261166.68	0.0508	0.0073	
Mercury	48028-11-04 16:34	G	19263235.07	19263235.19	19263235.32	0.0518	0.0086	
Mercury	48029-02-01 20:24	G	19263324.34	19263324.35	19263324.37	0.0516	0.0510	
Earth	48031-01-17 13:26	G	19264039.00	19264039.06	19264039.13	0.0500	0.0477	
Moon	48031-01-17 14:38	G	19264039.02	19264039.11	19264039.22	0.0500	0.0449	*
Mars	48034-05-21 18:00	G	19265259.00	19265259.25	19265259.50	0.0503	0.0259	
Mercury	48034-12-24 19:55	G	19265476.18	19265476.33	19265476.48	0.0507	0.0292	
Moon	48036-06-27 11:46	G	19266026.84	19266026.99	19266027.14	0.0521	0.0395	

Earth	48036-06-27 15:50 G	19266027.03	19266027.16	19266027.29	0.0521	0.0429	*
Venus	48037-10-09 15:07 G	19266495.96	19266496.13	19266496.30	0.0529	0.0295	
Mercury	48040-08-23 20:53 G	19267545.26	19267545.37	19267545.48	0.0519	0.0245	
Mercury	48040-11-21 00:43 G	19267634.44	19267634.53	19267634.62	0.0516	0.0355	
Venus	48043-08-14 03:36 G	19268630.49	19268630.65	19268630.82	0.0497	0.0291	
Mercury	48047-01-11 06:14 G	19269876.63	19269876.76	19269876.88	0.0509	0.0377	
Earth	48048-07-02 10:05 G	19270414.71	19270414.92	19270415.13	0.0522	0.0221	
Moon	48048-07-02 13:26 G	19270414.86	19270415.06	19270415.27	0.0522	0.0220	*
Venus	48049-06-14 05:17 G	19270761.53	19270761.72	19270761.92	0.0528	0.0111	
Mercury	48052-06-12 01:26 G	19271855.48	19271855.56	19271855.63	0.0520	0.0399	
Mercury	48052-09-09 05:17 G	19271944.61	19271944.72	19271944.84	0.0517	0.0206	
Venus	48055-04-19 05:46 G	19272896.54	19272896.74	19272896.95	0.0497	0.0035	
Mercury	48058-10-30 01:12 G	19274186.37	19274186.55	19274186.73	0.0508	0.0141	
Moon	48060-07-06 23:46 G	19274802.25	19274802.49	19274802.73	0.0523	0.0044	
Earth	48060-07-07 01:41 G	19274802.34	19274802.57	19274802.80	0.0523	0.0014	*
Venus	48061-02-16 18:00 G	19275027.22	19275027.25	19275027.28	0.0528	0.0520	
Mercury	48064-06-28 10:05 G	19276254.79	19276254.92	19276255.04	0.0518	0.0055	
Moon	48065-12-29 04:19 G	19276803.52	19276803.68	19276803.85	0.0505	0.0346	
Earth	48065-12-29 07:55 G	19276803.65	19276803.83	19276804.02	0.0505	0.0313	*
Venus	48066-12-23 07:12 G	19277162.67	19277162.80	19277162.94	0.0498	0.0363	
Mercury	48070-08-17 20:53 G	19278496.18	19278496.37	19278496.56	0.0507	0.0085	
Moon	48072-07-11 21:36 G	19279190.20	19279190.40	19279190.61	0.0525	0.0205	
Earth	48072-07-11 22:05 G	19279190.21	19279190.42	19279190.63	0.0525	0.0202	*
Venus	48073-06-17 04:05 G	19279530.62	19279530.67	19279530.72	0.0530	0.0511	
Mercury	48076-04-16 14:38 G	19280564.98	19280565.11	19280565.23	0.0518	0.0100	
Mercury	48076-07-14 18:29 G	19280654.24	19280654.27	19280654.30	0.0516	0.0498	
Earth	48078-01-02 20:38 G	19281191.13	19281191.36	19281191.58	0.0503	0.0126	
Moon	48078-01-03 00:29 G	19281191.29	19281191.52	19281191.74	0.0503	0.0122	*
Venus	48079-04-21 12:29 G	19281664.96	19281665.02	19281665.08	0.0496	0.0473	
Mercury	48082-06-05 16:19 G	19282806.04	19282806.18	19282806.33	0.0507	0.0312	

Earth	48084-07-16 20:53 G	19283578.24	19283578.37	19283578.51	0.0526	0.0422
Moon	48084-07-16 23:17 G	19283578.36	19283578.47	19283578.59	0.0526	0.0455 *
Venus	48085-02-19 20:24 G	19283796.15	19283796.35	19283796.55	0.0529	0.0118
Mercury	48088-02-03 19:12 G	19284875.19	19284875.30	19284875.41	0.0519	0.0248
Mercury	48088-05-02 23:17 G	19284964.38	19284964.47	19284964.56	0.0516	0.0351
Moon	48090-01-07 07:26 G	19285578.58	19285578.81	19285579.05	0.0502	0.0096
Earth	48090-01-07 10:48 G	19285578.71	19285578.95	19285579.18	0.0502	0.0066 *
Venus	48090-12-25 13:55 G	19285930.88	19285931.08	19285931.27	0.0497	0.0147
Mercury	48094-06-23 03:07 G	19287206.50	19287206.63	19287206.76	0.0509	0.0362
Venus	48096-10-25 11:31 G	19288061.81	19288061.98	19288062.15	0.0528	0.0282
Mars	48099-05-12 15:36 G	19288990.89	19288991.15	19288991.40	0.0524	0.0097
Mercury	48099-11-22 23:31 G	19289185.40	19289185.48	19289185.56	0.0519	0.0407
Mercury	48100-02-20 03:36 G	19289274.53	19289274.65	19289274.77	0.0517	0.0196
Earth	48102-01-12 23:31 G	19289966.28	19289966.48	19289966.69	0.0501	0.0255
Moon	48102-01-13 01:12 G	19289966.36	19289966.55	19289966.75	0.0501	0.0255 *
Venus	48102-08-31 14:53 G	19290196.93	19290197.12	19290197.31	0.0498	0.0182
Mercury	48106-04-11 23:02 G	19291516.28	19291516.46	19291516.64	0.0508	0.0138
Mercury	48111-12-10 08:10 G	19293584.71	19293584.84	19293584.97	0.0518	0.0045
Moon	48114-01-17 13:55 G	19294353.96	19294354.08	19294354.23	0.0500	0.0414
Earth	48114-01-17 14:24 G	19294354.00	19294354.10	19294354.21	0.0500	0.0446 *
Mercury	48118-01-28 18:14 G	19295826.08	19295826.26	19295826.45	0.0507	0.0093
Earth	48119-06-28 11:31 G	19296341.89	19296341.98	19296342.07	0.0520	0.0478
Moon	48119-06-28 15:07 G	19296342.02	19296342.13	19296342.25	0.0520	0.0445 *
Venus	48120-10-29 08:53 G	19296830.71	19296830.87	19296831.03	0.0529	0.0333
Mercury	48123-09-28 12:43 G	19297894.91	19297895.03	19297895.15	0.0519	0.0109
Mercury	48123-12-26 16:34 G	19297984.16	19297984.19	19297984.23	0.0517	0.0490
Venus	48126-09-03 00:58 G	19298965.39	19298965.54	19298965.68	0.0497	0.0341
Mercury	48129-11-16 14:10 G	19300135.94	19300136.09	19300136.24	0.0507	0.0315
Moon	48131-07-03 04:05 G	19300729.46	19300729.67	19300729.87	0.0522	0.0269
Earth	48131-07-03 06:29 G	19300729.58	19300729.77	19300729.97	0.0522	0.0268 *

Venus	48132-07-04 00:29 G	19301096.32	19301096.52	19301096.72	0.0529	0.0065
Mercury	48135-07-17 17:17 G	19302205.11	19302205.22	19302205.33	0.0519	0.0260
Mercury	48135-10-14 21:22 G	19302294.30	19302294.39	19302294.48	0.0517	0.0341
Venus	48138-05-09 00:14 G	19303231.31	19303231.51	19303231.72	0.0497	0.0008
Mercury	48141-12-03 23:46 G	19304536.36	19304536.49	19304536.63	0.0509	0.0344
Earth	48143-07-08 03:50 G	19305117.43	19305117.66	19305117.89	0.0524	0.0053
Moon	48143-07-08 03:50 G	19305117.44	19305117.66	19305117.88	0.0524	0.0083 *
Venus	48144-03-08 17:02 G	19305362.11	19305362.21	19305362.31	0.0528	0.0455
Mercury	48147-05-05 22:05 G	19306515.34	19306515.42	19306515.50	0.0519	0.0408
Mercury	48147-08-03 02:10 G	19306604.47	19306604.59	19306604.71	0.0517	0.0196
Earth	48148-12-29 06:29 G	19307118.61	19307118.77	19307118.94	0.0504	0.0356
Moon	48148-12-29 10:19 G	19307118.78	19307118.93	19307119.08	0.0504	0.0385 *
Venus	48150-01-12 01:26 G	19307497.41	19307497.56	19307497.72	0.0498	0.0322
Mercury	48153-09-21 19:55 G	19308846.15	19308846.33	19308846.52	0.0508	0.0127
Earth	48155-07-13 01:12 G	19309505.34	19309505.55	19309505.77	0.0524	0.0167
Moon	48155-07-13 03:07 G	19309505.41	19309505.63	19309505.86	0.0524	0.0173 *
Mercury	48159-05-22 06:29 G	19310914.65	19310914.77	19310914.90	0.0518	0.0042
Moon	48161-01-02 17:02 G	19311505.98	19311506.21	19311506.44	0.0503	0.0157
Earth	48161-01-02 20:38 G	19311506.13	19311506.36	19311506.58	0.0503	0.0164 *
Mercury	48165-07-10 16:19 G	19313155.99	19313156.18	19313156.36	0.0508	0.0094
Moon	48167-07-17 18:43 G	19313893.14	19313893.28	19313893.41	0.0525	0.0417
Earth	48167-07-17 21:36 G	19313893.25	19313893.40	19313893.56	0.0525	0.0383 *
Venus	48168-03-11 17:31 G	19314131.04	19314131.23	19314131.42	0.0529	0.0173
Mercury	48171-03-10 11:02 G	19315224.84	19315224.96	19315225.09	0.0518	0.0112
Mercury	48171-06-07 14:53 G	19315314.08	19315314.12	19315314.16	0.0516	0.0485
Earth	48173-01-07 12:00 G	19315893.77	19315894.00	19315894.24	0.0502	0.0034
Moon	48173-01-07 13:55 G	19315893.86	19315894.08	19315894.31	0.0502	0.0064 *
Venus	48174-01-14 11:17 G	19316265.79	19316265.97	19316266.16	0.0497	0.0200
Mercury	48177-04-28 12:00 G	19317465.85	19317466.00	19317466.14	0.0507	0.0318
Venus	48179-11-15 06:43 G	19318396.60	19318396.78	19318396.96	0.0528	0.0235

Mercury	48182-12-27 15:36 G	19319535.04	19319535.15	19319535.26	0.0519	0.0267
Mercury	48183-03-26 19:41 G	19319624.22	19319624.32	19319624.41	0.0517	0.0336
Moon	48185-01-12 02:53 G	19320281.40	19320281.62	19320281.84	0.0502	0.0221
Earth	48185-01-12 03:22 G	19320281.43	19320281.64	19320281.85	0.0502	0.0226 *
Venus	48185-09-19 12:58 G	19320531.84	19320532.04	19320532.24	0.0498	0.0126
Mercury	48189-05-15 22:05 G	19321866.28	19321866.42	19321866.56	0.0508	0.0348
Mercury	48194-10-15 20:10 G	19323845.27	19323845.34	19323845.42	0.0520	0.0417
Mercury	48195-01-13 00:29 G	19323934.40	19323934.52	19323934.63	0.0517	0.0189
Moon	48197-01-16 14:10 G	19324668.95	19324669.09	19324669.24	0.0500	0.0381
Earth	48197-01-16 15:07 G	19324669.00	19324669.13	19324669.27	0.0500	0.0410 *
Venus	48197-05-25 12:29 G	19324797.95	19324798.02	19324798.10	0.0498	0.0459
Mercury	48201-03-04 17:17 G	19326176.03	19326176.22	19326176.40	0.0508	0.0114
Moon	48202-06-28 11:31 G	19326656.91	19326656.98	19326657.07	0.0521	0.0487
Earth	48202-06-28 14:38 G	19326657.09	19326657.11	19326657.14	0.0521	0.0517
Venus	48203-11-19 09:22 G	19327165.77	19327165.89	19327166.03	0.0530	0.0406
Mercury	48206-11-02 05:17 G	19328244.60	19328244.72	19328244.85	0.0518	0.0046
Venus	48209-09-22 20:10 G	19329300.22	19329300.34	19329300.47	0.0496	0.0385
Mercury	48212-12-21 13:41 G	19330485.88	19330486.07	19330486.25	0.0508	0.0102
Earth	48214-07-03 11:46 G	19331044.80	19331044.99	19331045.18	0.0522	0.0302
Moon	48214-07-03 12:29 G	19331044.84	19331045.02	19331045.19	0.0522	0.0314 *
Venus	48215-07-25 01:12 G	19331431.35	19331431.55	19331431.76	0.0529	0.0012
Mercury	48218-08-21 09:50 G	19332554.79	19332554.91	19332555.03	0.0518	0.0110
Mercury	48218-11-18 13:41 G	19332644.03	19332644.07	19332644.11	0.0516	0.0486
Venus	48221-05-28 21:50 G	19333566.21	19333566.41	19333566.62	0.0497	0.0060
Mercury	48224-10-09 09:50 G	19334795.77	19334795.91	19334796.06	0.0507	0.0317
Earth	48226-07-08 07:55 G	19335432.60	19335432.83	19335433.06	0.0523	0.0086
Moon	48226-07-08 09:22 G	19335432.66	19335432.89	19335433.13	0.0523	0.0116 *
Venus	48227-03-29 16:19 G	19335697.05	19335697.18	19335697.32	0.0528	0.0389
Mercury	48230-06-09 14:24 G	19336864.99	19336865.10	19336865.21	0.0519	0.0263
Mercury	48230-09-06 18:14 G	19336954.17	19336954.26	19336954.36	0.0517	0.0338

Moon	48231-12-30 05:46 G	19337433.61	19337433.74	19337433.87	0.0505	0.0417
Earth	48231-12-30 09:22 G	19337433.74	19337433.89	19337434.04	0.0505	0.0389 *
Venus	48233-02-01 00:00 G	19337832.33	19337832.50	19337832.67	0.0498	0.0265
Mercury	48236-10-26 20:10 G	19339196.21	19339196.34	19339196.48	0.0509	0.0353
Moon	48238-07-12 23:17 G	19339820.25	19339820.47	19339820.69	0.0524	0.0132
Earth	48238-07-13 01:55 G	19339820.36	19339820.58	19339820.81	0.0524	0.0126 *
Mercury	48242-03-28 18:43 G	19341175.21	19341175.28	19341175.36	0.0520	0.0419
Mercury	48242-06-25 23:02 G	19341264.34	19341264.46	19341264.57	0.0518	0.0188
Earth	48244-01-04 01:41 G	19341821.36	19341821.57	19341821.79	0.0504	0.0194
Moon	48244-01-04 03:50 G	19341821.45	19341821.66	19341821.88	0.0504	0.0179 *
Mercury	48248-08-14 16:05 G	19343505.99	19343506.17	19343506.36	0.0508	0.0129
Earth	48250-07-17 23:02 G	19344208.28	19344208.46	19344208.63	0.0525	0.0345
Moon	48250-07-18 02:24 G	19344208.45	19344208.60	19344208.77	0.0525	0.0378 *
Venus	48251-04-01 15:50 G	19344465.98	19344466.16	19344466.34	0.0529	0.0233
Mars	48253-08-07 09:36 G	19345324.67	19345324.90	19345325.12	0.0524	0.0261
Mercury	48254-04-14 03:50 G	19345574.53	19345574.66	19345574.79	0.0518	0.0042
Moon	48256-01-08 15:07 G	19346208.88	19346209.13	19346209.37	0.0502	0.0027
Earth	48256-01-08 15:50 G	19346208.93	19346209.16	19346209.40	0.0502	0.0007 *
Venus	48257-02-03 08:10 G	19346600.67	19346600.84	19346601.02	0.0496	0.0251
Mercury	48260-06-02 11:17 G	19347815.78	19347815.97	19347816.15	0.0508	0.0107
Venus	48262-12-05 08:24 G	19348731.66	19348731.85	19348732.04	0.0529	0.0157
Mercury	48266-01-31 08:53 G	19349884.74	19349884.87	19349884.99	0.0518	0.0101
Mercury	48266-04-30 12:43 G	19349974.00	19349974.03	19349974.06	0.0516	0.0495
Moon	48268-01-13 06:43 G	19350596.57	19350596.78	19350596.99	0.0501	0.0188
Earth	48268-01-13 07:26 G	19350596.59	19350596.81	19350597.03	0.0501	0.0194 *
Venus	48268-10-09 10:19 G	19350866.73	19350866.93	19350867.13	0.0497	0.0072
Mercury	48272-03-21 07:41 G	19352125.68	19352125.82	19352125.97	0.0508	0.0320
Mercury	48277-11-19 13:12 G	19354194.95	19354195.05	19354195.16	0.0519	0.0255
Mercury	48278-02-16 17:17 G	19354284.13	19354284.22	19354284.31	0.0516	0.0345
Earth	48280-01-17 20:53 G	19354984.22	19354984.37	19354984.52	0.0500	0.0385

Moon	48280-01-17 23:31 G	19354984.31	19354984.48	19354984.65	0.0500	0.0356 *
Venus	48280-06-14 11:31 G	19355132.86	19355132.98	19355133.11	0.0498	0.0399
Mercury	48284-04-07 18:43 G	19356526.15	19356526.28	19356526.41	0.0509	0.0360
Moon	48285-06-27 23:31 G	19356972.48	19356972.48	19356972.49	0.0520	0.0520
Venus	48286-12-08 10:19 G	19357500.86	19357500.93	19357501.03	0.0530	0.0478
Mercury	48289-09-07 17:46 G	19358505.17	19358505.24	19358505.32	0.0519	0.0408
Mercury	48289-12-05 21:50 G	19358594.30	19358594.41	19358594.53	0.0517	0.0197
Venus	48292-10-11 20:10 G	19359635.26	19359635.34	19359635.43	0.0497	0.0446
Mercury	48296-01-25 14:53 G	19360835.94	19360836.12	19360836.30	0.0508	0.0138
Earth	48297-07-02 16:19 G	19361360.01	19361360.18	19361360.36	0.0521	0.0336
Moon	48297-07-02 17:17 G	19361360.05	19361360.22	19361360.40	0.0521	0.0353 *
Venus	48298-08-13 00:14 G	19361766.31	19361766.51	19361766.71	0.0529	0.0073
Mercury	48301-09-25 02:24 G	19362904.48	19362904.60	19362904.73	0.0518	0.0049
Venus	48304-06-17 22:34 G	19363901.24	19363901.44	19363901.64	0.0497	0.0126
Mars	48307-02-04 16:34 G	19364862.95	19364863.19	19364863.45	0.0501	0.0245
Mercury	48307-11-14 10:48 G	19365145.76	19365145.95	19365146.14	0.0508	0.0083
Moon	48309-07-08 09:50 G	19365747.70	19365747.91	19365748.13	0.0523	0.0153
Earth	48309-07-08 12:29 G	19365747.79	19365748.02	19365748.24	0.0523	0.0120 *
Venus	48310-04-18 16:05 G	19366032.01	19366032.17	19366032.34	0.0528	0.0320
Mercury	48313-07-14 07:26 G	19367214.69	19367214.81	19367214.94	0.0518	0.0100
Mercury	48313-10-11 11:17 G	19367303.94	19367303.97	19367304.00	0.0516	0.0497
Earth	48314-12-30 16:19 G	19367749.06	19367749.18	19367749.31	0.0505	0.0420
Moon	48314-12-30 18:43 G	19367749.18	19367749.28	19367749.39	0.0505	0.0443 *
Venus	48316-02-21 22:48 G	19368167.27	19368167.45	19368167.64	0.0497	0.0203
Mercury	48319-09-02 05:46 G	19369455.60	19369455.74	19369455.89	0.0507	0.0319
Earth	48321-07-13 08:53 G	19370135.64	19370135.87	19370136.10	0.0524	0.0096
Moon	48321-07-13 12:29 G	19370135.79	19370136.02	19370136.25	0.0524	0.0108 *
Mercury	48325-05-02 12:29 G	19371524.91	19371525.02	19371525.13	0.0519	0.0241
Mercury	48325-07-30 16:34 G	19371614.10	19371614.19	19371614.28	0.0516	0.0359
Moon	48327-01-04 08:53 G	19372136.65	19372136.87	19372137.09	0.0503	0.0200

Earth	48327-01-04 09:50 G	19372136.70	19372136.91	19372137.12	0.0503	0.0220	*
Mercury	48331-09-19 16:48 G	19373856.07	19373856.20	19373856.33	0.0509	0.0362	
Moon	48333-07-18 05:02 G	19374523.54	19374523.71	19374523.88	0.0526	0.0351	
Earth	48333-07-18 08:24 G	19374523.68	19374523.85	19374524.04	0.0526	0.0323	*
Venus	48334-04-21 19:41 G	19374801.16	19374801.32	19374801.48	0.0530	0.0321	
Mercury	48337-02-18 17:02 G	19375835.13	19375835.21	19375835.29	0.0519	0.0394	
Mercury	48337-05-18 21:07 G	19375924.27	19375924.38	19375924.50	0.0517	0.0209	
Moon	48339-01-08 23:31 G	19376524.26	19376524.48	19376524.71	0.0502	0.0007	
Earth	48339-01-09 00:14 G	19376524.27	19376524.51	19376524.74	0.0502	0.0025	*
Venus	48340-02-24 08:38 G	19376935.71	19376935.86	19376936.02	0.0496	0.0316	
Mercury	48343-07-08 13:26 G	19378165.88	19378166.06	19378166.24	0.0509	0.0149	
Venus	48345-12-25 11:17 G	19379066.77	19379066.97	19379067.17	0.0529	0.0076	
Mercury	48349-03-07 01:41 G	19380234.45	19380234.57	19380234.70	0.0518	0.0063	
Earth	48351-01-13 15:36 G	19380911.93	19380912.15	19380912.37	0.0502	0.0173	
Moon	48351-01-13 18:00 G	19380912.02	19380912.25	19380912.48	0.0502	0.0160	*
Venus	48351-10-30 11:17 G	19381201.76	19381201.97	19381202.17	0.0497	0.0006	
Mercury	48355-04-26 09:50 G	19382475.72	19382475.91	19382476.10	0.0508	0.0069	
Venus	48357-08-30 01:41 G	19383332.49	19383332.57	19383332.66	0.0527	0.0473	
Mercury	48360-12-24 06:29 G	19384544.64	19384544.77	19384544.89	0.0518	0.0093	
Mercury	48361-03-23 10:19 G	19384633.91	19384633.93	19384633.95	0.0516	0.0505	
Moon	48363-01-18 03:22 G	19385299.47	19385299.64	19385299.82	0.0501	0.0339	
Earth	48363-01-18 06:58 G	19385299.64	19385299.79	19385299.96	0.0501	0.0367	*
Venus	48363-07-05 13:26 G	19385467.90	19385468.06	19385468.21	0.0498	0.0327	
Mercury	48367-02-12 06:00 G	19386785.59	19386785.75	19386785.90	0.0507	0.0287	
Mercury	48372-10-12 11:17 G	19388854.86	19388854.97	19388855.09	0.0519	0.0237	
Mercury	48373-01-09 15:22 G	19388944.05	19388944.14	19388944.23	0.0517	0.0365	
Mercury	48379-03-01 15:07 G	19391186.00	19391186.13	19391186.26	0.0509	0.0367	
Moon	48380-07-02 21:22 G	19391675.25	19391675.39	19391675.55	0.0522	0.0388	
Earth	48380-07-02 23:46 G	19391675.33	19391675.49	19391675.65	0.0522	0.0366	*
Venus	48381-09-02 03:50 G	19392101.47	19392101.66	19392101.86	0.0530	0.0160	

Mercury	48384-07-31 16:34 G	19393165.10	19393165.19	19393165.27	0.0519	0.0377
Mercury	48384-10-28 20:38 G	19393254.24	19393254.36	19393254.47	0.0517	0.0227
Venus	48387-07-07 22:48 G	19394236.27	19394236.45	19394236.64	0.0496	0.0191
Mercury	48390-12-18 11:46 G	19395495.81	19395495.99	19395496.17	0.0509	0.0154
Earth	48392-07-07 22:34 G	19396063.22	19396063.44	19396063.66	0.0523	0.0144
Moon	48392-07-08 01:55 G	19396063.36	19396063.58	19396063.81	0.0523	0.0171 *
Venus	48393-05-07 20:38 G	19396367.18	19396367.36	19396367.55	0.0529	0.0231
Mercury	48396-08-17 01:12 G	19397564.43	19397564.55	19397564.68	0.0517	0.0077
Moon	48397-12-30 01:41 G	19398064.47	19398064.57	19398064.68	0.0505	0.0457
Earth	48397-12-30 02:38 G	19398064.51	19398064.61	19398064.73	0.0505	0.0439 *
Venus	48399-03-13 00:29 G	19398502.33	19398502.52	19398502.72	0.0497	0.0133
Mercury	48402-10-06 08:38 G	19399805.67	19399805.86	19399806.05	0.0508	0.0056
Moon	48404-07-12 17:17 G	19400450.99	19400451.22	19400451.45	0.0524	0.0096
Earth	48404-07-12 20:53 G	19400451.14	19400451.37	19400451.60	0.0524	0.0079 *
Mercury	48408-06-05 05:46 G	19401874.62	19401874.74	19401874.87	0.0518	0.0076
Moon	48410-01-03 18:43 G	19402452.07	19402452.28	19402452.48	0.0504	0.0220
Earth	48410-01-03 18:58 G	19402452.09	19402452.29	19402452.50	0.0504	0.0241 *
Venus	48410-11-16 02:38 G	19402768.53	19402768.61	19402768.69	0.0498	0.0455
Mercury	48414-07-25 05:02 G	19404115.56	19404115.71	19404115.87	0.0507	0.0270
Earth	48416-07-17 17:02 G	19404839.03	19404839.21	19404839.41	0.0525	0.0298
Moon	48416-07-17 19:41 G	19404839.15	19404839.32	19404839.50	0.0525	0.0324 *
Venus	48417-05-10 21:36 G	19405136.27	19405136.40	19405136.54	0.0529	0.0398
Mercury	48420-03-24 10:19 G	19406184.82	19406184.93	19406185.05	0.0519	0.0227
Mercury	48420-06-21 14:24 G	19406274.01	19406274.10	19406274.18	0.0517	0.0374
Earth	48422-01-08 11:17 G	19406839.74	19406839.97	19406840.21	0.0503	0.0044
Moon	48422-01-08 13:41 G	19406839.83	19406840.07	19406840.31	0.0503	0.0021 *
Venus	48423-03-15 11:17 G	19407270.85	19407270.97	19407271.10	0.0497	0.0389
Mercury	48426-05-13 01:26 G	19408425.51	19408425.56	19408425.61	0.0507	0.0486
Mercury	48426-08-11 15:36 G	19408516.04	19408516.15	19408516.27	0.0509	0.0403
Moon	48428-07-22 13:41 G	19409227.00	19409227.07	19409227.14	0.0526	0.0501

Earth	48428-07-22 14:53 G	19409227.10	19409227.12	19409227.16	0.0526	0.0521	*
Venus	48429-01-13 13:26 G	19409401.86	19409402.06	19409402.27	0.0529	0.0010	
Mercury	48432-01-11 15:22 G	19410495.06	19410495.14	19410495.23	0.0519	0.0370	
Mercury	48432-04-09 19:26 G	19410584.20	19410584.31	19410584.42	0.0517	0.0235	
Moon	48434-01-12 23:46 G	19411227.26	19411227.49	19411227.71	0.0501	0.0133	
Earth	48434-01-13 03:22 G	19411227.41	19411227.64	19411227.86	0.0501	0.0154	*
Venus	48434-11-18 12:43 G	19411536.83	19411537.03	19411537.23	0.0497	0.0066	
Mercury	48438-05-30 10:19 G	19412825.75	19412825.93	19412826.11	0.0509	0.0163	
Venus	48440-09-18 05:02 G	19413667.58	19413667.71	19413667.85	0.0529	0.0389	
Mercury	48443-10-30 20:24 G	19414805.34	19414805.35	19414805.37	0.0520	0.0511	
Mercury	48444-01-28 00:43 G	19414894.41	19414894.53	19414894.65	0.0518	0.0096	
Earth	48446-01-17 19:12 G	19415615.13	19415615.30	19415615.47	0.0500	0.0351	
Moon	48446-01-17 23:02 G	19415615.29	19415615.46	19415615.64	0.0500	0.0327	*
Venus	48446-07-24 15:07 G	19415802.96	19415803.13	19415803.31	0.0497	0.0255	
Mercury	48450-03-18 06:58 G	19417135.60	19417135.79	19417135.98	0.0508	0.0050	
Mercury	48455-11-16 05:17 G	19419204.60	19419204.72	19419204.85	0.0518	0.0055	
Mars	48461-05-01 07:12 G	19421197.54	19421197.80	19421198.06	0.0502	0.0222	
Mercury	48462-01-04 03:50 G	19421445.50	19421445.66	19421445.83	0.0508	0.0257	
Earth	48463-07-03 13:12 G	19421990.90	19421991.05	19421991.21	0.0522	0.0381	
Moon	48463-07-03 16:34 G	19421991.04	19421991.19	19421991.34	0.0522	0.0404	*
Venus	48464-09-21 08:53 G	19422436.70	19422436.87	19422437.05	0.0530	0.0250	
Mercury	48467-09-04 10:05 G	19423514.80	19423514.92	19423515.03	0.0518	0.0205	
Mercury	48467-12-02 13:55 G	19423604.00	19423604.08	19423604.16	0.0516	0.0394	
Venus	48470-07-27 01:12 G	19424571.38	19424571.55	19424571.72	0.0497	0.0263	
Mercury	48473-10-23 00:29 G	19425755.46	19425755.52	19425755.60	0.0507	0.0468	
Mercury	48474-01-21 14:53 G	19425846.02	19425846.12	19425846.23	0.0509	0.0423	
Moon	48475-07-08 05:31 G	19426378.52	19426378.73	19426378.95	0.0522	0.0189	
Earth	48475-07-08 09:22 G	19426378.67	19426378.89	19426379.11	0.0522	0.0166	*
Venus	48476-05-26 23:46 G	19426702.29	19426702.49	19426702.68	0.0528	0.0149	
Mercury	48479-06-23 14:24 G	19427825.02	19427825.10	19427825.20	0.0519	0.0359	

Mercury	48479-09-20 18:29 G	19427914.17	19427914.27	19427914.39	0.0517	0.0246
Moon	48480-12-29 13:41 G	19428380.00	19428380.07	19428380.15	0.0505	0.0476
Earth	48480-12-29 13:55 G	19428380.00	19428380.08	19428380.19	0.0505	0.0460 *
Venus	48482-04-01 03:36 G	19428837.44	19428837.65	19428837.85	0.0497	0.0057
Mercury	48485-11-09 11:02 G	19430155.79	19430155.96	19430156.13	0.0508	0.0201
Earth	48487-07-13 05:46 G	19430766.51	19430766.74	19430766.97	0.0524	0.0055
Moon	48487-07-13 08:38 G	19430766.64	19430766.86	19430767.09	0.0524	0.0081 *
Mercury	48491-04-11 19:26 G	19432135.28	19432135.31	19432135.34	0.0520	0.0503
Mercury	48491-07-09 23:46 G	19432224.37	19432224.49	19432224.61	0.0518	0.0105
Earth	48493-01-03 07:55 G	19432767.63	19432767.83	19432768.04	0.0504	0.0258
Moon	48493-01-03 10:05 G	19432767.71	19432767.92	19432768.14	0.0504	0.0232 *
Venus	48493-12-05 05:17 G	19433103.59	19433103.72	19433103.85	0.0498	0.0379
Mercury	48497-08-28 05:46 G	19434465.55	19434465.74	19434465.92	0.0508	0.0041
Moon	48499-07-17 23:31 G	19435154.29	19435154.48	19435154.68	0.0526	0.0296
Earth	48499-07-18 01:12 G	19435154.36	19435154.55	19435154.75	0.0526	0.0273 *
Venus	48500-05-31 01:26 G	19435471.49	19435471.56	19435471.65	0.0531	0.0484
Mercury	48503-04-29 04:48 G	19436534.58	19436534.70	19436534.83	0.0518	0.0037
Moon	48505-01-08 21:50 G	19437155.18	19437155.41	19437155.65	0.0502	0.0042
Earth	48505-01-09 01:26 G	19437155.33	19437155.56	19437155.80	0.0502	0.0056 *
Venus	48506-04-04 13:26 G	19437605.98	19437606.06	19437606.13	0.0496	0.0459
Mercury	48509-06-17 02:24 G	19438775.43	19438775.60	19438775.76	0.0508	0.0251
Moon	48511-07-24 01:26 G	19439542.48	19439542.56	19439542.65	0.0527	0.0484
Earth	48511-07-24 01:26 G	19439542.51	19439542.56	19439542.64	0.0527	0.0504 *
Venus	48512-02-03 18:14 G	19439737.06	19439737.26	19439737.46	0.0530	0.0093
Mercury	48515-02-15 09:36 G	19440844.78	19440844.90	19440845.02	0.0518	0.0185
Mercury	48515-05-15 13:26 G	19440933.99	19440934.06	19440934.13	0.0516	0.0413
Earth	48517-01-13 15:36 G	19441542.92	19441543.15	19441543.37	0.0501	0.0141
Moon	48517-01-13 19:26 G	19441543.08	19441543.31	19441543.54	0.0501	0.0114 *
Venus	48517-12-08 15:22 G	19441871.94	19441872.14	19441872.34	0.0497	0.0138
Mercury	48521-04-04 23:17 G	19443085.39	19443085.47	19443085.55	0.0507	0.0457

Mercury	48521-07-04 13:41 G	19443175.98	19443176.07	19443176.17	0.0509	0.0436
Venus	48523-10-09 10:19 G	19444002.77	19444002.93	19444003.10	0.0529	0.0298
Mars	48526-04-25 21:07 G	19444932.12	19444932.38	19444932.65	0.0524	0.0009
Mercury	48526-12-04 14:10 G	19445154.99	19445155.09	19445155.18	0.0519	0.0336
Mercury	48527-03-03 18:14 G	19445244.15	19445244.26	19445244.36	0.0517	0.0266
Moon	48529-01-18 02:38 G	19445930.43	19445930.61	19445930.80	0.0501	0.0311
Earth	48529-01-18 06:00 G	19445930.59	19445930.75	19445930.93	0.0501	0.0337 *
Venus	48529-08-13 17:17 G	19446138.03	19446138.22	19446138.41	0.0497	0.0183
Mercury	48533-04-22 10:05 G	19447485.76	19447485.92	19447486.09	0.0509	0.0220
Mercury	48538-09-22 18:29 G	19449465.24	19449465.27	19449465.31	0.0520	0.0492
Mercury	48538-12-20 22:48 G	19449554.33	19449554.45	19449554.57	0.0518	0.0115
Mercury	48545-02-08 06:14 G	19451795.57	19451795.76	19451795.95	0.0508	0.0004
Moon	48546-07-03 18:29 G	19452306.15	19452306.27	19452306.41	0.0521	0.0433
Earth	48546-07-03 22:34 G	19452306.29	19452306.44	19452306.58	0.0521	0.0405 *
Venus	48547-10-12 11:17 G	19452771.82	19452771.97	19452772.13	0.0530	0.0329
Mercury	48550-10-09 03:50 G	19453864.53	19453864.66	19453864.78	0.0518	0.0027
Venus	48553-08-16 03:22 G	19454906.50	19454906.64	19454906.79	0.0496	0.0335
Mercury	48556-11-27 00:58 G	19456105.37	19456105.54	19456105.70	0.0507	0.0241
Earth	48558-07-08 15:22 G	19456693.92	19456694.14	19456694.35	0.0523	0.0195
Moon	48558-07-08 18:29 G	19456694.06	19456694.27	19456694.48	0.0523	0.0210 *
Venus	48559-06-17 02:10 G	19457037.39	19457037.59	19457037.79	0.0530	0.0070
Mercury	48562-07-28 08:53 G	19458174.75	19458174.87	19458174.99	0.0519	0.0168
Mercury	48562-10-25 12:43 G	19458263.97	19458264.03	19458264.10	0.0516	0.0432
Earth	48563-12-31 04:48 G	19458695.62	19458695.70	19458695.79	0.0505	0.0471
Moon	48563-12-31 06:58 G	19458695.72	19458695.79	19458695.87	0.0505	0.0477 *
Venus	48565-04-21 06:00 G	19459172.55	19459172.75	19459172.96	0.0496	0.0021
Mercury	48568-09-14 21:36 G	19460415.32	19460415.40	19460415.48	0.0507	0.0452
Mercury	48568-12-14 11:46 G	19460505.90	19460505.99	19460506.09	0.0509	0.0440
Moon	48570-07-13 12:29 G	19461081.79	19461082.02	19461082.26	0.0524	0.0060
Earth	48570-07-13 14:24 G	19461081.87	19461082.10	19461082.33	0.0524	0.0031 *

Venus	48571-02-19 18:43 G	19461303.19	19461303.28	19461303.39	0.0529	0.0456
Mercury	48574-05-16 13:26 G	19462484.97	19462485.06	19462485.16	0.0519	0.0319
Mercury	48574-08-13 17:31 G	19462574.13	19462574.23	19462574.34	0.0517	0.0284
Moon	48576-01-04 16:19 G	19463082.98	19463083.18	19463083.38	0.0504	0.0246
Earth	48576-01-04 19:41 G	19463083.13	19463083.32	19463083.52	0.0504	0.0274 *
Venus	48576-12-25 07:26 G	19463438.65	19463438.81	19463438.97	0.0497	0.0307
Mercury	48580-10-02 08:38 G	19464815.70	19464815.86	19464816.03	0.0509	0.0229
Earth	48582-07-18 13:55 G	19465469.89	19465470.08	19465470.29	0.0525	0.0260
Moon	48582-07-18 14:10 G	19465469.90	19465470.09	19465470.28	0.0525	0.0279 *
Mercury	48586-03-04 18:00 G	19466795.20	19466795.25	19466795.31	0.0520	0.0472
Mercury	48586-06-01 22:19 G	19466884.31	19466884.43	19466884.55	0.0517	0.0135
Earth	48588-01-09 10:48 G	19467470.72	19467470.95	19467471.19	0.0503	0.0075
Moon	48588-01-09 14:53 G	19467470.89	19467471.12	19467471.35	0.0503	0.0066 *
Mercury	48592-07-21 05:17 G	19469125.53	19469125.72	19469125.91	0.0508	0.0014
Earth	48594-07-23 11:17 G	19469857.88	19469857.97	19469858.06	0.0526	0.0481
Moon	48594-07-23 13:12 G	19469857.94	19469858.05	19469858.17	0.0526	0.0455 *
Venus	48595-02-22 20:53 G	19470072.18	19470072.37	19470072.56	0.0529	0.0173
Mercury	48598-03-21 02:53 G	19471194.49	19471194.62	19471194.74	0.0518	0.0025
Moon	48600-01-13 22:48 G	19471858.21	19471858.45	19471858.68	0.0502	0.0094
Earth	48600-01-14 02:10 G	19471858.36	19471858.59	19471858.82	0.0502	0.0123 *
Venus	48600-12-28 17:31 G	19472207.05	19472207.23	19472207.42	0.0497	0.0211
Mercury	48604-05-10 01:12 G	19473435.38	19473435.55	19473435.73	0.0507	0.0207
Venus	48606-10-29 12:00 G	19474337.82	19474338.00	19474338.19	0.0529	0.0222
Mercury	48610-01-08 07:41 G	19475504.70	19475504.82	19475504.94	0.0519	0.0163
Mercury	48610-04-07 11:46 G	19475593.92	19475593.99	19475594.05	0.0516	0.0438
Earth	48612-01-19 18:29 G	19476246.09	19476246.27	19476246.45	0.0500	0.0322
Moon	48612-01-19 20:38 G	19476246.18	19476246.36	19476246.54	0.0500	0.0305 *
Venus	48612-09-02 19:41 G	19476473.12	19476473.32	19476473.52	0.0497	0.0109
Mercury	48616-02-26 19:55 G	19477745.25	19477745.33	19477745.42	0.0507	0.0445
Mercury	48616-05-27 10:19 G	19477835.84	19477835.93	19477836.02	0.0509	0.0446

Mercury	48621-10-27 12:43 G	19479814.93	19479815.03	19479815.13	0.0519	0.0306
Mercury	48622-01-24 16:48 G	19479904.10	19479904.20	19479904.30	0.0517	0.0298
Venus	48624-05-08 22:05 G	19480739.32	19480739.42	19480739.52	0.0498	0.0429
Mercury	48628-03-15 06:43 G	19482145.61	19482145.78	19482145.94	0.0509	0.0229
Earth	48629-07-04 04:05 G	19482621.55	19482621.67	19482621.80	0.0521	0.0435
Moon	48629-07-04 07:26 G	19482621.71	19482621.81	19482621.91	0.0521	0.0466 *
Venus	48630-11-01 13:55 G	19483106.95	19483107.08	19483107.21	0.0530	0.0406
Mercury	48633-08-15 17:17 G	19484125.17	19484125.22	19484125.28	0.0520	0.0458
Mercury	48633-11-12 21:36 G	19484214.28	19484214.40	19484214.52	0.0517	0.0149
Venus	48636-09-05 04:34 G	19485241.58	19485241.69	19485241.82	0.0496	0.0401
Mercury	48640-01-02 03:22 G	19486455.45	19486455.64	19486455.83	0.0508	0.0018
Moon	48641-07-09 00:43 G	19487009.32	19487009.53	19487009.75	0.0523	0.0223
Earth	48641-07-09 02:53 G	19487009.41	19487009.62	19487009.83	0.0523	0.0213 *
Venus	48642-07-07 06:14 G	19487372.55	19487372.76	19487372.96	0.0529	0.0019
Mercury	48645-09-01 02:10 G	19488524.46	19488524.59	19488524.71	0.0518	0.0004
Moon	48646-12-31 09:07 G	19489010.85	19489010.88	19489010.92	0.0505	0.0497
Earth	48646-12-31 12:14 G	19489010.98	19489011.01	19489011.06	0.0505	0.0496
Venus	48648-05-11 06:43 G	19489507.58	19489507.78	19489507.98	0.0497	0.0081
Mercury	48651-10-21 00:00 G	19490765.32	19490765.50	19490765.67	0.0508	0.0197
Earth	48653-07-13 23:17 G	19491397.24	19491397.47	19491397.70	0.0524	0.0009
Moon	48653-07-13 23:46 G	19491397.27	19491397.49	19491397.71	0.0524	0.0037 *
Venus	48654-03-11 20:38 G	19491638.23	19491638.36	19491638.51	0.0528	0.0380
Mercury	48657-06-20 06:29 G	19492834.65	19492834.77	19492834.89	0.0519	0.0158
Mercury	48657-09-17 10:34 G	19492923.87	19492923.94	19492924.00	0.0516	0.0442
Earth	48659-01-05 03:50 G	19493398.47	19493398.66	19493398.85	0.0504	0.0297
Moon	48659-01-05 07:41 G	19493398.63	19493398.82	19493399.02	0.0504	0.0265 *
Venus	48660-01-15 08:38 G	19493773.68	19493773.86	19493774.04	0.0498	0.0239
Mercury	48663-08-08 19:55 G	19495075.23	19495075.33	19495075.44	0.0507	0.0416
Mercury	48663-11-07 10:05 G	19495165.87	19495165.92	19495165.99	0.0509	0.0476
Earth	48665-07-18 19:26 G	19495785.11	19495785.31	19495785.52	0.0525	0.0230

Moon	48665-07-18 21:07 G	19495785.17	19495785.38	19495785.59	0.0525	0.0242	*
Mercury	48669-04-08 11:17 G	19497144.87	19497144.97	19497145.08	0.0519	0.0305	
Mercury	48669-07-06 15:36 G	19497234.04	19497234.15	19497234.25	0.0517	0.0301	
Moon	48671-01-09 18:00 G	19497786.02	19497786.25	19497786.49	0.0503	0.0087	
Earth	48671-01-09 21:36 G	19497786.17	19497786.40	19497786.63	0.0503	0.0093	*
Mercury	48675-08-26 04:34 G	19499475.53	19499475.69	19499475.87	0.0508	0.0232	
Moon	48677-07-23 09:50 G	19500172.78	19500172.91	19500173.05	0.0526	0.0419	
Earth	48677-07-23 12:58 G	19500172.93	19500173.04	19500173.17	0.0526	0.0449	*
Venus	48678-03-14 20:10 G	19500407.16	19500407.34	19500407.52	0.0530	0.0236	
Mars	48680-07-21 16:19 G	19501267.08	19501267.18	19501267.27	0.0525	0.0486	
Mercury	48681-01-25 16:19 G	19501455.12	19501455.18	19501455.24	0.0520	0.0450	
Mercury	48681-04-24 20:24 G	19501544.23	19501544.35	19501544.47	0.0518	0.0159	
Earth	48683-01-14 13:55 G	19502173.85	19502174.08	19502174.31	0.0502	0.0109	
Moon	48683-01-14 16:05 G	19502173.95	19502174.17	19502174.40	0.0502	0.0082	*
Venus	48684-01-17 18:58 G	19502542.12	19502542.29	19502542.46	0.0496	0.0277	
Mercury	48687-06-14 00:58 G	19503785.35	19503785.54	19503785.73	0.0508	0.0013	
Venus	48689-11-17 12:29 G	19504672.82	19504673.02	19504673.21	0.0529	0.0155	
Mercury	48693-02-11 01:12 G	19505854.42	19505854.55	19505854.67	0.0518	0.0018	
Moon	48695-01-19 02:10 G	19506561.39	19506561.59	19506561.79	0.0501	0.0290	
Earth	48695-01-19 02:24 G	19506561.42	19506561.60	19506561.79	0.0501	0.0302	*
Venus	48695-09-22 19:55 G	19506808.12	19506808.33	19506808.53	0.0497	0.0049	
Mercury	48699-04-01 21:36 G	19508095.23	19508095.40	19508095.58	0.0508	0.0200	
Mercury	48704-12-01 05:46 G	19510164.62	19510164.74	19510164.86	0.0519	0.0146	
Mercury	48705-02-28 09:36 G	19510253.84	19510253.90	19510253.96	0.0516	0.0453	
Earth	48707-01-24 15:36 G	19510949.13	19510949.15	19510949.19	0.0500	0.0494	
Venus	48707-05-29 21:07 G	19511074.25	19511074.38	19511074.52	0.0498	0.0371	
Mercury	48711-01-19 18:14 G	19512405.15	19512405.26	19512405.36	0.0507	0.0413	
Mercury	48711-04-20 08:24 G	19512495.79	19512495.85	19512495.91	0.0509	0.0479	
Moon	48712-07-04 09:36 G	19512936.83	19512936.90	19512936.98	0.0521	0.0494	
Earth	48712-07-04 12:14 G	19512936.90	19512937.01	19512937.11	0.0521	0.0462	*

Venus	48713-11-21 14:24 G	19513442.02	19513442.10	19513442.19	0.0530	0.0475
Mercury	48716-09-19 09:50 G	19514474.81	19514474.91	19514475.02	0.0519	0.0305
Mercury	48716-12-17 14:10 G	19514563.98	19514564.09	19514564.19	0.0517	0.0300
Venus	48719-09-26 04:34 G	19515576.62	19515576.69	19515576.77	0.0496	0.0461
Mercury	48723-02-06 04:19 G	19516805.52	19516805.68	19516805.84	0.0508	0.0254
Earth	48724-07-09 06:29 G	19517324.58	19517324.77	19517324.98	0.0522	0.0247
Moon	48724-07-09 07:26 G	19517324.62	19517324.81	19517325.01	0.0522	0.0255 *
Venus	48725-07-27 05:02 G	19517707.51	19517707.71	19517707.91	0.0529	0.0078
Mercury	48728-07-08 14:38 G	19518785.05	19518785.11	19518785.17	0.0520	0.0453
Mercury	48728-10-05 18:58 G	19518874.17	19518874.29	19518874.41	0.0518	0.0155
Venus	48731-06-01 07:12 G	19519842.61	19519842.80	19519843.00	0.0496	0.0144
Mars	48734-01-16 17:02 G	19520802.94	19520803.21	19520803.49	0.0500	0.0140
Mercury	48734-11-24 22:48 G	19521115.26	19521115.45	19521115.64	0.0508	0.0011
Earth	48736-07-13 22:05 G	19521712.19	19521712.42	19521712.65	0.0523	0.0035
Moon	48736-07-13 23:02 G	19521712.22	19521712.46	19521712.70	0.0523	0.0007 *
Venus	48737-03-31 17:46 G	19521973.09	19521973.24	19521973.41	0.0529	0.0327
Mercury	48740-07-24 23:46 G	19523184.37	19523184.49	19523184.62	0.0519	0.0018
Moon	48742-01-05 09:50 G	19523713.72	19523713.91	19523714.11	0.0504	0.0285
Earth	48742-01-05 13:26 G	19523713.88	19523714.06	19523714.25	0.0504	0.0317 *
Venus	48743-02-04 09:22 G	19524108.70	19524108.89	19524109.08	0.0497	0.0175
Mercury	48746-09-12 18:58 G	19525425.12	19525425.29	19525425.46	0.0507	0.0208
Moon	48748-07-18 17:02 G	19526100.01	19526100.21	19526100.43	0.0525	0.0201
Earth	48748-07-18 20:10 G	19526100.12	19526100.34	19526100.55	0.0525	0.0193 *
Mercury	48752-05-13 04:19 G	19527494.56	19527494.68	19527494.80	0.0519	0.0144
Mercury	48752-08-10 08:24 G	19527583.79	19527583.85	19527583.90	0.0516	0.0456
Earth	48754-01-10 02:53 G	19528101.39	19528101.62	19528101.85	0.0503	0.0121
Moon	48754-01-10 05:17 G	19528101.50	19528101.72	19528101.95	0.0503	0.0117 *
Mercury	48758-07-01 15:22 G	19529735.04	19529735.14	19529735.25	0.0507	0.0422
Mercury	48758-09-30 05:46 G	19529825.67	19529825.74	19529825.81	0.0509	0.0470
Earth	48760-07-23 19:26 G	19530488.18	19530488.31	19530488.46	0.0526	0.0423

Moon	48760-07-23 23:31 G	19530488.33	19530488.48	19530488.64	0.0526	0.0390	*
Venus	48761-04-03 21:36 G	19530742.23	19530742.40	19530742.56	0.0530	0.0308	
Mercury	48764-03-01 08:53 G	19531804.77	19531804.87	19531804.97	0.0519	0.0297	
Mercury	48764-05-29 12:58 G	19531893.94	19531894.04	19531894.14	0.0517	0.0306	
Moon	48766-01-14 16:05 G	19532488.92	19532489.17	19532489.41	0.0502	0.0050	
Earth	48766-01-14 16:48 G	19532488.97	19532489.20	19532489.43	0.0502	0.0078	*
Venus	48767-02-06 16:34 G	19532877.04	19532877.19	19532877.34	0.0496	0.0327	
Mercury	48770-07-19 01:55 G	19534135.42	19534135.58	19534135.75	0.0508	0.0250	
Venus	48772-12-07 12:00 G	19535007.80	19535008.00	19535008.20	0.0529	0.0089	
Mercury	48775-12-19 13:12 G	19536114.99	19536115.05	19536115.11	0.0520	0.0457	
Mercury	48776-03-17 17:17 G	19536204.10	19536204.22	19536204.34	0.0518	0.0151	
Moon	48778-01-19 04:34 G	19536876.51	19536876.69	19536876.89	0.0501	0.0270	
Earth	48778-01-19 06:14 G	19536876.57	19536876.76	19536876.96	0.0501	0.0273	*
Venus	48778-10-12 18:00 G	19537143.05	19537143.25	19537143.46	0.0497	0.0014	
Mercury	48782-05-06 21:50 G	19538445.22	19538445.41	19538445.59	0.0508	0.0027	
Venus	48784-08-12 02:24 G	19539273.53	19539273.60	19539273.68	0.0528	0.0483	
Mercury	48788-01-04 22:05 G	19540514.29	19540514.42	19540514.55	0.0518	0.0003	
Earth	48790-01-23 21:50 G	19541264.34	19541264.41	19541264.49	0.0500	0.0471	
Venus	48790-06-17 20:24 G	19541409.20	19541409.35	19541409.51	0.0498	0.0312	
Mercury	48794-02-22 16:19 G	19542755.02	19542755.18	19542755.36	0.0507	0.0215	
Earth	48795-07-04 08:38 G	19543251.82	19543251.86	19543251.91	0.0520	0.0508	
Venus	48796-12-10 10:05 G	19543776.88	19543776.92	19543776.96	0.0531	0.0519	
Mars	48799-01-10 23:46 G	19544538.35	19544538.49	19544538.66	0.0526	0.0421	
Mercury	48799-10-24 02:53 G	19544824.50	19544824.62	19544824.74	0.0519	0.0148	
Mercury	48800-01-21 06:43 G	19544913.73	19544913.78	19544913.84	0.0517	0.0455	
Mercury	48805-12-11 12:29 G	19547064.93	19547065.02	19547065.12	0.0506	0.0434	
Mercury	48806-03-12 02:38 G	19547155.53	19547155.61	19547155.69	0.0509	0.0455	
Earth	48807-07-09 04:19 G	19547639.49	19547639.68	19547639.87	0.0522	0.0291	
Moon	48807-07-09 04:34 G	19547639.50	19547639.69	19547639.89	0.0522	0.0297	*
Venus	48808-08-15 01:26 G	19548042.37	19548042.56	19548042.76	0.0530	0.0128	

Mercury	48811-08-12 07:12 G	19549134.70	19549134.80	19549134.91	0.0520	0.0302
Mercury	48811-11-09 11:17 G	19549223.87	19549223.97	19549224.07	0.0517	0.0303
Venus	48814-06-20 04:05 G	19550177.48	19550177.67	19550177.86	0.0496	0.0192
Mercury	48817-12-28 22:48 G	19551465.29	19551465.45	19551465.62	0.0508	0.0235
Moon	48819-07-14 00:14 G	19552027.29	19552027.51	19552027.73	0.0523	0.0038
Earth	48819-07-14 02:38 G	19552027.38	19552027.61	19552027.84	0.0523	0.0067 *
Venus	48820-04-19 17:46 G	19552308.07	19552308.24	19552308.42	0.0529	0.0260
Mercury	48823-05-31 11:46 G	19553444.93	19553444.99	19553445.05	0.0520	0.0456
Mercury	48823-08-28 15:50 G	19553534.05	19553534.16	19553534.29	0.0518	0.0154
Earth	48825-01-04 13:12 G	19554028.90	19554029.05	19554029.23	0.0505	0.0357
Moon	48825-01-04 16:19 G	19554029.00	19554029.18	19554029.35	0.0505	0.0325 *
Venus	48826-02-23 05:17 G	19554443.52	19554443.72	19554443.91	0.0497	0.0130
Mercury	48829-10-16 18:58 G	19555775.10	19555775.29	19555775.48	0.0508	0.0017
Earth	48831-07-18 22:48 G	19556415.23	19556415.45	19556415.67	0.0524	0.0157
Moon	48831-07-19 02:38 G	19556415.39	19556415.61	19556415.83	0.0524	0.0157 *
Mercury	48835-06-16 20:10 G	19557844.22	19557844.34	19557844.47	0.0518	0.0014
Moon	48837-01-09 02:10 G	19558416.36	19558416.59	19558416.83	0.0504	0.0156
Earth	48837-01-09 03:22 G	19558416.42	19558416.64	19558416.87	0.0504	0.0158 *
Venus	48837-10-29 06:00 G	19558709.67	19558709.75	19558709.84	0.0498	0.0453
Mercury	48841-08-04 14:53 G	19560084.95	19560085.12	19560085.29	0.0507	0.0208
Moon	48843-07-23 14:10 G	19560802.93	19560803.09	19560803.27	0.0525	0.0346
Earth	48843-07-23 18:14 G	19560803.11	19560803.26	19560803.42	0.0525	0.0380 *
Venus	48844-04-22 17:31 G	19561077.08	19561077.23	19561077.38	0.0530	0.0356
Mercury	48847-04-05 00:58 G	19562154.42	19562154.54	19562154.66	0.0519	0.0158
Mercury	48847-07-03 04:48 G	19562243.64	19562243.70	19562243.77	0.0517	0.0445
Moon	48849-01-13 18:43 G	19562804.05	19562804.28	19562804.50	0.0503	0.0020
Earth	48849-01-13 19:55 G	19562804.09	19562804.33	19562804.56	0.0503	0.0048 *
Venus	48850-02-25 14:24 G	19563211.97	19563212.10	19563212.23	0.0496	0.0378
Mercury	48853-05-23 09:50 G	19564394.82	19564394.91	19564395.00	0.0506	0.0443
Mercury	48853-08-21 23:46 G	19564485.41	19564485.49	19564485.59	0.0508	0.0444

Venus	48855-12-27 05:46 G	19565342.54	19565342.74	19565342.94	0.0529	0.0051
Mercury	48859-01-22 05:31 G	19566464.63	19566464.73	19566464.83	0.0520	0.0311
Mercury	48859-04-21 09:36 G	19566553.80	19566553.90	19566554.00	0.0518	0.0296
Earth	48861-01-18 11:02 G	19567191.75	19567191.96	19567192.16	0.0501	0.0247
Moon	48861-01-18 14:10 G	19567191.88	19567192.09	19567192.30	0.0501	0.0249 *
Venus	48861-10-31 16:19 G	19567477.98	19567478.18	19567478.38	0.0497	0.0061
Mercury	48865-06-09 19:41 G	19568795.15	19568795.32	19568795.49	0.0508	0.0218
Venus	48867-08-31 21:07 G	19569608.28	19569608.38	19569608.49	0.0528	0.0441
Mercury	48870-11-10 09:50 G	19570774.86	19570774.91	19570774.97	0.0520	0.0466
Mercury	48871-02-07 14:10 G	19570863.97	19570864.09	19570864.21	0.0518	0.0143
Moon	48873-01-22 18:00 G	19571579.18	19571579.25	19571579.34	0.0500	0.0468
Earth	48873-01-22 22:05 G	19571579.30	19571579.42	19571579.53	0.0500	0.0435 *
Venus	48873-07-06 16:05 G	19571744.00	19571744.17	19571744.34	0.0497	0.0268
Mercury	48877-03-28 15:36 G	19573104.96	19573105.15	19573105.34	0.0508	0.0006
Mercury	48882-11-26 18:43 G	19575174.16	19575174.28	19575174.41	0.0518	0.0010
Mars	48888-04-11 05:02 G	19577136.46	19577136.71	19577136.97	0.0501	0.0207
Mercury	48889-01-14 11:46 G	19577414.83	19577414.99	19577415.16	0.0507	0.0223
Moon	48890-07-08 04:48 G	19577954.53	19577954.70	19577954.87	0.0521	0.0332
Earth	48890-07-08 06:29 G	19577954.60	19577954.77	19577954.95	0.0521	0.0331 *
Venus	48891-09-03 23:02 G	19578377.27	19578377.46	19578377.65	0.0529	0.0183
Mercury	48894-09-14 23:02 G	19579484.34	19579484.46	19579484.58	0.0519	0.0169
Mercury	48894-12-13 02:53 G	19579573.56	19579573.62	19579573.69	0.0517	0.0433
Venus	48897-07-08 23:46 G	19580512.32	19580512.49	19580512.68	0.0496	0.0236
Mercury	48900-11-03 07:41 G	19581724.74	19581724.82	19581724.91	0.0506	0.0443
Mercury	48901-02-01 21:50 G	19581815.32	19581815.41	19581815.50	0.0509	0.0446
Earth	48902-07-14 00:43 G	19582342.30	19582342.53	19582342.76	0.0522	0.0112
Moon	48902-07-14 04:19 G	19582342.45	19582342.68	19582342.91	0.0522	0.0080 *
Venus	48903-05-10 13:12 G	19582642.87	19582643.05	19582643.24	0.0528	0.0213
Mercury	48906-07-05 03:22 G	19583794.55	19583794.64	19583794.74	0.0520	0.0323
Mercury	48906-10-02 07:41 G	19583883.71	19583883.82	19583883.92	0.0518	0.0284

Moon	48908-01-05 11:46 G	19584343.83	19584343.99	19584344.16	0.0506	0.0365
Earth	48908-01-05 13:26 G	19584343.92	19584344.06	19584344.21	0.0506	0.0396 *
Venus	48909-03-15 02:10 G	19584778.38	19584778.59	19584778.79	0.0497	0.0083
Mercury	48912-11-20 16:48 G	19586125.03	19586125.20	19586125.37	0.0508	0.0206
Moon	48914-07-18 11:46 G	19586729.77	19586729.99	19586730.22	0.0524	0.0106
Earth	48914-07-18 15:50 G	19586729.94	19586730.16	19586730.39	0.0524	0.0103 *
Mercury	48918-04-23 07:55 G	19588104.78	19588104.83	19588104.87	0.0521	0.0479
Mercury	48918-07-21 12:14 G	19588193.89	19588194.01	19588194.13	0.0519	0.0133
Moon	48920-01-10 05:02 G	19588731.51	19588731.71	19588731.92	0.0504	0.0199
Earth	48920-01-10 05:46 G	19588731.53	19588731.74	19588731.96	0.0504	0.0192 *
Venus	48920-11-18 03:36 G	19589044.53	19589044.65	19589044.77	0.0498	0.0402
Mercury	48924-09-08 12:29 G	19590434.83	19590435.02	19590435.21	0.0507	0.0020
Earth	48926-07-23 12:14 G	19591117.84	19591118.01	19591118.20	0.0525	0.0330
Moon	48926-07-23 15:50 G	19591117.98	19591118.16	19591118.35	0.0525	0.0298 *
Venus	48927-05-13 11:46 G	19591411.85	19591411.99	19591412.12	0.0530	0.0394
Mercury	48930-05-09 16:48 G	19592504.07	19592504.20	19592504.32	0.0519	0.0025
Earth	48932-01-14 18:14 G	19593119.02	19593119.26	19593119.49	0.0503	0.0008
Moon	48932-01-14 20:53 G	19593119.13	19593119.37	19593119.61	0.0503	0.0025 *
Venus	48933-03-17 08:38 G	19593546.76	19593546.86	19593546.98	0.0496	0.0416
Mercury	48936-06-27 08:10 G	19594744.68	19594744.84	19594745.01	0.0507	0.0245
Venus	48939-01-16 03:50 G	19595677.46	19595677.66	19595677.87	0.0529	0.0010
Mercury	48942-02-25 21:22 G	19596814.27	19596814.39	19596814.51	0.0519	0.0173
Mercury	48942-05-26 01:26 G	19596903.49	19596903.56	19596903.62	0.0517	0.0429
Moon	48944-01-19 04:19 G	19597506.47	19597506.68	19597506.89	0.0501	0.0202
Earth	48944-01-19 07:55 G	19597506.62	19597506.83	19597507.05	0.0501	0.0203 *
Venus	48944-11-20 10:05 G	19597812.72	19597812.92	19597813.12	0.0497	0.0096
Mercury	48948-04-15 04:34 G	19599054.62	19599054.69	19599054.77	0.0506	0.0460
Mercury	48948-07-14 18:43 G	19599145.18	19599145.28	19599145.38	0.0509	0.0429
Venus	48950-09-20 18:43 G	19599943.15	19599943.28	19599943.42	0.0528	0.0383
Mars	48953-04-06 03:50 G	19600871.40	19600871.66	19600871.92	0.0526	0.0128

Mercury	48953-12-15 01:26 G	19601124.47	19601124.56	19601124.66	0.0520	0.0334
Mercury	48954-03-14 05:31 G	19601213.63	19601213.73	19601213.84	0.0517	0.0273
Earth	48956-01-23 20:10 G	19601894.21	19601894.34	19601894.49	0.0501	0.0398
Moon	48956-01-24 00:14 G	19601894.39	19601894.51	19601894.63	0.0501	0.0429 *
Venus	48956-07-26 10:48 G	19602078.77	19602078.95	19602079.14	0.0498	0.0227
Mercury	48960-05-02 14:24 G	19603454.93	19603455.10	19603455.28	0.0508	0.0204
Mercury	48965-10-03 06:00 G	19605434.71	19605434.75	19605434.79	0.0520	0.0491
Mercury	48965-12-31 10:05 G	19605523.80	19605523.92	19605524.05	0.0518	0.0122
Mercury	48972-02-19 09:36 G	19607764.72	19607764.90	19607765.09	0.0507	0.0032
Earth	48973-07-08 00:29 G	19608269.36	19608269.52	19608269.67	0.0520	0.0385
Moon	48973-07-08 03:22 G	19608269.49	19608269.64	19608269.81	0.0520	0.0378 *
Venus	48974-09-23 15:50 G	19608711.97	19608712.16	19608712.34	0.0529	0.0216
Mercury	48977-10-19 14:38 G	19609833.99	19609834.11	19609834.24	0.0519	0.0036
Venus	48980-07-28 20:38 G	19610847.20	19610847.36	19610847.53	0.0496	0.0283
Mercury	48983-12-08 05:17 G	19612074.57	19612074.72	19612074.89	0.0506	0.0256
Moon	48985-07-12 15:22 G	19612656.92	19612657.14	19612657.36	0.0522	0.0132
Earth	48985-07-12 19:12 G	19612657.09	19612657.30	19612657.52	0.0522	0.0166 *
Venus	48986-05-29 06:58 G	19612977.60	19612977.79	19612977.99	0.0529	0.0175
Mercury	48989-08-07 19:12 G	19614144.19	19614144.30	19614144.42	0.0519	0.0188
Mercury	48989-11-04 23:17 G	19614233.40	19614233.47	19614233.54	0.0517	0.0416
Moon	48991-01-04 11:17 G	19614658.85	19614658.97	19614659.10	0.0506	0.0418
Earth	48991-01-04 11:17 G	19614658.86	19614658.97	19614659.09	0.0506	0.0443 *
Venus	48992-04-02 20:10 G	19615113.13	19615113.34	19615113.54	0.0497	0.0044
Mercury	48995-09-26 00:58 G	19616384.49	19616384.54	19616384.60	0.0506	0.0482
Mercury	48995-12-25 15:07 G	19616475.02	19616475.13	19616475.24	0.0509	0.0407
Earth	48997-07-17 16:34 G	19617044.96	19617045.19	19617045.42	0.0524	0.0061
Moon	48997-07-17 20:24 G	19617045.12	19617045.35	19617045.57	0.0524	0.0064 *

50TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 50th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	49001-05-28 00:00	G	19618454.40	19618454.50	19618454.59	0.0520	0.0339	
Mercury	49001-08-25 04:05	G	19618543.56	19618543.67	19618543.78	0.0517	0.0268	
Earth	49003-01-10 02:38	G	19619046.40	19619046.61	19619046.82	0.0504	0.0239	
Moon	49003-01-10 04:48	G	19619046.50	19619046.70	19619046.92	0.0504	0.0251	*
Venus	49003-12-08 21:07	G	19619379.24	19619379.38	19619379.52	0.0498	0.0365	
Mercury	49007-10-14 11:17	G	19620784.80	19620784.97	19620785.14	0.0508	0.0186	
Moon	49009-07-23 11:02	G	19621432.75	19621432.96	19621433.17	0.0525	0.0257	
Earth	49009-07-23 13:41	G	19621432.88	19621433.07	19621433.27	0.0525	0.0289	*
Venus	49010-06-02 09:36	G	19621746.79	19621746.90	19621747.00	0.0530	0.0451	
Mercury	49013-03-16 04:05	G	19622764.64	19622764.67	19622764.70	0.0520	0.0499	
Mercury	49013-06-13 08:24	G	19622853.73	19622853.85	19622853.97	0.0518	0.0111	
Moon	49015-01-14 12:43	G	19623433.80	19623434.03	19623434.26	0.0503	0.0070	
Earth	49015-01-14 16:05	G	19623433.94	19623434.17	19623434.41	0.0503	0.0038	*
Venus	49016-04-06 03:50	G	19623881.59	19623881.66	19623881.74	0.0496	0.0457	
Mercury	49019-08-02 07:12	G	19625094.62	19625094.80	19625094.99	0.0507	0.0036	
Earth	49021-07-28 09:22	G	19625820.85	19625820.89	19625820.94	0.0526	0.0514	
Moon	49021-07-28 09:36	G	19625820.87	19625820.90	19625820.95	0.0526	0.0514	*
Venus	49022-02-04 23:31	G	19626012.28	19626012.48	19626012.68	0.0529	0.0056	
Mercury	49025-04-01 12:58	G	19627163.91	19627164.04	19627164.16	0.0519	0.0046	
Earth	49027-01-19 07:26	G	19627821.59	19627821.81	19627822.03	0.0502	0.0165	
Moon	49027-01-19 11:17	G	19627821.75	19627821.97	19627822.20	0.0502	0.0167	*
Venus	49027-12-11 06:14	G	19628147.57	19628147.76	19628147.96	0.0497	0.0142	

Mercury	49031-05-21 02:53 G	19629404.46	19629404.62	19629404.78	0.0506	0.0264
Venus	49033-10-10 12:00 G	19630277.85	19630278.00	19630278.16	0.0528	0.0345
Mercury	49037-01-18 17:17 G	19631474.10	19631474.22	19631474.34	0.0520	0.0200
Mercury	49037-04-17 21:22 G	19631563.31	19631563.39	19631563.47	0.0517	0.0405
Moon	49039-01-23 18:43 G	19632209.13	19632209.28	19632209.43	0.0501	0.0393
Earth	49039-01-23 22:19 G	19632209.27	19632209.43	19632209.59	0.0501	0.0364 *
Venus	49039-08-16 07:41 G	19632413.64	19632413.82	19632414.02	0.0498	0.0177
Mercury	49043-03-08 22:34 G	19633714.40	19633714.44	19633714.50	0.0506	0.0486
Mercury	49043-06-07 12:29 G	19633804.91	19633805.02	19633805.14	0.0508	0.0400
Mercury	49048-11-06 21:50 G	19635784.32	19635784.41	19635784.50	0.0520	0.0352
Mercury	49049-02-04 01:55 G	19635873.48	19635873.58	19635873.69	0.0518	0.0257
Mercury	49055-03-26 07:55 G	19638114.65	19638114.83	19638115.01	0.0508	0.0167
Moon	49056-07-07 21:22 G	19638584.26	19638584.39	19638584.53	0.0521	0.0421
Earth	49056-07-08 01:12 G	19638584.42	19638584.55	19638584.68	0.0521	0.0429 *
Venus	49057-10-13 14:24 G	19639046.93	19639047.10	19639047.28	0.0530	0.0279
Mercury	49060-08-26 02:24 G	19640094.58	19640094.60	19640094.64	0.0520	0.0503
Mercury	49060-11-23 06:43 G	19640183.66	19640183.78	19640183.91	0.0518	0.0111
Venus	49063-08-18 14:38 G	19641181.95	19641182.11	19641182.26	0.0496	0.0320
Mercury	49067-01-12 04:05 G	19642424.49	19642424.67	19642424.86	0.0508	0.0052
Earth	49068-07-12 21:36 G	19642972.19	19642972.40	19642972.62	0.0522	0.0206
Moon	49068-07-13 01:41 G	19642972.35	19642972.57	19642972.79	0.0522	0.0171 *
Venus	49069-06-18 06:00 G	19643312.55	19643312.75	19643312.95	0.0529	0.0111
Mercury	49072-09-11 11:17 G	19644493.84	19644493.97	19644494.09	0.0519	0.0052
Earth	49074-01-04 10:05 G	19644973.86	19644973.92	19644973.98	0.0506	0.0485
Moon	49074-01-04 11:46 G	19644973.89	19644973.99	19644974.09	0.0506	0.0459 *
Venus	49075-04-23 15:50 G	19645447.95	19645448.16	19645448.36	0.0497	0.0010
Mercury	49078-10-31 00:29 G	19646734.36	19646734.52	19646734.68	0.0507	0.0268
Moon	49080-07-17 13:55 G	19647359.84	19647360.08	19647360.32	0.0523	0.0022
Earth	49080-07-17 17:02 G	19647359.98	19647360.21	19647360.45	0.0523	0.0022 *
Venus	49081-02-20 20:38 G	19647578.30	19647578.36	19647578.42	0.0527	0.0499

Mercury	49084-06-30 15:36 G	19648804.04	19648804.15	19648804.27	0.0519	0.0203
Mercury	49084-09-27 19:41 G	19648893.24	19648893.32	19648893.40	0.0517	0.0400
Moon	49086-01-08 23:02 G	19649361.28	19649361.46	19649361.65	0.0505	0.0294
Earth	49086-01-09 02:24 G	19649361.40	19649361.60	19649361.79	0.0505	0.0279 *
Venus	49086-12-27 17:31 G	19649714.08	19649714.23	19649714.39	0.0498	0.0317
Mercury	49090-08-18 20:24 G	19651044.31	19651044.35	19651044.39	0.0506	0.0490
Mercury	49090-11-17 10:19 G	19651134.81	19651134.93	19651135.04	0.0508	0.0395
Earth	49092-07-22 10:05 G	19651747.72	19651747.92	19651748.13	0.0524	0.0239
Moon	49092-07-22 11:17 G	19651747.77	19651747.97	19651748.18	0.0524	0.0211 *
Venus	49093-06-21 04:05 G	19652081.60	19652081.67	19652081.74	0.0530	0.0492
Mercury	49096-04-18 19:55 G	19653114.24	19653114.33	19653114.42	0.0520	0.0362
Mercury	49096-07-17 00:14 G	19653203.40	19653203.51	19653203.62	0.0518	0.0248
Earth	49098-01-13 18:14 G	19653749.03	19653749.26	19653749.49	0.0504	0.0075
Moon	49098-01-13 22:05 G	19653749.19	19653749.42	19653749.66	0.0504	0.0106 *
Mercury	49102-09-06 06:00 G	19655444.57	19655444.75	19655444.93	0.0507	0.0169
Earth	49104-07-28 06:43 G	19656135.67	19656135.78	19656135.88	0.0525	0.0467
Moon	49104-07-28 07:41 G	19656135.72	19656135.82	19656135.93	0.0525	0.0469 *
Venus	49105-02-24 19:12 G	19656347.10	19656347.30	19656347.50	0.0529	0.0103
Mars	49107-07-02 10:05 G	19657204.68	19657204.92	19657205.17	0.0526	0.0180
Mercury	49108-02-07 00:43 G	19657424.51	19657424.53	19657424.55	0.0521	0.0513
Mercury	49108-05-06 05:02 G	19657513.58	19657513.71	19657513.83	0.0518	0.0100
Moon	49110-01-19 03:50 G	19658136.43	19658136.66	19658136.90	0.0502	0.0124
Earth	49110-01-19 07:41 G	19658136.60	19658136.82	19658137.05	0.0502	0.0124 *
Venus	49110-12-31 01:26 G	19658482.37	19658482.56	19658482.75	0.0496	0.0186
Mercury	49114-06-25 01:12 G	19659754.36	19659754.55	19659754.74	0.0507	0.0065
Venus	49116-10-30 11:17 G	19660612.81	19660612.97	19660613.15	0.0529	0.0280
Mercury	49120-02-23 09:50 G	19661823.79	19661823.91	19661824.04	0.0519	0.0047
Earth	49122-01-23 22:19 G	19662524.26	19662524.43	19662524.62	0.0501	0.0325
Moon	49122-01-24 00:58 G	19662524.38	19662524.54	19662524.70	0.0501	0.0355 *
Venus	49122-09-05 03:07 G	19662748.43	19662748.63	19662748.83	0.0497	0.0132

Mercury	49126-04-12 21:36 G	19664064.25	19664064.40	19664064.56	0.0507	0.0280
Mercury	49131-12-12 14:10 G	19666133.98	19666134.09	19666134.21	0.0519	0.0204
Mercury	49132-03-10 18:14 G	19666223.19	19666223.26	19666223.34	0.0517	0.0400
Venus	49134-05-11 03:50 G	19667014.58	19667014.66	19667014.75	0.0498	0.0454
Mercury	49138-01-29 18:00 G	19668374.22	19668374.25	19668374.30	0.0506	0.0493
Mercury	49138-04-30 08:10 G	19668464.72	19668464.84	19668464.96	0.0509	0.0396
Earth	49139-07-09 04:48 G	19668899.60	19668899.70	19668899.81	0.0520	0.0465
Moon	49139-07-09 08:53 G	19668899.76	19668899.87	19668899.99	0.0520	0.0452 *
Venus	49140-11-02 12:58 G	19669381.89	19669382.04	19669382.20	0.0530	0.0338
Mercury	49143-09-30 18:43 G	19670444.19	19670444.28	19670444.37	0.0520	0.0359
Mercury	49143-12-28 22:48 G	19670533.34	19670533.45	19670533.56	0.0518	0.0249
Venus	49146-09-07 12:29 G	19671516.88	19671517.02	19671517.15	0.0496	0.0373
Mercury	49150-02-16 04:05 G	19672774.49	19672774.67	19672774.85	0.0508	0.0171
Moon	49151-07-13 18:29 G	19673287.06	19673287.27	19673287.49	0.0521	0.0217
Earth	49151-07-13 22:05 G	19673287.22	19673287.42	19673287.62	0.0521	0.0250 *
Venus	49152-07-08 02:24 G	19673647.40	19673647.60	19673647.80	0.0528	0.0059
Mercury	49155-07-19 23:02 G	19674754.45	19674754.46	19674754.47	0.0521	0.0518
Mercury	49155-10-17 03:22 G	19674843.52	19674843.64	19674843.76	0.0519	0.0095
Moon	49157-01-04 10:05 G	19675288.90	19675288.92	19675288.96	0.0507	0.0500
Venus	49158-05-13 14:24 G	19675782.90	19675783.10	19675783.30	0.0497	0.0058
Mars	49160-12-25 23:46 G	19676740.29	19676740.49	19676740.70	0.0500	0.0342
Mercury	49161-12-05 00:00 G	19677084.31	19677084.50	19677084.68	0.0507	0.0053
Earth	49163-07-18 17:17 G	19677674.99	19677675.22	19677675.45	0.0522	0.0025
Moon	49163-07-18 18:58 G	19677675.07	19677675.29	19677675.52	0.0522	0.0030 *
Venus	49164-03-12 17:46 G	19677913.13	19677913.24	19677913.35	0.0528	0.0443
Mercury	49167-08-05 08:10 G	19679153.72	19679153.84	19679153.97	0.0519	0.0053
Earth	49169-01-09 05:02 G	19679676.53	19679676.71	19679676.90	0.0505	0.0318
Moon	49169-01-09 08:53 G	19679676.70	19679676.87	19679677.05	0.0505	0.0333 *
Venus	49170-01-16 14:24 G	19680048.93	19680049.10	19680049.28	0.0498	0.0265
Mercury	49173-09-22 18:58 G	19681394.14	19681394.29	19681394.45	0.0507	0.0288

Earth	49175-07-23 13:55 G	19682062.87	19682063.08	19682063.29	0.0524	0.0203
Moon	49175-07-23 14:38 G	19682062.88	19682063.11	19682063.34	0.0524	0.0173 *
Mercury	49179-05-24 13:12 G	19683463.93	19683464.05	19683464.16	0.0519	0.0197
Mercury	49179-08-21 17:02 G	19683553.14	19683553.21	19683553.29	0.0517	0.0407
Moon	49181-01-13 18:00 G	19684064.03	19684064.25	19684064.48	0.0504	0.0141
Earth	49181-01-13 22:05 G	19684064.19	19684064.42	19684064.65	0.0504	0.0110 *
Mercury	49185-07-11 15:36 G	19685704.13	19685704.15	19685704.18	0.0506	0.0499
Mercury	49185-10-10 05:46 G	19685794.62	19685794.74	19685794.86	0.0509	0.0390
Moon	49187-07-28 10:19 G	19686450.82	19686450.93	19686451.06	0.0526	0.0444
Earth	49187-07-28 12:58 G	19686450.92	19686451.04	19686451.17	0.0526	0.0437 *
Venus	49188-03-15 20:53 G	19686682.18	19686682.37	19686682.56	0.0530	0.0179
Mercury	49191-03-12 17:31 G	19687774.14	19687774.23	19687774.32	0.0520	0.0352
Mercury	49191-06-09 21:36 G	19687863.30	19687863.40	19687863.51	0.0517	0.0255
Earth	49193-01-18 12:00 G	19688451.77	19688452.00	19688452.23	0.0502	0.0094
Moon	49193-01-18 14:38 G	19688451.89	19688452.11	19688452.34	0.0502	0.0105 *
Venus	49194-01-18 23:46 G	19688817.32	19688817.49	19688817.67	0.0496	0.0240
Mercury	49197-07-29 02:10 G	19690104.41	19690104.59	19690104.77	0.0508	0.0174
Venus	49199-11-19 12:00 G	19690947.82	19690948.00	19690948.19	0.0528	0.0209
Mercury	49202-12-29 21:50 G	19692084.39	19692084.41	19692084.44	0.0520	0.0509
Mercury	49203-03-29 02:24 G	19692173.47	19692173.60	19692173.72	0.0518	0.0104
Moon	49205-01-23 01:55 G	19692839.39	19692839.58	19692839.76	0.0502	0.0325
Earth	49205-01-23 03:07 G	19692839.44	19692839.63	19692839.82	0.0502	0.0297 *
Venus	49205-09-24 01:55 G	19693083.38	19693083.58	19693083.78	0.0498	0.0075
Mercury	49209-05-16 22:19 G	19694414.25	19694414.43	19694414.62	0.0507	0.0047
Mercury	49215-01-15 06:43 G	19696483.66	19696483.78	19696483.91	0.0519	0.0052
Moon	49217-01-27 17:31 G	19697227.21	19697227.23	19697227.28	0.0501	0.0494
Earth	49217-01-27 18:00 G	19697227.23	19697227.25	19697227.28	0.0501	0.0497 *
Venus	49217-05-30 03:50 G	19697349.53	19697349.66	19697349.78	0.0499	0.0391
Mercury	49221-03-04 18:29 G	19698724.11	19698724.27	19698724.43	0.0507	0.0266
Moon	49222-07-08 04:34 G	19699214.63	19699214.69	19699214.77	0.0519	0.0494

Earth	49222-07-08 08:24 G	19699214.80	19699214.85	19699214.91	0.0519	0.0503
Venus	49223-11-22 12:00 G	19699716.87	19699717.00	19699717.13	0.0530	0.0400
Mercury	49226-11-03 11:46 G	19700793.87	19700793.99	19700794.10	0.0519	0.0198
Mercury	49227-01-31 15:50 G	19700883.08	19700883.16	19700883.23	0.0517	0.0406
Venus	49229-09-26 10:19 G	19701851.83	19701851.93	19701852.04	0.0496	0.0427
Mercury	49232-12-21 13:26 G	19703034.04	19703034.06	19703034.09	0.0506	0.0500
Mercury	49233-03-22 03:22 G	19703124.53	19703124.64	19703124.77	0.0509	0.0388
Earth	49234-07-13 02:24 G	19703602.42	19703602.60	19703602.80	0.0522	0.0286
Moon	49234-07-13 04:48 G	19703602.50	19703602.70	19703602.89	0.0522	0.0257 *
Venus	49235-07-28 04:05 G	19703982.46	19703982.67	19703982.87	0.0529	0.0021
Mercury	49238-08-22 16:34 G	19705104.10	19705104.19	19705104.29	0.0520	0.0342
Mercury	49238-11-19 20:53 G	19705193.26	19705193.37	19705193.48	0.0517	0.0266
Venus	49241-06-01 12:58 G	19706117.84	19706118.04	19706118.24	0.0496	0.0115
Mercury	49245-01-08 00:00 G	19707434.33	19707434.50	19707434.68	0.0508	0.0173
Earth	49246-07-18 00:58 G	19707990.31	19707990.54	19707990.77	0.0523	0.0054
Moon	49246-07-18 01:12 G	19707990.31	19707990.55	19707990.79	0.0523	0.0066 *
Venus	49247-04-01 20:24 G	19708248.21	19708248.35	19708248.50	0.0528	0.0364
Mercury	49250-06-10 21:07 G	19709414.35	19709414.38	19709414.42	0.0520	0.0496
Mercury	49250-09-08 01:26 G	19709503.44	19709503.56	19709503.68	0.0518	0.0114
Moon	49252-01-09 08:10 G	19709991.68	19709991.84	19709992.01	0.0505	0.0361
Earth	49252-01-09 12:14 G	19709991.84	19709992.01	19709992.18	0.0505	0.0344 *
Venus	49253-02-04 14:24 G	19710383.91	19710384.10	19710384.29	0.0498	0.0203
Mercury	49256-10-26 20:53 G	19711744.18	19711744.37	19711744.55	0.0508	0.0040
Moon	49258-07-22 20:38 G	19712378.14	19712378.36	19712378.57	0.0524	0.0149
Earth	49258-07-22 22:48 G	19712378.23	19712378.45	19712378.67	0.0524	0.0179 *
Mercury	49262-06-27 06:00 G	19713813.63	19713813.75	19713813.88	0.0519	0.0038
Earth	49264-01-14 04:05 G	19714379.45	19714379.67	19714379.90	0.0504	0.0137
Moon	49264-01-14 07:12 G	19714379.58	19714379.80	19714380.02	0.0504	0.0161 *
Mercury	49268-08-14 17:17 G	19716054.06	19716054.22	19716054.38	0.0507	0.0254
Earth	49270-07-27 18:14 G	19716766.12	19716766.26	19716766.41	0.0525	0.0404

Moon	49270-07-27 21:50 G	19716766.27	19716766.41	19716766.55	0.0525	0.0413	*
Venus	49271-04-04 20:53 G	19717017.19	19717017.37	19717017.55	0.0529	0.0246	
Mercury	49274-04-15 10:34 G	19718123.82	19718123.94	19718124.05	0.0519	0.0193	
Mercury	49274-07-13 14:38 G	19718213.03	19718213.11	19718213.18	0.0517	0.0411	
Moon	49276-01-18 18:58 G	19718767.05	19718767.29	19718767.53	0.0503	0.0085	
Earth	49276-01-18 20:24 G	19718767.11	19718767.35	19718767.58	0.0503	0.0069	*
Venus	49277-02-07 00:43 G	19719152.38	19719152.53	19719152.70	0.0497	0.0307	
Mercury	49280-06-02 13:26 G	19720364.00	19720364.06	19720364.13	0.0506	0.0471	
Mercury	49280-09-01 03:22 G	19720454.54	19720454.64	19720454.75	0.0508	0.0416	
Venus	49282-12-08 12:29 G	19721282.83	19721283.02	19721283.22	0.0528	0.0140	
Mercury	49286-02-01 15:22 G	19722434.05	19722434.14	19722434.24	0.0520	0.0339	
Mercury	49286-05-01 19:41 G	19722523.21	19722523.32	19722523.42	0.0518	0.0270	
Moon	49288-01-23 11:17 G	19723154.79	19723154.97	19723155.16	0.0501	0.0301	
Earth	49288-01-23 11:31 G	19723154.79	19723154.98	19723155.18	0.0501	0.0272	*
Venus	49288-10-13 01:55 G	19723418.38	19723418.58	19723418.78	0.0497	0.0011	
Mercury	49292-06-19 22:05 G	19724764.25	19724764.42	19724764.60	0.0508	0.0176	
Venus	49294-08-13 04:05 G	19725548.65	19725548.67	19725548.71	0.0528	0.0521	
Mercury	49297-11-20 20:24 G	19726744.31	19726744.35	19726744.40	0.0520	0.0482	
Mercury	49298-02-18 00:43 G	19726833.41	19726833.53	19726833.65	0.0518	0.0130	
Earth	49300-01-28 03:07 G	19727542.57	19727542.63	19727542.71	0.0500	0.0477	
Moon	49300-01-28 05:17 G	19727542.64	19727542.72	19727542.81	0.0500	0.0465	*
Venus	49300-06-19 04:19 G	19727684.53	19727684.68	19727684.84	0.0498	0.0324	
Mercury	49304-04-08 18:58 G	19729074.10	19729074.29	19729074.47	0.0508	0.0038	
Moon	49305-07-08 19:12 G	19729530.28	19729530.30	19729530.32	0.0520	0.0517	
Venus	49306-12-12 16:05 G	19730052.10	19730052.17	19730052.25	0.0530	0.0485	
Mercury	49309-12-08 05:17 G	19731143.60	19731143.72	19731143.85	0.0518	0.0024	
Venus	49312-10-16 11:17 G	19732186.96	19732186.97	19732187.01	0.0496	0.0491	
Mars	49315-03-23 04:19 G	19733074.40	19733074.68	19733074.96	0.0500	0.0070	
Mercury	49316-01-26 15:50 G	19733384.00	19733384.16	19733384.32	0.0507	0.0245	
Moon	49317-07-13 13:55 G	19733917.88	19733918.08	19733918.28	0.0521	0.0281	

Earth	49317-07-13 13:55 G	19733917.90	19733918.08	19733918.28	0.0521	0.0306	*
Venus	49318-08-17 07:41 G	19734317.62	19734317.82	19734318.02	0.0529	0.0100	
Mercury	49321-09-26 09:50 G	19735453.80	19735453.91	19735454.03	0.0519	0.0174	
Mercury	49321-12-24 13:55 G	19735543.01	19735543.08	19735543.15	0.0517	0.0429	
Venus	49324-06-21 14:10 G	19736452.90	19736453.09	19736453.28	0.0497	0.0181	
Mercury	49327-11-14 12:29 G	19737693.95	19737694.02	19737694.10	0.0506	0.0456	
Mercury	49328-02-13 02:24 G	19737784.51	19737784.60	19737784.70	0.0509	0.0433	
Moon	49329-07-18 07:55 G	19738305.61	19738305.83	19738306.05	0.0522	0.0100	
Earth	49329-07-18 09:50 G	19738305.68	19738305.91	19738306.14	0.0522	0.0081	*
Venus	49330-04-21 22:19 G	19738583.26	19738583.43	19738583.60	0.0528	0.0288	
Mercury	49333-07-15 14:24 G	19739764.00	19739764.10	19739764.19	0.0520	0.0330	
Mercury	49333-10-12 18:29 G	19739853.17	19739853.27	19739853.38	0.0518	0.0278	
Earth	49335-01-09 21:36 G	19740307.24	19740307.40	19740307.56	0.0506	0.0369	
Moon	49335-01-10 00:43 G	19740307.39	19740307.53	19740307.68	0.0506	0.0391	*
Venus	49336-02-25 16:19 G	19740718.98	19740719.18	19740719.38	0.0498	0.0133	
Mercury	49339-12-01 22:34 G	19742094.27	19742094.44	19742094.61	0.0508	0.0211	
Earth	49341-07-23 06:00 G	19742693.53	19742693.75	19742693.97	0.0524	0.0149	
Moon	49341-07-23 09:07 G	19742693.66	19742693.88	19742694.12	0.0524	0.0121	*
Mercury	49345-05-03 19:12 G	19744074.26	19744074.30	19744074.35	0.0521	0.0476	
Mercury	49345-07-31 23:31 G	19744163.36	19744163.48	19744163.61	0.0518	0.0137	
Moon	49347-01-14 13:41 G	19744694.85	19744695.07	19744695.30	0.0504	0.0178	
Earth	49347-01-14 15:22 G	19744694.91	19744695.14	19744695.36	0.0504	0.0158	*
Venus	49347-10-31 17:46 G	19744985.15	19744985.24	19744985.33	0.0498	0.0448	
Mercury	49351-09-19 17:17 G	19746404.04	19746404.22	19746404.41	0.0508	0.0031	
Moon	49353-07-27 22:05 G	19747081.26	19747081.42	19747081.57	0.0526	0.0388	
Earth	49353-07-28 01:41 G	19747081.42	19747081.57	19747081.73	0.0526	0.0377	*
Venus	49354-04-25 00:00 G	19747352.35	19747352.50	19747352.66	0.0530	0.0328	
Mercury	49357-05-20 04:48 G	19748473.57	19748473.70	19748473.82	0.0519	0.0007	
Moon	49359-01-19 08:24 G	19749082.63	19749082.85	19749083.08	0.0503	0.0075	
Earth	49359-01-19 08:38 G	19749082.63	19749082.86	19749083.10	0.0503	0.0052	*

Venus	49360-02-28 02:10 G	19749487.46	19749487.59	19749487.72	0.0496	0.0372
Mercury	49363-07-08 14:10 G	19750713.92	19750714.09	19750714.25	0.0507	0.0240
Venus	49365-12-28 16:48 G	19751618.00	19751618.20	19751618.40	0.0529	0.0054
Mercury	49369-03-08 09:22 G	19752783.77	19752783.89	19752784.01	0.0519	0.0155
Mercury	49369-06-05 13:26 G	19752873.00	19752873.06	19752873.12	0.0517	0.0447
Earth	49371-01-23 22:48 G	19753470.26	19753470.45	19753470.66	0.0501	0.0257
Moon	49371-01-24 00:43 G	19753470.33	19753470.53	19753470.73	0.0501	0.0281 *
Venus	49371-11-03 04:05 G	19753753.47	19753753.67	19753753.87	0.0497	0.0058
Mercury	49375-04-26 11:02 G	19755023.88	19755023.96	19755024.06	0.0507	0.0446
Mercury	49375-07-26 01:12 G	19755114.46	19755114.55	19755114.64	0.0509	0.0445
Venus	49377-09-02 09:07 G	19755883.77	19755883.88	19755884.00	0.0528	0.0434
Mars	49380-03-17 23:02 G	19756811.21	19756811.46	19756811.72	0.0526	0.0181
Mercury	49380-12-25 13:55 G	19757093.98	19757094.08	19757094.18	0.0520	0.0308
Mercury	49381-03-24 18:00 G	19757183.15	19757183.25	19757183.36	0.0517	0.0299
Moon	49383-01-28 10:19 G	19757857.84	19757857.93	19757858.05	0.0501	0.0445
Earth	49383-01-28 13:26 G	19757857.98	19757858.06	19757858.16	0.0501	0.0460 *
Venus	49383-07-09 06:00 G	19758019.58	19758019.75	19758019.93	0.0498	0.0257
Mercury	49387-05-13 21:50 G	19759424.24	19759424.41	19759424.58	0.0508	0.0229
Mercury	49392-10-13 18:14 G	19761404.21	19761404.26	19761404.32	0.0520	0.0466
Mercury	49393-01-10 22:48 G	19761493.32	19761493.45	19761493.57	0.0518	0.0147
Mercury	49399-03-01 18:00 G	19763734.06	19763734.25	19763734.44	0.0507	0.0010
Moon	49400-07-13 21:22 G	19764233.22	19764233.39	19764233.57	0.0521	0.0313
Earth	49400-07-13 23:02 G	19764233.28	19764233.46	19764233.64	0.0521	0.0332 *
Venus	49401-09-06 10:05 G	19764652.73	19764652.92	19764653.11	0.0529	0.0177
Mercury	49404-10-31 03:36 G	19765803.53	19765803.65	19765803.78	0.0519	0.0018
Venus	49407-07-12 16:19 G	19766788.00	19766788.18	19766788.35	0.0496	0.0250
Mercury	49410-12-19 12:43 G	19768043.87	19768044.03	19768044.20	0.0507	0.0230
Earth	49412-07-18 16:05 G	19768620.95	19768621.17	19768621.40	0.0523	0.0111
Moon	49412-07-18 19:12 G	19768621.07	19768621.30	19768621.53	0.0523	0.0132 *
Venus	49413-05-12 00:58 G	19768918.35	19768918.54	19768918.72	0.0529	0.0211

Mercury	49416-08-19 08:53 G	19770113.75	19770113.87	19770113.99	0.0519	0.0137
Mercury	49416-11-16 12:43 G	19770202.98	19770203.03	19770203.09	0.0517	0.0466
Moon	49418-01-10 10:34 G	19770622.80	19770622.94	19770623.09	0.0505	0.0408
Earth	49418-01-10 12:14 G	19770622.86	19770623.01	19770623.17	0.0505	0.0381 *
Venus	49419-03-17 18:58 G	19771054.09	19771054.29	19771054.49	0.0497	0.0060
Mercury	49422-10-07 09:22 G	19772353.81	19772353.89	19772353.99	0.0507	0.0440
Mercury	49423-01-05 23:31 G	19772444.40	19772444.48	19772444.57	0.0509	0.0451
Moon	49424-07-23 11:46 G	19773008.77	19773008.99	19773009.22	0.0524	0.0099
Earth	49424-07-23 15:22 G	19773008.92	19773009.14	19773009.37	0.0524	0.0128 *
Mercury	49428-06-07 13:26 G	19774423.96	19774424.06	19774424.17	0.0520	0.0289
Mercury	49428-09-04 17:31 G	19774513.13	19774513.23	19774513.33	0.0517	0.0318
Moon	49430-01-15 03:22 G	19775010.43	19775010.64	19775010.85	0.0504	0.0189
Earth	49430-01-15 03:36 G	19775010.43	19775010.65	19775010.87	0.0504	0.0173 *
Venus	49430-11-20 20:10 G	19775320.22	19775320.34	19775320.48	0.0498	0.0377
Mercury	49434-10-24 20:24 G	19776754.19	19776754.35	19776754.52	0.0508	0.0241
Earth	49436-07-28 14:53 G	19777396.96	19777397.12	19777397.29	0.0525	0.0364
Moon	49436-07-28 18:14 G	19777397.11	19777397.26	19777397.42	0.0525	0.0386 *
Venus	49437-05-15 05:31 G	19777687.60	19777687.73	19777687.85	0.0530	0.0415
Mercury	49440-03-26 18:00 G	19778734.19	19778734.25	19778734.31	0.0520	0.0442
Mercury	49440-06-23 22:19 G	19778823.31	19778823.43	19778823.55	0.0518	0.0169
Earth	49442-01-19 18:58 G	19779398.05	19779398.29	19779398.53	0.0503	0.0034
Moon	49442-01-19 20:38 G	19779398.12	19779398.36	19779398.60	0.0503	0.0059 *
Venus	49443-03-20 04:19 G	19779822.58	19779822.68	19779822.77	0.0496	0.0439
Mercury	49446-08-12 17:02 G	19781064.03	19781064.21	19781064.40	0.0508	0.0029
Venus	49449-01-17 20:10 G	19781953.13	19781953.34	19781953.54	0.0529	0.0029
Mercury	49452-04-12 02:53 G	19783133.49	19783133.62	19783133.74	0.0519	0.0024
Moon	49454-01-24 07:26 G	19783785.61	19783785.81	19783786.00	0.0502	0.0260
Earth	49454-01-24 10:19 G	19783785.73	19783785.93	19783786.14	0.0502	0.0240 *
Venus	49454-11-23 06:43 G	19784088.59	19784088.78	19784088.98	0.0497	0.0131
Mercury	49458-05-31 13:26 G	19785373.88	19785374.06	19785374.23	0.0507	0.0192

Venus	49460-09-22 11:17 G	19786218.83	19786218.97	19786219.13	0.0528	0.0357
Mercury	49464-01-30 07:41 G	19787443.70	19787443.82	19787443.95	0.0519	0.0130
Mercury	49464-04-28 11:46 G	19787532.95	19787532.99	19787533.04	0.0517	0.0474
Earth	49466-01-29 02:38 G	19788173.51	19788173.61	19788173.72	0.0500	0.0446
Moon	49466-01-29 06:29 G	19788173.65	19788173.77	19788173.90	0.0500	0.0422 *
Venus	49466-07-29 08:53 G	19788354.68	19788354.87	19788355.06	0.0497	0.0182
Mercury	49470-03-19 08:10 G	19789683.75	19789683.84	19789683.94	0.0506	0.0429
Mercury	49470-06-17 22:05 G	19789774.35	19789774.42	19789774.50	0.0509	0.0460
Mercury	49475-11-18 12:43 G	19791753.93	19791754.03	19791754.14	0.0520	0.0272
Mercury	49476-02-15 17:02 G	19791843.11	19791843.21	19791843.30	0.0517	0.0335
Venus	49478-04-03 11:17 G	19792620.95	19792620.97	19792621.00	0.0498	0.0493
Mercury	49482-04-05 18:43 G	19794084.12	19794084.28	19794084.44	0.0508	0.0245
Earth	49483-07-14 06:43 G	19794548.62	19794548.78	19794548.95	0.0521	0.0358
Moon	49483-07-14 09:36 G	19794548.73	19794548.90	19794549.09	0.0521	0.0339 *
Venus	49484-09-25 13:41 G	19794987.90	19794988.07	19794988.25	0.0530	0.0258
Mercury	49487-09-06 17:31 G	19796064.16	19796064.23	19796064.30	0.0520	0.0424
Mercury	49487-12-04 21:36 G	19796153.29	19796153.40	19796153.52	0.0518	0.0187
Venus	49490-07-31 18:29 G	19797123.12	19797123.27	19797123.43	0.0496	0.0319
Mercury	49494-01-22 15:36 G	19798393.97	19798394.15	19798394.34	0.0508	0.0037
Moon	49495-07-19 01:55 G	19798936.36	19798936.58	19798936.80	0.0522	0.0150
Earth	49495-07-19 05:31 G	19798936.51	19798936.73	19798936.96	0.0522	0.0125 *
Venus	49496-05-31 06:00 G	19799253.56	19799253.75	19799253.95	0.0529	0.0124
Mercury	49499-09-23 02:24 G	19800463.47	19800463.60	19800463.72	0.0518	0.0036
Earth	49501-01-10 21:50 G	19800938.27	19800938.41	19800938.55	0.0506	0.0402
Moon	49501-01-10 21:36 G	19800938.29	19800938.40	19800938.52	0.0506	0.0434 *
Venus	49502-04-06 20:38 G	19801389.15	19801389.36	19801389.56	0.0497	0.0008
Mercury	49505-11-11 12:29 G	19802703.84	19802704.02	19802704.19	0.0507	0.0177
Earth	49507-07-25 02:24 G	19803324.37	19803324.60	19803324.82	0.0523	0.0106
Moon	49507-07-25 05:46 G	19803324.52	19803324.74	19803324.97	0.0523	0.0087 *
Venus	49508-02-04 21:22 G	19803519.33	19803519.39	19803519.44	0.0528	0.0504

Mercury	49511-07-13 06:43 G	19804773.66	19804773.78	19804773.91	0.0519	0.0121
Mercury	49511-10-10 10:48 G	19804862.91	19804862.95	19804862.99	0.0517	0.0483
Earth	49513-01-15 13:41 G	19805325.86	19805326.07	19805326.29	0.0505	0.0195
Moon	49513-01-15 15:22 G	19805325.92	19805326.14	19805326.36	0.0505	0.0205 *
Venus	49513-12-10 22:34 G	19805655.28	19805655.44	19805655.60	0.0498	0.0306
Mercury	49517-08-30 08:38 G	19807013.75	19807013.86	19807013.98	0.0506	0.0393
Mercury	49517-11-28 22:34 G	19807104.41	19807104.44	19807104.48	0.0509	0.0497
Moon	49519-07-29 20:38 G	19807712.19	19807712.36	19807712.53	0.0525	0.0362
Earth	49519-07-29 22:48 G	19807712.28	19807712.45	19807712.63	0.0525	0.0338 *
Venus	49520-06-04 07:26 G	19808022.73	19808022.81	19808022.88	0.0530	0.0489
Mercury	49523-05-01 11:46 G	19809083.88	19809083.99	19809084.10	0.0520	0.0266
Mercury	49523-07-29 15:50 G	19809173.07	19809173.16	19809173.25	0.0518	0.0342
Moon	49525-01-20 04:34 G	19809713.46	19809713.69	19809713.92	0.0503	0.0046
Earth	49525-01-20 07:41 G	19809713.58	19809713.82	19809714.05	0.0503	0.0020 *
Mercury	49529-09-16 17:17 G	19811414.06	19811414.22	19811414.38	0.0508	0.0253
Venus	49532-02-07 20:53 G	19812288.17	19812288.37	19812288.57	0.0530	0.0097
Mars	49534-06-15 01:55 G	19813146.39	19813146.58	19813146.78	0.0527	0.0358
Mercury	49535-02-17 16:34 G	19813394.12	19813394.19	19813394.27	0.0521	0.0411
Mercury	49535-05-17 20:53 G	19813483.26	19813483.37	19813483.49	0.0518	0.0201
Earth	49537-01-25 00:29 G	19814101.31	19814101.52	19814101.73	0.0502	0.0229
Moon	49537-01-25 04:19 G	19814101.48	19814101.68	19814101.89	0.0502	0.0240 *
Venus	49537-12-13 09:36 G	19814423.71	19814423.90	19814424.08	0.0496	0.0201
Mercury	49541-07-05 13:41 G	19815723.88	19815724.07	19815724.26	0.0507	0.0038
Venus	49543-10-13 13:26 G	19816553.89	19816554.06	19816554.23	0.0529	0.0283
Mercury	49547-03-06 01:41 G	19817793.44	19817793.57	19817793.69	0.0518	0.0051
Moon	49549-01-29 10:05 G	19818488.78	19818488.92	19818489.07	0.0500	0.0402
Earth	49549-01-29 13:41 G	19818488.96	19818489.07	19818489.19	0.0500	0.0431 *
Venus	49549-08-18 10:34 G	19818689.75	19818689.94	19818690.14	0.0497	0.0115
Mercury	49553-04-23 10:34 G	19820033.77	19820033.94	19820034.12	0.0507	0.0172
Mercury	49558-12-23 06:14 G	19822103.64	19822103.76	19822103.88	0.0519	0.0101

Mercury	49559-03-22 10:05 G	19822192.90	19822192.92	19822192.95	0.0517	0.0501
Venus	49561-04-23 12:00 G	19822955.90	19822956.00	19822956.10	0.0498	0.0430
Mercury	49565-02-09 07:26 G	19824343.69	19824343.81	19824343.93	0.0506	0.0382
Mercury	49565-05-10 21:22 G	19824434.39	19824434.39	19824434.39	0.0509	0.0509
Moon	49566-07-14 13:41 G	19824863.92	19824864.07	19824864.24	0.0520	0.0366
Earth	49566-07-14 17:31 G	19824864.07	19824864.23	19824864.39	0.0520	0.0381 *
Venus	49567-10-16 16:05 G	19825323.02	19825323.17	19825323.33	0.0530	0.0334
Mercury	49570-10-11 10:34 G	19826413.83	19826413.94	19826414.05	0.0520	0.0259
Mercury	49571-01-08 14:38 G	19826503.02	19826503.11	19826503.21	0.0517	0.0348
Venus	49573-08-20 19:55 G	19827458.21	19827458.33	19827458.46	0.0496	0.0385
Mercury	49577-02-26 17:17 G	19828744.07	19828744.22	19828744.38	0.0508	0.0286
Earth	49578-07-19 12:29 G	19829251.80	19829252.02	19829252.25	0.0522	0.0154
Moon	49578-07-19 16:05 G	19829251.96	19829252.17	19829252.39	0.0522	0.0182 *
Venus	49579-06-21 06:58 G	19829588.59	19829588.79	19829589.00	0.0529	0.0054
Mercury	49582-07-30 15:22 G	19830724.06	19830724.14	19830724.22	0.0521	0.0408
Mercury	49582-10-27 19:41 G	19830813.20	19830813.32	19830813.44	0.0518	0.0204
Earth	49584-01-11 08:10 G	19831253.73	19831253.84	19831253.98	0.0506	0.0424
Moon	49584-01-11 09:50 G	19831253.81	19831253.91	19831254.03	0.0506	0.0453 *
Venus	49585-04-25 22:34 G	19831724.24	19831724.44	19831724.64	0.0496	0.0076
Mars	49587-12-08 09:07 G	19832680.63	19832680.88	19832681.13	0.0499	0.0226
Mercury	49588-12-15 12:00 G	19833053.81	19833054.00	19833054.19	0.0507	0.0043
Moon	49590-07-24 01:41 G	19833639.33	19833639.57	19833639.81	0.0524	0.0054
Earth	49590-07-24 04:19 G	19833639.46	19833639.68	19833639.91	0.0524	0.0070 *
Venus	49591-02-23 20:10 G	19833854.24	19833854.34	19833854.45	0.0528	0.0444
Mercury	49594-08-16 00:43 G	19835123.40	19835123.53	19835123.65	0.0519	0.0062
Moon	49596-01-15 23:46 G	19835641.28	19835641.49	19835641.70	0.0505	0.0215
Earth	49596-01-16 02:38 G	19835641.40	19835641.61	19835641.82	0.0505	0.0209 *
Venus	49596-12-30 01:12 G	19835990.37	19835990.55	19835990.73	0.0497	0.0235
Mercury	49600-10-03 08:24 G	19837363.68	19837363.85	19837364.03	0.0507	0.0173
Earth	49602-07-29 03:07 G	19838027.44	19838027.63	19838027.81	0.0525	0.0306

Moon	49602-07-29 03:50 G	19838027.50	19838027.66	19838027.84	0.0525	0.0337	*
Mercury	49606-06-04 05:17 G	19839433.60	19839433.72	19839433.84	0.0519	0.0092	
Mercury	49606-09-01 09:22 G	19839522.87	19839522.89	19839522.90	0.0517	0.0511	
Earth	49608-01-20 16:48 G	19840028.96	19840029.20	19840029.43	0.0503	0.0008	
Moon	49608-01-20 20:24 G	19840029.12	19840029.35	19840029.59	0.0503	0.0030	*
Mercury	49612-07-22 05:17 G	19841673.60	19841673.72	19841673.84	0.0506	0.0383	
Mercury	49612-10-20 19:12 G	19841764.30	19841764.30	19841764.31	0.0509	0.0508	
Venus	49615-02-27 00:29 G	19842623.33	19842623.52	19842623.71	0.0530	0.0176	
Mercury	49618-03-23 09:50 G	19843743.80	19843743.91	19843744.02	0.0520	0.0245	
Mercury	49618-06-20 13:55 G	19843832.99	19843833.08	19843833.17	0.0517	0.0362	
Moon	49620-01-25 03:22 G	19844416.43	19844416.64	19844416.86	0.0502	0.0211	
Earth	49620-01-25 06:58 G	19844416.58	19844416.79	19844417.01	0.0502	0.0205	*
Venus	49621-01-01 09:07 G	19844758.71	19844758.88	19844759.05	0.0496	0.0259	
Mercury	49624-08-08 15:36 G	19846074.00	19846074.15	19846074.31	0.0508	0.0291	
Venus	49626-11-01 15:07 G	19846888.95	19846889.13	19846889.32	0.0529	0.0209	
Mercury	49630-01-09 14:10 G	19848054.01	19848054.09	19848054.16	0.0520	0.0405	
Mercury	49630-04-08 18:29 G	19848143.15	19848143.27	19848143.38	0.0518	0.0207	
Earth	49632-01-29 20:53 G	19848804.24	19848804.37	19848804.51	0.0501	0.0408	
Moon	49632-01-29 23:31 G	19848804.34	19848804.48	19848804.63	0.0501	0.0380	*
Venus	49632-09-06 10:48 G	19849024.75	19849024.95	19849025.15	0.0497	0.0053	
Mercury	49636-05-27 11:46 G	19850383.80	19850383.99	19850384.18	0.0507	0.0068	
Mercury	49642-01-25 23:17 G	19852453.34	19852453.47	19852453.59	0.0519	0.0061	
Venus	49644-05-12 13:12 G	19853290.91	19853291.05	19853291.19	0.0498	0.0364	
Mercury	49648-03-15 06:29 G	19854693.60	19854693.77	19854693.95	0.0506	0.0172	
Earth	49649-07-13 17:02 G	19855179.08	19855179.21	19855179.35	0.0520	0.0423	
Moon	49649-07-13 20:53 G	19855179.23	19855179.37	19855179.51	0.0520	0.0411	*
Venus	49650-11-04 13:55 G	19855657.94	19855658.08	19855658.22	0.0531	0.0388	
Mercury	49653-11-14 04:05 G	19856763.54	19856763.67	19856763.79	0.0520	0.0088	
Mercury	49654-02-11 08:10 G	19856852.84	19856852.84	19856852.84	0.0517	0.0516	
Venus	49656-09-08 20:53 G	19857793.29	19857793.37	19857793.46	0.0495	0.0447	

Mercury	49660-01-02 02:53 G	19859003.50	19859003.62	19859003.74	0.0506	0.0388
Mercury	49660-04-01 16:34 G	19859094.17	19859094.19	19859094.22	0.0508	0.0501
Moon	49661-07-18 10:34 G	19859566.73	19859566.94	19859567.16	0.0522	0.0223
Earth	49661-07-18 13:41 G	19859566.86	19859567.07	19859567.29	0.0522	0.0193 *
Venus	49662-07-10 05:46 G	19859923.54	19859923.74	19859923.94	0.0530	0.0007
Mercury	49665-09-02 08:38 G	19861073.75	19861073.86	19861073.97	0.0520	0.0242
Mercury	49665-11-30 12:43 G	19861162.94	19861163.03	19861163.12	0.0517	0.0366
Moon	49667-01-10 12:29 G	19861568.96	19861569.02	19861569.09	0.0506	0.0484
Earth	49667-01-10 14:53 G	19861569.03	19861569.12	19861569.24	0.0506	0.0453 *
Venus	49668-05-14 21:50 G	19862059.21	19862059.41	19862059.61	0.0496	0.0132
Mercury	49672-01-19 13:12 G	19863403.89	19863404.05	19863404.20	0.0508	0.0284
Earth	49673-07-23 12:14 G	19863954.78	19863955.01	19863955.24	0.0523	0.0042
Moon	49673-07-23 13:41 G	19863954.84	19863955.07	19863955.29	0.0523	0.0035 *
Venus	49674-03-14 22:05 G	19864189.29	19864189.42	19864189.57	0.0528	0.0371
Mercury	49677-06-21 12:58 G	19865383.96	19865384.04	19865384.13	0.0520	0.0397
Mercury	49677-09-18 17:17 G	19865473.11	19865473.22	19865473.34	0.0518	0.0216
Earth	49679-01-15 06:14 G	19865956.56	19865956.76	19865956.97	0.0505	0.0242
Moon	49679-01-15 10:05 G	19865956.71	19865956.92	19865957.13	0.0505	0.0237 *
Venus	49680-01-18 23:02 G	19866325.28	19866325.46	19866325.66	0.0497	0.0183
Mercury	49683-11-07 09:36 G	19867713.71	19867713.90	19867714.09	0.0507	0.0067
Earth	49685-07-28 09:07 G	19868342.68	19868342.88	19868343.08	0.0524	0.0276
Moon	49685-07-28 09:22 G	19868342.70	19868342.89	19868343.09	0.0524	0.0305 *
Mercury	49689-07-07 21:36 G	19869783.28	19869783.40	19869783.53	0.0519	0.0059
Moon	49691-01-19 17:02 G	19870343.97	19870344.21	19870344.45	0.0504	0.0006
Earth	49691-01-19 20:38 G	19870344.13	19870344.36	19870344.60	0.0504	0.0034 *
Venus	49691-09-24 00:00 G	19870591.50	19870591.50	19870591.51	0.0499	0.0498
Mercury	49695-08-26 05:31 G	19872023.56	19872023.73	19872023.91	0.0507	0.0155
Moon	49697-08-02 02:38 G	19872730.61	19872730.61	19872730.64	0.0526	0.0524
Earth	49697-08-02 04:48 G	19872730.65	19872730.70	19872730.76	0.0526	0.0509
Venus	49698-03-17 22:34 G	19872958.26	19872958.44	19872958.62	0.0530	0.0233

Mercury	49701-04-27 02:24 G	19874093.47	19874093.60	19874093.72	0.0520	0.0093
Mercury	49701-07-25 06:29 G	19874182.76	19874182.77	19874182.78	0.0517	0.0512
Earth	49703-01-25 13:26 G	19874731.84	19874732.06	19874732.28	0.0502	0.0180
Moon	49703-01-25 16:05 G	19874731.96	19874732.17	19874732.39	0.0502	0.0185 *
Venus	49704-01-22 08:53 G	19875093.71	19875093.87	19875094.02	0.0496	0.0316
Mercury	49707-06-15 00:29 G	19876333.41	19876333.52	19876333.64	0.0506	0.0391
Mercury	49707-09-13 14:24 G	19876424.06	19876424.10	19876424.14	0.0508	0.0496
Venus	49709-11-21 10:48 G	19877223.76	19877223.95	19877224.14	0.0529	0.0164
Mercury	49713-02-13 06:58 G	19878403.68	19878403.79	19878403.90	0.0521	0.0244
Mercury	49713-05-13 11:17 G	19878492.88	19878492.97	19878493.06	0.0518	0.0366
Moon	49715-01-30 03:36 G	19879119.49	19879119.65	19879119.83	0.0501	0.0358
Earth	49715-01-30 05:02 G	19879119.57	19879119.71	19879119.86	0.0501	0.0388 *
Venus	49715-09-27 11:02 G	19879359.75	19879359.96	19879360.16	0.0497	0.0013
Mercury	49719-07-02 10:19 G	19880733.77	19880733.93	19880734.09	0.0508	0.0273
Mercury	49724-12-02 11:31 G	19882713.90	19882713.98	19882714.06	0.0521	0.0400
Mercury	49725-03-01 15:50 G	19882803.05	19882803.16	19882803.28	0.0518	0.0213
Venus	49727-06-02 11:02 G	19883625.80	19883625.96	19883626.12	0.0498	0.0312
Mercury	49731-04-20 06:43 G	19885043.59	19885043.78	19885043.97	0.0507	0.0054
Moon	49732-07-13 19:12 G	19885494.20	19885494.30	19885494.43	0.0520	0.0452
Earth	49732-07-13 22:34 G	19885494.34	19885494.44	19885494.56	0.0520	0.0457 *
Venus	49733-11-24 14:24 G	19885993.00	19885993.10	19885993.21	0.0531	0.0454
Mercury	49736-12-18 20:24 G	19887113.23	19887113.35	19887113.48	0.0519	0.0062
Venus	49739-09-29 17:31 G	19888128.21	19888128.23	19888128.26	0.0495	0.0491
Mars	49742-03-04 08:53 G	19889014.61	19889014.87	19889015.14	0.0499	0.0169
Mercury	49743-02-06 03:07 G	19889353.45	19889353.63	19889353.81	0.0507	0.0163
Earth	49744-07-18 18:14 G	19889882.06	19889882.26	19889882.47	0.0521	0.0229
Moon	49744-07-18 20:10 G	19889882.15	19889882.34	19889882.53	0.0521	0.0261 *
Venus	49745-07-30 05:02 G	19890258.51	19890258.71	19890258.91	0.0529	0.0069
Mercury	49748-10-07 00:43 G	19891423.40	19891423.53	19891423.65	0.0519	0.0099
Mercury	49749-01-04 04:48 G	19891512.68	19891512.70	19891512.72	0.0517	0.0505

Earth	49750-01-10 15:50 G	19891884.11	19891884.16	19891884.22	0.0507	0.0492
Venus	49751-06-04 19:12 G	19892394.11	19892394.30	19892394.49	0.0496	0.0181
Mercury	49754-11-24 23:17 G	19893663.35	19893663.47	19893663.59	0.0506	0.0382
Mercury	49755-02-23 12:58 G	19893754.03	19893754.04	19893754.05	0.0508	0.0507
Moon	49756-07-23 12:43 G	19894269.79	19894270.03	19894270.27	0.0522	0.0009
Earth	49756-07-23 12:58 G	19894269.81	19894270.04	19894270.27	0.0522	0.0002 *
Venus	49757-04-03 19:12 G	19894524.14	19894524.30	19894524.46	0.0528	0.0317
Mercury	49760-07-26 05:17 G	19895733.61	19895733.72	19895733.83	0.0520	0.0252
Mercury	49760-10-23 09:22 G	19895822.80	19895822.89	19895822.98	0.0518	0.0358
Moon	49762-01-15 05:31 G	19896271.53	19896271.73	19896271.93	0.0506	0.0269
Earth	49762-01-15 09:22 G	19896271.69	19896271.89	19896272.09	0.0506	0.0276 *
Venus	49763-02-07 21:36 G	19896660.20	19896660.40	19896660.60	0.0497	0.0129
Mercury	49766-12-12 07:41 G	19898063.67	19898063.82	19898063.98	0.0507	0.0265
Moon	49768-07-28 02:38 G	19898657.41	19898657.61	19898657.80	0.0524	0.0253
Earth	49768-07-28 03:50 G	19898657.46	19898657.66	19898657.88	0.0524	0.0224 *
Mercury	49772-05-14 09:36 G	19900043.83	19900043.90	19900043.98	0.0521	0.0409
Mercury	49772-08-11 14:10 G	19900132.97	19900133.09	19900133.20	0.0519	0.0207
Earth	49774-01-20 01:55 G	19900659.35	19900659.58	19900659.82	0.0504	0.0064
Moon	49774-01-20 04:48 G	19900659.48	19900659.70	19900659.93	0.0504	0.0033 *
Venus	49774-10-13 23:02 G	19900926.37	19900926.46	19900926.56	0.0498	0.0441
Mercury	49778-09-30 03:36 G	19902373.47	19902373.65	19902373.84	0.0507	0.0042
Earth	49780-08-02 00:58 G	19903045.43	19903045.54	19903045.65	0.0525	0.0460
Moon	49780-08-02 04:05 G	19903045.57	19903045.67	19903045.78	0.0525	0.0468 *
Venus	49781-04-06 17:46 G	19903293.07	19903293.24	19903293.42	0.0530	0.0276
Mercury	49784-05-30 18:43 G	19904443.15	19904443.28	19904443.40	0.0519	0.0054
Moon	49786-01-24 12:58 G	19905046.80	19905047.04	19905047.27	0.0503	0.0145
Earth	49786-01-24 14:38 G	19905046.89	19905047.11	19905047.34	0.0503	0.0142 *
Venus	49787-02-10 04:48 G	19905428.56	19905428.70	19905428.84	0.0496	0.0360
Mercury	49790-07-18 23:46 G	19906683.32	19906683.49	19906683.67	0.0507	0.0180
Venus	49792-12-10 10:05 G	19907558.72	19907558.92	19907559.12	0.0529	0.0101

Mercury	49796-03-18 23:17 G	19908753.34	19908753.47	19908753.59	0.0519	0.0100
Mercury	49796-06-16 03:22 G	19908842.61	19908842.64	19908842.66	0.0517	0.0504
Moon	49798-01-29 04:05 G	19909434.50	19909434.67	19909434.85	0.0501	0.0321
Earth	49798-01-29 04:19 G	19909434.51	19909434.68	19909434.85	0.0501	0.0348 *
Venus	49798-10-16 06:00 G	19909694.55	19909694.75	19909694.96	0.0497	0.0049
Mercury	49802-05-07 20:10 G	19910993.23	19910993.34	19910993.46	0.0506	0.0395
Mercury	49802-08-06 10:05 G	19911083.88	19911083.92	19911083.96	0.0508	0.0494
Venus	49804-08-16 01:12 G	19911824.47	19911824.55	19911824.64	0.0528	0.0480
Mars	49807-02-28 21:50 G	19912751.16	19912751.41	19912751.67	0.0528	0.0191
Mercury	49808-01-07 03:22 G	19913063.53	19913063.64	19913063.75	0.0520	0.0261
Mercury	49808-04-05 07:41 G	19913152.72	19913152.82	19913152.91	0.0518	0.0348
Venus	49810-06-22 06:58 G	19913960.62	19913960.79	19913960.96	0.0498	0.0268
Mercury	49814-05-25 05:46 G	19915393.59	19915393.74	19915393.90	0.0508	0.0268
Earth	49815-07-14 22:34 G	19915809.39	19915809.44	19915809.51	0.0519	0.0500
Moon	49815-07-15 00:43 G	19915809.49	19915809.53	19915809.59	0.0519	0.0503 *
Venus	49816-12-14 10:19 G	19916327.86	19916327.93	19916327.99	0.0530	0.0499
Mercury	49819-10-26 07:41 G	19917373.75	19917373.82	19917373.90	0.0521	0.0418
Mercury	49820-01-23 12:14 G	19917462.89	19917463.01	19917463.12	0.0519	0.0197
Mercury	49826-03-13 00:58 G	19919703.35	19919703.54	19919703.73	0.0507	0.0031
Moon	49827-07-19 11:46 G	19920196.80	19920196.99	19920197.18	0.0520	0.0316
Earth	49827-07-19 12:43 G	19920196.84	19920197.03	19920197.23	0.0520	0.0284 *
Venus	49828-08-18 22:05 G	19920593.22	19920593.42	19920593.62	0.0529	0.0103
Mercury	49831-11-11 16:48 G	19921773.07	19921773.20	19921773.32	0.0520	0.0046
Venus	49834-06-24 16:48 G	19922729.02	19922729.20	19922729.38	0.0496	0.0231
Mercury	49837-12-29 20:53 G	19924013.20	19924013.37	19924013.54	0.0506	0.0192
Moon	49839-07-24 06:58 G	19924584.57	19924584.79	19924585.01	0.0522	0.0062
Earth	49839-07-24 07:41 G	19924584.59	19924584.82	19924585.05	0.0522	0.0055 *
Venus	49840-04-23 13:12 G	19924858.88	19924859.05	19924859.23	0.0528	0.0278
Mercury	49843-08-30 21:07 G	19926083.26	19926083.38	19926083.51	0.0520	0.0114
Mercury	49843-11-28 01:26 G	19926172.52	19926172.56	19926172.59	0.0517	0.0494

Earth	49845-01-15 08:24 G	19926586.68	19926586.85	19926587.04	0.0506	0.0323
Moon	49845-01-15 11:46 G	19926586.81	19926586.99	19926587.18	0.0506	0.0312 *
Venus	49846-02-27 16:34 G	19926994.99	19926995.19	19926995.39	0.0497	0.0087
Mercury	49849-10-17 16:48 G	19928323.10	19928323.20	19928323.31	0.0506	0.0415
Mercury	49850-01-16 06:29 G	19928413.71	19928413.77	19928413.84	0.0508	0.0472
Earth	49851-07-29 05:17 G	19928972.50	19928972.72	19928972.94	0.0524	0.0182
Moon	49851-07-29 08:10 G	19928972.62	19928972.84	19928973.06	0.0524	0.0213 *
Mercury	49855-06-19 01:41 G	19930393.47	19930393.57	19930393.68	0.0520	0.0266
Mercury	49855-09-16 06:00 G	19930482.66	19930482.75	19930482.84	0.0518	0.0344
Moon	49857-01-19 21:22 G	19930974.15	19930974.39	19930974.63	0.0504	0.0079
Earth	49857-01-19 23:46 G	19930974.26	19930974.49	19930974.72	0.0504	0.0110 *
Venus	49857-11-02 17:17 G	19931261.11	19931261.22	19931261.34	0.0498	0.0402
Mercury	49861-11-04 02:38 G	19932723.45	19932723.61	19932723.78	0.0508	0.0252
Moon	49863-08-02 22:34 G	19933360.31	19933360.44	19933360.58	0.0525	0.0422
Earth	49863-08-03 02:24 G	19933360.47	19933360.60	19933360.74	0.0525	0.0419 *
Venus	49864-04-26 15:36 G	19933628.00	19933628.15	19933628.31	0.0530	0.0332
Mercury	49867-04-07 05:46 G	19934703.68	19934703.74	19934703.82	0.0521	0.0429
Mercury	49867-07-05 10:19 G	19934792.81	19934792.93	19934793.05	0.0518	0.0186
Earth	49869-01-24 12:43 G	19935361.80	19935362.03	19935362.27	0.0503	0.0099
Moon	49869-01-24 13:12 G	19935361.83	19935362.05	19935362.27	0.0503	0.0099 *
Venus	49870-03-02 00:00 G	19935763.39	19935763.50	19935763.63	0.0496	0.0400
Mercury	49873-08-22 22:48 G	19937033.26	19937033.45	19937033.63	0.0507	0.0030
Venus	49875-12-31 05:46 G	19937893.54	19937893.74	19937893.94	0.0529	0.0055
Mercury	49879-04-23 14:53 G	19939102.99	19939103.12	19939103.24	0.0519	0.0035
Earth	49881-01-29 04:19 G	19939749.49	19939749.68	19939749.86	0.0502	0.0310
Moon	49881-01-29 06:14 G	19939749.56	19939749.76	19939749.96	0.0502	0.0281 *
Venus	49881-11-05 02:24 G	19940029.40	19940029.60	19940029.80	0.0497	0.0093
Mercury	49885-06-10 18:14 G	19941343.09	19941343.26	19941343.43	0.0506	0.0203
Venus	49887-09-04 18:00 G	19942159.15	19942159.25	19942159.36	0.0527	0.0445
Mercury	49891-02-09 19:12 G	19943413.18	19943413.30	19943413.42	0.0520	0.0126

Mercury	49891-05-09 23:17 G	19943502.43	19943502.47	19943502.52	0.0518	0.0482
Venus	49893-07-11 04:05 G	19944295.49	19944295.67	19944295.85	0.0498	0.0219
Mars	49896-05-28 12:29 G	19945347.95	19945348.02	19945348.12	0.0499	0.0473
Mercury	49897-03-29 14:10 G	19945652.99	19945653.09	19945653.19	0.0505	0.0425
Mercury	49897-06-28 03:22 G	19945743.57	19945743.64	19945743.73	0.0508	0.0460
Mercury	49902-11-29 23:46 G	19947723.38	19947723.49	19947723.59	0.0521	0.0281
Mercury	49903-02-27 03:50 G	19947812.57	19947812.66	19947812.76	0.0518	0.0331
Mercury	49909-04-16 23:17 G	19950053.30	19950053.47	19950053.63	0.0508	0.0230
Earth	49910-07-19 12:58 G	19950511.87	19950512.04	19950512.23	0.0520	0.0330
Moon	49910-07-19 12:58 G	19950511.88	19950512.04	19950512.20	0.0520	0.0363 *
Venus	49911-09-08 20:10 G	19950928.14	19950928.34	19950928.53	0.0530	0.0160
Mercury	49914-09-18 04:19 G	19952033.61	19952033.68	19952033.75	0.0521	0.0433
Mercury	49914-12-16 08:38 G	19952122.74	19952122.86	19952122.98	0.0518	0.0182
Venus	49917-07-14 10:34 G	19953063.77	19953063.94	19953064.12	0.0496	0.0267
Mercury	49921-02-02 19:26 G	19954363.12	19954363.31	19954363.50	0.0507	0.0011
Earth	49922-07-24 09:22 G	19954899.66	19954899.89	19954900.11	0.0522	0.0097
Moon	49922-07-24 11:31 G	19954899.75	19954899.98	19954900.22	0.0522	0.0098 *
Venus	49923-05-14 11:17 G	19955193.79	19955193.97	19955194.16	0.0528	0.0220
Mercury	49926-10-04 12:58 G	19956432.91	19956433.04	19956433.16	0.0519	0.0023
Moon	49928-01-16 03:07 G	19956901.47	19956901.63	19956901.81	0.0506	0.0360
Earth	49928-01-16 06:00 G	19956901.59	19956901.75	19956901.91	0.0506	0.0369 *
Venus	49929-03-19 11:31 G	19957329.78	19957329.98	19957330.18	0.0497	0.0047
Mercury	49932-11-21 15:36 G	19958672.98	19958673.15	19958673.32	0.0506	0.0209
Moon	49934-07-29 00:29 G	19959287.31	19959287.52	19959287.74	0.0523	0.0168
Earth	49934-07-29 04:05 G	19959287.45	19959287.67	19959287.90	0.0523	0.0136 *
Mercury	49938-07-23 17:17 G	19960743.10	19960743.22	19960743.34	0.0520	0.0134
Mercury	49938-10-20 21:22 G	19960832.35	19960832.39	19960832.44	0.0517	0.0473
Earth	49940-01-20 22:05 G	19961289.20	19961289.42	19961289.65	0.0505	0.0154
Moon	49940-01-20 23:02 G	19961289.24	19961289.46	19961289.68	0.0505	0.0126 *
Venus	49940-11-22 13:12 G	19961595.91	19961596.05	19961596.19	0.0499	0.0358

Mercury	49944-09-09 11:31 G	19962982.88	19962982.98	19962983.07	0.0505	0.0433
Mercury	49944-12-09 00:58 G	19963073.46	19963073.54	19963073.62	0.0508	0.0450
Earth	49946-08-02 20:10 G	19963675.18	19963675.34	19963675.52	0.0524	0.0363
Moon	49946-08-03 00:14 G	19963675.35	19963675.51	19963675.68	0.0524	0.0366 *
Venus	49947-05-17 08:38 G	19963962.72	19963962.86	19963963.01	0.0530	0.0367
Mercury	49950-05-11 21:36 G	19965053.30	19965053.40	19965053.50	0.0521	0.0294
Mercury	49950-08-09 01:55 G	19965142.48	19965142.58	19965142.68	0.0519	0.0319
Earth	49952-01-25 13:41 G	19965676.84	19965677.07	19965677.31	0.0504	0.0060
Moon	49952-01-25 15:22 G	19965676.89	19965677.14	19965677.38	0.0504	0.0051 *
Venus	49953-03-21 20:53 G	19966098.29	19966098.37	19966098.46	0.0496	0.0447
Mercury	49956-09-26 20:38 G	19967383.19	19967383.36	19967383.53	0.0507	0.0223
Venus	49959-01-19 23:46 G	19968228.29	19968228.49	19968228.69	0.0529	0.0015
Mars	49961-05-24 21:36 G	19969084.14	19969084.40	19969084.67	0.0528	0.0101
Mercury	49962-02-28 02:10 G	19969363.53	19969363.59	19969363.65	0.0521	0.0449
Mercury	49962-05-28 06:29 G	19969452.66	19969452.77	19969452.89	0.0519	0.0169
Moon	49964-01-29 23:46 G	19970064.29	19970064.49	19970064.70	0.0502	0.0235
Earth	49964-01-30 02:53 G	19970064.42	19970064.62	19970064.82	0.0502	0.0265 *
Venus	49964-11-24 20:53 G	19970364.18	19970364.37	19970364.57	0.0497	0.0133
Mercury	49968-07-15 16:05 G	19971692.98	19971693.17	19971693.36	0.0507	0.0010
Venus	49970-09-24 16:05 G	19972494.03	19972494.17	19972494.30	0.0528	0.0387
Mercury	49974-03-16 11:17 G	19973762.85	19973762.97	19973763.10	0.0519	0.0022
Earth	49976-02-03 16:48 G	19974452.13	19974452.20	19974452.28	0.0501	0.0472
Moon	49976-02-03 20:53 G	19974452.30	19974452.37	19974452.45	0.0501	0.0473
Venus	49976-07-30 22:05 G	19974630.23	19974630.42	19974630.62	0.0498	0.0180
Mercury	49980-05-03 12:29 G	19976002.85	19976003.02	19976003.19	0.0506	0.0225
Mercury	49986-01-02 15:36 G	19978073.03	19978073.15	19978073.27	0.0520	0.0140
Mercury	49986-04-01 19:41 G	19978162.27	19978162.32	19978162.38	0.0517	0.0466
Venus	49988-04-04 22:34 G	19978896.42	19978896.44	19978896.46	0.0499	0.0495
Mercury	49992-02-20 08:53 G	19980312.78	19980312.87	19980312.96	0.0506	0.0440
Mercury	49992-05-20 22:34 G	19980403.35	19980403.44	19980403.53	0.0508	0.0446

Earth	49993-07-18 14:10 G	19980826.93	19980827.09	19980827.25	0.0520	0.0372
Moon	49993-07-18 15:50 G	19980827.01	19980827.16	19980827.31	0.0520	0.0401 *
Venus	49994-09-27 16:48 G	19981263.02	19981263.20	19981263.39	0.0529	0.0211
Mercury	49997-10-21 19:55 G	19982383.23	19982383.33	19982383.44	0.0521	0.0298
Mercury	49998-01-19 00:14 G	19982472.41	19982472.51	19982472.61	0.0518	0.0314
Venus	50000-08-02 06:58 G	19983398.64	19983398.79	19983398.95	0.0496	0.0311

51ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 51st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	50004-03-08 18:14 G		19984713.09	19984713.26	19984713.43	0.0507	0.0217	
Moon	50005-07-23 02:53 G		19985214.41	19985214.62	19985214.84	0.0521	0.0147	
Earth	50005-07-23 06:14 G		19985214.54	19985214.76	19985214.98	0.0521	0.0150 *	
Venus	50006-06-02 05:46 G		19985528.55	19985528.74	19985528.93	0.0528	0.0178	
Mercury	50009-08-10 00:14 G		19986693.45	19986693.51	19986693.57	0.0522	0.0460	
Mercury	50009-11-07 04:48 G		19986782.58	19986782.70	19986782.82	0.0519	0.0158	
Earth	50011-01-15 06:29 G		19987216.64	19987216.77	19987216.91	0.0507	0.0413	
Moon	50011-01-15 07:55 G		19987216.70	19987216.83	19987216.97	0.0507	0.0403 *	
Venus	50012-04-07 08:38 G		19987664.66	19987664.86	19987665.07	0.0497	0.0006	
Mars	50014-11-17 09:07 G		19988618.70	19988618.88	19988619.07	0.0498	0.0373	
Mercury	50015-12-26 14:10 G		19989022.90	19989023.09	19989023.27	0.0506	0.0012	
Earth	50017-07-28 00:58 G		19989602.31	19989602.54	19989602.77	0.0522	0.0083	
Moon	50017-07-28 04:48 G		19989602.48	19989602.70	19989602.93	0.0522	0.0119 *	

Mercury	50021-08-26 09:22 G	19991092.77	19991092.89	19991093.02	0.0520	0.0011
Earth	50023-01-19 22:05 G	19991604.20	19991604.42	19991604.63	0.0505	0.0200
Moon	50023-01-19 22:48 G	19991604.22	19991604.45	19991604.68	0.0505	0.0174 *
Venus	50023-12-12 08:24 G	19991930.70	19991930.85	19991931.02	0.0498	0.0313
Mercury	50027-10-14 09:22 G	19993332.73	19993332.89	19993333.06	0.0506	0.0241
Moon	50029-08-01 18:00 G	19993990.07	19993990.25	19993990.44	0.0524	0.0325
Earth	50029-08-01 21:36 G	19993990.22	19993990.40	19993990.59	0.0524	0.0321 *
Venus	50030-06-05 07:55 G	19994297.71	19994297.83	19994297.95	0.0530	0.0428
Mercury	50033-06-14 14:10 G	19995402.97	19995403.09	19995403.21	0.0520	0.0141
Mercury	50033-09-11 18:14 G	19995492.21	19995492.26	19995492.32	0.0517	0.0467
Moon	50035-01-24 11:31 G	19995991.75	19995991.98	19995992.20	0.0504	0.0011
Earth	50035-01-24 14:10 G	19995991.86	19995992.09	19995992.33	0.0504	0.0018 *
Venus	50036-04-09 15:50 G	19996433.13	19996433.16	19996433.20	0.0496	0.0486
Mercury	50039-08-02 05:46 G	19997642.67	19997642.74	19997642.83	0.0506	0.0454
Mercury	50039-10-31 19:26 G	19997733.22	19997733.31	19997733.41	0.0508	0.0433
Venus	50042-02-07 23:31 G	19998563.27	19998563.48	19998563.68	0.0529	0.0051
Mercury	50045-04-02 18:29 G	19999713.17	19999713.27	19999713.37	0.0520	0.0299
Mercury	50045-06-30 22:48 G	19999802.35	19999802.45	19999802.55	0.0518	0.0312
Earth	50047-01-29 03:36 G	20000379.45	20000379.65	20000379.87	0.0503	0.0228
Moon	50047-01-29 07:26 G	20000379.60	20000379.81	20000380.04	0.0503	0.0197 *
Venus	50047-12-14 17:17 G	20000699.03	20000699.22	20000699.41	0.0497	0.0178
Mercury	50051-08-19 15:50 G	20002042.99	20002043.16	20002043.33	0.0507	0.0215
Venus	50053-10-13 14:24 G	20002828.94	20002829.10	20002829.26	0.0528	0.0328
Mercury	50057-01-19 22:48 G	20004023.39	20004023.45	20004023.51	0.0521	0.0458
Mercury	50057-04-19 03:22 G	20004112.52	20004112.64	20004112.76	0.0519	0.0159
Moon	50059-02-02 14:24 G	20004766.99	20004767.10	20004767.22	0.0502	0.0436
Earth	50059-02-02 18:29 G	20004767.16	20004767.27	20004767.39	0.0502	0.0438 *
Venus	50059-08-19 19:12 G	20004965.10	20004965.30	20004965.49	0.0498	0.0131
Mercury	50063-06-07 12:00 G	20006352.81	20006353.00	20006353.19	0.0506	0.0009
Mercury	50069-02-05 07:41 G	20008422.69	20008422.82	20008422.95	0.0520	0.0004

Venus	50071-04-24 20:24 G	20009231.26	20009231.35	20009231.44	0.0499	0.0441
Mercury	50075-03-26 07:55 G	20010662.67	20010662.83	20010663.00	0.0506	0.0231
Moon	50076-07-17 10:48 G	20011141.85	20011141.95	20011142.07	0.0519	0.0450
Earth	50076-07-17 13:55 G	20011141.95	20011142.08	20011142.22	0.0519	0.0419 *
Venus	50077-10-16 13:12 G	20011597.88	20011598.05	20011598.23	0.0530	0.0262
Mercury	50080-11-24 12:29 G	20012732.90	20012733.02	20012733.14	0.0520	0.0149
Mercury	50081-02-21 16:34 G	20012822.14	20012822.19	20012822.25	0.0518	0.0459
Venus	50083-08-22 03:07 G	20013733.50	20013733.63	20013733.78	0.0496	0.0358
Mercury	50087-01-12 03:22 G	20014972.56	20014972.64	20014972.71	0.0506	0.0463
Mercury	50087-04-12 16:48 G	20015063.10	20015063.20	20015063.30	0.0508	0.0422
Earth	50088-07-22 08:10 G	20015529.62	20015529.84	20015530.05	0.0521	0.0193
Moon	50088-07-22 12:00 G	20015529.79	20015530.00	20015530.22	0.0521	0.0182 *
Venus	50089-06-21 05:17 G	20015863.52	20015863.72	20015863.92	0.0529	0.0113
Mercury	50092-09-12 17:17 G	20017043.12	20017043.22	20017043.32	0.0521	0.0295
Mercury	50092-12-10 21:36 G	20017132.30	20017132.40	20017132.50	0.0518	0.0317
Earth	50094-01-14 10:05 G	20017531.82	20017531.92	20017532.03	0.0507	0.0450
Moon	50094-01-14 10:34 G	20017531.82	20017531.94	20017532.07	0.0507	0.0432 *
Venus	50095-04-27 05:17 G	20017999.51	20017999.72	20017999.92	0.0497	0.0052
Mercury	50099-01-29 13:12 G	20019372.88	20019373.05	20019373.22	0.0508	0.0206
Moon	50100-07-28 01:55 G	20019917.35	20019917.58	20019917.82	0.0523	0.0082
Earth	50100-07-28 05:46 G	20019917.51	20019917.74	20019917.97	0.0523	0.0049 *
Venus	50101-02-24 21:50 G	20020129.33	20020129.41	20020129.48	0.0528	0.0483
Mercury	50104-07-02 21:36 G	20021353.34	20021353.40	20021353.46	0.0521	0.0453
Mercury	50104-09-30 02:10 G	20021442.47	20021442.59	20021442.71	0.0519	0.0163
Moon	50106-01-19 22:48 G	20021919.24	20021919.45	20021919.66	0.0505	0.0212
Earth	50106-01-20 01:12 G	20021919.35	20021919.55	20021919.76	0.0505	0.0235 *
Venus	50107-01-01 06:14 G	20022265.59	20022265.76	20022265.94	0.0498	0.0261
Mercury	50110-11-18 09:50 G	20023682.72	20023682.91	20023683.10	0.0507	0.0011
Earth	50112-08-02 02:38 G	20024305.43	20024305.61	20024305.81	0.0524	0.0288
Moon	50112-08-02 05:17 G	20024305.54	20024305.72	20024305.91	0.0524	0.0289 *

Venus	50113-06-25 07:55 G	20024632.76	20024632.83	20024632.90	0.0530	0.0492
Mars	50115-08-19 17:02 G	20025418.12	20025418.21	20025418.33	0.0527	0.0483
Mercury	50116-07-19 06:29 G	20025752.65	20025752.77	20025752.90	0.0519	0.0021
Earth	50118-01-24 17:02 G	20026306.97	20026307.21	20026307.44	0.0504	0.0019
Moon	50118-01-24 20:53 G	20026307.13	20026307.37	20026307.61	0.0504	0.0035 *
Mercury	50122-09-06 06:14 G	20027992.60	20027992.76	20027992.93	0.0506	0.0226
Moon	50124-08-06 21:07 G	20028693.30	20028693.38	20028693.47	0.0525	0.0490
Earth	50124-08-06 21:36 G	20028693.38	20028693.40	20028693.43	0.0525	0.0521 *
Venus	50125-02-27 21:07 G	20028898.18	20028898.38	20028898.58	0.0529	0.0107
Mercury	50128-05-07 10:48 G	20030062.83	20030062.95	20030063.08	0.0520	0.0151
Mercury	50128-08-04 15:07 G	20030152.08	20030152.13	20030152.19	0.0518	0.0458
Moon	50130-01-29 04:34 G	20030694.47	20030694.69	20030694.92	0.0503	0.0163
Earth	50130-01-29 08:38 G	20030694.65	20030694.86	20030695.08	0.0503	0.0196 *
Venus	50131-01-03 16:19 G	20031034.01	20031034.18	20031034.37	0.0497	0.0236
Mercury	50134-06-25 02:24 G	20032302.52	20032302.60	20032302.69	0.0505	0.0444
Mercury	50134-09-23 16:05 G	20032393.07	20032393.17	20032393.26	0.0508	0.0440
Venus	50136-11-02 12:29 G	20033163.85	20033164.02	20033164.19	0.0528	0.0270
Mercury	50140-02-24 15:36 G	20034373.05	20034373.15	20034373.26	0.0521	0.0300
Mercury	50140-05-23 19:55 G	20034462.24	20034462.33	20034462.43	0.0518	0.0314
Earth	50142-02-02 23:17 G	20035082.34	20035082.47	20035082.61	0.0502	0.0405
Moon	50142-02-03 02:38 G	20035082.48	20035082.61	20035082.74	0.0502	0.0411 *
Venus	50142-09-08 17:02 G	20035300.01	20035300.21	20035300.42	0.0497	0.0076
Mercury	50146-07-12 10:48 G	20036702.78	20036702.95	20036703.13	0.0507	0.0201
Mercury	50151-12-13 20:38 G	20038683.30	20038683.36	20038683.42	0.0521	0.0445
Mercury	50152-03-12 00:58 G	20038772.43	20038772.54	20038772.66	0.0519	0.0173
Venus	50154-05-14 18:58 G	20039566.17	20039566.29	20039566.42	0.0498	0.0384
Mercury	50158-04-30 07:26 G	20041012.63	20041012.81	20041013.00	0.0507	0.0016
Earth	50159-07-18 19:41 G	20041457.21	20041457.32	20041457.43	0.0520	0.0454
Moon	50159-07-18 23:31 G	20041457.40	20041457.48	20041457.57	0.0520	0.0481 *
Venus	50160-11-05 15:36 G	20041932.99	20041933.15	20041933.31	0.0530	0.0337

Mercury	50163-12-30 05:31 G	20043082.61	20043082.73	20043082.86	0.0519	0.0023
Venus	50166-09-11 02:24 G	20044068.49	20044068.60	20044068.71	0.0496	0.0413
Mars	50169-02-11 01:26 G	20044952.28	20044952.56	20044952.84	0.0498	0.0024
Mercury	50170-02-16 04:19 G	20045322.52	20045322.68	20045322.85	0.0506	0.0223
Moon	50171-07-23 12:29 G	20045844.81	20045845.02	20045845.24	0.0521	0.0210
Earth	50171-07-23 16:34 G	20045844.98	20045845.19	20045845.40	0.0521	0.0219 *
Venus	50172-07-11 07:12 G	20046198.60	20046198.80	20046199.00	0.0529	0.0040
Mercury	50175-10-18 10:05 G	20047392.80	20047392.92	20047393.04	0.0520	0.0136
Mercury	50176-01-15 14:10 G	20047482.04	20047482.09	20047482.14	0.0517	0.0471
Moon	50177-01-14 12:43 G	20047846.94	20047847.03	20047847.13	0.0507	0.0462
Earth	50177-01-14 14:53 G	20047847.06	20047847.12	20047847.19	0.0507	0.0483 *
Venus	50178-05-17 04:34 G	20048334.49	20048334.69	20048334.89	0.0497	0.0109
Mercury	50181-12-05 00:58 G	20049632.46	20049632.54	20049632.64	0.0506	0.0435
Mercury	50182-03-05 14:38 G	20049723.03	20049723.11	20049723.19	0.0508	0.0451
Earth	50183-07-28 11:17 G	20050232.74	20050232.97	20050233.20	0.0522	0.0013
Moon	50183-07-28 14:10 G	20050232.86	20050233.09	20050233.31	0.0522	0.0045 *
Venus	50184-03-15 21:22 G	20050464.27	20050464.39	20050464.52	0.0527	0.0417
Mercury	50187-08-06 14:24 G	20051703.00	20051703.10	20051703.20	0.0521	0.0296
Mercury	50187-11-03 18:43 G	20051792.18	20051792.28	20051792.38	0.0518	0.0317
Earth	50189-01-19 07:26 G	20052234.61	20052234.81	20052235.01	0.0506	0.0266
Moon	50189-01-19 11:02 G	20052234.76	20052234.96	20052235.18	0.0506	0.0243 *
Venus	50190-01-20 06:29 G	20052600.59	20052600.77	20052600.96	0.0498	0.0198
Mercury	50193-12-22 10:34 G	20054032.78	20054032.94	20054033.11	0.0507	0.0228
Moon	50195-08-02 06:14 G	20054620.55	20054620.76	20054620.98	0.0523	0.0245
Earth	50195-08-02 07:12 G	20054620.60	20054620.80	20054621.00	0.0523	0.0251 *
Mercury	50199-05-25 19:12 G	20056013.24	20056013.30	20056013.36	0.0521	0.0444
Mercury	50199-08-22 23:46 G	20056102.37	20056102.49	20056102.61	0.0519	0.0173
Moon	50201-01-24 20:38 G	20056622.13	20056622.36	20056622.59	0.0504	0.0064
Earth	50201-01-25 00:43 G	20056622.30	20056622.53	20056622.77	0.0504	0.0047 *
Mercury	50205-10-11 05:31 G	20058342.54	20058342.73	20058342.92	0.0507	0.0013

Moon	50207-08-08 01:12 G	20059008.45	20059008.55	20059008.66	0.0525	0.0461
Earth	50207-08-08 02:53 G	20059008.54	20059008.62	20059008.70	0.0525	0.0489 *
Venus	50208-03-19 22:48 G	20059233.26	20059233.45	20059233.64	0.0530	0.0179
Mercury	50211-06-12 04:48 G	20060412.57	20060412.70	20060412.82	0.0519	0.0031
Earth	50213-01-29 18:00 G	20061010.03	20061010.25	20061010.47	0.0503	0.0173
Moon	50213-01-29 21:22 G	20061010.17	20061010.39	20061010.62	0.0503	0.0147 *
Venus	50214-01-23 16:19 G	20061369.01	20061369.18	20061369.34	0.0496	0.0294
Mercury	50217-07-30 02:24 G	20062652.43	20062652.60	20062652.77	0.0506	0.0222
Venus	50219-11-23 15:22 G	20063498.95	20063499.14	20063499.33	0.0529	0.0192
Mercury	50223-03-31 09:22 G	20064722.77	20064722.89	20064723.01	0.0520	0.0122
Mercury	50223-06-28 13:26 G	20064812.02	20064812.06	20064812.10	0.0517	0.0484
Moon	50225-02-03 06:14 G	20065397.61	20065397.76	20065397.91	0.0502	0.0395
Earth	50225-02-03 08:10 G	20065397.69	20065397.84	20065397.99	0.0502	0.0384 *
Venus	50225-09-28 17:46 G	20065635.04	20065635.24	20065635.44	0.0497	0.0014
Mercury	50229-05-17 23:31 G	20066962.38	20066962.48	20066962.58	0.0506	0.0428
Mercury	50229-08-16 12:58 G	20067052.97	20067053.04	20067053.12	0.0508	0.0459
Mars	50234-02-08 02:38 G	20068689.43	20068689.61	20068689.78	0.0528	0.0403
Mercury	50235-01-17 13:55 G	20069032.97	20069033.08	20069033.18	0.0520	0.0277
Mercury	50235-04-16 18:14 G	20069122.16	20069122.26	20069122.35	0.0518	0.0335
Venus	50237-06-03 19:26 G	20069901.16	20069901.31	20069901.47	0.0498	0.0322
Mercury	50241-06-04 09:36 G	20071362.74	20071362.90	20071363.07	0.0507	0.0242
Moon	50242-07-19 00:43 G	20071772.50	20071772.53	20071772.57	0.0519	0.0511
Earth	50242-07-19 04:34 G	20071772.62	20071772.69	20071772.78	0.0519	0.0482
Venus	50243-11-26 16:34 G	20072268.07	20072268.19	20072268.33	0.0530	0.0407
Mercury	50246-11-05 18:00 G	20073343.19	20073343.25	20073343.32	0.0521	0.0437
Mercury	50247-02-02 22:34 G	20073432.32	20073432.44	20073432.56	0.0519	0.0180
Venus	50249-10-01 03:50 G	20074403.61	20074403.66	20074403.71	0.0496	0.0478
Mercury	50253-03-23 05:46 G	20075672.56	20075672.74	20075672.93	0.0507	0.0024
Earth	50254-07-23 23:17 G	20076160.27	20076160.47	20076160.68	0.0520	0.0251
Moon	50254-07-24 02:38 G	20076160.41	20076160.61	20076160.81	0.0520	0.0238 *

Venus	50255-08-01 08:10 G	20076533.64	20076533.84	20076534.04	0.0529	0.0031
Mercury	50258-11-22 03:36 G	20077742.52	20077742.65	20077742.78	0.0519	0.0036
Moon	50260-01-16 04:19 G	20078162.61	20078162.68	20078162.77	0.0507	0.0477
Venus	50261-06-06 05:31 G	20078669.54	20078669.73	20078669.92	0.0496	0.0173
Mercury	50265-01-09 00:43 G	20079982.36	20079982.53	20079982.70	0.0506	0.0216
Moon	50266-07-28 15:22 G	20080547.90	20080548.14	20080548.38	0.0522	0.0008
Earth	50266-07-28 16:48 G	20080547.97	20080548.20	20080548.43	0.0522	0.0020 *
Venus	50267-04-05 23:02 G	20080799.31	20080799.46	20080799.61	0.0528	0.0346
Mercury	50270-09-10 08:38 G	20082052.74	20082052.86	20082052.99	0.0520	0.0107
Mercury	50270-12-08 12:43 G	20082142.01	20082142.03	20082142.06	0.0517	0.0501
Moon	50272-01-20 16:05 G	20082549.97	20082550.17	20082550.37	0.0506	0.0261
Earth	50272-01-20 20:10 G	20082550.14	20082550.34	20082550.53	0.0506	0.0283 *
Venus	50273-02-09 08:24 G	20082935.65	20082935.85	20082936.04	0.0497	0.0131
Mercury	50276-10-27 21:36 G	20084292.31	20084292.40	20084292.50	0.0506	0.0424
Mercury	50277-01-26 11:17 G	20084382.89	20084382.97	20084383.04	0.0508	0.0463
Moon	50278-08-02 14:38 G	20084935.91	20084936.11	20084936.31	0.0524	0.0212
Earth	50278-08-02 15:50 G	20084935.95	20084936.16	20084936.37	0.0524	0.0227 *
Mercury	50282-06-29 13:12 G	20086362.94	20086363.05	20086363.16	0.0520	0.0259
Mercury	50282-09-26 17:31 G	20086452.14	20086452.23	20086452.32	0.0518	0.0352
Earth	50284-01-25 11:31 G	20086937.75	20086937.98	20086938.21	0.0504	0.0065
Moon	50284-01-25 15:07 G	20086937.90	20086938.13	20086938.36	0.0504	0.0085 *
Venus	50284-10-15 09:22 G	20087201.80	20087201.89	20087201.98	0.0499	0.0441
Mercury	50288-11-14 08:10 G	20088692.68	20088692.84	20088693.00	0.0508	0.0252
Earth	50290-08-07 15:07 G	20089324.03	20089324.13	20089324.22	0.0525	0.0473
Moon	50290-08-07 18:00 G	20089324.13	20089324.25	20089324.38	0.0525	0.0443 *
Venus	50291-04-09 03:07 G	20089568.46	20089568.63	20089568.81	0.0530	0.0263
Mercury	50294-04-17 17:46 G	20090673.17	20090673.24	20090673.32	0.0521	0.0414
Mercury	50294-07-15 22:05 G	20090762.31	20090762.42	20090762.54	0.0518	0.0202
Moon	50296-01-30 00:58 G	20091325.30	20091325.54	20091325.78	0.0503	0.0129
Earth	50296-01-30 03:07 G	20091325.41	20091325.63	20091325.86	0.0503	0.0152 *

Venus	50297-02-11 17:31 G	20091704.10	20091704.23	20091704.38	0.0496	0.0358
Mercury	50300-09-03 05:02 G	20093002.52	20093002.71	20093002.89	0.0507	0.0040
Venus	50302-12-13 18:00 G	20093834.05	20093834.25	20093834.45	0.0528	0.0115
Mercury	50306-05-05 02:38 G	20095072.48	20095072.61	20095072.73	0.0519	0.0046
Earth	50308-02-04 18:29 G	20095713.11	20095713.27	20095713.43	0.0502	0.0364
Moon	50308-02-04 18:29 G	20095713.13	20095713.27	20095713.42	0.0502	0.0386 *
Venus	50308-10-18 19:55 G	20095970.13	20095970.33	20095970.53	0.0497	0.0055
Mercury	50312-06-22 01:12 G	20097312.38	20097312.55	20097312.73	0.0506	0.0179
Venus	50314-08-18 09:36 G	20098099.83	20098099.90	20098099.98	0.0527	0.0486
Mercury	50318-02-21 07:26 G	20099382.69	20099382.81	20099382.94	0.0520	0.0101
Mercury	50318-05-21 11:46 G	20099471.97	20099471.99	20099472.01	0.0517	0.0508
Venus	50320-06-23 21:50 G	20100236.24	20100236.41	20100236.59	0.0498	0.0251
Mars	50323-05-10 09:07 G	20101286.73	20101286.88	20101287.06	0.0498	0.0400
Mercury	50324-04-09 20:10 G	20101622.24	20101622.34	20101622.45	0.0506	0.0415
Mercury	50324-07-09 09:50 G	20101712.84	20101712.91	20101712.98	0.0508	0.0472
Earth	50325-07-19 09:50 G	20102087.89	20102087.91	20102087.94	0.0519	0.0515
Venus	50326-12-16 19:12 G	20102603.22	20102603.30	20102603.39	0.0531	0.0481
Mercury	50329-12-10 12:29 G	20103692.91	20103693.02	20103693.14	0.0521	0.0243
Mercury	50330-03-09 16:48 G	20103782.12	20103782.20	20103782.29	0.0518	0.0370
Mercury	50336-04-27 06:29 G	20106022.61	20106022.77	20106022.93	0.0508	0.0258
Moon	50337-07-24 05:46 G	20106475.54	20106475.74	20106475.95	0.0521	0.0262
Earth	50337-07-24 07:26 G	20106475.62	20106475.81	20106476.01	0.0521	0.0278 *
Venus	50338-08-21 11:46 G	20106868.80	20106868.99	20106869.19	0.0530	0.0111
Mercury	50341-09-28 17:17 G	20108003.14	20108003.22	20108003.30	0.0521	0.0396
Mercury	50341-12-26 21:36 G	20108092.29	20108092.40	20108092.52	0.0518	0.0220
Moon	50343-01-16 09:07 G	20108477.84	20108477.88	20108477.93	0.0507	0.0496
Venus	50344-06-26 07:55 G	20109004.66	20109004.83	20109005.01	0.0496	0.0241
Mercury	50348-02-14 03:36 G	20110332.46	20110332.65	20110332.83	0.0507	0.0049
Moon	50349-07-29 05:17 G	20110863.50	20110863.72	20110863.94	0.0522	0.0015
Earth	50349-07-29 06:14 G	20110863.53	20110863.76	20110863.99	0.0522	0.0036 *

Venus	50350-04-26 04:19 G	20111134.51	20111134.68	20111134.86	0.0528	0.0260
Mercury	50353-10-15 02:10 G	20112402.47	20112402.59	20112402.72	0.0519	0.0070
Earth	50355-01-21 05:31 G	20112865.55	20112865.73	20112865.92	0.0506	0.0305
Moon	50355-01-21 09:22 G	20112865.70	20112865.89	20112866.08	0.0506	0.0288 *
Venus	50356-03-01 10:05 G	20113270.72	20113270.92	20113271.12	0.0497	0.0065
Mercury	50359-12-03 00:29 G	20114642.34	20114642.52	20114642.70	0.0506	0.0162
Earth	50361-08-03 02:38 G	20115251.40	20115251.61	20115251.83	0.0523	0.0205
Moon	50361-08-03 05:31 G	20115251.51	20115251.73	20115251.96	0.0523	0.0182 *
Mercury	50365-08-03 06:43 G	20116712.65	20116712.78	20116712.90	0.0520	0.0089
Moon	50367-01-25 19:26 G	20117253.08	20117253.31	20117253.55	0.0505	0.0111
Earth	50367-01-25 21:50 G	20117253.18	20117253.41	20117253.65	0.0505	0.0087 *
Venus	50367-11-05 11:46 G	20117536.86	20117536.99	20117537.13	0.0499	0.0371
Mercury	50371-09-20 20:53 G	20118952.25	20118952.37	20118952.50	0.0506	0.0377
Moon	50373-08-07 19:41 G	20119639.19	20119639.32	20119639.46	0.0525	0.0416
Earth	50373-08-07 23:31 G	20119639.36	20119639.48	20119639.60	0.0525	0.0446 *
Venus	50374-04-29 05:31 G	20119903.58	20119903.73	20119903.89	0.0530	0.0336
Mercury	50377-05-22 11:31 G	20121022.87	20121022.98	20121023.09	0.0521	0.0235
Mercury	50377-08-19 15:50 G	20121112.08	20121112.16	20121112.25	0.0518	0.0377
Earth	50379-01-30 15:36 G	20121640.93	20121641.15	20121641.38	0.0503	0.0137
Moon	50379-01-30 15:50 G	20121640.94	20121641.16	20121641.38	0.0503	0.0122 *
Venus	50380-03-03 19:55 G	20122039.24	20122039.33	20122039.44	0.0496	0.0426
Mercury	50383-10-08 05:02 G	20123352.56	20123352.71	20123352.87	0.0507	0.0268
Venus	50386-01-01 19:41 G	20124169.11	20124169.32	20124169.52	0.0529	0.0046
Mars	50388-05-06 06:58 G	20125024.53	20125024.79	20125025.05	0.0529	0.0159
Mercury	50389-03-10 16:34 G	20125333.10	20125333.19	20125333.27	0.0521	0.0380
Mercury	50389-06-07 20:53 G	20125422.26	20125422.37	20125422.49	0.0519	0.0238
Earth	50391-02-04 09:07 G	20126028.72	20126028.88	20126029.05	0.0502	0.0354
Moon	50391-02-04 10:34 G	20126028.79	20126028.94	20126029.11	0.0502	0.0380 *
Venus	50391-11-07 23:02 G	20126305.27	20126305.46	20126305.66	0.0496	0.0127
Mercury	50395-07-27 01:55 G	20127662.39	20127662.58	20127662.76	0.0507	0.0055

Venus	50397-09-06 12:29 G	20128434.90	20128435.02	20128435.15	0.0528	0.0412
Mercury	50401-03-27 01:41 G	20129732.45	20129732.57	20129732.69	0.0519	0.0087
Venus	50403-07-14 00:29 G	20130571.33	20130571.52	20130571.71	0.0498	0.0182
Mercury	50407-05-14 23:02 G	20131972.28	20131972.46	20131972.64	0.0507	0.0153
Mercury	50413-01-13 06:14 G	20134042.64	20134042.76	20134042.89	0.0520	0.0066
Venus	50415-03-19 01:41 G	20134837.54	20134837.57	20134837.61	0.0499	0.0490
Mercury	50419-03-02 19:55 G	20136282.20	20136282.33	20136282.46	0.0506	0.0362
Moon	50420-07-23 18:58 G	20136791.11	20136791.29	20136791.48	0.0520	0.0276
Earth	50420-07-23 19:26 G	20136791.13	20136791.31	20136791.51	0.0520	0.0299 *
Venus	50421-09-09 15:07 G	20137203.95	20137204.13	20137204.32	0.0530	0.0189
Mercury	50424-11-01 10:34 G	20138352.83	20138352.94	20138353.06	0.0520	0.0224
Mercury	50425-01-29 14:53 G	20138442.04	20138442.12	20138442.20	0.0518	0.0387
Venus	50427-07-16 10:19 G	20139339.77	20139339.93	20139340.09	0.0496	0.0308
Mercury	50431-03-20 05:31 G	20140682.59	20140682.73	20140682.88	0.0508	0.0306
Earth	50432-07-28 14:53 G	20141178.89	20141179.12	20141179.35	0.0522	0.0062
Moon	50432-07-28 17:31 G	20141178.99	20141179.23	20141179.47	0.0522	0.0044 *
Venus	50433-05-15 06:29 G	20141469.58	20141469.77	20141469.96	0.0528	0.0186
Mercury	50436-08-20 15:22 G	20142663.05	20142663.14	20142663.23	0.0521	0.0373
Mercury	50436-11-17 19:55 G	20142752.22	20142752.33	20142752.44	0.0519	0.0244
Moon	50438-01-20 15:22 G	20143180.95	20143181.14	20143181.33	0.0506	0.0313
Earth	50438-01-20 18:00 G	20143181.07	20143181.25	20143181.43	0.0506	0.0323 *
Venus	50439-03-21 12:43 G	20143605.83	20143606.03	20143606.24	0.0497	0.0013
Mars	50441-10-29 14:38 G	20144558.89	20144559.11	20144559.33	0.0497	0.0302
Mercury	50443-01-06 00:29 G	20144992.33	20144992.52	20144992.70	0.0507	0.0064
Moon	50444-08-02 03:22 G	20145566.43	20145566.64	20145566.86	0.0523	0.0148
Earth	50444-08-02 06:58 G	20145566.57	20145566.79	20145567.01	0.0523	0.0171 *
Mercury	50448-06-08 20:10 G	20146973.34	20146973.34	20146973.35	0.0522	0.0521
Mercury	50448-09-06 00:58 G	20147062.41	20147062.54	20147062.66	0.0520	0.0101
Earth	50450-01-25 12:43 G	20147568.80	20147569.03	20147569.26	0.0505	0.0097
Moon	50450-01-25 12:58 G	20147568.82	20147569.04	20147569.26	0.0505	0.0127 *

Venus	50450-11-24 15:22 G	20147871.98	20147872.14	20147872.31	0.0498	0.0297
Mercury	50454-10-24 21:07 G	20149302.20	20149302.38	20149302.56	0.0506	0.0149
Earth	50456-08-07 05:46 G	20149954.61	20149954.74	20149954.89	0.0525	0.0420
Moon	50456-08-07 09:50 G	20149954.76	20149954.91	20149955.06	0.0525	0.0395 *
Venus	50457-05-18 08:10 G	20150238.71	20150238.84	20150238.97	0.0531	0.0409
Mercury	50460-06-25 05:31 G	20151372.61	20151372.73	20151372.86	0.0520	0.0051
Earth	50462-01-30 03:22 G	20151956.42	20151956.64	20151956.87	0.0503	0.0120
Moon	50462-01-30 05:02 G	20151956.47	20151956.71	20151956.95	0.0503	0.0109 *
Venus	50463-03-23 22:05 G	20152374.40	20152374.42	20152374.45	0.0495	0.0489
Mercury	50466-08-12 18:14 G	20153612.13	20153612.26	20153612.39	0.0506	0.0356
Venus	50469-01-21 00:29 G	20154504.32	20154504.52	20154504.72	0.0530	0.0039
Mercury	50472-04-13 10:05 G	20155682.81	20155682.92	20155683.04	0.0520	0.0204
Mercury	50472-07-11 14:24 G	20155772.02	20155772.10	20155772.18	0.0518	0.0406
Moon	50474-02-03 15:50 G	20156344.00	20156344.16	20156344.32	0.0502	0.0361
Earth	50474-02-03 18:14 G	20156344.09	20156344.26	20156344.44	0.0502	0.0334 *
Venus	50474-11-27 00:14 G	20156640.32	20156640.51	20156640.70	0.0496	0.0189
Mercury	50478-08-30 04:34 G	20158012.54	20158012.69	20158012.83	0.0508	0.0318
Venus	50480-09-25 15:36 G	20158770.00	20158770.15	20158770.31	0.0528	0.0333
Mercury	50484-01-31 14:24 G	20159993.01	20159993.10	20159993.19	0.0521	0.0365
Mercury	50484-04-29 18:43 G	20160082.17	20160082.28	20160082.39	0.0519	0.0252
Venus	50486-08-02 01:55 G	20160906.39	20160906.58	20160906.78	0.0498	0.0117
Mercury	50490-06-18 00:43 G	20162322.35	20162322.53	20162322.71	0.0507	0.0097
Mercury	50495-11-19 18:58 G	20164303.28	20164303.29	20164303.31	0.0522	0.0516
Mercury	50496-02-16 23:46 G	20164392.36	20164392.49	20164392.61	0.0519	0.0106
Venus	50498-04-07 04:19 G	20165172.57	20165172.68	20165172.79	0.0499	0.0420
Mercury	50502-04-06 19:41 G	20166632.14	20166632.32	20166632.50	0.0506	0.0142
Earth	50503-07-24 21:50 G	20167106.25	20167106.41	20167106.59	0.0520	0.0338
Moon	50503-07-25 00:14 G	20167106.32	20167106.51	20167106.70	0.0520	0.0307 *
Venus	50504-09-29 14:38 G	20167538.93	20167539.11	20167539.29	0.0530	0.0249
Mercury	50507-12-07 04:34 G	20168702.57	20168702.69	20168702.82	0.0520	0.0042

Venus	50510-08-05 12:58 G	20169674.91	20169675.04	20169675.17	0.0496	0.0375
Mercury	50514-01-23 16:19 G	20170942.05	20170942.18	20170942.31	0.0505	0.0354
Moon	50515-07-29 15:36 G	20171493.93	20171494.15	20171494.38	0.0522	0.0080
Earth	50515-07-29 19:12 G	20171494.07	20171494.30	20171494.52	0.0522	0.0096 *
Venus	50516-06-04 07:12 G	20171804.60	20171804.80	20171804.99	0.0529	0.0122
Mercury	50519-09-25 09:07 G	20173012.77	20173012.88	20173013.00	0.0521	0.0195
Mercury	50519-12-23 13:26 G	20173101.99	20173102.06	20173102.14	0.0518	0.0418
Earth	50521-01-21 04:05 G	20173496.51	20173496.67	20173496.85	0.0506	0.0345
Moon	50521-01-21 04:34 G	20173496.53	20173496.69	20173496.86	0.0506	0.0348 *
Venus	50522-04-10 13:55 G	20173940.88	20173941.08	20173941.29	0.0497	0.0070
Mercury	50526-02-10 02:24 G	20175342.46	20175342.60	20175342.75	0.0508	0.0319
Earth	50527-08-03 17:46 G	20175882.02	20175882.24	20175882.47	0.0523	0.0151
Moon	50527-08-03 21:50 G	20175882.18	20175882.41	20175882.63	0.0523	0.0125 *
Venus	50528-02-08 00:00 G	20176070.43	20176070.50	20176070.58	0.0528	0.0484
Mercury	50531-07-14 13:41 G	20177322.98	20177323.07	20177323.17	0.0521	0.0348
Mercury	50531-10-11 18:14 G	20177412.15	20177412.26	20177412.36	0.0518	0.0268
Earth	50533-01-25 19:55 G	20177884.11	20177884.33	20177884.56	0.0505	0.0124
Moon	50533-01-25 21:22 G	20177884.16	20177884.39	20177884.62	0.0505	0.0155 *
Venus	50533-12-14 15:36 G	20178206.97	20178207.15	20178207.33	0.0498	0.0237
Mercury	50537-11-28 23:02 G	20179652.28	20179652.46	20179652.65	0.0507	0.0105
Moon	50539-08-08 11:46 G	20180269.84	20180269.99	20180270.16	0.0524	0.0375
Earth	50539-08-08 15:07 G	20180269.99	20180270.13	20180270.29	0.0524	0.0394 *
Venus	50540-06-07 10:05 G	20180573.85	20180573.92	20180574.01	0.0531	0.0482
Mercury	50543-05-02 17:46 G	20181633.22	20181633.24	20181633.27	0.0522	0.0511
Mercury	50543-07-30 22:34 G	20181722.31	20181722.44	20181722.56	0.0519	0.0111
Moon	50545-01-30 08:10 G	20182271.61	20182271.84	20182272.06	0.0504	0.0085
Earth	50545-01-30 10:34 G	20182271.71	20182271.94	20182272.18	0.0504	0.0094 *
Mercury	50549-09-16 19:26 G	20183962.13	20183962.31	20183962.49	0.0506	0.0115
Venus	50552-02-11 00:43 G	20184839.33	20184839.53	20184839.73	0.0529	0.0104
Mercury	50555-05-19 03:07 G	20186032.51	20186032.63	20186032.76	0.0520	0.0043

Earth	50557-02-04 03:50 G	20186659.48	20186659.66	20186659.85	0.0503	0.0315
Moon	50557-02-04 07:26 G	20186659.64	20186659.81	20186659.99	0.0503	0.0345 *
Venus	50557-12-17 01:41 G	20186975.39	20186975.57	20186975.75	0.0496	0.0251
Mercury	50561-07-05 14:24 G	20188271.97	20188272.10	20188272.24	0.0505	0.0350
Venus	50563-10-16 13:12 G	20189104.88	20189105.05	20189105.23	0.0528	0.0281
Mercury	50567-03-07 07:55 G	20190342.71	20190342.83	20190342.95	0.0521	0.0190
Mercury	50567-06-04 12:14 G	20190431.94	20190432.01	20190432.08	0.0518	0.0424
Venus	50569-08-22 04:05 G	20191241.47	20191241.67	20191241.87	0.0497	0.0049
Mercury	50573-07-23 00:00 G	20192672.36	20192672.50	20192672.65	0.0507	0.0315
Mercury	50578-12-24 12:29 G	20194652.93	20194653.02	20194653.12	0.0521	0.0344
Mercury	50579-03-23 17:02 G	20194742.10	20194742.21	20194742.31	0.0519	0.0273
Venus	50581-04-27 04:19 G	20195507.54	20195507.68	20195507.82	0.0498	0.0359
Mercury	50585-05-10 20:38 G	20196982.18	20196982.36	20196982.55	0.0507	0.0101
Moon	50586-07-24 03:50 G	20197421.48	20197421.66	20197421.83	0.0520	0.0334
Earth	50586-07-24 06:58 G	20197421.63	20197421.79	20197421.96	0.0520	0.0365 *
Venus	50587-10-19 17:17 G	20197874.07	20197874.22	20197874.39	0.0530	0.0324
Mercury	50590-10-12 17:02 G	20198963.17	20198963.21	20198963.24	0.0522	0.0500
Mercury	50591-01-09 21:36 G	20199052.28	20199052.40	20199052.52	0.0519	0.0121
Venus	50593-08-24 11:31 G	20200009.88	20200009.98	20200010.09	0.0496	0.0427
Mars	50596-01-25 01:41 G	20200893.30	20200893.57	20200893.84	0.0497	0.0136
Mercury	50597-02-26 17:31 G	20201292.05	20201292.23	20201292.41	0.0506	0.0114
Earth	50598-07-29 02:53 G	20201809.40	20201809.62	20201809.85	0.0521	0.0126
Moon	50598-07-29 06:58 G	20201809.56	20201809.79	20201810.01	0.0521	0.0111 *
Venus	50599-06-24 08:24 G	20202139.65	20202139.85	20202140.05	0.0529	0.0051
Mercury	50602-10-30 01:55 G	20203362.45	20203362.58	20203362.70	0.0520	0.0041
Earth	50604-01-22 08:10 G	20203811.69	20203811.84	20203812.00	0.0507	0.0380
Moon	50604-01-22 09:22 G	20203811.73	20203811.89	20203812.05	0.0507	0.0384 *
Venus	50605-04-30 13:12 G	20204275.85	20204276.05	20204276.24	0.0497	0.0125
Mercury	50608-12-16 13:41 G	20205601.94	20205602.07	20205602.22	0.0505	0.0332
Moon	50610-08-03 18:14 G	20206197.03	20206197.26	20206197.50	0.0522	0.0087

Earth	50610-08-03 21:50 G	20206197.19	20206197.41	20206197.64	0.0522	0.0114	*
Venus	50611-02-27 23:02 G	20206405.34	20206405.46	20206405.58	0.0527	0.0423	
Mercury	50614-08-18 06:29 G	20207672.65	20207672.77	20207672.89	0.0521	0.0192	
Mercury	50614-11-15 10:48 G	20207761.88	20207761.95	20207762.02	0.0518	0.0421	
Moon	50616-01-27 00:00 G	20208199.29	20208199.50	20208199.71	0.0506	0.0186	
Earth	50616-01-27 02:24 G	20208199.38	20208199.60	20208199.82	0.0506	0.0153	*
Venus	50617-01-03 15:36 G	20208541.96	20208542.15	20208542.34	0.0498	0.0178	
Mercury	50621-01-02 21:50 G	20210002.27	20210002.41	20210002.56	0.0507	0.0314	
Earth	50622-08-08 12:58 G	20210584.87	20210585.04	20210585.21	0.0524	0.0347	
Moon	50622-08-08 14:53 G	20210584.95	20210585.12	20210585.30	0.0524	0.0335	*
Venus	50623-06-28 06:29 G	20210908.75	20210908.77	20210908.80	0.0531	0.0527	
Mercury	50626-06-06 11:02 G	20211982.87	20211982.96	20211983.05	0.0522	0.0346	
Mercury	50626-09-03 15:36 G	20212072.04	20212072.15	20212072.25	0.0519	0.0273	
Earth	50628-01-31 19:41 G	20212587.08	20212587.32	20212587.55	0.0504	0.0071	
Moon	50628-01-31 23:17 G	20212587.23	20212587.47	20212587.70	0.0504	0.0070	*
Venus	50628-09-08 17:17 G	20212808.17	20212808.22	20212808.27	0.0499	0.0482	
Mercury	50632-10-21 18:14 G	20214312.07	20214312.26	20214312.44	0.0506	0.0093	
Venus	50635-03-02 21:50 G	20215174.22	20215174.41	20215174.61	0.0530	0.0155	
Mercury	50638-03-25 15:36 G	20216293.12	20216293.15	20216293.18	0.0522	0.0503	
Mercury	50638-06-22 20:10 G	20216382.22	20216382.34	20216382.46	0.0520	0.0120	
Moon	50640-02-05 05:17 G	20216974.54	20216974.72	20216974.91	0.0503	0.0313	
Earth	50640-02-05 09:07 G	20216974.69	20216974.88	20216975.08	0.0503	0.0283	*
Venus	50641-01-06 00:00 G	20217310.34	20217310.50	20217310.66	0.0496	0.0303	
Mercury	50644-08-09 14:38 G	20218621.93	20218622.11	20218622.30	0.0506	0.0125	
Venus	50646-11-05 14:24 G	20219439.92	20219440.10	20219440.29	0.0529	0.0212	
Mercury	50650-04-11 00:43 G	20220692.40	20220692.53	20220692.66	0.0520	0.0033	
Earth	50652-02-09 22:48 G	20221362.43	20221362.45	20221362.48	0.0501	0.0497	
Venus	50652-09-11 01:12 G	20221576.35	20221576.55	20221576.76	0.0497	0.0003	
Mercury	50656-05-28 11:17 G	20222931.84	20222931.97	20222932.11	0.0506	0.0337	
Mars	50661-01-20 13:55 G	20224629.87	20224630.08	20224630.31	0.0530	0.0314	

Mercury	50662-01-28 04:48 G	20225002.58	20225002.70	20225002.82	0.0521	0.0196
Mercury	50662-04-27 09:07 G	20225091.81	20225091.88	20225091.96	0.0518	0.0417
Venus	50664-05-17 01:55 G	20225842.42	20225842.58	20225842.74	0.0498	0.0310
Mercury	50668-06-14 20:38 G	20227332.22	20227332.36	20227332.51	0.0507	0.0326
Earth	50669-07-24 09:22 G	20227736.75	20227736.89	20227737.04	0.0519	0.0405
Moon	50669-07-24 13:12 G	20227736.89	20227737.05	20227737.22	0.0519	0.0371 *
Venus	50670-11-08 14:53 G	20228208.98	20228209.12	20228209.26	0.0530	0.0376
Mercury	50673-11-16 09:22 G	20229312.80	20229312.89	20229312.98	0.0522	0.0352
Mercury	50674-02-13 13:55 G	20229401.97	20229402.08	20229402.18	0.0519	0.0267
Venus	50676-09-13 10:19 G	20230344.88	20230344.93	20230344.98	0.0496	0.0478
Mercury	50680-04-02 15:50 G	20231641.98	20231642.16	20231642.35	0.0506	0.0088
Moon	50681-07-28 19:41 G	20232124.10	20232124.32	20232124.54	0.0520	0.0166
Earth	50681-07-28 23:31 G	20232124.26	20232124.48	20232124.69	0.0520	0.0179 *
Venus	50682-07-14 02:53 G	20232474.42	20232474.62	20232474.82	0.0529	0.0011
Mercury	50685-09-04 13:41 G	20233623.05	20233623.07	20233623.09	0.0523	0.0511
Mercury	50685-12-02 18:29 G	20233712.14	20233712.27	20233712.39	0.0520	0.0115
Moon	50687-01-21 11:31 G	20234126.86	20234126.98	20234127.11	0.0508	0.0423
Earth	50687-01-21 13:41 G	20234126.94	20234127.07	20234127.21	0.0508	0.0414 *
Venus	50688-05-19 12:29 G	20234610.83	20234611.02	20234611.21	0.0497	0.0180
Mercury	50692-01-20 12:00 G	20235951.82	20235952.00	20235952.18	0.0505	0.0133
Earth	50693-08-02 18:43 G	20236512.05	20236512.28	20236512.51	0.0522	0.0063
Moon	50693-08-02 21:07 G	20236512.16	20236512.38	20236512.61	0.0522	0.0035 *
Venus	50694-03-18 18:14 G	20236740.13	20236740.26	20236740.41	0.0528	0.0380
Mercury	50697-09-20 23:02 G	20238022.33	20238022.46	20238022.58	0.0520	0.0045
Earth	50699-01-26 04:34 G	20238514.48	20238514.69	20238514.91	0.0506	0.0194
Moon	50699-01-26 07:55 G	20238514.62	20238514.83	20238515.05	0.0506	0.0224 *
Venus	50700-01-23 12:29 G	20238876.83	20238877.02	20238877.22	0.0498	0.0130
Mercury	50703-11-09 08:10 G	20240261.71	20240261.84	20240261.98	0.0505	0.0352
Moon	50705-08-08 16:05 G	20240899.97	20240900.17	20240900.37	0.0524	0.0298
Earth	50705-08-08 16:48 G	20240900.02	20240900.20	20240900.39	0.0524	0.0309 *

Mercury	50709-07-11 03:22 G	20242332.53	20242332.64	20242332.76	0.0521	0.0195
Mercury	50709-10-08 07:41 G	20242421.75	20242421.82	20242421.90	0.0518	0.0419
Moon	50711-01-31 16:05 G	20242901.94	20242902.17	20242902.41	0.0504	0.0031
Earth	50711-01-31 19:55 G	20242902.10	20242902.33	20242902.57	0.0504	0.0028 *
Venus	50711-09-29 13:12 G	20243142.95	20243143.05	20243143.15	0.0499	0.0437
Mercury	50715-11-26 18:00 G	20244662.10	20244662.25	20244662.40	0.0507	0.0315
Venus	50718-03-22 20:53 G	20245509.19	20245509.37	20245509.56	0.0530	0.0214
Mercury	50721-04-29 07:26 G	20246642.72	20246642.81	20246642.90	0.0521	0.0359
Mercury	50721-07-27 12:00 G	20246731.89	20246732.00	20246732.11	0.0519	0.0260
Earth	50723-02-05 09:07 G	20247289.68	20247289.88	20247290.09	0.0503	0.0244
Moon	50723-02-05 12:29 G	20247289.82	20247290.02	20247290.21	0.0503	0.0277 *
Venus	50724-01-26 20:24 G	20247645.20	20247645.35	20247645.49	0.0496	0.0347
Mercury	50727-09-14 14:10 G	20248971.90	20248972.09	20248972.27	0.0506	0.0093
Venus	50729-11-25 11:02 G	20249774.77	20249774.96	20249775.16	0.0528	0.0162
Mercury	50733-02-15 11:46 G	20250952.98	20250952.99	20250953.01	0.0522	0.0518
Mercury	50733-05-15 16:34 G	20251042.07	20251042.19	20251042.31	0.0520	0.0106
Moon	50735-02-09 22:48 G	20251677.36	20251677.45	20251677.54	0.0502	0.0465
Earth	50735-02-10 00:58 G	20251677.45	20251677.54	20251677.63	0.0502	0.0464 *
Venus	50735-10-01 22:34 G	20251911.24	20251911.44	20251911.65	0.0497	0.0047
Mercury	50739-07-03 09:22 G	20253281.71	20253281.89	20253282.07	0.0505	0.0142
Mercury	50745-03-03 20:53 G	20255352.25	20255352.37	20255352.50	0.0521	0.0055
Venus	50747-06-07 00:00 G	20256177.33	20256177.50	20256177.68	0.0498	0.0258
Mars	50750-04-21 13:55 G	20257226.99	20257227.08	20257227.17	0.0497	0.0469
Mercury	50751-04-21 05:31 G	20257591.60	20257591.73	20257591.86	0.0505	0.0361
Moon	50752-07-24 01:41 G	20258051.45	20258051.57	20258051.70	0.0518	0.0430
Earth	50752-07-24 05:31 G	20258051.63	20258051.73	20258051.84	0.0518	0.0460 *
Venus	50753-11-28 09:22 G	20258543.76	20258543.89	20258544.01	0.0530	0.0414
Mercury	50756-12-21 01:26 G	20259662.45	20259662.56	20259662.68	0.0521	0.0208
Mercury	50757-03-20 06:00 G	20259751.67	20259751.75	20259751.82	0.0519	0.0408
Mercury	50763-05-08 14:38 G	20261991.96	20261992.11	20261992.26	0.0507	0.0295

Earth	50764-07-29 00:58 G	20262439.34	20262439.54	20262439.75	0.0520	0.0223
Moon	50764-07-29 04:05 G	20262439.46	20262439.67	20262439.87	0.0520	0.0219 *
Venus	50765-08-03 01:26 G	20262809.36	20262809.56	20262809.77	0.0529	0.0049
Mercury	50768-10-09 06:00 G	20263972.66	20263972.75	20263972.84	0.0522	0.0362
Mercury	50769-01-06 10:34 G	20264061.83	20264061.94	20264062.05	0.0519	0.0257
Earth	50770-01-21 12:14 G	20264441.92	20264442.01	20264442.11	0.0508	0.0462
Moon	50770-01-21 15:22 G	20264442.06	20264442.14	20264442.23	0.0508	0.0470 *
Venus	50771-06-09 07:12 G	20264945.62	20264945.80	20264945.98	0.0496	0.0218
Mercury	50775-02-24 11:02 G	20266301.77	20266301.96	20266302.14	0.0506	0.0077
Moon	50776-08-02 19:55 G	20266827.09	20266827.33	20266827.57	0.0522	0.0013
Earth	50776-08-02 21:07 G	20266827.15	20266827.38	20266827.61	0.0522	0.0021 *
Venus	50777-04-07 16:48 G	20267075.04	20267075.20	20267075.36	0.0528	0.0321
Mercury	50780-10-25 14:38 G	20268371.99	20268372.11	20268372.24	0.0520	0.0097
Moon	50782-01-25 23:02 G	20268829.26	20268829.46	20268829.66	0.0506	0.0271
Earth	50782-01-26 02:38 G	20268829.41	20268829.61	20268829.82	0.0506	0.0240 *
Venus	50783-02-12 07:55 G	20269211.63	20269211.83	20269212.03	0.0498	0.0088
Mercury	50786-12-13 07:12 G	20270611.62	20270611.80	20270611.98	0.0506	0.0143
Moon	50788-08-07 15:22 G	20271214.95	20271215.14	20271215.34	0.0523	0.0254
Earth	50788-08-07 15:50 G	20271214.96	20271215.16	20271215.36	0.0523	0.0262 *
Mercury	50792-08-13 19:12 G	20272682.17	20272682.30	20272682.42	0.0521	0.0061
Earth	50794-01-30 18:58 G	20273217.06	20273217.29	20273217.53	0.0505	0.0017
Moon	50794-01-30 22:19 G	20273217.20	20273217.43	20273217.67	0.0505	0.0010 *
Venus	50794-10-18 09:22 G	20273477.77	20273477.89	20273478.02	0.0499	0.0393
Mercury	50798-10-01 02:53 G	20274921.50	20274921.62	20274921.75	0.0505	0.0371
Earth	50800-08-12 07:12 G	20275602.73	20275602.80	20275602.88	0.0524	0.0495
Moon	50800-08-12 09:07 G	20275602.88	20275602.88	20275602.89	0.0524	0.0524 *
Venus	50801-04-10 13:41 G	20275843.89	20275844.07	20275844.25	0.0530	0.0247
Mercury	50804-06-01 23:17 G	20276992.36	20276992.47	20276992.59	0.0522	0.0222
Mercury	50804-08-30 03:50 G	20277081.58	20277081.66	20277081.74	0.0519	0.0395
Moon	50806-02-04 08:24 G	20277604.64	20277604.85	20277605.07	0.0504	0.0236

Earth	50806-02-04 11:02 G	20277604.74	20277604.96	20277605.17	0.0504	0.0205	*
Venus	50807-02-14 17:31 G	20277980.11	20277980.23	20277980.36	0.0496	0.0394	
Mercury	50810-10-18 11:46 G	20279321.84	20279321.99	20279322.14	0.0506	0.0284	
Venus	50812-12-14 04:48 G	20280109.50	20280109.70	20280109.90	0.0528	0.0124	
Mars	50815-04-16 16:34 G	20280962.91	20280963.19	20280963.46	0.0530	0.0007	
Mercury	50816-03-21 03:50 G	20281302.57	20281302.66	20281302.75	0.0522	0.0378	
Mercury	50816-06-18 08:24 G	20281391.74	20281391.85	20281391.96	0.0519	0.0243	
Earth	50818-02-08 23:46 G	20281992.37	20281992.49	20281992.62	0.0502	0.0418	
Moon	50818-02-09 00:43 G	20281992.42	20281992.53	20281992.66	0.0502	0.0421	*
Venus	50818-10-20 17:31 G	20282246.03	20282246.23	20282246.43	0.0497	0.0087	
Mercury	50822-08-06 07:26 G	20283631.63	20283631.81	20283632.00	0.0506	0.0056	
Venus	50824-08-18 21:22 G	20284375.31	20284375.39	20284375.47	0.0527	0.0484	
Mercury	50828-04-06 13:12 G	20285701.92	20285702.05	20285702.17	0.0520	0.0094	
Venus	50830-06-25 18:29 G	20286512.09	20286512.27	20286512.45	0.0498	0.0218	
Mercury	50834-05-25 03:50 G	20287941.49	20287941.66	20287941.84	0.0506	0.0161	
Earth	50835-07-24 06:58 G	20288366.75	20288366.79	20288366.85	0.0518	0.0505	
Moon	50835-07-24 10:19 G	20288366.85	20288366.93	20288367.02	0.0518	0.0474	*
Venus	50836-12-17 07:26 G	20288878.72	20288878.81	20288878.90	0.0530	0.0470	
Mercury	50840-01-24 17:17 G	20290012.09	20290012.22	20290012.35	0.0520	0.0070	
Mercury	50846-03-13 00:14 G	20292251.39	20292251.51	20292251.64	0.0505	0.0377	
Mercury	50846-06-11 13:26 G	20292342.06	20292342.06	20292342.07	0.0507	0.0507	
Moon	50847-07-28 23:02 G	20292754.26	20292754.46	20292754.66	0.0519	0.0268	
Earth	50847-07-29 00:58 G	20292754.34	20292754.54	20292754.74	0.0519	0.0269	*
Venus	50848-08-21 21:36 G	20293144.20	20293144.40	20293144.60	0.0529	0.0095	
Mercury	50851-11-12 21:36 G	20294322.29	20294322.40	20294322.51	0.0521	0.0229	
Mercury	50852-02-10 01:55 G	20294411.50	20294411.58	20294411.67	0.0519	0.0387	
Venus	50854-06-28 03:07 G	20295280.46	20295280.63	20295280.81	0.0497	0.0260	
Mercury	50858-03-30 09:07 G	20296651.72	20296651.88	20296652.04	0.0506	0.0275	
Earth	50859-08-02 16:05 G	20297141.94	20297142.17	20297142.40	0.0521	0.0039	
Moon	50859-08-02 16:19 G	20297141.96	20297142.18	20297142.41	0.0521	0.0072	*

Venus	50860-04-26 10:05 G	20297409.75	20297409.92	20297410.09	0.0527	0.0284
Mercury	50863-09-01 01:41 G	20298632.49	20298632.57	20298632.65	0.0522	0.0393
Mercury	50863-11-29 06:29 G	20298721.65	20298721.77	20298721.88	0.0520	0.0230
Earth	50865-01-25 02:24 G	20299144.41	20299144.60	20299144.79	0.0507	0.0287
Moon	50865-01-25 06:00 G	20299144.57	20299144.75	20299144.93	0.0507	0.0315 *
Venus	50866-03-03 04:34 G	20299546.49	20299546.69	20299546.90	0.0498	0.0043
Mars	50868-10-09 19:41 G	20300498.13	20300498.32	20300498.52	0.0496	0.0351
Mercury	50870-01-16 05:02 G	20300961.52	20300961.71	20300961.89	0.0506	0.0049
Earth	50871-08-07 10:19 G	20301529.73	20301529.93	20301530.15	0.0522	0.0205
Moon	50871-08-07 11:46 G	20301529.78	20301529.99	20301530.22	0.0522	0.0196 *
Mercury	50875-09-17 11:02 G	20303031.83	20303031.96	20303032.08	0.0520	0.0077
Moon	50877-01-29 14:38 G	20303531.88	20303532.11	20303532.36	0.0506	0.0058
Earth	50877-01-29 17:31 G	20303532.00	20303532.23	20303532.47	0.0506	0.0067 *
Venus	50877-11-06 04:05 G	20303812.53	20303812.67	20303812.82	0.0499	0.0351
Mercury	50881-11-04 00:29 G	20305271.35	20305271.52	20305271.70	0.0506	0.0181
Moon	50883-08-12 04:19 G	20305917.59	20305917.68	20305917.77	0.0524	0.0480
Earth	50883-08-12 07:12 G	20305917.69	20305917.80	20305917.93	0.0524	0.0449 *
Venus	50884-04-29 11:46 G	20306178.82	20306178.99	20306179.15	0.0530	0.0303
Mercury	50887-07-06 15:36 G	20307342.03	20307342.15	20307342.28	0.0521	0.0075
Earth	50889-02-03 09:07 G	20307919.66	20307919.88	20307920.11	0.0504	0.0158
Moon	50889-02-03 10:34 G	20307919.73	20307919.94	20307920.15	0.0504	0.0190 *
Venus	50890-03-05 11:31 G	20308314.89	20308314.98	20308315.09	0.0496	0.0430
Mercury	50893-08-22 21:07 G	20309581.27	20309581.38	20309581.50	0.0505	0.0394
Mercury	50893-11-21 10:19 G	20309671.88	20309671.93	20309671.98	0.0508	0.0489
Venus	50896-01-03 03:22 G	20310444.44	20310444.64	20310444.84	0.0529	0.0066
Mercury	50899-04-24 19:55 G	20311652.22	20311652.33	20311652.44	0.0521	0.0235
Mercury	50899-07-23 00:14 G	20311741.43	20311741.51	20311741.60	0.0519	0.0380
Earth	50901-02-08 22:19 G	20312307.28	20312307.43	20312307.59	0.0503	0.0376
Moon	50901-02-08 22:48 G	20312307.29	20312307.45	20312307.62	0.0503	0.0372 *
Venus	50901-11-09 12:43 G	20312580.83	20312581.03	20312581.23	0.0497	0.0127

Mercury	50905-09-10 06:29 G	20313981.62	20313981.77	20313981.93	0.0507	0.0269
Venus	50907-09-08 18:14 G	20314710.15	20314710.26	20314710.37	0.0527	0.0433
Mercury	50911-02-12 00:00 G	20315962.42	20315962.50	20315962.59	0.0522	0.0397
Mercury	50911-05-12 04:48 G	20316051.58	20316051.70	20316051.81	0.0519	0.0225
Venus	50913-07-15 14:10 G	20316846.90	20316847.09	20316847.29	0.0498	0.0176
Mercury	50917-06-29 02:24 G	20318291.42	20318291.60	20318291.79	0.0506	0.0044
Venus	50920-01-07 01:26 G	20319213.50	20319213.56	20319213.61	0.0530	0.0507
Mercury	50923-02-28 08:53 G	20320361.75	20320361.87	20320362.00	0.0520	0.0067
Venus	50925-03-20 15:07 G	20321113.08	20321113.13	20321113.18	0.0500	0.0480
Mercury	50929-04-16 22:34 G	20322601.26	20322601.44	20322601.61	0.0505	0.0180
Earth	50930-07-28 21:50 G	20323069.23	20323069.41	20323069.59	0.0519	0.0325
Moon	50930-07-28 22:34 G	20323069.27	20323069.44	20323069.61	0.0519	0.0327 *
Venus	50931-09-11 16:05 G	20323478.97	20323479.17	20323479.36	0.0529	0.0136
Mercury	50934-12-17 13:41 G	20324671.94	20324672.07	20324672.19	0.0521	0.0089
Venus	50937-07-17 22:05 G	20325615.26	20325615.42	20325615.59	0.0496	0.0301
Mercury	50941-02-02 17:46 G	20326911.14	20326911.24	20326911.36	0.0505	0.0411
Mercury	50941-05-04 06:58 G	20327001.73	20327001.79	20327001.86	0.0507	0.0472
Earth	50942-08-02 16:05 G	20327456.94	20327457.17	20327457.40	0.0521	0.0087
Moon	50942-08-02 16:48 G	20327456.97	20327457.20	20327457.44	0.0521	0.0118 *
Venus	50943-05-17 07:55 G	20327744.65	20327744.83	20327745.02	0.0528	0.0228
Mercury	50946-10-05 18:14 G	20328982.15	20328982.26	20328982.38	0.0521	0.0238
Mercury	50947-01-02 22:48 G	20329071.37	20329071.45	20329071.53	0.0519	0.0379
Moon	50948-01-25 23:46 G	20329459.32	20329459.49	20329459.66	0.0507	0.0360
Earth	50948-01-26 02:53 G	20329459.44	20329459.62	20329459.80	0.0507	0.0332 *
Venus	50949-03-22 23:46 G	20329881.29	20329881.49	20329881.69	0.0497	0.0001
Mercury	50953-02-20 03:22 G	20331311.48	20331311.64	20331311.81	0.0507	0.0254
Moon	50954-08-07 10:19 G	20331844.72	20331844.93	20331845.15	0.0522	0.0159
Earth	50954-08-07 12:58 G	20331844.82	20331845.04	20331845.26	0.0522	0.0162 *
Mercury	50958-07-24 22:34 G	20333292.36	20333292.44	20333292.52	0.0522	0.0399
Mercury	50958-10-22 03:07 G	20333381.52	20333381.63	20333381.75	0.0519	0.0222

Earth	50960-01-30 17:31 G	20333847.00	20333847.23	20333847.46	0.0506	0.0109
Moon	50960-01-30 19:26 G	20333847.08	20333847.31	20333847.53	0.0506	0.0098 *
Venus	50960-11-26 00:14 G	20334147.35	20334147.51	20334147.67	0.0499	0.0307
Mercury	50964-12-09 00:00 G	20335621.31	20335621.50	20335621.69	0.0506	0.0037
Earth	50966-08-12 09:07 G	20336232.74	20336232.88	20336233.03	0.0524	0.0408
Moon	50966-08-12 12:58 G	20336232.92	20336233.04	20336233.16	0.0524	0.0442 *
Venus	50967-05-20 09:36 G	20336513.75	20336513.90	20336514.05	0.0530	0.0357
Mars	50969-07-11 01:41 G	20337296.36	20337296.57	20337296.78	0.0529	0.0343
Mercury	50970-08-10 07:26 G	20337691.69	20337691.81	20337691.94	0.0520	0.0068
Moon	50972-02-04 08:53 G	20338234.64	20338234.87	20338235.11	0.0505	0.0144
Earth	50972-02-04 08:53 G	20338234.65	20338234.87	20338235.11	0.0505	0.0117 *
Venus	50973-03-25 08:24 G	20338649.79	20338649.85	20338649.91	0.0496	0.0473
Mercury	50976-09-26 20:10 G	20339931.17	20339931.34	20339931.52	0.0505	0.0183
Venus	50979-01-22 22:48 G	20340779.24	20340779.45	20340779.65	0.0528	0.0020
Mercury	50982-05-29 11:46 G	20342001.87	20342001.99	20342002.11	0.0521	0.0096
Mercury	50982-08-26 16:05 G	20342091.17	20342091.17	20342091.18	0.0519	0.0517
Moon	50984-02-08 22:19 G	20342622.26	20342622.43	20342622.60	0.0504	0.0329
Earth	50984-02-09 00:29 G	20342622.34	20342622.52	20342622.69	0.0504	0.0337 *
Venus	50984-11-28 10:05 G	20342915.73	20342915.92	20342916.12	0.0497	0.0177
Mercury	50988-07-15 16:34 G	20344241.08	20344241.19	20344241.30	0.0505	0.0402
Mercury	50988-10-14 05:17 G	20344331.67	20344331.72	20344331.79	0.0507	0.0479
Venus	50990-09-27 13:55 G	20345044.95	20345045.08	20345045.22	0.0527	0.0385
Mercury	50994-03-17 16:19 G	20346312.07	20346312.18	20346312.29	0.0522	0.0249
Mercury	50994-06-14 20:53 G	20346401.29	20346401.37	20346401.46	0.0519	0.0369
Venus	50996-08-03 10:34 G	20347181.74	20347181.94	20347182.14	0.0498	0.0129
Mercury	51000-08-03 00:29 G	20348641.36	20348641.52	20348641.69	0.0507	0.0241

52ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 52nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	51006-01-04 21:07	G	20350622.30	20350622.38	20350622.47	0.0522	0.0398	
Mercury	51006-04-04 01:55	G	20350711.46	20350711.58	20350711.69	0.0519	0.0225	
Venus	51008-04-09 11:46	G	20351447.89	20351447.99	20351448.09	0.0499	0.0431	
Mercury	51012-05-21 21:07	G	20352951.20	20352951.38	20352951.57	0.0506	0.0027	
Earth	51013-07-29 00:58	G	20353384.38	20353384.54	20353384.71	0.0519	0.0366	
Moon	51013-07-29 01:26	G	20353384.40	20353384.56	20353384.73	0.0519	0.0367	*
Venus	51014-10-01 16:19	G	20353813.99	20353814.18	20353814.37	0.0530	0.0201	
Mercury	51018-01-21 06:14	G	20355021.64	20355021.76	20355021.89	0.0520	0.0068	
Venus	51020-08-06 19:26	G	20355950.17	20355950.31	20355950.45	0.0496	0.0347	
Mars	51023-01-05 03:22	G	20356831.37	20356831.64	20356831.91	0.0496	0.0054	
Mercury	51024-03-09 18:00	G	20357261.08	20357261.25	20357261.42	0.0506	0.0186	
Moon	51025-08-02 18:43	G	20357772.07	20357772.28	20357772.49	0.0520	0.0153	
Earth	51025-08-02 20:53	G	20357772.15	20357772.37	20357772.60	0.0520	0.0122	*
Venus	51026-06-06 07:41	G	20358079.63	20358079.82	20358080.02	0.0528	0.0166	
Mercury	51029-11-09 10:34	G	20359331.82	20359331.94	20359332.07	0.0521	0.0090	
Earth	51031-01-26 04:05	G	20359774.51	20359774.67	20359774.83	0.0508	0.0373	
Moon	51031-01-26 06:00	G	20359774.62	20359774.75	20359774.90	0.0508	0.0401	*
Venus	51032-04-11 21:07	G	20360216.18	20360216.38	20360216.59	0.0498	0.0049	
Mercury	51035-12-27 14:38	G	20361571.00	20361571.11	20361571.22	0.0505	0.0400	
Mercury	51036-03-27 03:36	G	20361661.60	20361661.65	20361661.71	0.0507	0.0481	
Earth	51037-08-07 14:38	G	20362159.89	20362160.11	20362160.34	0.0521	0.0117	
Moon	51037-08-07 18:14	G	20362160.04	20362160.26	20362160.49	0.0521	0.0124	*

Mercury	51041-08-28 14:53 G	20363642.01	20363642.12	20363642.23	0.0522	0.0252
Mercury	51041-11-25 19:12 G	20363731.22	20363731.30	20363731.39	0.0519	0.0367
Moon	51043-01-30 19:55 G	20364162.09	20364162.33	20364162.57	0.0507	0.0135
Earth	51043-01-30 20:24 G	20364162.13	20364162.35	20364162.58	0.0507	0.0148 *
Venus	51043-12-16 22:34 G	20364482.27	20364482.44	20364482.62	0.0499	0.0253
Mercury	51048-01-13 23:31 G	20365971.32	20365971.48	20365971.64	0.0506	0.0257
Moon	51049-08-12 06:00 G	20366547.60	20366547.75	20366547.90	0.0523	0.0396
Earth	51049-08-12 09:50 G	20366547.75	20366547.91	20366548.08	0.0523	0.0363 *
Venus	51050-06-09 06:58 G	20366848.67	20366848.79	20366848.92	0.0530	0.0410
Mercury	51053-06-16 19:26 G	20367952.23	20367952.31	20367952.39	0.0522	0.0404
Mercury	51053-09-14 00:14 G	20368041.39	20368041.51	20368041.62	0.0520	0.0220
Moon	51055-02-04 11:17 G	20368549.75	20368549.97	20368550.19	0.0505	0.0104
Earth	51055-02-04 12:58 G	20368549.81	20368550.04	20368550.27	0.0505	0.0079 *
Mercury	51059-11-01 18:43 G	20370281.09	20370281.28	20370281.46	0.0506	0.0021
Venus	51062-02-11 22:19 G	20371114.23	20371114.43	20371114.63	0.0529	0.0043
Mercury	51065-07-03 05:02 G	20372351.59	20372351.71	20372351.84	0.0520	0.0076
Earth	51067-02-09 06:00 G	20372937.56	20372937.75	20372937.94	0.0503	0.0306
Moon	51067-02-09 09:22 G	20372937.70	20372937.89	20372938.09	0.0503	0.0290 *
Venus	51067-12-19 08:10 G	20373250.66	20373250.84	20373251.02	0.0497	0.0227
Mercury	51071-08-20 15:22 G	20374590.97	20374591.14	20374591.32	0.0506	0.0193
Venus	51073-10-17 14:53 G	20375379.96	20375380.12	20375380.29	0.0528	0.0318
Mercury	51077-04-21 09:36 G	20376661.77	20376661.90	20376662.02	0.0520	0.0081
Moon	51079-02-13 15:36 G	20377325.11	20377325.15	20377325.20	0.0502	0.0492
Venus	51079-08-24 09:07 G	20377516.68	20377516.88	20377517.09	0.0498	0.0076
Mercury	51083-06-08 12:29 G	20378900.91	20378901.02	20378901.13	0.0505	0.0400
Mercury	51083-09-07 01:26 G	20378991.51	20378991.56	20378991.62	0.0508	0.0484
Mercury	51089-02-07 13:55 G	20380971.97	20380972.08	20380972.19	0.0521	0.0239
Mercury	51089-05-07 18:29 G	20381061.18	20381061.27	20381061.35	0.0519	0.0378
Venus	51091-04-29 10:19 G	20381782.80	20381782.93	20381783.07	0.0499	0.0378
Mercury	51095-06-25 22:05 G	20383301.26	20383301.42	20383301.58	0.0507	0.0265

Moon	51096-07-28 04:48 G	20383699.57	20383699.70	20383699.84	0.0518	0.0409
Earth	51096-07-28 06:43 G	20383699.64	20383699.78	20383699.93	0.0518	0.0401 *
Venus	51097-10-20 15:22 G	20384148.96	20384149.14	20384149.32	0.0529	0.0261
Mercury	51100-11-27 18:00 G	20385282.18	20385282.25	20385282.33	0.0522	0.0402
Mercury	51101-02-24 22:48 G	20385371.34	20385371.45	20385371.56	0.0520	0.0221
Venus	51103-08-27 18:58 G	20386285.18	20386285.29	20386285.41	0.0496	0.0405
Mercury	51107-04-14 18:14 G	20387611.08	20387611.26	20387611.45	0.0506	0.0044
Earth	51108-08-03 00:43 G	20388087.31	20388087.53	20388087.75	0.0520	0.0162
Moon	51108-08-03 04:19 G	20388087.46	20388087.68	20388087.90	0.0520	0.0190 *
Venus	51109-06-26 06:43 G	20388414.58	20388414.78	20388414.98	0.0528	0.0106
Mercury	51112-12-14 03:36 G	20389681.53	20389681.65	20389681.78	0.0520	0.0074
Moon	51114-01-26 09:36 G	20390089.77	20390089.90	20390090.03	0.0508	0.0429
Earth	51114-01-26 10:19 G	20390089.80	20390089.93	20390090.07	0.0508	0.0406 *
Venus	51115-05-02 20:24 G	20390551.15	20390551.35	20390551.55	0.0497	0.0105
Mercury	51119-01-31 13:26 G	20391920.88	20391921.06	20391921.23	0.0505	0.0193
Moon	51120-08-07 13:55 G	20392474.85	20392475.08	20392475.31	0.0522	0.0087
Earth	51120-08-07 18:00 G	20392475.02	20392475.25	20392475.48	0.0522	0.0079 *
Venus	51121-02-28 21:50 G	20392680.32	20392680.41	20392680.50	0.0527	0.0469
Mercury	51124-10-02 08:38 G	20393991.73	20393991.86	20393991.99	0.0521	0.0071
Moon	51126-01-31 04:05 G	20394477.46	20394477.67	20394477.89	0.0506	0.0155
Earth	51126-01-31 05:31 G	20394477.51	20394477.73	20394477.95	0.0506	0.0173 *
Venus	51127-01-05 22:34 G	20394817.26	20394817.44	20394817.63	0.0498	0.0193
Mercury	51130-11-19 10:19 G	20396230.82	20396230.93	20396231.04	0.0505	0.0401
Mercury	51131-02-17 23:17 G	20396321.42	20396321.47	20396321.53	0.0508	0.0482
Earth	51132-08-12 16:19 G	20396863.01	20396863.18	20396863.36	0.0523	0.0333
Moon	51132-08-12 19:41 G	20396863.16	20396863.32	20396863.48	0.0523	0.0368 *
Venus	51133-06-29 09:36 G	20397183.82	20397183.90	20397183.98	0.0531	0.0483
Mercury	51136-07-21 13:12 G	20398301.93	20398302.05	20398302.16	0.0521	0.0226
Mercury	51136-10-18 17:31 G	20398391.15	20398391.23	20398391.32	0.0519	0.0390
Earth	51138-02-04 20:53 G	20398865.14	20398865.37	20398865.61	0.0505	0.0054

Moon	51138-02-05 00:14 G	20398865.28	20398865.51	20398865.75	0.0505	0.0076	*
Venus	51138-09-10 23:02 G	20399083.45	20399083.46	20399083.48	0.0500	0.0498	
Mercury	51142-12-06 20:24 G	20400631.19	20400631.35	20400631.50	0.0507	0.0270	
Venus	51145-03-04 01:12 G	20401449.36	20401449.55	20401449.75	0.0529	0.0118	
Mercury	51148-05-09 17:31 G	20402612.15	20402612.23	20402612.32	0.0522	0.0383	
Mercury	51148-08-06 22:05 G	20402701.31	20402701.42	20402701.54	0.0519	0.0238	
Moon	51150-02-09 08:24 G	20403252.66	20403252.85	20403253.06	0.0504	0.0261	
Earth	51150-02-09 12:29 G	20403252.83	20403253.02	20403253.22	0.0504	0.0279	*
Venus	51151-01-08 07:55 G	20403585.67	20403585.83	20403586.00	0.0497	0.0284	
Mercury	51154-09-24 17:02 G	20404941.03	20404941.21	20404941.40	0.0506	0.0056	
Venus	51156-11-06 16:05 G	20405714.99	20405715.17	20405715.34	0.0527	0.0249	
Mercury	51160-05-26 02:24 G	20407011.48	20407011.60	20407011.73	0.0520	0.0081	
Earth	51162-02-14 03:36 G	20407640.63	20407640.65	20407640.67	0.0503	0.0500	
Moon	51162-02-14 07:26 G	20407640.73	20407640.81	20407640.89	0.0503	0.0471	
Venus	51162-09-13 09:50 G	20407851.70	20407851.91	20407852.11	0.0498	0.0013	
Mercury	51166-07-13 13:26 G	20409250.88	20409251.06	20409251.24	0.0505	0.0162	
Mercury	51172-03-14 07:12 G	20411321.68	20411321.80	20411321.93	0.0521	0.0071	
Venus	51174-05-19 11:17 G	20412117.81	20412117.97	20412118.13	0.0499	0.0314	
Mars	51177-04-01 02:38 G	20413165.41	20413165.61	20413165.82	0.0496	0.0319	
Mercury	51178-05-01 08:38 G	20413560.75	20413560.86	20413560.97	0.0505	0.0396	
Mercury	51178-07-30 21:36 G	20413651.35	20413651.40	20413651.45	0.0507	0.0486	
Earth	51179-07-29 10:19 G	20414014.82	20414014.93	20414015.06	0.0518	0.0439	
Moon	51179-07-29 13:41 G	20414014.96	20414015.07	20414015.18	0.0518	0.0453	*
Venus	51180-11-09 16:34 G	20414484.03	20414484.19	20414484.35	0.0530	0.0329	
Mercury	51184-01-01 12:14 G	20415631.90	20415632.01	20415632.13	0.0521	0.0213	
Mercury	51184-03-30 16:48 G	20415721.12	20415721.20	20415721.28	0.0519	0.0404	
Venus	51186-09-15 19:55 G	20416620.27	20416620.33	20416620.40	0.0496	0.0464	
Mercury	51190-05-18 18:14 G	20417961.11	20417961.26	20417961.42	0.0507	0.0272	
Moon	51191-08-03 03:50 G	20418402.45	20418402.66	20418402.87	0.0520	0.0222	
Earth	51191-08-03 07:41 G	20418402.61	20418402.82	20418403.04	0.0520	0.0192	*

Venus	51192-07-15 09:22 G	20418749.69	20418749.89	20418750.10	0.0529	0.0033
Mercury	51195-10-20 16:48 G	20419942.11	20419942.20	20419942.29	0.0522	0.0367
Mercury	51196-01-17 21:22 G	20420031.28	20420031.39	20420031.50	0.0519	0.0254
Moon	51197-01-25 19:26 G	20420405.22	20420405.31	20420405.43	0.0508	0.0447
Earth	51197-01-25 20:38 G	20420405.24	20420405.36	20420405.49	0.0508	0.0429 *
Venus	51198-05-21 21:36 G	20420886.21	20420886.40	20420886.59	0.0497	0.0167
Mercury	51202-03-06 15:22 G	20422270.96	20422271.14	20422271.33	0.0506	0.0064
Earth	51203-08-08 05:31 G	20422790.50	20422790.73	20422790.96	0.0522	0.0060
Moon	51203-08-08 09:07 G	20422790.65	20422790.88	20422791.10	0.0522	0.0073 *
Venus	51204-03-20 01:55 G	20423015.45	20423015.58	20423015.72	0.0527	0.0390
Mercury	51207-11-06 01:55 G	20424341.46	20424341.58	20424341.71	0.0520	0.0102
Earth	51209-01-30 13:26 G	20424792.85	20424793.06	20424793.28	0.0507	0.0199
Moon	51209-01-30 16:34 G	20424792.97	20424793.19	20424793.42	0.0507	0.0172 *
Venus	51210-01-24 23:31 G	20425152.28	20425152.48	20425152.68	0.0498	0.0131
Mercury	51213-12-23 12:29 G	20426580.84	20426581.02	20426581.20	0.0506	0.0147
Moon	51215-08-12 23:31 G	20427178.31	20427178.48	20427178.67	0.0523	0.0337
Earth	51215-08-13 01:55 G	20427178.40	20427178.58	20427178.77	0.0523	0.0306 *
Mercury	51219-08-25 06:14 G	20428651.64	20428651.76	20428651.89	0.0521	0.0060
Moon	51221-02-04 01:41 G	20429180.34	20429180.57	20429180.80	0.0505	0.0049
Earth	51221-02-04 05:46 G	20429180.50	20429180.74	20429180.97	0.0505	0.0029 *
Venus	51221-09-30 00:29 G	20429418.43	20429418.52	20429418.63	0.0500	0.0433
Mercury	51225-10-11 08:53 G	20430890.75	20430890.87	20430891.01	0.0505	0.0361
Venus	51228-03-23 02:38 G	20431784.42	20431784.61	20431784.80	0.0529	0.0187
Mercury	51231-06-13 11:02 G	20432961.85	20432961.96	20432962.08	0.0521	0.0207
Mercury	51231-09-10 15:36 G	20433051.08	20433051.15	20433051.23	0.0519	0.0410
Earth	51233-02-08 23:17 G	20433568.28	20433568.47	20433568.68	0.0504	0.0260
Moon	51233-02-09 03:22 G	20433568.44	20433568.64	20433568.85	0.0504	0.0240 *
Venus	51234-01-27 09:36 G	20433920.76	20433920.90	20433921.05	0.0496	0.0348
Mercury	51237-10-28 16:48 G	20435291.05	20435291.20	20435291.36	0.0507	0.0280
Venus	51239-11-26 16:48 G	20436050.02	20436050.20	20436050.40	0.0528	0.0184

Mars	51242-03-27 12:14 G	20436901.74	20436902.01	20436902.28	0.0531	0.0107
Mercury	51243-04-01 16:05 G	20437272.08	20437272.17	20437272.26	0.0522	0.0353
Mercury	51243-06-29 20:38 G	20437361.26	20437361.36	20437361.47	0.0520	0.0270
Moon	51245-02-13 14:10 G	20437956.00	20437956.09	20437956.19	0.0502	0.0460
Earth	51245-02-13 17:02 G	20437956.16	20437956.21	20437956.27	0.0502	0.0487 *
Venus	51245-10-02 12:29 G	20438186.82	20438187.02	20438187.22	0.0497	0.0055
Mercury	51249-08-16 13:41 G	20439600.89	20439601.07	20439601.26	0.0506	0.0068
Mercury	51255-01-18 20:38 G	20441582.33	20441582.36	20441582.39	0.0522	0.0508
Mercury	51255-04-18 01:26 G	20441671.44	20441671.56	20441671.68	0.0520	0.0119
Venus	51257-06-07 13:41 G	20442452.89	20442453.07	20442453.25	0.0498	0.0247
Mercury	51261-06-04 11:02 G	20443910.78	20443910.96	20443911.14	0.0506	0.0139
Moon	51262-07-28 19:41 G	20444330.24	20444330.32	20444330.41	0.0518	0.0480
Earth	51262-07-28 23:31 G	20444330.38	20444330.48	20444330.59	0.0518	0.0457 *
Venus	51263-11-29 21:36 G	20444819.28	20444819.40	20444819.53	0.0530	0.0411
Mercury	51267-02-04 06:00 G	20445981.62	20445981.75	20445981.88	0.0520	0.0035
Mercury	51273-03-23 08:10 G	20448220.70	20448220.84	20448220.97	0.0505	0.0345
Earth	51274-08-02 19:12 G	20448718.09	20448718.30	20448718.51	0.0519	0.0214
Moon	51274-08-02 22:48 G	20448718.25	20448718.45	20448718.65	0.0519	0.0241 *
Venus	51275-08-04 12:43 G	20449084.83	20449085.03	20449085.23	0.0529	0.0045
Mercury	51278-11-23 10:19 G	20450291.81	20450291.93	20450292.04	0.0521	0.0196
Mercury	51279-02-20 14:38 G	20450381.04	20450381.11	20450381.19	0.0519	0.0421
Earth	51280-01-26 05:31 G	20450720.64	20450720.73	20450720.84	0.0509	0.0456
Moon	51280-01-26 08:38 G	20450720.77	20450720.86	20450720.97	0.0509	0.0461 *
Venus	51281-06-09 23:46 G	20451221.31	20451221.49	20451221.67	0.0497	0.0233
Mercury	51285-04-09 17:17 G	20452621.08	20452621.22	20452621.37	0.0507	0.0319
Moon	51286-08-07 11:46 G	20453105.76	20453105.99	20453106.23	0.0521	0.0045
Earth	51286-08-07 14:24 G	20453105.87	20453106.10	20453106.33	0.0521	0.0031 *
Venus	51287-04-09 04:05 G	20453350.51	20453350.67	20453350.83	0.0527	0.0317
Mercury	51290-09-11 14:53 G	20454602.03	20454602.12	20454602.22	0.0522	0.0346
Mercury	51290-12-09 19:41 G	20454691.21	20454691.32	20454691.43	0.0519	0.0277

Moon	51292-01-30 21:22 G	20455108.17	20455108.39	20455108.61	0.0507	0.0189
Earth	51292-01-31 01:12 G	20455108.34	20455108.55	20455108.77	0.0507	0.0218 *
Venus	51293-02-13 02:10 G	20455487.39	20455487.59	20455487.79	0.0498	0.0063
Mars	51295-09-21 16:19 G	20456438.00	20456438.18	20456438.37	0.0495	0.0359
Mercury	51297-01-26 12:14 G	20456930.83	20456931.01	20456931.20	0.0506	0.0079
Earth	51298-08-12 06:29 G	20457493.58	20457493.77	20457493.97	0.0523	0.0274
Moon	51298-08-12 06:58 G	20457493.62	20457493.79	20457493.98	0.0523	0.0301 *
Mercury	51302-07-01 19:55 G	20458912.29	20458912.33	20458912.37	0.0523	0.0493
Mercury	51302-09-29 00:43 G	20459001.41	20459001.53	20459001.65	0.0520	0.0134
Earth	51304-02-05 20:24 G	20459496.12	20459496.35	20459496.59	0.0505	0.0019
Moon	51304-02-06 00:29 G	20459496.29	20459496.52	20459496.75	0.0505	0.0035 *
Venus	51304-10-20 04:34 G	20459753.55	20459753.69	20459753.83	0.0499	0.0359
Mercury	51308-11-15 09:22 G	20461240.71	20461240.89	20461241.07	0.0506	0.0133
Moon	51310-08-18 07:41 G	20461881.78	20461881.82	20461881.88	0.0525	0.0512
Venus	51311-04-13 05:31 G	20462119.56	20462119.73	20462119.91	0.0530	0.0260
Mercury	51314-07-18 05:17 G	20463311.60	20463311.72	20463311.85	0.0521	0.0024
Moon	51316-02-10 08:38 G	20463883.65	20463883.86	20463884.08	0.0504	0.0222
Earth	51316-02-10 11:46 G	20463883.79	20463883.99	20463884.20	0.0504	0.0245 *
Venus	51317-02-16 12:00 G	20464255.89	20464256.00	20464256.12	0.0496	0.0413
Mercury	51320-09-03 06:29 G	20465550.64	20465550.77	20465550.91	0.0505	0.0337
Venus	51322-12-16 22:19 G	20466385.23	20466385.43	20466385.63	0.0529	0.0099
Mercury	51326-05-06 09:50 G	20467621.79	20467621.91	20467622.03	0.0521	0.0172
Mercury	51326-08-03 14:24 G	20467711.03	20467711.10	20467711.16	0.0518	0.0443
Earth	51328-02-15 02:53 G	20468271.54	20468271.62	20468271.71	0.0502	0.0468
Moon	51328-02-15 03:50 G	20468271.57	20468271.66	20468271.76	0.0502	0.0452 *
Venus	51328-10-22 14:10 G	20468521.89	20468522.09	20468522.29	0.0497	0.0118
Mercury	51332-09-20 16:19 G	20469951.05	20469951.18	20469951.33	0.0507	0.0335
Venus	51334-08-21 14:10 G	20470650.99	20470651.09	20470651.19	0.0527	0.0456
Mercury	51338-02-22 14:10 G	20471931.99	20471932.09	20471932.18	0.0522	0.0334
Mercury	51338-05-22 18:43 G	20472021.18	20472021.28	20472021.38	0.0519	0.0288

Venus	51340-06-27 15:36 G	20472787.96	20472788.15	20472788.35	0.0499	0.0181
Mercury	51344-07-09 12:58 G	20474260.86	20474261.04	20474261.22	0.0506	0.0117
Earth	51345-07-29 09:07 G	20474645.80	20474645.88	20474645.96	0.0517	0.0483
Moon	51345-07-29 12:43 G	20474646.00	20474646.03	20474646.07	0.0517	0.0510
Venus	51346-12-19 23:46 G	20475154.41	20475154.49	20475154.58	0.0530	0.0481
Mercury	51349-12-11 18:43 G	20476242.24	20476242.28	20476242.33	0.0523	0.0486
Mercury	51350-03-10 23:31 G	20476331.36	20476331.48	20476331.60	0.0520	0.0142
Venus	51352-03-02 17:46 G	20477054.19	20477054.24	20477054.30	0.0500	0.0478
Mercury	51356-04-27 07:55 G	20478570.65	20478570.83	20478571.01	0.0505	0.0122
Moon	51357-08-02 20:24 G	20479033.15	20479033.35	20479033.55	0.0519	0.0277
Earth	51357-08-02 23:17 G	20479033.27	20479033.47	20479033.67	0.0519	0.0251 *
Venus	51358-08-24 12:58 G	20479419.85	20479420.04	20479420.24	0.0530	0.0109
Mercury	51361-12-28 04:34 G	20480641.56	20480641.69	20480641.82	0.0521	0.0006
Moon	51363-01-26 16:48 G	20481036.12	20481036.20	20481036.29	0.0509	0.0472
Earth	51363-01-26 20:38 G	20481036.28	20481036.36	20481036.46	0.0509	0.0468 *
Venus	51364-06-30 03:07 G	20481556.48	20481556.63	20481556.80	0.0496	0.0303
Mercury	51368-02-14 04:48 G	20482880.57	20482880.70	20482880.84	0.0505	0.0331
Earth	51369-08-07 20:38 G	20483421.12	20483421.36	20483421.59	0.0521	0.0009
Moon	51369-08-07 21:22 G	20483421.17	20483421.39	20483421.61	0.0521	0.0018 *
Venus	51370-04-29 05:46 G	20483685.57	20483685.74	20483685.92	0.0528	0.0250
Mercury	51373-10-16 09:07 G	20484951.76	20484951.88	20484952.00	0.0521	0.0157
Mercury	51374-01-13 13:41 G	20485041.02	20485041.07	20485041.13	0.0519	0.0459
Earth	51375-01-31 13:26 G	20485423.86	20485424.06	20485424.27	0.0507	0.0237
Moon	51375-01-31 17:31 G	20485424.02	20485424.23	20485424.44	0.0507	0.0204 *
Venus	51376-03-05 04:34 G	20485822.49	20485822.69	20485822.90	0.0497	0.0006
Mercury	51380-03-02 14:53 G	20487280.98	20487281.12	20487281.26	0.0507	0.0341
Earth	51381-08-12 19:26 G	20487809.11	20487809.31	20487809.51	0.0523	0.0256
Moon	51381-08-12 21:07 G	20487809.18	20487809.38	20487809.59	0.0523	0.0276 *
Mercury	51385-08-04 13:41 G	20489261.97	20489262.07	20489262.17	0.0522	0.0312
Mercury	51385-11-01 18:14 G	20489351.16	20489351.26	20489351.36	0.0519	0.0309

Moon	51387-02-05 02:38 G	20489811.37	20489811.61	20489811.85	0.0505	0.0010
Earth	51387-02-05 06:00 G	20489811.51	20489811.75	20489811.98	0.0505	0.0008 *
Venus	51387-11-09 05:46 G	20490088.58	20490088.74	20490088.91	0.0499	0.0296
Mercury	51391-12-20 11:46 G	20491590.81	20491590.99	20491591.17	0.0506	0.0129
Moon	51393-08-17 13:41 G	20492196.99	20492197.07	20492197.15	0.0524	0.0486
Earth	51393-08-17 17:02 G	20492197.16	20492197.21	20492197.26	0.0524	0.0509
Venus	51394-05-02 09:07 G	20492454.72	20492454.88	20492455.03	0.0530	0.0336
Mars	51396-06-22 12:29 G	20493236.88	20493237.02	20493237.16	0.0530	0.0451
Mercury	51397-05-23 17:46 G	20493572.19	20493572.24	20493572.29	0.0523	0.0476
Mercury	51397-08-20 22:34 G	20493661.32	20493661.44	20493661.57	0.0520	0.0152
Earth	51399-02-09 20:53 G	20494199.16	20494199.37	20494199.58	0.0504	0.0222
Moon	51399-02-09 22:05 G	20494199.21	20494199.42	20494199.63	0.0504	0.0196 *
Venus	51400-03-08 13:41 G	20494591.02	20494591.07	20494591.13	0.0496	0.0475
Mercury	51403-10-09 08:10 G	20495900.66	20495900.84	20495901.03	0.0505	0.0088
Venus	51406-01-06 00:00 G	20496720.30	20496720.50	20496720.71	0.0529	0.0031
Mercury	51409-06-10 03:22 G	20497971.52	20497971.64	20497971.77	0.0521	0.0010
Earth	51411-02-15 14:24 G	20498587.01	20498587.10	20498587.21	0.0503	0.0452
Moon	51411-02-15 15:36 G	20498587.04	20498587.15	20498587.27	0.0503	0.0441 *
Venus	51411-11-12 16:34 G	20498857.00	20498857.19	20498857.38	0.0497	0.0184
Mercury	51415-07-28 03:36 G	20500210.50	20500210.65	20500210.79	0.0505	0.0322
Venus	51417-09-10 13:12 G	20500985.92	20500986.05	20500986.18	0.0527	0.0399
Mercury	51421-03-29 08:10 G	20502281.72	20502281.84	20502281.96	0.0522	0.0147
Mercury	51421-06-26 12:43 G	20502370.98	20502371.03	20502371.08	0.0519	0.0471
Venus	51423-07-18 19:12 G	20503123.11	20503123.30	20503123.51	0.0498	0.0110
Mercury	51427-08-14 12:58 G	20504610.90	20504611.04	20504611.17	0.0507	0.0344
Mercury	51433-01-15 12:43 G	20506591.93	20506592.03	20506592.14	0.0522	0.0301
Mercury	51433-04-14 17:31 G	20506681.13	20506681.23	20506681.33	0.0519	0.0321
Venus	51435-03-23 19:41 G	20507389.21	20507389.32	20507389.44	0.0499	0.0411
Mercury	51439-06-02 09:50 G	20508920.73	20508920.91	20508921.09	0.0506	0.0132
Earth	51440-08-03 11:02 G	20509348.76	20509348.96	20509349.15	0.0519	0.0273

Moon	51440-08-03 12:00 G	20509348.82	20509349.00	20509349.19	0.0519	0.0293 *
Venus	51441-09-13 17:31 G	20509755.04	20509755.23	20509755.42	0.0530	0.0188
Mercury	51444-11-03 17:17 G	20510902.16	20510902.22	20510902.28	0.0523	0.0458
Mercury	51445-01-31 22:05 G	20510991.30	20510991.42	20510991.54	0.0520	0.0169
Earth	51446-01-27 04:34 G	20511351.65	20511351.69	20511351.75	0.0509	0.0497
Moon	51446-01-27 08:38 G	20511351.82	20511351.86	20511351.92	0.0509	0.0496
Venus	51447-07-21 03:36 G	20511891.52	20511891.65	20511891.80	0.0496	0.0360
Mars	51449-12-18 10:05 G	20512772.66	20512772.92	20512773.19	0.0496	0.0105
Mercury	51451-03-21 06:43 G	20513230.60	20513230.78	20513230.97	0.0506	0.0080
Earth	51452-08-08 07:12 G	20513736.57	20513736.80	20513737.04	0.0521	0.0027
Moon	51452-08-08 08:38 G	20513736.62	20513736.86	20513737.10	0.0521	0.0002 *
Venus	51453-05-19 08:53 G	20514020.68	20514020.87	20514021.06	0.0528	0.0174
Mercury	51456-11-20 02:10 G	20515301.47	20515301.59	20515301.72	0.0521	0.0022
Moon	51458-01-31 17:02 G	20515739.00	20515739.21	20515739.43	0.0508	0.0236
Earth	51458-01-31 20:38 G	20515739.16	20515739.36	20515739.56	0.0508	0.0267 *
Venus	51459-03-26 05:17 G	20516157.52	20516157.72	20516157.92	0.0497	0.0064
Mercury	51463-01-07 03:22 G	20517540.49	20517540.64	20517540.79	0.0505	0.0294
Moon	51464-08-12 23:17 G	20518124.27	20518124.47	20518124.67	0.0522	0.0243
Earth	51464-08-13 02:24 G	20518124.39	20518124.60	20518124.81	0.0522	0.0225 *
Mercury	51468-09-08 06:58 G	20519611.67	20519611.79	20519611.91	0.0522	0.0143
Mercury	51468-12-06 11:17 G	20519700.93	20519700.97	20519701.03	0.0519	0.0474
Earth	51470-02-05 15:22 G	20520126.90	20520127.14	20520127.37	0.0506	0.0029
Moon	51470-02-05 16:48 G	20520126.97	20520127.20	20520127.42	0.0506	0.0027 *
Venus	51470-11-29 07:41 G	20520423.64	20520423.82	20520424.00	0.0499	0.0231
Mercury	51475-01-24 11:17 G	20521940.84	20521940.97	20521941.10	0.0506	0.0349
Earth	51476-08-17 17:31 G	20522512.14	20522512.23	20522512.34	0.0524	0.0468
Moon	51476-08-17 21:22 G	20522512.28	20522512.39	20522512.52	0.0524	0.0443 *
Venus	51477-05-22 07:12 G	20522789.67	20522789.80	20522789.94	0.0531	0.0389
Mercury	51480-06-27 11:31 G	20523921.88	20523921.98	20523922.09	0.0523	0.0297
Mercury	51480-09-24 16:19 G	20524011.08	20524011.18	20524011.28	0.0520	0.0327

Earth	51482-02-10 09:22 G	20524514.67	20524514.89	20524515.10	0.0505	0.0205
Moon	51482-02-10 10:05 G	20524514.70	20524514.92	20524515.16	0.0505	0.0176 *
Mercury	51486-11-12 07:41 G	20526250.64	20526250.82	20526251.01	0.0506	0.0132
Venus	51489-01-24 23:17 G	20527055.27	20527055.47	20527055.68	0.0529	0.0029
Mercury	51492-04-15 16:05 G	20528232.11	20528232.17	20528232.23	0.0523	0.0452
Mercury	51492-07-13 20:53 G	20528321.25	20528321.37	20528321.49	0.0520	0.0176
Moon	51494-02-14 21:22 G	20528902.27	20528902.39	20528902.51	0.0503	0.0421
Earth	51494-02-14 23:46 G	20528902.37	20528902.49	20528902.61	0.0503	0.0428 *
Venus	51494-12-01 17:17 G	20529192.04	20529192.22	20529192.40	0.0496	0.0243
Mercury	51498-08-31 04:34 G	20530560.51	20530560.69	20530560.88	0.0505	0.0082
Venus	51500-09-30 16:19 G	20531321.02	20531321.18	20531321.34	0.0528	0.0324
Mercury	51504-05-03 01:26 G	20532631.44	20532631.56	20532631.69	0.0521	0.0026
Venus	51506-08-07 18:43 G	20533458.07	20533458.28	20533458.48	0.0498	0.0055
Mercury	51510-06-20 01:26 G	20534870.42	20534870.56	20534870.72	0.0505	0.0291
Mars	51514-12-13 00:58 G	20536507.52	20536507.54	20536507.58	0.0532	0.0529
Mercury	51516-02-20 05:46 G	20536941.62	20536941.74	20536941.86	0.0521	0.0141
Mercury	51516-05-19 10:05 G	20537030.88	20537030.92	20537030.97	0.0519	0.0476
Venus	51518-04-12 19:12 G	20537724.16	20537724.30	20537724.44	0.0499	0.0355
Mercury	51522-04-07 22:19 G	20539180.42	20539180.43	20539180.44	0.0504	0.0503
Mercury	51522-07-07 10:48 G	20539270.82	20539270.95	20539271.08	0.0507	0.0372
Earth	51523-08-04 16:48 G	20539664.02	20539664.20	20539664.39	0.0518	0.0308
Moon	51523-08-04 17:46 G	20539664.05	20539664.24	20539664.43	0.0518	0.0317 *
Venus	51524-10-03 17:02 G	20540090.03	20540090.21	20540090.39	0.0530	0.0248
Mercury	51527-12-09 10:05 G	20541251.82	20541251.92	20541252.03	0.0522	0.0296
Mercury	51528-03-07 14:53 G	20541341.02	20541341.12	20541341.22	0.0520	0.0327
Venus	51530-08-10 04:19 G	20542226.57	20542226.68	20542226.79	0.0496	0.0417
Mercury	51534-04-25 06:00 G	20543580.57	20543580.75	20543580.93	0.0505	0.0134
Moon	51535-08-09 04:05 G	20544051.44	20544051.67	20544051.89	0.0520	0.0044
Earth	51535-08-09 06:43 G	20544051.55	20544051.78	20544052.01	0.0520	0.0073 *
Venus	51536-06-08 05:31 G	20544355.53	20544355.73	20544355.92	0.0528	0.0127

Mercury	51539-09-27 14:38 G	20545562.05	20545562.11	20545562.17	0.0523	0.0454
Mercury	51539-12-25 19:26 G	20545651.20	20545651.31	20545651.43	0.0521	0.0177
Earth	51541-02-01 06:00 G	20546054.56	20546054.75	20546054.94	0.0508	0.0293
Moon	51541-02-01 07:41 G	20546054.63	20546054.82	20546055.01	0.0508	0.0264 *
Venus	51542-04-15 06:43 G	20546492.58	20546492.78	20546492.98	0.0497	0.0126
Mercury	51546-02-11 02:24 G	20547890.41	20547890.60	20547890.78	0.0505	0.0084
Earth	51547-08-14 02:24 G	20548439.38	20548439.60	20548439.82	0.0522	0.0179
Moon	51547-08-14 06:14 G	20548439.54	20548439.76	20548439.98	0.0522	0.0197 *
Venus	51548-02-11 21:36 G	20548621.32	20548621.40	20548621.48	0.0527	0.0481
Mercury	51551-10-14 00:14 G	20549961.38	20549961.51	20549961.63	0.0521	0.0029
Earth	51553-02-05 21:50 G	20550442.17	20550442.41	20550442.64	0.0506	0.0062
Moon	51553-02-05 22:19 G	20550442.19	20550442.43	20550442.67	0.0506	0.0066 *
Venus	51553-12-19 07:12 G	20550758.61	20550758.80	20550758.99	0.0498	0.0175
Mercury	51557-11-29 23:02 G	20552200.31	20552200.46	20552200.61	0.0505	0.0298
Moon	51559-08-18 20:53 G	20552827.24	20552827.37	20552827.52	0.0523	0.0412
Earth	51559-08-19 00:58 G	20552827.42	20552827.54	20552827.67	0.0523	0.0437 *
Venus	51560-06-11 09:07 G	20553124.78	20553124.88	20553124.98	0.0531	0.0458
Mercury	51563-08-02 04:34 G	20554271.57	20554271.69	20554271.81	0.0522	0.0133
Mercury	51563-10-30 09:07 G	20554360.84	20554360.88	20554360.92	0.0519	0.0484
Moon	51565-02-10 11:02 G	20554829.74	20554829.96	20554830.18	0.0505	0.0138
Earth	51565-02-10 13:12 G	20554829.83	20554830.05	20554830.28	0.0505	0.0170 *
Venus	51565-08-24 07:26 G	20555024.76	20555024.81	20555024.88	0.0500	0.0476
Mercury	51569-12-17 08:24 G	20556600.73	20556600.85	20556600.98	0.0507	0.0369
Venus	51572-02-15 00:14 G	20557390.31	20557390.51	20557390.71	0.0529	0.0095
Mercury	51575-05-21 08:38 G	20558581.76	20558581.86	20558581.97	0.0522	0.0297
Mercury	51575-08-18 13:26 G	20558670.96	20558671.06	20558671.15	0.0520	0.0326
Earth	51577-02-15 02:53 G	20559217.48	20559217.62	20559217.77	0.0503	0.0395
Moon	51577-02-15 06:14 G	20559217.61	20559217.76	20559217.92	0.0503	0.0389 *
Venus	51577-12-21 15:22 G	20559526.98	20559527.14	20559527.31	0.0497	0.0293
Mercury	51581-10-05 04:48 G	20560910.52	20560910.70	20560910.88	0.0506	0.0148

Venus	51583-10-20 14:53 G	20561655.95	20561656.12	20561656.30	0.0527	0.0267
Mercury	51587-03-09 12:58 G	20562891.98	20562892.04	20562892.10	0.0523	0.0456
Mercury	51587-06-06 18:00 G	20562981.13	20562981.25	20562981.37	0.0520	0.0173
Venus	51589-08-26 17:46 G	20563793.04	20563793.24	20563793.44	0.0498	0.0001
Mercury	51593-07-24 00:14 G	20565220.33	20565220.51	20565220.69	0.0505	0.0086
Mercury	51599-03-25 22:19 G	20567291.31	20567291.43	20567291.56	0.0522	0.0022
Venus	51601-05-01 19:12 G	20568059.14	20568059.30	20568059.47	0.0499	0.0296
Mars	51604-03-14 08:10 G	20569106.78	20569106.84	20569106.91	0.0495	0.0479
Mercury	51605-05-11 20:38 G	20569530.21	20569530.36	20569530.51	0.0504	0.0303
Moon	51606-08-03 12:58 G	20569978.89	20569979.04	20569979.20	0.0518	0.0367
Earth	51606-08-03 15:07 G	20569978.97	20569979.13	20569979.30	0.0518	0.0360 *
Venus	51607-10-23 12:58 G	20570424.88	20570425.04	20570425.21	0.0530	0.0292
Mercury	51611-01-12 02:53 G	20571601.50	20571601.62	20571601.74	0.0522	0.0139
Mercury	51611-04-11 07:26 G	20571690.77	20571690.81	20571690.86	0.0519	0.0480
Venus	51613-08-29 01:55 G	20572561.51	20572561.58	20572561.65	0.0496	0.0464
Mercury	51617-05-29 05:31 G	20573930.60	20573930.73	20573930.87	0.0506	0.0356
Earth	51618-08-08 11:17 G	20574366.75	20574366.97	20574367.20	0.0520	0.0112
Moon	51618-08-08 15:07 G	20574366.89	20574367.13	20574367.36	0.0520	0.0079 *
Venus	51619-06-28 05:46 G	20574690.54	20574690.74	20574690.94	0.0529	0.0063
Mercury	51622-10-31 07:26 G	20575911.70	20575911.81	20575911.91	0.0522	0.0295
Mercury	51623-01-28 12:00 G	20576000.91	20576001.00	20576001.10	0.0520	0.0329
Moon	51624-02-01 07:41 G	20576369.62	20576369.82	20576370.01	0.0508	0.0308
Earth	51624-02-01 07:26 G	20576369.64	20576369.81	20576369.99	0.0508	0.0337 *
Venus	51625-05-04 03:07 G	20576827.44	20576827.63	20576827.82	0.0497	0.0171
Mercury	51629-03-17 02:10 G	20578240.41	20578240.59	20578240.77	0.0506	0.0139
Moon	51630-08-13 03:22 G	20578754.43	20578754.64	20578754.87	0.0521	0.0160
Earth	51630-08-13 07:26 G	20578754.59	20578754.81	20578755.03	0.0521	0.0142 *
Venus	51631-03-02 21:36 G	20578956.28	20578956.40	20578956.52	0.0527	0.0418
Mercury	51634-08-19 11:17 G	20580221.92	20580221.97	20580222.03	0.0523	0.0462
Mercury	51634-11-16 16:19 G	20580311.06	20580311.18	20580311.30	0.0520	0.0167

Moon	51636-02-05 20:24 G	20580757.13	20580757.35	20580757.57	0.0507	0.0113
Earth	51636-02-05 22:19 G	20580757.20	20580757.43	20580757.66	0.0507	0.0105 *
Venus	51637-01-07 03:50 G	20581093.46	20581093.66	20581093.86	0.0498	0.0129
Mercury	51641-01-02 22:34 G	20582550.26	20582550.44	20582550.62	0.0505	0.0080
Earth	51642-08-18 02:10 G	20583142.44	20583142.59	20583142.74	0.0523	0.0393
Moon	51642-08-18 05:17 G	20583142.56	20583142.72	20583142.88	0.0523	0.0367 *
Venus	51643-07-01 06:14 G	20583459.71	20583459.76	20583459.83	0.0530	0.0508
Mercury	51646-09-04 20:38 G	20584621.24	20584621.36	20584621.49	0.0521	0.0015
Earth	51648-02-10 14:53 G	20585144.90	20585145.12	20585145.35	0.0506	0.0132
Moon	51648-02-10 18:14 G	20585145.02	20585145.26	20585145.50	0.0506	0.0099 *
Venus	51648-09-12 05:02 G	20585359.61	20585359.71	20585359.82	0.0500	0.0427
Mercury	51652-10-21 18:14 G	20586860.12	20586860.26	20586860.41	0.0504	0.0308
Venus	51655-03-05 18:00 G	20587725.06	20587725.25	20587725.45	0.0529	0.0132
Mercury	51658-06-24 00:58 G	20588931.42	20588931.54	20588931.66	0.0522	0.0150
Mercury	51658-09-21 05:31 G	20589020.68	20589020.73	20589020.78	0.0520	0.0471
Moon	51660-02-15 03:50 G	20589532.50	20589532.66	20589532.82	0.0504	0.0357
Earth	51660-02-15 07:26 G	20589532.65	20589532.81	20589532.98	0.0504	0.0361 *
Venus	51661-01-09 14:10 G	20589861.94	20589862.09	20589862.24	0.0497	0.0344
Mercury	51664-11-08 02:53 G	20591260.49	20591260.62	20591260.76	0.0506	0.0346
Venus	51666-11-08 09:22 G	20591990.71	20591990.89	20591991.08	0.0528	0.0227
Mars	51669-03-07 12:58 G	20592840.77	20592841.04	20592841.30	0.0532	0.0146
Mercury	51670-04-12 05:31 G	20593241.63	20593241.73	20593241.83	0.0523	0.0307
Mercury	51670-07-10 10:05 G	20593330.83	20593330.92	20593331.02	0.0520	0.0319
Venus	51672-09-14 14:10 G	20594127.88	20594128.09	20594128.29	0.0498	0.0046
Mercury	51676-08-26 23:02 G	20595570.28	20595570.46	20595570.64	0.0506	0.0122
Mercury	51682-01-29 09:50 G	20597551.86	20597551.91	20597551.97	0.0523	0.0464
Mercury	51682-04-28 14:53 G	20597641.00	20597641.12	20597641.24	0.0521	0.0167
Venus	51684-05-20 14:38 G	20598393.94	20598394.11	20598394.29	0.0499	0.0254
Mercury	51688-06-14 19:41 G	20599880.13	20599880.32	20599880.50	0.0505	0.0094
Earth	51689-08-02 18:43 G	20600294.13	20600294.28	20600294.42	0.0517	0.0402

Moon	51689-08-02 22:05 G	20600294.28	20600294.42	20600294.57	0.0517	0.0404 *
Venus	51690-11-11 12:00 G	20600759.85	20600760.00	20600760.15	0.0530	0.0350
Mercury	51694-02-14 18:58 G	20601951.16	20601951.29	20601951.41	0.0521	0.0010
Mercury	51700-04-03 16:05 G	20604190.03	20604190.17	20604190.32	0.0504	0.0309
Moon	51701-08-08 08:24 G	20604681.63	20604681.85	20604682.07	0.0519	0.0127
Earth	51701-08-08 12:14 G	20604681.79	20604682.01	20604682.23	0.0519	0.0158 *
Venus	51702-07-18 02:24 G	20605025.40	20605025.60	20605025.80	0.0528	0.0014
Mercury	51705-12-04 23:17 G	20606261.35	20606261.47	20606261.59	0.0522	0.0157
Mercury	51706-03-04 03:50 G	20606350.60	20606350.66	20606350.71	0.0519	0.0463
Moon	51707-02-01 04:48 G	20606684.55	20606684.70	20606684.87	0.0509	0.0358
Earth	51707-02-01 06:14 G	20606684.61	20606684.76	20606684.92	0.0509	0.0385 *
Venus	51708-05-23 23:46 G	20607162.31	20607162.49	20607162.68	0.0497	0.0214
Mercury	51712-04-21 00:14 G	20608590.38	20608590.51	20608590.65	0.0506	0.0338
Earth	51713-08-13 02:38 G	20609069.38	20609069.61	20609069.84	0.0520	0.0082
Moon	51713-08-13 06:14 G	20609069.53	20609069.76	20609069.98	0.0520	0.0096 *
Venus	51714-03-22 14:53 G	20609290.98	20609291.12	20609291.26	0.0526	0.0381
Mercury	51717-09-23 03:22 G	20610571.54	20610571.64	20610571.74	0.0523	0.0321
Mercury	51717-12-21 08:10 G	20610660.74	20610660.84	20610660.94	0.0521	0.0306
Earth	51719-02-05 23:17 G	20611072.25	20611072.47	20611072.70	0.0508	0.0150
Moon	51719-02-06 02:10 G	20611072.37	20611072.59	20611072.83	0.0508	0.0159 *
Venus	51720-01-28 01:12 G	20611428.35	20611428.55	20611428.76	0.0499	0.0081
Mars	51722-09-04 02:53 G	20612378.40	20612378.62	20612378.84	0.0494	0.0295
Mercury	51724-02-07 20:24 G	20612900.17	20612900.35	20612900.53	0.0505	0.0114
Moon	51725-08-17 18:58 G	20613457.10	20613457.29	20613457.48	0.0522	0.0303
Earth	51725-08-17 21:07 G	20613457.21	20613457.38	20613457.56	0.0522	0.0333 *
Mercury	51729-07-12 07:41 G	20614881.77	20614881.82	20614881.87	0.0524	0.0480
Mercury	51729-10-09 12:43 G	20614970.91	20614971.03	20614971.15	0.0521	0.0152
Moon	51731-02-10 11:02 G	20615459.73	20615459.96	20615460.20	0.0506	0.0051
Earth	51731-02-10 14:38 G	20615459.88	20615460.11	20615460.35	0.0506	0.0083 *
Venus	51731-10-03 00:29 G	20615694.40	20615694.52	20615694.66	0.0500	0.0383

Mercury	51735-11-26 16:19 G	20617210.00	20617210.18	20617210.36	0.0505	0.0112
Venus	51738-03-25 16:19 G	20618059.99	20618060.18	20618060.37	0.0529	0.0188
Mercury	51741-07-28 17:17 G	20619281.10	20619281.22	20619281.35	0.0521	0.0007
Earth	51743-02-15 06:00 G	20619847.57	20619847.75	20619847.94	0.0504	0.0313
Moon	51743-02-15 09:36 G	20619847.73	20619847.90	20619848.09	0.0504	0.0319 *
Venus	51744-01-30 08:38 G	20620196.73	20620196.86	20620196.99	0.0496	0.0381
Mercury	51747-09-14 12:58 G	20621519.90	20621520.04	20621520.18	0.0504	0.0325
Venus	51749-11-28 07:55 G	20622325.64	20622325.83	20622326.02	0.0528	0.0170
Mercury	51753-05-16 21:22 G	20623591.27	20623591.39	20623591.51	0.0522	0.0165
Mercury	51753-08-14 01:55 G	20623680.53	20623680.58	20623680.64	0.0519	0.0455
Venus	51755-10-05 09:07 G	20624462.68	20624462.88	20624463.08	0.0498	0.0084
Mercury	51759-10-01 21:50 G	20625920.27	20625920.41	20625920.55	0.0506	0.0334
Venus	51761-08-02 23:02 G	20626591.45	20626591.46	20626591.48	0.0526	0.0524
Mercury	51765-03-05 01:41 G	20627901.47	20627901.57	20627901.67	0.0523	0.0327
Mercury	51765-06-02 06:29 G	20627990.66	20627990.77	20627990.87	0.0520	0.0300
Venus	51767-06-10 10:19 G	20628728.75	20628728.93	20628729.12	0.0499	0.0213
Mercury	51771-07-20 17:46 G	20630230.06	20630230.24	20630230.42	0.0505	0.0106
Moon	51772-08-02 11:31 G	20630608.89	20630608.98	20630609.08	0.0516	0.0467
Earth	51772-08-02 15:22 G	20630609.04	20630609.14	20630609.24	0.0516	0.0459 *
Venus	51773-12-01 05:02 G	20631094.58	20631094.71	20631094.85	0.0530	0.0383
Mercury	51776-12-22 05:31 G	20632211.70	20632211.73	20632211.77	0.0524	0.0495
Mercury	51777-03-21 10:34 G	20632300.82	20632300.94	20632301.06	0.0521	0.0139
Mercury	51783-05-08 13:55 G	20634539.90	20634540.08	20634540.26	0.0504	0.0117
Earth	51784-08-07 07:41 G	20634996.62	20634996.82	20634997.04	0.0518	0.0218
Moon	51784-08-07 11:31 G	20634996.77	20634996.98	20634997.20	0.0518	0.0186 *
Venus	51785-08-05 20:10 G	20635360.13	20635360.34	20635360.54	0.0528	0.0025
Mercury	51789-01-07 15:07 G	20636611.00	20636611.13	20636611.26	0.0522	0.0017
Earth	51790-01-31 04:34 G	20636999.58	20636999.69	20636999.82	0.0510	0.0440
Moon	51790-01-31 07:12 G	20636999.66	20636999.80	20636999.95	0.0510	0.0409 *
Venus	51791-06-12 18:43 G	20637497.11	20637497.28	20637497.46	0.0497	0.0254

Mercury	51795-02-24 09:36 G	20638849.77	20638849.90	20638850.04	0.0504	0.0344
Moon	51796-08-11 23:31 G	20639384.24	20639384.48	20639384.72	0.0520	0.0039
Earth	51796-08-12 02:10 G	20639384.36	20639384.59	20639384.83	0.0520	0.0032 *
Venus	51797-04-10 12:14 G	20639625.85	20639626.01	20639626.17	0.0527	0.0329
Mercury	51800-10-27 19:41 G	20640921.20	20640921.32	20640921.44	0.0522	0.0170
Mercury	51801-01-25 00:14 G	20641010.46	20641010.51	20641010.58	0.0519	0.0452
Moon	51802-02-05 18:58 G	20641387.08	20641387.29	20641387.50	0.0508	0.0209
Earth	51802-02-05 22:19 G	20641387.22	20641387.43	20641387.65	0.0508	0.0199 *
Venus	51803-02-16 19:55 G	20641763.13	20641763.33	20641763.53	0.0498	0.0041
Mercury	51807-03-14 18:43 G	20643250.13	20643250.28	20643250.42	0.0506	0.0317
Earth	51808-08-17 22:34 G	20643772.25	20643772.44	20643772.64	0.0522	0.0289
Moon	51808-08-17 23:17 G	20643772.28	20643772.47	20643772.67	0.0522	0.0258 *
Mercury	51812-08-15 23:46 G	20645231.40	20645231.49	20645231.59	0.0523	0.0334
Mercury	51812-11-13 04:34 G	20645320.59	20645320.69	20645320.80	0.0520	0.0292
Earth	51814-02-10 12:43 G	20645774.80	20645775.03	20645775.27	0.0506	0.0035
Moon	51814-02-10 16:34 G	20645774.95	20645775.19	20645775.42	0.0506	0.0006 *
Venus	51814-10-22 19:41 G	20646029.18	20646029.32	20646029.47	0.0500	0.0343
Mercury	51818-12-31 15:07 G	20647559.95	20647560.13	20647560.31	0.0505	0.0098
Venus	51821-04-14 12:58 G	20648394.86	20648395.04	20648395.22	0.0529	0.0236
Mars	51823-06-02 16:19 G	20649173.92	20649174.18	20649174.45	0.0532	0.0184
Mercury	51824-06-04 03:50 G	20649541.63	20649541.66	20649541.70	0.0523	0.0498
Mercury	51824-09-01 08:53 G	20649630.75	20649630.87	20649631.00	0.0521	0.0135
Moon	51826-02-15 01:12 G	20650162.36	20650162.55	20650162.76	0.0505	0.0275
Earth	51826-02-15 04:19 G	20650162.49	20650162.68	20650162.89	0.0505	0.0267 *
Venus	51827-02-19 04:19 G	20650531.58	20650531.68	20650531.79	0.0497	0.0421
Mercury	51830-10-19 11:17 G	20651869.79	20651869.97	20651870.15	0.0504	0.0124
Venus	51832-12-18 01:55 G	20652660.38	20652660.58	20652660.78	0.0527	0.0131
Mercury	51836-06-20 12:58 G	20653940.92	20653941.04	20653941.17	0.0522	0.0034
Earth	51838-02-19 19:26 G	20654550.27	20654550.31	20654550.36	0.0504	0.0494
Venus	51838-10-25 05:46 G	20654797.55	20654797.74	20654797.94	0.0498	0.0130

Mercury	51842-08-07 07:26 G	20656179.68	20656179.81	20656179.95	0.0504	0.0344
Venus	51844-08-22 17:31 G	20656926.15	20656926.23	20656926.30	0.0526	0.0483
Mercury	51848-04-08 17:31 G	20658251.11	20658251.23	20658251.35	0.0522	0.0185
Mercury	51848-07-06 22:19 G	20658340.36	20658340.43	20658340.49	0.0520	0.0437
Venus	51850-06-30 05:46 G	20659063.55	20659063.74	20659063.93	0.0499	0.0170
Mercury	51854-08-24 15:22 G	20660579.99	20660580.14	20660580.29	0.0506	0.0298
Earth	51855-08-03 14:10 G	20660924.07	20660924.09	20660924.13	0.0516	0.0511
Moon	51855-08-03 18:00 G	20660924.24	20660924.25	20660924.28	0.0516	0.0515
Venus	51856-12-21 02:53 G	20661429.51	20661429.62	20661429.74	0.0530	0.0437
Mercury	51860-01-26 22:19 G	20662561.33	20662561.43	20662561.52	0.0523	0.0337
Mercury	51860-04-25 03:07 G	20662650.52	20662650.63	20662650.73	0.0520	0.0290
Venus	51862-03-05 06:29 G	20663329.71	20663329.77	20663329.85	0.0500	0.0467
Mercury	51866-06-12 12:00 G	20664889.81	20664890.00	20664890.18	0.0505	0.0082
Moon	51867-08-08 06:29 G	20665311.56	20665311.77	20665311.98	0.0518	0.0233
Earth	51867-08-08 09:22 G	20665311.70	20665311.89	20665312.09	0.0518	0.0263 *
Venus	51868-08-25 18:58 G	20665695.09	20665695.29	20665695.49	0.0529	0.0081
Mercury	51871-11-15 02:24 G	20666871.57	20666871.60	20666871.63	0.0523	0.0501
Mercury	51872-02-12 07:26 G	20666960.68	20666960.81	20666960.93	0.0521	0.0131
Moon	51873-01-31 00:43 G	20667314.44	20667314.53	20667314.64	0.0510	0.0459
Earth	51873-01-31 03:50 G	20667314.61	20667314.66	20667314.74	0.0510	0.0487 *
Venus	51874-07-02 14:24 G	20667831.94	20667832.10	20667832.27	0.0497	0.0294
Mars	51876-11-28 05:31 G	20668711.46	20668711.73	20668712.00	0.0495	0.0028
Mercury	51878-03-31 08:38 G	20669199.68	20669199.86	20669200.04	0.0505	0.0132
Earth	51879-08-13 04:19 G	20669699.45	20669699.68	20669699.91	0.0520	0.0013
Moon	51879-08-13 05:31 G	20669699.51	20669699.73	20669699.96	0.0520	0.0014 *
Venus	51880-04-30 10:05 G	20669960.75	20669960.92	20669961.10	0.0527	0.0275
Mercury	51883-12-01 11:46 G	20671270.86	20671270.99	20671271.11	0.0521	0.0033
Earth	51885-02-04 20:38 G	20671702.16	20671702.36	20671702.57	0.0508	0.0248
Moon	51885-02-05 00:29 G	20671702.32	20671702.52	20671702.72	0.0508	0.0261 *
Venus	51886-03-07 15:50 G	20672097.96	20672098.16	20672098.37	0.0498	0.0006

Mercury	51890-01-17 05:17 G	20673509.59	20673509.72	20673509.85	0.0504	0.0347
Earth	51891-08-17 21:07 G	20674087.17	20674087.38	20674087.58	0.0521	0.0235
Moon	51891-08-17 21:22 G	20674087.17	20674087.39	20674087.61	0.0521	0.0202 *
Mercury	51895-09-19 15:36 G	20675581.04	20675581.15	20675581.27	0.0523	0.0196
Mercury	51895-12-17 20:24 G	20675670.28	20675670.35	20675670.42	0.0520	0.0428
Moon	51897-02-09 09:36 G	20676089.67	20676089.90	20676090.14	0.0507	0.0043
Earth	51897-02-09 12:58 G	20676089.81	20676090.04	20676090.28	0.0507	0.0015 *
Venus	51897-11-10 16:34 G	20676364.03	20676364.19	20676364.36	0.0500	0.0296
Mercury	51902-02-04 13:41 G	20677909.92	20677910.07	20677910.22	0.0506	0.0304
Moon	51903-08-23 13:41 G	20678474.99	20678475.07	20678475.16	0.0522	0.0479
Earth	51903-08-23 15:36 G	20678475.07	20678475.15	20678475.23	0.0522	0.0487 *
Venus	51904-05-04 08:10 G	20678729.67	20678729.84	20678730.01	0.0529	0.0279
Mercury	51907-07-09 20:10 G	20679891.25	20679891.34	20679891.44	0.0523	0.0350
Mercury	51907-10-07 01:12 G	20679980.44	20679980.55	20679980.65	0.0520	0.0279
Earth	51909-02-15 05:02 G	20680477.50	20680477.71	20680477.92	0.0505	0.0222
Moon	51909-02-15 07:12 G	20680477.60	20680477.80	20680478.00	0.0505	0.0235 *
Venus	51910-03-11 00:00 G	20680866.44	20680866.50	20680866.58	0.0496	0.0463
Mercury	51913-11-23 08:53 G	20682219.69	20682219.87	20682220.06	0.0505	0.0069
Venus	51916-01-07 23:46 G	20682995.29	20682995.49	20682995.70	0.0528	0.0077
Mercury	51919-04-28 00:58 G	20684201.51	20684201.54	20684201.57	0.0524	0.0502
Mercury	51919-07-26 06:00 G	20684290.62	20684290.75	20684290.87	0.0521	0.0131
Earth	51921-02-19 21:50 G	20684865.31	20684865.41	20684865.51	0.0504	0.0455
Moon	51921-02-19 21:07 G	20684865.32	20684865.38	20684865.45	0.0504	0.0484 *
Venus	51921-11-14 02:10 G	20685132.40	20685132.59	20685132.78	0.0497	0.0173
Mercury	51925-09-11 05:46 G	20686529.56	20686529.74	20686529.92	0.0505	0.0144
Venus	51927-09-12 16:34 G	20687261.08	20687261.19	20687261.31	0.0526	0.0425
Mercury	51931-05-14 10:19 G	20688600.80	20688600.93	20688601.05	0.0521	0.0029
Venus	51933-07-20 02:38 G	20689398.41	20689398.61	20689398.81	0.0499	0.0124
Mercury	51937-06-30 02:38 G	20690839.48	20690839.61	20690839.75	0.0504	0.0354
Venus	51940-01-11 02:10 G	20691764.52	20691764.59	20691764.66	0.0530	0.0494

Mercury	51943-03-02 14:24 G	20692910.99	20692911.10	20692911.22	0.0522	0.0189
Mercury	51943-05-30 19:12 G	20693000.23	20693000.30	20693000.37	0.0519	0.0433
Venus	51945-03-25 03:07 G	20693664.53	20693664.63	20693664.75	0.0501	0.0422
Mercury	51949-07-17 11:31 G	20695239.84	20695239.98	20695240.13	0.0506	0.0306
Earth	51950-08-08 11:31 G	20695626.80	20695626.98	20695627.17	0.0517	0.0308
Moon	51950-08-08 13:12 G	20695626.86	20695627.05	20695627.24	0.0517	0.0278 *
Venus	51951-09-15 15:36 G	20696029.96	20696030.15	20696030.35	0.0528	0.0130
Mercury	51954-12-19 18:29 G	20697221.18	20697221.27	20697221.36	0.0523	0.0356
Mercury	51955-03-18 23:17 G	20697310.37	20697310.47	20697310.58	0.0521	0.0274
Moon	51956-02-01 08:24 G	20697629.84	20697629.85	20697629.88	0.0511	0.0508
Venus	51957-07-22 12:29 G	20698166.87	20698167.02	20698167.16	0.0497	0.0344
Mercury	51961-05-05 07:55 G	20699549.64	20699549.83	20699550.01	0.0505	0.0083
Moon	51962-08-13 04:48 G	20700014.46	20700014.70	20700014.94	0.0519	0.0062
Earth	51962-08-13 05:02 G	20700014.48	20700014.71	20700014.94	0.0519	0.0061 *
Venus	51963-05-21 06:58 G	20700295.61	20700295.79	20700295.97	0.0527	0.0225
Mercury	51966-10-07 23:02 G	20701531.44	20701531.46	20701531.48	0.0524	0.0511
Mercury	51967-01-05 04:05 G	20701620.55	20701620.67	20701620.79	0.0521	0.0123
Moon	51968-02-05 19:41 G	20702017.14	20702017.32	20702017.52	0.0509	0.0310
Earth	51968-02-05 23:31 G	20702017.28	20702017.48	20702017.67	0.0509	0.0290 *
Venus	51969-03-27 13:12 G	20702432.85	20702433.05	20702433.25	0.0498	0.0049
Mercury	51973-02-21 03:07 G	20703859.45	20703859.63	20703859.81	0.0505	0.0152
Moon	51974-08-17 20:24 G	20704402.14	20704402.35	20704402.56	0.0521	0.0158
Earth	51974-08-17 21:50 G	20704402.20	20704402.41	20704402.63	0.0521	0.0190 *
Mercury	51978-10-24 08:53 G	20705930.75	20705930.87	20705931.00	0.0522	0.0031
Earth	51980-02-10 18:14 G	20706405.03	20706405.26	20706405.50	0.0507	0.0046
Moon	51980-02-10 20:38 G	20706405.13	20706405.36	20706405.58	0.0507	0.0072 *
Venus	51980-11-30 14:53 G	20706698.94	20706699.12	20706699.30	0.0499	0.0243
Mercury	51984-12-10 00:00 G	20708169.38	20708169.50	20708169.63	0.0504	0.0362
Earth	51986-08-22 19:26 G	20708790.20	20708790.31	20708790.43	0.0523	0.0451
Moon	51986-08-22 22:48 G	20708790.33	20708790.45	20708790.57	0.0523	0.0450 *

Venus	51987-05-24 08:53 G	20709064.72	20709064.87	20709065.03	0.0530	0.0343
Mercury	51990-08-12 13:26 G	20710240.94	20710241.06	20710241.18	0.0522	0.0183
Mercury	51990-11-09 18:00 G	20710330.19	20710330.25	20710330.32	0.0519	0.0439
Moon	51992-02-15 08:24 G	20710792.63	20710792.85	20710793.08	0.0505	0.0200
Earth	51992-02-15 09:22 G	20710792.68	20710792.89	20710793.11	0.0505	0.0188 *
Mercury	51996-12-27 09:22 G	20712569.74	20712569.89	20712570.04	0.0506	0.0304
Venus	51999-01-27 00:43 G	20713330.33	20713330.53	20713330.73	0.0528	0.0012

53RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 53rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	52002-05-31 17:31 G		20714551.14	20714551.23	20714551.33	0.0523	0.0344	
Mercury	52002-08-28 22:34 G		20714640.33	20714640.44	20714640.54	0.0520	0.0284	
Moon	52004-02-19 23:46 G		20715180.40	20715180.49	20715180.60	0.0504	0.0450	
Earth	52004-02-20 00:58 G		20715180.41	20715180.54	20715180.67	0.0504	0.0420 *	
Venus	52004-12-03 00:00 G		20715467.33	20715467.50	20715467.69	0.0497	0.0223	
Mercury	52008-10-15 06:14 G		20716879.57	20716879.76	20716879.94	0.0505	0.0089	
Venus	52010-10-01 15:36 G		20717596.00	20717596.15	20717596.29	0.0526	0.0366	
Mercury	52014-03-19 21:36 G		20718861.38	20718861.40	20718861.42	0.0524	0.0511	
Mercury	52014-06-17 02:38 G		20718950.49	20718950.61	20718950.73	0.0521	0.0123	
Venus	52016-08-08 01:26 G		20719733.36	20719733.56	20719733.76	0.0499	0.0071	
Mercury	52020-08-03 02:38 G		20721189.43	20721189.61	20721189.79	0.0504	0.0130	
Mercury	52026-04-05 07:26 G		20723260.68	20723260.81	20723260.93	0.0522	0.0029	

Venus	52028-04-13 02:10 G	20723999.46	20723999.59	20723999.73	0.0500	0.0367
Mars	52031-02-22 18:29 G	20725045.05	20725045.27	20725045.49	0.0494	0.0291
Mercury	52032-05-21 21:50 G	20725499.29	20725499.41	20725499.54	0.0504	0.0364
Moon	52033-08-07 12:29 G	20725941.84	20725942.02	20725942.22	0.0517	0.0321
Earth	52033-08-07 13:12 G	20725941.88	20725942.05	20725942.22	0.0517	0.0353 *
Venus	52034-10-04 15:07 G	20726364.94	20726365.13	20726365.32	0.0529	0.0189
Mercury	52038-01-22 12:14 G	20727570.89	20727571.01	20727571.13	0.0522	0.0175
Mercury	52038-04-21 16:48 G	20727660.15	20727660.20	20727660.27	0.0520	0.0448
Venus	52040-08-10 11:46 G	20728501.87	20728501.99	20728502.11	0.0496	0.0396
Mercury	52044-06-08 06:58 G	20729899.64	20729899.79	20729899.94	0.0506	0.0300
Moon	52045-08-12 08:24 G	20730329.63	20730329.85	20730330.07	0.0519	0.0101
Earth	52045-08-12 09:36 G	20730329.67	20730329.90	20730330.13	0.0519	0.0097 *
Venus	52046-06-09 08:10 G	20730630.64	20730630.84	20730631.03	0.0528	0.0160
Mercury	52049-11-10 16:48 G	20731881.10	20731881.20	20731881.29	0.0523	0.0333
Mercury	52050-02-07 21:36 G	20731970.29	20731970.40	20731970.50	0.0520	0.0295
Earth	52051-02-05 06:29 G	20732332.59	20732332.77	20732332.96	0.0509	0.0320
Moon	52051-02-05 09:07 G	20732332.71	20732332.88	20732333.04	0.0509	0.0345 *
Venus	52052-04-15 12:43 G	20732767.83	20732768.03	20732768.23	0.0498	0.0104
Mercury	52056-03-27 04:05 G	20734209.49	20734209.67	20734209.86	0.0505	0.0090
Earth	52057-08-17 06:43 G	20734717.56	20734717.78	20734718.00	0.0521	0.0162
Moon	52057-08-17 09:36 G	20734717.67	20734717.90	20734718.13	0.0521	0.0132 *
Venus	52058-02-12 00:58 G	20734896.49	20734896.54	20734896.60	0.0526	0.0504
Mercury	52061-08-29 20:53 G	20736191.33	20736191.37	20736191.41	0.0523	0.0493
Mercury	52061-11-27 01:55 G	20736280.46	20736280.58	20736280.70	0.0521	0.0139
Moon	52063-02-09 22:19 G	20736720.19	20736720.43	20736720.67	0.0507	0.0105
Earth	52063-02-09 23:31 G	20736720.25	20736720.48	20736720.71	0.0507	0.0080 *
Venus	52063-12-20 14:10 G	20737033.90	20737034.09	20737034.28	0.0499	0.0190
Mercury	52068-01-14 01:12 G	20738519.37	20738519.55	20738519.73	0.0505	0.0121
Moon	52069-08-21 22:19 G	20739105.30	20739105.43	20739105.57	0.0522	0.0422
Earth	52069-08-22 02:10 G	20739105.46	20739105.59	20739105.73	0.0522	0.0417 *

Venus	52070-06-12 09:22 G	20739399.76	20739399.89	20739400.02	0.0529	0.0405
Mercury	52073-09-15 06:14 G	20740590.63	20740590.76	20740590.88	0.0522	0.0029
Moon	52075-02-14 14:38 G	20741107.90	20741108.11	20741108.32	0.0506	0.0173
Earth	52075-02-14 15:07 G	20741107.91	20741108.13	20741108.36	0.0506	0.0157 *
Venus	52075-08-25 14:24 G	20741300.06	20741300.10	20741300.16	0.0501	0.0486
Mercury	52079-11-01 21:50 G	20742829.27	20742829.41	20742829.54	0.0504	0.0335
Venus	52082-02-15 00:29 G	20743665.32	20743665.52	20743665.72	0.0528	0.0049
Mercury	52085-07-04 10:48 G	20744900.83	20744900.95	20744901.07	0.0522	0.0174
Mercury	52085-10-01 15:36 G	20744990.09	20744990.15	20744990.21	0.0520	0.0448
Earth	52087-02-19 08:53 G	20745495.73	20745495.87	20745496.02	0.0504	0.0394
Moon	52087-02-19 11:31 G	20745495.85	20745495.98	20745496.12	0.0504	0.0417 *
Venus	52087-12-23 00:14 G	20745802.35	20745802.51	20745802.68	0.0497	0.0278
Mercury	52091-11-19 05:02 G	20747229.56	20747229.71	20747229.86	0.0506	0.0302
Venus	52093-10-20 14:53 G	20747930.96	20747931.12	20747931.29	0.0527	0.0308
Mars	52096-02-14 14:38 G	20748777.95	20748778.11	20748778.27	0.0533	0.0434
Mercury	52097-04-22 15:50 G	20749211.06	20749211.16	20749211.25	0.0523	0.0322
Mercury	52097-07-20 20:38 G	20749300.26	20749300.36	20749300.46	0.0520	0.0306
Venus	52099-08-28 02:53 G	20750068.41	20750068.62	20750068.82	0.0498	0.0012
Mercury	52103-09-08 01:55 G	20751539.40	20751539.58	20751539.77	0.0505	0.0091
Mercury	52109-02-09 20:10 G	20753521.29	20753521.34	20753521.39	0.0523	0.0479
Mercury	52109-05-10 01:12 G	20753610.43	20753610.55	20753610.67	0.0521	0.0153
Venus	52111-05-04 03:22 G	20754334.48	20754334.64	20754334.80	0.0500	0.0305
Mercury	52115-06-26 23:17 G	20755849.29	20755849.47	20755849.65	0.0505	0.0117
Moon	52116-08-07 23:02 G	20756257.30	20756257.46	20756257.63	0.0517	0.0347
Earth	52116-08-08 00:00 G	20756257.35	20756257.50	20756257.67	0.0517	0.0377 *
Venus	52117-10-24 18:58 G	20756700.11	20756700.29	20756700.46	0.0529	0.0265
Mercury	52121-02-26 05:46 G	20757920.61	20757920.74	20757920.86	0.0521	0.0012
Venus	52123-08-31 11:46 G	20758836.92	20758836.99	20758837.08	0.0496	0.0452
Mercury	52127-04-14 20:38 G	20760159.22	20760159.36	20760159.50	0.0504	0.0323
Earth	52128-08-12 19:12 G	20760645.08	20760645.30	20760645.53	0.0519	0.0125

Moon	52128-08-12 22:05 G	20760645.19	20760645.42	20760645.65	0.0519	0.0134 *
Venus	52129-06-29 10:05 G	20760965.72	20760965.92	20760966.12	0.0527	0.0090
Mercury	52132-12-15 09:50 G	20762230.79	20762230.91	20762231.03	0.0522	0.0166
Mercury	52133-03-14 14:24 G	20762320.05	20762320.10	20762320.16	0.0520	0.0457
Moon	52134-02-05 12:00 G	20762647.84	20762648.00	20762648.17	0.0510	0.0377
Earth	52134-02-05 13:26 G	20762647.89	20762648.06	20762648.23	0.0510	0.0352 *
Venus	52135-05-06 13:41 G	20763102.88	20763103.07	20763103.26	0.0498	0.0164
Mercury	52139-05-02 05:17 G	20764559.59	20764559.72	20764559.86	0.0506	0.0336
Moon	52140-08-17 10:05 G	20765032.70	20765032.92	20765033.15	0.0520	0.0100
Earth	52140-08-17 13:55 G	20765032.85	20765033.08	20765033.30	0.0520	0.0130 *
Venus	52141-03-04 01:41 G	20765231.47	20765231.57	20765231.69	0.0526	0.0439
Mercury	52144-10-03 14:24 G	20766541.00	20766541.10	20766541.20	0.0523	0.0318
Mercury	52144-12-31 19:26 G	20766630.21	20766630.31	20766630.41	0.0520	0.0311
Moon	52146-02-10 08:24 G	20767035.64	20767035.85	20767036.08	0.0508	0.0125
Earth	52146-02-10 08:53 G	20767035.65	20767035.87	20767036.11	0.0508	0.0105 *
Venus	52147-01-09 15:36 G	20767368.95	20767369.15	20767369.35	0.0499	0.0127
Mars	52149-08-15 11:17 G	20768317.81	20768317.97	20768318.14	0.0493	0.0388
Mercury	52151-02-18 00:29 G	20768869.34	20768869.52	20768869.70	0.0505	0.0097
Earth	52152-08-22 06:00 G	20769420.59	20769420.75	20769420.91	0.0522	0.0381
Moon	52152-08-22 09:36 G	20769420.75	20769420.90	20769421.05	0.0522	0.0394 *
Venus	52153-07-02 09:50 G	20769734.82	20769734.91	20769735.01	0.0531	0.0468
Mercury	52156-07-22 19:26 G	20770851.25	20770851.31	20770851.36	0.0524	0.0467
Mercury	52156-10-20 00:29 G	20770940.40	20770940.52	20770940.64	0.0521	0.0167
Earth	52158-02-15 04:34 G	20771423.46	20771423.69	20771423.91	0.0506	0.0141
Moon	52158-02-15 07:12 G	20771423.57	20771423.80	20771424.03	0.0506	0.0166 *
Venus	52158-09-14 17:31 G	20771635.13	20771635.23	20771635.35	0.0500	0.0417
Mercury	52162-12-06 21:36 G	20773179.22	20773179.40	20773179.58	0.0505	0.0113
Venus	52165-03-07 02:38 G	20774000.41	20774000.61	20774000.81	0.0529	0.0118
Mercury	52168-08-08 05:02 G	20775250.58	20775250.71	20775250.84	0.0521	0.0014
Moon	52170-02-19 16:19 G	20775811.04	20775811.18	20775811.33	0.0504	0.0394

Earth	52170-02-19 20:10 G	20775811.19	20775811.34	20775811.50	0.0504	0.0376	*
Venus	52171-01-12 02:10 G	20776137.44	20776137.59	20776137.74	0.0497	0.0340	
Mercury	52174-09-24 18:58 G	20777489.15	20777489.29	20777489.43	0.0504	0.0316	
Venus	52176-11-09 19:41 G	20778266.14	20778266.32	20778266.50	0.0527	0.0228	
Mercury	52180-05-27 09:22 G	20779560.77	20779560.89	20779561.02	0.0522	0.0143	
Mercury	52180-08-24 14:10 G	20779650.04	20779650.09	20779650.13	0.0519	0.0478	
Venus	52182-09-17 03:50 G	20780403.45	20780403.66	20780403.86	0.0498	0.0052	
Mercury	52186-10-12 04:19 G	20781889.55	20781889.68	20781889.82	0.0506	0.0352	
Mercury	52192-03-15 13:26 G	20783870.96	20783871.06	20783871.17	0.0523	0.0307	
Mercury	52192-06-12 18:29 G	20783960.17	20783960.27	20783960.37	0.0520	0.0321	
Venus	52194-05-23 04:48 G	20784669.52	20784669.70	20784669.88	0.0500	0.0242	
Mercury	52198-07-31 00:58 G	20786199.36	20786199.54	20786199.72	0.0505	0.0134	
Earth	52199-08-08 09:07 G	20786572.74	20786572.88	20786573.03	0.0517	0.0404	
Moon	52199-08-08 11:46 G	20786572.83	20786572.99	20786573.15	0.0517	0.0376	*
Venus	52200-11-13 20:24 G	20787035.20	20787035.35	20787035.51	0.0529	0.0332	
Mercury	52204-01-03 18:00 G	20788181.20	20788181.25	20788181.32	0.0524	0.0461	
Mercury	52204-04-01 23:17 G	20788270.35	20788270.47	20788270.59	0.0521	0.0174	
Mercury	52210-05-19 20:10 G	20790509.16	20790509.34	20790509.52	0.0504	0.0103	
Moon	52211-08-13 19:41 G	20790960.11	20790960.32	20790960.54	0.0518	0.0180	
Earth	52211-08-13 23:17 G	20790960.25	20790960.47	20790960.69	0.0518	0.0162	*
Venus	52212-07-19 10:19 G	20791300.73	20791300.93	20791301.13	0.0528	0.0030	
Mercury	52216-01-20 04:05 G	20792580.55	20792580.67	20792580.80	0.0522	0.0033	
Earth	52217-02-06 03:50 G	20792963.50	20792963.66	20792963.83	0.0510	0.0366	
Moon	52217-02-06 03:36 G	20792963.51	20792963.65	20792963.79	0.0510	0.0395	*
Venus	52218-05-26 17:02 G	20793438.03	20793438.21	20793438.39	0.0497	0.0231	
Mercury	52222-03-07 17:17 G	20794819.08	20794819.22	20794819.37	0.0504	0.0310	
Earth	52223-08-18 20:10 G	20795348.12	20795348.34	20795348.57	0.0520	0.0099	
Moon	52223-08-18 23:46 G	20795348.27	20795348.49	20795348.72	0.0520	0.0073	*
Venus	52224-03-24 03:36 G	20795566.51	20795566.65	20795566.79	0.0527	0.0373	
Mercury	52227-11-08 08:53 G	20796890.74	20796890.87	20796890.99	0.0522	0.0126	

Mercury	52228-02-05 13:26 G	20796980.03	20796980.06	20796980.10	0.0519	0.0495
Earth	52229-02-10 21:22 G	20797351.16	20797351.39	20797351.62	0.0508	0.0123
Moon	52229-02-10 23:46 G	20797351.26	20797351.49	20797351.73	0.0508	0.0133 *
Venus	52230-01-29 18:14 G	20797704.06	20797704.26	20797704.46	0.0498	0.0060
Mercury	52234-03-25 02:38 G	20799219.49	20799219.61	20799219.75	0.0506	0.0359
Moon	52235-08-23 16:05 G	20799736.01	20799736.17	20799736.33	0.0522	0.0375
Earth	52235-08-23 18:58 G	20799736.13	20799736.29	20799736.46	0.0522	0.0363 *
Mercury	52239-08-27 13:12 G	20801200.95	20801201.05	20801201.16	0.0523	0.0283
Mercury	52239-11-24 18:00 G	20801290.16	20801290.25	20801290.35	0.0520	0.0344
Moon	52241-02-15 10:19 G	20801738.71	20801738.93	20801739.16	0.0506	0.0147
Earth	52241-02-15 14:10 G	20801738.86	20801739.09	20801739.32	0.0506	0.0117 *
Venus	52241-10-04 18:58 G	20801970.15	20801970.29	20801970.44	0.0500	0.0354
Mercury	52246-01-11 00:00 G	20803529.32	20803529.50	20803529.68	0.0505	0.0149
Venus	52248-03-27 06:14 G	20804335.57	20804335.76	20804335.95	0.0529	0.0193
Mars	52250-05-13 15:07 G	20805112.86	20805113.13	20805113.40	0.0532	0.0142
Mercury	52251-06-15 17:17 G	20805511.16	20805511.22	20805511.28	0.0524	0.0448
Mercury	52251-09-12 22:19 G	20805600.31	20805600.43	20805600.55	0.0521	0.0185
Earth	52253-02-20 05:17 G	20806126.56	20806126.72	20806126.89	0.0505	0.0353
Moon	52253-02-20 09:22 G	20806126.74	20806126.89	20806127.05	0.0505	0.0370 *
Venus	52254-02-01 03:50 G	20806472.55	20806472.66	20806472.78	0.0497	0.0402
Mercury	52257-10-29 20:38 G	20807839.17	20807839.36	20807839.54	0.0505	0.0066
Venus	52259-11-30 21:36 G	20808601.21	20808601.40	20808601.60	0.0527	0.0160
Mercury	52263-07-02 03:07 G	20809910.50	20809910.63	20809910.76	0.0522	0.0035
Venus	52265-10-07 06:29 G	20810738.57	20810738.77	20810738.97	0.0498	0.0117
Mercury	52269-08-17 15:50 G	20812149.02	20812149.16	20812149.32	0.0504	0.0300
Venus	52271-08-05 11:31 G	20812866.95	20812866.98	20812867.02	0.0526	0.0514
Mercury	52275-04-20 07:55 G	20814220.71	20814220.83	20814220.96	0.0523	0.0114
Mercury	52275-07-18 12:43 G	20814310.01	20814310.03	20814310.05	0.0520	0.0509
Venus	52277-06-12 08:53 G	20815004.68	20815004.87	20815005.06	0.0499	0.0171
Mercury	52281-09-04 01:12 G	20816549.42	20816549.55	20816549.67	0.0506	0.0364

Moon	52282-08-08 11:17 G	20816887.85	20816887.97	20816888.11	0.0516	0.0419
Earth	52282-08-08 14:53 G	20816888.01	20816888.12	20816888.25	0.0516	0.0439 *
Venus	52283-12-03 22:19 G	20817370.30	20817370.43	20817370.57	0.0530	0.0398
Mercury	52287-02-06 12:29 G	20818530.91	20818531.02	20818531.13	0.0523	0.0268
Mercury	52287-05-06 17:17 G	20818620.13	20818620.22	20818620.31	0.0520	0.0360
Venus	52289-02-15 09:22 G	20819270.82	20819270.89	20819270.96	0.0501	0.0465
Mercury	52293-06-22 22:19 G	20820859.25	20820859.43	20820859.61	0.0505	0.0155
Earth	52294-08-13 12:00 G	20821275.79	20821276.00	20821276.22	0.0518	0.0182
Moon	52294-08-13 15:50 G	20821275.95	20821276.16	20821276.37	0.0518	0.0208 *
Venus	52295-08-08 15:22 G	20821635.94	20821636.14	20821636.34	0.0529	0.0052
Mercury	52298-11-25 16:48 G	20822841.13	20822841.20	20822841.28	0.0523	0.0426
Mercury	52299-02-22 21:50 G	20822930.30	20822930.41	20822930.53	0.0521	0.0207
Earth	52300-02-06 13:12 G	20823278.91	20823279.05	20823279.20	0.0510	0.0393
Moon	52300-02-06 15:22 G	20823279.01	20823279.14	20823279.28	0.0510	0.0421 *
Venus	52301-06-15 18:14 G	20823773.10	20823773.26	20823773.43	0.0497	0.0291
Mars	52303-11-12 06:00 G	20824652.49	20824652.75	20824653.02	0.0494	0.0073
Mercury	52305-04-11 19:26 G	20825169.13	20825169.31	20825169.50	0.0505	0.0053
Moon	52306-08-19 05:17 G	20825663.48	20825663.72	20825663.96	0.0520	0.0050
Earth	52306-08-19 08:24 G	20825663.62	20825663.85	20825664.08	0.0520	0.0077 *
Venus	52307-04-14 07:26 G	20825901.64	20825901.81	20825901.98	0.0527	0.0296
Mercury	52310-12-13 02:10 G	20827240.46	20827240.59	20827240.72	0.0522	0.0046
Moon	52312-02-12 01:55 G	20827666.36	20827666.58	20827666.80	0.0508	0.0155
Earth	52312-02-12 05:31 G	20827666.51	20827666.73	20827666.96	0.0508	0.0151 *
Venus	52313-02-18 19:41 G	20828039.11	20828039.32	20828039.52	0.0499	0.0007
Mercury	52317-01-28 16:19 G	20829479.02	20829479.18	20829479.34	0.0504	0.0266
Earth	52318-08-24 03:22 G	20830051.47	20830051.64	20830051.82	0.0521	0.0335
Moon	52318-08-24 04:48 G	20830051.54	20830051.70	20830051.87	0.0521	0.0353 *
Mercury	52322-10-01 06:43 G	20831550.66	20831550.78	20831550.91	0.0522	0.0107
Mercury	52322-12-29 11:31 G	20831639.97	20831639.98	20831639.99	0.0520	0.0515
Earth	52324-02-17 00:43 G	20832054.30	20832054.53	20832054.76	0.0507	0.0097

Moon	52324-02-17 04:48 G	20832054.47	20832054.70	20832054.92	0.0507	0.0131	*
Venus	52324-10-24 21:36 G	20832305.24	20832305.40	20832305.57	0.0500	0.0288	
Mercury	52328-11-16 12:00 G	20833788.97	20833789.00	20833789.03	0.0503	0.0494	
Mercury	52329-02-14 23:46 G	20833879.36	20833879.49	20833879.61	0.0505	0.0373	
Venus	52331-04-17 05:31 G	20834670.55	20834670.73	20834670.91	0.0530	0.0249	
Mercury	52334-07-20 11:31 G	20835860.87	20835860.98	20835861.09	0.0523	0.0259	
Mercury	52334-10-17 16:19 G	20835950.10	20835950.18	20835950.27	0.0521	0.0370	
Moon	52336-02-21 16:05 G	20836442.01	20836442.17	20836442.35	0.0505	0.0354	
Earth	52336-02-21 19:41 G	20836442.15	20836442.32	20836442.49	0.0505	0.0341	*
Venus	52337-02-21 07:12 G	20836807.74	20836807.80	20836807.87	0.0496	0.0467	
Mercury	52340-12-03 20:24 G	20838189.18	20838189.35	20838189.53	0.0505	0.0160	
Venus	52342-12-20 22:05 G	20838936.22	20838936.42	20838936.62	0.0528	0.0099	
Mercury	52346-05-08 16:05 G	20840171.09	20840171.17	20840171.24	0.0524	0.0415	
Mercury	52346-08-05 21:07 G	20840260.26	20840260.38	20840260.49	0.0521	0.0219	
Venus	52348-10-27 08:24 G	20841073.66	20841073.85	20841074.04	0.0497	0.0180	
Mercury	52352-09-21 17:46 G	20842499.05	20842499.24	20842499.42	0.0505	0.0051	
Venus	52354-08-25 15:50 G	20843202.05	20843202.16	20843202.28	0.0526	0.0436	
Mercury	52358-05-25 01:41 G	20844570.44	20844570.57	20844570.69	0.0522	0.0065	
Venus	52360-07-02 09:36 G	20845339.70	20845339.90	20845340.10	0.0499	0.0111	
Mercury	52364-07-10 14:53 G	20846808.96	20846809.12	20846809.28	0.0504	0.0256	
Earth	52365-08-09 02:38 G	20847203.51	20847203.61	20847203.71	0.0516	0.0463	
Moon	52365-08-09 06:14 G	20847203.66	20847203.76	20847203.88	0.0516	0.0449	*
Venus	52366-12-24 01:41 G	20847705.48	20847705.57	20847705.66	0.0530	0.0470	
Mercury	52370-03-13 05:46 G	20848880.62	20848880.74	20848880.86	0.0522	0.0098	
Venus	52372-03-07 09:50 G	20849605.80	20849605.91	20849606.03	0.0501	0.0406	
Mercury	52376-04-28 11:46 G	20851118.93	20851118.99	20851119.06	0.0503	0.0466	
Mercury	52376-07-27 23:46 G	20851209.38	20851209.49	20851209.60	0.0506	0.0405	
Moon	52377-08-13 17:02 G	20851591.00	20851591.21	20851591.42	0.0518	0.0239	
Earth	52377-08-13 20:24 G	20851591.14	20851591.35	20851591.56	0.0518	0.0212	*
Venus	52378-08-28 16:34 G	20851970.99	20851971.19	20851971.39	0.0528	0.0117	

Mercury	52381-12-30 10:19 G	20853190.82	20853190.93	20853191.04	0.0523	0.0254
Mercury	52382-03-29 15:07 G	20853280.05	20853280.13	20853280.22	0.0521	0.0375
Moon	52383-02-06 18:14 G	20853594.17	20853594.26	20853594.37	0.0511	0.0453
Earth	52383-02-06 21:50 G	20853594.28	20853594.41	20853594.55	0.0511	0.0421 *
Venus	52384-07-04 20:10 G	20854108.20	20854108.34	20854108.48	0.0497	0.0351
Mercury	52388-05-15 18:58 G	20855519.12	20855519.29	20855519.47	0.0505	0.0167
Earth	52389-08-18 10:05 G	20855978.68	20855978.92	20855979.15	0.0519	0.0033
Moon	52389-08-18 12:00 G	20855978.77	20855979.00	20855979.22	0.0519	0.0009 *
Venus	52390-05-03 05:17 G	20856236.54	20856236.72	20856236.90	0.0527	0.0245
Mercury	52393-10-18 14:53 G	20857501.04	20857501.12	20857501.20	0.0524	0.0410
Mercury	52394-01-15 19:55 G	20857590.22	20857590.33	20857590.44	0.0522	0.0225
Earth	52395-02-11 17:46 G	20857982.02	20857982.24	20857982.46	0.0509	0.0171
Moon	52395-02-11 21:50 G	20857982.19	20857982.41	20857982.63	0.0509	0.0167 *
Venus	52396-03-09 22:48 G	20858374.24	20858374.45	20858374.65	0.0498	0.0069
Mercury	52400-03-03 15:50 G	20859828.97	20859829.16	20859829.34	0.0504	0.0047
Earth	52401-08-23 06:00 G	20860366.57	20860366.75	20860366.95	0.0521	0.0294
Moon	52401-08-23 06:14 G	20860366.57	20860366.76	20860366.95	0.0521	0.0313 *
Mercury	52405-11-04 00:29 G	20861900.40	20861900.52	20861900.65	0.0522	0.0073
Moon	52407-02-16 06:58 G	20862369.56	20862369.79	20862370.03	0.0507	0.0102
Earth	52407-02-16 10:34 G	20862369.71	20862369.94	20862370.18	0.0507	0.0071 *
Venus	52407-11-13 23:02 G	20862640.28	20862640.46	20862640.64	0.0500	0.0225
Mercury	52411-12-21 12:43 G	20864138.88	20864139.03	20864139.20	0.0504	0.0257
Venus	52414-05-06 08:53 G	20865005.72	20865005.87	20865006.04	0.0530	0.0324
Mercury	52417-08-23 05:02 G	20866210.59	20866210.71	20866210.84	0.0522	0.0084
Earth	52419-02-21 02:24 G	20866757.42	20866757.60	20866757.79	0.0505	0.0311
Moon	52419-02-21 04:34 G	20866757.52	20866757.69	20866757.87	0.0505	0.0319 *
Mercury	52423-10-09 10:05 G	20868448.85	20868448.92	20868448.99	0.0503	0.0462
Mercury	52424-01-07 21:50 G	20868539.31	20868539.41	20868539.53	0.0506	0.0410
Venus	52426-01-09 00:58 G	20869271.34	20869271.54	20869271.74	0.0528	0.0027
Mercury	52429-06-11 09:07 G	20870520.77	20870520.88	20870520.99	0.0523	0.0249

Mercury	52429-09-08 13:55 G	20870610.00	20870610.08	20870610.17	0.0520	0.0379
Venus	52431-11-16 08:10 G	20871408.66	20871408.84	20871409.02	0.0498	0.0234
Mercury	52435-10-26 18:29 G	20872849.10	20872849.27	20872849.45	0.0505	0.0191
Venus	52437-09-13 16:19 G	20873537.04	20873537.18	20873537.32	0.0526	0.0374
Mercury	52441-03-30 13:26 G	20874830.98	20874831.06	20874831.14	0.0524	0.0408
Mercury	52441-06-27 18:29 G	20874920.16	20874920.27	20874920.39	0.0521	0.0227
Venus	52443-07-22 10:34 G	20875674.74	20875674.94	20875675.14	0.0499	0.0052
Mercury	52447-08-14 14:10 G	20877158.90	20877159.09	20877159.27	0.0504	0.0043
Moon	52448-08-08 00:14 G	20877518.45	20877518.51	20877518.57	0.0515	0.0496
Earth	52448-08-08 03:36 G	20877518.63	20877518.65	20877518.68	0.0515	0.0511
Venus	52450-01-11 22:34 G	20878040.40	20878040.44	20878040.49	0.0530	0.0517
Mercury	52453-04-15 23:02 G	20879230.34	20879230.46	20879230.59	0.0522	0.0074
Venus	52455-03-27 12:00 G	20879940.86	20879941.00	20879941.15	0.0501	0.0341
Mars	52458-02-05 12:43 G	20880986.98	20880987.03	20880987.09	0.0493	0.0482
Mercury	52459-06-02 10:48 G	20881468.79	20881468.95	20881469.11	0.0503	0.0256
Earth	52460-08-12 21:36 G	20881906.20	20881906.40	20881906.60	0.0517	0.0260
Moon	52460-08-12 23:31 G	20881906.30	20881906.48	20881906.68	0.0517	0.0287 *
Venus	52461-09-16 14:24 G	20882305.91	20882306.10	20882306.29	0.0529	0.0167
Mercury	52465-02-02 03:36 G	20883540.53	20883540.65	20883540.78	0.0523	0.0083
Earth	52466-02-06 05:17 G	20883909.62	20883909.72	20883909.82	0.0511	0.0456
Moon	52466-02-06 09:07 G	20883909.82	20883909.88	20883909.96	0.0511	0.0487 *
Venus	52467-07-24 19:55 G	20884443.22	20884443.33	20884443.45	0.0496	0.0406
Mercury	52471-03-21 07:41 G	20885778.76	20885778.82	20885778.89	0.0503	0.0466
Mercury	52471-06-19 19:26 G	20885869.21	20885869.31	20885869.43	0.0506	0.0404
Moon	52472-08-17 17:31 G	20886293.99	20886294.23	20886294.48	0.0519	0.0020
Earth	52472-08-17 18:00 G	20886294.02	20886294.25	20886294.48	0.0519	0.0006 *
Venus	52473-05-22 07:26 G	20886571.62	20886571.81	20886572.00	0.0527	0.0175
Mercury	52476-11-21 08:10 G	20887850.73	20887850.84	20887850.95	0.0523	0.0239
Mercury	52477-02-18 12:58 G	20887939.96	20887940.04	20887940.12	0.0520	0.0389
Moon	52478-02-10 18:58 G	20888297.08	20888297.29	20888297.51	0.0509	0.0207

Earth	52478-02-10 22:48 G	20888297.24	20888297.45	20888297.67	0.0509	0.0209	*
Venus	52479-03-29 21:07 G	20888709.19	20888709.38	20888709.58	0.0498	0.0119	
Mercury	52483-04-07 16:34 G	20890179.01	20890179.19	20890179.36	0.0505	0.0190	
Moon	52484-08-22 12:00 G	20890681.82	20890682.00	20890682.19	0.0521	0.0289	
Earth	52484-08-22 14:10 G	20890681.89	20890682.09	20890682.29	0.0521	0.0262	*
Venus	52485-01-25 00:14 G	20890837.47	20890837.51	20890837.55	0.0525	0.0514	
Mercury	52488-09-09 12:00 G	20892160.93	20892161.00	20892161.08	0.0524	0.0407	
Mercury	52488-12-07 17:17 G	20892250.10	20892250.22	20892250.33	0.0521	0.0229	
Earth	52490-02-15 13:55 G	20892684.85	20892685.08	20892685.32	0.0508	0.0033	
Moon	52490-02-15 16:19 G	20892684.96	20892685.18	20892685.41	0.0508	0.0064	*
Venus	52490-12-02 21:22 G	20892975.21	20892975.39	20892975.59	0.0500	0.0175	
Mercury	52495-01-24 13:12 G	20894488.86	20894489.05	20894489.23	0.0504	0.0029	
Earth	52496-08-27 08:53 G	20895069.87	20895069.87	20895069.88	0.0522	0.0522	
Venus	52497-05-25 08:10 G	20895340.70	20895340.84	20895340.98	0.0530	0.0379	
Mercury	52500-09-26 21:36 G	20896560.28	20896560.40	20896560.53	0.0522	0.0072	
Moon	52502-02-21 07:12 G	20897072.60	20897072.80	20897073.01	0.0506	0.0277	
Earth	52502-02-21 07:26 G	20897072.62	20897072.81	20897073.01	0.0506	0.0279	*
Venus	52502-08-08 22:34 G	20897241.38	20897241.44	20897241.52	0.0501	0.0466	
Mercury	52506-11-13 08:53 G	20898798.71	20898798.87	20898799.03	0.0503	0.0255	
Venus	52509-01-28 20:24 G	20899606.15	20899606.35	20899606.55	0.0528	0.0016	
Mercury	52512-07-16 01:55 G	20900870.46	20900870.58	20900870.71	0.0523	0.0089	
Moon	52514-02-25 22:34 G	20901460.40	20901460.44	20901460.50	0.0505	0.0489	
Venus	52514-12-06 08:53 G	20901743.71	20901743.87	20901744.03	0.0497	0.0292	
Mercury	52518-09-01 05:31 G	20903108.67	20903108.73	20903108.80	0.0502	0.0467	
Mercury	52518-11-30 17:17 G	20903199.11	20903199.22	20903199.33	0.0505	0.0399	
Venus	52520-10-03 12:29 G	20903871.86	20903872.02	20903872.18	0.0526	0.0329	
Mars	52523-01-27 00:29 G	20904717.33	20904717.52	20904717.71	0.0534	0.0394	
Mercury	52524-05-04 06:29 G	20905180.66	20905180.77	20905180.88	0.0524	0.0245	
Mercury	52524-08-01 11:17 G	20905269.89	20905269.97	20905270.06	0.0521	0.0386	
Venus	52526-08-11 09:07 G	20906009.68	20906009.88	20906010.08	0.0499	0.0001	

Mercury	52530-09-18 13:41 G	20907508.90	20907509.07	20907509.25	0.0505	0.0180
Mercury	52536-02-21 10:48 G	20909490.87	20909490.95	20909491.03	0.0524	0.0403
Mercury	52536-05-20 15:50 G	20909580.05	20909580.16	20909580.28	0.0521	0.0233
Venus	52538-04-16 09:22 G	20910275.73	20910275.89	20910276.06	0.0500	0.0292
Mercury	52542-07-07 10:34 G	20911818.76	20911818.94	20911819.13	0.0504	0.0034
Moon	52543-08-14 02:53 G	20912221.43	20912221.62	20912221.81	0.0517	0.0323
Earth	52543-08-14 03:36 G	20912221.46	20912221.65	20912221.84	0.0517	0.0297 *
Venus	52544-10-06 14:53 G	20912640.94	20912641.12	20912641.30	0.0529	0.0230
Mercury	52548-03-08 20:10 G	20913890.21	20913890.34	20913890.46	0.0522	0.0070
Earth	52549-02-06 06:00 G	20914224.71	20914224.75	20914224.79	0.0511	0.0502
Venus	52550-08-13 17:02 G	20914778.14	20914778.21	20914778.30	0.0497	0.0451
Mercury	52554-04-25 07:12 G	20916128.64	20916128.80	20916128.97	0.0504	0.0248
Moon	52555-08-18 19:41 G	20916609.10	20916609.32	20916609.54	0.0518	0.0053
Earth	52555-08-18 21:07 G	20916609.15	20916609.38	20916609.61	0.0518	0.0042 *
Venus	52556-06-11 05:46 G	20916906.54	20916906.74	20916906.94	0.0527	0.0121
Mercury	52559-12-27 00:29 G	20918200.39	20918200.52	20918200.64	0.0523	0.0092
Earth	52561-02-11 00:14 G	20918612.31	20918612.51	20918612.71	0.0510	0.0253
Moon	52561-02-11 02:53 G	20918612.43	20918612.62	20918612.82	0.0510	0.0248 *
Venus	52562-04-18 19:12 G	20919044.11	20919044.30	20919044.50	0.0498	0.0167
Mercury	52566-02-11 03:22 G	20920438.58	20920438.64	20920438.71	0.0502	0.0470
Mercury	52566-05-12 14:53 G	20920529.01	20920529.12	20920529.24	0.0505	0.0396
Earth	52567-08-23 10:48 G	20920996.74	20920996.95	20920997.17	0.0520	0.0204
Moon	52567-08-23 14:10 G	20920996.88	20920997.09	20920997.31	0.0520	0.0235 *
Venus	52568-02-14 18:43 G	20921172.20	20921172.28	20921172.37	0.0525	0.0474
Mercury	52571-10-15 04:34 G	20922510.58	20922510.69	20922510.80	0.0524	0.0255
Mercury	52572-01-12 09:36 G	20922599.81	20922599.90	20922599.98	0.0521	0.0377
Moon	52573-02-15 17:31 G	20922999.98	20923000.23	20923000.47	0.0508	0.0021
Earth	52573-02-15 18:14 G	20923000.02	20923000.26	20923000.50	0.0508	0.0007 *
Venus	52573-12-22 20:38 G	20923310.16	20923310.36	20923310.56	0.0500	0.0120
Mars	52576-07-28 23:02 G	20924259.23	20924259.46	20924259.70	0.0492	0.0235

Mercury	52578-02-28 11:17 G	20924838.79	20924838.97	20924839.14	0.0504	0.0174
Moon	52579-08-28 01:55 G	20925384.50	20925384.58	20925384.66	0.0522	0.0484
Earth	52579-08-28 05:46 G	20925384.64	20925384.74	20925384.85	0.0522	0.0465 *
Venus	52580-06-14 03:22 G	20925675.51	20925675.64	20925675.76	0.0530	0.0419
Mercury	52583-08-03 08:53 G	20926820.80	20926820.87	20926820.95	0.0525	0.0414
Mercury	52583-10-31 14:10 G	20926909.97	20926910.09	20926910.20	0.0522	0.0223
Moon	52585-02-20 08:24 G	20927387.65	20927387.85	20927388.05	0.0506	0.0227
Earth	52585-02-20 09:50 G	20927387.71	20927387.91	20927388.12	0.0506	0.0235 *
Venus	52585-08-27 19:55 G	20927576.22	20927576.33	20927576.45	0.0501	0.0415
Mercury	52589-12-17 07:41 G	20929148.63	20929148.82	20929149.00	0.0504	0.0049
Venus	52592-02-17 19:41 G	20929941.12	20929941.32	20929941.52	0.0528	0.0075
Mercury	52595-08-19 18:43 G	20931220.15	20931220.28	20931220.40	0.0522	0.0071
Earth	52597-02-25 01:26 G	20931775.49	20931775.56	20931775.64	0.0505	0.0474
Moon	52597-02-25 04:34 G	20931775.58	20931775.69	20931775.81	0.0505	0.0441 *
Venus	52597-12-25 04:48 G	20932078.55	20932078.70	20932078.85	0.0497	0.0333
Mercury	52601-10-06 04:34 G	20933458.53	20933458.69	20933458.85	0.0503	0.0259
Venus	52603-10-24 11:46 G	20934206.82	20934206.99	20934207.17	0.0526	0.0269
Mercury	52607-06-08 22:34 G	20935530.32	20935530.44	20935530.57	0.0523	0.0098
Venus	52609-08-31 05:02 G	20936344.51	20936344.71	20936344.92	0.0499	0.0042
Mercury	52613-07-25 01:12 G	20937768.50	20937768.55	20937768.62	0.0503	0.0470
Mercury	52613-10-23 12:58 G	20937858.93	20937859.04	20937859.16	0.0505	0.0398
Mercury	52619-03-28 02:53 G	20939840.51	20939840.62	20939840.73	0.0524	0.0259
Mercury	52619-06-25 07:55 G	20939929.74	20939929.83	20939929.91	0.0521	0.0372
Venus	52621-05-06 06:00 G	20940610.58	20940610.75	20940610.93	0.0500	0.0248
Mercury	52625-08-11 08:53 G	20942168.69	20942168.87	20942169.05	0.0504	0.0168
Moon	52626-08-14 00:14 G	20942536.36	20942536.51	20942536.65	0.0515	0.0384
Earth	52626-08-14 00:58 G	20942536.38	20942536.54	20942536.71	0.0515	0.0355 *
Venus	52627-10-27 08:24 G	20942975.68	20942975.85	20942976.03	0.0529	0.0265
Mercury	52631-01-14 06:43 G	20944150.71	20944150.78	20944150.86	0.0525	0.0429
Mercury	52631-04-13 12:00 G	20944239.89	20944240.00	20944240.12	0.0522	0.0211

Mercury	52637-05-30 05:02 G	20946478.53	20946478.71	20946478.90	0.0503	0.0055
Earth	52638-08-18 17:31 G	20946924.00	20946924.23	20946924.46	0.0517	0.0103
Moon	52638-08-18 20:24 G	20946924.12	20946924.35	20946924.59	0.0517	0.0108 *
Venus	52639-07-01 23:46 G	20947241.29	20947241.49	20947241.69	0.0527	0.0083
Mercury	52643-01-30 16:34 G	20948550.06	20948550.19	20948550.32	0.0523	0.0055
Moon	52644-02-11 22:48 G	20948927.26	20948927.45	20948927.65	0.0510	0.0296
Earth	52644-02-12 00:14 G	20948927.33	20948927.51	20948927.70	0.0510	0.0305 *
Venus	52645-05-08 15:07 G	20949378.95	20949379.13	20949379.32	0.0498	0.0210
Mercury	52649-03-18 01:26 G	20950788.40	20950788.56	20950788.71	0.0503	0.0276
Moon	52650-08-23 08:24 G	20951311.63	20951311.85	20951312.06	0.0520	0.0187
Earth	52650-08-23 12:00 G	20951311.79	20951312.00	20951312.23	0.0520	0.0156 *
Venus	52651-03-06 16:34 G	20951507.07	20951507.19	20951507.31	0.0526	0.0421
Mercury	52654-11-18 21:07 G	20952860.26	20952860.38	20952860.50	0.0523	0.0100
Moon	52656-02-16 16:48 G	20953314.98	20953315.20	20953315.43	0.0508	0.0031
Earth	52656-02-16 18:00 G	20953315.01	20953315.25	20953315.48	0.0508	0.0056 *
Venus	52657-01-11 16:05 G	20953644.97	20953645.17	20953645.37	0.0499	0.0079
Mercury	52661-01-03 22:19 G	20955098.38	20955098.43	20955098.48	0.0503	0.0485
Mercury	52661-04-04 09:50 G	20955188.79	20955188.91	20955189.03	0.0505	0.0382
Earth	52662-08-28 08:10 G	20955699.71	20955699.84	20955699.98	0.0521	0.0421
Moon	52662-08-28 12:14 G	20955699.88	20955700.01	20955700.13	0.0521	0.0439 *
Venus	52663-07-05 02:10 G	20956010.50	20956010.59	20956010.68	0.0530	0.0474
Mercury	52666-09-07 01:12 G	20957170.44	20957170.55	20957170.66	0.0524	0.0267
Mercury	52666-12-05 06:00 G	20957259.66	20957259.75	20957259.84	0.0521	0.0365
Earth	52668-02-21 08:24 G	20957702.63	20957702.85	20957703.07	0.0507	0.0186
Moon	52668-02-21 11:02 G	20957702.74	20957702.96	20957703.19	0.0507	0.0176 *
Venus	52668-09-16 15:22 G	20957911.00	20957911.14	20957911.27	0.0501	0.0375
Mercury	52673-01-21 06:29 G	20959498.59	20959498.77	20959498.94	0.0505	0.0164
Venus	52675-03-09 16:34 G	20960276.00	20960276.19	20960276.39	0.0528	0.0123
Mars	52677-04-22 07:55 G	20961050.55	20961050.83	20961051.11	0.0534	0.0031
Mercury	52678-06-26 05:02 G	20961480.65	20961480.71	20961480.79	0.0524	0.0433

Mercury	52678-09-23 10:19 G	20961569.82	20961569.93	20961570.05	0.0522	0.0206
Moon	52680-02-25 20:53 G	20962090.23	20962090.37	20962090.51	0.0506	0.0395
Earth	52680-02-26 00:14 G	20962090.40	20962090.51	20962090.64	0.0506	0.0429 *
Venus	52681-01-14 00:43 G	20962413.40	20962413.53	20962413.67	0.0497	0.0373
Mercury	52684-11-09 02:38 G	20963808.43	20963808.61	20963808.80	0.0503	0.0060
Venus	52686-11-12 05:31 G	20964541.55	20964541.73	20964541.92	0.0526	0.0231
Mercury	52690-07-12 14:24 G	20965879.97	20965880.10	20965880.23	0.0523	0.0041
Venus	52692-09-19 01:55 G	20966679.38	20966679.58	20966679.78	0.0499	0.0088
Mercury	52696-08-27 23:02 G	20968118.31	20968118.46	20968118.61	0.0503	0.0278
Mercury	52702-05-01 18:58 G	20970190.16	20970190.29	20970190.41	0.0523	0.0117
Mercury	52702-07-29 23:46 G	20970279.47	20970279.49	20970279.51	0.0521	0.0510
Venus	52704-05-26 01:26 G	20970945.38	20970945.56	20970945.75	0.0500	0.0206
Mercury	52708-06-16 18:58 G	20972428.29	20972428.29	20972428.30	0.0502	0.0502
Mercury	52708-09-15 06:29 G	20972518.64	20972518.77	20972518.90	0.0505	0.0363
Earth	52709-08-14 00:29 G	20972851.38	20972851.52	20972851.66	0.0516	0.0407
Moon	52709-08-14 02:53 G	20972851.50	20972851.62	20972851.75	0.0516	0.0437 *
Venus	52710-11-16 06:00 G	20973310.59	20973310.75	20973310.91	0.0529	0.0317
Mercury	52714-02-17 23:31 G	20974500.37	20974500.48	20974500.58	0.0524	0.0272
Mercury	52714-05-18 04:19 G	20974589.59	20974589.68	20974589.77	0.0521	0.0361
Venus	52716-01-30 01:41 G	20975211.55	20975211.57	20975211.60	0.0502	0.0497
Mercury	52720-07-04 03:07 G	20976828.46	20976828.63	20976828.81	0.0505	0.0147
Moon	52721-08-18 15:22 G	20977238.93	20977239.14	20977239.36	0.0517	0.0158
Earth	52721-08-18 18:58 G	20977239.07	20977239.29	20977239.52	0.0517	0.0151 *
Venus	52722-07-21 22:19 G	20977576.22	20977576.43	20977576.63	0.0527	0.0030
Mercury	52725-12-07 03:22 G	20978810.58	20978810.64	20978810.71	0.0524	0.0439
Mercury	52726-03-06 08:38 G	20978899.74	20978899.86	20978899.98	0.0522	0.0199
Moon	52727-02-11 21:50 G	20979242.25	20979242.41	20979242.58	0.0511	0.0344
Earth	52727-02-11 22:05 G	20979242.26	20979242.42	20979242.60	0.0511	0.0358 *
Venus	52728-05-28 10:19 G	20979713.75	20979713.93	20979714.11	0.0498	0.0247
Mars	52730-10-24 03:50 G	20980592.39	20980592.66	20980592.93	0.0493	0.0033

Mercury	52732-04-22 00:00 G	20981138.31	20981138.50	20981138.68	0.0504	0.0068
Earth	52733-08-23 12:58 G	20981626.82	20981627.04	20981627.27	0.0519	0.0109
Moon	52733-08-23 17:02 G	20981626.99	20981627.21	20981627.43	0.0519	0.0141 *
Venus	52734-03-26 13:41 G	20981841.93	20981842.07	20981842.22	0.0525	0.0371
Mercury	52737-12-23 12:43 G	20983209.91	20983210.03	20983210.16	0.0522	0.0043
Earth	52739-02-16 15:07 G	20983629.90	20983630.13	20983630.36	0.0509	0.0109
Moon	52739-02-16 17:31 G	20983629.99	20983630.23	20983630.47	0.0509	0.0081 *
Venus	52740-02-01 11:31 G	20983979.77	20983979.98	20983980.18	0.0500	0.0041
Mercury	52744-02-08 20:24 G	20985448.20	20985448.35	20985448.51	0.0503	0.0285
Moon	52745-08-28 01:26 G	20986014.40	20986014.56	20986014.73	0.0520	0.0375
Earth	52745-08-28 04:48 G	20986014.54	20986014.70	20986014.87	0.0520	0.0361 *
Venus	52746-07-24 19:55 G	20986345.28	20986345.33	20986345.38	0.0529	0.0509
Mercury	52749-10-11 16:48 G	20987520.08	20987520.20	20987520.32	0.0524	0.0131
Mercury	52750-01-08 21:36 G	20987609.37	20987609.40	20987609.44	0.0521	0.0498
Moon	52751-02-21 04:05 G	20988017.45	20988017.67	20988017.90	0.0508	0.0127
Earth	52751-02-21 07:26 G	20988017.59	20988017.81	20988018.04	0.0508	0.0136 *
Venus	52751-10-07 11:31 G	20988245.83	20988245.98	20988246.13	0.0501	0.0331
Mercury	52755-11-27 17:02 G	20989758.20	20989758.21	20989758.22	0.0502	0.0500
Mercury	52756-02-26 04:19 G	20989848.56	20989848.68	20989848.81	0.0505	0.0362
Venus	52758-03-29 10:34 G	20990610.75	20990610.94	20990611.14	0.0528	0.0161
Mercury	52761-07-30 21:07 G	20991830.28	20991830.38	20991830.49	0.0524	0.0289
Mercury	52761-10-28 02:24 G	20991919.50	20991919.60	20991919.69	0.0521	0.0346
Earth	52763-02-25 23:17 G	20992405.33	20992405.47	20992405.63	0.0506	0.0379
Moon	52763-02-26 03:22 G	20992405.47	20992405.64	20992405.81	0.0506	0.0348 *
Venus	52764-02-03 20:10 G	20992748.22	20992748.34	20992748.45	0.0497	0.0411
Mercury	52767-12-15 00:00 G	20994158.32	20994158.50	20994158.68	0.0504	0.0130
Venus	52769-12-02 02:38 G	20994876.42	20994876.61	20994876.80	0.0527	0.0182
Mercury	52773-05-19 01:41 G	20996140.51	20996140.57	20996140.64	0.0525	0.0444
Mercury	52773-08-16 06:58 G	20996229.68	20996229.79	20996229.91	0.0522	0.0196
Venus	52775-10-09 21:22 G	20997014.19	20997014.39	20997014.59	0.0498	0.0128

Mercury	52779-10-02 20:53 G	20998468.18	20998468.37	20998468.55	0.0504	0.0084
Venus	52781-08-06 19:41 G	20999142.29	20999142.32	20999142.36	0.0525	0.0517
Mercury	52785-06-04 11:17 G	21000539.84	21000539.97	21000540.09	0.0522	0.0036
Venus	52787-06-14 21:07 G	21001280.19	21001280.38	21001280.57	0.0500	0.0166
Mercury	52791-07-21 17:46 G	21002778.09	21002778.24	21002778.39	0.0503	0.0294
Moon	52792-08-12 23:31 G	21003166.41	21003166.48	21003166.55	0.0515	0.0485
Earth	52792-08-13 02:53 G	21003166.51	21003166.62	21003166.73	0.0515	0.0451 *
Venus	52793-12-05 03:50 G	21003645.51	21003645.66	21003645.80	0.0529	0.0367
Mercury	52797-03-23 15:22 G	21004850.02	21004850.14	21004850.26	0.0523	0.0129
Mercury	52797-06-20 20:10 G	21004939.31	21004939.34	21004939.38	0.0520	0.0497
Venus	52799-02-17 21:07 G	21005546.30	21005546.38	21005546.47	0.0502	0.0457
Mercury	52803-08-08 02:10 G	21007178.46	21007178.59	21007178.72	0.0505	0.0358
Earth	52804-08-17 18:29 G	21007554.06	21007554.27	21007554.48	0.0516	0.0203
Moon	52804-08-17 22:34 G	21007554.22	21007554.44	21007554.65	0.0516	0.0208 *
Venus	52805-08-09 17:17 G	21007911.02	21007911.22	21007911.43	0.0527	0.0016
Mercury	52809-01-09 19:12 G	21009160.20	21009160.30	21009160.41	0.0524	0.0300
Mercury	52809-04-09 00:14 G	21009249.42	21009249.51	21009249.61	0.0522	0.0335
Earth	52810-02-10 20:24 G	21009557.22	21009557.35	21009557.49	0.0512	0.0413
Moon	52810-02-10 22:19 G	21009557.28	21009557.43	21009557.59	0.0512	0.0391 *
Venus	52811-06-17 06:58 G	21010048.63	21010048.79	21010048.96	0.0498	0.0292
Mercury	52815-05-26 22:19 G	21011488.25	21011488.43	21011488.61	0.0504	0.0135
Moon	52816-08-22 07:26 G	21011941.58	21011941.81	21011942.04	0.0518	0.0081
Earth	52816-08-22 11:02 G	21011941.73	21011941.96	21011942.19	0.0518	0.0052 *
Venus	52817-04-14 08:53 G	21012176.71	21012176.87	21012177.02	0.0525	0.0328
Mercury	52820-10-28 23:31 G	21013470.42	21013470.48	21013470.54	0.0525	0.0459
Mercury	52821-01-26 04:48 G	21013559.59	21013559.70	21013559.82	0.0522	0.0183
Moon	52822-02-15 12:00 G	21013944.77	21013945.00	21013945.22	0.0510	0.0131
Earth	52822-02-15 14:53 G	21013944.90	21013945.12	21013945.35	0.0510	0.0160 *
Venus	52823-02-20 07:26 G	21014314.60	21014314.81	21014315.01	0.0499	0.0008
Mercury	52827-03-14 17:46 G	21015798.06	21015798.24	21015798.42	0.0504	0.0098

Earth	52828-08-27 04:05 G	21016329.48	21016329.67	21016329.85	0.0520	0.0311
Moon	52828-08-27 06:00 G	21016329.57	21016329.75	21016329.93	0.0520	0.0319 *
Mars	52831-07-17 15:50 G	21017383.94	21017384.16	21017384.38	0.0534	0.0335
Mercury	52832-11-14 09:36 G	21017869.78	21017869.90	21017870.03	0.0523	0.0033
Earth	52834-02-20 09:36 G	21018332.67	21018332.90	21018333.13	0.0508	0.0094
Moon	52834-02-20 13:26 G	21018332.82	21018333.06	21018333.29	0.0508	0.0083 *
Venus	52834-10-26 08:10 G	21018580.68	21018580.84	21018581.01	0.0501	0.0285
Mercury	52838-12-31 14:38 G	21020107.97	21020108.11	21020108.26	0.0503	0.0308
Venus	52841-04-17 09:36 G	21020945.72	21020945.90	21020946.09	0.0529	0.0217
Mercury	52844-09-02 13:55 G	21022179.96	21022180.08	21022180.20	0.0523	0.0130
Mercury	52844-11-30 18:43 G	21022269.25	21022269.28	21022269.32	0.0520	0.0497
Moon	52846-02-24 21:07 G	21022720.19	21022720.38	21022720.57	0.0506	0.0307
Earth	52846-02-25 00:29 G	21022720.35	21022720.52	21022720.70	0.0506	0.0337 *
Venus	52847-02-22 16:19 G	21023083.11	21023083.18	21023083.27	0.0497	0.0452
Mercury	52851-01-17 23:17 G	21024508.34	21024508.47	21024508.61	0.0505	0.0352
Venus	52852-12-21 01:41 G	21025211.37	21025211.57	21025211.76	0.0527	0.0127
Mercury	52856-06-21 18:00 G	21026490.15	21026490.25	21026490.36	0.0524	0.0293
Mercury	52856-09-18 23:02 G	21026579.37	21026579.46	21026579.56	0.0521	0.0340
Venus	52858-10-28 17:31 G	21027349.04	21027349.23	21027349.43	0.0499	0.0170
Mercury	52862-11-05 20:10 G	21028818.16	21028818.34	21028818.52	0.0504	0.0134
Venus	52864-08-25 16:48 G	21029477.11	21029477.20	21029477.29	0.0524	0.0467
Mercury	52868-04-09 21:50 G	21030800.35	21030800.41	21030800.47	0.0525	0.0465
Mercury	52868-07-08 03:07 G	21030889.51	21030889.63	21030889.75	0.0522	0.0176
Venus	52870-07-03 18:14 G	21031615.06	21031615.26	21031615.46	0.0500	0.0119
Mercury	52874-08-24 16:34 G	21033128.01	21033128.19	21033128.37	0.0503	0.0085
Earth	52875-08-13 03:36 G	21033481.60	21033481.65	21033481.71	0.0514	0.0500
Venus	52876-12-24 00:00 G	21033980.37	21033980.50	21033980.62	0.0529	0.0411
Mercury	52880-04-26 07:41 G	21035199.70	21035199.82	21035199.95	0.0523	0.0025
Venus	52882-03-08 18:14 G	21035881.15	21035881.26	21035881.38	0.0502	0.0410
Mars	52885-01-16 10:48 G	21036925.74	21036925.95	21036926.16	0.0493	0.0311

Mercury	52886-06-12 12:00 G	21037437.86	21037438.00	21037438.15	0.0503	0.0317
Moon	52887-08-17 14:10 G	21037868.89	21037869.09	21037869.29	0.0516	0.0260
Earth	52887-08-17 18:00 G	21037869.05	21037869.25	21037869.45	0.0516	0.0253 *
Venus	52888-08-28 15:07 G	21038245.93	21038246.13	21038246.33	0.0528	0.0065
Mercury	52892-02-13 12:29 G	21039509.90	21039510.02	21039510.15	0.0523	0.0128
Mercury	52892-05-12 17:31 G	21039599.19	21039599.23	21039599.26	0.0521	0.0500
Moon	52893-02-09 22:34 G	21039872.32	21039872.44	21039872.57	0.0512	0.0429
Earth	52893-02-10 01:26 G	21039872.46	21039872.56	21039872.68	0.0512	0.0449 *
Venus	52894-07-06 04:34 G	21040383.54	21040383.69	21040383.84	0.0497	0.0337
Mercury	52898-06-29 20:38 G	21041838.22	21041838.36	21041838.50	0.0505	0.0341
Earth	52899-08-22 13:26 G	21042256.83	21042257.06	21042257.30	0.0518	0.0012
Moon	52899-08-22 15:50 G	21042256.94	21042257.16	21042257.39	0.0518	0.0042 *
Venus	52900-05-04 08:10 G	21042511.67	21042511.84	21042512.01	0.0526	0.0272
Mercury	52903-12-03 16:48 G	21043820.10	21043820.20	21043820.31	0.0524	0.0289
Mercury	52904-03-01 21:50 G	21043909.32	21043909.41	21043909.50	0.0521	0.0344
Earth	52905-02-15 18:29 G	21044260.06	21044260.27	21044260.49	0.0510	0.0198
Moon	52905-02-15 22:19 G	21044260.20	21044260.43	21044260.65	0.0510	0.0170 *
Venus	52906-03-12 05:17 G	21044649.51	21044649.72	21044649.92	0.0499	0.0051
Mercury	52910-04-18 17:46 G	21046148.06	21046148.24	21046148.42	0.0504	0.0130
Moon	52911-08-28 09:07 G	21046644.68	21046644.88	21046645.09	0.0520	0.0276
Earth	52911-08-28 09:36 G	21046644.71	21046644.90	21046645.10	0.0520	0.0276 *
Mercury	52915-09-21 20:53 G	21048130.31	21048130.37	21048130.44	0.0524	0.0453
Mercury	52915-12-20 02:10 G	21048219.47	21048219.59	21048219.71	0.0522	0.0186
Moon	52917-02-20 07:41 G	21048647.58	21048647.82	21048648.06	0.0508	0.0036
Earth	52917-02-20 11:17 G	21048647.74	21048647.97	21048648.21	0.0508	0.0053 *
Venus	52917-11-15 05:46 G	21048915.56	21048915.74	21048915.92	0.0501	0.0239
Mercury	52922-02-04 14:38 G	21050457.93	21050458.11	21050458.30	0.0504	0.0082
Moon	52923-09-02 02:53 G	21051032.58	21051032.62	21051032.68	0.0521	0.0506
Venus	52924-05-07 07:55 G	21051280.66	21051280.83	21051281.01	0.0528	0.0269
Mercury	52927-10-08 06:14 G	21052529.63	21052529.76	21052529.89	0.0523	0.0021

Earth	52929-02-25 02:53 G	21053035.44	21053035.62	21053035.82	0.0507	0.0297
Moon	52929-02-25 05:31 G	21053035.54	21053035.73	21053035.92	0.0507	0.0273 *
Mercury	52933-11-23 11:17 G	21054767.83	21054767.97	21054768.12	0.0503	0.0297
Venus	52936-01-10 23:17 G	21055546.27	21055546.47	21055546.67	0.0526	0.0075
Mercury	52939-07-27 10:48 G	21056839.83	21056839.95	21056840.07	0.0524	0.0134
Mercury	52939-10-24 15:36 G	21056929.12	21056929.15	21056929.19	0.0521	0.0495
Venus	52941-11-17 15:50 G	21057683.98	21057684.16	21057684.35	0.0498	0.0219
Mercury	52945-12-10 18:14 G	21059168.12	21059168.26	21059168.40	0.0505	0.0336
Venus	52947-09-15 14:24 G	21059811.99	21059812.10	21059812.23	0.0525	0.0417
Mercury	52951-05-15 15:36 G	21061150.04	21061150.15	21061150.26	0.0524	0.0284
Mercury	52951-08-12 20:38 G	21061239.27	21061239.36	21061239.45	0.0521	0.0350
Venus	52953-07-23 18:00 G	21061950.05	21061950.25	21061950.45	0.0500	0.0064
Mercury	52957-09-28 15:07 G	21063477.95	21063478.13	21063478.31	0.0504	0.0124
Venus	52960-01-14 00:43 G	21064315.44	21064315.53	21064315.62	0.0530	0.0472
Mercury	52963-03-03 19:55 G	21065460.26	21065460.33	21065460.39	0.0525	0.0445
Mercury	52963-06-01 01:12 G	21065549.43	21065549.55	21065549.67	0.0522	0.0195
Venus	52965-03-28 17:46 G	21066216.10	21066216.24	21066216.39	0.0501	0.0356
Mercury	52969-07-17 12:29 G	21067787.84	21067788.02	21067788.20	0.0504	0.0083
Earth	52970-08-18 02:10 G	21068184.40	21068184.59	21068184.78	0.0516	0.0284
Moon	52970-08-18 04:48 G	21068184.52	21068184.70	21068184.89	0.0516	0.0280 *
Venus	52971-09-18 17:02 G	21068581.01	21068581.21	21068581.41	0.0528	0.0131
Mercury	52975-03-20 05:31 G	21069859.60	21069859.73	21069859.85	0.0522	0.0037
Earth	52976-02-11 05:17 G	21070187.66	21070187.72	21070187.79	0.0512	0.0488
Moon	52976-02-11 08:53 G	21070187.78	21070187.87	21070187.97	0.0512	0.0463 *
Venus	52977-07-26 03:22 G	21070718.51	21070718.64	21070718.77	0.0497	0.0386
Mercury	52981-05-05 09:50 G	21072097.76	21072097.91	21072098.06	0.0503	0.0289
Moon	52982-08-22 19:26 G	21072572.07	21072572.31	21072572.55	0.0517	0.0010
Earth	52982-08-22 20:24 G	21072572.12	21072572.35	21072572.58	0.0517	0.0026 *
Venus	52983-05-24 08:24 G	21072846.67	21072846.85	21072847.04	0.0526	0.0210
Mercury	52987-01-06 09:36 G	21074169.77	21074169.90	21074170.02	0.0523	0.0132

Mercury	52987-04-05 14:24 G	21074259.07	21074259.10	21074259.13	0.0521	0.0498
Moon	52988-02-15 18:29 G	21074575.05	21074575.27	21074575.48	0.0511	0.0215
Earth	52988-02-15 22:05 G	21074575.22	21074575.42	21074575.63	0.0511	0.0238 *
Venus	52989-03-31 04:19 G	21074984.48	21074984.68	21074984.88	0.0499	0.0104
Mercury	52993-02-21 06:43 G	21076407.77	21076407.78	21076407.80	0.0502	0.0500
Mercury	52993-05-22 18:00 G	21076498.12	21076498.25	21076498.38	0.0505	0.0363
Moon	52994-08-27 13:12 G	21076959.86	21076960.05	21076960.25	0.0519	0.0235
Earth	52994-08-27 14:10 G	21076959.88	21076960.09	21076960.29	0.0519	0.0236 *
Mercury	52998-10-25 13:55 G	21078479.98	21078480.08	21078480.19	0.0524	0.0286
Mercury	52999-01-22 19:12 G	21078569.21	21078569.30	21078569.39	0.0521	0.0349
Earth	53000-02-20 17:46 G	21078963.00	21078963.24	21078963.47	0.0509	0.0021
Moon	53000-02-20 20:24 G	21078963.12	21078963.35	21078963.58	0.0509	0.0003 *
Venus	53000-12-05 05:31 G	21079250.54	21079250.73	21079250.92	0.0500	0.0183

54TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 54th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	53003-07-11 05:02 G	21080198.55	21080198.71	21080198.89	0.0492	0.0380		
Mercury	53005-03-11 13:12 G	21080807.87	21080808.05	21080808.23	0.0504	0.0125		
Earth	53006-09-02 06:00 G	21081347.68	21081347.75	21081347.82	0.0521	0.0495		
Moon	53006-09-02 08:10 G	21081347.74	21081347.84	21081347.96	0.0521	0.0462 *		
Venus	53007-05-28 07:12 G	21081615.64	21081615.80	21081615.96	0.0529	0.0325		
Mercury	53010-08-14 18:43 G	21082790.22	21082790.28	21082790.35	0.0525	0.0437		

Mercury	53010-11-12 00:00 G	21082879.39	21082879.50	21082879.62	0.0522	0.0205
Moon	53012-02-26 12:00 G	21083350.79	21083351.00	21083351.21	0.0507	0.0251
Earth	53012-02-26 13:12 G	21083350.86	21083351.05	21083351.25	0.0507	0.0275 *
Venus	53012-08-10 06:58 G	21083516.73	21083516.79	21083516.87	0.0502	0.0468
Mercury	53016-12-28 10:19 G	21085117.75	21085117.93	21085118.11	0.0504	0.0084
Venus	53019-01-31 00:29 G	21085881.31	21085881.52	21085881.72	0.0528	0.0017
Mercury	53022-08-31 04:34 G	21087189.57	21087189.69	21087189.82	0.0523	0.0051
Venus	53024-12-07 16:34 G	21088019.02	21088019.19	21088019.36	0.0498	0.0274
Mercury	53028-10-16 07:55 G	21089427.68	21089427.83	21089427.98	0.0503	0.0288
Venus	53030-10-05 17:46 G	21090147.09	21090147.24	21090147.39	0.0526	0.0346
Mercury	53034-06-19 09:07 G	21091499.75	21091499.88	21091500.00	0.0523	0.0112
Mercury	53034-09-16 13:55 G	21091589.07	21091589.08	21091589.09	0.0520	0.0517
Venus	53036-08-12 17:46 G	21092285.04	21092285.24	21092285.45	0.0499	0.0011
Mercury	53040-08-04 05:17 G	21093737.69	21093737.72	21093737.76	0.0502	0.0489
Mercury	53040-11-02 16:34 G	21093828.07	21093828.19	21093828.32	0.0505	0.0375
Mercury	53046-04-07 12:58 G	21095809.93	21095810.04	21095810.15	0.0524	0.0278
Mercury	53046-07-05 18:00 G	21095899.16	21095899.25	21095899.34	0.0521	0.0357
Venus	53048-04-17 18:00 G	21096551.09	21096551.25	21096551.41	0.0501	0.0299
Mercury	53052-08-21 13:12 G	21098137.88	21098138.05	21098138.23	0.0504	0.0158
Moon	53053-08-18 08:10 G	21098499.65	21098499.84	21098500.04	0.0515	0.0305
Earth	53053-08-18 09:22 G	21098499.71	21098499.89	21098500.08	0.0515	0.0317 *
Venus	53054-10-08 17:31 G	21098916.04	21098916.23	21098916.42	0.0528	0.0192
Mercury	53058-01-24 17:31 G	21100120.16	21100120.23	21100120.30	0.0525	0.0434
Mercury	53058-04-23 22:48 G	21100209.33	21100209.45	21100209.56	0.0522	0.0207
Moon	53059-02-11 09:22 G	21100502.84	21100502.89	21100502.95	0.0513	0.0495
Venus	53060-08-15 04:19 G	21101053.59	21101053.68	21101053.77	0.0497	0.0442
Mercury	53064-06-09 08:38 G	21102447.68	21102447.86	21102448.05	0.0503	0.0078
Moon	53065-08-22 22:48 G	21102887.22	21102887.45	21102887.67	0.0517	0.0037
Earth	53065-08-22 23:02 G	21102887.24	21102887.46	21102887.70	0.0517	0.0069 *
Venus	53066-06-13 07:41 G	21103181.63	21103181.82	21103182.02	0.0527	0.0156

Mercury	53070-02-10 03:36 G	21104519.53	21104519.65	21104519.78	0.0523	0.0063
Earth	53071-02-16 10:48 G	21104890.75	21104890.95	21104891.15	0.0511	0.0256
Moon	53071-02-16 13:41 G	21104890.87	21104891.07	21104891.27	0.0511	0.0242 *
Venus	53072-04-20 06:58 G	21105319.59	21105319.79	21105319.98	0.0498	0.0166
Mercury	53076-03-28 06:00 G	21106757.60	21106757.75	21106757.90	0.0503	0.0284
Earth	53077-08-27 19:41 G	21107275.10	21107275.32	21107275.53	0.0519	0.0202
Moon	53077-08-27 21:36 G	21107275.18	21107275.40	21107275.63	0.0519	0.0196 *
Venus	53078-02-16 01:26 G	21107447.49	21107447.56	21107447.64	0.0525	0.0485
Mercury	53081-11-29 08:10 G	21108829.72	21108829.84	21108829.97	0.0523	0.0096
Moon	53083-02-21 03:22 G	21109278.39	21109278.64	21109278.88	0.0509	0.0031
Earth	53083-02-21 04:48 G	21109278.46	21109278.70	21109278.93	0.0509	0.0008 *
Venus	53083-12-25 07:26 G	21109585.62	21109585.81	21109586.01	0.0500	0.0121
Mercury	53088-01-15 03:36 G	21111067.61	21111067.65	21111067.70	0.0503	0.0485
Mercury	53088-04-14 14:53 G	21111158.00	21111158.12	21111158.24	0.0505	0.0380
Moon	53089-09-01 14:24 G	21111662.99	21111663.10	21111663.22	0.0521	0.0443
Earth	53089-09-01 17:31 G	21111663.15	21111663.23	21111663.34	0.0521	0.0476 *
Venus	53090-06-16 11:31 G	21111950.86	21111950.98	21111951.12	0.0529	0.0400
Mercury	53093-09-17 12:29 G	21113139.91	21113140.02	21113140.13	0.0524	0.0255
Mercury	53093-12-15 17:31 G	21113229.15	21113229.23	21113229.32	0.0521	0.0379
Earth	53095-02-25 21:36 G	21113666.19	21113666.40	21113666.60	0.0507	0.0248
Moon	53095-02-25 21:22 G	21113666.19	21113666.39	21113666.59	0.0507	0.0228 *
Venus	53095-08-30 07:55 G	21113851.71	21113851.83	21113851.95	0.0502	0.0409
Mercury	53100-02-01 12:14 G	21115467.83	21115468.01	21115468.18	0.0504	0.0171
Venus	53102-02-20 03:22 G	21116216.44	21116216.64	21116216.84	0.0527	0.0058
Mars	53104-04-01 15:36 G	21116987.90	21116988.15	21116988.40	0.0534	0.0255
Mercury	53105-07-07 16:34 G	21117450.11	21117450.19	21117450.26	0.0525	0.0423
Mercury	53105-10-04 21:50 G	21117539.29	21117539.41	21117539.52	0.0522	0.0217
Earth	53107-03-03 12:58 G	21118054.00	21118054.04	21118054.10	0.0506	0.0492
Venus	53107-12-28 17:46 G	21118354.09	21118354.24	21118354.39	0.0498	0.0332
Mercury	53111-11-21 09:07 G	21119777.69	21119777.88	21119778.06	0.0504	0.0044

Venus	53113-10-25 19:12 G	21120482.13	21120482.30	21120482.47	0.0525	0.0280
Mercury	53117-07-24 02:24 G	21121849.48	21121849.60	21121849.73	0.0523	0.0068
Venus	53119-09-02 19:41 G	21122620.12	21122620.32	21122620.53	0.0499	0.0052
Mercury	53123-09-09 04:34 G	21124087.54	21124087.69	21124087.85	0.0503	0.0275
Mercury	53129-05-12 07:26 G	21126159.68	21126159.81	21126159.93	0.0524	0.0085
Venus	53131-05-08 21:36 G	21126886.23	21126886.40	21126886.59	0.0501	0.0230
Mercury	53135-06-28 01:55 G	21128397.53	21128397.58	21128397.64	0.0502	0.0478
Mercury	53135-09-26 13:12 G	21128487.93	21128488.05	21128488.17	0.0505	0.0384
Moon	53136-08-18 14:53 G	21128814.95	21128815.12	21128815.29	0.0515	0.0338
Earth	53136-08-18 15:07 G	21128814.96	21128815.13	21128815.30	0.0515	0.0354 *
Venus	53137-10-28 18:58 G	21129251.12	21129251.29	21129251.47	0.0529	0.0256
Mercury	53141-02-28 12:00 G	21130469.88	21130470.00	21130470.11	0.0524	0.0239
Mercury	53141-05-28 17:02 G	21130559.13	21130559.21	21130559.29	0.0521	0.0395
Moon	53142-02-12 04:34 G	21130818.69	21130818.69	21130818.69	0.0513	0.0513
Mercury	53147-07-15 10:34 G	21132797.77	21132797.94	21132798.11	0.0504	0.0177
Earth	53148-08-23 11:46 G	21133202.76	21133202.99	21133203.22	0.0517	0.0088
Moon	53148-08-23 13:41 G	21133202.84	21133203.07	21133203.31	0.0517	0.0059 *
Venus	53149-07-03 12:29 G	21133516.82	21133517.02	21133517.23	0.0527	0.0079
Mercury	53152-12-17 16:05 G	21134780.09	21134780.17	21134780.26	0.0525	0.0400
Mercury	53153-03-16 21:36 G	21134869.28	21134869.40	21134869.51	0.0522	0.0241
Moon	53154-02-16 18:29 G	21135206.07	21135206.27	21135206.48	0.0511	0.0274
Earth	53154-02-16 20:10 G	21135206.14	21135206.34	21135206.53	0.0511	0.0284 *
Venus	53155-05-11 07:55 G	21135654.65	21135654.83	21135655.02	0.0498	0.0225
Mars	53157-10-05 20:10 G	21136533.08	21136533.34	21136533.61	0.0492	0.0057
Mercury	53159-05-03 07:55 G	21137107.65	21137107.83	21137108.02	0.0504	0.0029
Moon	53160-08-28 04:34 G	21137590.48	21137590.69	21137590.90	0.0519	0.0168
Earth	53160-08-28 07:41 G	21137590.61	21137590.82	21137591.04	0.0519	0.0180 *
Venus	53161-03-08 05:17 G	21137782.60	21137782.72	21137782.85	0.0525	0.0410
Mercury	53165-01-03 01:41 G	21139179.44	21139179.57	21139179.69	0.0523	0.0078
Earth	53166-02-21 12:43 G	21139593.80	21139594.03	21139594.27	0.0509	0.0031

Moon	53166-02-21 12:43 G	21139593.81	21139594.03	21139594.26	0.0509	0.0060	*
Venus	53167-01-14 08:53 G	21139920.67	21139920.87	21139921.07	0.0500	0.0061	
Mercury	53171-02-19 04:48 G	21141417.54	21141417.70	21141417.87	0.0503	0.0240	
Earth	53172-09-02 02:24 G	21141978.49	21141978.60	21141978.72	0.0521	0.0446	
Moon	53172-09-02 06:14 G	21141978.62	21141978.76	21141978.89	0.0521	0.0419	*
Venus	53173-07-06 13:41 G	21142285.97	21142286.07	21142286.16	0.0529	0.0465	
Mercury	53176-10-22 06:14 G	21143489.63	21143489.76	21143489.89	0.0524	0.0076	
Earth	53178-02-26 07:55 G	21143981.63	21143981.83	21143982.05	0.0508	0.0228	
Moon	53178-02-26 10:05 G	21143981.70	21143981.92	21143982.14	0.0508	0.0213	*
Venus	53178-09-19 10:19 G	21144186.79	21144186.93	21144187.08	0.0502	0.0345	
Mercury	53182-12-08 00:43 G	21145727.47	21145727.53	21145727.60	0.0502	0.0467	
Mercury	53183-03-08 11:46 G	21145817.88	21145817.99	21145818.11	0.0505	0.0395	
Venus	53185-03-11 02:38 G	21146551.42	21146551.61	21146551.81	0.0528	0.0114	
Mercury	53188-08-10 11:02 G	21147799.84	21147799.96	21147800.07	0.0525	0.0229	
Mercury	53188-11-07 16:05 G	21147889.09	21147889.17	21147889.25	0.0522	0.0407	
Earth	53190-03-03 03:50 G	21148369.59	21148369.66	21148369.73	0.0506	0.0480	
Venus	53191-01-16 21:22 G	21148689.28	21148689.39	21148689.52	0.0497	0.0398	
Mercury	53194-12-25 08:53 G	21150127.70	21150127.87	21150128.04	0.0504	0.0183	
Venus	53196-11-13 19:55 G	21150817.15	21150817.33	21150817.52	0.0526	0.0220	
Mercury	53200-05-29 15:22 G	21152110.06	21152110.14	21152110.23	0.0525	0.0385	
Mercury	53200-08-26 20:38 G	21152199.25	21152199.36	21152199.47	0.0522	0.0256	
Venus	53202-09-21 22:34 G	21152955.24	21152955.44	21152955.64	0.0499	0.0117	
Mercury	53206-10-13 06:14 G	21154437.58	21154437.76	21154437.95	0.0504	0.0024	
Mercury	53212-06-15 01:12 G	21156509.43	21156509.55	21156509.68	0.0523	0.0100	
Venus	53214-05-27 23:17 G	21157221.27	21157221.47	21157221.66	0.0500	0.0168	
Mercury	53218-08-01 03:50 G	21158747.49	21158747.66	21158747.82	0.0503	0.0227	
Earth	53219-08-19 03:50 G	21159130.50	21159130.66	21159130.82	0.0515	0.0375	
Moon	53219-08-19 05:46 G	21159130.57	21159130.74	21159130.91	0.0515	0.0352	*
Venus	53220-11-16 23:02 G	21159586.30	21159586.46	21159586.62	0.0529	0.0329	
Mercury	53224-04-03 05:17 G	21160819.60	21160819.72	21160819.85	0.0523	0.0065	

Venus	53226-01-30 23:02 G	21161487.38	21161487.46	21161487.54	0.0502	0.0458
Mercury	53230-05-20 00:58 G	21163057.45	21163057.54	21163057.63	0.0502	0.0434
Mercury	53230-08-18 12:00 G	21163147.91	21163148.00	21163148.10	0.0505	0.0431
Moon	53231-08-23 18:14 G	21163518.04	21163518.26	21163518.49	0.0517	0.0091
Earth	53231-08-23 21:22 G	21163518.16	21163518.39	21163518.62	0.0517	0.0116 *
Venus	53232-07-22 14:38 G	21163851.90	21163852.11	21163852.31	0.0527	0.0013
Mercury	53236-01-21 09:50 G	21165129.79	21165129.91	21165130.02	0.0524	0.0220
Mercury	53236-04-19 14:53 G	21165219.05	21165219.12	21165219.20	0.0522	0.0414
Earth	53237-02-16 05:31 G	21165521.55	21165521.73	21165521.93	0.0512	0.0311
Moon	53237-02-16 05:46 G	21165521.56	21165521.74	21165521.92	0.0512	0.0306 *
Venus	53238-05-30 10:19 G	21165989.77	21165989.93	21165990.10	0.0498	0.0286
Mercury	53242-06-06 07:41 G	21167457.65	21167457.82	21167457.99	0.0504	0.0194
Earth	53243-08-28 10:48 G	21167905.72	21167905.95	21167906.17	0.0518	0.0137
Moon	53243-08-28 14:24 G	21167905.88	21167906.10	21167906.33	0.0518	0.0118 *
Venus	53244-03-27 04:05 G	21168117.52	21168117.67	21168117.82	0.0525	0.0356
Mercury	53247-11-09 14:24 G	21169440.01	21169440.10	21169440.19	0.0525	0.0376
Mercury	53248-02-06 19:41 G	21169529.21	21169529.32	21169529.43	0.0523	0.0266
Earth	53249-02-21 02:38 G	21169909.38	21169909.61	21169909.85	0.0510	0.0048
Moon	53249-02-21 04:19 G	21169909.44	21169909.68	21169909.92	0.0510	0.0078 *
Venus	53250-02-02 12:58 G	21170255.84	21170256.04	21170256.25	0.0500	0.0009
Mercury	53254-03-25 04:48 G	21171767.51	21171767.70	21171767.88	0.0503	0.0020
Moon	53255-09-02 03:50 G	21172293.50	21172293.66	21172293.82	0.0520	0.0379
Earth	53255-09-02 07:12 G	21172293.66	21172293.80	21172293.94	0.0520	0.0408 *
Venus	53256-07-25 14:10 G	21172621.07	21172621.09	21172621.12	0.0530	0.0524
Mars	53258-06-27 22:19 G	21173323.24	21173323.43	21173323.64	0.0535	0.0380
Mercury	53259-11-26 00:29 G	21173839.39	21173839.52	21173839.64	0.0523	0.0113
Moon	53261-02-25 16:48 G	21174296.99	21174297.20	21174297.42	0.0508	0.0200
Earth	53261-02-25 20:10 G	21174297.13	21174297.34	21174297.56	0.0508	0.0205 *
Venus	53261-10-08 13:12 G	21174521.88	21174522.05	21174522.21	0.0501	0.0278
Mercury	53266-01-11 02:10 G	21176077.42	21176077.59	21176077.75	0.0503	0.0222

Venus	53268-03-30 07:26 G	21176886.62	21176886.81	21176887.00	0.0528	0.0191
Mercury	53271-09-14 04:48 G	21178149.58	21178149.70	21178149.83	0.0523	0.0045
Earth	53273-03-02 12:29 G	21178684.93	21178685.02	21178685.13	0.0506	0.0454
Moon	53273-03-02 16:34 G	21178685.13	21178685.19	21178685.25	0.0506	0.0487 *
Venus	53274-02-04 22:19 G	21179024.35	21179024.43	21179024.51	0.0497	0.0454
Mercury	53277-10-29 23:31 G	21180387.39	21180387.48	21180387.58	0.0502	0.0424
Mercury	53278-01-28 10:48 G	21180477.87	21180477.95	21180478.04	0.0505	0.0442
Venus	53279-12-03 23:46 G	21181152.30	21181152.49	21181152.69	0.0526	0.0146
Mercury	53283-07-03 08:53 G	21182459.75	21182459.87	21182459.99	0.0524	0.0210
Mercury	53283-09-30 13:55 G	21182549.01	21182549.08	21182549.15	0.0521	0.0424
Venus	53285-10-10 23:17 G	21183290.28	21183290.47	21183290.66	0.0499	0.0174
Mercury	53289-11-16 07:41 G	21184787.65	21184787.82	21184787.99	0.0504	0.0226
Venus	53291-08-08 16:19 G	21185418.10	21185418.18	21185418.26	0.0524	0.0476
Mercury	53295-04-21 13:12 G	21186769.96	21186770.05	21186770.14	0.0525	0.0370
Mercury	53295-07-19 18:29 G	21186859.17	21186859.27	21186859.38	0.0522	0.0272
Venus	53297-06-16 01:12 G	21187556.35	21187556.55	21187556.75	0.0500	0.0107
Mercury	53301-09-05 03:22 G	21189097.45	21189097.64	21189097.82	0.0503	0.0008
Moon	53302-08-19 04:05 G	21189445.53	21189445.67	21189445.81	0.0514	0.0400
Earth	53302-08-19 06:43 G	21189445.65	21189445.78	21189445.92	0.0514	0.0421 *
Venus	53303-12-07 21:07 G	21189921.25	21189921.38	21189921.53	0.0529	0.0380
Mercury	53307-05-08 23:17 G	21191169.34	21191169.47	21191169.59	0.0523	0.0119
Venus	53309-02-20 02:38 G	21191822.48	21191822.61	21191822.74	0.0502	0.0388
Mars	53312-01-01 07:41 G	21192867.79	21192867.82	21192867.87	0.0492	0.0484
Mercury	53313-06-24 00:29 G	21193407.35	21193407.52	21193407.68	0.0502	0.0217
Earth	53314-08-24 00:43 G	21193833.31	21193833.53	21193833.75	0.0516	0.0160
Moon	53314-08-24 04:34 G	21193833.47	21193833.69	21193833.91	0.0516	0.0139 *
Venus	53315-08-12 13:55 G	21194186.87	21194187.08	21194187.28	0.0528	0.0045
Mercury	53319-02-25 03:50 G	21195479.53	21195479.66	21195479.78	0.0524	0.0038
Earth	53320-02-17 16:05 G	21195837.00	21195837.17	21195837.35	0.0512	0.0340
Moon	53320-02-17 17:31 G	21195837.05	21195837.23	21195837.41	0.0512	0.0339 *

Venus	53321-06-19 12:00 G	21196324.86	21196325.00	21196325.15	0.0498	0.0345
Mercury	53325-04-11 21:36 G	21197717.31	21197717.40	21197717.50	0.0502	0.0422
Mercury	53325-07-11 08:53 G	21197807.78	21197807.87	21197807.96	0.0505	0.0442
Moon	53326-08-28 17:46 G	21198221.01	21198221.24	21198221.48	0.0518	0.0085
Earth	53326-08-28 21:22 G	21198221.16	21198221.39	21198221.62	0.0518	0.0110 *
Venus	53327-04-17 07:41 G	21198452.65	21198452.82	21198452.99	0.0526	0.0283
Mercury	53330-12-14 08:10 G	21199789.72	21199789.84	21199789.96	0.0524	0.0194
Mercury	53331-03-13 13:12 G	21199878.99	21199879.05	21199879.12	0.0521	0.0440
Moon	53332-02-22 07:26 G	21200224.58	21200224.81	21200225.03	0.0510	0.0111
Earth	53332-02-22 10:19 G	21200224.70	21200224.93	21200225.17	0.0510	0.0080 *
Venus	53333-02-22 13:12 G	21200590.85	21200591.05	21200591.25	0.0499	0.0065
Mercury	53337-04-29 06:00 G	21202117.59	21202117.75	21202117.92	0.0504	0.0232
Earth	53338-09-02 17:31 G	21202609.08	21202609.23	21202609.39	0.0520	0.0383
Moon	53338-09-02 19:55 G	21202609.17	21202609.33	21202609.49	0.0520	0.0360 *
Mercury	53342-10-02 12:00 G	21204099.91	21204100.00	21204100.10	0.0525	0.0363
Mercury	53342-12-30 17:31 G	21204189.12	21204189.23	21204189.33	0.0522	0.0279
Earth	53344-02-27 01:55 G	21204612.36	21204612.58	21204612.81	0.0508	0.0173
Moon	53344-02-27 06:00 G	21204612.53	21204612.75	21204612.97	0.0508	0.0176 *
Venus	53344-10-28 12:58 G	21204856.86	21204857.04	21204857.22	0.0501	0.0223
Mercury	53349-02-15 02:53 G	21206427.44	21206427.62	21206427.81	0.0503	0.0019
Venus	53351-04-20 08:10 G	21207221.66	21207221.84	21207222.02	0.0528	0.0252
Mercury	53354-07-21 16:19 G	21208410.18	21208410.18	21208410.18	0.0526	0.0525
Mercury	53354-10-18 21:50 G	21208499.29	21208499.41	21208499.54	0.0523	0.0123
Moon	53356-03-02 16:48 G	21209000.10	21209000.20	21209000.29	0.0507	0.0459
Earth	53356-03-02 20:10 G	21209000.23	21209000.34	21209000.48	0.0507	0.0428 *
Mercury	53360-12-03 22:48 G	21210737.29	21210737.45	21210737.62	0.0502	0.0210
Venus	53362-12-23 20:53 G	21211487.17	21211487.37	21211487.57	0.0526	0.0098
Mercury	53366-08-07 02:24 G	21212809.47	21212809.60	21212809.73	0.0524	0.0036
Venus	53368-10-31 01:26 G	21213625.39	21213625.56	21213625.75	0.0499	0.0237
Mercury	53372-09-21 19:55 G	21215047.23	21215047.33	21215047.43	0.0502	0.0418

Mercury	53372-12-21 06:58 G	21215137.70	21215137.79	21215137.88	0.0504	0.0443
Venus	53374-08-28 13:55 G	21215752.97	21215753.08	21215753.20	0.0524	0.0426
Mercury	53378-05-26 06:58 G	21217119.67	21217119.79	21217119.91	0.0525	0.0193
Mercury	53378-08-23 12:00 G	21217208.94	21217209.00	21217209.07	0.0522	0.0443
Venus	53380-07-06 01:55 G	21217891.38	21217891.58	21217891.78	0.0500	0.0048
Mercury	53384-10-09 03:50 G	21219447.49	21219447.66	21219447.83	0.0504	0.0229
Earth	53385-08-18 15:07 G	21219761.03	21219761.13	21219761.24	0.0514	0.0454
Moon	53385-08-18 18:58 G	21219761.16	21219761.29	21219761.42	0.0514	0.0425 *
Venus	53386-12-26 23:46 G	21220256.39	21220256.49	21220256.60	0.0530	0.0449
Mercury	53390-03-14 11:17 G	21221429.87	21221429.97	21221430.06	0.0525	0.0352
Mercury	53390-06-11 16:34 G	21221519.09	21221519.19	21221519.30	0.0522	0.0290
Venus	53392-03-11 01:55 G	21222157.43	21222157.58	21222157.74	0.0502	0.0334
Mercury	53396-07-28 00:58 G	21223757.36	21223757.54	21223757.73	0.0503	0.0020
Moon	53397-08-23 06:14 G	21224148.55	21224148.76	21224148.99	0.0516	0.0176
Earth	53397-08-23 09:50 G	21224148.70	21224148.91	21224149.13	0.0516	0.0191 *
Venus	53398-08-31 16:05 G	21224521.97	21224522.17	21224522.37	0.0527	0.0112
Mercury	53402-01-01 15:07 G	21225740.12	21225740.13	21225740.14	0.0526	0.0521
Mercury	53402-03-31 20:38 G	21225829.24	21225829.36	21225829.48	0.0523	0.0126
Moon	53403-02-17 16:48 G	21226152.06	21226152.20	21226152.36	0.0512	0.0388
Earth	53403-02-17 19:41 G	21226152.17	21226152.32	21226152.48	0.0512	0.0381 *
Venus	53404-07-09 10:48 G	21226659.83	21226659.95	21226660.08	0.0498	0.0395
Mercury	53408-05-16 21:50 G	21228067.25	21228067.41	21228067.59	0.0503	0.0193
Earth	53409-08-29 03:22 G	21228536.41	21228536.64	21228536.87	0.0517	0.0074
Moon	53409-08-29 06:00 G	21228536.52	21228536.75	21228536.97	0.0517	0.0047 *
Venus	53410-05-07 07:41 G	21228787.63	21228787.82	21228788.00	0.0525	0.0225
Mercury	53414-01-18 00:58 G	21230139.42	21230139.54	21230139.67	0.0524	0.0034
Earth	53415-02-22 14:38 G	21230539.88	21230540.11	21230540.34	0.0511	0.0118
Moon	53415-02-22 18:29 G	21230540.05	21230540.27	21230540.50	0.0511	0.0148 *
Venus	53416-03-14 12:58 G	21230925.84	21230926.04	21230926.24	0.0499	0.0118
Mercury	53420-03-04 18:14 G	21232377.16	21232377.26	21232377.36	0.0501	0.0414

Mercury	53420-06-03 05:02 G	21232467.63	21232467.71	21232467.80	0.0504	0.0446
Moon	53421-09-02 15:36 G	21232923.96	21232924.15	21232924.35	0.0519	0.0304
Earth	53421-09-02 17:02 G	21232924.03	21232924.21	21232924.39	0.0519	0.0328 *
Mercury	53425-11-06 05:17 G	21234449.60	21234449.72	21234449.84	0.0525	0.0197
Mercury	53426-02-03 10:19 G	21234538.87	21234538.93	21234539.00	0.0522	0.0441
Moon	53427-02-27 06:00 G	21234927.52	21234927.75	21234927.98	0.0509	0.0143
Earth	53427-02-27 09:50 G	21234927.68	21234927.91	21234928.13	0.0509	0.0140 *
Venus	53427-11-18 14:10 G	21235191.89	21235192.09	21235192.28	0.0501	0.0162
Mars	53430-06-24 08:38 G	21236140.62	21236140.86	21236141.11	0.0491	0.0179
Mercury	53432-03-22 01:41 G	21236777.41	21236777.57	21236777.74	0.0503	0.0228
Venus	53434-05-10 04:48 G	21237556.53	21237556.70	21237556.87	0.0528	0.0297
Mercury	53437-08-25 09:36 G	21238759.81	21238759.90	21238759.99	0.0526	0.0356
Mercury	53437-11-22 14:53 G	21238849.02	21238849.12	21238849.23	0.0523	0.0288
Earth	53439-03-04 02:10 G	21239315.45	21239315.59	21239315.75	0.0507	0.0391
Moon	53439-03-04 05:02 G	21239315.59	21239315.71	21239315.84	0.0507	0.0424 *
Venus	53439-07-24 13:26 G	21239457.97	21239458.06	21239458.15	0.0503	0.0450
Mercury	53444-01-08 22:34 G	21241087.25	21241087.44	21241087.62	0.0503	0.0016
Venus	53446-01-12 22:05 G	21241822.22	21241822.42	21241822.62	0.0527	0.0034
Mercury	53449-06-13 13:55 G	21243070.06	21243070.08	21243070.10	0.0526	0.0516
Mercury	53449-09-10 19:26 G	21243159.19	21243159.31	21243159.44	0.0523	0.0132
Venus	53451-11-20 23:31 G	21243960.31	21243960.48	21243960.65	0.0498	0.0283
Mercury	53455-10-27 19:41 G	21245397.15	21245397.32	21245397.49	0.0503	0.0197
Venus	53457-09-17 14:53 G	21246087.98	21246088.12	21246088.28	0.0525	0.0363
Mercury	53461-06-29 23:31 G	21247469.35	21247469.48	21247469.61	0.0524	0.0034
Venus	53463-07-26 23:31 G	21248226.28	21248226.48	21248226.68	0.0500	0.0001
Mercury	53467-08-15 16:48 G	21249707.09	21249707.20	21249707.30	0.0502	0.0405
Mercury	53467-11-14 03:50 G	21249797.58	21249797.66	21249797.73	0.0504	0.0458
Moon	53468-08-18 16:48 G	21250076.10	21250076.20	21250076.30	0.0513	0.0462
Earth	53468-08-18 20:24 G	21250076.30	21250076.35	21250076.42	0.0513	0.0493 *
Venus	53470-01-15 22:34 G	21250591.38	21250591.44	21250591.51	0.0529	0.0501

Mercury	53473-04-18 03:36 G	21251779.54	21251779.65	21251779.77	0.0525	0.0198
Mercury	53473-07-16 08:53 G	21251868.80	21251868.87	21251868.94	0.0522	0.0439
Venus	53475-04-01 00:14 G	21252492.34	21252492.51	21252492.68	0.0502	0.0285
Mercury	53479-09-01 23:46 G	21254107.32	21254107.49	21254107.65	0.0503	0.0228
Earth	53480-08-23 08:53 G	21254463.68	21254463.87	21254464.08	0.0515	0.0247
Moon	53480-08-23 12:00 G	21254463.80	21254464.00	21254464.20	0.0515	0.0234 *
Venus	53481-09-20 11:02 G	21254856.76	21254856.96	21254857.15	0.0527	0.0151
Mercury	53485-02-04 07:41 G	21256089.73	21256089.82	21256089.91	0.0526	0.0366
Mercury	53485-05-04 13:12 G	21256178.94	21256179.05	21256179.16	0.0523	0.0279
Earth	53486-02-16 23:17 G	21256467.34	21256467.47	21256467.60	0.0514	0.0427
Moon	53486-02-17 02:53 G	21256467.51	21256467.62	21256467.75	0.0514	0.0442 *
Venus	53487-07-29 10:34 G	21256994.86	21256994.94	21256995.03	0.0498	0.0447
Mercury	53491-06-20 20:10 G	21258417.16	21258417.34	21258417.53	0.0502	0.0016
Moon	53492-08-28 00:14 G	21258851.27	21258851.51	21258851.75	0.0517	0.0012
Earth	53492-08-28 01:55 G	21258851.35	21258851.58	21258851.81	0.0517	0.0016 *
Venus	53493-05-26 02:53 G	21259122.44	21259122.62	21259122.82	0.0525	0.0183
Mercury	53497-02-20 17:46 G	21260489.11	21260489.24	21260489.36	0.0524	0.0124
Moon	53498-02-21 13:55 G	21260854.86	21260855.08	21260855.30	0.0511	0.0197
Earth	53498-02-21 17:46 G	21260855.02	21260855.24	21260855.47	0.0511	0.0166 *
Venus	53499-04-03 10:48 G	21261260.76	21261260.95	21261261.14	0.0499	0.0167
Mercury	53503-04-09 16:48 G	21262727.03	21262727.20	21262727.37	0.0502	0.0208
Moon	53504-09-02 20:24 G	21263239.16	21263239.35	21263239.54	0.0519	0.0269
Earth	53504-09-02 20:38 G	21263239.17	21263239.36	21263239.56	0.0519	0.0285 *
Venus	53505-01-29 20:53 G	21263388.32	21263388.37	21263388.42	0.0524	0.0504
Mercury	53508-12-10 22:05 G	21264799.30	21264799.42	21264799.55	0.0524	0.0035
Earth	53510-02-27 11:46 G	21265242.76	21265242.99	21265243.22	0.0509	0.0094
Moon	53510-02-27 14:53 G	21265242.89	21265243.12	21265243.34	0.0509	0.0102 *
Venus	53510-12-08 11:02 G	21265526.76	21265526.96	21265527.16	0.0501	0.0117
Mercury	53515-01-26 13:55 G	21267036.99	21267037.08	21267037.19	0.0502	0.0415
Mercury	53515-04-27 00:58 G	21267127.46	21267127.54	21267127.63	0.0504	0.0448

Venus	53517-05-30 04:48 G	21267891.55	21267891.70	21267891.85	0.0529	0.0355
Mercury	53520-09-29 02:10 G	21269109.47	21269109.59	21269109.71	0.0525	0.0201
Mercury	53520-12-27 07:12 G	21269198.74	21269198.80	21269198.87	0.0522	0.0435
Moon	53522-03-04 00:58 G	21269630.38	21269630.54	21269630.71	0.0508	0.0374
Earth	53522-03-04 02:24 G	21269630.44	21269630.60	21269630.78	0.0508	0.0346 *
Venus	53522-08-13 09:50 G	21269792.80	21269792.91	21269793.03	0.0503	0.0407
Mercury	53527-02-12 21:50 G	21271437.24	21271437.41	21271437.57	0.0504	0.0231
Venus	53529-02-01 20:10 G	21272157.13	21272157.34	21272157.54	0.0527	0.0019
Mars	53531-03-12 21:07 G	21272926.16	21272926.38	21272926.61	0.0536	0.0326
Mercury	53532-07-18 06:14 G	21273419.67	21273419.76	21273419.85	0.0525	0.0367
Mercury	53532-10-15 11:31 G	21273508.88	21273508.98	21273509.09	0.0523	0.0277
Venus	53534-12-10 20:38 G	21274295.21	21274295.36	21274295.52	0.0499	0.0327
Mercury	53538-12-01 18:00 G	21275747.06	21275747.25	21275747.44	0.0502	0.0007
Venus	53540-10-07 09:22 G	21276422.74	21276422.89	21276423.06	0.0524	0.0323
Mercury	53544-08-03 15:36 G	21277819.03	21277819.15	21277819.28	0.0524	0.0112
Venus	53546-08-15 21:50 G	21278561.20	21278561.41	21278561.61	0.0500	0.0050
Mercury	53550-09-19 14:38 G	21280056.94	21280057.11	21280057.28	0.0502	0.0210
Mercury	53556-05-22 20:10 G	21282129.21	21282129.34	21282129.46	0.0524	0.0049
Venus	53558-04-20 20:53 G	21282827.20	21282827.37	21282827.55	0.0502	0.0239
Mercury	53562-07-08 11:02 G	21284366.87	21284366.96	21284367.06	0.0501	0.0428
Mercury	53562-10-06 21:50 G	21284457.32	21284457.41	21284457.51	0.0504	0.0432
Moon	53563-08-24 08:24 G	21284778.66	21284778.85	21284779.06	0.0515	0.0283
Earth	53563-08-24 10:34 G	21284778.76	21284778.94	21284779.13	0.0515	0.0296 *
Venus	53564-10-10 09:22 G	21285191.71	21285191.89	21285192.08	0.0528	0.0205
Mercury	53568-03-11 00:29 G	21286439.40	21286439.52	21286439.64	0.0525	0.0204
Mercury	53568-06-08 05:46 G	21286528.67	21286528.74	21286528.81	0.0522	0.0433
Moon	53569-02-16 20:10 G	21286782.29	21286782.34	21286782.41	0.0514	0.0494
Earth	53569-02-17 00:14 G	21286782.43	21286782.51	21286782.60	0.0514	0.0476
Venus	53570-08-18 06:29 G	21287329.73	21287329.77	21287329.81	0.0497	0.0485
Mercury	53574-07-25 18:43 G	21288767.11	21288767.28	21288767.45	0.0504	0.0217

Earth	53575-08-29 05:02 G	21289166.47	21289166.71	21289166.94	0.0516	0.0030
Moon	53575-08-29 05:02 G	21289166.49	21289166.71	21289166.93	0.0516	0.0055 *
Venus	53576-06-15 02:10 G	21289457.39	21289457.59	21289457.78	0.0526	0.0127
Mercury	53579-12-29 04:19 G	21290749.60	21290749.68	21290749.77	0.0525	0.0374
Mercury	53580-03-27 09:50 G	21290838.80	21290838.91	21290839.02	0.0523	0.0271
Earth	53581-02-21 16:34 G	21291169.98	21291170.19	21291170.40	0.0512	0.0218
Moon	53581-02-21 19:55 G	21291170.13	21291170.33	21291170.53	0.0512	0.0248 *
Venus	53582-04-23 06:14 G	21291595.58	21291595.76	21291595.95	0.0499	0.0206
Mars	53584-09-17 18:29 G	21292474.01	21292474.27	21292474.53	0.0491	0.0113
Mercury	53586-05-13 15:36 G	21293076.97	21293077.15	21293077.34	0.0503	0.0005
Earth	53587-09-02 22:34 G	21293554.23	21293554.44	21293554.64	0.0518	0.0238
Moon	53587-09-03 00:43 G	21293554.32	21293554.53	21293554.75	0.0518	0.0229 *
Venus	53588-02-18 18:14 G	21293723.17	21293723.26	21293723.36	0.0524	0.0455
Mercury	53592-01-14 13:55 G	21295148.96	21295149.08	21295149.21	0.0523	0.0110
Moon	53593-02-26 07:55 G	21295557.59	21295557.83	21295558.07	0.0510	0.0048
Earth	53593-02-26 10:05 G	21295557.69	21295557.92	21295558.16	0.0510	0.0042 *
Venus	53593-12-27 06:58 G	21295861.59	21295861.79	21295862.00	0.0501	0.0077
Mercury	53598-03-01 12:14 G	21297386.84	21297387.01	21297387.18	0.0502	0.0215
Earth	53599-09-07 13:26 G	21297942.00	21297942.06	21297942.13	0.0519	0.0496
Venus	53600-06-17 22:48 G	21298226.31	21298226.45	21298226.58	0.0528	0.0390
Mercury	53603-11-02 18:00 G	21299459.12	21299459.25	21299459.37	0.0525	0.0062
Earth	53605-03-03 02:38 G	21299945.42	21299945.61	21299945.80	0.0509	0.0296
Moon	53605-03-03 02:24 G	21299945.43	21299945.60	21299945.78	0.0509	0.0324 *
Venus	53605-09-01 06:43 G	21300127.64	21300127.78	21300127.92	0.0503	0.0362
Mercury	53609-12-18 08:53 G	21301696.78	21301696.87	21301696.97	0.0501	0.0429
Mercury	53610-03-18 19:26 G	21301787.22	21301787.31	21301787.41	0.0504	0.0429
Venus	53612-02-21 14:10 G	21302491.88	21302492.09	21302492.29	0.0526	0.0055
Mercury	53615-08-21 22:19 G	21303769.31	21303769.43	21303769.54	0.0525	0.0221
Mercury	53615-11-19 03:36 G	21303858.58	21303858.65	21303858.72	0.0522	0.0419
Venus	53617-12-29 16:34 G	21304630.05	21304630.19	21304630.32	0.0498	0.0367

Mercury	53622-01-04 15:36 G	21306096.98	21306097.15	21306097.32	0.0503	0.0200
Venus	53623-10-27 06:43 G	21306757.61	21306757.78	21306757.95	0.0525	0.0274
Mercury	53627-06-10 02:38 G	21308079.53	21308079.61	21308079.70	0.0526	0.0379
Mercury	53627-09-07 08:10 G	21308168.73	21308168.84	21308168.95	0.0523	0.0266
Venus	53629-09-03 17:17 G	21308896.02	21308896.22	21308896.42	0.0500	0.0088
Mercury	53633-10-23 12:29 G	21310406.84	21310407.02	21310407.21	0.0503	0.0013
Mercury	53639-06-26 12:14 G	21312478.89	21312479.01	21312479.14	0.0523	0.0103
Venus	53641-05-09 16:19 G	21313161.99	21313162.18	21313162.37	0.0502	0.0200
Mercury	53645-08-11 09:36 G	21314716.73	21314716.90	21314717.06	0.0502	0.0223
Earth	53646-08-23 12:43 G	21315093.86	21315094.03	21315094.21	0.0514	0.0342
Moon	53646-08-23 13:26 G	21315093.89	21315094.06	21315094.23	0.0514	0.0334 *
Venus	53647-10-30 06:43 G	21315526.60	21315526.78	21315526.96	0.0528	0.0252
Mercury	53651-04-14 16:19 G	21316789.06	21316789.18	21316789.31	0.0524	0.0064
Venus	53653-01-12 15:50 G	21317428.11	21317428.16	21317428.21	0.0504	0.0487
Mercury	53657-05-30 06:29 G	21319026.68	21319026.77	21319026.86	0.0501	0.0435
Mercury	53657-08-28 17:02 G	21319117.12	21319117.21	21319117.32	0.0504	0.0423
Earth	53658-08-28 03:22 G	21319481.41	21319481.64	21319481.87	0.0515	0.0086
Moon	53658-08-28 05:02 G	21319481.47	21319481.71	21319481.94	0.0515	0.0115 *
Venus	53659-07-04 20:24 G	21319792.15	21319792.35	21319792.55	0.0525	0.0088
Mercury	53663-01-31 20:10 G	21321099.23	21321099.34	21321099.45	0.0525	0.0235
Mercury	53663-05-01 01:26 G	21321188.48	21321188.56	21321188.64	0.0523	0.0406
Moon	53664-02-21 11:31 G	21321484.79	21321484.98	21321485.18	0.0513	0.0306
Earth	53664-02-21 14:10 G	21321484.90	21321485.09	21321485.30	0.0513	0.0276 *
Venus	53665-05-12 02:53 G	21321930.44	21321930.62	21321930.80	0.0499	0.0248
Mercury	53669-06-16 13:26 G	21323426.89	21323427.06	21323427.23	0.0503	0.0200
Moon	53670-09-01 16:05 G	21323868.96	21323869.17	21323869.39	0.0517	0.0169
Earth	53670-09-01 19:12 G	21323869.09	21323869.30	21323869.52	0.0517	0.0177 *
Venus	53671-03-09 12:29 G	21324057.90	21324058.02	21324058.15	0.0523	0.0416
Mercury	53674-11-20 00:29 G	21325409.44	21325409.52	21325409.60	0.0526	0.0397
Mercury	53675-02-17 06:00 G	21325498.64	21325498.75	21325498.86	0.0523	0.0250

Earth	53676-02-26 08:53 G	21325872.63	21325872.87	21325873.11	0.0511	0.0013
Moon	53676-02-26 09:22 G	21325872.66	21325872.89	21325873.11	0.0511	0.0005 *
Venus	53677-01-15 02:38 G	21326196.41	21326196.61	21326196.82	0.0501	0.0036
Mercury	53681-04-04 09:22 G	21327736.70	21327736.89	21327737.07	0.0503	0.0030
Earth	53682-09-06 12:14 G	21328256.89	21328257.01	21328257.13	0.0519	0.0444
Moon	53682-09-06 16:19 G	21328257.09	21328257.18	21328257.27	0.0519	0.0477 *
Venus	53683-07-07 19:55 G	21328561.22	21328561.33	21328561.44	0.0529	0.0438
Mars	53685-06-05 00:00 G	21329259.21	21329259.50	21329259.79	0.0536	0.0031
Mercury	53686-12-06 10:34 G	21329808.82	21329808.94	21329809.07	0.0524	0.0098
Earth	53688-03-02 03:07 G	21330260.43	21330260.63	21330260.84	0.0509	0.0250
Moon	53688-03-02 05:17 G	21330260.52	21330260.72	21330260.93	0.0509	0.0275 *
Venus	53688-09-20 02:38 G	21330462.46	21330462.61	21330462.77	0.0502	0.0319
Mercury	53693-01-21 06:14 G	21332046.60	21332046.76	21332046.93	0.0502	0.0239
Venus	53695-03-12 12:14 G	21332826.82	21332827.01	21332827.21	0.0527	0.0106
Mercury	53698-09-24 14:38 G	21334118.99	21334119.11	21334119.24	0.0524	0.0068
Moon	53700-03-07 15:07 G	21334648.07	21334648.13	21334648.18	0.0507	0.0489
Earth	53700-03-07 18:14 G	21334648.23	21334648.26	21334648.30	0.0507	0.0500
Venus	53701-01-18 12:00 G	21334964.88	21334965.00	21334965.12	0.0498	0.0403
Mercury	53704-11-10 03:36 G	21336356.57	21336356.65	21336356.74	0.0501	0.0445
Mercury	53705-02-08 14:24 G	21336447.00	21336447.10	21336447.20	0.0504	0.0414
Venus	53706-11-16 04:34 G	21337092.51	21337092.69	21337092.87	0.0525	0.0224
Mercury	53710-07-14 18:43 G	21338429.17	21338429.28	21338429.40	0.0525	0.0233
Mercury	53710-10-12 00:00 G	21338518.42	21338518.50	21338518.58	0.0522	0.0406
Venus	53712-09-23 12:43 G	21339230.83	21339231.03	21339231.23	0.0500	0.0126
Mercury	53716-11-27 11:02 G	21340756.79	21340756.96	21340757.13	0.0503	0.0196
Mercury	53722-05-02 22:19 G	21342739.35	21342739.43	21342739.51	0.0526	0.0409
Mercury	53722-07-31 04:05 G	21342828.55	21342828.67	21342828.78	0.0523	0.0240
Venus	53724-05-29 12:14 G	21343496.82	21343497.01	21343497.21	0.0502	0.0158
Mercury	53728-09-15 07:26 G	21345066.63	21345066.81	21345067.00	0.0502	0.0027
Earth	53729-08-23 11:31 G	21345408.84	21345408.98	21345409.13	0.0513	0.0397

Moon	53729-08-23 12:29 G	21345408.87	21345409.02	21345409.18	0.0513	0.0394 *
Venus	53730-11-19 01:26 G	21345861.39	21345861.56	21345861.73	0.0527	0.0291
Mercury	53734-05-19 08:24 G	21347138.73	21347138.85	21347138.98	0.0524	0.0083
Venus	53736-02-02 11:46 G	21347762.90	21347762.99	21347763.09	0.0504	0.0444
Mars	53738-12-12 22:19 G	21348807.26	21348807.43	21348807.60	0.0491	0.0372
Mercury	53740-07-04 03:22 G	21349376.48	21349376.64	21349376.80	0.0502	0.0252
Moon	53741-08-27 22:48 G	21349796.24	21349796.45	21349796.67	0.0515	0.0173
Earth	53741-08-28 01:41 G	21349796.35	21349796.57	21349796.80	0.0515	0.0141 *
Venus	53742-07-24 17:02 G	21350127.01	21350127.21	21350127.42	0.0526	0.0044
Mercury	53746-03-07 13:12 G	21351448.92	21351449.05	21351449.17	0.0525	0.0072
Earth	53747-02-21 16:34 G	21351800.00	21351800.19	21351800.37	0.0513	0.0320
Moon	53747-02-21 17:17 G	21351800.06	21351800.22	21351800.39	0.0513	0.0346 *
Venus	53748-05-31 23:02 G	21352265.30	21352265.46	21352265.63	0.0499	0.0288
Mercury	53752-04-22 00:43 G	21353686.46	21353686.53	21353686.60	0.0501	0.0459
Mercury	53752-07-21 11:17 G	21353776.86	21353776.97	21353777.08	0.0504	0.0399
Earth	53753-09-01 20:24 G	21354184.12	21354184.35	21354184.57	0.0517	0.0130
Moon	53753-09-02 00:14 G	21354184.29	21354184.51	21354184.74	0.0517	0.0126 *
Venus	53754-03-29 10:34 G	21354392.80	21354392.94	21354393.09	0.0524	0.0366
Mercury	53757-12-24 17:17 G	21355759.11	21355759.22	21355759.33	0.0525	0.0235
Mercury	53758-03-23 22:34 G	21355848.36	21355848.44	21355848.52	0.0522	0.0404
Earth	53759-02-26 09:22 G	21356187.66	21356187.89	21356188.13	0.0511	0.0061
Moon	53759-02-26 10:48 G	21356187.71	21356187.95	21356188.20	0.0511	0.0042 *
Venus	53760-02-04 23:02 G	21356531.25	21356531.46	21356531.66	0.0501	0.0008
Mercury	53764-05-09 08:24 G	21358086.68	21358086.85	21358087.02	0.0503	0.0187
Moon	53765-09-06 11:46 G	21358571.86	21358571.99	21358572.11	0.0519	0.0431
Earth	53765-09-06 15:36 G	21358572.01	21358572.15	21358572.30	0.0519	0.0401 *
Venus	53766-07-27 18:29 G	21358896.20	21358896.27	21358896.35	0.0529	0.0489
Mercury	53769-10-12 21:07 G	21360069.30	21360069.38	21360069.47	0.0526	0.0403
Mercury	53770-01-10 02:38 G	21360158.50	21360158.61	21360158.73	0.0523	0.0245
Moon	53771-03-02 23:17 G	21360575.27	21360575.47	21360575.68	0.0509	0.0227

Earth	53771-03-03 02:24 G	21360575.38	21360575.60	21360575.82	0.0509	0.0200	*
Venus	53771-10-10 22:34 G	21360797.27	21360797.44	21360797.61	0.0503	0.0279	
Mercury	53776-02-26 05:17 G	21362396.54	21362396.72	21362396.91	0.0502	0.0027	
Venus	53778-04-01 08:38 G	21363161.67	21363161.86	21363162.06	0.0526	0.0151	
Mercury	53781-10-29 06:43 G	21364468.65	21364468.78	21364468.90	0.0524	0.0076	
Earth	53783-03-07 17:46 G	21364963.15	21364963.24	21364963.35	0.0508	0.0453	
Moon	53783-03-07 21:50 G	21364963.30	21364963.41	21364963.53	0.0508	0.0440	*
Venus	53784-02-07 08:53 G	21365299.78	21365299.87	21365299.96	0.0498	0.0446	
Mercury	53787-12-15 02:10 G	21366706.43	21366706.59	21366706.75	0.0502	0.0241	
Venus	53789-12-05 00:14 G	21367427.32	21367427.51	21367427.71	0.0525	0.0181	
Mercury	53793-08-17 11:02 G	21368778.84	21368778.96	21368779.09	0.0525	0.0083	
Venus	53795-10-13 09:07 G	21369565.69	21369565.88	21369566.08	0.0500	0.0169	
Mercury	53799-10-02 21:50 G	21371016.35	21371016.41	21371016.47	0.0501	0.0468	
Mercury	53800-01-01 08:24 G	21371106.73	21371106.85	21371106.97	0.0504	0.0388	
Venus	53801-08-10 16:19 G	21371693.14	21371693.18	21371693.23	0.0523	0.0506	
Mercury	53805-06-06 15:50 G	21373089.04	21373089.16	21373089.27	0.0525	0.0237	
Mercury	53805-09-03 21:07 G	21373178.30	21373178.38	21373178.46	0.0523	0.0405	
Venus	53807-06-19 10:19 G	21373831.73	21373831.93	21373832.13	0.0501	0.0110	
Mercury	53811-10-21 05:31 G	21375416.55	21375416.73	21375416.90	0.0503	0.0175	
Moon	53812-08-23 10:19 G	21375723.82	21375723.93	21375724.04	0.0513	0.0450	
Earth	53812-08-23 12:58 G	21375723.92	21375724.04	21375724.15	0.0513	0.0444	*
Venus	53813-12-09 00:29 G	21376196.37	21376196.52	21376196.67	0.0528	0.0344	
Mercury	53817-03-25 19:55 G	21377399.25	21377399.33	21377399.41	0.0526	0.0400	
Mercury	53817-06-23 01:26 G	21377488.45	21377488.56	21377488.67	0.0523	0.0247	
Venus	53819-02-22 09:22 G	21378097.77	21378097.89	21378098.02	0.0503	0.0397	
Mercury	53823-08-09 02:38 G	21379726.43	21379726.61	21379726.80	0.0503	0.0034	
Earth	53824-08-28 06:58 G	21380111.58	21380111.79	21380112.01	0.0515	0.0180	
Moon	53824-08-28 11:02 G	21380111.74	21380111.96	21380112.17	0.0515	0.0212	*
Venus	53825-08-13 17:02 G	21380462.01	21380462.21	21380462.41	0.0526	0.0015	
Mercury	53829-04-11 05:31 G	21381798.61	21381798.73	21381798.86	0.0524	0.0087	

Earth	53830-02-21 16:48 G	21382115.04	21382115.20	21382115.37	0.0513	0.0370
Moon	53830-02-21 17:46 G	21382115.08	21382115.24	21382115.40	0.0513	0.0388 *
Venus	53831-06-21 19:55 G	21382600.18	21382600.33	21382600.49	0.0499	0.0330
Mercury	53835-05-28 00:00 G	21384036.34	21384036.50	21384036.66	0.0502	0.0240
Moon	53836-09-01 20:10 G	21384499.11	21384499.34	21384499.57	0.0516	0.0078
Earth	53836-09-02 00:14 G	21384499.28	21384499.51	21384499.74	0.0516	0.0086 *
Venus	53837-04-18 08:53 G	21384727.71	21384727.87	21384728.03	0.0524	0.0313
Mars	53839-08-31 06:58 G	21385592.61	21385592.79	21385592.98	0.0535	0.0409
Mercury	53841-01-28 09:22 G	21386108.77	21386108.89	21386109.02	0.0525	0.0087
Moon	53842-02-26 06:58 G	21386502.57	21386502.79	21386503.02	0.0512	0.0088
Earth	53842-02-26 09:36 G	21386502.68	21386502.90	21386503.13	0.0512	0.0110 *
Venus	53843-02-24 20:24 G	21386866.15	21386866.35	21386866.55	0.0501	0.0052
Mercury	53847-03-15 21:07 G	21388346.30	21388346.38	21388346.45	0.0501	0.0451
Mercury	53847-06-14 07:26 G	21388436.71	21388436.81	21388436.92	0.0504	0.0405
Earth	53848-09-06 17:02 G	21388887.04	21388887.21	21388887.38	0.0518	0.0353
Moon	53848-09-06 20:10 G	21388887.19	21388887.34	21388887.49	0.0518	0.0384 *
Mercury	53852-11-16 13:55 G	21390418.96	21390419.08	21390419.19	0.0525	0.0245
Mercury	53853-02-13 19:12 G	21390508.22	21390508.30	21390508.38	0.0523	0.0397
Earth	53854-03-03 05:02 G	21390890.49	21390890.71	21390890.93	0.0510	0.0158
Moon	53854-03-03 08:53 G	21390890.64	21390890.87	21390891.09	0.0510	0.0186 *
Venus	53854-10-30 20:24 G	21391132.18	21391132.35	21391132.54	0.0502	0.0232
Mars	53857-06-04 16:34 G	21392080.00	21392080.19	21392080.38	0.0491	0.0337
Mercury	53859-04-02 02:53 G	21392746.45	21392746.62	21392746.80	0.0503	0.0169
Venus	53861-04-21 06:14 G	21393496.57	21393496.76	21393496.95	0.0527	0.0198
Mercury	53864-09-04 18:29 G	21394729.19	21394729.27	21394729.35	0.0526	0.0398
Mercury	53864-12-03 00:00 G	21394818.39	21394818.50	21394818.61	0.0523	0.0250
Moon	53866-03-07 20:38 G	21395278.23	21395278.36	21395278.51	0.0508	0.0409
Earth	53866-03-08 00:29 G	21395278.41	21395278.52	21395278.66	0.0508	0.0423 *
Venus	53867-02-27 07:41 G	21395634.80	21395634.82	21395634.85	0.0498	0.0493
Mercury	53871-01-19 00:14 G	21397056.32	21397056.51	21397056.69	0.0503	0.0041

Venus	53872-12-24 23:31 G	21397762.29	21397762.48	21397762.68	0.0526	0.0128
Mercury	53876-09-21 04:34 G	21399128.56	21399128.69	21399128.81	0.0524	0.0092
Venus	53878-11-02 07:55 G	21399900.65	21399900.83	21399901.02	0.0499	0.0218
Mercury	53882-11-06 21:36 G	21401366.24	21401366.40	21401366.56	0.0502	0.0244
Venus	53884-08-29 17:31 G	21402028.13	21402028.23	21402028.34	0.0523	0.0444
Mercury	53888-07-10 08:38 G	21403438.74	21403438.86	21403438.99	0.0524	0.0071
Venus	53890-07-08 08:24 G	21404166.65	21404166.85	21404167.06	0.0501	0.0063
Mercury	53894-08-25 19:12 G	21405676.22	21405676.30	21405676.39	0.0501	0.0446
Mercury	53894-11-24 05:46 G	21405766.64	21405766.74	21405766.85	0.0504	0.0411
Earth	53895-08-23 19:41 G	21406039.25	21406039.32	21406039.41	0.0512	0.0480
Moon	53895-08-23 23:46 G	21406039.42	21406039.49	21406039.55	0.0512	0.0490
Venus	53896-12-28 00:00 G	21406531.37	21406531.50	21406531.64	0.0528	0.0399
Mercury	53900-04-29 12:29 G	21407748.91	21407749.02	21407749.13	0.0525	0.0242
Mercury	53900-07-27 17:46 G	21407838.17	21407838.24	21407838.33	0.0523	0.0400
Venus	53902-03-14 07:41 G	21408432.68	21408432.82	21408432.97	0.0503	0.0348
Mercury	53906-09-13 02:24 G	21410076.43	21410076.60	21410076.78	0.0503	0.0194
Moon	53907-08-29 07:26 G	21410426.62	21410426.81	21410427.02	0.0514	0.0255
Earth	53907-08-29 11:31 G	21410426.78	21410426.98	21410427.19	0.0514	0.0220 *
Venus	53908-09-02 15:36 G	21410796.95	21410797.15	21410797.36	0.0526	0.0068
Mercury	53912-02-16 16:48 G	21412059.12	21412059.20	21412059.28	0.0526	0.0402
Mercury	53912-05-15 22:34 G	21412148.33	21412148.44	21412148.55	0.0523	0.0247
Moon	53913-02-21 18:43 G	21412430.17	21412430.28	21412430.41	0.0514	0.0429
Earth	53913-02-21 21:07 G	21412430.25	21412430.38	21412430.53	0.0514	0.0410 *
Venus	53914-07-11 19:12 G	21412935.17	21412935.30	21412935.43	0.0499	0.0378
Mercury	53918-07-01 22:05 G	21414386.23	21414386.42	21414386.60	0.0502	0.0041
Earth	53919-09-03 00:43 G	21414814.30	21414814.53	21414814.77	0.0516	0.0039
Moon	53919-09-03 04:19 G	21414814.45	21414814.68	21414814.91	0.0516	0.0036 *
Venus	53920-05-08 06:29 G	21415062.60	21415062.77	21415062.95	0.0525	0.0266
Mercury	53924-03-04 03:22 G	21416458.51	21416458.64	21416458.76	0.0524	0.0098
Earth	53925-02-26 18:58 G	21416818.07	21416818.29	21416818.52	0.0512	0.0136

Moon	53925-02-26 22:48 G	21416818.22	21416818.45	21416818.68	0.0512	0.0108	*
Venus	53926-03-16 21:07 G	21417201.19	21417201.38	21417201.59	0.0500	0.0108	
Mercury	53930-04-19 19:26 G	21418696.15	21418696.31	21418696.47	0.0502	0.0246	
Moon	53931-09-07 18:43 G	21419202.11	21419202.28	21419202.46	0.0518	0.0343	
Earth	53931-09-07 20:38 G	21419202.18	21419202.36	21419202.54	0.0518	0.0314	*
Mercury	53935-12-22 07:41 G	21420768.70	21420768.82	21420768.95	0.0524	0.0061	
Moon	53937-03-03 09:22 G	21421205.66	21421205.89	21421206.11	0.0510	0.0153	
Earth	53937-03-03 13:12 G	21421205.82	21421206.05	21421206.28	0.0510	0.0128	*
Venus	53937-11-19 21:07 G	21421467.19	21421467.38	21421467.57	0.0502	0.0174	
Mercury	53942-02-05 17:02 G	21423006.13	21423006.21	21423006.30	0.0501	0.0447	
Mercury	53942-05-07 03:36 G	21423096.55	21423096.65	21423096.76	0.0504	0.0411	
Venus	53944-05-11 08:53 G	21423831.70	21423831.87	21423832.05	0.0528	0.0265	
Mercury	53947-10-10 12:00 G	21425078.88	21425079.00	21425079.11	0.0525	0.0223	
Mercury	53948-01-07 17:17 G	21425168.15	21425168.22	21425168.29	0.0522	0.0418	
Earth	53949-03-08 06:14 G	21425593.61	21425593.76	21425593.91	0.0508	0.0389	
Moon	53949-03-08 09:22 G	21425593.73	21425593.89	21425594.04	0.0508	0.0369	*
Venus	53949-07-25 20:38 G	21425733.28	21425733.36	21425733.45	0.0504	0.0458	
Mercury	53954-02-23 00:58 G	21427406.37	21427406.54	21427406.71	0.0503	0.0203	
Venus	53956-01-15 01:12 G	21428097.34	21428097.55	21428097.75	0.0525	0.0064	
Mercury	53959-07-29 15:36 G	21429389.07	21429389.15	21429389.24	0.0526	0.0395	
Mercury	53959-10-26 21:22 G	21429478.28	21429478.39	21429478.50	0.0523	0.0253	
Venus	53961-11-22 07:41 G	21430235.65	21430235.82	21430235.99	0.0500	0.0268	
Mercury	53965-12-11 21:50 G	21431716.23	21431716.41	21431716.60	0.0502	0.0017	
Venus	53967-09-19 17:46 G	21432363.10	21432363.24	21432363.37	0.0523	0.0386	
Mercury	53971-08-15 01:55 G	21433788.45	21433788.58	21433788.70	0.0524	0.0100	
Venus	53973-07-28 09:07 G	21434501.67	21434501.88	21434502.08	0.0501	0.0009	
Mercury	53977-09-29 17:46 G	21436026.08	21436026.24	21436026.40	0.0502	0.0242	
Venus	53980-01-17 23:02 G	21436866.36	21436866.46	21436866.56	0.0529	0.0450	
Mercury	53983-06-03 06:43 G	21438098.65	21438098.78	21438098.90	0.0525	0.0052	
Venus	53985-04-02 10:34 G	21438767.77	21438767.94	21438768.10	0.0503	0.0284	

Mercury	53989-07-18 15:07 G	21440336.05	21440336.13	21440336.22	0.0501	0.0444
Mercury	53989-10-17 01:41 G	21440426.47	21440426.57	21440426.68	0.0504	0.0412
Earth	53990-08-28 15:50 G	21440741.96	21440742.16	21440742.36	0.0514	0.0260
Moon	53990-08-28 19:26 G	21440742.12	21440742.31	21440742.50	0.0514	0.0291 *
Venus	53991-09-22 16:19 G	21441131.98	21441132.18	21441132.37	0.0527	0.0125
Mercury	53995-03-22 11:02 G	21442408.85	21442408.96	21442409.08	0.0525	0.0210
Mercury	53995-06-19 16:19 G	21442498.12	21442498.18	21442498.26	0.0522	0.0432
Earth	53996-02-22 07:41 G	21442745.70	21442745.82	21442745.94	0.0514	0.0437
Moon	53996-02-22 11:17 G	21442745.86	21442745.97	21442746.08	0.0514	0.0450 *
Venus	53997-07-30 20:38 G	21443270.26	21443270.36	21443270.46	0.0498	0.0435

55TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 55th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	54001-08-04 23:02 G		21444736.30	21444736.46	21444736.63	0.0503	0.0206	
Moon	54002-09-02 09:50 G		21445129.67	21445129.91	21445130.15	0.0516	0.0019	
Earth	54002-09-02 11:46 G		21445129.76	21445129.99	21445130.23	0.0516	0.0016 *	
Venus	54003-05-28 10:05 G		21445397.74	21445397.92	21445398.11	0.0525	0.0195	
Mercury	54007-01-08 15:22 G		21446719.05	21446719.14	21446719.23	0.0526	0.0372	
Mercury	54007-04-07 20:53 G		21446808.26	21446808.37	21446808.48	0.0523	0.0275	
Moon	54008-02-26 22:34 G		21447133.22	21447133.44	21447133.67	0.0512	0.0144	
Earth	54008-02-27 02:24 G		21447133.38	21447133.60	21447133.83	0.0512	0.0169 *	
Venus	54009-04-04 21:36 G		21447536.21	21447536.40	21447536.59	0.0500	0.0161	

Mars	54011-08-30 23:17 G	21448414.21	21448414.47	21448414.73	0.0491	0.0058
Mercury	54013-05-23 20:38 G	21449046.18	21449046.36	21449046.55	0.0503	0.0008
Earth	54014-09-07 06:58 G	21449517.60	21449517.79	21449517.99	0.0518	0.0287
Moon	54014-09-07 06:43 G	21449517.61	21449517.78	21449517.96	0.0518	0.0319 *
Venus	54015-01-31 03:50 G	21449663.62	21449663.66	21449663.70	0.0522	0.0510
Mercury	54019-01-25 00:58 G	21451118.41	21451118.54	21451118.66	0.0524	0.0109
Earth	54020-03-02 19:12 G	21451521.07	21451521.30	21451521.53	0.0511	0.0095
Moon	54020-03-02 22:34 G	21451521.22	21451521.44	21451521.66	0.0511	0.0113 *
Venus	54020-12-08 21:22 G	21451802.20	21451802.39	21451802.59	0.0502	0.0120
Mercury	54025-03-11 17:46 G	21453356.08	21453356.24	21453356.41	0.0502	0.0209
Venus	54027-05-31 09:50 G	21454166.76	21454166.91	21454167.07	0.0528	0.0325
Mercury	54030-11-13 05:31 G	21455428.60	21455428.73	21455428.85	0.0525	0.0050
Moon	54032-03-07 12:58 G	21455908.87	21455909.04	21455909.23	0.0509	0.0337
Earth	54032-03-07 14:53 G	21455908.96	21455909.12	21455909.29	0.0509	0.0363 *
Venus	54032-08-13 22:19 G	21456068.31	21456068.43	21456068.55	0.0504	0.0399
Mercury	54036-12-28 13:41 G	21457665.99	21457666.07	21457666.16	0.0501	0.0436
Mercury	54037-03-29 00:14 G	21457756.41	21457756.51	21457756.61	0.0504	0.0420
Venus	54039-02-03 00:00 G	21458432.30	21458432.50	21458432.70	0.0526	0.0012
Mercury	54042-09-01 10:05 G	21459738.80	21459738.92	21459739.04	0.0526	0.0200
Mercury	54042-11-29 15:22 G	21459828.08	21459828.14	21459828.21	0.0523	0.0443
Venus	54044-12-11 10:48 G	21460570.80	21460570.95	21460571.11	0.0499	0.0331
Mercury	54049-01-14 21:22 G	21462066.22	21462066.39	21462066.56	0.0503	0.0210
Venus	54050-10-08 18:00 G	21462698.09	21462698.25	21462698.41	0.0524	0.0330
Mercury	54054-06-20 14:38 G	21464049.01	21464049.11	21464049.20	0.0526	0.0358
Mercury	54054-09-17 20:10 G	21464138.23	21464138.34	21464138.44	0.0523	0.0290
Venus	54056-08-16 11:31 G	21464836.78	21464836.98	21464837.19	0.0500	0.0055
Mercury	54060-11-02 18:58 G	21466376.11	21466376.29	21466376.48	0.0503	0.0005
Venus	54063-02-06 03:36 G	21467201.63	21467201.65	21467201.68	0.0529	0.0524
Mercury	54066-04-08 18:43 G	21468359.27	21468359.28	21468359.29	0.0527	0.0521
Mercury	54066-07-07 00:29 G	21468448.40	21468448.52	21468448.65	0.0524	0.0133

Venus	54068-04-21 11:31 G	21469102.80	21469102.98	21469103.17	0.0502	0.0225
Mercury	54072-08-21 16:34 G	21470686.02	21470686.19	21470686.36	0.0502	0.0197
Moon	54073-08-28 01:55 G	21471057.39	21471057.58	21471057.77	0.0514	0.0311
Earth	54073-08-28 04:05 G	21471057.48	21471057.67	21471057.87	0.0514	0.0284 *
Venus	54074-10-11 19:41 G	21471467.14	21471467.32	21471467.51	0.0527	0.0196
Mercury	54078-04-25 04:34 G	21472758.56	21472758.69	21472758.81	0.0525	0.0036
Moon	54079-02-21 10:19 G	21473060.87	21473060.93	21473061.01	0.0515	0.0488
Earth	54079-02-21 14:24 G	21473061.01	21473061.10	21473061.19	0.0515	0.0472 *
Venus	54080-08-18 21:36 G	21473605.37	21473605.40	21473605.44	0.0498	0.0490
Mercury	54084-06-09 13:55 G	21474995.98	21474996.08	21474996.19	0.0501	0.0402
Mercury	54084-09-08 00:29 G	21475086.44	21475086.52	21475086.60	0.0504	0.0455
Earth	54085-09-01 21:07 G	21475445.15	21475445.38	21475445.61	0.0515	0.0017
Moon	54085-09-01 21:22 G	21475445.16	21475445.39	21475445.61	0.0515	0.0005 *
Venus	54086-06-16 12:00 G	21475732.80	21475733.00	21475733.20	0.0525	0.0131
Mercury	54090-02-11 08:53 G	21477068.75	21477068.87	21477068.99	0.0525	0.0193
Mercury	54090-05-11 14:24 G	21477158.03	21477158.10	21477158.16	0.0523	0.0449
Earth	54091-02-26 11:17 G	21477448.76	21477448.97	21477449.19	0.0513	0.0197
Moon	54091-02-26 14:53 G	21477448.90	21477449.12	21477449.34	0.0513	0.0168 *
Venus	54092-04-23 23:46 G	21477871.30	21477871.49	21477871.67	0.0500	0.0220
Mercury	54096-06-26 19:55 G	21479396.17	21479396.33	21479396.50	0.0503	0.0221
Earth	54097-09-06 10:05 G	21479832.72	21479832.92	21479833.13	0.0517	0.0244
Moon	54097-09-06 11:46 G	21479832.78	21479832.99	21479833.19	0.0517	0.0274 *
Venus	54098-02-19 02:24 G	21479998.51	21479998.60	21479998.70	0.0523	0.0460
Mercury	54101-12-01 13:26 G	21481378.97	21481379.06	21481379.16	0.0527	0.0349
Mercury	54102-02-28 19:12 G	21481468.19	21481468.30	21481468.40	0.0524	0.0300
Moon	54103-03-04 07:26 G	21481836.57	21481836.81	21481837.05	0.0511	0.0087
Earth	54103-03-04 09:22 G	21481836.66	21481836.89	21481837.12	0.0511	0.0078 *
Venus	54103-12-30 01:41 G	21482137.37	21482137.57	21482137.77	0.0501	0.0051
Mercury	54108-04-15 17:17 G	21483706.04	21483706.22	21483706.41	0.0502	0.0015
Moon	54109-09-12 03:36 G	21484220.64	21484220.65	21484220.67	0.0519	0.0518

Venus	54110-06-20 10:48 G	21484501.81	21484501.95	21484502.09	0.0528	0.0384
Mars	54112-05-15 17:46 G	21485196.96	21485197.24	21485197.53	0.0537	0.0089
Mercury	54113-09-19 17:46 G	21485689.22	21485689.24	21485689.28	0.0527	0.0509
Mercury	54113-12-17 23:46 G	21485778.37	21485778.49	21485778.61	0.0524	0.0147
Earth	54115-03-09 03:22 G	21486224.47	21486224.64	21486224.82	0.0509	0.0342
Moon	54115-03-09 03:22 G	21486224.47	21486224.64	21486224.82	0.0509	0.0314 *
Venus	54115-09-04 01:26 G	21486403.41	21486403.56	21486403.71	0.0503	0.0332
Mercury	54120-02-02 14:53 G	21488015.96	21488016.12	21488016.30	0.0502	0.0191
Venus	54122-02-23 04:34 G	21488767.49	21488767.69	21488767.90	0.0526	0.0064
Mercury	54125-10-06 04:05 G	21490088.55	21490088.67	21490088.80	0.0525	0.0016
Venus	54128-01-01 12:14 G	21490905.88	21490906.01	21490906.14	0.0499	0.0387
Mercury	54131-11-21 12:43 G	21492325.92	21492326.03	21492326.15	0.0501	0.0390
Mercury	54132-02-19 23:17 G	21492416.41	21492416.47	21492416.54	0.0504	0.0469
Venus	54133-10-28 22:05 G	21493033.24	21493033.42	21493033.59	0.0524	0.0257
Mercury	54137-07-25 08:10 G	21494398.72	21494398.84	21494398.96	0.0525	0.0180
Mercury	54137-10-22 13:26 G	21494488.00	21494488.06	21494488.12	0.0522	0.0461
Venus	54139-09-06 12:43 G	21495171.83	21495172.03	21495172.22	0.0501	0.0112
Mercury	54143-12-08 20:10 G	21496726.19	21496726.34	21496726.51	0.0503	0.0255
Mercury	54149-05-13 12:29 G	21498708.92	21498709.02	21498709.11	0.0526	0.0341
Mercury	54149-08-10 18:00 G	21498798.15	21498798.25	21498798.35	0.0523	0.0308
Venus	54151-05-12 13:41 G	21499437.88	21499438.07	21499438.27	0.0502	0.0165
Mercury	54155-09-26 16:05 G	21501035.99	21501036.17	21501036.36	0.0502	0.0024
Earth	54156-08-28 07:55 G	21501372.65	21501372.83	21501373.01	0.0513	0.0328
Moon	54156-08-28 08:24 G	21501372.69	21501372.85	21501373.02	0.0513	0.0352 *
Venus	54157-10-31 18:29 G	21501802.09	21501802.27	21501802.45	0.0527	0.0247
Mercury	54161-03-01 16:48 G	21503019.17	21503019.20	21503019.24	0.0527	0.0501
Mercury	54161-05-29 22:48 G	21503108.32	21503108.45	21503108.57	0.0525	0.0156
Earth	54162-02-22 03:22 G	21503376.58	21503376.64	21503376.70	0.0515	0.0496
Moon	54162-02-22 06:58 G	21503376.74	21503376.79	21503376.84	0.0515	0.0500
Venus	54163-01-15 14:53 G	21503704.03	21503704.12	21503704.22	0.0504	0.0440

Mars	54165-11-25 11:17 G	21504748.93	21504748.97	21504749.02	0.0490	0.0481
Mercury	54167-07-15 13:26 G	21505345.89	21505346.06	21505346.23	0.0501	0.0183
Earth	54168-09-02 01:55 G	21505760.35	21505760.58	21505760.81	0.0515	0.0058
Moon	54168-09-02 03:22 G	21505760.40	21505760.64	21505760.88	0.0515	0.0039 *
Venus	54169-07-06 12:00 G	21506067.80	21506068.00	21506068.20	0.0525	0.0074
Mercury	54173-03-18 03:22 G	21507418.51	21507418.64	21507418.76	0.0525	0.0014
Moon	54174-02-26 21:22 G	21507764.17	21507764.39	21507764.62	0.0513	0.0192
Earth	54174-02-26 23:46 G	21507764.28	21507764.49	21507764.70	0.0513	0.0222 *
Venus	54175-05-15 02:10 G	21508206.43	21508206.59	21508206.76	0.0499	0.0283
Mercury	54179-05-03 11:02 G	21509655.85	21509655.96	21509656.08	0.0501	0.0385
Mercury	54179-08-01 21:36 G	21509746.34	21509746.40	21509746.46	0.0504	0.0473
Moon	54180-09-06 19:41 G	21510148.12	21510148.32	21510148.51	0.0517	0.0249
Earth	54180-09-06 22:05 G	21510148.22	21510148.42	21510148.64	0.0517	0.0220 *
Venus	54181-03-11 06:43 G	21510333.65	21510333.78	21510333.92	0.0523	0.0386
Mercury	54185-01-04 07:41 G	21511728.70	21511728.82	21511728.94	0.0525	0.0160
Mercury	54185-04-03 12:58 G	21511817.99	21511818.04	21511818.09	0.0523	0.0481
Earth	54186-03-03 18:29 G	21512152.04	21512152.27	21512152.51	0.0511	0.0049
Moon	54186-03-03 18:43 G	21512152.06	21512152.28	21512152.51	0.0511	0.0052 *
Venus	54187-01-18 02:53 G	21512472.42	21512472.62	21512472.83	0.0501	0.0013
Mercury	54191-05-20 18:58 G	21514056.14	21514056.29	21514056.45	0.0503	0.0266
Earth	54192-09-11 18:14 G	21514536.21	21514536.26	21514536.32	0.0519	0.0501
Moon	54192-09-11 21:50 G	21514536.34	21514536.41	21514536.50	0.0519	0.0486
Venus	54193-07-09 14:53 G	21514837.02	21514837.12	21514837.22	0.0528	0.0454
Mercury	54196-10-23 11:31 G	21516038.88	21516038.98	21516039.08	0.0526	0.0329
Mercury	54197-01-20 17:02 G	21516128.11	21516128.21	21516128.31	0.0523	0.0319
Earth	54198-03-08 10:34 G	21516539.76	21516539.94	21516540.13	0.0509	0.0313
Moon	54198-03-08 12:00 G	21516539.80	21516540.00	21516540.21	0.0509	0.0281 *
Venus	54198-09-23 02:10 G	21516738.42	21516738.59	21516738.76	0.0503	0.0275
Mercury	54203-03-09 16:05 G	21518365.99	21518366.17	21518366.36	0.0502	0.0055
Venus	54205-03-15 06:29 G	21519102.57	21519102.77	21519102.97	0.0526	0.0127

Mercury	54208-08-12 15:36 G	21520349.11	21520349.15	21520349.20	0.0527	0.0493
Mercury	54208-11-09 21:36 G	21520438.28	21520438.40	21520438.52	0.0524	0.0163
Venus	54211-01-21 14:10 G	21521241.00	21521241.09	21521241.18	0.0499	0.0444
Mercury	54214-12-26 12:14 G	21522675.84	21522676.01	21522676.18	0.0501	0.0172
Venus	54216-11-17 20:10 G	21523368.15	21523368.34	21523368.52	0.0524	0.0207
Mercury	54220-08-29 01:55 G	21524748.46	21524748.58	21524748.71	0.0525	0.0020
Venus	54222-09-26 16:19 G	21525506.99	21525507.18	21525507.37	0.0500	0.0178
Mercury	54226-10-14 09:36 G	21526985.78	21526985.90	21526986.02	0.0501	0.0376
Mercury	54227-01-12 19:55 G	21527076.28	21527076.33	21527076.39	0.0503	0.0479
Venus	54228-07-23 14:10 G	21527634.07	21527634.09	21527634.12	0.0522	0.0518
Mercury	54232-06-17 06:29 G	21529058.65	21529058.77	21529058.89	0.0526	0.0152
Mercury	54232-09-14 12:00 G	21529147.96	21529148.00	21529148.04	0.0523	0.0490
Venus	54234-06-01 16:05 G	21529772.97	21529773.17	21529773.37	0.0502	0.0100
Mercury	54238-10-31 17:02 G	21531386.06	21531386.21	21531386.37	0.0503	0.0269
Earth	54239-08-29 18:29 G	21531688.12	21531688.27	21531688.45	0.0513	0.0357
Moon	54239-08-29 19:55 G	21531688.17	21531688.33	21531688.50	0.0513	0.0374 *
Venus	54240-11-20 22:19 G	21532137.27	21532137.43	21532137.60	0.0528	0.0319
Mercury	54244-04-05 10:48 G	21533368.85	21533368.95	21533369.06	0.0526	0.0312
Mercury	54244-07-03 16:34 G	21533458.09	21533458.19	21533458.28	0.0523	0.0336
Venus	54246-02-04 15:50 G	21534039.03	21534039.16	21534039.30	0.0504	0.0380
Mercury	54250-08-19 14:38 G	21535695.93	21535696.11	21535696.29	0.0502	0.0062
Moon	54251-09-03 10:48 G	21536075.73	21536075.95	21536076.18	0.0515	0.0063
Earth	54251-09-03 13:26 G	21536075.83	21536076.06	21536076.29	0.0515	0.0084 *
Venus	54252-07-26 15:36 G	21536402.94	21536403.15	21536403.35	0.0526	0.0008
Mercury	54256-01-23 14:38 G	21537679.06	21537679.11	21537679.16	0.0527	0.0484
Mercury	54256-04-21 20:38 G	21537768.24	21537768.36	21537768.48	0.0524	0.0172
Earth	54257-02-27 05:17 G	21538079.52	21538079.72	21538079.93	0.0514	0.0260
Moon	54257-02-27 06:00 G	21538079.55	21538079.75	21538079.95	0.0514	0.0229 *
Venus	54258-06-04 02:24 G	21538541.45	21538541.60	21538541.75	0.0499	0.0335
Mercury	54262-06-07 11:46 G	21540005.82	21540005.99	21540006.17	0.0502	0.0147

Earth	54263-09-08 06:29 G	21540463.56	21540463.77	21540463.99	0.0516	0.0189
Moon	54263-09-08 10:05 G	21540463.71	21540463.92	21540464.14	0.0516	0.0213 *
Venus	54264-03-31 08:10 G	21540668.68	21540668.84	21540669.00	0.0523	0.0324
Mars	54266-08-11 12:43 G	21541531.91	21541532.03	21541532.14	0.0537	0.0489
Mercury	54268-02-09 00:58 G	21542078.41	21542078.54	21542078.66	0.0525	0.0020
Earth	54269-03-04 01:26 G	21542467.32	21542467.56	21542467.79	0.0512	0.0018
Moon	54269-03-04 02:24 G	21542467.36	21542467.60	21542467.85	0.0512	0.0018 *
Venus	54270-02-07 04:05 G	21542807.47	21542807.67	21542807.87	0.0501	0.0064
Mercury	54274-03-26 08:10 G	21544315.72	21544315.84	21544315.97	0.0500	0.0368
Mercury	54274-06-24 18:29 G	21544406.23	21544406.27	21544406.31	0.0503	0.0487
Moon	54275-09-12 16:05 G	21544851.05	21544851.17	21544851.31	0.0518	0.0430
Earth	54275-09-12 19:55 G	21544851.22	21544851.33	21544851.44	0.0518	0.0450 *
Venus	54276-07-29 12:14 G	21545171.95	21545172.01	21545172.07	0.0528	0.0500
Mercury	54279-11-28 05:02 G	21546388.59	21546388.71	21546388.84	0.0526	0.0152
Mercury	54280-02-25 10:34 G	21546477.90	21546477.94	21546477.98	0.0523	0.0493
Moon	54281-03-08 18:43 G	21546855.09	21546855.28	21546855.48	0.0510	0.0256
Earth	54281-03-08 21:22 G	21546855.20	21546855.39	21546855.59	0.0510	0.0287 *
Venus	54281-10-13 04:48 G	21547073.52	21547073.70	21547073.89	0.0503	0.0210
Mars	54284-05-19 00:14 G	21548022.26	21548022.51	21548022.76	0.0490	0.0139
Mercury	54286-04-12 15:22 G	21548715.99	21548716.14	21548716.30	0.0502	0.0273
Venus	54288-04-03 04:34 G	21549437.50	21549437.69	21549437.89	0.0527	0.0177
Mercury	54291-09-16 09:36 G	21550698.80	21550698.90	21550699.00	0.0527	0.0310
Mercury	54291-12-14 15:07 G	21550788.04	21550788.13	21550788.23	0.0524	0.0340
Venus	54293-06-18 03:50 G	21551339.62	21551339.66	21551339.71	0.0505	0.0491
Mercury	54298-01-29 12:29 G	21553025.84	21553026.02	21553026.21	0.0502	0.0062
Venus	54299-12-07 22:34 G	21553703.25	21553703.44	21553703.64	0.0525	0.0140
Mercury	54303-07-06 13:41 G	21555009.02	21555009.07	21555009.13	0.0527	0.0472
Mercury	54303-10-03 19:41 G	21555098.20	21555098.32	21555098.44	0.0524	0.0184
Venus	54305-10-16 15:50 G	21555841.98	21555842.16	21555842.34	0.0500	0.0230
Mercury	54309-11-18 10:05 G	21557335.74	21557335.92	21557336.09	0.0502	0.0143

Venus	54311-08-13 16:48 G	21557969.10	21557969.20	21557969.30	0.0522	0.0451
Mercury	54315-07-22 23:46 G	21559408.36	21559408.49	21559408.61	0.0525	0.0023
Venus	54317-06-21 15:22 G	21560107.93	21560108.14	21560108.34	0.0502	0.0050
Mercury	54321-09-06 07:12 G	21561645.68	21561645.80	21561645.94	0.0501	0.0350
Moon	54322-08-30 00:00 G	21562003.38	21562003.50	21562003.64	0.0512	0.0411
Earth	54322-08-30 02:38 G	21562003.46	21562003.61	21562003.75	0.0512	0.0391 *
Venus	54323-12-11 22:48 G	21562472.31	21562472.45	21562472.59	0.0528	0.0376
Mercury	54327-05-11 03:50 G	21563718.54	21563718.66	21563718.78	0.0526	0.0146
Mercury	54327-08-08 09:07 G	21563807.85	21563807.88	21563807.92	0.0523	0.0497
Venus	54329-02-24 15:36 G	21564374.00	21564374.15	21564374.31	0.0504	0.0327
Mercury	54333-09-23 13:41 G	21566045.92	21566046.07	21566046.23	0.0502	0.0278
Earth	54334-09-03 14:38 G	21566390.89	21566391.11	21566391.34	0.0513	0.0137
Moon	54334-09-03 18:00 G	21566391.03	21566391.25	21566391.49	0.0513	0.0112 *
Venus	54335-08-16 12:00 G	21566737.80	21566738.00	21566738.20	0.0525	0.0041
Mercury	54339-02-27 07:55 G	21568028.73	21568028.83	21568028.93	0.0527	0.0314
Mercury	54339-05-27 13:41 G	21568117.97	21568118.07	21568118.16	0.0524	0.0338
Earth	54340-02-28 12:14 G	21568394.83	21568395.01	21568395.21	0.0515	0.0299
Moon	54340-02-28 13:12 G	21568394.84	21568395.05	21568395.26	0.0515	0.0266 *
Venus	54341-06-24 03:50 G	21568876.54	21568876.66	21568876.79	0.0499	0.0393
Mercury	54345-07-12 10:48 G	21570355.76	21570355.95	21570356.13	0.0501	0.0065
Moon	54346-09-08 03:50 G	21570778.44	21570778.66	21570778.89	0.0516	0.0156
Earth	54346-09-08 07:41 G	21570778.60	21570778.82	21570779.04	0.0516	0.0135 *
Venus	54347-04-21 05:02 G	21571003.54	21571003.71	21571003.88	0.0523	0.0277
Mercury	54350-12-16 12:14 G	21572338.96	21572339.01	21572339.06	0.0528	0.0475
Mercury	54351-03-15 18:14 G	21572428.14	21572428.26	21572428.37	0.0525	0.0183
Moon	54352-03-04 05:31 G	21572782.51	21572782.73	21572782.96	0.0512	0.0029
Earth	54352-03-04 07:55 G	21572782.60	21572782.83	21572783.07	0.0512	0.0024 *
Venus	54353-02-27 03:50 G	21573142.47	21573142.66	21573142.86	0.0501	0.0120
Mercury	54357-04-30 07:41 G	21574665.65	21574665.82	21574666.00	0.0501	0.0148
Earth	54358-09-13 02:38 G	21575166.48	21575166.61	21575166.75	0.0518	0.0414

Moon	54358-09-13 05:31 G	21575166.59	21575166.73	21575166.88	0.0518	0.0390 *
Mercury	54363-01-01 22:34 G	21576738.31	21576738.44	21576738.57	0.0525	0.0025
Earth	54364-03-09 02:10 G	21577170.39	21577170.59	21577170.80	0.0510	0.0247
Moon	54364-03-09 06:00 G	21577170.54	21577170.75	21577170.97	0.0510	0.0217 *
Venus	54364-11-02 03:36 G	21577408.46	21577408.65	21577408.85	0.0503	0.0159
Mercury	54369-02-16 05:17 G	21578975.59	21578975.72	21578975.85	0.0501	0.0351
Venus	54371-04-24 06:14 G	21579772.58	21579772.76	21579772.94	0.0527	0.0240
Mercury	54374-10-21 02:24 G	21581048.48	21581048.60	21581048.73	0.0526	0.0145
Mercury	54375-01-18 07:55 G	21581137.79	21581137.83	21581137.87	0.0523	0.0498
Earth	54376-03-13 17:46 G	21581558.23	21581558.24	21581558.26	0.0509	0.0507
Venus	54376-07-08 01:55 G	21581674.49	21581674.58	21581674.68	0.0505	0.0443
Mercury	54381-03-05 12:29 G	21583375.87	21583376.02	21583376.17	0.0503	0.0291
Venus	54382-12-27 22:19 G	21584038.23	21584038.43	21584038.63	0.0525	0.0084
Mercury	54386-08-09 06:29 G	21585358.67	21585358.77	21585358.88	0.0527	0.0311
Mercury	54386-11-06 12:14 G	21585447.91	21585448.01	21585448.10	0.0524	0.0339
Venus	54388-11-04 14:24 G	21586176.94	21586177.10	21586177.28	0.0500	0.0278
Mercury	54392-12-22 08:53 G	21587685.69	21587685.87	21587686.05	0.0501	0.0067
Venus	54394-09-01 12:29 G	21588303.90	21588304.02	21588304.15	0.0522	0.0407
Mercury	54398-05-28 10:19 G	21589668.88	21589668.93	21589668.98	0.0528	0.0485
Mercury	54398-08-25 16:19 G	21589758.06	21589758.18	21589758.30	0.0525	0.0175
Venus	54400-07-10 15:22 G	21590442.93	21590443.14	21590443.34	0.0502	0.0009
Mercury	54404-10-10 05:46 G	21591995.57	21591995.74	21591995.92	0.0501	0.0146
Earth	54405-08-29 02:53 G	21592318.51	21592318.62	21592318.73	0.0511	0.0445
Moon	54405-08-29 06:14 G	21592318.66	21592318.76	21592318.86	0.0511	0.0458 *
Venus	54406-12-30 18:43 G	21592807.16	21592807.28	21592807.40	0.0528	0.0417
Mercury	54410-06-13 20:53 G	21594068.24	21594068.37	21594068.49	0.0526	0.0023
Venus	54412-03-15 14:24 G	21594708.93	21594709.10	21594709.27	0.0504	0.0274
Mercury	54416-07-29 02:38 G	21596305.49	21596305.61	21596305.74	0.0500	0.0359
Mercury	54416-10-27 12:43 G	21596396.01	21596396.03	21596396.06	0.0503	0.0496
Moon	54417-09-02 15:36 G	21596705.92	21596706.15	21596706.37	0.0513	0.0154

Earth	54417-09-02 19:12 G	21596706.08	21596706.30	21596706.52	0.0513	0.0180	*
Venus	54418-09-04 12:00 G	21597072.80	21597073.00	21597073.20	0.0526	0.0099	
Mercury	54422-04-02 01:12 G	21598378.43	21598378.55	21598378.67	0.0526	0.0142	
Mercury	54422-06-30 06:43 G	21598467.74	21598467.78	21598467.81	0.0523	0.0501	
Moon	54423-02-27 13:26 G	21598709.89	21598710.06	21598710.25	0.0515	0.0316	
Earth	54423-02-27 15:36 G	21598709.98	21598710.15	21598710.32	0.0515	0.0345	*
Venus	54424-07-13 01:12 G	21599211.46	21599211.55	21599211.65	0.0499	0.0437	
Mercury	54428-08-15 09:50 G	21600705.76	21600705.91	21600706.07	0.0503	0.0284	
Earth	54429-09-07 13:12 G	21601093.82	21601094.05	21601094.28	0.0515	0.0096	
Moon	54429-09-07 16:19 G	21601093.96	21601094.18	21601094.40	0.0515	0.0110	*
Venus	54430-05-10 05:17 G	21601338.54	21601338.72	21601338.91	0.0524	0.0218	
Mercury	54434-01-19 05:02 G	21602688.61	21602688.71	21602688.81	0.0526	0.0313	
Mercury	54434-04-18 10:34 G	21602777.85	21602777.94	21602778.04	0.0524	0.0338	
Earth	54435-03-04 08:24 G	21603097.62	21603097.85	21603098.09	0.0513	0.0074	
Moon	54435-03-04 12:00 G	21603097.76	21603098.00	21603098.23	0.0513	0.0084	*
Venus	54436-03-18 00:58 G	21603477.34	21603477.54	21603477.73	0.0501	0.0162	
Mars	54438-08-13 18:29 G	21604356.03	21604356.27	21604356.51	0.0490	0.0189	
Mercury	54440-06-03 06:58 G	21605015.61	21605015.79	21605015.97	0.0502	0.0072	
Moon	54441-09-12 04:19 G	21605481.51	21605481.68	21605481.87	0.0517	0.0343	
Earth	54441-09-12 06:43 G	21605481.62	21605481.78	21605481.94	0.0517	0.0371	*
Mercury	54445-11-07 08:53 G	21606998.82	21606998.87	21606998.92	0.0527	0.0483	
Mercury	54446-02-04 14:53 G	21607088.00	21607088.12	21607088.24	0.0525	0.0175	
Moon	54447-03-08 23:02 G	21607485.23	21607485.46	21607485.68	0.0511	0.0167	
Earth	54447-03-09 02:53 G	21607485.40	21607485.62	21607485.83	0.0511	0.0198	*
Venus	54447-11-22 00:58 G	21607743.34	21607743.54	21607743.74	0.0503	0.0114	
Mercury	54452-03-22 03:36 G	21609325.48	21609325.65	21609325.83	0.0501	0.0147	
Venus	54454-05-13 00:58 G	21610107.37	21610107.54	21610107.72	0.0526	0.0278	
Mercury	54457-11-23 18:43 G	21611398.15	21611398.28	21611398.41	0.0526	0.0008	
Earth	54459-03-13 20:10 G	21611873.25	21611873.34	21611873.44	0.0510	0.0463	
Moon	54459-03-13 23:17 G	21611873.40	21611873.47	21611873.56	0.0510	0.0473	*

Venus	54459-07-28 00:14 G	21612009.39	21612009.51	21612009.64	0.0505	0.0393
Mercury	54464-01-09 00:29 G	21613635.40	21613635.52	21613635.66	0.0500	0.0358
Mercury	54464-04-08 10:34 G	21613725.92	21613725.94	21613725.98	0.0503	0.0494
Venus	54466-01-15 17:17 G	21614373.02	21614373.22	21614373.42	0.0524	0.0044
Mercury	54469-09-11 23:02 G	21615708.34	21615708.46	21615708.58	0.0526	0.0155
Mercury	54469-12-10 04:34 G	21615797.65	21615797.69	21615797.73	0.0524	0.0490
Venus	54471-11-24 11:46 G	21616511.84	21616511.99	21616512.15	0.0500	0.0322
Mercury	54476-01-26 06:58 G	21618035.64	21618035.79	21618035.95	0.0502	0.0271
Venus	54477-09-20 10:48 G	21618638.81	21618638.95	21618639.10	0.0523	0.0356
Mercury	54481-07-01 03:22 G	21620018.54	21620018.64	21620018.75	0.0527	0.0315
Mercury	54481-09-28 09:07 G	21620107.79	21620107.88	21620107.98	0.0524	0.0336
Venus	54483-07-30 12:00 G	21620777.80	21620778.00	21620778.21	0.0502	0.0050
Mercury	54487-11-14 04:05 G	21622345.49	21622345.67	21622345.86	0.0502	0.0061
Moon	54488-08-28 02:53 G	21622633.58	21622633.62	21622633.66	0.0511	0.0501
Earth	54488-08-28 06:29 G	21622633.71	21622633.77	21622633.84	0.0511	0.0490
Venus	54490-01-18 18:14 G	21623142.17	21623142.26	21623142.35	0.0528	0.0471
Mercury	54493-04-19 07:12 G	21624328.76	21624328.80	21624328.85	0.0527	0.0487
Mercury	54493-07-17 13:12 G	21624417.93	21624418.05	21624418.17	0.0525	0.0171
Venus	54495-04-04 10:34 G	21625043.76	21625043.94	21625044.12	0.0504	0.0234
Mercury	54499-09-02 01:26 G	21626655.38	21626655.56	21626655.73	0.0501	0.0149
Earth	54500-09-02 22:19 G	21627021.23	21627021.43	21627021.64	0.0513	0.0225
Moon	54500-09-03 01:41 G	21627021.36	21627021.57	21627021.79	0.0513	0.0193 *
Venus	54501-09-24 09:50 G	21627407.72	21627407.91	21627408.11	0.0526	0.0148
Mercury	54505-05-06 17:17 G	21628728.09	21628728.22	21628728.35	0.0525	0.0006
Earth	54506-02-27 13:26 G	21629024.91	21629025.06	21629025.20	0.0515	0.0403
Moon	54506-02-27 16:34 G	21629025.03	21629025.19	21629025.35	0.0515	0.0374 *
Venus	54507-08-02 21:50 G	21629546.35	21629546.41	21629546.46	0.0499	0.0475
Mercury	54511-06-21 22:19 G	21630965.31	21630965.43	21630965.56	0.0500	0.0361
Mercury	54511-09-20 08:24 G	21631055.81	21631055.85	21631055.89	0.0503	0.0490
Moon	54512-09-07 09:50 G	21631408.67	21631408.91	21631409.14	0.0514	0.0051

Earth	54512-09-07 12:14 G	21631408.78	21631409.01	21631409.24	0.0514	0.0037	*
Venus	54513-05-30 00:00 G	21631673.31	21631673.50	21631673.70	0.0523	0.0179	
Mercury	54517-02-22 20:53 G	21633038.25	21633038.37	21633038.50	0.0527	0.0170	
Mercury	54517-05-23 02:38 G	21633127.56	21633127.61	21633127.66	0.0524	0.0478	
Moon	54518-03-04 03:36 G	21633412.43	21633412.65	21633412.88	0.0514	0.0147	
Earth	54518-03-04 07:26 G	21633412.59	21633412.81	21633413.04	0.0514	0.0131	*
Venus	54519-04-07 22:05 G	21633812.24	21633812.42	21633812.61	0.0501	0.0207	
Mercury	54523-07-09 04:48 G	21635365.55	21635365.70	21635365.86	0.0502	0.0271	
Earth	54524-09-12 03:50 G	21635796.47	21635796.66	21635796.84	0.0516	0.0309	
Moon	54524-09-12 04:48 G	21635796.51	21635796.70	21635796.89	0.0516	0.0284	*
Venus	54525-02-01 17:02 G	21635939.15	21635939.21	21635939.28	0.0521	0.0490	
Mercury	54528-12-12 01:12 G	21637348.45	21637348.55	21637348.65	0.0527	0.0332	
Mercury	54529-03-11 06:58 G	21637437.69	21637437.79	21637437.89	0.0524	0.0322	
Earth	54530-03-09 02:24 G	21637800.38	21637800.60	21637800.83	0.0512	0.0145	
Moon	54530-03-09 06:00 G	21637800.53	21637800.75	21637800.97	0.0512	0.0115	*
Venus	54530-12-11 21:22 G	21638078.19	21638078.39	21638078.59	0.0503	0.0071	
Mercury	54535-04-27 01:12 G	21639675.36	21639675.55	21639675.73	0.0501	0.0047	
Venus	54537-06-01 22:34 G	21640442.29	21640442.44	21640442.60	0.0527	0.0326	
Mars	54539-04-24 08:24 G	21641133.63	21641133.85	21641134.07	0.0537	0.0350	
Mercury	54540-09-30 05:31 G	21641658.69	21641658.73	21641658.78	0.0528	0.0493	
Mercury	54540-12-28 11:31 G	21641747.86	21641747.98	21641748.10	0.0525	0.0167	
Moon	54542-03-13 18:43 G	21642188.14	21642188.28	21642188.42	0.0510	0.0420	
Earth	54542-03-13 21:07 G	21642188.25	21642188.38	21642188.52	0.0510	0.0415	*
Venus	54542-08-16 20:53 G	21642344.23	21642344.37	21642344.52	0.0505	0.0350	
Mercury	54547-02-12 22:19 G	21643985.26	21643985.43	21643985.61	0.0501	0.0163	
Venus	54549-02-04 15:50 G	21644707.96	21644708.16	21644708.36	0.0525	0.0008	
Mercury	54552-10-16 15:36 G	21646058.02	21646058.15	21646058.28	0.0525	0.0003	
Venus	54554-12-14 07:26 G	21646846.67	21646846.81	21646846.95	0.0500	0.0359	
Mercury	54558-12-01 19:41 G	21648295.20	21648295.32	21648295.45	0.0500	0.0369	
Mercury	54559-03-02 05:46 G	21648385.70	21648385.74	21648385.79	0.0503	0.0485	

Venus	54560-10-10 08:38 G	21648973.70	21648973.86	21648974.03	0.0523	0.0308
Mercury	54564-08-04 19:26 G	21650368.19	21650368.31	21650368.43	0.0526	0.0169
Mercury	54564-11-02 00:58 G	21650457.49	21650457.54	21650457.59	0.0523	0.0477
Venus	54566-08-19 07:41 G	21651112.62	21651112.82	21651113.02	0.0502	0.0087
Mercury	54570-12-19 02:24 G	21652695.45	21652695.60	21652695.76	0.0502	0.0266
Venus	54573-02-07 12:43 G	21653476.98	21653477.03	21653477.08	0.0527	0.0507
Mercury	54576-05-23 23:02 G	21654678.37	21654678.46	21654678.56	0.0527	0.0347
Mercury	54576-08-21 04:48 G	21654767.60	21654767.70	21654767.81	0.0525	0.0309
Venus	54578-04-24 06:43 G	21655378.59	21655378.78	21655378.97	0.0504	0.0192
Mercury	54582-10-06 23:02 G	21657005.28	21657005.46	21657005.65	0.0501	0.0049
Moon	54583-09-02 18:14 G	21657336.05	21657336.26	21657336.46	0.0512	0.0251
Earth	54583-09-02 20:53 G	21657336.18	21657336.37	21657336.56	0.0512	0.0284 *
Venus	54584-10-13 04:05 G	21657742.48	21657742.67	21657742.86	0.0525	0.0183
Mercury	54588-03-12 03:07 G	21658988.61	21658988.63	21658988.66	0.0528	0.0512
Mercury	54588-06-09 09:22 G	21659077.77	21659077.89	21659078.01	0.0525	0.0151
Moon	54589-02-26 07:41 G	21659339.71	21659339.82	21659339.95	0.0516	0.0438
Earth	54589-02-26 11:31 G	21659339.88	21659339.98	21659340.09	0.0516	0.0462 *
Venus	54589-12-28 05:17 G	21659644.65	21659644.72	21659644.79	0.0506	0.0473
Mars	54592-11-07 01:55 G	21660689.50	21660689.58	21660689.68	0.0490	0.0458
Mercury	54594-07-25 19:12 G	21661315.13	21661315.30	21661315.47	0.0501	0.0178
Earth	54595-09-07 11:02 G	21661723.73	21661723.96	21661724.19	0.0514	0.0018
Moon	54595-09-07 12:29 G	21661723.79	21661724.02	21661724.24	0.0514	0.0009 *
Venus	54596-06-17 20:38 G	21662008.16	21662008.36	21662008.56	0.0524	0.0135
Mercury	54600-03-29 13:55 G	21663387.95	21663388.08	21663388.20	0.0526	0.0018
Earth	54601-03-04 08:24 G	21663727.64	21663727.85	21663728.07	0.0514	0.0180
Moon	54601-03-04 12:00 G	21663727.79	21663728.00	21663728.22	0.0514	0.0200 *
Venus	54602-04-27 18:14 G	21664147.08	21664147.26	21664147.44	0.0500	0.0245
Mercury	54606-05-14 16:34 G	21665625.08	21665625.19	21665625.31	0.0500	0.0383
Mercury	54606-08-13 02:24 G	21665715.55	21665715.60	21665715.67	0.0503	0.0469
Earth	54607-09-13 05:02 G	21666111.51	21666111.71	21666111.91	0.0516	0.0261

Moon	54607-09-13 05:31 G	21666111.52	21666111.73	21666111.94	0.0516	0.0232 *
Venus	54608-02-22 14:53 G	21666274.01	21666274.12	21666274.22	0.0522	0.0443
Mercury	54612-01-16 17:46 G	21667698.12	21667698.24	21667698.36	0.0526	0.0173
Mercury	54612-04-14 23:17 G	21667787.42	21667787.47	21667787.53	0.0523	0.0473
Moon	54613-03-08 22:48 G	21668115.21	21668115.45	21668115.69	0.0512	0.0061
Earth	54613-03-09 01:41 G	21668115.34	21668115.57	21668115.81	0.0512	0.0093 *
Venus	54613-12-31 17:17 G	21668413.01	21668413.22	21668413.42	0.0502	0.0034
Mercury	54618-05-31 23:46 G	21670025.33	21670025.49	21670025.65	0.0502	0.0256
Venus	54620-06-21 20:38 G	21670777.22	21670777.36	21670777.50	0.0527	0.0373
Mercury	54623-11-04 21:36 G	21672008.31	21672008.40	21672008.50	0.0527	0.0344
Mercury	54624-02-02 03:36 G	21672097.54	21672097.65	21672097.75	0.0524	0.0310
Earth	54625-03-13 18:43 G	21672503.12	21672503.28	21672503.45	0.0510	0.0361
Moon	54625-03-13 19:55 G	21672503.18	21672503.33	21672503.48	0.0510	0.0371 *
Venus	54625-09-05 16:05 G	21672679.01	21672679.17	21672679.33	0.0505	0.0312
Mercury	54630-03-19 20:53 G	21674335.18	21674335.37	21674335.55	0.0501	0.0045
Venus	54632-02-25 11:17 G	21675042.77	21675042.97	21675043.17	0.0524	0.0048
Mercury	54635-08-24 01:12 G	21676318.54	21676318.55	21676318.56	0.0528	0.0524
Mercury	54635-11-21 07:12 G	21676407.68	21676407.80	21676407.93	0.0525	0.0139
Venus	54638-01-03 03:36 G	21677181.53	21677181.65	21677181.77	0.0500	0.0399
Mercury	54642-01-05 17:31 G	21678645.06	21678645.23	21678645.41	0.0500	0.0172
Venus	54643-10-31 03:36 G	21679308.47	21679308.65	21679308.82	0.0522	0.0268
Mercury	54647-09-09 11:31 G	21680717.86	21680717.98	21680718.11	0.0526	0.0025
Venus	54649-09-08 03:36 G	21681447.45	21681447.65	21681447.85	0.0502	0.0126
Mercury	54653-10-24 13:41 G	21682954.96	21682955.07	21682955.18	0.0500	0.0396
Mercury	54654-01-22 23:31 G	21683045.40	21683045.48	21683045.56	0.0503	0.0454
Mercury	54659-06-28 16:05 G	21685028.05	21685028.17	21685028.29	0.0527	0.0178
Mercury	54659-09-25 21:36 G	21685117.35	21685117.40	21685117.46	0.0524	0.0469
Venus	54661-05-14 03:36 G	21685713.46	21685713.65	21685713.85	0.0503	0.0149
Mercury	54665-11-10 20:38 G	21687355.20	21687355.36	21687355.52	0.0502	0.0241
Earth	54666-09-02 21:07 G	21687651.21	21687651.38	21687651.56	0.0512	0.0335

Moon	54666-09-02 22:48 G	21687651.28	21687651.45	21687651.64	0.0512	0.0303 *
Venus	54667-11-03 02:10 G	21688077.41	21688077.59	21688077.78	0.0526	0.0232
Mercury	54671-04-16 20:10 G	21689338.24	21689338.34	21689338.44	0.0527	0.0346
Mercury	54671-07-15 01:55 G	21689427.48	21689427.58	21689427.68	0.0524	0.0308
Earth	54672-02-27 12:00 G	21689654.98	21689655.00	21689655.02	0.0516	0.0514
Moon	54672-02-27 15:36 G	21689655.09	21689655.15	21689655.23	0.0516	0.0491
Venus	54673-01-17 01:55 G	21689979.47	21689979.58	21689979.68	0.0505	0.0431
Mercury	54677-08-29 18:00 G	21691665.06	21691665.25	21691665.43	0.0502	0.0034
Moon	54678-09-07 14:38 G	21692038.87	21692039.11	21692039.35	0.0514	0.0054
Earth	54678-09-07 14:38 G	21692038.88	21692039.11	21692039.34	0.0514	0.0063 *
Venus	54679-07-08 19:12 G	21692343.10	21692343.30	21692343.50	0.0524	0.0084
Mercury	54683-02-03 00:00 G	21693648.48	21693648.50	21693648.52	0.0528	0.0517
Mercury	54683-05-03 06:00 G	21693737.63	21693737.75	21693737.87	0.0525	0.0144
Moon	54684-03-03 03:22 G	21694042.44	21694042.64	21694042.85	0.0515	0.0255
Earth	54684-03-03 06:43 G	21694042.57	21694042.78	21694042.99	0.0515	0.0236 *
Venus	54685-05-16 13:55 G	21694481.91	21694482.08	21694482.25	0.0501	0.0283
Mercury	54689-06-17 15:22 G	21695974.97	21695975.14	21695975.31	0.0501	0.0175
Moon	54690-09-12 04:19 G	21696426.47	21696426.68	21696426.89	0.0515	0.0180
Earth	54690-09-12 06:29 G	21696426.56	21696426.77	21696426.98	0.0515	0.0210 *
Venus	54691-03-13 11:31 G	21696608.85	21696608.98	21696609.11	0.0521	0.0397
Mars	54693-07-18 06:14 G	21697466.47	21697466.76	21697467.05	0.0537	0.0011
Mercury	54695-02-19 09:36 G	21698047.78	21698047.90	21698048.03	0.0526	0.0036
Earth	54696-03-07 23:31 G	21698430.25	21698430.48	21698430.72	0.0513	0.0035
Moon	54696-03-08 01:12 G	21698430.32	21698430.55	21698430.78	0.0513	0.0008 *
Venus	54697-01-19 13:26 G	21698747.85	21698748.06	21698748.26	0.0503	0.0010
Mercury	54701-04-06 12:14 G	21700284.90	21700285.01	21700285.13	0.0500	0.0385
Mercury	54701-07-05 22:05 G	21700375.35	21700375.42	21700375.49	0.0502	0.0464
Earth	54702-09-17 22:19 G	21700814.35	21700814.43	21700814.51	0.0517	0.0483
Moon	54702-09-18 02:10 G	21700814.50	21700814.59	21700814.67	0.0517	0.0478 *
Venus	54703-07-12 16:05 G	21701112.05	21701112.17	21701112.30	0.0527	0.0412

Mercury	54706-12-09 13:55 G	21702357.96	21702358.08	21702358.20	0.0527	0.0193
Mercury	54707-03-08 19:41 G	21702447.26	21702447.32	21702447.38	0.0524	0.0456
Earth	54708-03-13 18:43 G	21702818.10	21702818.28	21702818.47	0.0511	0.0312
Moon	54708-03-13 19:26 G	21702818.13	21702818.31	21702818.50	0.0511	0.0327 *
Venus	54708-09-25 12:29 G	21703013.86	21703014.02	21703014.20	0.0505	0.0271
Mars	54711-05-01 22:19 G	21703962.21	21703962.43	21703962.65	0.0490	0.0261
Mercury	54713-04-23 17:46 G	21704685.07	21704685.24	21704685.40	0.0502	0.0230
Venus	54715-03-17 07:26 G	21705377.61	21705377.81	21705378.01	0.0525	0.0090
Mercury	54718-09-27 18:29 G	21706668.18	21706668.27	21706668.37	0.0527	0.0349
Mercury	54718-12-26 00:14 G	21706757.41	21706757.51	21706757.62	0.0525	0.0307
Venus	54721-01-23 01:12 G	21707516.46	21707516.55	21707516.65	0.0499	0.0440
Mercury	54725-02-09 14:53 G	21708994.94	21708995.12	21708995.31	0.0501	0.0024
Venus	54726-11-20 01:26 G	21709643.38	21709643.56	21709643.74	0.0523	0.0221
Mercury	54730-07-16 22:34 G	21710978.42	21710978.44	21710978.46	0.0528	0.0516
Mercury	54730-10-14 04:34 G	21711067.57	21711067.69	21711067.81	0.0525	0.0145
Venus	54732-09-28 00:43 G	21711782.34	21711782.53	21711782.73	0.0501	0.0169
Mercury	54736-11-28 12:29 G	21713304.85	21713305.02	21713305.19	0.0501	0.0184
Mercury	54742-08-02 08:38 G	21715377.73	21715377.86	21715377.99	0.0526	0.0022
Venus	54744-06-03 00:14 G	21716048.31	21716048.51	21716048.71	0.0503	0.0108
Mercury	54748-09-16 10:05 G	21717614.81	21717614.92	21717615.04	0.0500	0.0386
Mercury	54748-12-15 19:55 G	21717705.27	21717705.33	21717705.40	0.0503	0.0464
Moon	54749-09-03 01:26 G	21717966.39	21717966.56	21717966.74	0.0511	0.0345
Earth	54749-09-03 01:41 G	21717966.42	21717966.57	21717966.73	0.0511	0.0377 *
Venus	54750-11-23 00:00 G	21718412.33	21718412.50	21718412.67	0.0526	0.0279
Mercury	54754-05-21 12:14 G	21719687.89	21719688.01	21719688.13	0.0527	0.0197
Mercury	54754-08-18 18:00 G	21719777.19	21719777.25	21719777.31	0.0524	0.0452
Venus	54756-02-06 22:19 G	21720314.31	21720314.43	21720314.56	0.0506	0.0389
Mercury	54760-10-03 16:34 G	21722015.04	21722015.19	21722015.36	0.0502	0.0247
Moon	54761-09-07 14:38 G	21722353.89	21722354.11	21722354.33	0.0513	0.0111
Earth	54761-09-07 16:34 G	21722353.96	21722354.19	21722354.41	0.0513	0.0110 *

Venus	54762-07-28 16:05 G	21722677.97	21722678.17	21722678.38	0.0524	0.0040
Mercury	54766-03-09 16:34 G	21723998.10	21723998.19	21723998.28	0.0527	0.0360
Mercury	54766-06-06 22:19 G	21724087.33	21724087.43	21724087.54	0.0525	0.0297
Earth	54767-03-04 07:26 G	21724357.62	21724357.81	21724358.01	0.0515	0.0286
Moon	54767-03-04 09:22 G	21724357.72	21724357.89	21724358.08	0.0515	0.0307 *
Venus	54768-06-05 11:17 G	21724816.82	21724816.97	21724817.13	0.0500	0.0325
Mercury	54772-07-22 12:29 G	21726324.84	21726325.02	21726325.20	0.0501	0.0014
Earth	54773-09-12 05:17 G	21726741.50	21726741.72	21726741.94	0.0515	0.0156
Moon	54773-09-12 08:38 G	21726741.64	21726741.86	21726742.09	0.0515	0.0124 *
Venus	54774-04-02 07:41 G	21726943.68	21726943.82	21726943.97	0.0522	0.0356
Mercury	54777-12-26 21:07 G	21728308.36	21728308.38	21728308.40	0.0528	0.0517
Mercury	54778-03-26 03:07 G	21728397.51	21728397.63	21728397.76	0.0525	0.0146
Earth	54779-03-09 05:46 G	21728745.50	21728745.74	21728745.97	0.0513	0.0007
Moon	54779-03-09 06:00 G	21728745.51	21728745.75	21728745.99	0.0513	0.0021 *
Venus	54780-02-09 12:29 G	21729082.82	21729083.02	21729083.23	0.0502	0.0058
Mercury	54784-05-10 09:50 G	21730634.74	21730634.91	21730635.08	0.0501	0.0192
Moon	54785-09-16 20:10 G	21731129.21	21731129.34	21731129.47	0.0517	0.0430
Earth	54785-09-17 00:14 G	21731129.39	21731129.51	21731129.63	0.0517	0.0438 *
Venus	54786-07-31 15:07 G	21731447.04	21731447.13	21731447.23	0.0528	0.0463
Mercury	54790-01-12 07:26 G	21732707.68	21732707.81	21732707.94	0.0526	0.0017
Moon	54791-03-13 21:07 G	21733133.20	21733133.38	21733133.57	0.0511	0.0297
Earth	54791-03-13 23:46 G	21733133.29	21733133.49	21733133.69	0.0511	0.0273 *
Venus	54791-10-15 11:31 G	21733348.79	21733348.98	21733349.16	0.0504	0.0220
Mercury	54796-02-27 07:41 G	21734944.71	21734944.82	21734944.93	0.0500	0.0392
Mercury	54796-05-27 17:17 G	21735035.16	21735035.22	21735035.30	0.0503	0.0459
Venus	54798-04-05 08:24 G	21735712.65	21735712.85	21735713.04	0.0525	0.0148
Mercury	54801-10-31 11:31 G	21737017.86	21737017.98	21737018.10	0.0526	0.0182
Mercury	54802-01-28 17:02 G	21737107.16	21737107.21	21737107.27	0.0524	0.0466
Venus	54803-06-20 09:50 G	21737614.89	21737614.91	21737614.94	0.0506	0.0501
Venus	54804-02-11 22:48 G	21737851.40	21737851.45	21737851.50	0.0499	0.0482

Mercury	54808-03-15 14:53 G	21739344.96	21739345.12	21739345.28	0.0502	0.0250
Venus	54809-12-09 00:58 G	21739978.35	21739978.54	21739978.73	0.0523	0.0166
Mercury	54813-08-19 15:07 G	21741328.04	21741328.13	21741328.22	0.0527	0.0358
Mercury	54813-11-16 21:07 G	21741417.27	21741417.38	21741417.48	0.0524	0.0298
Venus	54815-10-17 22:34 G	21742117.26	21742117.44	21742117.63	0.0501	0.0213
Mercury	54820-01-02 11:46 G	21743654.81	21743654.99	21743655.18	0.0501	0.0037
Venus	54821-08-13 18:14 G	21744244.18	21744244.26	21744244.34	0.0521	0.0474
Mercury	54825-06-07 19:12 G	21745638.29	21745638.30	21745638.32	0.0528	0.0523
Mercury	54825-09-05 01:26 G	21745727.44	21745727.56	21745727.68	0.0525	0.0140
Venus	54827-06-22 22:48 G	21746383.25	21746383.45	21746383.66	0.0503	0.0060
Mercury	54831-10-21 07:41 G	21747964.65	21747964.82	21747964.99	0.0500	0.0193
Moon	54832-09-02 00:14 G	21748281.37	21748281.51	21748281.65	0.0511	0.0402
Earth	54832-09-02 01:41 G	21748281.45	21748281.57	21748281.70	0.0511	0.0429 *
Venus	54833-12-11 21:22 G	21748747.23	21748747.39	21748747.55	0.0527	0.0324
Mercury	54837-06-24 06:00 G	21750037.63	21750037.75	21750037.88	0.0526	0.0023
Venus	54839-02-25 23:31 G	21750649.33	21750649.48	21750649.63	0.0505	0.0331
Mercury	54843-08-09 05:17 G	21752274.61	21752274.72	21752274.84	0.0500	0.0395
Mercury	54843-11-07 15:07 G	21752365.05	21752365.13	21752365.21	0.0503	0.0454
Earth	54844-09-06 18:58 G	21752669.07	21752669.29	21752669.51	0.0513	0.0156
Moon	54844-09-06 22:19 G	21752669.21	21752669.43	21752669.65	0.0513	0.0165 *
Venus	54845-08-16 15:22 G	21753012.93	21753013.14	21753013.34	0.0525	0.0017
Mercury	54849-04-12 10:19 G	21754347.81	21754347.93	21754348.06	0.0527	0.0174
Mercury	54849-07-10 16:05 G	21754437.12	21754437.17	21754437.22	0.0524	0.0474
Earth	54850-03-03 14:53 G	21754672.94	21754673.12	21754673.31	0.0515	0.0321
Moon	54850-03-03 14:53 G	21754672.94	21754673.12	21754673.30	0.0515	0.0344 *
Venus	54851-06-25 11:17 G	21755151.84	21755151.97	21755152.10	0.0500	0.0375
Mercury	54855-08-26 12:29 G	21756674.87	21756675.02	21756675.19	0.0502	0.0248
Moon	54856-09-11 09:50 G	21757056.68	21757056.91	21757057.14	0.0515	0.0089
Earth	54856-09-11 13:41 G	21757056.85	21757057.07	21757057.30	0.0515	0.0125 *
Venus	54857-04-21 09:36 G	21757278.74	21757278.90	21757279.07	0.0522	0.0294

Mercury	54861-01-29 14:24 G	21758658.01	21758658.10	21758658.20	0.0527	0.0340
Mercury	54861-04-28 20:24 G	21758747.25	21758747.35	21758747.45	0.0524	0.0315
Moon	54862-03-08 07:55 G	21759060.61	21759060.83	21759061.06	0.0514	0.0057
Earth	54862-03-08 10:05 G	21759060.69	21759060.92	21759061.16	0.0514	0.0041 *
Venus	54863-02-28 11:31 G	21759417.78	21759417.98	21759418.18	0.0502	0.0106
Mars	54865-07-25 21:07 G	21760296.13	21760296.38	21760296.64	0.0490	0.0089
Mercury	54867-06-14 10:19 G	21760984.74	21760984.93	21760985.11	0.0501	0.0044
Earth	54868-09-16 07:55 G	21761444.70	21761444.83	21761444.98	0.0516	0.0405
Moon	54868-09-16 11:46 G	21761444.85	21761444.99	21761445.13	0.0516	0.0403 *
Venus	54869-08-19 16:05 G	21761782.14	21761782.17	21761782.20	0.0527	0.0519
Mercury	54872-11-17 18:00 G	21762968.23	21762968.25	21762968.28	0.0528	0.0517
Mercury	54873-02-15 00:14 G	21763057.39	21763057.51	21763057.63	0.0525	0.0146
Earth	54874-03-13 02:53 G	21763448.41	21763448.62	21763448.83	0.0512	0.0232
Moon	54874-03-13 06:29 G	21763448.57	21763448.77	21763448.98	0.0512	0.0260 *
Venus	54874-11-03 10:05 G	21763683.73	21763683.92	21763684.12	0.0504	0.0172
Mercury	54879-04-02 07:26 G	21765294.64	21765294.81	21765294.98	0.0501	0.0166
Venus	54881-04-24 07:55 G	21766047.64	21766047.83	21766048.01	0.0525	0.0201
Mercury	54884-12-04 04:34 G	21767367.56	21767367.69	21767367.82	0.0526	0.0016
Earth	54886-03-17 22:34 G	21767836.44	21767836.44	21767836.46	0.0510	0.0509
Venus	54886-07-09 09:50 G	21767949.82	21767949.91	21767950.01	0.0506	0.0448
Mercury	54891-01-19 03:36 G	21769604.54	21769604.65	21769604.76	0.0500	0.0392
Mercury	54891-04-19 13:12 G	21769694.98	21769695.05	21769695.13	0.0502	0.0456
Venus	54892-12-27 22:34 G	21770313.24	21770313.44	21770313.64	0.0524	0.0121
Mercury	54896-09-22 09:22 G	21771677.76	21771677.89	21771678.01	0.0527	0.0168
Mercury	54896-12-20 14:53 G	21771767.08	21771767.12	21771767.17	0.0524	0.0482
Venus	54898-11-06 00:29 G	21772452.35	21772452.52	21772452.69	0.0501	0.0270
Mercury	54903-02-06 10:34 G	21774004.78	21774004.94	21774005.10	0.0502	0.0248
Venus	54904-09-02 17:31 G	21774579.11	21774579.23	21774579.34	0.0521	0.0423
Mercury	54908-07-12 13:26 G	21775987.97	21775988.06	21775988.17	0.0527	0.0329
Mercury	54908-10-09 19:26 G	21776077.21	21776077.31	21776077.41	0.0524	0.0327

Venus	54910-07-13 00:14 G	21776718.31	21776718.51	21776718.72	0.0503	0.0011
Mercury	54914-11-25 08:10 G	21778314.66	21778314.84	21778315.03	0.0501	0.0044
Earth	54915-09-03 11:46 G	21778596.89	21778596.99	21778597.09	0.0510	0.0459
Moon	54915-09-03 15:07 G	21778597.01	21778597.13	21778597.26	0.0510	0.0430 *
Venus	54917-01-01 00:43 G	21779082.39	21779082.53	21779082.66	0.0527	0.0390
Mercury	54920-04-30 17:46 G	21780298.19	21780298.24	21780298.28	0.0528	0.0495
Mercury	54920-07-28 23:46 G	21780387.37	21780387.49	21780387.61	0.0525	0.0167
Venus	54922-03-17 23:31 G	21780984.31	21780984.48	21780984.65	0.0505	0.0277
Mercury	54926-09-13 06:00 G	21782624.58	21782624.75	21782624.93	0.0501	0.0157
Moon	54927-09-08 01:12 G	21782984.35	21782984.55	21782984.77	0.0512	0.0198
Earth	54927-09-08 05:17 G	21782984.51	21782984.72	21782984.94	0.0512	0.0184 *
Venus	54928-09-05 17:31 G	21783348.03	21783348.23	21783348.44	0.0525	0.0077
Mercury	54932-05-17 03:36 G	21784697.52	21784697.65	21784697.78	0.0526	0.0004
Moon	54933-03-03 17:31 G	21784988.09	21784988.23	21784988.38	0.0516	0.0393
Earth	54933-03-03 19:12 G	21784988.14	21784988.30	21784988.47	0.0516	0.0363 *
Venus	54934-07-15 11:02 G	21785486.86	21785486.96	21785487.07	0.0500	0.0424
Mercury	54938-07-02 03:22 G	21786934.52	21786934.64	21786934.77	0.0500	0.0362
Mercury	54938-09-30 13:12 G	21787025.01	21787025.05	21787025.09	0.0503	0.0488
Earth	54939-09-12 21:22 G	21787372.16	21787372.39	21787372.62	0.0514	0.0091
Moon	54939-09-13 01:12 G	21787372.32	21787372.55	21787372.78	0.0514	0.0058 *
Venus	54940-05-11 10:34 G	21787613.76	21787613.94	21787614.12	0.0522	0.0236
Mercury	54944-03-05 07:55 G	21789007.71	21789007.83	21789007.95	0.0527	0.0164
Mercury	54944-06-02 13:41 G	21789097.02	21789097.07	21789097.11	0.0524	0.0485
Earth	54945-03-08 16:48 G	21789375.96	21789376.20	21789376.43	0.0514	0.0075
Moon	54945-03-08 20:24 G	21789376.11	21789376.35	21789376.58	0.0514	0.0086 *
Venus	54946-03-20 12:14 G	21789752.82	21789753.01	21789753.21	0.0502	0.0160
Mercury	54950-07-19 08:53 G	21791334.71	21791334.87	21791335.03	0.0502	0.0254
Moon	54951-09-17 07:12 G	21791759.63	21791759.80	21791759.97	0.0516	0.0356
Earth	54951-09-17 09:50 G	21791759.75	21791759.91	21791760.09	0.0516	0.0358 *
Mercury	54955-12-23 12:29 G	21793317.92	21793318.02	21793318.12	0.0528	0.0322

Mercury	54956-03-21 18:14 G	21793407.17	21793407.26	21793407.36	0.0525	0.0336
Moon	54957-03-13 11:02 G	21793763.76	21793763.96	21793764.17	0.0512	0.0239
Earth	54957-03-13 15:07 G	21793763.92	21793764.13	21793764.35	0.0512	0.0211 *
Venus	54957-11-23 13:26 G	21794018.87	21794019.06	21794019.27	0.0504	0.0109
Mercury	54962-05-07 06:29 G	21795644.58	21795644.77	21795644.95	0.0501	0.0048
Venus	54964-05-14 07:55 G	21796382.65	21796382.83	21796383.01	0.0526	0.0255
Mercury	54967-10-11 16:48 G	21797628.15	21797628.20	21797628.25	0.0528	0.0483
Mercury	54968-01-08 22:48 G	21797717.33	21797717.45	21797717.57	0.0525	0.0181
Earth	54969-03-18 09:50 G	21798151.85	21798151.91	21798151.98	0.0510	0.0485
Moon	54969-03-18 13:12 G	21798152.03	21798152.05	21798152.09	0.0510	0.0505
Venus	54969-07-29 12:29 G	21798284.90	21798285.02	21798285.16	0.0506	0.0384
Mercury	54974-02-23 04:19 G	21799954.50	21799954.68	21799954.85	0.0501	0.0154
Venus	54976-01-18 02:24 G	21800648.40	21800648.60	21800648.81	0.0524	0.0052
Mercury	54979-10-28 03:07 G	21802027.51	21802027.63	21802027.76	0.0526	0.0023
Venus	54981-11-26 01:12 G	21802787.40	21802787.55	21802787.71	0.0500	0.0324
Mercury	54985-12-12 02:10 G	21804264.47	21804264.59	21804264.72	0.0500	0.0351
Mercury	54986-03-12 12:00 G	21804354.99	21804355.00	21804355.01	0.0503	0.0501
Venus	54987-09-22 20:38 G	21804914.22	21804914.36	21804914.52	0.0521	0.0356
Mercury	54991-08-16 06:58 G	21806337.67	21806337.79	21806337.91	0.0527	0.0152
Mercury	54991-11-13 12:29 G	21806426.99	21806427.02	21806427.06	0.0524	0.0497
Venus	54993-08-01 00:43 G	21807053.33	21807053.53	21807053.74	0.0503	0.0053
Mercury	54997-12-29 09:07 G	21808664.73	21808664.88	21808665.03	0.0502	0.0288
Moon	54998-09-02 17:31 G	21808912.14	21808912.23	21808912.33	0.0510	0.0462
Earth	54998-09-02 21:36 G	21808912.34	21808912.40	21808912.47	0.0510	0.0488
Venus	55000-01-21 01:55 G	21809417.49	21809417.58	21809417.69	0.0527	0.0449

56TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 56th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	55003-06-05 11:17	G	21810647.87	21810647.97	21810648.07	0.0527	0.0314	
Mercury	55003-09-02 17:02	G	21810737.12	21810737.21	21810737.31	0.0525	0.0343	
Venus	55005-04-07 01:12	G	21811319.37	21811319.55	21811319.74	0.0505	0.0220	
Mercury	55009-10-18 05:02	G	21812974.53	21812974.71	21812974.89	0.0501	0.0058	
Earth	55010-09-08 08:24	G	21813299.65	21813299.85	21813300.06	0.0511	0.0231	
Moon	55010-09-08 12:29	G	21813299.82	21813300.02	21813300.22	0.0511	0.0244	*
Venus	55011-09-26 16:05	G	21813682.97	21813683.17	21813683.37	0.0525	0.0125	
Mercury	55015-03-24 15:36	G	21814958.10	21814958.15	21814958.20	0.0529	0.0476	
Mercury	55015-06-21 21:50	G	21815047.29	21815047.41	21815047.53	0.0526	0.0189	
Earth	55016-03-04 07:55	G	21815303.68	21815303.83	21815303.98	0.0517	0.0387	
Moon	55016-03-04 11:17	G	21815303.84	21815303.97	21815304.11	0.0517	0.0420	*
Venus	55016-12-11 01:41	G	21815585.52	21815585.57	21815585.62	0.0507	0.0490	
Venus	55017-08-04 14:53	G	21815822.07	21815822.12	21815822.16	0.0499	0.0486	
Mars	55019-10-22 05:31	G	21816630.73	21816630.73	21816630.75	0.0489	0.0488	
Mercury	55021-08-06 02:38	G	21817284.44	21817284.61	21817284.79	0.0500	0.0146	
Moon	55022-09-12 23:17	G	21817687.23	21817687.47	21817687.71	0.0514	0.0017	
Earth	55022-09-13 02:10	G	21817687.36	21817687.59	21817687.83	0.0514	0.0049	*
Venus	55023-06-01 10:05	G	21817948.74	21817948.92	21817949.12	0.0523	0.0182	
Mercury	55027-04-10 02:24	G	21819357.47	21819357.60	21819357.73	0.0526	0.0033	
Moon	55028-03-09 00:58	G	21819691.31	21819691.54	21819691.77	0.0514	0.0112	
Earth	55028-03-09 05:02	G	21819691.48	21819691.71	21819691.94	0.0514	0.0101	*
Venus	55029-04-09 15:07	G	21820087.95	21820088.13	21820088.32	0.0501	0.0221	

Mercury	55033-05-25 00:43 G	21821594.39	21821594.53	21821594.66	0.0500	0.0345
Earth	55034-09-17 21:50 G	21822075.24	21822075.41	21822075.59	0.0516	0.0334
Moon	55034-09-17 22:34 G	21822075.28	21822075.44	21822075.61	0.0516	0.0347 *
Venus	55035-02-04 06:00 G	21822214.67	21822214.75	21822214.83	0.0521	0.0477
Mercury	55039-01-27 06:43 G	21823667.65	21823667.78	21823667.90	0.0527	0.0129
Mercury	55039-04-26 12:14 G	21823757.00	21823757.01	21823757.03	0.0524	0.0519
Earth	55040-03-14 00:14 G	21824079.29	21824079.51	21824079.73	0.0512	0.0181
Moon	55040-03-14 03:50 G	21824079.45	21824079.66	21824079.87	0.0512	0.0212 *
Venus	55040-12-13 15:07 G	21824353.92	21824354.13	21824354.33	0.0503	0.0050
Mercury	55045-06-11 07:55 G	21825994.68	21825994.83	21825994.98	0.0502	0.0300
Venus	55047-06-04 11:46 G	21826717.84	21826717.99	21826718.15	0.0526	0.0324
Mercury	55050-11-15 10:19 G	21827977.83	21827977.93	21827978.04	0.0527	0.0302
Mercury	55051-02-12 16:19 G	21828067.09	21828067.18	21828067.27	0.0524	0.0354
Moon	55052-03-18 14:38 G	21828467.02	21828467.11	21828467.22	0.0511	0.0464
Earth	55052-03-18 17:02 G	21828467.11	21828467.21	21828467.32	0.0511	0.0454 *
Venus	55052-08-18 13:26 G	21828619.91	21828620.06	21828620.22	0.0506	0.0328
Mercury	55057-03-30 05:17 G	21830304.54	21830304.72	21830304.90	0.0501	0.0091
Venus	55059-02-07 04:34 G	21830983.48	21830983.69	21830983.89	0.0524	0.0012
Mercury	55062-09-03 14:24 G	21832288.05	21832288.10	21832288.16	0.0528	0.0467
Mercury	55062-12-01 20:38 G	21832377.25	21832377.36	21832377.48	0.0525	0.0197
Venus	55064-12-16 03:07 G	21833122.50	21833122.63	21833122.77	0.0500	0.0380
Mercury	55069-01-16 01:26 G	21834614.38	21834614.56	21834614.74	0.0500	0.0134
Venus	55070-10-12 19:12 G	21835249.13	21835249.30	21835249.46	0.0522	0.0306
Mercury	55074-09-20 01:12 G	21836687.42	21836687.55	21836687.68	0.0527	0.0040
Venus	55076-08-21 05:02 G	21837388.51	21837388.71	21837388.91	0.0502	0.0118
Mercury	55080-11-03 23:02 G	21838924.33	21838924.46	21838924.60	0.0499	0.0336
Moon	55081-09-03 06:29 G	21839227.76	21839227.77	21839227.81	0.0509	0.0505
Venus	55083-02-10 02:10 G	21839752.53	21839752.59	21839752.65	0.0528	0.0503
Mercury	55086-07-09 05:46 G	21840997.61	21840997.74	21840997.86	0.0527	0.0119
Venus	55088-04-26 04:19 G	21841654.49	21841654.68	21841654.88	0.0504	0.0155

Mercury	55092-11-21 06:14 G	21843324.61	21843324.76	21843324.90	0.0502	0.0305
Moon	55093-09-07 17:17 G	21843615.02	21843615.22	21843615.42	0.0511	0.0273
Earth	55093-09-07 20:24 G	21843615.15	21843615.35	21843615.55	0.0511	0.0257 *
Venus	55094-10-15 20:24 G	21844018.16	21844018.35	21844018.54	0.0526	0.0196
Mercury	55098-04-27 09:50 G	21845307.81	21845307.91	21845308.02	0.0527	0.0281
Mercury	55098-07-25 15:50 G	21845397.07	21845397.16	21845397.25	0.0525	0.0375
Moon	55099-03-04 13:26 G	21845618.96	21845619.06	21845619.17	0.0517	0.0455
Earth	55099-03-04 17:31 G	21845619.09	21845619.23	21845619.36	0.0517	0.0419 *
Venus	55099-12-31 03:22 G	21845920.54	21845920.64	21845920.75	0.0506	0.0429
Mercury	55104-09-10 03:50 G	21847634.48	21847634.66	21847634.84	0.0501	0.0102
Earth	55105-09-13 14:38 G	21848002.88	21848003.11	21848003.34	0.0513	0.0025
Moon	55105-09-13 15:36 G	21848002.93	21848003.15	21848003.37	0.0513	0.0003 *
Venus	55106-06-21 14:24 G	21848283.90	21848284.10	21848284.30	0.0523	0.0111
Mercury	55110-02-14 13:41 G	21849618.01	21849618.07	21849618.13	0.0528	0.0454
Mercury	55110-05-14 19:55 G	21849707.21	21849707.33	21849707.44	0.0525	0.0210
Earth	55111-03-10 11:31 G	21850006.75	21850006.98	21850007.20	0.0515	0.0137
Moon	55111-03-10 15:22 G	21850006.91	21850007.14	21850007.36	0.0515	0.0142 *
Venus	55112-04-29 15:50 G	21850422.99	21850423.16	21850423.33	0.0501	0.0274
Mercury	55116-06-29 01:26 G	21851944.38	21851944.56	21851944.74	0.0500	0.0105
Earth	55117-09-18 07:26 G	21852390.63	21852390.81	21852391.00	0.0515	0.0304
Moon	55117-09-18 08:38 G	21852390.68	21852390.86	21852391.05	0.0515	0.0324 *
Venus	55118-02-24 07:55 G	21852549.72	21852549.83	21852549.96	0.0521	0.0415
Mars	55120-06-28 12:14 G	21853404.72	21853405.01	21853405.31	0.0538	0.0039
Mercury	55122-03-03 00:14 G	21854017.38	21854017.51	21854017.63	0.0526	0.0051
Moon	55123-03-15 05:46 G	21854394.52	21854394.74	21854394.97	0.0513	0.0179
Earth	55123-03-15 08:24 G	21854394.62	21854394.85	21854395.07	0.0513	0.0150 *
Venus	55124-01-03 16:48 G	21854689.00	21854689.20	21854689.40	0.0503	0.0008
Mercury	55128-04-16 21:50 G	21856254.28	21856254.41	21856254.55	0.0499	0.0324
Venus	55130-06-24 10:05 G	21857052.78	21857052.92	21857053.06	0.0526	0.0372
Mercury	55133-12-20 04:34 G	21858327.56	21858327.69	21858327.81	0.0527	0.0115

Earth	55135-03-20 05:02 G	21858782.60	21858782.71	21858782.85	0.0511	0.0433
Moon	55135-03-20 05:17 G	21858782.61	21858782.72	21858782.85	0.0511	0.0435 *
Venus	55135-09-08 17:17 G	21858955.05	21858955.22	21858955.40	0.0505	0.0261
Mars	55138-04-15 01:41 G	21859904.32	21859904.57	21859904.83	0.0489	0.0110
Mercury	55140-05-04 04:34 G	21860654.55	21860654.69	21860654.84	0.0501	0.0313
Venus	55142-02-27 03:36 G	21861318.45	21861318.65	21861318.85	0.0524	0.0063
Mercury	55145-10-08 08:53 G	21862637.76	21862637.87	21862637.98	0.0528	0.0273
Mercury	55146-01-05 14:53 G	21862727.03	21862727.12	21862727.20	0.0525	0.0384
Venus	55148-01-06 05:46 G	21863457.64	21863457.74	21863457.83	0.0500	0.0439
Mercury	55152-02-21 02:10 G	21864964.41	21864964.59	21864964.77	0.0501	0.0106
Venus	55153-11-01 22:34 G	21865584.26	21865584.44	21865584.62	0.0522	0.0237
Mercury	55157-07-27 13:12 G	21866947.97	21866948.05	21866948.12	0.0528	0.0437
Mercury	55157-10-24 19:12 G	21867037.19	21867037.30	21867037.42	0.0525	0.0227
Venus	55159-09-11 06:00 G	21867723.56	21867723.75	21867723.94	0.0502	0.0174
Mercury	55163-12-10 00:00 G	21869274.32	21869274.50	21869274.68	0.0500	0.0096
Mercury	55169-08-12 23:17 G	21871347.34	21871347.47	21871347.59	0.0526	0.0061
Venus	55171-05-17 04:34 G	21871989.49	21871989.69	21871989.89	0.0504	0.0101
Mercury	55175-09-27 21:36 G	21873584.25	21873584.40	21873584.54	0.0500	0.0300
Earth	55176-09-08 06:00 G	21873930.56	21873930.75	21873930.95	0.0511	0.0287
Moon	55176-09-08 07:12 G	21873930.63	21873930.80	21873930.98	0.0511	0.0311 *
Venus	55177-11-04 21:50 G	21874353.24	21874353.41	21874353.59	0.0525	0.0256
Mercury	55181-06-01 03:22 G	21875657.51	21875657.64	21875657.77	0.0527	0.0105
Earth	55182-03-04 23:02 G	21875934.36	21875934.46	21875934.58	0.0518	0.0460
Moon	55182-03-05 02:53 G	21875934.56	21875934.62	21875934.70	0.0518	0.0493 *
Venus	55183-01-20 04:19 G	21876255.55	21876255.68	21876255.82	0.0506	0.0373
Mercury	55187-10-15 03:07 G	21877984.50	21877984.63	21877984.78	0.0501	0.0323
Earth	55188-09-12 17:46 G	21878318.01	21878318.24	21878318.48	0.0512	0.0027
Moon	55188-09-12 18:43 G	21878318.04	21878318.28	21878318.52	0.0512	0.0044 *
Venus	55189-07-10 12:00 G	21878618.80	21878619.00	21878619.20	0.0523	0.0064
Mercury	55193-03-20 07:26 G	21879967.70	21879967.81	21879967.92	0.0528	0.0272

Mercury	55193-06-17 13:26 G	21880056.98	21880057.06	21880057.14	0.0525	0.0387
Moon	55194-03-09 18:29 G	21880322.04	21880322.27	21880322.50	0.0516	0.0169
Earth	55194-03-09 21:07 G	21880322.16	21880322.38	21880322.61	0.0516	0.0171 *
Venus	55195-05-19 18:43 G	21880758.13	21880758.28	21880758.44	0.0501	0.0336
Mercury	55199-08-03 00:29 G	21882294.35	21882294.52	21882294.70	0.0500	0.0114
Moon	55200-09-17 08:24 G	21882705.66	21882705.85	21882706.04	0.0514	0.0277
Earth	55200-09-17 10:34 G	21882705.75	21882705.94	21882706.15	0.0514	0.0255 *
Venus	55201-03-15 06:00 G	21882884.61	21882884.75	21882884.90	0.0521	0.0365
Mercury	55205-01-06 11:46 G	21884277.92	21884277.99	21884278.06	0.0529	0.0434
Mercury	55205-04-05 18:00 G	21884367.13	21884367.25	21884367.36	0.0526	0.0231
Earth	55206-03-14 17:46 G	21884710.02	21884710.24	21884710.47	0.0514	0.0117
Moon	55206-03-14 18:14 G	21884710.05	21884710.26	21884710.48	0.0514	0.0148 *
Venus	55207-01-22 18:43 G	21885024.07	21885024.28	21885024.48	0.0503	0.0069
Mercury	55211-05-21 22:05 G	21886604.24	21886604.42	21886604.60	0.0500	0.0095
Venus	55213-07-13 12:58 G	21887387.94	21887388.04	21887388.16	0.0527	0.0438
Mercury	55217-01-22 22:19 G	21888677.30	21888677.43	21888677.56	0.0526	0.0073
Earth	55218-03-19 12:43 G	21889097.90	21889098.03	21889098.19	0.0511	0.0399
Moon	55218-03-19 14:10 G	21889097.95	21889098.09	21889098.25	0.0511	0.0394 *
Venus	55218-09-27 17:46 G	21889290.06	21889290.24	21889290.43	0.0505	0.0204
Mercury	55223-03-09 19:41 G	21890914.18	21890914.32	21890914.47	0.0500	0.0295
Venus	55225-03-18 06:29 G	21891653.58	21891653.77	21891653.97	0.0525	0.0130
Mercury	55228-11-11 02:10 G	21892987.47	21892987.59	21892987.72	0.0527	0.0098
Venus	55230-06-02 15:07 G	21893556.08	21893556.13	21893556.19	0.0507	0.0484
Venus	55231-01-25 05:02 G	21893792.67	21893792.71	21893792.76	0.0500	0.0487
Mercury	55234-12-26 17:31 G	21895224.21	21895224.23	21895224.25	0.0499	0.0495
Mercury	55235-03-27 02:38 G	21895314.48	21895314.61	21895314.74	0.0502	0.0344
Venus	55236-11-20 23:31 G	21895919.29	21895919.48	21895919.67	0.0522	0.0178
Mercury	55240-08-30 06:14 G	21897297.65	21897297.76	21897297.87	0.0528	0.0265
Mercury	55240-11-27 12:14 G	21897386.93	21897387.01	21897387.09	0.0525	0.0392
Venus	55242-09-30 06:00 G	21898058.57	21898058.75	21898058.94	0.0502	0.0225

Mercury	55247-01-12 23:02 G	21899624.28	21899624.46	21899624.64	0.0500	0.0121
Venus	55248-07-26 14:53 G	21900185.05	21900185.12	21900185.19	0.0519	0.0485
Mercury	55252-06-18 10:05 G	21901607.85	21901607.92	21901607.99	0.0529	0.0438
Mercury	55252-09-15 16:19 G	21901697.07	21901697.18	21901697.30	0.0526	0.0230
Venus	55254-06-05 06:14 G	21902324.56	21902324.76	21902324.97	0.0504	0.0041
Mercury	55258-10-31 20:24 G	21903934.17	21903934.35	21903934.53	0.0500	0.0088
Earth	55259-09-08 08:53 G	21904245.70	21904245.87	21904246.04	0.0510	0.0337
Moon	55259-09-08 09:22 G	21904245.73	21904245.89	21904246.07	0.0510	0.0365 *
Venus	55260-11-23 18:58 G	21904688.13	21904688.29	21904688.46	0.0526	0.0302
Mercury	55264-07-04 20:53 G	21906007.24	21906007.37	21906007.49	0.0527	0.0072
Earth	55265-03-04 05:46 G	21906249.70	21906249.74	21906249.80	0.0518	0.0503
Venus	55266-02-08 05:02 G	21906590.56	21906590.71	21906590.87	0.0506	0.0315
Mercury	55270-08-19 17:31 G	21908244.09	21908244.23	21908244.39	0.0499	0.0297
Moon	55271-09-12 23:02 G	21908633.24	21908633.46	21908633.69	0.0512	0.0081
Earth	55271-09-13 01:12 G	21908633.33	21908633.55	21908633.79	0.0512	0.0063 *
Venus	55272-07-29 13:26 G	21908953.86	21908954.06	21908954.26	0.0524	0.0002
Mars	55274-09-23 01:55 G	21909739.55	21909739.58	21909739.63	0.0538	0.0532
Mercury	55276-04-23 01:12 G	21910317.42	21910317.55	21910317.68	0.0527	0.0089
Earth	55277-03-09 03:07 G	21910637.42	21910637.63	21910637.85	0.0516	0.0211
Moon	55277-03-09 04:05 G	21910637.46	21910637.67	21910637.88	0.0516	0.0199 *
Venus	55278-06-07 18:00 G	21911093.12	21911093.25	21911093.38	0.0501	0.0385
Mercury	55282-06-07 15:22 G	21912554.13	21912554.14	21912554.17	0.0499	0.0495
Mercury	55282-09-06 00:29 G	21912644.39	21912644.52	21912644.66	0.0501	0.0344
Earth	55283-09-17 18:58 G	21913021.09	21913021.29	21913021.51	0.0514	0.0222
Moon	55283-09-17 22:19 G	21913021.23	21913021.43	21913021.64	0.0514	0.0248 *
Venus	55284-04-03 07:55 G	21913219.67	21913219.83	21913220.00	0.0521	0.0303
Mercury	55288-02-10 05:02 G	21914627.60	21914627.71	21914627.82	0.0528	0.0261
Mercury	55288-05-09 10:48 G	21914716.87	21914716.95	21914717.04	0.0525	0.0396
Earth	55289-03-13 20:53 G	21915025.14	21915025.37	21915025.61	0.0514	0.0071
Moon	55289-03-13 21:50 G	21915025.18	21915025.41	21915025.65	0.0514	0.0103 *

Venus	55290-02-10 17:02 G	21915359.01	21915359.21	21915359.41	0.0503	0.0115
Mars	55292-07-09 03:22 G	21916238.43	21916238.64	21916238.87	0.0489	0.0254
Mercury	55294-06-24 21:50 G	21916954.23	21916954.41	21916954.59	0.0501	0.0134
Earth	55295-09-22 12:14 G	21917408.97	21917409.01	21917409.06	0.0516	0.0504
Venus	55296-08-01 13:12 G	21917722.98	21917723.05	21917723.12	0.0527	0.0491
Mercury	55299-11-29 08:53 G	21918937.80	21918937.87	21918937.94	0.0529	0.0432
Mercury	55300-02-26 15:07 G	21919027.02	21919027.13	21919027.24	0.0526	0.0233
Moon	55301-03-19 13:41 G	21919412.91	21919413.07	21919413.24	0.0512	0.0351
Earth	55301-03-19 16:05 G	21919413.00	21919413.17	21919413.34	0.0512	0.0355 *
Venus	55301-10-17 16:34 G	21919624.99	21919625.19	21919625.38	0.0505	0.0156
Mercury	55306-04-13 18:43 G	21921264.10	21921264.28	21921264.46	0.0500	0.0083
Venus	55308-04-07 02:38 G	21921988.42	21921988.61	21921988.80	0.0524	0.0171
Mercury	55311-12-16 18:58 G	21923337.17	21923337.29	21923337.42	0.0527	0.0066
Venus	55313-06-22 15:22 G	21923891.03	21923891.14	21923891.24	0.0508	0.0429
Mercury	55318-01-30 15:50 G	21925574.02	21925574.16	21925574.31	0.0499	0.0291
Venus	55319-12-11 19:41 G	21926254.13	21926254.32	21926254.52	0.0522	0.0135
Mercury	55323-10-04 23:17 G	21927647.35	21927647.47	21927647.60	0.0528	0.0097
Venus	55325-10-20 05:17 G	21928393.55	21928393.72	21928393.89	0.0502	0.0276
Mercury	55330-02-16 22:05 G	21929974.28	21929974.42	21929974.55	0.0501	0.0337
Venus	55331-08-16 14:38 G	21930520.00	21930520.11	21930520.23	0.0520	0.0430
Mercury	55335-07-24 03:36 G	21931957.54	21931957.65	21931957.76	0.0528	0.0258
Mercury	55335-10-21 09:36 G	21932046.82	21932046.90	21932046.98	0.0525	0.0400
Venus	55337-06-25 04:48 G	21932659.49	21932659.70	21932659.90	0.0504	0.0010
Mercury	55341-12-05 19:26 G	21934284.13	21934284.31	21934284.49	0.0501	0.0129
Moon	55342-09-08 12:58 G	21934560.92	21934561.04	21934561.18	0.0510	0.0410
Earth	55342-09-08 15:07 G	21934560.98	21934561.13	21934561.29	0.0510	0.0377 *
Venus	55343-12-14 20:10 G	21935023.19	21935023.34	21935023.48	0.0526	0.0359
Mercury	55347-05-12 07:26 G	21936267.74	21936267.81	21936267.88	0.0529	0.0432
Mercury	55347-08-09 13:41 G	21936356.95	21936357.07	21936357.18	0.0526	0.0234
Venus	55349-02-28 02:24 G	21936925.43	21936925.60	21936925.78	0.0506	0.0270

Mercury	55353-09-23 16:48 G	21938594.02	21938594.20	21938594.39	0.0500	0.0079
Earth	55354-09-13 06:43 G	21938948.56	21938948.78	21938949.01	0.0511	0.0104
Moon	55354-09-13 10:05 G	21938948.69	21938948.92	21938949.15	0.0511	0.0117 *
Venus	55355-08-19 12:43 G	21939288.83	21939289.03	21939289.23	0.0523	0.0050
Mercury	55359-05-28 17:46 G	21940667.11	21940667.24	21940667.36	0.0527	0.0069
Earth	55360-03-09 03:07 G	21940952.44	21940952.63	21940952.84	0.0517	0.0266
Moon	55360-03-09 03:50 G	21940952.45	21940952.66	21940952.87	0.0517	0.0248 *
Venus	55361-06-27 15:36 G	21941428.05	21941428.15	21941428.26	0.0501	0.0427
Mercury	55365-07-12 13:55 G	21942903.94	21942904.08	21942904.23	0.0499	0.0290
Moon	55366-09-17 15:50 G	21943335.95	21943336.16	21943336.38	0.0513	0.0191
Earth	55366-09-17 19:41 G	21943336.10	21943336.32	21943336.54	0.0513	0.0165 *
Venus	55367-04-24 03:36 G	21943554.48	21943554.65	21943554.83	0.0521	0.0260
Mercury	55371-03-16 21:22 G	21944977.27	21944977.39	21944977.52	0.0528	0.0107
Moon	55372-03-13 20:24 G	21945340.13	21945340.35	21945340.58	0.0515	0.0051
Earth	55372-03-13 22:34 G	21945340.20	21945340.44	21945340.67	0.0515	0.0020 *
Venus	55373-03-02 15:50 G	21945693.96	21945694.16	21945694.35	0.0503	0.0164
Mercury	55377-04-30 11:31 G	21947213.96	21947213.98	21947214.00	0.0498	0.0494
Mercury	55377-07-29 20:10 G	21947304.20	21947304.34	21947304.47	0.0501	0.0339
Earth	55378-09-22 11:17 G	21947723.86	21947723.97	21947724.09	0.0515	0.0444
Moon	55378-09-22 14:38 G	21947724.01	21947724.11	21947724.21	0.0515	0.0461 *
Mercury	55383-01-03 01:41 G	21949287.46	21949287.57	21949287.68	0.0529	0.0271
Mercury	55383-04-02 07:41 G	21949376.74	21949376.82	21949376.90	0.0526	0.0390
Earth	55384-03-18 18:14 G	21949728.08	21949728.26	21949728.45	0.0513	0.0306
Moon	55384-03-18 21:50 G	21949728.21	21949728.41	21949728.60	0.0513	0.0295 *
Venus	55384-11-05 14:24 G	21949959.90	21949960.10	21949960.30	0.0505	0.0108
Mercury	55389-05-17 16:48 G	21951614.02	21951614.20	21951614.38	0.0500	0.0120
Venus	55391-04-27 01:26 G	21952323.38	21952323.56	21952323.74	0.0525	0.0222
Mercury	55394-10-22 05:46 G	21953597.67	21953597.74	21953597.82	0.0529	0.0434
Mercury	55395-01-19 12:14 G	21953686.89	21953687.01	21953687.12	0.0526	0.0233
Venus	55396-07-11 12:58 G	21954225.92	21954226.04	21954226.18	0.0507	0.0382

Mercury	55401-03-06 14:10 G	21955923.91	21955924.09	21955924.27	0.0500	0.0087
Venus	55402-12-31 19:26 G	21956589.11	21956589.31	21956589.51	0.0523	0.0081
Mercury	55406-11-08 16:05 G	21957997.04	21957997.17	21957997.30	0.0527	0.0065
Venus	55408-11-09 01:41 G	21958728.41	21958728.57	21958728.73	0.0502	0.0315
Mars	55411-01-01 07:55 G	21959511.71	21959511.83	21959511.95	0.0489	0.0430
Mercury	55412-12-23 11:46 G	21960233.85	21960233.99	21960234.14	0.0499	0.0291
Venus	55414-09-05 13:12 G	21960854.92	21960855.05	21960855.19	0.0520	0.0380
Mercury	55418-08-27 19:55 G	21962307.21	21962307.33	21962307.46	0.0527	0.0106
Venus	55420-07-15 01:12 G	21962994.34	21962994.55	21962994.75	0.0504	0.0047
Mercury	55424-10-11 09:07 G	21964543.88	21964543.88	21964543.90	0.0498	0.0497
Mercury	55425-01-09 17:46 G	21964634.11	21964634.24	21964634.38	0.0501	0.0338
Earth	55425-09-08 16:19 G	21964876.06	21964876.18	21964876.30	0.0508	0.0430
Moon	55425-09-08 19:26 G	21964876.21	21964876.31	21964876.41	0.0508	0.0461 *
Venus	55427-01-03 14:53 G	21965357.99	21965358.12	21965358.26	0.0525	0.0396
Mercury	55430-06-15 23:31 G	21966617.37	21966617.48	21966617.59	0.0529	0.0284
Mercury	55430-09-13 05:31 G	21966706.65	21966706.73	21966706.82	0.0526	0.0378
Venus	55432-03-19 23:31 G	21967260.30	21967260.48	21967260.67	0.0506	0.0226
Mercury	55436-10-28 14:53 G	21968943.94	21968944.12	21968944.30	0.0500	0.0122
Moon	55437-09-13 02:24 G	21969263.39	21969263.60	21969263.82	0.0510	0.0176
Earth	55437-09-13 06:00 G	21969263.53	21969263.75	21969263.98	0.0510	0.0162 *
Venus	55438-09-08 07:26 G	21969623.61	21969623.81	21969624.01	0.0523	0.0088
Mercury	55442-04-04 03:36 G	21970927.58	21970927.65	21970927.72	0.0529	0.0451
Mercury	55442-07-02 09:50 G	21971016.80	21971016.91	21971017.03	0.0527	0.0219
Moon	55443-03-10 00:58 G	21971267.37	21971267.54	21971267.73	0.0518	0.0310
Earth	55443-03-10 02:38 G	21971267.43	21971267.61	21971267.79	0.0518	0.0325 *
Venus	55443-11-23 21:22 G	21971526.37	21971526.39	21971526.42	0.0508	0.0502
Venus	55444-07-17 12:14 G	21971762.95	21971763.01	21971763.09	0.0501	0.0467
Mercury	55448-08-16 11:17 G	21973253.79	21973253.97	21973254.15	0.0500	0.0099
Earth	55449-09-17 20:10 G	21973651.12	21973651.34	21973651.57	0.0513	0.0113
Moon	55449-09-17 23:46 G	21973651.27	21973651.49	21973651.71	0.0513	0.0143 *

Venus	55450-05-14 00:58 G	21973889.35	21973889.54	21973889.72	0.0521	0.0215
Mercury	55454-04-20 14:24 G	21975326.97	21975327.10	21975327.23	0.0527	0.0061
Earth	55455-03-15 00:00 G	21975655.27	21975655.50	21975655.74	0.0515	0.0030
Moon	55455-03-15 03:07 G	21975655.39	21975655.63	21975655.87	0.0515	0.0008 *
Venus	55456-03-22 12:29 G	21976028.83	21976029.02	21976029.21	0.0503	0.0205
Mercury	55460-06-04 08:53 G	21977563.73	21977563.87	21977564.02	0.0499	0.0303
Moon	55461-09-22 11:17 G	21978038.83	21978038.97	21978039.12	0.0515	0.0410
Earth	55461-09-22 13:41 G	21978038.93	21978039.07	21978039.22	0.0515	0.0398 *
Venus	55462-01-16 19:55 G	21978155.30	21978155.33	21978155.38	0.0519	0.0507
Mercury	55466-02-06 18:14 G	21979637.14	21979637.26	21979637.39	0.0527	0.0110
Moon	55467-03-19 13:41 G	21980042.87	21980043.07	21980043.29	0.0513	0.0237
Earth	55467-03-19 17:31 G	21980043.03	21980043.23	21980043.44	0.0513	0.0252 *
Venus	55467-11-26 10:34 G	21980294.74	21980294.94	21980295.14	0.0505	0.0069
Mercury	55472-06-21 15:22 G	21981964.00	21981964.14	21981964.28	0.0501	0.0331
Venus	55474-05-16 23:31 G	21982658.31	21982658.48	21982658.66	0.0525	0.0269
Mercury	55477-11-25 22:05 G	21983947.31	21983947.42	21983947.53	0.0528	0.0281
Mercury	55478-02-23 04:05 G	21984036.59	21984036.67	21984036.76	0.0525	0.0379
Moon	55479-03-24 14:24 G	21984431.08	21984431.10	21984431.15	0.0512	0.0505
Venus	55479-08-01 08:38 G	21984560.71	21984560.86	21984561.01	0.0507	0.0344
Mercury	55484-04-09 12:29 G	21986273.84	21986274.02	21986274.20	0.0500	0.0118
Venus	55486-01-19 14:38 G	21986923.91	21986924.11	21986924.32	0.0522	0.0043
Mercury	55489-09-14 01:26 G	21988257.50	21988257.56	21988257.62	0.0529	0.0465
Mercury	55489-12-12 07:55 G	21988346.71	21988346.83	21988346.94	0.0527	0.0205
Venus	55491-11-28 22:05 G	21989063.28	21989063.42	21989063.56	0.0502	0.0355
Mercury	55496-01-27 09:36 G	21990583.72	21990583.90	21990584.08	0.0499	0.0096
Venus	55497-09-24 07:55 G	21991189.68	21991189.83	21991189.99	0.0520	0.0342
Mercury	55501-10-01 12:14 G	21992656.88	21992657.01	21992657.13	0.0527	0.0047
Venus	55503-08-04 21:22 G	21993329.19	21993329.39	21993329.59	0.0504	0.0087
Mercury	55507-11-16 06:00 G	21994893.61	21994893.75	21994893.89	0.0499	0.0315
Earth	55508-09-08 15:36 G	21995191.09	21995191.15	21995191.21	0.0508	0.0486

Venus	55510-01-23 11:46 G	21995692.88	21995692.99	21995693.10	0.0526	0.0438
Mercury	55513-07-20 16:34 G	21996967.06	21996967.19	21996967.31	0.0528	0.0115
Venus	55515-04-09 20:38 G	21997595.17	21997595.36	21997595.55	0.0506	0.0183
Mercury	55519-12-03 12:14 G	21999293.87	21999294.01	21999294.15	0.0501	0.0317
Earth	55520-09-13 06:58 G	21999578.58	21999578.79	21999579.00	0.0510	0.0213
Moon	55520-09-13 10:34 G	21999578.73	21999578.94	21999579.15	0.0510	0.0216 *
Venus	55521-09-28 05:31 G	21999958.53	21999958.73	21999958.92	0.0524	0.0134
Mercury	55525-05-08 20:24 G	22001277.24	22001277.35	22001277.46	0.0528	0.0286
Mercury	55525-08-06 02:24 G	22001366.52	22001366.60	22001366.69	0.0525	0.0375
Earth	55526-03-10 01:55 G	22001582.43	22001582.58	22001582.74	0.0518	0.0381
Moon	55526-03-10 04:48 G	22001582.53	22001582.70	22001582.87	0.0518	0.0360 *
Venus	55526-12-13 17:31 G	22001861.15	22001861.23	22001861.32	0.0508	0.0461
Mercury	55531-09-21 09:36 G	22003603.72	22003603.90	22003604.08	0.0500	0.0109
Moon	55532-09-17 20:38 G	22003966.13	22003966.36	22003966.59	0.0512	0.0097
Earth	55532-09-17 23:17 G	22003966.24	22003966.47	22003966.70	0.0512	0.0066 *
Venus	55533-06-02 23:02 G	22004224.27	22004224.46	22004224.65	0.0521	0.0167
Mercury	55537-02-25 00:14 G	22005587.45	22005587.51	22005587.57	0.0529	0.0460
Mercury	55537-05-25 06:29 G	22005676.66	22005676.77	22005676.89	0.0526	0.0208
Moon	55538-03-14 17:31 G	22005970.00	22005970.23	22005970.46	0.0516	0.0066
Earth	55538-03-14 21:07 G	22005970.15	22005970.38	22005970.61	0.0516	0.0091 *
Venus	55539-04-12 07:41 G	22006363.65	22006363.82	22006364.01	0.0503	0.0241
Mercury	55543-07-10 07:12 G	22007913.62	22007913.80	22007913.98	0.0499	0.0100
Earth	55544-09-22 14:10 G	22008353.92	22008354.09	22008354.26	0.0514	0.0343
Moon	55544-09-22 15:22 G	22008353.99	22008354.14	22008354.31	0.0514	0.0356 *
Venus	55545-02-05 16:05 G	22008490.09	22008490.17	22008490.26	0.0518	0.0464
Mars	55547-06-05 08:24 G	22009339.75	22009339.85	22009339.96	0.0538	0.0499
Mercury	55549-03-13 10:05 G	22009986.79	22009986.92	22009987.05	0.0527	0.0031
Earth	55550-03-19 14:24 G	22010357.88	22010358.10	22010358.32	0.0515	0.0191
Moon	55550-03-19 17:46 G	22010358.03	22010358.24	22010358.47	0.0515	0.0172 *
Venus	55550-12-16 06:14 G	22010629.56	22010629.76	22010629.96	0.0505	0.0031

Mercury	55555-04-28 04:19 G	22012223.54	22012223.68	22012223.82	0.0499	0.0309
Venus	55557-06-05 18:14 G	22012993.09	22012993.26	22012993.42	0.0524	0.0305
Mercury	55560-12-30 14:10 G	22014296.97	22014297.09	22014297.22	0.0528	0.0134
Mercury	55561-03-29 20:10 G	22014386.33	22014386.34	22014386.35	0.0525	0.0522
Moon	55562-03-24 06:58 G	22014745.68	22014745.79	22014745.92	0.0512	0.0447
Earth	55562-03-24 09:50 G	22014745.83	22014745.91	22014746.00	0.0512	0.0478 *
Venus	55562-08-21 04:34 G	22014895.53	22014895.69	22014895.86	0.0507	0.0305
Mars	55565-03-27 15:22 G	22015844.90	22015845.14	22015845.39	0.0489	0.0167
Mercury	55567-05-15 09:07 G	22016623.74	22016623.88	22016624.03	0.0501	0.0304
Venus	55569-02-08 10:34 G	22017258.74	22017258.94	22017259.15	0.0523	0.0009
Mercury	55572-10-18 18:43 G	22018607.17	22018607.28	22018607.38	0.0529	0.0293
Mercury	55573-01-16 00:43 G	22018696.44	22018696.53	22018696.62	0.0526	0.0370
Venus	55574-12-18 18:43 G	22019398.16	22019398.28	22019398.41	0.0501	0.0394
Mercury	55579-03-03 06:29 G	22020933.59	22020933.77	22020933.95	0.0500	0.0095
Venus	55580-10-14 05:17 G	22021524.56	22021524.72	22021524.89	0.0520	0.0299
Mercury	55584-08-06 22:34 G	22022917.38	22022917.44	22022917.50	0.0529	0.0464
Mercury	55584-11-04 04:48 G	22023006.59	22023006.70	22023006.82	0.0526	0.0206
Venus	55586-08-23 17:46 G	22023664.04	22023664.24	22023664.44	0.0503	0.0126
Mercury	55590-12-20 04:05 G	22025243.50	22025243.67	22025243.85	0.0500	0.0112
Venus	55593-02-11 10:19 G	22026027.86	22026027.93	22026028.01	0.0526	0.0485
Mercury	55596-08-23 08:53 G	22027316.74	22027316.87	22027317.00	0.0527	0.0038
Venus	55598-04-28 16:05 G	22027929.98	22027930.17	22027930.37	0.0506	0.0146
Mercury	55602-10-08 01:55 G	22029553.44	22029553.58	22029553.72	0.0499	0.0313
Moon	55603-09-13 06:43 G	22029893.58	22029893.78	22029893.99	0.0509	0.0261
Earth	55603-09-13 09:36 G	22029893.71	22029893.90	22029894.10	0.0509	0.0261 *
Venus	55604-10-17 01:55 G	22030293.39	22030293.58	22030293.77	0.0523	0.0176
Mercury	55608-06-11 12:14 G	22031626.89	22031627.01	22031627.14	0.0528	0.0143
Mercury	55608-09-08 18:14 G	22031716.24	22031716.26	22031716.28	0.0525	0.0513
Moon	55609-03-08 18:29 G	22031897.15	22031897.27	22031897.40	0.0519	0.0427
Earth	55609-03-08 21:50 G	22031897.30	22031897.41	22031897.53	0.0519	0.0447 *

Venus	55610-01-01 13:12 G	22032195.94	22032196.05	22032196.16	0.0508	0.0424
Mercury	55614-10-25 07:41 G	22033953.68	22033953.82	22033953.97	0.0500	0.0313
Earth	55615-09-17 23:31 G	22034281.25	22034281.48	22034281.71	0.0511	0.0012
Moon	55615-09-18 01:12 G	22034281.33	22034281.55	22034281.77	0.0511	0.0045 *
Venus	55616-06-21 18:43 G	22034559.08	22034559.28	22034559.48	0.0521	0.0128
Mercury	55620-03-30 16:19 G	22035937.08	22035937.18	22035937.29	0.0529	0.0309
Mercury	55620-06-27 22:34 G	22036026.35	22036026.44	22036026.54	0.0526	0.0355
Earth	55621-03-13 19:26 G	22036285.09	22036285.31	22036285.54	0.0517	0.0149
Moon	55621-03-13 23:17 G	22036285.24	22036285.47	22036285.69	0.0517	0.0127 *
Venus	55622-05-01 04:05 G	22036698.50	22036698.67	22036698.84	0.0503	0.0277
Mercury	55626-08-13 03:50 G	22038263.48	22038263.66	22038263.84	0.0500	0.0084
Moon	55627-09-22 11:46 G	22038668.79	22038668.99	22038669.18	0.0513	0.0295
Earth	55627-09-22 11:46 G	22038668.81	22038668.99	22038669.19	0.0513	0.0286 *
Venus	55628-02-25 11:31 G	22038824.87	22038824.98	22038825.09	0.0519	0.0428
Mercury	55632-01-17 20:38 G	22040247.31	22040247.36	22040247.42	0.0529	0.0470
Mercury	55632-04-16 03:07 G	22040336.52	22040336.63	22040336.75	0.0527	0.0202
Moon	55633-03-18 14:53 G	22040672.89	22040673.12	22040673.35	0.0515	0.0126
Earth	55633-03-18 18:00 G	22040673.02	22040673.25	22040673.47	0.0515	0.0149 *
Venus	55634-01-04 04:19 G	22040964.47	22040964.68	22040964.88	0.0504	0.0014
Mercury	55638-06-01 01:12 G	22042573.38	22042573.55	22042573.73	0.0499	0.0123
Venus	55640-06-24 16:05 G	22043328.02	22043328.17	22043328.32	0.0525	0.0350
Mercury	55644-02-03 07:26 G	22044646.68	22044646.81	22044646.94	0.0527	0.0039
Earth	55645-03-23 11:46 G	22045060.88	22045060.99	22045061.13	0.0513	0.0432
Moon	55645-03-23 13:26 G	22045060.93	22045061.06	22045061.20	0.0513	0.0406 *
Venus	55645-09-09 02:10 G	22045230.42	22045230.59	22045230.77	0.0507	0.0260
Mercury	55650-03-19 23:02 G	22046883.33	22046883.46	22046883.60	0.0499	0.0323
Venus	55652-02-28 10:05 G	22047593.71	22047593.92	22047594.12	0.0523	0.0049
Mercury	55655-11-22 11:17 G	22048956.85	22048956.97	22048957.10	0.0528	0.0132
Mercury	55656-02-19 17:17 G	22049046.21	22049046.22	22049046.23	0.0525	0.0522
Venus	55658-01-06 15:07 G	22049733.03	22049733.13	22049733.24	0.0501	0.0431

Mercury	55662-04-06 05:31 G	22051283.59	22051283.73	22051283.88	0.0501	0.0312
Venus	55663-11-03 03:22 G	22051859.46	22051859.64	22051859.81	0.0520	0.0251
Mercury	55667-09-10 14:38 G	22053267.01	22053267.11	22053267.22	0.0529	0.0313
Mercury	55667-12-08 20:53 G	22053356.28	22053356.37	22053356.47	0.0526	0.0350
Venus	55669-09-11 13:55 G	22053998.89	22053999.08	22053999.28	0.0504	0.0165
Mercury	55674-01-23 02:38 G	22055593.43	22055593.61	22055593.79	0.0500	0.0098
Venus	55676-03-02 06:43 G	22056362.78	22056362.78	22056362.79	0.0526	0.0525
Mercury	55679-06-29 18:43 G	22057577.23	22057577.28	22057577.33	0.0529	0.0481
Mercury	55679-09-27 01:12 G	22057666.43	22057666.55	22057666.67	0.0527	0.0190
Venus	55681-05-17 13:12 G	22058264.85	22058265.05	22058265.25	0.0506	0.0105
Mercury	55685-11-10 22:48 G	22059903.27	22059903.45	22059903.62	0.0499	0.0130
Earth	55686-09-12 07:55 G	22060208.66	22060208.83	22060209.02	0.0509	0.0319
Moon	55686-09-12 10:05 G	22060208.75	22060208.92	22060209.10	0.0509	0.0316 *
Venus	55687-11-05 21:50 G	22060628.23	22060628.41	22060628.60	0.0524	0.0214
Mercury	55691-07-16 05:46 G	22061976.61	22061976.74	22061976.87	0.0527	0.0036
Earth	55692-03-08 03:07 G	22062212.56	22062212.63	22062212.71	0.0519	0.0488
Moon	55692-03-08 06:58 G	22062212.69	22062212.79	22062212.90	0.0519	0.0459 *
Venus	55693-01-20 12:43 G	22062530.90	22062531.03	22062531.17	0.0508	0.0373
Mercury	55697-08-29 20:24 G	22064213.22	22064213.35	22064213.49	0.0499	0.0331
Moon	55698-09-16 23:46 G	22064596.25	22064596.49	22064596.74	0.0511	0.0013
Earth	55698-09-17 00:29 G	22064596.29	22064596.52	22064596.75	0.0511	0.0039 *
Venus	55699-07-11 16:34 G	22064893.99	22064894.19	22064894.39	0.0522	0.0084
Mars	55701-08-30 09:36 G	22065673.60	22065673.90	22065674.19	0.0538	0.0009
Mercury	55703-05-05 09:50 G	22066286.79	22066286.91	22066287.04	0.0528	0.0130
Moon	55704-03-13 20:38 G	22066600.14	22066600.36	22066600.59	0.0517	0.0172
Earth	55704-03-14 00:00 G	22066600.28	22066600.50	22066600.72	0.0517	0.0193 *
Venus	55705-05-21 02:24 G	22067033.45	22067033.60	22067033.76	0.0502	0.0322
Mercury	55709-09-17 02:53 G	22068613.48	22068613.62	22068613.77	0.0501	0.0304
Moon	55710-09-22 16:34 G	22068984.00	22068984.19	22068984.39	0.0513	0.0250
Earth	55710-09-22 18:00 G	22068984.05	22068984.25	22068984.46	0.0513	0.0247 *

Venus	55711-03-17 11:46 G	22069159.85	22069159.99	22069160.13	0.0519	0.0374
Mercury	55715-02-21 13:55 G	22070596.97	22070597.08	22070597.18	0.0528	0.0299
Mercury	55715-05-21 19:55 G	22070686.24	22070686.33	22070686.42	0.0526	0.0364
Earth	55716-03-18 19:26 G	22070988.08	22070988.31	22070988.54	0.0515	0.0099
Moon	55716-03-18 21:22 G	22070988.16	22070988.39	22070988.61	0.0515	0.0077 *
Venus	55717-01-24 01:41 G	22071299.37	22071299.57	22071299.77	0.0504	0.0056
Mars	55719-06-22 06:58 G	22072178.55	22072178.79	22072179.04	0.0489	0.0141
Mercury	55721-07-06 00:43 G	22072923.35	22072923.53	22072923.71	0.0500	0.0100
Moon	55722-09-27 14:38 G	22073372.06	22073372.11	22073372.16	0.0515	0.0501
Venus	55723-07-15 15:07 G	22073663.01	22073663.13	22073663.27	0.0525	0.0399
Mercury	55726-12-10 17:17 G	22074907.17	22074907.22	22074907.27	0.0529	0.0481
Mercury	55727-03-09 23:46 G	22074996.37	22074996.49	22074996.61	0.0527	0.0191
Moon	55728-03-23 12:00 G	22075375.83	22075376.00	22075376.18	0.0513	0.0358
Earth	55728-03-23 12:00 G	22075375.85	22075376.00	22075376.16	0.0513	0.0381 *
Venus	55728-09-28 23:02 G	22075565.28	22075565.46	22075565.65	0.0507	0.0219
Mercury	55733-04-23 21:50 G	22077233.24	22077233.41	22077233.59	0.0499	0.0110
Venus	55735-03-20 07:41 G	22077928.62	22077928.82	22077929.02	0.0523	0.0095
Mercury	55738-12-27 03:50 G	22079306.54	22079306.66	22079306.79	0.0527	0.0033
Venus	55740-06-03 21:36 G	22079831.35	22079831.40	22079831.45	0.0509	0.0491
Venus	55741-01-26 13:26 G	22080068.00	22080068.06	22080068.13	0.0501	0.0472
Mercury	55745-02-09 18:14 G	22081543.13	22081543.26	22081543.39	0.0498	0.0333
Venus	55746-11-22 23:31 G	22082194.29	22082194.48	22082194.66	0.0521	0.0212
Mercury	55750-10-15 08:24 G	22083616.73	22083616.85	22083616.98	0.0528	0.0129
Venus	55752-10-01 14:24 G	22084333.92	22084334.10	22084334.29	0.0503	0.0215
Mercury	55757-02-27 00:29 G	22085943.37	22085943.52	22085943.67	0.0501	0.0299
Venus	55758-07-28 18:58 G	22086460.24	22086460.29	22086460.35	0.0518	0.0498
Mercury	55762-08-03 12:43 G	22087926.92	22087927.03	22087927.14	0.0529	0.0293
Mercury	55762-10-31 18:58 G	22088016.20	22088016.29	22088016.38	0.0526	0.0371
Venus	55764-06-06 13:12 G	22088599.85	22088600.05	22088600.25	0.0505	0.0052
Mercury	55768-12-15 22:19 G	22090253.25	22090253.43	22090253.61	0.0500	0.0095

Moon	55769-09-12 15:07 G	22090523.96	22090524.13	22090524.31	0.0509	0.0348
Earth	55769-09-12 16:05 G	22090524.00	22090524.17	22090524.33	0.0509	0.0354 *
Venus	55770-11-25 23:31 G	22090963.31	22090963.48	22090963.65	0.0524	0.0273
Mercury	55774-05-22 16:34 G	22092237.13	22092237.19	22092237.25	0.0529	0.0463
Mercury	55774-08-19 23:02 G	22092326.34	22092326.46	22092326.58	0.0526	0.0208
Moon	55775-03-09 03:22 G	22092527.59	22092527.64	22092527.70	0.0519	0.0504
Venus	55776-02-10 11:31 G	22092865.82	22092865.98	22092866.13	0.0507	0.0325
Mercury	55780-10-03 20:10 G	22094563.16	22094563.34	22094563.52	0.0499	0.0105
Moon	55781-09-17 07:26 G	22094911.58	22094911.81	22094912.03	0.0511	0.0045
Earth	55781-09-17 08:38 G	22094911.63	22094911.86	22094912.09	0.0511	0.0074 *
Venus	55782-07-31 17:17 G	22095229.01	22095229.22	22095229.42	0.0522	0.0028
Mercury	55786-06-08 02:38 G	22096636.48	22096636.61	22096636.74	0.0527	0.0035
Earth	55787-03-14 01:12 G	22096915.34	22096915.55	22096915.76	0.0518	0.0243
Moon	55787-03-14 03:22 G	22096915.44	22096915.64	22096915.85	0.0518	0.0225 *
Venus	55788-06-09 00:43 G	22097368.39	22097368.53	22097368.67	0.0502	0.0365
Mercury	55792-07-22 17:46 G	22098873.10	22098873.24	22098873.38	0.0499	0.0309
Earth	55793-09-21 23:31 G	22099299.27	22099299.48	22099299.69	0.0512	0.0207
Moon	55793-09-22 02:38 G	22099299.40	22099299.61	22099299.83	0.0512	0.0200 *
Venus	55794-04-05 10:48 G	22099494.80	22099494.95	22099495.11	0.0519	0.0323
Mercury	55798-03-27 06:58 G	22100946.66	22100946.79	22100946.91	0.0528	0.0131
Moon	55799-03-18 22:34 G	22101303.20	22101303.44	22101303.68	0.0516	0.0032
Earth	55799-03-18 23:02 G	22101303.23	22101303.46	22101303.69	0.0516	0.0056 *
Venus	55800-02-13 00:58 G	22101634.34	22101634.54	22101634.74	0.0504	0.0103
Mercury	55804-08-09 22:34 G	22103273.29	22103273.44	22103273.59	0.0500	0.0300
Moon	55805-09-27 07:41 G	22103686.71	22103686.82	22103686.94	0.0514	0.0446
Earth	55805-09-27 11:46 G	22103686.91	22103686.99	22103687.07	0.0514	0.0481 *
Venus	55806-08-04 12:29 G	22103997.92	22103998.02	22103998.13	0.0526	0.0441
Mercury	55810-01-14 11:17 G	22105256.87	22105256.97	22105257.08	0.0529	0.0290
Mercury	55810-04-13 17:31 G	22105346.15	22105346.23	22105346.32	0.0526	0.0376
Moon	55811-03-24 19:41 G	22105691.16	22105691.32	22105691.49	0.0514	0.0340

Earth	55811-03-24 21:50 G	22105691.24	22105691.41	22105691.58	0.0514	0.0354	*
Venus	55811-10-20 01:12 G	22105900.36	22105900.55	22105900.75	0.0506	0.0160	
Mercury	55816-05-28 20:10 G	22107583.16	22107583.34	22107583.52	0.0500	0.0095	
Venus	55818-04-09 06:43 G	22108263.58	22108263.78	22108263.97	0.0524	0.0143	
Mercury	55821-11-02 15:36 G	22109567.08	22109567.15	22109567.21	0.0529	0.0455	
Mercury	55822-01-30 22:05 G	22109656.30	22109656.42	22109656.53	0.0527	0.0217	
Venus	55823-06-24 23:17 G	22110166.36	22110166.47	22110166.57	0.0508	0.0432	
Mercury	55828-03-16 18:00 G	22111893.08	22111893.25	22111893.43	0.0499	0.0106	
Venus	55829-12-13 01:41 G	22112529.38	22112529.57	22112529.77	0.0521	0.0150	
Mercury	55833-11-19 02:10 G	22113966.46	22113966.59	22113966.72	0.0527	0.0054	
Venus	55835-10-22 13:55 G	22114668.91	22114669.08	22114669.26	0.0503	0.0265	
Mercury	55840-01-03 16:05 G	22116203.03	22116203.17	22116203.32	0.0499	0.0302	
Venus	55841-08-17 21:07 G	22116795.27	22116795.38	22116795.49	0.0518	0.0437	
Mercury	55845-09-07 05:46 G	22118276.62	22118276.74	22118276.87	0.0528	0.0122	
Venus	55847-06-27 12:14 G	22118934.81	22118935.01	22118935.22	0.0505	0.0010	
Mercury	55852-01-20 22:19 G	22120603.30	22120603.43	22120603.57	0.0501	0.0329	
Moon	55852-09-12 23:02 G	22120839.31	22120839.46	22120839.61	0.0508	0.0378	
Earth	55852-09-13 00:00 G	22120839.35	22120839.50	22120839.65	0.0508	0.0388	*
Venus	55853-12-15 23:46 G	22121298.33	22121298.49	22121298.65	0.0524	0.0326	
Mars	55855-11-25 14:38 G	22122008.07	22122008.11	22122008.16	0.0538	0.0532	
Mercury	55857-06-26 09:50 G	22122586.81	22122586.91	22122587.02	0.0529	0.0288	
Mercury	55857-09-23 16:05 G	22122676.09	22122676.17	22122676.26	0.0526	0.0378	
Venus	55859-03-02 11:46 G	22123200.82	22123200.99	22123201.16	0.0507	0.0272	
Mercury	55863-11-08 18:29 G	22124913.09	22124913.27	22124913.45	0.0500	0.0101	
Earth	55864-09-17 10:19 G	22125226.71	22125226.93	22125227.16	0.0510	0.0125	
Moon	55864-09-17 13:26 G	22125226.82	22125227.06	22125227.29	0.0510	0.0097	*
Venus	55865-08-20 14:38 G	22125563.91	22125564.11	22125564.32	0.0522	0.0018	
Mercury	55869-04-14 14:10 G	22126897.03	22126897.09	22126897.16	0.0530	0.0450	
Mercury	55869-07-12 20:53 G	22126986.25	22126986.37	22126986.48	0.0527	0.0224	
Moon	55870-03-14 11:17 G	22127230.76	22127230.97	22127231.18	0.0518	0.0258	

Earth	55870-03-14 12:00 G	22127230.81	22127231.00	22127231.20	0.0518	0.0273	*
Venus	55871-06-30 03:22 G	22127703.54	22127703.64	22127703.75	0.0502	0.0423	
Mercury	55875-08-27 16:19 G	22129223.00	22129223.18	22129223.36	0.0499	0.0101	
Moon	55876-09-21 23:31 G	22129614.26	22129614.48	22129614.70	0.0512	0.0150	
Earth	55876-09-22 03:22 G	22129614.42	22129614.64	22129614.86	0.0512	0.0162	*
Venus	55877-04-25 09:50 G	22129829.74	22129829.91	22129830.08	0.0520	0.0273	
Mercury	55881-05-01 01:12 G	22131296.42	22131296.55	22131296.68	0.0527	0.0065	
Moon	55882-03-19 08:10 G	22131618.61	22131618.84	22131619.06	0.0516	0.0005	
Earth	55882-03-19 09:50 G	22131618.67	22131618.91	22131619.14	0.0516	0.0027	*
Venus	55883-03-05 03:07 G	22131969.44	22131969.63	22131969.83	0.0504	0.0163	
Mercury	55887-06-15 14:24 G	22133532.96	22133533.10	22133533.24	0.0499	0.0299	
Earth	55888-09-26 22:19 G	22134002.32	22134002.43	22134002.54	0.0514	0.0453	
Moon	55888-09-27 02:10 G	22134002.46	22134002.59	22134002.72	0.0514	0.0421	*
Venus	55889-08-23 16:05 G	22134333.12	22134333.17	22134333.23	0.0526	0.0506	
Mercury	55893-02-17 05:17 G	22135606.60	22135606.72	22135606.85	0.0528	0.0101	
Earth	55894-03-24 05:31 G	22136006.55	22136006.73	22136006.91	0.0514	0.0320	
Moon	55894-03-24 09:07 G	22136006.69	22136006.88	22136007.07	0.0514	0.0313	*
Venus	55894-11-08 01:55 G	22136235.38	22136235.58	22136235.78	0.0506	0.0105	
Mercury	55899-04-03 12:29 G	22137843.01	22137843.02	22137843.06	0.0498	0.0493	
Mercury	55899-07-02 20:53 G	22137933.24	22137933.37	22137933.51	0.0501	0.0341	
Venus	55901-04-29 09:36 G	22138598.72	22138598.90	22138599.09	0.0524	0.0207	
Mercury	55904-12-07 09:07 G	22139916.77	22139916.88	22139916.99	0.0529	0.0275	
Mercury	55905-03-06 15:22 G	22140006.05	22140006.14	22140006.22	0.0526	0.0389	
Venus	55906-07-14 23:02 G	22140501.33	22140501.46	22140501.60	0.0508	0.0381	
Mercury	55911-04-21 18:29 G	22142243.10	22142243.27	22142243.45	0.0500	0.0132	
Venus	55913-01-02 03:07 G	22142864.43	22142864.63	22142864.83	0.0521	0.0092	
Mercury	55916-09-25 12:58 G	22144226.98	22144227.04	22144227.11	0.0530	0.0443	
Mercury	55916-12-23 19:41 G	22144316.20	22144316.32	22144316.43	0.0527	0.0230	
Venus	55918-11-11 15:07 G	22145003.98	22145004.13	22145004.29	0.0503	0.0317	
Mercury	55923-02-07 14:53 G	22146552.94	22146553.12	22146553.30	0.0499	0.0092	

Venus	55924-09-06 18:58 G	22147130.16	22147130.29	22147130.42	0.0519	0.0391
Mercury	55928-10-12 00:00 G	22148626.38	22148626.50	22148626.63	0.0528	0.0073
Venus	55930-07-17 16:05 G	22149269.97	22149270.17	22149270.38	0.0505	0.0059
Mercury	55934-11-26 12:43 G	22150862.89	22150863.03	22150863.18	0.0498	0.0292
Earth	55935-09-14 04:48 G	22151154.58	22151154.70	22151154.82	0.0508	0.0433
Moon	55935-09-14 07:26 G	22151154.68	22151154.81	22151154.96	0.0508	0.0413 *
Venus	55937-01-04 23:17 G	22151633.34	22151633.47	22151633.62	0.0525	0.0377
Mercury	55940-07-31 04:34 G	22152936.56	22152936.69	22152936.81	0.0528	0.0089
Venus	55942-03-22 14:53 G	22153535.94	22153536.12	22153536.31	0.0507	0.0208
Mercury	55946-09-14 10:48 G	22155172.93	22155172.95	22155173.00	0.0498	0.0487
Mercury	55946-12-13 19:12 G	22155263.17	22155263.30	22155263.44	0.0501	0.0344
Moon	55947-09-18 18:00 G	22155542.03	22155542.25	22155542.48	0.0510	0.0127
Earth	55947-09-18 22:05 G	22155542.19	22155542.42	22155542.64	0.0510	0.0152 *
Venus	55948-09-09 18:29 G	22155899.07	22155899.27	22155899.47	0.0523	0.0085
Mercury	55952-05-19 08:38 G	22157246.75	22157246.86	22157246.97	0.0529	0.0253
Mercury	55952-08-16 14:53 G	22157336.04	22157336.12	22157336.20	0.0526	0.0411
Moon	55953-03-14 19:41 G	22157546.14	22157546.32	22157546.51	0.0518	0.0304
Earth	55953-03-14 21:07 G	22157546.19	22157546.38	22157546.57	0.0518	0.0306 *
Venus	55953-11-25 12:43 G	22157801.97	22157802.03	22157802.10	0.0509	0.0479
Venus	55954-07-20 04:34 G	22158038.63	22158038.69	22158038.75	0.0501	0.0475
Mercury	55958-10-01 17:17 G	22159573.04	22159573.22	22159573.39	0.0500	0.0144
Earth	55959-09-23 15:22 G	22159929.92	22159930.14	22159930.37	0.0512	0.0138
Moon	55959-09-23 19:26 G	22159930.09	22159930.31	22159930.54	0.0512	0.0122 *
Venus	55960-05-15 13:26 G	22160164.88	22160165.06	22160165.25	0.0520	0.0207
Mercury	55964-03-07 12:14 G	22161556.94	22161557.01	22161557.08	0.0529	0.0429
Mercury	55964-06-04 18:43 G	22161646.17	22161646.28	22161646.39	0.0527	0.0242
Earth	55965-03-19 15:36 G	22161933.92	22161934.15	22161934.39	0.0517	0.0014
Moon	55965-03-19 18:58 G	22161934.06	22161934.29	22161934.53	0.0517	0.0045 *
Venus	55966-03-25 03:36 G	22162304.47	22162304.65	22162304.84	0.0504	0.0214
Mercury	55970-07-20 14:53 G	22163882.94	22163883.12	22163883.30	0.0499	0.0061

Moon	55971-09-28 04:34 G	22164317.55	22164317.69	22164317.85	0.0514	0.0391
Earth	55971-09-28 07:55 G	22164317.70	22164317.83	22164317.96	0.0514	0.0423 *
Venus	55972-01-19 08:24 G	22164430.79	22164430.85	22164430.91	0.0518	0.0493
Mercury	55976-03-23 23:02 G	22165956.33	22165956.46	22165956.58	0.0528	0.0082
Moon	55977-03-24 09:07 G	22166321.68	22166321.88	22166322.07	0.0515	0.0278
Earth	55977-03-24 13:12 G	22166321.85	22166322.05	22166322.24	0.0515	0.0287 *
Venus	55977-11-28 03:36 G	22166570.44	22166570.65	22166570.85	0.0506	0.0050
Mercury	55982-05-08 11:31 G	22168192.83	22168192.98	22168193.13	0.0498	0.0280
Venus	55984-05-18 07:55 G	22168933.65	22168933.83	22168934.01	0.0524	0.0253
Mercury	55988-01-11 03:22 G	22170266.51	22170266.64	22170266.76	0.0529	0.0083
Venus	55989-08-03 03:22 G	22170836.48	22170836.64	22170836.80	0.0508	0.0313
Mars	55992-03-10 07:26 G	22171786.56	22171786.81	22171787.07	0.0488	0.0088
Mercury	55994-02-24 09:36 G	22172502.85	22172502.90	22172502.95	0.0498	0.0476
Mercury	55994-05-25 17:46 G	22172593.11	22172593.24	22172593.37	0.0500	0.0353
Venus	55996-01-22 02:24 G	22173199.40	22173199.60	22173199.80	0.0522	0.0041
Mercury	55999-10-30 07:41 G	22174576.70	22174576.82	22174576.93	0.0529	0.0243
Mercury	56000-01-27 13:55 G	22174666.01	22174666.08	22174666.15	0.0526	0.0422

57TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 57th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	56001-11-30 18:00 G		22175339.13	22175339.25	22175339.39	0.0502	0.0378	
Mercury	56006-03-13 15:36 G		22176902.97	22176903.15	22176903.32	0.0500	0.0149	

Venus	56007-09-26 22:34 G	22177465.28	22177465.44	22177465.60	0.0519	0.0324
Mercury	56011-08-18 11:46 G	22178886.91	22178886.99	22178887.07	0.0530	0.0408
Mercury	56011-11-15 18:14 G	22178976.15	22178976.26	22178976.37	0.0527	0.0264
Venus	56013-08-05 17:46 G	22179605.04	22179605.24	22179605.44	0.0504	0.0116
Mercury	56017-12-30 13:41 G	22181212.89	22181213.07	22181213.25	0.0499	0.0050
Moon	56018-09-13 13:26 G	22181469.95	22181470.06	22181470.19	0.0507	0.0434
Earth	56018-09-13 17:31 G	22181470.13	22181470.23	22181470.33	0.0507	0.0458 *
Venus	56020-01-25 03:22 G	22181968.54	22181968.64	22181968.75	0.0525	0.0443
Mercury	56023-09-03 22:05 G	22183286.30	22183286.42	22183286.55	0.0527	0.0094
Venus	56025-04-10 15:36 G	22183870.95	22183871.15	22183871.34	0.0507	0.0154
Mercury	56029-10-18 11:31 G	22185522.82	22185522.98	22185523.14	0.0499	0.0251
Earth	56030-09-18 08:24 G	22185857.63	22185857.85	22185858.07	0.0509	0.0181
Moon	56030-09-18 12:14 G	22185857.79	22185858.01	22185858.23	0.0509	0.0156 *
Venus	56031-09-29 20:38 G	22186234.16	22186234.36	22186234.56	0.0523	0.0145
Mercury	56035-06-23 02:10 G	22187596.47	22187596.59	22187596.72	0.0528	0.0073
Earth	56036-03-14 03:36 G	22187861.48	22187861.65	22187861.82	0.0519	0.0346
Moon	56036-03-14 06:43 G	22187861.61	22187861.78	22187861.96	0.0519	0.0351 *
Venus	56036-12-14 14:10 G	22188136.98	22188137.09	22188137.21	0.0509	0.0423
Mercury	56041-08-06 08:24 G	22189832.79	22189832.85	22189832.92	0.0497	0.0464
Mercury	56041-11-04 16:34 G	22189923.07	22189923.19	22189923.32	0.0500	0.0365
Moon	56042-09-22 16:05 G	22190244.94	22190245.17	22190245.41	0.0511	0.0074
Earth	56042-09-22 19:41 G	22190245.09	22190245.32	22190245.55	0.0511	0.0089 *
Venus	56043-06-04 11:31 G	22190499.79	22190499.98	22190500.18	0.0520	0.0159
Mercury	56047-04-11 06:14 G	22191906.65	22191906.76	22191906.88	0.0530	0.0239
Mercury	56047-07-09 12:43 G	22191995.96	22191996.03	22191996.10	0.0527	0.0428
Moon	56048-03-18 22:48 G	22192249.22	22192249.45	22192249.68	0.0518	0.0077
Earth	56048-03-19 02:53 G	22192249.38	22192249.62	22192249.85	0.0518	0.0042 *
Venus	56049-04-13 07:26 G	22192639.64	22192639.81	22192639.98	0.0503	0.0277
Mercury	56053-08-23 14:10 G	22194232.92	22194233.09	22194233.27	0.0499	0.0159
Earth	56054-09-27 12:14 G	22194632.85	22194633.01	22194633.17	0.0513	0.0377

Moon	56054-09-27 13:55 G	22194632.91	22194633.08	22194633.24	0.0513	0.0352 *
Venus	56055-02-07 07:12 G	22194765.70	22194765.80	22194765.90	0.0518	0.0442
Mercury	56059-01-28 10:34 G	22196216.86	22196216.94	22196217.03	0.0530	0.0402
Mercury	56059-04-27 17:17 G	22196306.11	22196306.22	22196306.33	0.0527	0.0273
Earth	56060-03-24 00:14 G	22196637.31	22196637.51	22196637.72	0.0515	0.0258
Moon	56060-03-24 04:05 G	22196637.48	22196637.67	22196637.88	0.0515	0.0257 *
Venus	56060-12-17 06:43 G	22196905.57	22196905.78	22196905.98	0.0505	0.0018
Mercury	56065-06-11 12:00 G	22198542.82	22198543.00	22198543.18	0.0499	0.0045
Venus	56067-06-07 11:31 G	22199268.82	22199268.98	22199269.14	0.0524	0.0320
Mercury	56071-02-13 21:36 G	22200616.27	22200616.40	22200616.52	0.0528	0.0113
Venus	56072-08-22 05:02 G	22201171.54	22201171.71	22201171.89	0.0508	0.0254
Mercury	56077-03-30 10:05 G	22202852.76	22202852.92	22202853.08	0.0498	0.0242
Venus	56079-02-10 06:14 G	22203534.56	22203534.76	22203534.97	0.0522	0.0028
Mercury	56082-12-03 01:12 G	22204926.43	22204926.55	22204926.68	0.0528	0.0062
Venus	56084-12-19 18:29 G	22205674.17	22205674.27	22205674.38	0.0502	0.0427
Mercury	56089-01-16 07:55 G	22207162.75	22207162.83	22207162.92	0.0498	0.0440
Mercury	56089-04-16 16:05 G	22207253.07	22207253.17	22207253.29	0.0500	0.0393
Venus	56090-10-16 00:29 G	22207800.35	22207800.52	22207800.70	0.0519	0.0264
Mercury	56094-09-21 05:17 G	22209236.61	22209236.72	22209236.84	0.0529	0.0228
Mercury	56094-12-19 11:31 G	22209325.91	22209325.98	22209326.05	0.0526	0.0437
Venus	56096-08-24 18:43 G	22209940.09	22209940.28	22209940.48	0.0504	0.0171
Mercury	56101-02-03 12:58 G	22211562.87	22211563.04	22211563.21	0.0499	0.0170
Earth	56101-09-13 22:19 G	22211785.42	22211785.43	22211785.45	0.0506	0.0505
Moon	56101-09-14 02:24 G	22211785.53	22211785.60	22211785.68	0.0506	0.0474
Venus	56103-02-14 01:12 G	22212303.48	22212303.55	22212303.63	0.0525	0.0488
Mercury	56106-07-11 09:07 G	22213546.80	22213546.88	22213546.97	0.0530	0.0401
Mercury	56106-10-08 15:50 G	22213636.05	22213636.16	22213636.27	0.0528	0.0275
Venus	56108-04-30 18:43 G	22214206.08	22214206.28	22214206.48	0.0507	0.0091
Mercury	56112-11-22 10:34 G	22215872.76	22215872.94	22215873.12	0.0498	0.0035
Moon	56113-09-18 09:36 G	22216172.68	22216172.90	22216173.11	0.0508	0.0204

Earth	56113-09-18 12:58 G	22216172.84	22216173.04	22216173.25	0.0508	0.0228	*
Venus	56114-10-19 18:58 G	22216569.10	22216569.29	22216569.48	0.0523	0.0193	
Mercury	56118-07-27 20:10 G	22217946.22	22217946.34	22217946.47	0.0528	0.0117	
Moon	56119-03-15 09:07 G	22218176.73	22218176.88	22218177.03	0.0520	0.0394	
Earth	56119-03-15 12:58 G	22218176.89	22218177.04	22218177.20	0.0520	0.0383	*
Venus	56120-01-04 16:48 G	22218472.06	22218472.20	22218472.35	0.0509	0.0359	
Mercury	56124-09-10 08:10 G	22220182.69	22220182.84	22220183.01	0.0498	0.0238	
Earth	56125-09-23 05:17 G	22220560.49	22220560.72	22220560.95	0.0511	0.0057	
Moon	56125-09-23 07:12 G	22220560.57	22220560.80	22220561.02	0.0511	0.0037	*
Venus	56126-06-24 14:24 G	22220834.90	22220835.10	22220835.30	0.0521	0.0095	
Mars	56128-08-09 05:17 G	22221611.42	22221611.72	22221612.01	0.0539	0.0050	
Mercury	56130-05-16 00:29 G	22222256.39	22222256.52	22222256.65	0.0529	0.0045	
Earth	56131-03-20 11:02 G	22222564.73	22222564.96	22222565.19	0.0518	0.0077	
Moon	56131-03-20 14:53 G	22222564.90	22222565.12	22222565.35	0.0518	0.0110	*
Venus	56132-05-03 08:10 G	22222974.69	22222974.84	22222975.00	0.0503	0.0330	
Mercury	56136-06-29 06:29 G	22224492.68	22224492.77	22224492.86	0.0498	0.0433	
Mercury	56136-09-27 14:38 G	22224583.00	22224583.11	22224583.22	0.0500	0.0398	
Earth	56137-09-27 23:02 G	22224948.29	22224948.46	22224948.63	0.0513	0.0349	
Moon	56137-09-27 23:31 G	22224948.30	22224948.48	22224948.67	0.0513	0.0329	*
Venus	56138-02-27 10:05 G	22225100.79	22225100.92	22225101.06	0.0518	0.0379	
Mercury	56142-03-04 04:19 G	22226566.56	22226566.68	22226566.80	0.0529	0.0219	
Mercury	56142-06-01 10:34 G	22226655.87	22226655.94	22226656.01	0.0526	0.0446	
Moon	56143-03-25 02:38 G	22226952.39	22226952.61	22226952.83	0.0516	0.0216	
Earth	56143-03-25 05:31 G	22226952.52	22226952.73	22226952.95	0.0516	0.0217	*
Venus	56144-01-07 06:14 G	22227240.56	22227240.76	22227240.97	0.0505	0.0066	
Mars	56146-06-05 15:07 G	22228120.93	22228121.13	22228121.34	0.0488	0.0301	
Mercury	56148-07-16 12:14 G	22228892.84	22228893.01	22228893.18	0.0500	0.0192	
Venus	56150-06-27 12:58 G	22229603.90	22229604.04	22229604.18	0.0524	0.0377	
Mercury	56153-12-21 08:10 G	22230876.75	22230876.84	22230876.93	0.0530	0.0390	
Mercury	56154-03-20 14:38 G	22230966.01	22230966.11	22230966.22	0.0527	0.0283	

Earth	56155-03-30 01:41 G	22231340.55	22231340.57	22231340.59	0.0514	0.0511
Venus	56155-09-12 05:17 G	22231506.53	22231506.72	22231506.91	0.0508	0.0202
Mercury	56160-05-04 09:07 G	22233202.70	22233202.88	22233203.07	0.0498	0.0027
Venus	56162-03-02 03:36 G	22233869.45	22233869.65	22233869.86	0.0522	0.0073
Mercury	56166-01-06 18:43 G	22235276.15	22235276.28	22235276.40	0.0528	0.0115
Venus	56167-05-18 03:22 G	22235772.56	22235772.64	22235772.72	0.0510	0.0469
Venus	56168-01-09 20:38 G	22236009.31	22236009.36	22236009.41	0.0502	0.0483
Mercury	56172-02-21 06:58 G	22237512.63	22237512.79	22237512.95	0.0498	0.0228
Venus	56173-11-04 22:05 G	22238135.24	22238135.42	22238135.61	0.0519	0.0217
Mercury	56177-10-25 23:02 G	22239586.33	22239586.46	22239586.59	0.0529	0.0046
Venus	56179-09-14 19:55 G	22240275.15	22240275.33	22240275.52	0.0504	0.0226
Mercury	56183-12-10 04:34 G	22241822.60	22241822.69	22241822.78	0.0497	0.0431
Mercury	56184-03-09 12:29 G	22241912.92	22241913.02	22241913.14	0.0500	0.0398
Venus	56185-07-10 18:14 G	22242401.21	22242401.26	22242401.32	0.0517	0.0495
Mercury	56189-08-14 03:07 G	22243896.52	22243896.63	22243896.75	0.0529	0.0210
Mercury	56189-11-11 09:36 G	22243985.84	22243985.90	22243985.96	0.0526	0.0456
Venus	56191-05-20 18:58 G	22244541.08	22244541.29	22244541.49	0.0506	0.0038
Mercury	56195-12-27 10:19 G	22246222.76	22246222.93	22246223.10	0.0499	0.0194
Earth	56196-09-17 22:05 G	22246488.22	22246488.42	22246488.62	0.0508	0.0261
Moon	56196-09-18 00:00 G	22246488.30	22246488.50	22246488.70	0.0508	0.0246 *
Venus	56197-11-07 21:22 G	22246904.21	22246904.39	22246904.57	0.0523	0.0253
Mercury	56201-06-03 06:58 G	22248206.70	22248206.79	22248206.88	0.0530	0.0385
Mercury	56201-08-31 13:26 G	22248295.96	22248296.06	22248296.17	0.0527	0.0288
Earth	56202-03-15 16:34 G	22248492.06	22248492.19	22248492.32	0.0520	0.0431
Moon	56202-03-15 20:38 G	22248492.24	22248492.36	22248492.48	0.0520	0.0442 *
Venus	56203-01-24 15:50 G	22248807.00	22248807.16	22248807.32	0.0509	0.0311
Mercury	56207-10-16 07:55 G	22250532.65	22250532.83	22250533.02	0.0499	0.0015
Earth	56208-09-23 13:26 G	22250875.83	22250876.06	22250876.29	0.0510	0.0022
Moon	56208-09-23 13:41 G	22250875.83	22250876.07	22250876.31	0.0510	0.0005 *
Venus	56209-07-14 15:07 G	22251169.93	22251170.13	22251170.33	0.0521	0.0039

Mercury	56213-06-19 17:31 G	22252606.10	22252606.23	22252606.35	0.0528	0.0122
Moon	56214-03-20 10:19 G	22252879.71	22252879.93	22252880.16	0.0518	0.0159
Earth	56214-03-20 13:41 G	22252879.85	22252880.07	22252880.30	0.0518	0.0127 *
Venus	56215-05-24 07:12 G	22253309.67	22253309.80	22253309.94	0.0503	0.0376
Mercury	56219-08-04 05:17 G	22254842.56	22254842.72	22254842.88	0.0498	0.0221
Moon	56220-09-27 23:31 G	22255263.29	22255263.48	22255263.67	0.0511	0.0279
Earth	56220-09-28 01:26 G	22255263.38	22255263.56	22255263.75	0.0511	0.0296 *
Venus	56221-03-19 07:12 G	22255435.65	22255435.80	22255435.96	0.0518	0.0333
Mercury	56225-04-07 21:22 G	22256916.26	22256916.39	22256916.51	0.0529	0.0056
Earth	56226-03-25 10:05 G	22257267.70	22257267.92	22257268.15	0.0517	0.0172
Moon	56226-03-25 11:17 G	22257267.76	22257267.97	22257268.18	0.0517	0.0183 *
Venus	56227-01-27 06:58 G	22257575.59	22257575.79	22257575.99	0.0506	0.0119
Mercury	56231-05-23 02:53 G	22259152.53	22259152.62	22259152.72	0.0497	0.0423
Mercury	56231-08-21 10:48 G	22259242.85	22259242.95	22259243.06	0.0499	0.0405
Venus	56233-07-17 09:36 G	22259938.78	22259938.90	22259939.03	0.0524	0.0418
Mercury	56237-01-25 01:26 G	22261226.44	22261226.56	22261226.68	0.0530	0.0216
Mercury	56237-04-24 07:41 G	22261315.76	22261315.82	22261315.89	0.0527	0.0452
Earth	56238-03-30 06:43 G	22261655.70	22261655.78	22261655.89	0.0514	0.0470
Moon	56238-03-30 07:55 G	22261655.78	22261655.83	22261655.90	0.0514	0.0498 *
Venus	56238-10-02 05:02 G	22261841.52	22261841.71	22261841.91	0.0508	0.0149
Mercury	56243-06-09 07:55 G	22263552.67	22263552.83	22263553.00	0.0499	0.0191
Venus	56245-03-22 04:05 G	22264204.47	22264204.67	22264204.86	0.0522	0.0127
Mercury	56248-11-13 05:31 G	22265536.65	22265536.73	22265536.82	0.0530	0.0381
Mercury	56249-02-10 12:14 G	22265625.90	22265626.01	22265626.12	0.0527	0.0294
Venus	56250-06-07 02:53 G	22266107.51	22266107.62	22266107.74	0.0510	0.0417
Mercury	56255-03-28 05:46 G	22267862.56	22267862.74	22267862.92	0.0499	0.0013
Venus	56256-11-24 23:02 G	22268470.27	22268470.46	22268470.65	0.0520	0.0161
Mercury	56260-11-29 16:05 G	22269936.05	22269936.17	22269936.30	0.0528	0.0125
Venus	56262-10-04 17:46 G	22270610.08	22270610.24	22270610.42	0.0504	0.0269
Mars	56264-11-27 05:02 G	22271394.53	22271394.71	22271394.89	0.0488	0.0348

Mercury	56267-01-14 03:36 G	22272172.49	22272172.65	22272172.82	0.0498	0.0215
Venus	56268-07-30 18:14 G	22272736.16	22272736.26	22272736.36	0.0517	0.0443
Mercury	56272-09-17 19:55 G	22274246.21	22274246.33	22274246.46	0.0529	0.0049
Venus	56274-06-09 16:34 G	22274875.99	22274876.19	22274876.40	0.0506	0.0011
Mercury	56278-11-02 01:12 G	22276482.46	22276482.55	22276482.65	0.0497	0.0419
Mercury	56279-01-31 09:07 G	22276572.78	22276572.88	22276572.99	0.0499	0.0408
Moon	56279-09-19 00:58 G	22276803.35	22276803.54	22276803.74	0.0507	0.0303
Earth	56279-09-19 00:58 G	22276803.37	22276803.54	22276803.73	0.0507	0.0312 *
Venus	56280-11-27 17:17 G	22277239.06	22277239.22	22277239.39	0.0523	0.0294
Mars	56282-11-03 15:22 G	22277944.93	22277945.14	22277945.35	0.0539	0.0377
Mercury	56284-07-06 23:31 G	22278556.36	22278556.48	22278556.60	0.0530	0.0226
Mercury	56284-10-04 06:00 G	22278645.68	22278645.75	22278645.82	0.0527	0.0443
Moon	56285-03-14 13:12 G	22278807.00	22278807.05	22278807.12	0.0522	0.0502
Earth	56285-03-14 16:48 G	22278807.14	22278807.20	22278807.29	0.0522	0.0492
Venus	56286-02-12 14:38 G	22279141.93	22279142.11	22279142.28	0.0509	0.0262
Mercury	56290-11-19 06:14 G	22280882.60	22280882.76	22280882.93	0.0499	0.0196
Moon	56291-09-23 12:43 G	22281190.81	22281191.03	22281191.26	0.0509	0.0066
Earth	56291-09-23 14:38 G	22281190.88	22281191.11	22281191.34	0.0509	0.0034 *
Venus	56292-08-02 11:02 G	22281504.76	22281504.96	22281505.16	0.0520	0.0004
Mercury	56296-04-25 03:36 G	22282866.57	22282866.65	22282866.74	0.0531	0.0393
Mercury	56296-07-23 10:19 G	22282955.82	22282955.93	22282956.04	0.0528	0.0284
Earth	56297-03-19 15:50 G	22283194.94	22283195.16	22283195.38	0.0519	0.0180
Moon	56297-03-19 17:31 G	22283195.02	22283195.23	22283195.44	0.0519	0.0207 *
Venus	56298-06-12 05:46 G	22283644.63	22283644.74	22283644.85	0.0503	0.0421
Mercury	56302-09-08 03:22 G	22285192.46	22285192.64	22285192.82	0.0498	0.0020
Earth	56303-09-29 04:48 G	22285578.50	22285578.70	22285578.91	0.0511	0.0250
Moon	56303-09-29 07:55 G	22285578.63	22285578.83	22285579.05	0.0511	0.0234 *
Venus	56304-04-08 05:46 G	22285770.57	22285770.74	22285770.91	0.0518	0.0285
Mercury	56308-05-12 14:38 G	22287265.99	22287266.11	22287266.24	0.0528	0.0125
Earth	56309-03-25 13:55 G	22287582.85	22287583.08	22287583.31	0.0517	0.0125

Moon	56309-03-25 14:24 G	22287582.87	22287583.10	22287583.34	0.0517	0.0143 *
Venus	56310-02-16 05:02 G	22287910.52	22287910.71	22287910.91	0.0505	0.0164
Mercury	56314-06-27 01:12 G	22289502.38	22289502.55	22289502.71	0.0498	0.0221
Venus	56316-08-06 09:50 G	22290273.83	22290273.91	22290274.00	0.0525	0.0470
Mercury	56320-02-29 18:29 G	22291576.14	22291576.27	22291576.40	0.0529	0.0047
Moon	56321-03-30 05:46 G	22291970.63	22291970.74	22291970.85	0.0515	0.0450
Earth	56321-03-30 07:55 G	22291970.70	22291970.83	22291970.97	0.0515	0.0418 *
Venus	56321-10-22 02:10 G	22292176.40	22292176.59	22292176.80	0.0507	0.0107
Mercury	56326-04-14 23:02 G	22293812.37	22293812.46	22293812.56	0.0497	0.0420
Mercury	56326-07-14 06:58 G	22293902.69	22293902.79	22293902.90	0.0500	0.0409
Venus	56328-04-11 03:07 G	22294539.44	22294539.63	22294539.82	0.0522	0.0176
Mercury	56331-12-18 22:19 G	22295886.31	22295886.43	22295886.54	0.0530	0.0221
Mercury	56332-03-17 04:34 G	22295975.63	22295975.69	22295975.76	0.0527	0.0447
Venus	56333-06-26 23:31 G	22296442.34	22296442.48	22296442.62	0.0510	0.0376
Mercury	56338-05-02 04:19 G	22298212.51	22298212.68	22298212.85	0.0499	0.0196
Venus	56339-12-15 18:58 G	22298805.10	22298805.29	22298805.49	0.0519	0.0120
Mercury	56343-10-07 01:26 G	22300196.48	22300196.56	22300196.65	0.0531	0.0405
Mercury	56344-01-04 08:10 G	22300285.74	22300285.84	22300285.95	0.0528	0.0273
Venus	56345-10-24 15:22 G	22300944.99	22300945.14	22300945.31	0.0504	0.0312
Mercury	56350-02-18 01:26 G	22302522.38	22302522.56	22302522.75	0.0498	0.0018
Venus	56351-08-20 13:41 G	22303070.94	22303071.07	22303071.19	0.0517	0.0403
Mercury	56355-10-23 12:29 G	22304595.89	22304596.02	22304596.14	0.0529	0.0110
Venus	56357-06-29 13:55 G	22305210.88	22305211.08	22305211.28	0.0506	0.0049
Mercury	56361-12-06 22:19 G	22306832.27	22306832.43	22306832.60	0.0498	0.0230
Moon	56362-09-19 00:43 G	22307118.38	22307118.53	22307118.69	0.0507	0.0363
Earth	56362-09-19 02:24 G	22307118.44	22307118.60	22307118.76	0.0507	0.0364 *
Venus	56363-12-18 15:07 G	22307573.98	22307574.13	22307574.28	0.0523	0.0338
Mercury	56367-08-11 16:48 G	22308906.07	22308906.20	22308906.33	0.0529	0.0051
Venus	56369-03-04 12:14 G	22309476.83	22309477.01	22309477.20	0.0509	0.0217
Mercury	56373-09-24 20:10 G	22311142.26	22311142.34	22311142.44	0.0497	0.0429

Mercury	56373-12-24 04:05 G	22311232.57	22311232.67	22311232.78	0.0500	0.0399
Earth	56374-09-23 17:31 G	22311506.00	22311506.23	22311506.46	0.0509	0.0082
Moon	56374-09-23 20:24 G	22311506.12	22311506.35	22311506.59	0.0509	0.0114 *
Venus	56375-08-23 09:50 G	22311839.70	22311839.91	22311840.11	0.0521	0.0050
Mercury	56379-05-30 20:38 G	22313216.24	22313216.36	22313216.47	0.0530	0.0224
Mercury	56379-08-28 02:53 G	22313305.56	22313305.62	22313305.69	0.0527	0.0444
Moon	56380-03-19 15:36 G	22313509.94	22313510.15	22313510.36	0.0519	0.0261
Earth	56380-03-19 15:36 G	22313509.95	22313510.15	22313510.36	0.0519	0.0238 *
Venus	56380-11-07 08:10 G	22313742.79	22313742.84	22313742.90	0.0511	0.0491
Venus	56381-07-02 01:55 G	22313979.50	22313979.58	22313979.67	0.0503	0.0458
Mercury	56385-10-12 01:41 G	22315542.41	22315542.57	22315542.74	0.0499	0.0191
Moon	56386-09-28 05:17 G	22315893.51	22315893.72	22315893.94	0.0511	0.0189
Earth	56386-09-28 08:53 G	22315893.66	22315893.87	22315894.09	0.0511	0.0205 *
Venus	56387-04-28 04:19 G	22316105.50	22316105.68	22316105.86	0.0518	0.0236
Mercury	56391-03-19 00:14 G	22317526.43	22317526.51	22317526.59	0.0530	0.0400
Mercury	56391-06-16 06:58 G	22317615.68	22317615.79	22317615.90	0.0528	0.0276
Moon	56392-03-24 09:50 G	22317897.69	22317897.91	22317898.14	0.0518	0.0083
Earth	56392-03-24 11:31 G	22317897.75	22317897.98	22317898.22	0.0518	0.0064 *
Venus	56393-03-07 00:58 G	22318245.35	22318245.54	22318245.73	0.0505	0.0200
Mercury	56397-07-30 23:17 G	22319852.29	22319852.47	22319852.65	0.0498	0.0017
Earth	56398-10-02 22:34 G	22320281.38	22320281.44	22320281.52	0.0512	0.0485
Venus	56399-08-26 05:17 G	22320608.67	22320608.72	22320608.77	0.0524	0.0506
Mercury	56403-04-04 10:19 G	22321925.81	22321925.93	22321926.06	0.0529	0.0098
Earth	56404-03-29 05:17 G	22322285.56	22322285.72	22322285.90	0.0516	0.0358
Moon	56404-03-29 08:24 G	22322285.70	22322285.85	22322286.01	0.0516	0.0388 *
Venus	56404-11-09 22:19 G	22322511.23	22322511.43	22322511.64	0.0508	0.0067
Mercury	56409-05-18 20:38 G	22324162.20	22324162.36	22324162.53	0.0497	0.0224
Venus	56411-04-30 21:50 G	22324874.23	22324874.41	22324874.60	0.0522	0.0211
Mercury	56415-01-21 14:24 G	22326235.98	22326236.10	22326236.23	0.0529	0.0071
Venus	56416-07-15 19:55 G	22326777.18	22326777.33	22326777.48	0.0510	0.0336

Mars	56419-02-21 17:46 G	22327727.99	22327728.24	22327728.50	0.0488	0.0063
Mercury	56421-03-06 17:31 G	22328472.15	22328472.23	22328472.31	0.0497	0.0439
Mercury	56421-06-05 01:12 G	22328562.44	22328562.55	22328562.67	0.0499	0.0386
Venus	56423-01-03 15:22 G	22329139.94	22329140.14	22329140.34	0.0520	0.0080
Mercury	56426-11-09 18:43 G	22330546.17	22330546.28	22330546.40	0.0530	0.0231
Mercury	56427-02-07 01:12 G	22330635.48	22330635.55	22330635.62	0.0527	0.0439
Venus	56428-11-12 12:29 G	22331279.88	22331280.02	22331280.17	0.0504	0.0351
Mercury	56433-03-23 22:48 G	22332872.28	22332872.45	22332872.62	0.0499	0.0178
Venus	56434-09-08 11:02 G	22333405.82	22333405.96	22333406.11	0.0517	0.0360
Mercury	56438-08-28 22:34 G	22334856.36	22334856.44	22334856.52	0.0530	0.0404
Mercury	56438-11-26 05:17 G	22334945.61	22334945.72	22334945.83	0.0528	0.0272
Venus	56440-07-18 10:05 G	22335545.72	22335545.92	22335546.13	0.0506	0.0088
Mercury	56445-01-09 20:38 G	22337182.17	22337182.36	22337182.54	0.0498	0.0028
Earth	56445-09-18 06:00 G	22337433.62	22337433.75	22337433.89	0.0506	0.0410
Moon	56445-09-18 08:53 G	22337433.74	22337433.87	22337434.01	0.0506	0.0410 *
Venus	56447-01-06 13:26 G	22337908.92	22337909.06	22337909.20	0.0523	0.0384
Mercury	56450-09-14 09:07 G	22339255.75	22339255.88	22339256.01	0.0528	0.0102
Venus	56452-03-23 07:41 G	22339811.63	22339811.82	22339812.01	0.0509	0.0180
Mercury	56456-10-28 18:14 G	22341492.10	22341492.26	22341492.43	0.0497	0.0228
Moon	56457-09-22 16:05 G	22341820.96	22341821.17	22341821.39	0.0508	0.0166
Earth	56457-09-22 19:41 G	22341821.09	22341821.32	22341821.54	0.0508	0.0133 *
Venus	56458-09-11 05:46 G	22342174.54	22342174.74	22342174.94	0.0520	0.0088
Mercury	56462-07-03 12:29 G	22343565.89	22343566.02	22343566.14	0.0529	0.0081
Moon	56463-03-19 09:36 G	22343824.73	22343824.90	22343825.08	0.0521	0.0334
Earth	56463-03-19 10:48 G	22343824.76	22343824.95	22343825.14	0.0521	0.0308 *
Venus	56463-11-27 03:36 G	22344077.56	22344077.65	22344077.74	0.0511	0.0455
Venus	56464-07-20 21:50 G	22344314.38	22344314.41	22344314.45	0.0503	0.0493
Mercury	56468-08-16 15:50 G	22345802.08	22345802.16	22345802.25	0.0497	0.0432
Mercury	56468-11-14 23:31 G	22345892.37	22345892.48	22345892.59	0.0499	0.0392
Earth	56469-09-27 08:38 G	22346208.64	22346208.86	22346209.08	0.0510	0.0147

Moon	56469-09-27 12:14 G	22346208.79	22346209.01	22346209.24	0.0510	0.0139	*
Venus	56470-05-16 23:17 G	22346440.29	22346440.47	22346440.66	0.0518	0.0200	
Mercury	56474-04-21 16:19 G	22347876.07	22347876.18	22347876.30	0.0530	0.0249	
Mercury	56474-07-19 23:02 G	22347965.38	22347965.46	22347965.53	0.0527	0.0423	
Earth	56475-03-24 08:53 G	22348212.64	22348212.87	22348213.11	0.0519	0.0003	
Moon	56475-03-24 11:31 G	22348212.74	22348212.98	22348213.22	0.0519	0.0024	*
Venus	56476-03-25 20:53 G	22348580.19	22348580.37	22348580.55	0.0505	0.0236	
Mercury	56480-09-02 19:55 G	22350202.16	22350202.33	22350202.50	0.0499	0.0166	
Moon	56481-10-01 17:46 G	22350596.15	22350596.24	22350596.36	0.0512	0.0456	
Earth	56481-10-01 20:53 G	22350596.25	22350596.37	22350596.50	0.0512	0.0427	*
Venus	56482-01-19 17:31 G	22350706.16	22350706.23	22350706.30	0.0516	0.0482	
Mercury	56486-02-07 20:38 G	22352186.28	22352186.36	22352186.44	0.0531	0.0413	
Mercury	56486-05-08 03:22 G	22352275.53	22352275.64	22352275.75	0.0528	0.0267	
Moon	56487-03-29 03:50 G	22352600.49	22352600.66	22352600.84	0.0516	0.0337	
Earth	56487-03-29 07:26 G	22352600.63	22352600.81	22352601.00	0.0516	0.0310	*
Venus	56487-11-29 19:55 G	22352846.13	22352846.33	22352846.54	0.0507	0.0025	
Mercury	56492-06-21 17:31 G	22354512.05	22354512.23	22354512.41	0.0498	0.0039	
Venus	56494-05-19 19:26 G	22355209.13	22355209.31	22355209.48	0.0523	0.0254	
Mercury	56498-02-24 07:26 G	22356585.68	22356585.81	22356585.94	0.0528	0.0099	
Venus	56499-08-04 16:48 G	22357112.03	22357112.20	22357112.36	0.0509	0.0295	
Mercury	56504-04-10 15:22 G	22358821.99	22358822.14	22358822.30	0.0498	0.0240	
Venus	56506-01-23 13:55 G	22359474.88	22359475.08	22359475.28	0.0520	0.0034	
Mercury	56509-12-14 11:17 G	22360895.84	22360895.97	22360896.10	0.0529	0.0074	
Venus	56511-12-03 07:55 G	22361614.70	22361614.83	22361614.96	0.0504	0.0385	
Mercury	56516-01-28 13:26 G	22363131.98	22363132.06	22363132.15	0.0497	0.0436	
Mercury	56516-04-27 21:07 G	22363222.27	22363222.38	22363222.50	0.0499	0.0389	
Venus	56517-09-28 07:55 G	22363740.68	22363740.83	22363741.00	0.0517	0.0317	
Mercury	56521-10-02 14:24 G	22365205.99	22365206.10	22365206.22	0.0530	0.0259	
Mercury	56521-12-30 21:07 G	22365295.30	22365295.38	22365295.45	0.0527	0.0413	
Venus	56523-08-08 05:46 G	22365880.54	22365880.74	22365880.94	0.0506	0.0122	

Mercury	56528-02-14 18:29 G	22367532.10	22367532.27	22367532.44	0.0499	0.0176
Moon	56528-09-18 03:50 G	22367748.58	22367748.66	22367748.76	0.0505	0.0463
Earth	56528-09-18 07:26 G	22367748.72	22367748.81	22367748.91	0.0505	0.0462 *
Venus	56530-01-26 08:53 G	22368243.75	22368243.87	22368243.99	0.0523	0.0418
Mercury	56533-07-21 18:14 G	22369516.19	22369516.26	22369516.34	0.0531	0.0430
Mercury	56533-10-19 01:12 G	22369605.44	22369605.55	22369605.66	0.0528	0.0251
Venus	56535-04-13 03:50 G	22370146.46	22370146.66	22370146.85	0.0509	0.0143
Mercury	56539-12-03 14:38 G	22371841.93	22371842.11	22371842.30	0.0498	0.0050
Earth	56540-09-22 17:17 G	22372136.01	22372136.22	22372136.44	0.0507	0.0193
Moon	56540-09-22 21:07 G	22372136.17	22372136.38	22372136.59	0.0507	0.0224 *
Venus	56541-10-01 01:12 G	22372509.35	22372509.55	22372509.74	0.0521	0.0124
Mercury	56545-08-07 05:46 G	22373915.61	22373915.74	22373915.86	0.0529	0.0094
Earth	56546-03-19 13:41 G	22374139.90	22374140.07	22374140.24	0.0521	0.0356
Moon	56546-03-19 16:05 G	22374140.01	22374140.17	22374140.33	0.0521	0.0378 *
Venus	56546-12-17 01:55 G	22374412.47	22374412.58	22374412.71	0.0511	0.0409
Mercury	56551-09-21 12:29 G	22376151.87	22376152.02	22376152.18	0.0497	0.0251
Moon	56552-09-27 05:31 G	22376523.50	22376523.73	22376523.96	0.0510	0.0088
Earth	56552-09-27 08:38 G	22376523.63	22376523.86	22376524.09	0.0510	0.0093 *
Venus	56553-06-05 20:24 G	22376775.15	22376775.35	22376775.54	0.0519	0.0160
Mercury	56557-05-26 09:36 G	22378225.78	22378225.90	22378226.03	0.0529	0.0077
Moon	56558-03-24 07:26 G	22378527.58	22378527.81	22378528.04	0.0519	0.0030
Earth	56558-03-24 10:48 G	22378527.72	22378527.95	22378528.18	0.0519	0.0050 *
Venus	56559-04-15 18:14 G	22378915.09	22378915.26	22378915.43	0.0505	0.0276
Mercury	56563-07-10 10:48 G	22380461.87	22380461.95	22380462.02	0.0497	0.0447
Mercury	56563-10-08 18:14 G	22380552.15	22380552.26	22380552.38	0.0500	0.0378
Earth	56564-10-02 01:12 G	22380911.40	22380911.55	22380911.70	0.0512	0.0383
Moon	56564-10-02 02:53 G	22380911.50	22380911.62	22380911.75	0.0512	0.0417 *
Venus	56565-02-08 16:19 G	22381041.08	22381041.18	22381041.29	0.0516	0.0434
Mercury	56569-03-14 13:26 G	22382535.95	22382536.06	22382536.17	0.0530	0.0248
Mercury	56569-06-11 19:55 G	22382625.26	22382625.33	22382625.41	0.0527	0.0422

Earth	56570-03-29 06:14 G	22382915.56	22382915.76	22382915.97	0.0517	0.0252
Moon	56570-03-29 09:50 G	22382915.72	22382915.91	22382916.11	0.0517	0.0275 *
Venus	56570-12-19 16:05 G	22383180.97	22383181.17	22383181.37	0.0507	0.0013
Mars	56573-05-18 06:14 G	22384061.53	22384061.76	22384061.99	0.0489	0.0221
Mercury	56575-07-27 16:05 G	22384862.00	22384862.17	22384862.34	0.0499	0.0173
Venus	56577-06-08 17:02 G	22385544.04	22385544.21	22385544.38	0.0522	0.0296
Mercury	56580-12-31 16:34 G	22386846.12	22386846.19	22386846.26	0.0531	0.0435
Mercury	56581-03-30 23:31 G	22386935.36	22386935.48	22386935.59	0.0528	0.0245
Venus	56582-08-24 12:14 G	22387446.84	22387447.01	22387447.19	0.0510	0.0259
Mercury	56587-05-15 13:26 G	22389171.88	22389172.06	22389172.24	0.0498	0.0037
Venus	56589-02-11 10:19 G	22389809.73	22389809.93	22389810.14	0.0520	0.0008
Mercury	56593-01-17 03:36 G	22391245.52	22391245.65	22391245.77	0.0529	0.0081
Venus	56594-12-22 04:34 G	22391949.59	22391949.69	22391949.81	0.0504	0.0421
Mercury	56599-03-03 09:50 G	22393481.76	22393481.91	22393482.07	0.0497	0.0258
Venus	56600-10-18 03:07 G	22394075.46	22394075.63	22394075.80	0.0518	0.0283
Mercury	56604-11-06 07:55 G	22395555.70	22395555.83	22395555.96	0.0530	0.0080
Venus	56606-08-28 04:48 G	22396215.51	22396215.70	22396215.89	0.0506	0.0168
Mercury	56610-12-21 08:10 G	22397791.77	22397791.84	22397791.91	0.0497	0.0455
Mercury	56611-03-21 15:36 G	22397882.03	22397882.15	22397882.27	0.0499	0.0368
Venus	56613-02-15 06:29 G	22398578.68	22398578.77	22398578.86	0.0524	0.0460
Mercury	56616-08-25 12:00 G	22399865.89	22399866.00	22399866.11	0.0530	0.0247
Mercury	56616-11-22 18:29 G	22399955.20	22399955.27	22399955.35	0.0527	0.0424
Venus	56618-05-03 02:24 G	22400481.40	22400481.60	22400481.80	0.0508	0.0097
Mercury	56623-01-07 13:26 G	22402191.89	22402192.06	22402192.23	0.0499	0.0164
Moon	56623-09-23 19:41 G	22402451.12	22402451.32	22402451.52	0.0507	0.0266
Earth	56623-09-23 23:02 G	22402451.25	22402451.46	22402451.67	0.0507	0.0235 *
Venus	56624-10-21 00:58 G	22402844.35	22402844.54	22402844.74	0.0522	0.0175
Mercury	56628-06-13 15:36 G	22404176.08	22404176.15	22404176.23	0.0531	0.0422
Mercury	56628-09-10 22:34 G	22404265.33	22404265.44	22404265.55	0.0528	0.0258
Moon	56629-03-19 11:17 G	22404454.85	22404454.97	22404455.10	0.0521	0.0436

Earth	56629-03-19 14:24 G	22404454.96	22404455.10	22404455.24	0.0521	0.0413	*
Venus	56630-01-05 23:17 G	22404747.33	22404747.47	22404747.61	0.0510	0.0365	
Mercury	56634-10-26 11:31 G	22406501.80	22406501.98	22406502.16	0.0498	0.0037	
Earth	56635-09-28 14:24 G	22406838.87	22406839.10	22406839.33	0.0509	0.0051	
Moon	56635-09-28 16:19 G	22406838.96	22406839.18	22406839.41	0.0509	0.0056	*
Venus	56636-06-25 19:26 G	22407110.11	22407110.31	22407110.51	0.0519	0.0111	
Mercury	56640-06-30 01:55 G	22408575.46	22408575.58	22408575.71	0.0529	0.0082	
Earth	56641-03-24 08:38 G	22408842.63	22408842.86	22408843.09	0.0520	0.0110	
Moon	56641-03-24 12:29 G	22408842.79	22408843.02	22408843.25	0.0520	0.0083	*
Venus	56642-05-05 14:38 G	22409249.96	22409250.11	22409250.27	0.0505	0.0313	
Mercury	56646-08-14 09:07 G	22410811.72	22410811.88	22410812.04	0.0497	0.0240	
Moon	56647-10-03 03:36 G	22411226.49	22411226.65	22411226.82	0.0511	0.0368	
Earth	56647-10-03 04:19 G	22411226.51	22411226.68	22411226.86	0.0511	0.0336	*
Venus	56648-02-29 14:10 G	22411375.96	22411376.09	22411376.22	0.0516	0.0390	
Mercury	56652-04-18 06:00 G	22412885.63	22412885.75	22412885.88	0.0530	0.0088	
Moon	56653-03-29 03:22 G	22413230.43	22413230.64	22413230.86	0.0518	0.0220	
Earth	56653-03-29 06:43 G	22413230.57	22413230.78	22413231.00	0.0518	0.0201	*
Venus	56654-01-08 13:41 G	22413515.87	22413516.07	22413516.28	0.0507	0.0055	
Mercury	56658-06-02 05:46 G	22415121.67	22415121.74	22415121.81	0.0497	0.0458	
Mercury	56658-08-31 13:12 G	22415211.93	22415212.05	22415212.17	0.0499	0.0363	
Venus	56660-06-28 12:58 G	22415878.88	22415879.04	22415879.20	0.0523	0.0333	
Mercury	56664-02-05 10:19 G	22417195.82	22417195.93	22417196.05	0.0530	0.0250	
Mercury	56664-05-04 17:02 G	22417285.13	22417285.21	22417285.28	0.0528	0.0424	
Earth	56665-04-03 05:46 G	22417618.71	22417618.74	22417618.78	0.0515	0.0509	
Moon	56665-04-03 07:41 G	22417618.75	22417618.82	22417618.90	0.0515	0.0486	*
Venus	56665-09-13 12:58 G	22417781.86	22417782.04	22417782.23	0.0509	0.0206	
Mercury	56670-06-19 10:48 G	22419521.78	22419521.95	22419522.13	0.0499	0.0159	
Venus	56672-03-03 07:55 G	22420144.63	22420144.83	22420145.03	0.0520	0.0049	
Mercury	56675-11-24 14:24 G	22421506.02	22421506.10	22421506.18	0.0531	0.0418	
Mercury	56676-02-21 21:22 G	22421595.28	22421595.39	22421595.50	0.0528	0.0263	

Venus	56677-05-19 09:36 G	22422047.84	22422047.90	22422047.98	0.0512	0.0475
Venus	56678-01-11 04:05 G	22422284.60	22422284.67	22422284.75	0.0503	0.0467
Mercury	56682-04-07 08:53 G	22423831.69	22423831.87	22423832.05	0.0498	0.0042
Venus	56683-11-07 03:50 G	22424410.48	22424410.66	22424410.84	0.0518	0.0229
Mercury	56687-12-11 01:12 G	22425905.43	22425905.55	22425905.68	0.0529	0.0098
Venus	56689-09-16 02:53 G	22426550.44	22426550.62	22426550.81	0.0505	0.0212
Mars	56691-11-09 16:34 G	22427335.09	22427335.19	22427335.29	0.0489	0.0449
Mercury	56694-01-24 07:12 G	22428141.64	22428141.80	22428141.96	0.0498	0.0237
Venus	56695-07-13 00:00 G	22428676.46	22428676.50	22428676.55	0.0515	0.0500
Venus	56696-03-06 06:43 G	22428913.74	22428913.78	22428913.83	0.0524	0.0511
Mercury	56699-09-29 04:48 G	22430215.57	22430215.70	22430215.83	0.0529	0.0084
Venus	56701-05-23 00:00 G	22430816.29	22430816.50	22430816.70	0.0508	0.0057
Mercury	56705-11-13 05:02 G	22432451.63	22432451.71	22432451.80	0.0497	0.0437
Mercury	56706-02-11 12:29 G	22432541.91	22432542.02	22432542.14	0.0499	0.0386
Earth	56706-09-24 04:48 G	22432766.51	22432766.70	22432766.90	0.0506	0.0275
Moon	56706-09-24 06:43 G	22432766.61	22432766.78	22432766.97	0.0506	0.0306 *
Venus	56707-11-10 23:46 G	22433179.31	22433179.49	22433179.67	0.0521	0.0221
Mars	56709-10-11 05:02 G	22433879.42	22433879.71	22433880.00	0.0539	0.0113
Mercury	56711-07-19 08:38 G	22434525.75	22434525.86	22434525.98	0.0530	0.0253
Mercury	56711-10-16 15:22 G	22434615.06	22434615.14	22434615.21	0.0527	0.0420
Earth	56712-03-19 15:36 G	22434770.05	22434770.15	22434770.26	0.0522	0.0466
Moon	56712-03-19 19:26 G	22434770.22	22434770.31	22434770.40	0.0522	0.0479 *
Venus	56713-01-25 21:50 G	22435082.26	22435082.41	22435082.58	0.0511	0.0321
Mercury	56717-11-30 08:53 G	22436851.70	22436851.87	22436852.04	0.0498	0.0159
Moon	56718-09-28 13:41 G	22437153.83	22437154.07	22437154.31	0.0508	0.0008
Earth	56718-09-28 14:38 G	22437153.87	22437154.11	22437154.34	0.0508	0.0009 *
Venus	56719-07-16 15:36 G	22437444.95	22437445.15	22437445.36	0.0519	0.0073
Mercury	56723-05-07 12:58 G	22438835.96	22438836.04	22438836.12	0.0531	0.0418
Mercury	56723-08-04 19:55 G	22438925.22	22438925.33	22438925.44	0.0528	0.0265
Moon	56724-03-24 13:26 G	22439157.83	22439158.06	22439158.30	0.0520	0.0117

Earth	56724-03-24 16:48 G	22439157.98	22439158.20	22439158.43	0.0520	0.0147	*
Venus	56725-05-25 16:19 G	22439585.04	22439585.18	22439585.32	0.0504	0.0365	
Mercury	56729-09-18 06:43 G	22441161.60	22441161.78	22441161.96	0.0498	0.0043	
Moon	56730-10-03 05:46 G	22441541.57	22441541.74	22441541.92	0.0510	0.0317	
Earth	56730-10-03 06:29 G	22441541.58	22441541.77	22441541.96	0.0510	0.0285	*
Venus	56731-03-21 11:46 G	22441710.84	22441710.99	22441711.14	0.0517	0.0347	
Mercury	56735-05-24 00:14 G	22443235.38	22443235.51	22443235.63	0.0529	0.0105	
Earth	56736-03-29 15:07 G	22443545.91	22443546.13	22443546.35	0.0518	0.0164	
Moon	56736-03-29 17:02 G	22443546.00	22443546.21	22443546.43	0.0518	0.0182	*
Venus	56737-01-28 14:53 G	22443850.92	22443851.12	22443851.32	0.0506	0.0108	
Mercury	56741-07-07 05:02 G	22445471.55	22445471.71	22445471.87	0.0497	0.0240	
Venus	56743-07-19 14:53 G	22446213.99	22446214.12	22446214.26	0.0523	0.0391	
Mercury	56747-03-12 04:05 G	22447545.55	22447545.67	22447545.80	0.0529	0.0066	
Moon	56748-04-03 10:34 G	22447933.82	22447933.94	22447934.07	0.0516	0.0441	
Earth	56748-04-03 11:02 G	22447933.87	22447933.96	22447934.06	0.0516	0.0468	*
Venus	56748-10-03 12:29 G	22448116.83	22448117.02	22448117.22	0.0509	0.0156	
Mercury	56753-04-25 03:22 G	22449781.56	22449781.64	22449781.73	0.0497	0.0431	
Mercury	56753-07-24 10:48 G	22449871.85	22449871.95	22449872.07	0.0499	0.0393	
Venus	56755-03-24 09:36 G	22450479.70	22450479.90	22450480.10	0.0520	0.0105	
Mercury	56758-12-29 07:41 G	22451855.70	22451855.82	22451855.93	0.0530	0.0245	
Mercury	56759-03-28 14:10 G	22451945.02	22451945.09	22451945.17	0.0527	0.0428	
Venus	56760-06-08 08:10 G	22452382.74	22452382.84	22452382.95	0.0512	0.0429	
Mercury	56765-05-12 08:24 G	22454181.69	22454181.85	22454182.02	0.0499	0.0186	
Venus	56766-11-27 03:50 G	22454745.47	22454745.66	22454745.85	0.0518	0.0177	
Mercury	56770-10-17 11:31 G	22456165.90	22456165.98	22456166.06	0.0531	0.0416	
Mercury	56771-01-14 18:29 G	22456255.16	22456255.27	22456255.38	0.0528	0.0266	
Venus	56772-10-06 02:38 G	22456885.44	22456885.61	22456885.79	0.0506	0.0258	
Mercury	56777-02-28 05:02 G	22458491.53	22458491.71	22458491.89	0.0498	0.0038	
Venus	56778-08-01 20:53 G	22459011.28	22459011.37	22459011.46	0.0515	0.0459	
Mercury	56782-11-02 22:48 G	22460565.33	22460565.45	22460565.58	0.0529	0.0107	

Venus	56784-06-11 02:38 G	22461151.40	22461151.61	22461151.81	0.0508	0.0004
Mercury	56788-12-17 03:07 G	22462801.47	22462801.63	22462801.79	0.0497	0.0236
Moon	56789-09-23 07:12 G	22463081.64	22463081.80	22463081.98	0.0506	0.0353
Earth	56789-09-23 08:24 G	22463081.67	22463081.85	22463082.03	0.0506	0.0324 *
Venus	56790-11-29 22:19 G	22463514.26	22463514.43	22463514.61	0.0522	0.0267
Mercury	56794-08-22 03:07 G	22464875.50	22464875.63	22464875.76	0.0530	0.0055
Moon	56795-03-19 22:05 G	22465085.38	22465085.42	22465085.47	0.0522	0.0510
Earth	56795-03-20 01:26 G	22465085.51	22465085.56	22465085.63	0.0522	0.0503
Venus	56796-02-15 00:29 G	22465417.35	22465417.52	22465417.70	0.0510	0.0259
Mercury	56800-10-05 01:26 G	22467111.48	22467111.56	22467111.65	0.0497	0.0430
Mercury	56801-01-03 08:53 G	22467201.76	22467201.87	22467201.98	0.0499	0.0394
Moon	56801-09-28 00:00 G	22467469.27	22467469.50	22467469.72	0.0508	0.0028
Earth	56801-09-28 00:29 G	22467469.29	22467469.52	22467469.76	0.0508	0.0037 *
Venus	56802-08-04 18:29 G	22467780.06	22467780.27	22467780.47	0.0520	0.0014
Mercury	56806-06-10 07:12 G	22469185.68	22469185.80	22469185.91	0.0530	0.0223
Mercury	56806-09-07 13:41 G	22469275.01	22469275.07	22469275.14	0.0527	0.0449
Earth	56807-03-25 00:00 G	22469473.29	22469473.50	22469473.72	0.0520	0.0186
Moon	56807-03-25 02:24 G	22469473.39	22469473.60	22469473.82	0.0520	0.0153 *
Venus	56808-06-13 16:34 G	22469920.08	22469920.19	22469920.30	0.0504	0.0414
Mercury	56812-10-22 06:58 G	22471511.63	22471511.79	22471511.96	0.0499	0.0195
Earth	56813-10-02 17:17 G	22471857.02	22471857.22	22471857.42	0.0510	0.0258
Moon	56813-10-02 19:55 G	22471857.13	22471857.33	22471857.53	0.0510	0.0286 *
Venus	56814-04-09 14:24 G	22472045.93	22472046.10	22472046.27	0.0517	0.0286
Mercury	56818-03-29 10:34 G	22473495.86	22473495.94	22473496.02	0.0531	0.0404
Mercury	56818-06-26 17:31 G	22473585.12	22473585.23	22473585.34	0.0528	0.0277
Moon	56819-03-29 18:14 G	22473861.02	22473861.26	22473861.49	0.0518	0.0133
Earth	56819-03-29 19:12 G	22473861.07	22473861.30	22473861.52	0.0518	0.0120 *
Venus	56820-02-17 14:24 G	22474185.90	22474186.10	22474186.29	0.0506	0.0155
Mercury	56824-08-10 04:48 G	22475821.52	22475821.70	22475821.89	0.0498	0.0013
Venus	56826-08-07 16:05 G	22476549.06	22476549.17	22476549.27	0.0523	0.0443

Mercury	56830-04-14 21:36 G	22477895.27	22477895.40	22477895.52	0.0529	0.0112
Moon	56831-04-03 15:36 G	22478249.01	22478249.15	22478249.29	0.0516	0.0403
Earth	56831-04-03 16:48 G	22478249.08	22478249.20	22478249.33	0.0516	0.0430 *
Venus	56831-10-23 12:58 G	22478451.85	22478452.04	22478452.25	0.0509	0.0106
Mercury	56836-05-29 01:41 G	22480131.41	22480131.57	22480131.73	0.0497	0.0227
Venus	56838-04-12 06:58 G	22480814.60	22480814.79	22480814.99	0.0521	0.0149
Mercury	56842-02-01 01:55 G	22482205.45	22482205.58	22482205.70	0.0530	0.0053
Venus	56843-06-28 11:46 G	22482717.85	22482717.99	22482718.14	0.0511	0.0365
Mars	56846-02-03 23:31 G	22483669.23	22483669.48	22483669.73	0.0488	0.0060
Mercury	56848-03-17 00:00 G	22484441.41	22484441.50	22484441.59	0.0496	0.0421
Mercury	56848-06-15 07:12 G	22484531.70	22484531.80	22484531.91	0.0499	0.0399
Venus	56849-12-16 02:38 G	22485080.41	22485080.61	22485080.80	0.0518	0.0129
Mercury	56853-11-20 06:00 G	22486515.64	22486515.75	22486515.87	0.0531	0.0214
Mercury	56854-02-17 12:43 G	22486604.97	22486605.03	22486605.09	0.0528	0.0460
Venus	56855-10-26 05:31 G	22487220.57	22487220.73	22487220.89	0.0505	0.0317
Mercury	56860-04-03 05:17 G	22488841.55	22488841.72	22488841.89	0.0498	0.0198
Venus	56861-08-20 23:46 G	22489346.36	22489346.49	22489346.62	0.0516	0.0397
Mercury	56865-09-08 10:05 G	22490825.83	22490825.92	22490826.01	0.0531	0.0382
Mercury	56865-12-06 17:02 G	22490915.10	22490915.21	22490915.31	0.0528	0.0299
Venus	56867-07-01 04:05 G	22491486.46	22491486.67	22491486.87	0.0507	0.0060
Mercury	56872-01-21 03:36 G	22493151.46	22493151.65	22493151.83	0.0498	0.0009
Moon	56872-09-22 19:41 G	22493397.17	22493397.32	22493397.47	0.0506	0.0378
Earth	56872-09-22 20:10 G	22493397.18	22493397.34	22493397.51	0.0506	0.0351 *
Venus	56873-12-19 01:55 G	22493849.42	22493849.58	22493849.74	0.0522	0.0329
Mercury	56877-09-24 20:38 G	22495225.24	22495225.36	22495225.49	0.0529	0.0126
Venus	56879-03-06 00:29 G	22495752.34	22495752.52	22495752.71	0.0510	0.0209
Mercury	56883-11-09 01:41 G	22497461.40	22497461.57	22497461.73	0.0497	0.0199
Earth	56884-09-27 10:34 G	22497784.71	22497784.94	22497785.17	0.0507	0.0068
Moon	56884-09-27 12:58 G	22497784.81	22497785.04	22497785.28	0.0507	0.0050 *
Venus	56885-08-23 20:10 G	22498115.14	22498115.34	22498115.54	0.0520	0.0046

Mercury	56889-07-14 00:43 G	22499535.40	22499535.53	22499535.66	0.0530	0.0042
Moon	56890-03-24 04:34 G	22499788.46	22499788.69	22499788.91	0.0521	0.0196
Earth	56890-03-24 05:46 G	22499788.53	22499788.74	22499788.95	0.0521	0.0229 *
Venus	56890-11-08 22:05 G	22500018.34	22500018.42	22500018.50	0.0512	0.0473
Venus	56891-07-03 17:31 G	22500255.16	22500255.23	22500255.31	0.0504	0.0464
Mercury	56895-08-27 22:48 G	22501771.35	22501771.45	22501771.55	0.0496	0.0410
Mercury	56895-11-26 06:00 G	22501861.65	22501861.75	22501861.85	0.0499	0.0410
Moon	56896-10-01 17:17 G	22502172.02	22502172.22	22502172.43	0.0509	0.0234
Earth	56896-10-01 20:53 G	22502172.17	22502172.37	22502172.59	0.0509	0.0208 *
Venus	56897-04-28 12:14 G	22502380.83	22502381.01	22502381.19	0.0517	0.0240
Mercury	56901-05-03 04:48 G	22503845.58	22503845.70	22503845.82	0.0531	0.0209
Mercury	56901-07-31 11:31 G	22503934.92	22503934.98	22503935.04	0.0528	0.0466
Moon	56902-03-30 04:48 G	22504176.48	22504176.70	22504176.93	0.0519	0.0095
Earth	56902-03-30 06:00 G	22504176.52	22504176.75	22504176.98	0.0519	0.0089 *
Venus	56903-03-09 18:00 G	22504521.07	22504521.25	22504521.44	0.0506	0.0218
Mercury	56907-09-15 03:50 G	22506171.50	22506171.66	22506171.83	0.0498	0.0207
Earth	56908-10-07 12:58 G	22506560.01	22506560.04	22506560.09	0.0511	0.0503
Moon	56908-10-07 17:02 G	22506560.15	22506560.21	22506560.28	0.0511	0.0487
Venus	56909-01-02 08:53 G	22506646.84	22506646.87	22506646.90	0.0515	0.0507
Venus	56909-08-27 15:07 G	22506884.07	22506884.13	22506884.20	0.0524	0.0491
Mercury	56913-02-19 08:53 G	22508155.79	22508155.87	22508155.97	0.0531	0.0375
Mercury	56913-05-19 15:50 G	22508245.06	22508245.16	22508245.27	0.0529	0.0310
Earth	56914-04-04 04:34 G	22508564.54	22508564.69	22508564.84	0.0517	0.0402
Moon	56914-04-04 07:55 G	22508564.66	22508564.83	22508564.99	0.0517	0.0370 *
Venus	56914-11-12 16:34 G	22508786.98	22508787.19	22508787.39	0.0508	0.0042
Mercury	56919-07-04 01:55 G	22510481.40	22510481.58	22510481.76	0.0498	0.0008
Venus	56921-05-02 10:34 G	22511149.76	22511149.94	22511150.13	0.0521	0.0213
Mercury	56925-03-07 20:10 G	22512555.22	22512555.34	22512555.47	0.0529	0.0147
Venus	56926-07-18 13:55 G	22513052.92	22513053.08	22513053.25	0.0511	0.0305
Mercury	56931-04-22 00:14 G	22514791.34	22514791.51	22514791.68	0.0497	0.0188

Venus	56933-01-05 06:14 G	22515415.56	22515415.76	22515415.97	0.0519	0.0066
Mercury	56936-12-25 00:00 G	22516865.37	22516865.50	22516865.62	0.0530	0.0032
Venus	56938-11-15 05:46 G	22517555.61	22517555.74	22517555.89	0.0505	0.0366
Mercury	56943-02-07 22:19 G	22519101.32	22519101.43	22519101.55	0.0497	0.0384
Mercury	56943-05-09 05:46 G	22519191.66	22519191.74	22519191.83	0.0499	0.0440
Venus	56944-09-10 01:55 G	22519681.43	22519681.58	22519681.73	0.0516	0.0338
Mercury	56948-10-13 03:50 G	22521175.54	22521175.66	22521175.78	0.0530	0.0198
Mercury	56949-01-10 10:19 G	22521264.88	22521264.93	22521264.99	0.0528	0.0476
Venus	56950-07-21 05:02 G	22521821.52	22521821.71	22521821.91	0.0507	0.0112
Mercury	56955-02-25 02:38 G	22523501.45	22523501.61	22523501.77	0.0498	0.0219
Earth	56955-09-24 01:26 G	22523712.42	22523712.56	22523712.71	0.0505	0.0398
Moon	56955-09-24 03:50 G	22523712.53	22523712.66	22523712.80	0.0505	0.0416 *
Venus	56957-01-07 23:46 G	22524184.36	22524184.49	22524184.64	0.0522	0.0375
Mercury	56960-08-01 07:41 G	22525485.73	22525485.82	22525485.91	0.0532	0.0371
Mercury	56960-10-29 14:38 G	22525575.01	22525575.11	22525575.21	0.0529	0.0313
Venus	56962-03-26 04:19 G	22526087.48	22526087.68	22526087.87	0.0510	0.0144
Mercury	56966-12-14 00:29 G	22527811.34	22527811.52	22527811.71	0.0497	0.0022
Moon	56967-09-28 12:29 G	22528099.79	22528100.02	22528100.24	0.0507	0.0091
Earth	56967-09-28 15:50 G	22528099.94	22528100.16	22528100.39	0.0507	0.0114 *
Venus	56968-09-12 18:58 G	22528450.09	22528450.29	22528450.49	0.0520	0.0095
Mercury	56972-08-17 18:58 G	22529885.17	22529885.29	22529885.42	0.0529	0.0155
Moon	56973-03-24 15:50 G	22530103.96	22530104.16	22530104.36	0.0522	0.0234
Earth	56973-03-24 16:34 G	22530103.99	22530104.19	22530104.39	0.0522	0.0263 *
Venus	56973-11-29 01:26 G	22530353.44	22530353.56	22530353.69	0.0512	0.0408
Mercury	56978-10-01 22:34 G	22532121.27	22532121.44	22532121.61	0.0497	0.0181
Earth	56979-10-03 07:55 G	22532487.61	22532487.83	22532488.04	0.0509	0.0178
Moon	56979-10-03 11:46 G	22532487.78	22532487.99	22532488.20	0.0509	0.0203 *
Venus	56980-05-18 15:22 G	22532715.95	22532716.14	22532716.33	0.0518	0.0178
Mercury	56984-06-05 23:17 G	22534195.34	22534195.47	22534195.60	0.0530	0.0009
Earth	56985-03-29 15:22 G	22534491.91	22534492.14	22534492.37	0.0519	0.0056

Moon	56985-03-29 18:29 G	22534492.03	22534492.27	22534492.51	0.0519	0.0050	*
Venus	56986-03-28 19:41 G	22534856.15	22534856.32	22534856.50	0.0506	0.0272	
Mercury	56990-07-20 21:07 G	22536431.26	22536431.38	22536431.50	0.0497	0.0373	
Mercury	56990-10-19 04:19 G	22536521.61	22536521.68	22536521.76	0.0499	0.0450	
Moon	56991-10-07 21:36 G	22536875.30	22536875.40	22536875.51	0.0511	0.0459	
Earth	56991-10-08 01:12 G	22536875.47	22536875.55	22536875.63	0.0511	0.0477	*
Venus	56992-01-22 12:29 G	22536981.92	22536982.02	22536982.12	0.0515	0.0445	
Mercury	56996-03-25 02:53 G	22538505.50	22538505.62	22538505.74	0.0530	0.0185	
Mercury	56996-06-22 09:36 G	22538594.85	22538594.90	22538594.94	0.0528	0.0488	
Moon	56997-04-03 06:29 G	22538879.60	22538879.77	22538879.95	0.0517	0.0327	
Earth	56997-04-03 10:19 G	22538879.77	22538879.93	22538880.11	0.0517	0.0363	*
Venus	56997-12-01 16:48 G	22539122.00	22539122.20	22539122.41	0.0508	0.0010	
Mars	57000-05-02 08:38 G	22540003.68	22540003.86	22540004.05	0.0488	0.0335	

58TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 58th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	57002-08-08 02:10 G	22540831.44	22540831.59	22540831.75	0.0498	0.0246		
Venus	57004-05-22 12:29 G	22541484.85	22541485.02	22541485.20	0.0521	0.0271		
Mercury	57008-01-13 06:43 G	22542815.69	22542815.78	22542815.87	0.0531	0.0358		
Mercury	57008-04-11 13:41 G	22542904.97	22542905.07	22542905.17	0.0528	0.0324		
Venus	57009-08-07 14:53 G	22543387.94	22543388.12	22543388.29	0.0511	0.0252		
Mercury	57014-05-26 23:17 G	22545141.29	22545141.47	22545141.66	0.0497	0.0033		

Venus	57016-01-26 04:19 G	22545750.48	22545750.68	22545750.89	0.0518	0.0020
Mercury	57020-01-29 17:46 G	22547215.11	22547215.24	22547215.36	0.0530	0.0157
Venus	57021-12-05 08:53 G	22547890.76	22547890.87	22547890.98	0.0505	0.0425
Mercury	57026-03-14 21:22 G	22549451.22	22549451.39	22549451.56	0.0496	0.0169
Venus	57027-10-01 00:14 G	22550016.35	22550016.51	22550016.68	0.0516	0.0290
Mercury	57031-11-17 22:05 G	22551525.29	22551525.42	22551525.54	0.0530	0.0019
Venus	57033-08-10 07:41 G	22552156.63	22552156.82	22552157.02	0.0507	0.0172
Mercury	57037-12-31 19:26 G	22553761.19	22553761.31	22553761.43	0.0496	0.0367
Mercury	57038-04-01 02:38 G	22553851.54	22553851.61	22553851.69	0.0499	0.0454
Moon	57038-09-24 07:55 G	22554027.73	22554027.83	22554027.94	0.0504	0.0444
Earth	57038-09-24 11:17 G	22554027.86	22554027.97	22554028.10	0.0504	0.0431 *
Venus	57040-01-29 02:38 G	22554519.51	22554519.61	22554519.73	0.0523	0.0435
Mercury	57043-09-06 02:10 G	22555835.47	22555835.59	22555835.71	0.0531	0.0170
Mercury	57043-12-04 08:38 G	22555924.83	22555924.86	22555924.90	0.0528	0.0504
Venus	57045-04-15 05:46 G	22556422.54	22556422.74	22556422.95	0.0509	0.0088
Mercury	57050-01-18 00:43 G	22558161.37	22558161.53	22558161.69	0.0498	0.0253
Earth	57050-09-29 02:38 G	22558415.39	22558415.61	22558415.84	0.0507	0.0143
Moon	57050-09-29 06:43 G	22558415.55	22558415.78	22558416.00	0.0507	0.0112 *
Venus	57051-10-03 22:05 G	22558785.23	22558785.42	22558785.62	0.0520	0.0157
Mercury	57055-06-25 05:46 G	22560145.64	22560145.74	22560145.84	0.0531	0.0347
Mercury	57055-09-22 12:43 G	22560234.93	22560235.03	22560235.13	0.0528	0.0334
Earth	57056-03-24 21:36 G	22560419.21	22560419.40	22560419.59	0.0522	0.0309
Moon	57056-03-25 00:14 G	22560419.31	22560419.51	22560419.71	0.0522	0.0279 *
Venus	57056-12-19 01:41 G	22560688.43	22560688.57	22560688.72	0.0512	0.0356
Mercury	57061-11-05 22:34 G	22562471.26	22562471.44	22562471.63	0.0498	0.0053
Moon	57062-10-03 14:10 G	22562802.87	22562803.09	22562803.31	0.0508	0.0169
Earth	57062-10-03 17:46 G	22562803.02	22562803.24	22562803.46	0.0508	0.0146 *
Venus	57063-06-08 17:02 G	22563051.01	22563051.21	22563051.41	0.0518	0.0121
Mercury	57067-04-13 09:22 G	22564455.87	22564455.89	22564455.91	0.0532	0.0523
Mercury	57067-07-11 16:34 G	22564545.07	22564545.19	22564545.32	0.0529	0.0168

Moon	57068-03-29 16:05 G	22564806.93	22564807.17	22564807.40	0.0520	0.0009
Earth	57068-03-29 19:55 G	22564807.09	22564807.33	22564807.56	0.0520	0.0012 *
Venus	57069-04-17 19:55 G	22565191.18	22565191.33	22565191.49	0.0506	0.0321
Mercury	57073-08-24 20:10 G	22566781.17	22566781.34	22566781.51	0.0496	0.0158
Earth	57074-10-08 05:02 G	22567190.59	22567190.71	22567190.84	0.0510	0.0427
Moon	57074-10-08 07:12 G	22567190.68	22567190.80	22567190.94	0.0510	0.0410 *
Venus	57075-02-11 10:19 G	22567316.81	22567316.93	22567317.06	0.0515	0.0397
Mercury	57079-04-29 20:24 G	22568855.22	22568855.35	22568855.48	0.0531	0.0007
Earth	57080-04-03 17:31 G	22569195.05	22569195.23	22569195.41	0.0518	0.0322
Moon	57080-04-03 21:22 G	22569195.21	22569195.39	22569195.59	0.0518	0.0290 *
Venus	57080-12-21 18:43 G	22569457.08	22569457.28	22569457.49	0.0508	0.0069
Mercury	57085-06-12 18:00 G	22571091.14	22571091.25	22571091.38	0.0496	0.0356
Mercury	57085-09-11 01:12 G	22571181.49	22571181.55	22571181.62	0.0498	0.0464
Venus	57087-06-11 10:19 G	22571819.77	22571819.93	22571820.10	0.0521	0.0315
Mercury	57091-02-16 00:29 G	22573165.40	22573165.52	22573165.65	0.0531	0.0172
Mercury	57091-05-16 07:26 G	22573254.77	22573254.81	22573254.84	0.0528	0.0505
Venus	57092-08-26 16:34 G	22573723.00	22573723.19	22573723.38	0.0511	0.0193
Mercury	57097-06-29 22:48 G	22575491.29	22575491.45	22575491.61	0.0498	0.0255
Venus	57099-02-14 06:00 G	22576085.55	22576085.75	22576085.95	0.0519	0.0039
Mercury	57102-12-06 04:34 G	22577475.60	22577475.69	22577475.79	0.0532	0.0338
Mercury	57103-03-05 11:46 G	22577564.89	22577564.99	22577565.08	0.0529	0.0346
Venus	57104-05-02 13:26 G	22577988.97	22577989.06	22577989.15	0.0513	0.0458
Venus	57104-12-25 09:22 G	22578225.83	22578225.89	22578225.96	0.0504	0.0474
Mercury	57109-04-18 20:53 G	22579801.19	22579801.37	22579801.55	0.0497	0.0056
Venus	57110-10-21 02:24 G	22580351.42	22580351.60	22580351.78	0.0517	0.0232
Mercury	57114-09-24 08:10 G	22581785.81	22581785.84	22581785.87	0.0532	0.0516
Mercury	57114-12-22 15:22 G	22581875.02	22581875.14	22581875.27	0.0529	0.0176
Venus	57116-08-30 06:58 G	22582491.61	22582491.79	22582491.98	0.0507	0.0218
Mars	57118-10-25 05:02 G	22583277.51	22583277.71	22583277.92	0.0488	0.0288
Mercury	57121-02-04 18:58 G	22584111.12	22584111.29	22584111.46	0.0497	0.0143

Earth	57121-09-24 20:38 G	22584343.28	22584343.36	22584343.45	0.0504	0.0464
Moon	57121-09-25 00:29 G	22584343.45	22584343.52	22584343.61	0.0504	0.0469 *
Venus	57122-06-25 22:34 G	22584617.40	22584617.44	22584617.50	0.0514	0.0497
Venus	57123-02-18 03:50 G	22584854.60	22584854.66	22584854.74	0.0523	0.0488
Mercury	57126-10-10 19:26 G	22586185.18	22586185.31	22586185.44	0.0530	0.0015
Venus	57128-05-05 05:02 G	22586757.51	22586757.71	22586757.91	0.0509	0.0040
Mercury	57132-11-23 16:48 G	22588421.07	22588421.20	22588421.33	0.0496	0.0347
Mercury	57133-02-21 23:46 G	22588511.44	22588511.49	22588511.55	0.0498	0.0473
Moon	57133-09-29 04:05 G	22588730.44	22588730.67	22588730.89	0.0505	0.0161
Earth	57133-09-29 07:41 G	22588730.60	22588730.82	22588731.04	0.0505	0.0190 *
Venus	57134-10-23 19:26 G	22589120.12	22589120.31	22589120.50	0.0520	0.0200
Mars	57136-09-19 07:12 G	22589816.54	22589816.80	22589817.07	0.0539	0.0249
Mercury	57138-07-29 22:48 G	22590495.33	22590495.45	22590495.57	0.0531	0.0176
Mercury	57138-10-27 05:46 G	22590584.70	22590584.74	22590584.77	0.0529	0.0501
Moon	57139-03-25 21:07 G	22590734.21	22590734.38	22590734.56	0.0523	0.0335
Earth	57139-03-26 00:43 G	22590734.37	22590734.53	22590734.71	0.0523	0.0363 *
Venus	57140-01-09 02:10 G	22591023.42	22591023.59	22591023.75	0.0512	0.0303
Mercury	57144-12-10 21:22 G	22592821.24	22592821.39	22592821.54	0.0497	0.0265
Earth	57145-10-03 21:07 G	22593118.15	22593118.38	22593118.60	0.0507	0.0095
Moon	57145-10-03 23:31 G	22593118.26	22593118.48	22593118.70	0.0507	0.0115 *
Venus	57146-06-28 14:10 G	22593385.89	22593386.09	22593386.29	0.0517	0.0077
Mercury	57150-05-18 02:53 G	22594805.52	22594805.62	22594805.72	0.0532	0.0344
Mercury	57150-08-15 09:50 G	22594894.82	22594894.91	22594895.01	0.0529	0.0342
Earth	57151-03-31 00:43 G	22595122.30	22595122.53	22595122.77	0.0521	0.0038
Moon	57151-03-31 04:48 G	22595122.47	22595122.70	22595122.93	0.0521	0.0052 *
Venus	57152-05-07 20:10 G	22595526.21	22595526.34	22595526.48	0.0506	0.0372
Mercury	57156-09-28 18:43 G	22597131.10	22597131.28	22597131.46	0.0497	0.0056
Moon	57157-10-08 11:02 G	22597505.79	22597505.96	22597506.13	0.0510	0.0363
Earth	57157-10-08 11:17 G	22597505.83	22597505.97	22597506.13	0.0510	0.0387 *
Venus	57158-03-03 10:34 G	22597651.79	22597651.94	22597652.09	0.0515	0.0345

Mercury	57162-03-06 06:58 G	22599115.76	22599115.79	22599115.82	0.0532	0.0512
Mercury	57162-06-03 14:10 G	22599204.97	22599205.09	22599205.22	0.0530	0.0182
Moon	57163-04-04 20:24 G	22599510.14	22599510.35	22599510.56	0.0519	0.0248
Earth	57163-04-04 23:46 G	22599510.30	22599510.49	22599510.69	0.0519	0.0282 *
Venus	57164-01-11 18:43 G	22599792.09	22599792.28	22599792.48	0.0508	0.0118
Mercury	57168-07-17 16:48 G	22601441.03	22601441.20	22601441.38	0.0497	0.0144
Venus	57170-07-01 11:46 G	22602154.86	22602154.99	22602155.14	0.0522	0.0370
Mercury	57174-03-22 18:00 G	22603515.12	22603515.25	22603515.38	0.0530	0.0014
Venus	57175-09-16 15:07 G	22604057.94	22604058.13	22604058.33	0.0510	0.0147
Mercury	57180-05-05 15:07 G	22605751.00	22605751.13	22605751.26	0.0496	0.0340
Mercury	57180-08-03 22:05 G	22605841.39	22605841.42	22605841.47	0.0499	0.0483
Venus	57182-03-06 06:29 G	22606420.57	22606420.77	22606420.97	0.0519	0.0091
Mercury	57186-01-08 21:50 G	22607825.28	22607825.41	22607825.53	0.0531	0.0167
Mercury	57186-04-08 04:34 G	22607914.66	22607914.69	22607914.72	0.0528	0.0508
Venus	57187-05-22 11:31 G	22608323.86	22608323.98	22608324.10	0.0513	0.0413
Mercury	57192-05-22 19:41 G	22610151.17	22610151.32	22610151.47	0.0497	0.0270
Venus	57193-11-08 23:31 G	22610686.29	22610686.48	22610686.67	0.0516	0.0188
Mercury	57197-10-28 00:58 G	22612135.45	22612135.54	22612135.64	0.0532	0.0353
Mercury	57198-01-25 08:10 G	22612224.74	22612224.84	22612224.94	0.0529	0.0334
Venus	57199-09-19 06:14 G	22612826.59	22612826.76	22612826.94	0.0507	0.0266
Mercury	57204-03-10 17:17 G	22614461.04	22614461.22	22614461.40	0.0497	0.0064
Venus	57205-07-14 19:26 G	22614952.22	22614952.31	22614952.40	0.0513	0.0454
Mercury	57209-08-16 04:48 G	22616445.68	22616445.70	22616445.72	0.0533	0.0524
Mercury	57209-11-13 12:14 G	22616534.89	22616535.01	22616535.13	0.0530	0.0172
Venus	57211-05-25 04:05 G	22617092.46	22617092.67	22617092.87	0.0509	0.0008
Mercury	57215-12-28 14:38 G	22618770.94	22618771.11	22618771.28	0.0496	0.0146
Earth	57216-09-28 11:46 G	22619045.79	22619045.99	22619046.20	0.0505	0.0236
Moon	57216-09-28 14:24 G	22619045.89	22619046.10	22619046.31	0.0505	0.0207 *
Venus	57217-11-11 18:29 G	22619455.09	22619455.27	22619455.45	0.0521	0.0247
Mercury	57221-09-01 16:34 G	22620845.06	22620845.19	22620845.32	0.0531	0.0009

Earth	57222-03-25 05:17 G	22621049.58	22621049.72	22621049.87	0.0523	0.0410
Moon	57222-03-25 09:36 G	22621049.74	22621049.90	22621050.06	0.0523	0.0380 *
Venus	57223-01-28 01:26 G	22621358.39	22621358.56	22621358.74	0.0512	0.0254
Mercury	57227-10-16 12:43 G	22623080.90	22623081.03	22623081.16	0.0496	0.0343
Mercury	57228-01-14 19:55 G	22623171.28	22623171.33	22623171.38	0.0498	0.0478
Moon	57228-10-03 01:55 G	22623433.34	22623433.58	22623433.82	0.0507	0.0065
Earth	57228-10-03 02:38 G	22623433.38	22623433.61	22623433.84	0.0507	0.0054 *
Venus	57229-07-17 14:10 G	22623720.89	22623721.09	22623721.30	0.0518	0.0028
Mercury	57233-06-20 20:10 G	22625155.22	22625155.34	22625155.47	0.0531	0.0167
Mercury	57233-09-18 02:53 G	22625244.59	22625244.62	22625244.66	0.0528	0.0509
Moon	57234-03-29 22:34 G	22625437.21	22625437.44	22625437.68	0.0521	0.0106
Earth	57234-03-30 02:24 G	22625437.37	22625437.60	22625437.83	0.0521	0.0092 *
Venus	57235-05-27 17:46 G	22625861.13	22625861.24	22625861.36	0.0505	0.0411
Mercury	57239-11-02 17:31 G	22627481.08	22627481.23	22627481.39	0.0498	0.0273
Moon	57240-10-07 15:50 G	22627820.99	22627821.16	22627821.34	0.0509	0.0318
Earth	57240-10-07 17:17 G	22627821.06	22627821.22	22627821.40	0.0509	0.0346 *
Venus	57241-03-22 10:05 G	22627986.76	22627986.92	22627987.09	0.0515	0.0296
Mercury	57245-04-08 23:46 G	22629465.40	22629465.49	22629465.59	0.0532	0.0344
Mercury	57245-07-07 06:58 G	22629554.69	22629554.79	22629554.88	0.0529	0.0340
Earth	57246-04-03 23:17 G	22629825.26	22629825.47	22629825.68	0.0519	0.0223
Moon	57246-04-04 01:12 G	22629825.34	22629825.55	22629825.76	0.0519	0.0197 *
Venus	57247-01-30 15:50 G	22630126.97	22630127.16	22630127.36	0.0508	0.0157
Mercury	57251-08-21 15:22 G	22631790.96	22631791.14	22631791.32	0.0497	0.0066
Venus	57253-07-20 08:10 G	22632489.72	22632489.84	22632489.97	0.0521	0.0408
Mercury	57257-04-25 10:19 G	22633864.81	22633864.93	22633865.05	0.0530	0.0161
Venus	57258-10-05 12:29 G	22634392.82	22634393.02	22634393.22	0.0511	0.0105
Mercury	57263-06-09 12:58 G	22636100.87	22636101.04	22636101.22	0.0496	0.0139
Venus	57265-03-25 02:10 G	22636755.39	22636755.59	22636755.79	0.0519	0.0128
Mercury	57269-02-11 14:24 G	22638174.97	22638175.10	22638175.23	0.0531	0.0006
Venus	57270-06-10 09:07 G	22638658.74	22638658.88	22638659.02	0.0513	0.0369

Mars	57273-01-18 00:29 G	22639611.27	22639611.52	22639611.78	0.0488	0.0034
Mercury	57275-03-28 10:19 G	22640410.80	22640410.93	22640411.06	0.0496	0.0349
Mercury	57275-06-26 17:02 G	22640501.16	22640501.21	22640501.28	0.0498	0.0470
Venus	57276-11-27 20:53 G	22641021.18	22641021.37	22641021.57	0.0517	0.0147
Mercury	57280-11-30 18:29 G	22642485.15	22642485.27	22642485.40	0.0531	0.0171
Mercury	57281-02-28 01:26 G	22642574.53	22642574.56	22642574.59	0.0529	0.0507
Venus	57282-10-08 04:19 G	22643161.52	22643161.68	22643161.85	0.0507	0.0307
Mercury	57287-04-14 14:53 G	22644810.97	22644811.12	22644811.28	0.0498	0.0265
Venus	57288-08-02 17:46 G	22645287.12	22645287.24	22645287.37	0.0514	0.0410
Mars	57290-12-14 12:14 G	22646150.76	22646151.01	22646151.26	0.0539	0.0288
Mercury	57292-09-18 22:19 G	22646795.33	22646795.43	22646795.52	0.0532	0.0346
Mercury	57292-12-17 05:17 G	22646884.63	22646884.72	22646884.82	0.0529	0.0339
Venus	57294-06-13 00:58 G	22647427.34	22647427.54	22647427.75	0.0509	0.0048
Mercury	57299-01-31 12:58 G	22649120.86	22649121.04	22649121.22	0.0497	0.0062
Moon	57299-09-28 15:50 G	22649360.96	22649361.16	22649361.38	0.0505	0.0252
Earth	57299-09-28 16:48 G	22649361.02	22649361.20	22649361.40	0.0505	0.0281 *
Venus	57300-12-01 17:17 G	22649790.06	22649790.22	22649790.39	0.0521	0.0294
Mercury	57304-07-09 01:41 G	22651105.56	22651105.57	22651105.59	0.0532	0.0527
Mercury	57304-10-06 09:07 G	22651194.76	22651194.88	22651195.00	0.0530	0.0167
Moon	57305-03-24 23:17 G	22651364.35	22651364.47	22651364.59	0.0524	0.0446
Earth	57305-03-25 03:07 G	22651364.54	22651364.63	22651364.73	0.0524	0.0476 *
Venus	57306-02-16 21:36 G	22651693.22	22651693.40	22651693.59	0.0512	0.0216
Mercury	57310-11-20 10:48 G	22653430.78	22653430.95	22653431.13	0.0496	0.0140
Moon	57311-10-04 04:19 G	22653748.46	22653748.68	22653748.90	0.0506	0.0006
Earth	57311-10-04 05:31 G	22653748.50	22653748.73	22653748.96	0.0506	0.0003 *
Venus	57312-08-06 10:48 G	22654055.74	22654055.95	22654056.15	0.0517	0.0014
Mercury	57316-07-25 12:14 G	22655504.89	22655505.01	22655505.14	0.0531	0.0026
Earth	57317-03-29 22:34 G	22655752.22	22655752.44	22655752.66	0.0522	0.0161
Moon	57317-03-30 01:12 G	22655752.34	22655752.55	22655752.77	0.0522	0.0177 *
Venus	57317-10-22 16:19 G	22655959.12	22655959.18	22655959.24	0.0515	0.0486

Venus	57318-06-16 14:24 G	22656196.01	22656196.10	22656196.19	0.0506	0.0448
Mercury	57322-09-08 08:38 G	22657740.73	22657740.86	22657740.99	0.0495	0.0341
Mercury	57322-12-07 15:22 G	22657831.10	22657831.14	22657831.20	0.0498	0.0476
Earth	57323-10-08 18:00 G	22658136.06	22658136.25	22658136.44	0.0508	0.0289
Moon	57323-10-08 20:53 G	22658136.17	22658136.37	22658136.58	0.0508	0.0257 *
Venus	57324-04-11 05:31 G	22658321.56	22658321.73	22658321.91	0.0515	0.0259
Mercury	57328-05-13 16:19 G	22659815.06	22659815.18	22659815.30	0.0532	0.0188
Mercury	57328-08-10 23:02 G	22659904.42	22659904.46	22659904.51	0.0529	0.0492
Moon	57329-04-03 21:07 G	22660140.15	22660140.38	22660140.62	0.0520	0.0137
Earth	57329-04-03 21:22 G	22660140.18	22660140.39	22660140.62	0.0520	0.0163 *
Venus	57330-02-19 12:29 G	22660461.84	22660462.02	22660462.21	0.0508	0.0195
Mercury	57334-09-25 12:14 G	22662140.85	22662141.01	22662141.16	0.0497	0.0255
Venus	57336-08-09 05:02 G	22662824.61	22662824.71	22662824.81	0.0522	0.0446
Mercury	57340-03-01 20:24 G	22664125.25	22664125.35	22664125.44	0.0532	0.0354
Mercury	57340-05-30 03:36 G	22664214.55	22664214.65	22664214.75	0.0529	0.0334
Moon	57341-04-08 18:43 G	22664528.23	22664528.28	22664528.34	0.0518	0.0502
Earth	57341-04-08 20:38 G	22664528.28	22664528.36	22664528.45	0.0518	0.0480 *
Venus	57341-10-25 10:34 G	22664727.74	22664727.94	22664728.14	0.0510	0.0062
Mercury	57346-07-14 10:05 G	22666450.74	22666450.92	22666451.10	0.0497	0.0051
Venus	57348-04-14 00:00 G	22667090.31	22667090.50	22667090.69	0.0519	0.0171
Mercury	57351-12-20 00:00 G	22668435.49	22668435.50	22668435.51	0.0533	0.0531
Mercury	57352-03-18 07:26 G	22668524.69	22668524.81	22668524.93	0.0530	0.0164
Venus	57353-06-30 06:00 G	22668993.60	22668993.75	22668993.91	0.0513	0.0328
Mercury	57358-05-02 08:10 G	22670760.67	22670760.84	22670761.01	0.0496	0.0148
Venus	57359-12-18 19:26 G	22671356.11	22671356.31	22671356.51	0.0517	0.0101
Mercury	57364-01-05 11:02 G	22672834.83	22672834.96	22672835.09	0.0531	0.0016
Venus	57365-10-28 00:00 G	22673496.35	22673496.50	22673496.65	0.0507	0.0341
Mercury	57370-02-18 06:14 G	22675070.64	22675070.76	22675070.89	0.0496	0.0345
Mercury	57370-05-19 13:12 G	22675161.00	22675161.05	22675161.11	0.0498	0.0473
Venus	57371-08-23 14:38 G	22675621.97	22675622.11	22675622.25	0.0514	0.0369

Mercury	57375-10-24 14:10 G	22677144.97	22677145.09	22677145.21	0.0532	0.0199
Mercury	57376-01-21 21:07 G	22677234.33	22677234.38	22677234.43	0.0529	0.0480
Venus	57377-07-02 20:24 G	22677762.15	22677762.35	22677762.55	0.0509	0.0083
Mercury	57382-03-07 10:34 G	22679470.79	22679470.94	22679471.10	0.0497	0.0262
Moon	57382-09-28 17:31 G	22679676.06	22679676.23	22679676.41	0.0504	0.0305
Earth	57382-09-28 18:29 G	22679676.10	22679676.27	22679676.44	0.0504	0.0333 *
Venus	57383-12-21 12:29 G	22680124.87	22680125.02	22680125.18	0.0520	0.0327
Mercury	57387-08-12 18:00 G	22681455.16	22681455.25	22681455.34	0.0532	0.0373
Mercury	57387-11-10 01:12 G	22681544.45	22681544.55	22681544.65	0.0530	0.0316
Moon	57388-03-24 02:10 G	22681679.57	22681679.59	22681679.63	0.0525	0.0520
Venus	57389-03-07 17:31 G	22682028.04	22682028.23	22682028.42	0.0512	0.0180
Mercury	57393-12-24 07:12 G	22683780.62	22683780.80	22683780.98	0.0497	0.0042
Earth	57394-10-03 04:05 G	22684063.44	22684063.67	22684063.90	0.0506	0.0057
Moon	57394-10-03 06:43 G	22684063.54	22684063.78	22684064.02	0.0506	0.0057 *
Venus	57395-08-26 06:14 G	22684390.56	22684390.76	22684390.96	0.0518	0.0048
Mercury	57399-08-29 05:31 G	22685854.61	22685854.73	22685854.86	0.0530	0.0157
Moon	57400-03-29 23:31 G	22686067.27	22686067.48	22686067.70	0.0523	0.0234
Earth	57400-03-30 00:43 G	22686067.32	22686067.53	22686067.74	0.0523	0.0214 *
Venus	57400-11-11 14:24 G	22686294.00	22686294.10	22686294.21	0.0514	0.0441
Venus	57401-07-06 11:46 G	22686530.94	22686530.99	22686531.05	0.0505	0.0486
Mercury	57405-10-13 05:17 G	22688090.55	22688090.72	22688090.89	0.0496	0.0159
Moon	57406-10-08 15:07 G	22688450.92	22688451.13	22688451.34	0.0508	0.0203
Earth	57406-10-08 18:29 G	22688451.07	22688451.27	22688451.48	0.0508	0.0236 *
Venus	57407-05-02 02:24 G	22688656.42	22688656.60	22688656.78	0.0516	0.0220
Mercury	57411-06-18 09:22 G	22690164.76	22690164.89	22690165.02	0.0531	0.0021
Moon	57412-04-03 21:07 G	22690455.15	22690455.38	22690455.60	0.0520	0.0083
Earth	57412-04-03 22:19 G	22690455.20	22690455.43	22690455.66	0.0520	0.0105 *
Venus	57413-03-11 09:22 G	22690796.71	22690796.89	22690797.07	0.0507	0.0233
Mercury	57417-08-01 03:22 G	22692400.52	22692400.64	22692400.77	0.0496	0.0356
Mercury	57417-10-30 10:19 G	22692490.87	22692490.93	22692491.00	0.0498	0.0462

Venus	57419-01-04 23:17 G	22692922.40	22692922.47	22692922.54	0.0513	0.0479
Venus	57419-08-30 03:36 G	22693159.58	22693159.65	22693159.72	0.0522	0.0490
Mercury	57423-04-06 12:58 G	22694474.92	22694475.04	22694475.17	0.0531	0.0192
Mercury	57423-07-04 19:55 G	22694564.28	22694564.33	22694564.38	0.0528	0.0487
Earth	57424-04-08 18:14 G	22694843.12	22694843.26	22694843.40	0.0518	0.0418
Moon	57424-04-08 20:53 G	22694843.25	22694843.37	22694843.50	0.0518	0.0440 *
Venus	57424-11-14 06:00 G	22695062.55	22695062.75	22695062.96	0.0510	0.0027
Mars	57427-04-15 11:46 G	22695944.79	22695944.99	22695945.18	0.0488	0.0313
Mercury	57429-08-18 08:10 G	22696800.69	22696800.84	22696801.00	0.0497	0.0259
Venus	57431-05-04 20:53 G	22697425.19	22697425.37	22697425.56	0.0519	0.0210
Mercury	57435-01-23 16:05 G	22698785.08	22698785.17	22698785.26	0.0532	0.0382
Mercury	57435-04-22 23:17 G	22698874.37	22698874.47	22698874.57	0.0529	0.0307
Venus	57436-07-20 00:58 G	22699328.37	22699328.54	22699328.71	0.0513	0.0295
Mercury	57441-06-06 05:46 G	22701110.56	22701110.74	22701110.92	0.0497	0.0050
Venus	57443-01-07 15:07 G	22701690.93	22701691.13	22701691.34	0.0516	0.0065
Mercury	57447-02-09 03:22 G	22703184.51	22703184.64	22703184.76	0.0530	0.0141
Venus	57448-11-16 19:55 G	22703831.20	22703831.33	22703831.47	0.0507	0.0375
Mercury	57453-03-25 02:24 G	22705420.44	22705420.60	22705420.77	0.0496	0.0169
Venus	57454-09-12 09:22 G	22705956.74	22705956.89	22705957.05	0.0514	0.0336
Mercury	57458-11-28 07:26 G	22707494.69	22707494.81	22707494.94	0.0531	0.0028
Venus	57460-07-22 18:43 G	22708097.08	22708097.28	22708097.48	0.0509	0.0124
Mercury	57465-01-11 00:43 G	22709730.41	22709730.53	22709730.65	0.0495	0.0366
Mercury	57465-04-11 07:26 G	22709820.73	22709820.81	22709820.88	0.0498	0.0450
Earth	57465-09-28 18:14 G	22709991.12	22709991.26	22709991.41	0.0503	0.0390
Moon	57465-09-28 20:38 G	22709991.20	22709991.36	22709991.53	0.0503	0.0358 *
Venus	57467-01-10 09:22 G	22710459.75	22710459.89	22710460.04	0.0521	0.0366
Mercury	57470-09-16 11:31 G	22711804.86	22711804.98	22711805.10	0.0531	0.0194
Mercury	57470-12-14 18:14 G	22711894.22	22711894.26	22711894.31	0.0529	0.0486
Venus	57472-03-27 15:07 G	22712362.94	22712363.13	22712363.33	0.0511	0.0137
Mercury	57477-01-28 05:17 G	22714130.56	22714130.72	22714130.88	0.0498	0.0247

Moon	57477-10-03 05:02 G	22714378.49	22714378.71	22714378.94	0.0505	0.0104
Earth	57477-10-03 08:24 G	22714378.63	22714378.85	22714379.08	0.0505	0.0104 *
Venus	57478-09-15 05:02 G	22714725.51	22714725.71	22714725.91	0.0518	0.0094
Mercury	57482-07-05 14:53 G	22716115.03	22716115.12	22716115.22	0.0532	0.0372
Mercury	57482-10-02 22:05 G	22716204.32	22716204.42	22716204.53	0.0529	0.0317
Moon	57483-03-29 22:34 G	22716382.26	22716382.44	22716382.63	0.0523	0.0305
Earth	57483-03-29 23:02 G	22716382.27	22716382.46	22716382.66	0.0523	0.0278 *
Venus	57483-12-01 10:48 G	22716628.82	22716628.95	22716629.07	0.0514	0.0402
Mercury	57488-11-16 03:22 G	22718440.46	22718440.64	22718440.82	0.0497	0.0049
Earth	57489-10-07 22:34 G	22718766.23	22718766.44	22718766.66	0.0507	0.0190
Moon	57489-10-08 02:24 G	22718766.38	22718766.60	22718766.83	0.0507	0.0158 *
Venus	57490-05-21 00:14 G	22718991.32	22718991.51	22718991.70	0.0515	0.0176
Mercury	57494-07-22 01:26 G	22720514.44	22720514.56	22720514.69	0.0530	0.0134
Earth	57495-04-03 17:46 G	22720770.00	22720770.24	22720770.47	0.0521	0.0037
Moon	57495-04-03 19:55 G	22720770.09	22720770.33	22720770.57	0.0521	0.0015 *
Venus	57496-03-30 04:48 G	22721131.52	22721131.70	22721131.87	0.0508	0.0266
Mercury	57500-09-05 01:12 G	22722750.38	22722750.55	22722750.72	0.0496	0.0157
Moon	57501-10-13 08:24 G	22723153.76	22723153.85	22723153.94	0.0509	0.0470
Earth	57501-10-13 11:31 G	22723153.92	22723153.98	22723154.07	0.0509	0.0479 *
Venus	57502-01-24 19:55 G	22723257.23	22723257.33	22723257.44	0.0513	0.0440
Mercury	57506-05-11 05:17 G	22724824.59	22724824.72	22724824.85	0.0531	0.0039
Moon	57507-04-09 12:43 G	22725157.88	22725158.03	22725158.19	0.0519	0.0379
Earth	57507-04-09 16:05 G	22725158.00	22725158.17	22725158.34	0.0519	0.0358 *
Venus	57507-12-05 02:24 G	22725397.39	22725397.60	22725397.80	0.0510	0.0011
Mercury	57512-06-23 22:05 G	22727060.31	22727060.42	22727060.54	0.0495	0.0373
Mercury	57512-09-22 04:34 G	22727150.62	22727150.69	22727150.78	0.0498	0.0442
Venus	57514-05-24 16:05 G	22727759.99	22727760.17	22727760.34	0.0520	0.0243
Mercury	57518-02-27 09:36 G	22729134.78	22729134.90	22729135.02	0.0532	0.0200
Mercury	57518-05-27 16:34 G	22729224.14	22729224.19	22729224.24	0.0529	0.0481
Venus	57519-08-10 00:14 G	22729663.34	22729663.51	22729663.69	0.0513	0.0248

Mercury	57524-07-11 02:38 G	22731460.45	22731460.61	22731460.77	0.0497	0.0237
Venus	57526-01-27 11:46 G	22732025.79	22732025.99	22732026.19	0.0517	0.0027
Mercury	57529-12-16 13:26 G	22733444.97	22733445.06	22733445.15	0.0532	0.0372
Mercury	57530-03-15 20:38 G	22733534.26	22733534.36	22733534.47	0.0529	0.0317
Venus	57531-04-14 19:41 G	22733929.31	22733929.32	22733929.35	0.0515	0.0512
Venus	57531-12-07 18:00 G	22734166.14	22734166.25	22734166.37	0.0506	0.0416
Mercury	57536-04-29 00:43 G	22735770.35	22735770.53	22735770.71	0.0497	0.0037
Venus	57537-10-02 08:38 G	22736291.70	22736291.86	22736292.03	0.0515	0.0288
Mercury	57542-01-02 00:29 G	22737844.40	22737844.52	22737844.65	0.0530	0.0147
Venus	57543-08-12 15:36 G	22738431.96	22738432.15	22738432.35	0.0509	0.0163
Mars	57545-10-06 18:43 G	22739218.13	22739218.28	22739218.44	0.0489	0.0382
Mercury	57548-02-15 23:02 G	22740080.29	22740080.46	22740080.63	0.0496	0.0158
Moon	57548-09-28 20:53 G	22740306.24	22740306.37	22740306.51	0.0503	0.0401
Earth	57548-09-29 00:29 G	22740306.40	22740306.52	22740306.64	0.0503	0.0431 *
Venus	57550-01-30 08:10 G	22740794.73	22740794.84	22740794.97	0.0521	0.0410
Mercury	57553-10-21 03:50 G	22742154.53	22742154.66	22742154.79	0.0531	0.0038
Venus	57555-04-17 11:02 G	22742697.76	22742697.96	22742698.16	0.0511	0.0101
Mercury	57559-12-04 21:07 G	22744390.26	22744390.38	22744390.50	0.0495	0.0357
Mercury	57560-03-04 03:36 G	22744480.59	22744480.65	22744480.72	0.0498	0.0459
Earth	57560-10-03 12:14 G	22744693.79	22744694.01	22744694.24	0.0505	0.0149
Moon	57560-10-03 16:05 G	22744693.95	22744694.17	22744694.40	0.0505	0.0152 *
Venus	57561-10-05 02:24 G	22745060.40	22745060.60	22745060.80	0.0518	0.0134
Mercury	57565-08-09 07:41 G	22746464.70	22746464.82	22746464.94	0.0532	0.0211
Mercury	57565-11-06 14:38 G	22746554.05	22746554.11	22746554.16	0.0529	0.0471
Earth	57566-03-29 21:07 G	22746697.21	22746697.38	22746697.56	0.0524	0.0342
Moon	57566-03-29 23:02 G	22746697.29	22746697.46	22746697.63	0.0524	0.0369 *
Venus	57566-12-21 07:41 G	22746963.68	22746963.82	22746963.97	0.0514	0.0363
Mercury	57571-12-22 00:14 G	22748790.35	22748790.51	22748790.67	0.0497	0.0232
Moon	57572-10-07 17:46 G	22749081.01	22749081.24	22749081.47	0.0506	0.0096
Earth	57572-10-07 21:22 G	22749081.17	22749081.39	22749081.62	0.0506	0.0128 *

Venus	57573-06-09 19:26 G	22749326.11	22749326.31	22749326.51	0.0516	0.0143
Mercury	57577-05-28 11:46 G	22750774.90	22750774.99	22750775.08	0.0533	0.0377
Mercury	57577-08-25 18:58 G	22750864.19	22750864.29	22750864.40	0.0530	0.0314
Moon	57578-04-03 19:55 G	22751085.10	22751085.33	22751085.56	0.0522	0.0031
Earth	57578-04-03 23:02 G	22751085.23	22751085.46	22751085.70	0.0522	0.0010 *
Venus	57579-04-20 04:48 G	22751466.54	22751466.70	22751466.86	0.0507	0.0313
Mercury	57583-10-09 22:05 G	22753100.24	22753100.42	22753100.61	0.0496	0.0034
Earth	57584-10-12 12:14 G	22753468.89	22753469.01	22753469.14	0.0509	0.0424
Moon	57584-10-12 14:24 G	22753468.99	22753469.10	22753469.23	0.0509	0.0427 *
Venus	57585-02-12 16:34 G	22753592.06	22753592.19	22753592.31	0.0513	0.0401
Mercury	57589-06-13 23:17 G	22755174.34	22755174.47	22755174.59	0.0530	0.0150
Earth	57590-04-08 21:36 G	22755473.21	22755473.40	22755473.59	0.0520	0.0313
Moon	57590-04-09 01:12 G	22755473.38	22755473.55	22755473.73	0.0520	0.0341 *
Venus	57590-12-24 02:10 G	22755732.39	22755732.59	22755732.79	0.0510	0.0058
Mercury	57595-07-28 20:24 G	22757410.18	22757410.35	22757410.52	0.0496	0.0165
Venus	57597-06-12 16:19 G	22758095.02	22758095.18	22758095.35	0.0520	0.0294
Mercury	57601-04-02 03:07 G	22759484.50	22759484.63	22759484.76	0.0531	0.0027
Venus	57602-08-28 22:34 G	22759998.26	22759998.44	22759998.63	0.0512	0.0202
Mercury	57607-05-16 19:12 G	22761720.17	22761720.30	22761720.42	0.0496	0.0356
Mercury	57607-08-15 01:41 G	22761810.51	22761810.57	22761810.64	0.0498	0.0461
Venus	57609-02-15 12:00 G	22762360.80	22762361.00	22762361.20	0.0517	0.0023
Mercury	57613-01-19 06:14 G	22763794.64	22763794.76	22763794.88	0.0532	0.0207
Mercury	57613-04-18 13:12 G	22763884.00	22763884.05	22763884.10	0.0529	0.0474
Venus	57614-05-03 16:34 G	22764264.12	22764264.19	22764264.28	0.0515	0.0473
Venus	57614-12-26 15:07 G	22764501.05	22764501.13	22764501.22	0.0506	0.0452
Mercury	57619-06-02 23:17 G	22766120.32	22766120.47	22766120.63	0.0497	0.0254
Venus	57620-10-21 07:26 G	22766626.63	22766626.81	22766626.99	0.0514	0.0243
Mercury	57624-11-07 09:50 G	22768104.83	22768104.91	22768105.00	0.0532	0.0382
Mercury	57625-02-04 17:17 G	22768194.12	22768194.22	22768194.32	0.0530	0.0309
Venus	57626-08-31 13:41 G	22768766.89	22768767.07	22768767.26	0.0509	0.0204

Mercury	57631-03-21 20:10 G	22770430.16	22770430.34	22770430.52	0.0496	0.0032
Earth	57631-09-29 00:43 G	22770621.48	22770621.53	22770621.58	0.0502	0.0489
Moon	57631-09-29 04:34 G	22770621.60	22770621.69	22770621.79	0.0502	0.0457
Venus	57632-06-26 01:26 G	22770892.54	22770892.56	22770892.58	0.0512	0.0508
Venus	57633-02-18 04:19 G	22771129.58	22771129.68	22771129.78	0.0521	0.0444
Mercury	57636-11-23 21:36 G	22772504.28	22772504.40	22772504.52	0.0531	0.0149
Venus	57638-05-06 12:29 G	22773032.82	22773033.02	22773033.23	0.0511	0.0048
Mercury	57643-01-07 18:29 G	22774740.10	22774740.27	22774740.43	0.0496	0.0166
Moon	57643-10-03 10:34 G	22775008.73	22775008.94	22775009.15	0.0504	0.0210
Earth	57643-10-03 14:10 G	22775008.88	22775009.09	22775009.31	0.0504	0.0203 *
Venus	57644-10-23 23:46 G	22775395.30	22775395.49	22775395.68	0.0519	0.0175
Mercury	57648-09-12 01:41 G	22776814.44	22776814.57	22776814.70	0.0531	0.0023
Moon	57649-03-29 02:10 G	22777012.45	22777012.59	22777012.72	0.0524	0.0416
Earth	57649-03-29 04:48 G	22777012.55	22777012.70	22777012.86	0.0524	0.0384 *
Venus	57650-01-09 09:07 G	22777298.72	22777298.88	22777299.04	0.0513	0.0307
Mercury	57654-10-26 16:48 G	22779050.08	22779050.20	22779050.32	0.0495	0.0359
Mercury	57655-01-24 23:31 G	22779140.41	22779140.48	22779140.55	0.0498	0.0456
Earth	57655-10-08 05:17 G	22779396.49	22779396.72	22779396.95	0.0506	0.0091
Moon	57655-10-08 07:41 G	22779396.60	22779396.82	22779397.05	0.0506	0.0062 *
Venus	57656-06-28 20:38 G	22779661.16	22779661.36	22779661.56	0.0516	0.0089
Mercury	57660-07-01 05:46 G	22781124.61	22781124.74	22781124.86	0.0532	0.0189
Mercury	57660-09-28 12:29 G	22781213.98	22781214.02	22781214.07	0.0529	0.0493
Earth	57661-04-03 03:36 G	22781400.42	22781400.65	22781400.88	0.0522	0.0056
Moon	57661-04-03 07:26 G	22781400.57	22781400.81	22781401.04	0.0522	0.0071 *
Venus	57662-05-09 03:50 G	22781801.52	22781801.66	22781801.81	0.0507	0.0357
Mercury	57666-11-12 21:36 G	22783450.25	22783450.40	22783450.56	0.0497	0.0258
Moon	57667-10-12 20:10 G	22783784.19	22783784.34	22783784.49	0.0508	0.0395
Earth	57667-10-12 21:07 G	22783784.24	22783784.38	22783784.53	0.0508	0.0390 *
Venus	57668-03-03 17:46 G	22783927.09	22783927.24	22783927.39	0.0514	0.0348
Mercury	57672-04-19 08:53 G	22785434.78	22785434.87	22785434.96	0.0532	0.0374

Mercury	57672-07-17 16:05 G	22785524.07	22785524.17	22785524.28	0.0529	0.0317
Moon	57673-04-07 19:12 G	22785788.11	22785788.30	22785788.50	0.0520	0.0288
Earth	57673-04-07 22:48 G	22785788.25	22785788.45	22785788.65	0.0520	0.0260 *
Venus	57674-01-12 00:14 G	22786067.31	22786067.51	22786067.71	0.0510	0.0100
Mercury	57678-08-31 19:41 G	22787760.14	22787760.32	22787760.50	0.0497	0.0056
Venus	57680-07-01 16:05 G	22788430.02	22788430.17	22788430.32	0.0520	0.0340
Mercury	57684-05-05 20:10 G	22789834.21	22789834.34	22789834.46	0.0530	0.0149
Venus	57685-09-16 21:36 G	22790333.21	22790333.40	22790333.60	0.0512	0.0157
Mercury	57690-06-19 16:34 G	22792070.02	22792070.19	22792070.36	0.0496	0.0162
Venus	57692-03-06 08:24 G	22792695.65	22792695.85	22792696.05	0.0517	0.0062
Mercury	57696-02-23 00:14 G	22794144.38	22794144.51	22794144.64	0.0532	0.0021
Venus	57697-05-22 19:12 G	22794599.18	22794599.30	22794599.42	0.0515	0.0414
Venus	57698-01-14 17:17 G	22794836.22	22794836.22	22794836.24	0.0506	0.0505
Mars	57699-12-31 18:58 G	22795552.03	22795552.29	22795552.54	0.0488	0.0027
Mercury	57702-04-08 14:53 G	22796380.00	22796380.12	22796380.25	0.0495	0.0355
Mercury	57702-07-07 21:22 G	22796470.33	22796470.39	22796470.46	0.0498	0.0458
Venus	57703-11-11 05:02 G	22796961.52	22796961.71	22796961.90	0.0515	0.0201
Mercury	57707-12-13 04:34 G	22798454.56	22798454.69	22798454.81	0.0532	0.0182
Mercury	57708-03-11 11:31 G	22798543.94	22798543.98	22798544.02	0.0529	0.0501
Venus	57709-09-20 15:50 G	22799101.99	22799102.16	22799102.34	0.0508	0.0259
Mercury	57714-04-25 19:26 G	22800780.16	22800780.31	22800780.47	0.0497	0.0258
Moon	57714-09-29 06:14 G	22800936.74	22800936.76	22800936.80	0.0502	0.0497
Venus	57715-07-17 03:07 G	22801227.54	22801227.63	22801227.72	0.0513	0.0453
Venus	57716-03-10 06:43 G	22801464.73	22801464.78	22801464.84	0.0522	0.0501
Mars	57717-11-21 01:55 G	22802085.30	22802085.58	22802085.87	0.0539	0.0174
Mercury	57719-10-01 08:10 G	22802764.75	22802764.84	22802764.94	0.0532	0.0354
Mercury	57719-12-29 15:36 G	22802854.05	22802854.15	22802854.25	0.0530	0.0337
Venus	57721-05-26 13:12 G	22803367.84	22803368.05	22803368.25	0.0510	0.0012
Mercury	57726-02-11 18:00 G	22805090.07	22805090.25	22805090.43	0.0497	0.0063
Earth	57726-10-04 00:29 G	22805324.32	22805324.52	22805324.73	0.0504	0.0234

Moon	57726-10-04 03:07 G	22805324.43	22805324.63	22805324.83	0.0504	0.0251	*
Venus	57727-11-14 02:10 G	22805730.41	22805730.59	22805730.77	0.0519	0.0231	
Mercury	57731-10-17 19:12 G	22807164.17	22807164.30	22807164.42	0.0530	0.0160	
Earth	57732-03-29 07:26 G	22807327.69	22807327.81	22807327.94	0.0525	0.0437	
Moon	57732-03-29 11:02 G	22807327.86	22807327.96	22807328.07	0.0525	0.0468	*
Venus	57733-01-29 08:10 G	22807633.67	22807633.84	22807634.02	0.0513	0.0261	
Mercury	57737-11-30 16:05 G	22809400.00	22809400.17	22809400.35	0.0496	0.0137	
Moon	57738-10-08 13:12 G	22809711.81	22809712.05	22809712.29	0.0506	0.0028	
Earth	57738-10-08 14:10 G	22809711.86	22809712.09	22809712.32	0.0506	0.0057	*
Venus	57739-07-19 21:22 G	22809996.19	22809996.39	22809996.59	0.0516	0.0037	
Mercury	57743-08-05 23:02 G	22811474.33	22811474.46	22811474.59	0.0531	0.0011	
Moon	57744-04-03 03:36 G	22811715.42	22811715.65	22811715.88	0.0523	0.0116	
Earth	57744-04-03 07:12 G	22811715.57	22811715.80	22811716.03	0.0523	0.0106	*
Venus	57745-05-29 03:50 G	22812136.54	22812136.66	22812136.79	0.0507	0.0403	
Mercury	57749-09-18 13:26 G	22813709.94	22813710.06	22813710.19	0.0495	0.0347	
Mercury	57749-12-17 19:55 G	22813800.27	22813800.33	22813800.39	0.0497	0.0466	
Moon	57750-10-12 23:17 G	22814099.31	22814099.47	22814099.64	0.0507	0.0345	
Earth	57750-10-12 23:31 G	22814099.31	22814099.48	22814099.66	0.0507	0.0336	*
Venus	57751-03-24 14:53 G	22814261.96	22814262.12	22814262.28	0.0514	0.0306	
Mercury	57755-05-25 03:07 G	22815784.50	22815784.63	22815784.75	0.0532	0.0180	
Mercury	57755-08-22 10:05 G	22815873.89	22815873.92	22815873.96	0.0530	0.0505	
Earth	57756-04-08 08:24 G	22816103.64	22816103.85	22816104.06	0.0521	0.0226	
Moon	57756-04-08 10:34 G	22816103.75	22816103.94	22816104.14	0.0521	0.0260	*
Venus	57757-02-01 03:22 G	22816402.45	22816402.64	22816402.83	0.0509	0.0159	
Mercury	57761-10-05 18:00 G	22818110.10	22818110.25	22818110.40	0.0497	0.0264	
Venus	57763-07-22 14:24 G	22818764.97	22818765.10	22818765.24	0.0520	0.0386	
Mercury	57767-03-13 07:12 G	22820094.70	22820094.80	22820094.90	0.0533	0.0346	
Mercury	57767-06-10 14:24 G	22820184.01	22820184.10	22820184.20	0.0530	0.0346	
Venus	57768-10-07 00:43 G	22820668.33	22820668.53	22820668.73	0.0512	0.0096	
Mercury	57773-07-24 16:05 G	22822420.00	22822420.17	22822420.35	0.0496	0.0067	

Venus	57775-03-27 11:02 G	22823030.77	22823030.96	22823031.16	0.0518	0.0121
Mercury	57778-12-30 11:02 G	22824404.93	22824404.96	22824404.99	0.0533	0.0518
Mercury	57779-03-29 18:43 G	22824494.16	22824494.28	22824494.40	0.0530	0.0182
Venus	57780-06-11 20:53 G	22824934.23	22824934.37	22824934.52	0.0514	0.0356
Mercury	57785-05-12 14:53 G	22826729.94	22826730.12	22826730.29	0.0496	0.0127
Venus	57786-11-30 07:55 G	22827296.64	22827296.83	22827297.03	0.0515	0.0142
Mercury	57791-01-15 22:05 G	22828804.29	22828804.42	22828804.55	0.0531	0.0013
Venus	57792-10-09 15:36 G	22829436.99	22829437.15	22829437.32	0.0508	0.0305
Mercury	57797-02-28 13:12 G	22831039.92	22831040.05	22831040.19	0.0495	0.0321
Mercury	57797-05-29 19:41 G	22831130.31	22831130.32	22831130.34	0.0498	0.0495
Venus	57798-08-05 04:34 G	22831562.57	22831562.69	22831562.82	0.0513	0.0399
Mercury	57802-11-05 01:55 G	22833114.46	22833114.58	22833114.71	0.0532	0.0170
Mercury	57803-02-02 08:53 G	22833203.85	22833203.87	22833203.90	0.0529	0.0513
Venus	57804-06-15 13:41 G	22833702.87	22833703.07	22833703.27	0.0511	0.0054
Mercury	57809-03-18 16:34 G	22835440.04	22835440.19	22835440.34	0.0497	0.0275
Moon	57809-10-04 04:05 G	22835639.49	22835639.67	22835639.87	0.0503	0.0304
Earth	57809-10-04 05:17 G	22835639.54	22835639.72	22835639.92	0.0503	0.0283 *
Venus	57810-12-03 23:46 G	22836065.32	22836065.49	22836065.66	0.0519	0.0274
Mercury	57814-08-24 05:46 G	22837424.64	22837424.74	22837424.84	0.0533	0.0343
Mercury	57814-11-21 13:12 G	22837513.96	22837514.05	22837514.15	0.0530	0.0350
Moon	57815-03-30 12:43 G	22837642.98	22837643.03	22837643.08	0.0526	0.0512
Earth	57815-03-30 16:19 G	22837643.09	22837643.18	22837643.28	0.0526	0.0479
Venus	57816-02-19 11:46 G	22837968.80	22837968.99	22837969.18	0.0513	0.0198
Mercury	57821-01-04 14:53 G	22839749.94	22839750.12	22839750.30	0.0496	0.0076
Moon	57821-10-08 18:58 G	22840027.06	22840027.29	22840027.51	0.0505	0.0021
Earth	57821-10-08 19:12 G	22840027.07	22840027.30	22840027.53	0.0505	0.0009 *
Venus	57822-08-08 19:55 G	22840331.13	22840331.33	22840331.54	0.0517	0.0013
Mercury	57826-06-12 09:50 G	22841734.88	22841734.91	22841734.94	0.0534	0.0511
Mercury	57826-09-09 17:31 G	22841824.11	22841824.23	22841824.35	0.0531	0.0190
Earth	57827-04-04 18:00 G	22842031.03	22842031.25	22842031.48	0.0524	0.0140

Moon	57827-04-04 20:38 G	22842031.14	22842031.36	22842031.58	0.0524	0.0139	*
Venus	57827-10-25 08:10 G	22842234.75	22842234.84	22842234.93	0.0516	0.0458	
Venus	57828-06-18 06:58 G	22842471.71	22842471.79	22842471.88	0.0506	0.0460	
Mercury	57832-10-23 13:12 G	22844059.87	22844060.05	22844060.22	0.0496	0.0121	
Earth	57833-10-13 10:34 G	22844414.75	22844414.94	22844415.12	0.0507	0.0306	
Moon	57833-10-13 12:29 G	22844414.84	22844415.02	22844415.21	0.0507	0.0321	*
Venus	57834-04-13 17:31 G	22844597.06	22844597.23	22844597.41	0.0514	0.0247	
Mercury	57838-06-28 21:36 G	22846134.27	22846134.40	22846134.53	0.0531	0.0024	
Moon	57839-04-09 16:34 G	22846418.98	22846419.19	22846419.42	0.0521	0.0224	
Earth	57839-04-09 17:46 G	22846419.02	22846419.24	22846419.46	0.0521	0.0191	*
Venus	57840-02-22 05:17 G	22846737.54	22846737.72	22846737.91	0.0509	0.0213	
Mercury	57844-08-11 11:46 G	22848369.86	22848369.99	22848370.13	0.0495	0.0310	
Venus	57845-12-17 15:50 G	22848863.11	22848863.16	22848863.20	0.0512	0.0497	
Venus	57846-08-11 18:14 G	22849100.16	22849100.26	22849100.37	0.0521	0.0445	
Mercury	57850-04-17 01:12 G	22850444.42	22850444.55	22850444.67	0.0532	0.0155	
Mercury	57850-07-15 08:10 G	22850533.83	22850533.84	22850533.85	0.0529	0.0526	
Moon	57851-04-14 12:14 G	22850807.00	22850807.01	22850807.04	0.0519	0.0516	
Earth	57851-04-14 13:12 G	22850807.01	22850807.05	22850807.10	0.0519	0.0508	*
Venus	57851-10-28 01:12 G	22851003.34	22851003.55	22851003.75	0.0511	0.0047	
Mars	57854-03-29 01:55 G	22851886.42	22851886.58	22851886.76	0.0488	0.0360	
Mercury	57856-08-28 16:19 G	22852770.04	22852770.18	22852770.32	0.0497	0.0303	
Venus	57858-04-16 13:12 G	22853365.86	22853366.05	22853366.24	0.0518	0.0176	
Mercury	57862-02-03 04:48 G	22854754.60	22854754.70	22854754.80	0.0533	0.0330	
Mercury	57862-05-03 12:14 G	22854843.91	22854844.01	22854844.10	0.0530	0.0361	
Venus	57863-07-02 21:36 G	22855269.24	22855269.40	22855269.57	0.0514	0.0304	
Mercury	57868-06-16 13:41 G	22857079.89	22857080.07	22857080.25	0.0496	0.0089	
Venus	57869-12-20 06:00 G	22857631.55	22857631.75	22857631.95	0.0515	0.0096	
Mars	57872-02-16 08:24 G	22858419.64	22858419.85	22858420.07	0.0540	0.0382	
Mercury	57873-11-22 08:24 G	22859064.81	22859064.85	22859064.89	0.0534	0.0509	
Mercury	57874-02-19 16:05 G	22859154.05	22859154.17	22859154.29	0.0531	0.0193	

Venus	57875-10-30 19:12 G	22859772.16	22859772.30	22859772.44	0.0508	0.0364
Mercury	57880-04-04 12:00 G	22861389.82	22861390.00	22861390.17	0.0495	0.0108
Venus	57881-08-25 03:22 G	22861897.50	22861897.64	22861897.79	0.0513	0.0351
Mercury	57885-12-08 20:24 G	22863464.22	22863464.35	22863464.48	0.0532	0.0031
Venus	57887-07-05 17:02 G	22864038.01	22864038.21	22864038.41	0.0510	0.0115
Mercury	57892-01-22 10:19 G	22865699.79	22865699.93	22865700.07	0.0495	0.0303
Moon	57892-10-03 15:36 G	22865954.99	22865955.15	22865955.32	0.0503	0.0340
Earth	57892-10-03 16:05 G	22865954.99	22865955.17	22865955.36	0.0503	0.0313 *
Venus	57893-12-23 02:53 G	22866400.47	22866400.62	22866400.77	0.0520	0.0333
Mercury	57897-09-27 00:29 G	22867774.40	22867774.52	22867774.65	0.0532	0.0136
Earth	57898-03-30 01:55 G	22867958.54	22867958.58	22867958.63	0.0526	0.0514
Venus	57899-03-10 14:10 G	22868303.89	22868304.09	22868304.29	0.0513	0.0140
Mercury	57903-11-11 09:07 G	22870009.86	22870009.88	22870009.90	0.0495	0.0490
Mercury	57904-02-09 14:53 G	22870099.99	22870100.12	22870100.26	0.0497	0.0314
Earth	57904-10-09 06:58 G	22870342.56	22870342.79	22870343.03	0.0505	0.0021
Moon	57904-10-09 09:07 G	22870342.64	22870342.88	22870343.12	0.0505	0.0040 *
Venus	57905-08-28 23:31 G	22870666.28	22870666.48	22870666.68	0.0517	0.0070
Mercury	57909-07-17 03:50 G	22872084.56	22872084.66	22872084.77	0.0533	0.0317
Mercury	57909-10-14 11:17 G	22872173.88	22872173.97	22872174.06	0.0530	0.0374
Moon	57910-04-04 22:19 G	22872346.21	22872346.43	22872346.66	0.0524	0.0182
Earth	57910-04-04 23:46 G	22872346.28	22872346.49	22872346.71	0.0524	0.0185 *
Venus	57910-11-14 08:38 G	22872569.74	22872569.86	22872569.99	0.0515	0.0405
Mercury	57915-11-28 13:12 G	22874409.87	22874410.05	22874410.23	0.0496	0.0114
Moon	57916-10-13 18:00 G	22874730.07	22874730.25	22874730.44	0.0507	0.0298
Earth	57916-10-13 21:22 G	22874730.20	22874730.39	22874730.58	0.0507	0.0277 *
Venus	57917-05-03 19:41 G	22874932.13	22874932.32	22874932.51	0.0514	0.0190
Mercury	57921-05-05 07:26 G	22876394.77	22876394.81	22876394.86	0.0533	0.0495
Mercury	57921-08-02 15:07 G	22876484.02	22876484.13	22876484.25	0.0531	0.0207
Moon	57922-04-09 22:34 G	22876734.23	22876734.44	22876734.65	0.0522	0.0178
Earth	57922-04-09 22:48 G	22876734.23	22876734.45	22876734.68	0.0522	0.0146 *

Venus	57923-03-14 06:00 G	22877072.58	22877072.75	22877072.92	0.0509	0.0263
Mercury	57927-09-16 10:48 G	22878719.77	22878719.95	22878720.13	0.0495	0.0094
Venus	57929-01-06 14:10 G	22879198.00	22879198.09	22879198.19	0.0511	0.0450
Venus	57929-08-31 16:19 G	22879435.12	22879435.18	22879435.25	0.0521	0.0488
Mercury	57933-05-21 18:58 G	22880794.16	22880794.29	22880794.42	0.0532	0.0033
Earth	57934-04-14 21:50 G	22881122.32	22881122.41	22881122.51	0.0520	0.0473
Moon	57934-04-15 00:29 G	22881122.43	22881122.52	22881122.63	0.0520	0.0468 *
Venus	57934-11-17 03:50 G	22881338.46	22881338.66	22881338.87	0.0512	0.0018
Mercury	57939-07-05 09:07 G	22883029.74	22883029.88	22883030.03	0.0495	0.0289
Venus	57941-05-06 11:31 G	22883700.80	22883700.98	22883701.17	0.0518	0.0222
Mercury	57945-03-09 23:02 G	22885104.34	22885104.46	22885104.59	0.0533	0.0134
Venus	57946-07-23 00:43 G	22885604.35	22885604.53	22885604.71	0.0514	0.0243
Mercury	57951-04-23 07:41 G	22887339.78	22887339.82	22887339.85	0.0494	0.0483
Mercury	57951-07-22 13:12 G	22887429.92	22887430.05	22887430.19	0.0497	0.0319
Venus	57953-01-09 08:24 G	22887966.65	22887966.85	22887967.05	0.0516	0.0039
Mercury	57956-12-27 03:07 G	22889414.53	22889414.63	22889414.74	0.0533	0.0301
Mercury	57957-03-26 10:34 G	22889503.85	22889503.94	22889504.02	0.0530	0.0391
Venus	57958-03-27 20:38 G	22889870.32	22889870.36	22889870.41	0.0516	0.0503
Venus	57958-11-19 20:38 G	22890107.25	22890107.36	22890107.48	0.0507	0.0416
Mercury	57963-05-10 11:46 G	22891739.81	22891739.99	22891740.16	0.0496	0.0123
Venus	57964-09-14 06:14 G	22892232.59	22892232.76	22892232.93	0.0513	0.0293
Mercury	57968-10-15 06:29 G	22893724.72	22893724.77	22893724.83	0.0533	0.0483
Mercury	57969-01-12 14:10 G	22893813.98	22893814.09	22893814.21	0.0531	0.0218
Venus	57970-07-25 17:02 G	22894373.02	22894373.21	22894373.41	0.0510	0.0164
Mars	57972-09-20 02:38 G	22895160.39	22895160.61	22895160.83	0.0489	0.0248
Mercury	57975-02-26 10:05 G	22896049.74	22896049.92	22896050.10	0.0496	0.0075
Earth	57975-10-05 02:53 G	22896270.45	22896270.62	22896270.79	0.0502	0.0344
Moon	57975-10-05 04:48 G	22896270.54	22896270.70	22896270.87	0.0502	0.0370 *
Venus	57977-01-12 04:48 G	22896735.57	22896735.70	22896735.84	0.0520	0.0388
Mercury	57980-10-31 18:00 G	22898124.12	22898124.25	22898124.38	0.0532	0.0047

Venus	57982-03-30 14:10 G	22898638.89	22898639.09	22898639.30	0.0513	0.0091
Mercury	57986-12-15 07:55 G	22900359.68	22900359.83	22900359.98	0.0495	0.0276
Moon	57987-10-09 10:05 G	22900657.69	22900657.92	22900658.14	0.0504	0.0081
Earth	57987-10-09 13:12 G	22900657.82	22900658.05	22900658.28	0.0504	0.0064 *
Venus	57988-09-16 21:36 G	22901001.20	22901001.40	22901001.60	0.0517	0.0115
Mercury	57992-08-19 21:36 G	22902434.27	22902434.40	22902434.52	0.0533	0.0134
Earth	57993-04-04 05:17 G	22902661.51	22902661.72	22902661.93	0.0525	0.0235
Moon	57993-04-04 05:17 G	22902661.52	22902661.72	22902661.92	0.0525	0.0229 *
Venus	57993-12-03 10:19 G	22902904.78	22902904.93	22902905.08	0.0516	0.0349
Mercury	57998-10-03 06:29 G	22904669.72	22904669.77	22904669.82	0.0494	0.0468
Mercury	57999-01-01 12:00 G	22904759.87	22904760.00	22904760.14	0.0496	0.0332
Earth	57999-10-14 02:10 G	22905045.39	22905045.59	22905045.80	0.0506	0.0229
Moon	57999-10-14 06:00 G	22905045.56	22905045.75	22905045.95	0.0506	0.0258 *
Venus	58000-05-22 17:46 G	22905267.05	22905267.24	22905267.44	0.0514	0.0145

59TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 59th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	58004-06-08 01:41 G	22906744.46	22906744.57	22906744.67	0.0533	0.0303		
Mercury	58004-09-05 09:07 G	22906833.79	22906833.88	22906833.96	0.0531	0.0392		
Earth	58005-04-09 06:29 G	22907049.54	22907049.77	22907050.00	0.0523	0.0105		
Moon	58005-04-09 08:38 G	22907049.63	22907049.86	22907050.10	0.0523	0.0135 *		
Venus	58006-04-02 07:55 G	22907407.67	22907407.83	22907407.99	0.0509	0.0318		

Mercury	58010-10-20 09:50 G	22909069.74	22909069.91	22909070.09	0.0496	0.0127
Venus	58012-01-26 15:22 G	22909533.02	22909533.14	22909533.27	0.0512	0.0397
Mercury	58016-03-27 05:31 G	22911054.67	22911054.73	22911054.79	0.0534	0.0472
Mercury	58016-06-24 13:12 G	22911143.94	22911144.05	22911144.17	0.0531	0.0230
Moon	58017-04-14 02:24 G	22911437.47	22911437.60	22911437.74	0.0520	0.0424
Earth	58017-04-14 06:14 G	22911437.64	22911437.76	22911437.89	0.0520	0.0437 *
Venus	58017-12-06 05:17 G	22911673.52	22911673.72	22911673.93	0.0511	0.0068
Mercury	58022-08-08 08:24 G	22913379.67	22913379.85	22913380.03	0.0495	0.0068
Venus	58024-05-25 13:55 G	22914035.92	22914036.08	22914036.26	0.0519	0.0279
Mercury	58028-04-12 17:02 G	22915454.08	22915454.21	22915454.34	0.0532	0.0056
Venus	58029-08-11 00:29 G	22915939.34	22915939.52	22915939.72	0.0514	0.0194
Mercury	58034-05-27 06:43 G	22917689.63	22917689.78	22917689.94	0.0495	0.0262
Venus	58036-01-29 09:50 G	22918301.71	22918301.91	22918302.11	0.0516	0.0016
Mercury	58040-01-30 20:38 G	22919764.23	22919764.36	22919764.49	0.0532	0.0121
Venus	58041-04-15 19:55 G	22920205.24	22920205.33	22920205.43	0.0516	0.0455
Venus	58041-12-08 20:10 G	22920442.26	22920442.34	22920442.42	0.0507	0.0461
Mercury	58046-03-15 05:02 G	22921999.65	22921999.71	22921999.78	0.0494	0.0458
Mercury	58046-06-13 10:34 G	22922089.82	22922089.94	22922090.08	0.0496	0.0343
Venus	58047-10-04 04:19 G	22922567.51	22922567.68	22922567.86	0.0513	0.0247
Mercury	58051-11-19 00:00 G	22924074.39	22924074.50	22924074.60	0.0534	0.0307
Mercury	58052-02-16 07:26 G	22924163.72	22924163.81	22924163.90	0.0531	0.0389
Venus	58053-08-13 17:46 G	22924708.06	22924708.24	22924708.43	0.0510	0.0216
Mercury	58058-04-01 08:38 G	22926399.69	22926399.86	22926400.04	0.0495	0.0139
Moon	58058-10-04 05:02 G	22926585.60	22926585.71	22926585.84	0.0501	0.0420
Earth	58058-10-04 08:10 G	22926585.70	22926585.84	22926585.99	0.0501	0.0390 *
Venus	58059-06-09 01:26 G	22926833.52	22926833.56	22926833.61	0.0510	0.0497
Venus	58060-02-01 02:10 G	22927070.48	22927070.59	22927070.71	0.0519	0.0429
Mercury	58063-09-07 03:50 G	22928384.60	22928384.66	22928384.71	0.0534	0.0478
Mercury	58063-12-05 11:31 G	22928473.87	22928473.98	22928474.10	0.0532	0.0226
Venus	58065-04-18 15:07 G	22928973.92	22928974.13	22928974.33	0.0513	0.0039

Mercury	58070-01-18 06:29 G	22930709.59	22930709.77	22930709.95	0.0495	0.0066
Earth	58070-10-08 19:55 G	22930973.10	22930973.33	22930973.56	0.0503	0.0104
Moon	58070-10-08 23:46 G	22930973.26	22930973.49	22930973.72	0.0503	0.0110 *
Venus	58071-10-06 22:05 G	22931336.23	22931336.42	22931336.61	0.0517	0.0166
Mercury	58075-09-23 15:50 G	22932784.03	22932784.16	22932784.29	0.0532	0.0063
Earth	58076-04-03 12:00 G	22932976.80	22932977.00	22932977.20	0.0525	0.0277
Moon	58076-04-03 13:41 G	22932976.87	22932977.07	22932977.29	0.0525	0.0262 *
Venus	58076-12-22 11:17 G	22933239.81	22933239.97	22933240.14	0.0515	0.0296
Mercury	58081-11-06 05:02 G	22935019.55	22935019.71	22935019.86	0.0495	0.0259
Moon	58082-10-13 06:43 G	22935360.57	22935360.78	22935360.99	0.0506	0.0222
Earth	58082-10-13 10:19 G	22935360.72	22935360.93	22935361.15	0.0506	0.0193 *
Venus	58083-06-11 18:58 G	22935602.09	22935602.29	22935602.49	0.0515	0.0093
Mercury	58087-07-12 19:26 G	22937094.18	22937094.31	22937094.43	0.0532	0.0115
Moon	58088-04-08 06:29 G	22937364.54	22937364.77	22937365.00	0.0523	0.0081
Earth	58088-04-08 09:50 G	22937364.68	22937364.91	22937365.15	0.0523	0.0055 *
Venus	58089-04-21 06:43 G	22937742.64	22937742.78	22937742.92	0.0508	0.0361
Mercury	58093-08-25 03:22 G	22939329.58	22939329.64	22939329.72	0.0494	0.0451
Mercury	58093-11-23 09:07 G	22939419.76	22939419.88	22939420.01	0.0497	0.0352
Earth	58094-10-18 00:43 G	22939748.48	22939748.53	22939748.59	0.0507	0.0490
Venus	58095-02-14 16:05 G	22939868.03	22939868.17	22939868.33	0.0512	0.0345
Mercury	58099-04-30 22:48 G	22941404.35	22941404.45	22941404.56	0.0533	0.0295
Mercury	58099-07-29 06:14 G	22941493.68	22941493.76	22941493.85	0.0530	0.0399
Earth	58100-04-14 07:41 G	22941752.66	22941752.82	22941752.98	0.0521	0.0382
Moon	58100-04-14 11:46 G	22941752.83	22941752.99	22941753.16	0.0521	0.0366 *
Venus	58100-12-26 03:50 G	22942008.46	22942008.66	22942008.86	0.0511	0.0111
Mercury	58105-09-12 06:58 G	22943729.62	22943729.79	22943729.97	0.0496	0.0147
Venus	58107-06-15 11:17 G	22944370.82	22944370.97	22944371.14	0.0518	0.0319
Mercury	58111-02-18 01:55 G	22945714.53	22945714.58	22945714.63	0.0534	0.0485
Mercury	58111-05-18 09:50 G	22945803.79	22945803.91	22945804.02	0.0532	0.0220
Venus	58112-08-30 23:31 G	22946274.29	22946274.48	22946274.68	0.0514	0.0147

Mercury	58117-07-01 05:02 G	22948039.53	22948039.71	22948039.89	0.0495	0.0055
Venus	58119-02-18 06:43 G	22948636.58	22948636.78	22948636.99	0.0515	0.0057
Mercury	58123-03-06 13:41 G	22950113.95	22950114.07	22950114.20	0.0532	0.0055
Venus	58124-05-05 19:12 G	22950540.18	22950540.30	22950540.43	0.0517	0.0407
Venus	58124-12-28 19:26 G	22950777.30	22950777.31	22950777.33	0.0507	0.0505
Mars	58126-12-16 06:00 G	22951494.51	22951494.75	22951495.00	0.0488	0.0113
Mercury	58129-04-19 02:38 G	22952349.47	22952349.61	22952349.77	0.0494	0.0260
Venus	58130-10-24 03:07 G	22952902.45	22952902.63	22952902.82	0.0513	0.0202
Mercury	58134-12-23 18:00 G	22954424.12	22954424.25	22954424.37	0.0533	0.0115
Venus	58136-09-02 17:31 G	22955043.06	22955043.23	22955043.41	0.0510	0.0262
Mercury	58141-02-05 01:12 G	22956659.49	22956659.55	22956659.63	0.0494	0.0451
Mercury	58141-05-06 06:58 G	22956749.66	22956749.79	22956749.92	0.0496	0.0350
Earth	58141-10-04 14:10 G	22956900.97	22956901.09	22956901.21	0.0501	0.0431
Moon	58141-10-04 17:46 G	22956901.16	22956901.24	22956901.34	0.0501	0.0463 *
Venus	58142-06-29 01:12 G	22957168.46	22957168.55	22957168.65	0.0511	0.0450
Venus	58143-02-21 02:38 G	22957405.54	22957405.61	22957405.69	0.0520	0.0477
Mars	58144-10-29 19:55 G	22958022.12	22958022.33	22958022.57	0.0539	0.0359
Mercury	58146-10-11 21:36 G	22958734.29	22958734.40	22958734.50	0.0533	0.0293
Mercury	58147-01-09 04:48 G	22958823.62	22958823.70	22958823.79	0.0530	0.0402
Venus	58148-05-08 13:12 G	22959308.85	22959309.05	22959309.26	0.0512	0.0011
Mercury	58153-02-22 05:02 G	22961059.54	22961059.71	22961059.89	0.0496	0.0150
Moon	58153-10-08 23:31 G	22961288.25	22961288.48	22961288.70	0.0503	0.0149
Earth	58153-10-09 03:07 G	22961288.41	22961288.63	22961288.85	0.0503	0.0143 *
Venus	58154-10-26 22:05 G	22961671.24	22961671.42	22961671.60	0.0517	0.0214
Mercury	58158-07-31 00:58 G	22963044.48	22963044.54	22963044.60	0.0534	0.0474
Mercury	58158-10-28 08:38 G	22963133.75	22963133.86	22963133.98	0.0531	0.0228
Moon	58159-04-04 08:24 G	22963291.68	22963291.85	22963292.04	0.0526	0.0323
Earth	58159-04-04 11:31 G	22963291.81	22963291.98	22963292.16	0.0526	0.0340 *
Venus	58160-01-12 08:38 G	22963574.69	22963574.86	22963575.04	0.0515	0.0254
Mercury	58164-12-11 03:22 G	22965369.46	22965369.64	22965369.82	0.0495	0.0051

Earth	58165-10-13 14:38 G	22965675.89	22965676.11	22965676.34	0.0504	0.0145
Moon	58165-10-13 17:31 G	22965676.02	22965676.23	22965676.44	0.0504	0.0176 *
Venus	58166-07-01 16:19 G	22965936.98	22965937.18	22965937.39	0.0514	0.0052
Mercury	58170-08-16 11:46 G	22967443.87	22967443.99	22967444.12	0.0532	0.0046
Earth	58171-04-09 07:55 G	22967679.60	22967679.83	22967680.07	0.0524	0.0014
Moon	58171-04-09 12:00 G	22967679.77	22967680.00	22967680.24	0.0524	0.0017 *
Venus	58172-05-11 04:34 G	22968077.57	22968077.69	22968077.82	0.0509	0.0401
Mercury	58176-09-29 01:26 G	22969679.40	22969679.56	22969679.71	0.0494	0.0249
Moon	58177-10-18 01:26 G	22970063.47	22970063.56	22970063.68	0.0506	0.0451
Earth	58177-10-18 02:53 G	22970063.51	22970063.62	22970063.74	0.0506	0.0437 *
Venus	58178-03-06 12:43 G	22970202.87	22970203.03	22970203.20	0.0511	0.0306
Mercury	58182-06-04 15:50 G	22971754.03	22971754.16	22971754.28	0.0533	0.0129
Moon	58183-04-14 04:05 G	22972067.49	22972067.67	22972067.87	0.0522	0.0309
Earth	58183-04-14 08:10 G	22972067.66	22972067.84	22972068.02	0.0522	0.0325 *
Venus	58184-01-15 01:55 G	22972343.38	22972343.58	22972343.77	0.0511	0.0153
Mercury	58188-07-17 23:02 G	22973989.39	22973989.46	22973989.53	0.0494	0.0454
Mercury	58188-10-16 04:34 G	22974079.56	22974079.69	22974079.82	0.0496	0.0345
Venus	58190-07-04 09:22 G	22974705.75	22974705.89	22974706.04	0.0519	0.0360
Mercury	58194-03-23 19:41 G	22976064.22	22976064.32	22976064.43	0.0534	0.0296
Mercury	58194-06-21 03:22 G	22976153.56	22976153.64	22976153.72	0.0531	0.0399
Venus	58195-09-19 22:48 G	22976609.25	22976609.45	22976609.65	0.0514	0.0101
Mercury	58200-08-05 02:38 G	22978389.44	22978389.61	22978389.78	0.0496	0.0144
Venus	58202-03-10 05:46 G	22978971.54	22978971.74	22978971.94	0.0516	0.0100
Mercury	58206-01-10 23:17 G	22980374.41	22980374.47	22980374.53	0.0534	0.0475
Mercury	58206-04-10 07:12 G	22980463.68	22980463.80	22980463.91	0.0531	0.0228
Venus	58207-05-26 17:17 G	22980875.08	22980875.22	22980875.36	0.0516	0.0363
Mercury	58212-05-24 00:58 G	22982699.36	22982699.54	22982699.72	0.0495	0.0054
Venus	58213-11-13 02:24 G	22983237.41	22983237.60	22983237.80	0.0513	0.0156
Mercury	58218-01-27 10:48 G	22984773.82	22984773.95	22984774.08	0.0532	0.0054
Venus	58219-09-23 14:10 G	22985377.93	22985378.09	22985378.26	0.0510	0.0298

Mercury	58224-03-11 23:17 G	22987009.32	22987009.47	22987009.63	0.0494	0.0249
Earth	58224-10-04 19:12 G	22987216.23	22987216.30	22987216.37	0.0500	0.0476
Venus	58225-07-18 22:48 G	22987503.33	22987503.45	22987503.57	0.0510	0.0408
Venus	58226-03-12 23:17 G	22987740.45	22987740.47	22987740.50	0.0519	0.0513
Mercury	58229-11-15 13:41 G	22989083.95	22989084.07	22989084.20	0.0533	0.0139
Venus	58231-05-29 09:36 G	22989643.70	22989643.90	22989644.10	0.0513	0.0042
Mercury	58235-12-29 21:36 G	22991319.32	22991319.40	22991319.47	0.0494	0.0445
Mercury	58236-03-29 02:53 G	22991409.50	22991409.62	22991409.75	0.0496	0.0353
Earth	58236-10-09 05:31 G	22991603.52	22991603.73	22991603.95	0.0502	0.0195
Moon	58236-10-09 08:24 G	22991603.65	22991603.85	22991604.06	0.0502	0.0198 *
Venus	58237-11-15 17:46 G	22992006.06	22992006.24	22992006.42	0.0517	0.0248
Mercury	58241-09-03 17:17 G	22993394.12	22993394.22	22993394.33	0.0534	0.0314
Mercury	58241-12-02 00:58 G	22993483.46	22993483.54	22993483.63	0.0531	0.0384
Earth	58242-04-04 08:38 G	22993606.72	22993606.86	22993607.01	0.0527	0.0410
Moon	58242-04-04 12:29 G	22993606.87	22993607.02	22993607.19	0.0527	0.0383 *
Venus	58243-02-01 05:31 G	22993909.55	22993909.73	22993909.92	0.0515	0.0216
Mercury	58248-01-16 00:00 G	22995719.33	22995719.50	22995719.67	0.0495	0.0137
Moon	58248-10-13 13:41 G	22995990.84	22995991.07	22995991.31	0.0504	0.0117
Earth	58248-10-13 15:22 G	22995990.91	22995991.14	22995991.37	0.0504	0.0089 *
Venus	58249-07-21 12:43 G	22996271.83	22996272.03	22996272.24	0.0515	0.0018
Mercury	58253-06-22 21:22 G	22997704.34	22997704.39	22997704.44	0.0534	0.0484
Mercury	58253-09-20 05:17 G	22997793.60	22997793.72	22997793.84	0.0532	0.0222
Moon	58254-04-09 06:43 G	22997994.55	22997994.78	22997995.02	0.0525	0.0037
Earth	58254-04-09 10:48 G	22997994.72	22997994.95	22997995.18	0.0525	0.0064 *
Venus	58254-10-07 01:26 G	22998175.48	22998175.56	22998175.64	0.0518	0.0473
Venus	58255-06-01 02:38 G	22998412.52	22998412.61	22998412.72	0.0508	0.0441
Mercury	58259-11-03 22:19 G	23000029.25	23000029.43	23000029.60	0.0495	0.0062
Moon	58260-10-18 04:34 G	23000378.55	23000378.69	23000378.83	0.0506	0.0395
Earth	58260-10-18 05:02 G	23000378.57	23000378.71	23000378.86	0.0506	0.0387 *
Venus	58261-03-26 10:19 G	23000537.76	23000537.93	23000538.10	0.0512	0.0266

Mercury	58265-07-09 09:07 G	23002103.75	23002103.88	23002104.01	0.0532	0.0050
Earth	58266-04-14 08:53 G	23002382.67	23002382.87	23002383.07	0.0522	0.0268
Moon	58266-04-14 11:46 G	23002382.79	23002382.99	23002383.19	0.0522	0.0252 *
Venus	58267-02-03 23:02 G	23002678.27	23002678.46	23002678.65	0.0511	0.0191
Mercury	58271-08-22 20:38 G	23004339.21	23004339.36	23004339.51	0.0495	0.0257
Venus	58273-07-24 08:10 G	23005040.72	23005040.84	23005040.97	0.0519	0.0404
Mercury	58277-04-27 12:29 G	23006413.90	23006414.02	23006414.15	0.0533	0.0131
Venus	58278-10-09 18:43 G	23006944.08	23006944.28	23006944.49	0.0513	0.0065
Mars	58281-03-11 21:07 G	23007828.24	23007828.38	23007828.51	0.0489	0.0409
Mercury	58283-06-10 19:12 G	23008649.23	23008649.30	23008649.38	0.0494	0.0447
Mercury	58283-09-09 00:43 G	23008739.40	23008739.53	23008739.66	0.0496	0.0352
Venus	58285-03-29 02:38 G	23009306.42	23009306.61	23009306.81	0.0516	0.0139
Mercury	58289-02-13 15:22 G	23010724.04	23010724.14	23010724.25	0.0534	0.0324
Mercury	58289-05-13 23:02 G	23010813.37	23010813.46	23010813.55	0.0531	0.0374
Venus	58290-06-14 12:14 G	23011209.86	23011210.01	23011210.17	0.0517	0.0330
Mercury	58295-06-27 22:34 G	23013049.26	23013049.44	23013049.61	0.0495	0.0146
Venus	58296-12-01 22:19 G	23013572.23	23013572.43	23013572.63	0.0513	0.0121
Mars	58299-01-23 16:05 G	23014354.87	23014355.17	23014355.47	0.0538	0.0009
Mercury	58300-12-03 18:58 G	23015034.25	23015034.29	23015034.33	0.0534	0.0503
Mercury	58301-03-03 02:53 G	23015123.50	23015123.62	23015123.74	0.0532	0.0205
Venus	58302-10-13 10:19 G	23015712.78	23015712.93	23015713.09	0.0510	0.0331
Mercury	58307-04-16 19:41 G	23017359.14	23017359.32	23017359.49	0.0495	0.0071
Venus	58308-08-07 18:00 G	23017838.11	23017838.25	23017838.38	0.0511	0.0375
Mercury	58312-12-20 07:12 G	23019433.67	23019433.80	23019433.93	0.0533	0.0042
Venus	58314-06-18 07:55 G	23019978.63	23019978.83	23019979.03	0.0512	0.0084
Mercury	58319-02-02 17:46 G	23021669.10	23021669.24	23021669.40	0.0494	0.0267
Moon	58319-10-10 04:34 G	23021918.48	23021918.69	23021918.90	0.0502	0.0252
Earth	58319-10-10 06:14 G	23021918.57	23021918.76	23021918.97	0.0502	0.0251 *
Venus	58320-12-05 14:53 G	23022340.95	23022341.12	23022341.29	0.0518	0.0286
Mercury	58324-10-08 10:48 G	23023743.83	23023743.95	23023744.08	0.0533	0.0134

Moon	58325-04-04 05:31 G	23023921.62	23023921.73	23023921.86	0.0527	0.0446
Earth	58325-04-04 09:36 G	23023921.81	23023921.90	23023922.01	0.0527	0.0470 *
Venus	58326-02-21 03:07 G	23024244.44	23024244.63	23024244.82	0.0515	0.0174
Mercury	58330-11-21 16:19 G	23025979.12	23025979.18	23025979.25	0.0494	0.0458
Mercury	58331-02-19 21:50 G	23026069.28	23026069.41	23026069.54	0.0496	0.0341
Moon	58331-10-14 19:26 G	23026306.08	23026306.31	23026306.53	0.0504	0.0071
Earth	58331-10-14 19:41 G	23026306.09	23026306.32	23026306.55	0.0504	0.0042 *
Venus	58332-08-10 11:17 G	23026606.77	23026606.97	23026607.18	0.0515	0.0031
Mercury	58336-07-27 14:10 G	23028053.99	23028054.09	23028054.20	0.0533	0.0316
Mercury	58336-10-24 21:50 G	23028143.32	23028143.41	23028143.50	0.0531	0.0382
Earth	58337-04-09 08:10 G	23028309.62	23028309.84	23028310.07	0.0525	0.0133
Moon	58337-04-09 11:31 G	23028309.76	23028309.98	23028310.21	0.0525	0.0105 *
Venus	58337-10-26 21:07 G	23028510.28	23028510.38	23028510.50	0.0517	0.0437
Venus	58338-06-20 22:19 G	23028747.37	23028747.43	23028747.51	0.0508	0.0473
Mercury	58342-12-08 20:10 G	23030379.17	23030379.34	23030379.51	0.0495	0.0142
Earth	58343-10-19 08:53 G	23030693.69	23030693.87	23030694.04	0.0505	0.0339
Moon	58343-10-19 11:17 G	23030693.79	23030693.97	23030694.15	0.0505	0.0337 *
Venus	58344-04-15 07:41 G	23030872.64	23030872.82	23030873.00	0.0512	0.0226
Mercury	58348-05-15 17:02 G	23032364.17	23032364.21	23032364.24	0.0534	0.0511
Mercury	58348-08-13 00:58 G	23032453.42	23032453.54	23032453.66	0.0532	0.0196
Moon	58349-04-14 01:41 G	23032697.34	23032697.57	23032697.80	0.0523	0.0175
Earth	58349-04-14 03:22 G	23032697.42	23032697.64	23032697.86	0.0523	0.0194 *
Venus	58350-02-23 18:00 G	23033013.07	23033013.25	23033013.44	0.0511	0.0222
Mercury	58354-09-26 18:00 G	23034689.07	23034689.25	23034689.43	0.0495	0.0061
Venus	58355-12-20 04:19 G	23035138.61	23035138.68	23035138.76	0.0509	0.0473
Venus	58356-08-13 03:50 G	23035375.56	23035375.66	23035375.77	0.0518	0.0436
Mercury	58360-06-01 04:48 G	23036763.57	23036763.70	23036763.83	0.0533	0.0024
Moon	58361-04-19 01:12 G	23037085.51	23037085.55	23037085.60	0.0521	0.0507
Venus	58361-10-29 14:24 G	23037278.90	23037279.10	23037279.31	0.0514	0.0033
Mercury	58366-07-15 15:07 G	23038998.99	23038999.13	23038999.28	0.0494	0.0275

Venus	58368-04-17 21:36 G	23039641.21	23039641.40	23039641.59	0.0516	0.0169
Mercury	58372-03-20 08:53 G	23041073.74	23041073.87	23041073.99	0.0533	0.0143
Venus	58373-07-04 11:02 G	23041544.79	23041544.96	23041545.13	0.0516	0.0285
Mercury	58378-05-03 13:41 G	23043309.02	23043309.07	23043309.13	0.0494	0.0467
Mercury	58378-08-01 18:58 G	23043399.16	23043399.29	23043399.43	0.0496	0.0330
Venus	58379-12-22 18:29 G	23043907.07	23043907.27	23043907.47	0.0514	0.0085
Mercury	58384-01-07 12:29 G	23045383.92	23045384.02	23045384.13	0.0534	0.0319
Mercury	58384-04-05 20:10 G	23045473.25	23045473.34	23045473.43	0.0531	0.0379
Venus	58385-11-01 07:41 G	23046047.69	23046047.82	23046047.97	0.0509	0.0370
Mercury	58390-05-20 17:17 G	23047709.04	23047709.22	23047709.39	0.0496	0.0130
Venus	58391-08-27 16:19 G	23048173.03	23048173.18	23048173.34	0.0511	0.0332
Mercury	58395-10-26 15:50 G	23049694.12	23049694.16	23049694.21	0.0534	0.0501
Mercury	58396-01-24 00:00 G	23049783.38	23049783.50	23049783.62	0.0532	0.0206
Venus	58397-07-07 03:50 G	23050313.46	23050313.66	23050313.86	0.0512	0.0120
Mars	58399-09-03 03:22 G	23051101.44	23051101.64	23051101.84	0.0489	0.0301
Mercury	58402-03-08 15:50 G	23052018.98	23052019.16	23052019.33	0.0495	0.0065
Earth	58402-10-09 11:17 G	23052233.78	23052233.97	23052234.16	0.0501	0.0295
Moon	58402-10-09 11:17 G	23052233.79	23052233.97	23052234.15	0.0501	0.0290 *
Venus	58403-12-25 12:43 G	23052675.87	23052676.03	23052676.18	0.0517	0.0325
Mercury	58407-11-12 02:53 G	23054093.49	23054093.62	23054093.75	0.0532	0.0024
Moon	58408-04-03 07:12 G	23054236.79	23054236.80	23054236.83	0.0528	0.0525
Venus	58409-03-11 21:50 G	23054579.22	23054579.41	23054579.61	0.0515	0.0143
Mercury	58413-12-25 13:55 G	23056328.93	23056329.08	23056329.23	0.0494	0.0263
Earth	58414-10-13 22:19 G	23056621.20	23056621.43	23056621.67	0.0503	0.0010
Moon	58414-10-14 00:43 G	23056621.28	23056621.53	23056621.77	0.0503	0.0023 *
Venus	58415-08-30 07:55 G	23056941.62	23056941.83	23056942.03	0.0515	0.0066
Mercury	58419-08-31 06:43 G	23058403.65	23058403.78	23058403.90	0.0533	0.0159
Moon	58420-04-08 01:41 G	23058624.35	23058624.57	23058624.80	0.0526	0.0180
Earth	58420-04-08 04:05 G	23058624.46	23058624.67	23058624.89	0.0526	0.0204 *
Venus	58420-11-14 17:02 G	23058845.08	23058845.21	23058845.34	0.0518	0.0402

Venus	58421-07-09 18:29 G	23059082.25	23059082.27	23059082.30	0.0508	0.0504
Mercury	58425-10-13 11:02 G	23060638.92	23060638.96	23060639.02	0.0493	0.0474
Mercury	58426-01-11 16:19 G	23060729.05	23060729.18	23060729.32	0.0496	0.0322
Moon	58426-10-18 03:22 G	23061008.46	23061008.64	23061008.84	0.0505	0.0275
Earth	58426-10-18 06:43 G	23061008.59	23061008.78	23061008.98	0.0505	0.0275 *
Venus	58427-05-05 02:10 G	23061207.40	23061207.59	23061207.78	0.0512	0.0195
Mercury	58431-06-19 10:34 G	23062713.84	23062713.94	23062714.05	0.0534	0.0328
Mercury	58431-09-16 18:29 G	23062803.18	23062803.27	23062803.36	0.0531	0.0373
Moon	58432-04-13 06:14 G	23063012.54	23063012.76	23063012.98	0.0524	0.0118
Earth	58432-04-13 06:29 G	23063012.55	23063012.77	23063013.00	0.0524	0.0143 *
Venus	58433-03-14 17:02 G	23063348.04	23063348.21	23063348.39	0.0511	0.0265
Mercury	58437-10-30 14:24 G	23065038.93	23065039.10	23065039.28	0.0495	0.0122
Venus	58439-01-08 00:00 G	23065473.41	23065473.50	23065473.61	0.0510	0.0439
Venus	58439-09-02 00:29 G	23065710.44	23065710.52	23065710.61	0.0519	0.0471
Mercury	58443-04-07 14:24 G	23067024.06	23067024.10	23067024.14	0.0534	0.0503
Mercury	58443-07-05 22:19 G	23067113.31	23067113.43	23067113.55	0.0532	0.0205
Earth	58444-04-18 05:17 G	23067400.64	23067400.72	23067400.82	0.0521	0.0476
Moon	58444-04-18 07:41 G	23067400.72	23067400.82	23067400.95	0.0521	0.0457 *
Venus	58444-11-17 13:12 G	23067613.84	23067614.05	23067614.25	0.0513	0.0017
Mercury	58449-08-18 12:58 G	23069348.86	23069349.04	23069349.22	0.0495	0.0075
Venus	58451-05-07 20:53 G	23069976.18	23069976.37	23069976.55	0.0517	0.0215
Mars	58453-04-19 14:38 G	23070689.02	23070689.11	23070689.22	0.0539	0.0507
Mercury	58455-04-24 02:10 G	23071423.46	23071423.59	23071423.71	0.0532	0.0035
Venus	58456-07-23 07:55 G	23071879.66	23071879.83	23071880.02	0.0516	0.0245
Mercury	58461-06-06 11:31 G	23073658.84	23073658.98	23073659.14	0.0494	0.0266
Venus	58463-01-10 17:17 G	23074242.01	23074242.22	23074242.42	0.0514	0.0042
Mercury	58467-02-10 05:02 G	23075733.59	23075733.71	23075733.83	0.0533	0.0160
Mercury	58467-05-10 12:29 G	23075823.02	23075823.02	23075823.02	0.0530	0.0530
Venus	58468-03-28 00:29 G	23076145.50	23076145.52	23076145.56	0.0519	0.0512
Venus	58468-11-20 03:22 G	23076382.52	23076382.64	23076382.77	0.0509	0.0401

Mercury	58473-03-25 10:05 G	23077968.86	23077968.92	23077968.98	0.0494	0.0459
Mercury	58473-06-23 15:07 G	23078059.00	23078059.13	23078059.27	0.0496	0.0337
Venus	58474-09-15 13:41 G	23078507.91	23078508.07	23078508.24	0.0511	0.0292
Mercury	58478-11-29 08:38 G	23080043.76	23080043.86	23080043.96	0.0534	0.0339
Mercury	58479-02-26 16:19 G	23080133.09	23080133.18	23080133.27	0.0531	0.0362
Venus	58480-07-26 00:29 G	23080648.33	23080648.52	23080648.71	0.0512	0.0154
Mercury	58485-04-11 12:00 G	23082368.83	23082369.00	23082369.18	0.0495	0.0117
Earth	58485-10-08 10:19 G	23082548.77	23082548.93	23082549.09	0.0500	0.0358
Moon	58485-10-08 12:14 G	23082548.83	23082549.01	23082549.18	0.0500	0.0343 *
Venus	58487-01-13 07:26 G	23083010.67	23083010.81	23083010.96	0.0518	0.0357
Mercury	58490-09-17 12:29 G	23084353.98	23084354.02	23084354.05	0.0535	0.0511
Mercury	58490-12-15 20:24 G	23084443.24	23084443.35	23084443.48	0.0532	0.0200
Venus	58492-03-30 22:05 G	23084914.22	23084914.42	23084914.62	0.0515	0.0094
Mercury	58497-01-28 10:34 G	23086678.76	23086678.94	23086679.11	0.0495	0.0081
Moon	58497-10-12 19:41 G	23086936.09	23086936.32	23086936.54	0.0502	0.0037
Earth	58497-10-12 22:48 G	23086936.22	23086936.45	23086936.68	0.0502	0.0067 *
Venus	58498-09-18 04:05 G	23087276.47	23087276.67	23087276.87	0.0515	0.0101
Mercury	58502-10-05 00:29 G	23088753.39	23088753.52	23088753.65	0.0533	0.0033
Earth	58503-04-09 09:07 G	23088939.68	23088939.88	23088940.08	0.0526	0.0255
Moon	58503-04-09 09:22 G	23088939.70	23088939.89	23088940.09	0.0526	0.0240 *
Venus	58503-12-05 17:02 G	23089180.07	23089180.21	23089180.36	0.0517	0.0351
Mercury	58508-11-17 09:07 G	23090988.73	23090988.88	23090989.03	0.0494	0.0273
Earth	58509-10-18 12:43 G	23091323.82	23091324.03	23091324.24	0.0505	0.0232
Moon	58509-10-18 16:34 G	23091323.99	23091324.19	23091324.40	0.0505	0.0230 *
Venus	58510-05-25 01:41 G	23091542.38	23091542.57	23091542.77	0.0513	0.0148
Mercury	58514-07-24 04:05 G	23093063.55	23093063.67	23093063.80	0.0533	0.0146
Earth	58515-04-14 08:10 G	23093327.61	23093327.84	23093328.07	0.0524	0.0086
Moon	58515-04-14 10:05 G	23093327.68	23093327.92	23093328.16	0.0524	0.0057 *
Venus	58516-04-03 14:53 G	23093682.96	23093683.12	23093683.28	0.0510	0.0305
Mercury	58520-09-05 07:55 G	23095298.77	23095298.83	23095298.90	0.0494	0.0459

Mercury	58520-12-04 13:12 G	23095388.92	23095389.05	23095389.18	0.0496	0.0337
Moon	58521-10-22 23:46 G	23095711.47	23095711.49	23095711.52	0.0506	0.0503
Venus	58522-01-28 00:00 G	23095808.37	23095808.50	23095808.63	0.0510	0.0392
Venus	58522-09-22 00:14 G	23096045.49	23096045.51	23096045.53	0.0519	0.0516
Mercury	58526-05-12 07:12 G	23097373.70	23097373.80	23097373.90	0.0534	0.0335
Mercury	58526-08-09 14:53 G	23097463.03	23097463.12	23097463.21	0.0531	0.0364
Moon	58527-04-19 00:14 G	23097715.36	23097715.51	23097715.66	0.0522	0.0391
Earth	58527-04-19 03:22 G	23097715.50	23097715.64	23097715.79	0.0522	0.0413 *
Venus	58527-12-08 09:36 G	23097948.69	23097948.90	23097949.10	0.0513	0.0051
Mercury	58532-09-22 11:17 G	23099698.79	23099698.97	23099699.14	0.0495	0.0135
Venus	58534-05-27 18:58 G	23100311.11	23100311.29	23100311.47	0.0516	0.0255
Mercury	58538-02-28 10:34 G	23101683.91	23101683.94	23101683.98	0.0534	0.0516
Mercury	58538-05-28 18:43 G	23101773.16	23101773.28	23101773.40	0.0532	0.0193
Venus	58539-08-13 05:17 G	23102214.54	23102214.72	23102214.91	0.0516	0.0206
Mercury	58544-07-11 08:24 G	23104008.67	23104008.85	23104009.02	0.0494	0.0081
Venus	58546-01-30 12:29 G	23104576.82	23104577.02	23104577.22	0.0514	0.0007
Mercury	58550-03-16 22:48 G	23106083.32	23106083.45	23106083.58	0.0533	0.0028
Venus	58551-04-18 01:41 G	23106480.48	23106480.57	23106480.67	0.0518	0.0458
Venus	58551-12-11 04:19 G	23106717.58	23106717.68	23106717.77	0.0509	0.0448
Mars	58553-11-27 21:50 G	23107435.15	23107435.41	23107435.66	0.0489	0.0024
Mercury	58556-04-29 06:58 G	23108318.64	23108318.79	23108318.94	0.0494	0.0274
Venus	58557-10-05 10:05 G	23108842.75	23108842.92	23108843.10	0.0511	0.0255
Mercury	58562-01-03 02:53 G	23110393.49	23110393.62	23110393.74	0.0533	0.0142
Venus	58563-08-16 01:26 G	23110983.37	23110983.56	23110983.74	0.0511	0.0205
Mercury	58568-02-16 05:31 G	23112628.68	23112628.73	23112628.80	0.0494	0.0464
Mercury	58568-05-16 10:48 G	23112718.82	23112718.95	23112719.08	0.0496	0.0332
Moon	58568-10-08 14:24 G	23112863.96	23112864.10	23112864.25	0.0500	0.0382
Earth	58568-10-08 17:31 G	23112864.10	23112864.23	23112864.37	0.0500	0.0399 *
Venus	58569-06-10 09:07 G	23113108.84	23113108.88	23113108.93	0.0509	0.0492
Venus	58570-02-02 08:24 G	23113345.73	23113345.85	23113345.98	0.0518	0.0406

Mercury	58573-10-22 06:29 G	23114703.67	23114703.77	23114703.88	0.0534	0.0318
Mercury	58574-01-19 14:10 G	23114793.00	23114793.09	23114793.18	0.0531	0.0382
Venus	58575-04-20 21:22 G	23115249.18	23115249.39	23115249.59	0.0514	0.0047
Mercury	58580-03-04 09:22 G	23117028.72	23117028.89	23117029.06	0.0495	0.0138
Earth	58580-10-13 07:12 G	23117251.57	23117251.80	23117252.03	0.0502	0.0103
Moon	58580-10-13 11:02 G	23117251.73	23117251.96	23117252.20	0.0502	0.0072 *
Venus	58581-10-08 05:02 G	23117611.52	23117611.71	23117611.90	0.0515	0.0151
Mercury	58585-08-10 09:36 G	23119013.86	23119013.90	23119013.93	0.0534	0.0509
Mercury	58585-11-07 17:31 G	23119103.11	23119103.23	23119103.35	0.0532	0.0200
Earth	58586-04-08 08:38 G	23119254.68	23119254.86	23119255.05	0.0527	0.0319
Moon	58586-04-08 09:50 G	23119254.72	23119254.91	23119255.11	0.0527	0.0307 *
Venus	58586-12-24 14:38 G	23119514.95	23119515.11	23119515.27	0.0517	0.0310
Mercury	58591-12-22 07:41 G	23121338.64	23121338.82	23121339.00	0.0495	0.0061
Moon	58592-10-17 15:50 G	23121638.94	23121639.16	23121639.38	0.0504	0.0186
Earth	58592-10-17 19:41 G	23121639.10	23121639.32	23121639.53	0.0504	0.0192 *
Venus	58593-06-13 01:12 G	23121877.35	23121877.55	23121877.75	0.0513	0.0102
Mercury	58597-08-26 21:22 G	23123413.26	23123413.39	23123413.52	0.0533	0.0030
Moon	58598-04-13 06:00 G	23123642.52	23123642.75	23123642.98	0.0525	0.0004
Earth	58598-04-13 08:53 G	23123642.64	23123642.87	23123643.10	0.0525	0.0028 *
Venus	58599-04-23 13:12 G	23124017.91	23124018.05	23124018.21	0.0510	0.0345
Mercury	58603-10-11 05:02 G	23125648.56	23125648.71	23125648.86	0.0494	0.0271
Earth	58604-10-23 04:19 G	23126026.61	23126026.68	23126026.76	0.0506	0.0477
Moon	58604-10-23 06:58 G	23126026.69	23126026.79	23126026.90	0.0506	0.0449 *
Venus	58605-02-16 19:55 G	23126143.19	23126143.33	23126143.48	0.0510	0.0355
Mercury	58609-06-16 01:12 G	23127723.43	23127723.55	23127723.68	0.0534	0.0144
Earth	58610-04-19 10:34 G	23128030.78	23128030.94	23128031.11	0.0523	0.0372
Moon	58610-04-19 14:24 G	23128030.93	23128031.10	23128031.28	0.0523	0.0356 *
Venus	58610-12-28 11:31 G	23128283.78	23128283.98	23128284.18	0.0513	0.0103
Mercury	58615-07-30 03:50 G	23129958.60	23129958.66	23129958.72	0.0493	0.0459
Mercury	58615-10-28 08:53 G	23130048.73	23130048.87	23130049.00	0.0495	0.0334

Venus	58617-06-16 16:19 G	23130646.02	23130646.18	23130646.35	0.0517	0.0295
Mercury	58621-04-04 05:17 G	23132033.61	23132033.72	23132033.82	0.0534	0.0314
Mercury	58621-07-02 12:58 G	23132122.95	23132123.04	23132123.13	0.0531	0.0388
Venus	58622-09-02 07:41 G	23132549.63	23132549.82	23132550.02	0.0515	0.0148
Mercury	58627-08-16 07:12 G	23134358.63	23134358.80	23134358.97	0.0495	0.0137
Venus	58629-02-19 13:55 G	23134911.88	23134912.08	23134912.28	0.0514	0.0045
Mercury	58633-01-21 08:53 G	23136343.82	23136343.87	23136343.92	0.0535	0.0490
Mercury	58633-04-20 16:48 G	23136433.09	23136433.20	23136433.32	0.0532	0.0220
Venus	58634-05-08 02:38 G	23136815.48	23136815.61	23136815.73	0.0518	0.0405
Venus	58634-12-31 04:05 G	23137052.63	23137052.67	23137052.73	0.0509	0.0494
Mercury	58639-06-04 06:00 G	23138668.57	23138668.75	23138668.93	0.0495	0.0054
Venus	58640-10-25 12:00 G	23139177.82	23139178.00	23139178.19	0.0512	0.0201
Mercury	58645-02-06 20:10 G	23140743.21	23140743.34	23140743.47	0.0532	0.0042
Venus	58646-09-05 00:00 G	23141318.32	23141318.50	23141318.68	0.0511	0.0246
Mercury	58651-03-23 04:34 G	23142978.54	23142978.69	23142978.84	0.0494	0.0248
Earth	58651-10-10 02:24 G	23143179.49	23143179.60	23143179.72	0.0500	0.0434
Moon	58651-10-10 06:14 G	23143179.64	23143179.76	23143179.90	0.0500	0.0411 *
Venus	58652-06-30 09:36 G	23143443.81	23143443.90	23143444.00	0.0509	0.0443
Venus	58653-02-22 08:38 G	23143680.77	23143680.86	23143680.96	0.0518	0.0453
Mercury	58656-11-26 00:00 G	23145053.37	23145053.50	23145053.62	0.0533	0.0139
Venus	58658-05-10 20:38 G	23145584.15	23145584.36	23145584.56	0.0514	0.0003
Mercury	58663-01-09 02:10 G	23147288.53	23147288.59	23147288.67	0.0493	0.0452
Mercury	58663-04-09 07:12 G	23147378.67	23147378.80	23147378.93	0.0495	0.0341
Moon	58663-10-14 06:29 G	23147566.55	23147566.77	23147567.00	0.0501	0.0128
Earth	58663-10-14 10:19 G	23147566.72	23147566.93	23147567.16	0.0501	0.0157 *
Venus	58664-10-28 01:41 G	23147946.39	23147946.57	23147946.76	0.0515	0.0190
Mercury	58668-09-14 03:36 G	23149363.55	23149363.65	23149363.76	0.0535	0.0314
Mercury	58668-12-12 11:31 G	23149452.89	23149452.98	23149453.07	0.0532	0.0389
Moon	58669-04-08 13:26 G	23149569.90	23149570.06	23149570.23	0.0528	0.0357
Earth	58669-04-08 15:50 G	23149570.00	23149570.16	23149570.34	0.0528	0.0365 *

Venus	58670-01-13 17:31 G	23149850.05	23149850.23	23149850.40	0.0517	0.0251
Mercury	58675-01-26 05:31 G	23151688.56	23151688.73	23151688.91	0.0495	0.0144
Earth	58675-10-18 23:31 G	23151954.25	23151954.48	23151954.70	0.0503	0.0140
Moon	58675-10-19 02:10 G	23151954.38	23151954.59	23151954.82	0.0503	0.0129 *
Venus	58676-07-02 23:02 G	23152212.26	23152212.46	23152212.66	0.0513	0.0060
Mercury	58680-07-03 07:41 G	23153673.76	23153673.82	23153673.87	0.0535	0.0484
Mercury	58680-09-30 15:50 G	23153763.04	23153763.16	23153763.27	0.0532	0.0227
Earth	58681-04-13 18:29 G	23153958.03	23153958.27	23153958.50	0.0525	0.0013
Moon	58681-04-13 22:05 G	23153958.19	23153958.42	23153958.66	0.0525	0.0043 *
Venus	58681-09-18 12:43 G	23154115.99	23154116.03	23154116.07	0.0519	0.0506
Venus	58682-05-13 16:05 G	23154353.04	23154353.17	23154353.29	0.0510	0.0400
Mercury	58686-11-14 04:05 G	23155998.49	23155998.67	23155998.85	0.0494	0.0051
Moon	58687-10-23 12:43 G	23156341.90	23156342.03	23156342.17	0.0505	0.0414
Earth	58687-10-23 13:55 G	23156341.98	23156342.08	23156342.19	0.0505	0.0444 *
Venus	58688-03-07 21:50 G	23156478.24	23156478.41	23156478.57	0.0511	0.0301
Mercury	58692-07-19 19:41 G	23158073.19	23158073.32	23158073.45	0.0533	0.0058
Moon	58693-04-18 14:53 G	23158345.94	23158346.12	23158346.31	0.0523	0.0321
Earth	58693-04-18 18:43 G	23158346.10	23158346.28	23158346.46	0.0523	0.0332 *
Venus	58694-01-16 12:58 G	23158618.84	23158619.04	23158619.23	0.0512	0.0155
Mercury	58698-09-02 03:07 G	23160308.47	23160308.63	23160308.78	0.0494	0.0239
Venus	58700-07-06 19:12 G	23160981.15	23160981.30	23160981.45	0.0517	0.0350
Mercury	58704-05-08 23:02 G	23162383.33	23162383.46	23162383.59	0.0533	0.0125
Venus	58705-09-22 07:12 G	23162884.61	23162884.80	23162885.01	0.0515	0.0102
Mars	58708-02-24 00:29 G	23163769.37	23163769.52	23163769.68	0.0489	0.0388
Mercury	58710-06-22 01:41 G	23164618.49	23164618.57	23164618.66	0.0493	0.0429
Mercury	58710-09-20 06:43 G	23164708.66	23164708.78	23164708.90	0.0496	0.0367
Venus	58712-03-11 15:22 G	23165246.94	23165247.14	23165247.34	0.0514	0.0097
Mercury	58716-02-26 02:38 G	23166693.50	23166693.61	23166693.72	0.0534	0.0303
Mercury	58716-05-25 10:19 G	23166782.85	23166782.93	23166783.02	0.0531	0.0398
Venus	58717-05-28 02:24 G	23167150.46	23167150.60	23167150.75	0.0518	0.0357

Mercury	58722-07-09 04:05 G	23169018.51	23169018.67	23169018.85	0.0495	0.0155
Venus	58723-11-15 09:36 G	23169512.71	23169512.90	23169513.09	0.0512	0.0159
Mars	58725-12-31 21:07 G	23170290.18	23170290.38	23170290.61	0.0538	0.0381
Mercury	58727-12-15 06:14 G	23171003.70	23171003.76	23171003.81	0.0535	0.0484
Mercury	58728-03-13 14:24 G	23171092.98	23171093.10	23171093.21	0.0533	0.0229
Venus	58729-09-25 03:07 G	23171653.47	23171653.63	23171653.80	0.0511	0.0304
Mercury	58734-04-27 02:53 G	23173328.44	23173328.62	23173328.79	0.0494	0.0042
Moon	58734-10-10 04:19 G	23173494.60	23173494.68	23173494.78	0.0499	0.0460
Earth	58734-10-10 08:10 G	23173494.79	23173494.84	23173494.91	0.0499	0.0481
Venus	58735-07-21 07:55 G	23173778.71	23173778.83	23173778.96	0.0509	0.0398
Venus	58736-03-14 07:12 G	23174015.75	23174015.80	23174015.86	0.0519	0.0496
Mercury	58739-12-31 18:29 G	23175403.14	23175403.27	23175403.40	0.0533	0.0065
Venus	58741-05-31 00:00 G	23175919.30	23175919.50	23175919.71	0.0514	0.0058
Mercury	58746-02-13 01:26 G	23177638.40	23177638.56	23177638.72	0.0494	0.0233
Earth	58746-10-14 20:38 G	23177882.15	23177882.36	23177882.58	0.0501	0.0189
Moon	58746-10-14 23:46 G	23177882.27	23177882.49	23177882.70	0.0501	0.0167 *
Venus	58747-11-18 04:19 G	23178281.50	23178281.68	23178281.86	0.0516	0.0245
Mercury	58751-10-19 22:19 G	23179713.31	23179713.43	23179713.56	0.0534	0.0106
Earth	58752-04-09 01:12 G	23179885.40	23179885.55	23179885.70	0.0528	0.0402
Moon	58752-04-09 04:34 G	23179885.54	23179885.69	23179885.85	0.0528	0.0397 *
Venus	58753-02-02 19:55 G	23180185.14	23180185.33	23180185.52	0.0516	0.0194
Mercury	58757-12-02 00:29 G	23181948.43	23181948.52	23181948.61	0.0493	0.0418
Mercury	58758-03-02 05:17 G	23182038.61	23182038.72	23182038.84	0.0496	0.0378
Moon	58758-10-19 09:50 G	23182269.68	23182269.91	23182270.15	0.0503	0.0091
Earth	58758-10-19 11:02 G	23182269.74	23182269.96	23182270.19	0.0503	0.0113 *
Venus	58759-07-24 02:10 G	23182547.39	23182547.59	23182547.79	0.0513	0.0003
Mercury	58763-08-08 01:41 G	23184023.46	23184023.57	23184023.68	0.0534	0.0289
Mercury	58763-11-05 09:36 G	23184112.82	23184112.90	23184112.98	0.0531	0.0412
Moon	58764-04-13 19:26 G	23184273.09	23184273.31	23184273.55	0.0526	0.0094
Earth	58764-04-13 23:17 G	23184273.24	23184273.47	23184273.71	0.0526	0.0060 *

Venus	58764-10-08 12:58 G	23184450.95	23184451.04	23184451.14	0.0519	0.0456
Venus	58765-06-02 16:05 G	23184688.08	23184688.17	23184688.27	0.0510	0.0444
Mercury	58769-12-19 03:50 G	23186348.49	23186348.66	23186348.83	0.0495	0.0180
Moon	58770-10-24 00:14 G	23186657.36	23186657.51	23186657.65	0.0505	0.0388
Earth	58770-10-24 00:29 G	23186657.39	23186657.52	23186657.66	0.0505	0.0413 *
Venus	58771-03-28 23:31 G	23186813.31	23186813.48	23186813.66	0.0511	0.0248
Mercury	58775-05-27 05:17 G	23188333.66	23188333.72	23188333.78	0.0535	0.0469
Mercury	58775-08-24 13:26 G	23188422.94	23188423.06	23188423.17	0.0532	0.0242
Earth	58776-04-18 23:02 G	23188661.27	23188661.46	23188661.66	0.0524	0.0285
Moon	58776-04-19 01:41 G	23188661.39	23188661.57	23188661.77	0.0524	0.0286 *
Venus	58777-02-05 13:26 G	23188953.87	23188954.06	23188954.25	0.0512	0.0203
Mercury	58781-10-07 01:41 G	23190658.39	23190658.57	23190658.75	0.0494	0.0029
Venus	58782-12-01 19:26 G	23191079.26	23191079.31	23191079.36	0.0508	0.0490
Venus	58783-07-26 17:02 G	23191316.08	23191316.21	23191316.34	0.0517	0.0392
Mercury	58787-06-12 17:02 G	23192733.08	23192733.21	23192733.34	0.0534	0.0068
Venus	58788-10-11 10:34 G	23193219.73	23193219.94	23193220.14	0.0515	0.0044
Mercury	58793-07-26 00:14 G	23194968.35	23194968.51	23194968.67	0.0493	0.0219
Venus	58795-03-31 13:55 G	23195581.88	23195582.08	23195582.27	0.0514	0.0142
Mercury	58799-03-31 21:07 G	23197043.25	23197043.38	23197043.51	0.0534	0.0100
Venus	58800-06-16 06:14 G	23197485.59	23197485.76	23197485.93	0.0518	0.0295
Mercury	58805-05-13 23:02 G	23199278.36	23199278.46	23199278.55	0.0493	0.0410
Mercury	58805-08-12 03:50 G	23199368.55	23199368.66	23199368.77	0.0495	0.0384
Venus	58806-12-04 11:46 G	23199847.79	23199847.99	23199848.19	0.0512	0.0104
Mercury	58811-01-18 01:12 G	23201353.43	23201353.55	23201353.66	0.0534	0.0271
Mercury	58811-04-17 08:53 G	23201442.80	23201442.87	23201442.94	0.0532	0.0431
Venus	58812-10-14 05:17 G	23201988.58	23201988.72	23201988.87	0.0511	0.0357
Mercury	58817-05-31 02:24 G	23203678.44	23203678.60	23203678.77	0.0495	0.0191
Moon	58817-10-09 22:48 G	23203810.40	23203810.45	23203810.51	0.0499	0.0483
Venus	58818-08-09 10:48 G	23204113.81	23204113.95	23204114.11	0.0510	0.0343
Mercury	58822-11-06 04:19 G	23205663.62	23205663.68	23205663.75	0.0535	0.0454

Mercury	58823-02-03 12:29 G	23205752.91	23205753.02	23205753.13	0.0532	0.0256
Venus	58824-06-19 00:29 G	23206254.32	23206254.52	23206254.72	0.0513	0.0107
Mars	58826-08-17 01:41 G	23207043.35	23207043.57	23207043.80	0.0490	0.0225
Mercury	58829-03-19 00:58 G	23207988.36	23207988.54	23207988.72	0.0494	0.0008
Moon	58829-10-14 06:58 G	23208197.57	23208197.79	23208198.01	0.0501	0.0203
Earth	58829-10-14 08:10 G	23208197.63	23208197.84	23208198.05	0.0501	0.0218 *
Venus	58830-12-07 06:29 G	23208616.61	23208616.77	23208616.94	0.0516	0.0299
Mercury	58834-11-22 16:19 G	23210063.05	23210063.18	23210063.30	0.0533	0.0083
Moon	58835-04-09 01:26 G	23210200.45	23210200.56	23210200.68	0.0528	0.0456
Earth	58835-04-09 05:17 G	23210200.61	23210200.72	23210200.84	0.0528	0.0456 *
Venus	58836-02-22 20:24 G	23210520.16	23210520.35	23210520.55	0.0516	0.0144
Mercury	58841-01-04 23:02 G	23212298.30	23212298.46	23212298.63	0.0493	0.0205
Moon	58841-10-18 17:31 G	23212585.00	23212585.23	23212585.45	0.0502	0.0043
Earth	58841-10-18 17:46 G	23212585.01	23212585.24	23212585.47	0.0502	0.0068 *
Venus	58842-08-12 00:29 G	23212882.32	23212882.52	23212882.73	0.0513	0.0043
Mercury	58846-09-10 19:41 G	23214373.19	23214373.32	23214373.45	0.0534	0.0098
Earth	58847-04-14 05:46 G	23214588.52	23214588.74	23214588.98	0.0527	0.0107
Moon	58847-04-14 08:53 G	23214588.65	23214588.87	23214589.09	0.0527	0.0138 *
Venus	58847-10-28 15:22 G	23214786.02	23214786.14	23214786.27	0.0519	0.0398
Venus	58848-06-21 18:43 G	23215023.26	23215023.28	23215023.33	0.0510	0.0500
Mercury	58852-10-23 21:50 G	23216608.31	23216608.41	23216608.52	0.0493	0.0394
Mercury	58853-01-22 02:38 G	23216698.51	23216698.61	23216698.72	0.0495	0.0398
Earth	58853-10-23 06:29 G	23216972.61	23216972.77	23216972.93	0.0504	0.0366
Moon	58853-10-23 08:10 G	23216972.67	23216972.84	23216973.02	0.0504	0.0342 *
Venus	58854-04-16 22:19 G	23217148.24	23217148.43	23217148.62	0.0510	0.0202
Mercury	58858-06-29 23:46 G	23218683.37	23218683.49	23218683.60	0.0535	0.0268
Mercury	58858-09-27 07:26 G	23218772.74	23218772.81	23218772.89	0.0532	0.0436
Moon	58859-04-19 06:58 G	23218976.58	23218976.79	23218977.00	0.0525	0.0251
Earth	58859-04-19 08:24 G	23218976.64	23218976.85	23218977.06	0.0525	0.0247 *
Venus	58860-02-25 16:34 G	23219289.01	23219289.19	23219289.36	0.0512	0.0260

Mercury	58864-11-10 00:43 G	23221008.37	23221008.53	23221008.70	0.0495	0.0199
Venus	58865-12-20 20:53 G	23221414.28	23221414.37	23221414.48	0.0508	0.0439
Venus	58866-08-14 19:41 G	23221651.22	23221651.32	23221651.42	0.0518	0.0446
Mercury	58870-04-18 03:36 G	23222993.57	23222993.65	23222993.72	0.0535	0.0439
Mercury	58870-07-16 11:46 G	23223082.88	23223082.99	23223083.10	0.0533	0.0272
Venus	58871-10-31 12:58 G	23223554.84	23223555.04	23223555.24	0.0515	0.0014
Mercury	58876-08-28 23:31 G	23225318.30	23225318.48	23225318.66	0.0494	0.0009
Venus	58878-04-19 16:48 G	23225917.02	23225917.20	23225917.39	0.0515	0.0197
Mars	58880-03-28 08:10 G	23226625.61	23226625.84	23226626.09	0.0539	0.0327
Mercury	58882-05-04 15:22 G	23227393.01	23227393.14	23227393.27	0.0533	0.0095
Venus	58883-07-06 06:43 G	23227820.60	23227820.78	23227820.96	0.0517	0.0244
Mercury	58888-06-16 22:19 G	23229628.27	23229628.43	23229628.60	0.0494	0.0186
Venus	58889-12-23 13:55 G	23230182.88	23230183.08	23230183.28	0.0512	0.0050
Mercury	58894-02-20 18:58 G	23231703.16	23231703.29	23231703.42	0.0534	0.0083
Venus	58895-03-11 01:12 G	23232086.49	23232086.55	23232086.60	0.0520	0.0500
Venus	58895-11-03 05:31 G	23232323.61	23232323.73	23232323.86	0.0511	0.0403
Mercury	58900-04-05 20:38 G	23233938.26	23233938.36	23233938.48	0.0493	0.0381
Mercury	58900-07-05 01:26 G	23234028.47	23234028.56	23234028.66	0.0495	0.0412
Venus	58901-08-29 09:36 G	23234448.74	23234448.90	23234449.07	0.0509	0.0296
Mercury	58905-12-10 22:05 G	23236013.31	23236013.42	23236013.53	0.0535	0.0268
Mercury	58906-03-10 06:00 G	23236102.68	23236102.75	23236102.82	0.0532	0.0436
Venus	58907-07-10 02:24 G	23236589.41	23236589.60	23236589.79	0.0514	0.0161
Mercury	58912-04-22 23:46 G	23238338.33	23238338.49	23238338.65	0.0494	0.0213
Moon	58912-10-14 14:38 G	23238512.92	23238513.11	23238513.31	0.0499	0.0252
Earth	58912-10-14 14:53 G	23238512.93	23238513.12	23238513.33	0.0499	0.0261 *
Venus	58913-12-27 04:48 G	23238951.55	23238951.70	23238951.85	0.0516	0.0341
Mercury	58917-09-29 01:55 G	23240323.51	23240323.58	23240323.65	0.0536	0.0441
Mercury	58917-12-27 10:05 G	23240412.82	23240412.92	23240413.04	0.0533	0.0273
Earth	58918-04-09 11:46 G	23240515.92	23240515.99	23240516.06	0.0530	0.0504
Moon	58918-04-09 14:53 G	23240516.08	23240516.12	23240516.18	0.0530	0.0514

Venus	58919-03-14 22:48 G	23240855.25	23240855.45	23240855.65	0.0516	0.0089
Mercury	58924-02-09 22:05 G	23242648.24	23242648.42	23242648.59	0.0494	0.0017
Earth	58924-10-19 02:38 G	23242900.38	23242900.61	23242900.84	0.0502	0.0033
Moon	58924-10-19 04:19 G	23242900.44	23242900.68	23242900.92	0.0502	0.0009 *
Venus	58925-09-01 01:55 G	23243217.38	23243217.58	23243217.78	0.0514	0.0094
Mercury	58929-10-15 14:24 G	23244722.97	23244723.10	23244723.22	0.0533	0.0108
Moon	58930-04-14 12:58 G	23244903.82	23244904.04	23244904.27	0.0527	0.0176
Earth	58930-04-14 14:38 G	23244903.89	23244904.11	23244904.34	0.0527	0.0145 *
Venus	58930-11-17 17:46 G	23245121.09	23245121.24	23245121.40	0.0519	0.0342
Mercury	58935-11-28 20:38 G	23246958.20	23246958.36	23246958.53	0.0494	0.0178
Moon	58936-10-23 13:41 G	23247287.89	23247288.07	23247288.25	0.0504	0.0317
Earth	58936-10-23 16:34 G	23247288.02	23247288.19	23247288.37	0.0504	0.0336 *
Venus	58937-05-07 00:14 G	23247483.32	23247483.51	23247483.71	0.0511	0.0149
Mercury	58941-08-03 17:46 G	23249033.11	23249033.24	23249033.37	0.0534	0.0073
Earth	58942-04-19 13:26 G	23249291.85	23249292.06	23249292.28	0.0525	0.0199
Moon	58942-04-19 13:26 G	23249291.86	23249292.06	23249292.27	0.0525	0.0208 *
Venus	58943-03-17 16:34 G	23249624.03	23249624.19	23249624.35	0.0512	0.0306
Mercury	58947-09-16 19:26 G	23251268.20	23251268.31	23251268.44	0.0493	0.0367
Mercury	58947-12-16 00:29 G	23251358.43	23251358.52	23251358.61	0.0495	0.0428
Venus	58949-01-09 22:34 G	23251749.32	23251749.44	23251749.58	0.0508	0.0386
Venus	58949-09-03 21:22 G	23251986.34	23251986.39	23251986.45	0.0518	0.0497
Mercury	58953-05-22 21:22 G	23253343.27	23253343.39	23253343.50	0.0534	0.0252
Mercury	58953-08-20 05:02 G	23253432.65	23253432.71	23253432.78	0.0532	0.0450
Venus	58954-11-20 12:29 G	23253889.82	23253890.02	23253890.22	0.0515	0.0060
Mercury	58959-10-03 22:34 G	23255668.28	23255668.44	23255668.60	0.0494	0.0225
Venus	58961-05-09 15:07 G	23256251.95	23256252.13	23256252.31	0.0515	0.0240
Mercury	58965-03-11 00:14 G	23257653.44	23257653.51	23257653.58	0.0536	0.0444
Mercury	58965-06-08 08:38 G	23257742.75	23257742.86	23257742.97	0.0533	0.0270
Venus	58966-07-26 07:12 G	23258155.61	23258155.80	23258155.99	0.0518	0.0194
Mercury	58971-07-22 20:53 G	23259978.19	23259978.37	23259978.55	0.0494	0.0028

Venus	58973-01-12 11:46 G	23260517.79	23260517.99	23260518.20	0.0512	0.0013
Mercury	58977-03-27 12:29 G	23262052.90	23262053.02	23262053.15	0.0534	0.0103
Venus	58978-03-31 01:55 G	23262421.49	23262421.58	23262421.69	0.0520	0.0448
Venus	58978-11-23 06:43 G	23262658.69	23262658.78	23262658.87	0.0511	0.0451
Mars	58980-11-11 11:02 G	23263377.72	23263377.96	23263378.20	0.0489	0.0172
Mercury	58983-05-10 18:58 G	23264288.12	23264288.29	23264288.46	0.0493	0.0173
Venus	58984-09-17 09:50 G	23264783.73	23264783.91	23264784.09	0.0510	0.0249
Mercury	58989-01-13 16:34 G	23266363.06	23266363.19	23266363.32	0.0534	0.0065
Venus	58990-07-29 03:36 G	23266924.47	23266924.65	23266924.84	0.0513	0.0211
Mercury	58995-02-26 17:46 G	23268598.12	23268598.24	23268598.36	0.0493	0.0361
Mercury	58995-05-27 22:34 G	23268688.36	23268688.44	23268688.53	0.0495	0.0433
Earth	58995-10-14 23:17 G	23268828.29	23268828.47	23268828.66	0.0499	0.0297
Moon	58995-10-15 01:12 G	23268828.35	23268828.55	23268828.74	0.0499	0.0289 *
Venus	58996-05-23 09:07 G	23269049.82	23269049.88	23269049.95	0.0507	0.0481
Venus	58997-01-15 06:14 G	23269286.63	23269286.76	23269286.89	0.0517	0.0392
Mercury	59000-11-02 20:10 G	23270673.22	23270673.34	23270673.45	0.0535	0.0245

60TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 60th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	59001-01-31 03:50 G		23270762.60	23270762.66	23270762.73	0.0532	0.0457	
Venus	59002-04-03 22:19 G		23271190.23	23271190.43	23271190.63	0.0516	0.0041	
Mercury	59007-03-16 21:07 G		23272998.22	23272998.38	23272998.53	0.0495	0.0235	

Moon	59007-10-20 08:53 G	23273215.65	23273215.87	23273216.10	0.0501	0.0033
Earth	59007-10-20 12:00 G	23273215.76	23273216.00	23273216.23	0.0501	0.0009 *
Venus	59008-09-21 03:07 G	23273552.43	23273552.63	23273552.82	0.0514	0.0144
Mercury	59012-08-21 23:31 G	23274983.40	23274983.48	23274983.55	0.0535	0.0429
Mercury	59012-11-19 07:41 G	23275072.71	23275072.82	23275072.93	0.0533	0.0284
Earth	59013-04-14 16:19 G	23275218.96	23275219.18	23275219.39	0.0528	0.0204
Moon	59013-04-14 16:48 G	23275219.00	23275219.20	23275219.40	0.0528	0.0236 *
Venus	59013-12-07 16:34 G	23275456.02	23275456.19	23275456.36	0.0519	0.0296
Mercury	59019-01-02 19:26 G	23277308.13	23277308.31	23277308.49	0.0494	0.0037
Earth	59019-10-24 22:34 G	23277603.25	23277603.44	23277603.63	0.0503	0.0291
Moon	59019-10-25 02:24 G	23277603.41	23277603.60	23277603.79	0.0503	0.0283 *
Venus	59020-05-26 22:34 G	23277818.25	23277818.44	23277818.64	0.0511	0.0106
Mercury	59024-09-07 10:48 G	23279382.82	23279382.95	23279383.08	0.0534	0.0098
Earth	59025-04-19 14:10 G	23279606.86	23279607.09	23279607.31	0.0526	0.0139
Moon	59025-04-19 15:22 G	23279606.91	23279607.14	23279607.38	0.0526	0.0150 *
Venus	59026-04-06 15:50 G	23279959.01	23279959.16	23279959.31	0.0512	0.0351
Mercury	59030-10-21 17:46 G	23281618.07	23281618.24	23281618.41	0.0493	0.0159
Venus	59032-01-30 20:24 G	23282084.21	23282084.35	23282084.50	0.0508	0.0344
Mercury	59036-06-26 14:38 G	23283692.98	23283693.11	23283693.24	0.0535	0.0074
Moon	59037-04-24 12:14 G	23283994.98	23283995.01	23283995.04	0.0524	0.0518
Earth	59037-04-24 15:22 G	23283995.06	23283995.14	23283995.22	0.0524	0.0489
Venus	59037-12-10 12:00 G	23284224.81	23284225.00	23284225.21	0.0515	0.0107
Mercury	59042-08-09 15:50 G	23285928.04	23285928.16	23285928.28	0.0493	0.0359
Mercury	59042-11-07 20:24 G	23286018.27	23286018.35	23286018.44	0.0495	0.0434
Venus	59044-05-29 14:24 G	23286586.93	23286587.10	23286587.27	0.0515	0.0284
Mercury	59048-04-14 18:29 G	23288003.16	23288003.27	23288003.39	0.0535	0.0244
Mercury	59048-07-13 02:38 G	23288092.54	23288092.61	23288092.67	0.0532	0.0461
Venus	59049-08-15 07:55 G	23288490.64	23288490.83	23288491.03	0.0517	0.0144
Mercury	59054-08-26 18:58 G	23290328.13	23290328.29	23290328.45	0.0494	0.0236
Venus	59056-02-02 12:00 G	23290852.80	23290853.00	23290853.20	0.0513	0.0039

Mercury	59060-02-01 22:05 G	23292313.34	23292313.42	23292313.50	0.0535	0.0425
Mercury	59060-05-01 06:14 G	23292402.65	23292402.76	23292402.87	0.0533	0.0287
Venus	59061-04-20 01:12 G	23292756.43	23292756.55	23292756.68	0.0520	0.0401
Venus	59061-12-13 05:17 G	23292993.67	23292993.72	23292993.77	0.0510	0.0491
Mercury	59066-06-14 17:31 G	23294638.05	23294638.23	23294638.41	0.0494	0.0040
Venus	59067-10-08 10:05 G	23295118.73	23295118.92	23295119.11	0.0510	0.0201
Mercury	59072-02-18 09:50 G	23296712.78	23296712.91	23296713.04	0.0533	0.0110
Venus	59073-08-18 01:26 G	23297259.38	23297259.56	23297259.74	0.0513	0.0250
Mercury	59078-04-02 16:05 G	23298948.00	23298948.17	23298948.34	0.0493	0.0153
Moon	59078-10-15 03:07 G	23299143.46	23299143.63	23299143.80	0.0498	0.0338
Earth	59078-10-15 05:46 G	23299143.58	23299143.74	23299143.92	0.0498	0.0340 *
Venus	59079-06-13 07:26 G	23299384.71	23299384.81	23299384.92	0.0507	0.0438
Venus	59080-02-05 03:50 G	23299621.55	23299621.66	23299621.77	0.0516	0.0430
Mercury	59083-12-07 12:43 G	23301022.90	23301023.03	23301023.16	0.0535	0.0081
Venus	59085-04-22 19:55 G	23301525.12	23301525.33	23301525.53	0.0516	0.0008
Mercury	59090-01-19 14:38 G	23303257.99	23303258.11	23303258.23	0.0492	0.0346
Mercury	59090-04-19 19:12 G	23303348.22	23303348.30	23303348.38	0.0495	0.0444
Earth	59090-10-19 16:19 G	23303530.94	23303531.18	23303531.41	0.0500	0.0049
Moon	59090-10-19 19:55 G	23303531.10	23303531.33	23303531.56	0.0500	0.0079 *
Venus	59091-10-10 23:46 G	23303887.31	23303887.49	23303887.69	0.0513	0.0181
Mercury	59095-09-25 16:19 G	23305333.07	23305333.18	23305333.30	0.0535	0.0258
Mercury	59095-12-24 00:29 G	23305422.45	23305422.52	23305422.59	0.0533	0.0449
Earth	59096-04-13 15:22 G	23305533.95	23305534.14	23305534.35	0.0529	0.0270
Moon	59096-04-13 16:05 G	23305533.98	23305534.17	23305534.38	0.0529	0.0298 *
Venus	59096-12-26 14:38 G	23305790.94	23305791.11	23305791.29	0.0519	0.0255
Mercury	59102-02-06 16:34 G	23307658.04	23307658.19	23307658.35	0.0494	0.0234
Moon	59102-10-24 22:19 G	23307918.22	23307918.43	23307918.64	0.0502	0.0235
Earth	59102-10-25 01:55 G	23307918.38	23307918.58	23307918.79	0.0502	0.0242 *
Venus	59103-06-16 20:24 G	23308153.15	23308153.35	23308153.55	0.0511	0.0066
Mercury	59107-07-15 20:24 G	23309643.27	23309643.35	23309643.42	0.0536	0.0429

Mercury	59107-10-13 04:34 G	23309732.58	23309732.69	23309732.80	0.0533	0.0286
Moon	59108-04-19 15:50 G	23309921.94	23309922.16	23309922.38	0.0527	0.0107
Earth	59108-04-19 18:29 G	23309922.04	23309922.27	23309922.50	0.0527	0.0091 *
Venus	59108-09-01 09:22 G	23310056.85	23310056.89	23310056.94	0.0521	0.0508
Venus	59109-04-26 15:07 G	23310294.01	23310294.13	23310294.27	0.0512	0.0394
Mercury	59113-11-25 15:07 G	23311967.95	23311968.13	23311968.31	0.0494	0.0037
Venus	59115-02-19 18:58 G	23312419.13	23312419.29	23312419.46	0.0509	0.0303
Mercury	59119-08-01 08:10 G	23314042.72	23314042.84	23314042.97	0.0533	0.0113
Earth	59120-04-24 17:17 G	23314310.10	23314310.22	23314310.36	0.0524	0.0434
Moon	59120-04-24 21:07 G	23314310.28	23314310.38	23314310.50	0.0524	0.0461 *
Venus	59120-12-30 10:19 G	23314559.74	23314559.93	23314560.13	0.0514	0.0147
Mercury	59125-09-13 13:41 G	23316277.91	23316278.07	23316278.24	0.0493	0.0156
Venus	59127-06-19 13:55 G	23316921.93	23316922.08	23316922.24	0.0515	0.0329
Mercury	59131-05-20 11:46 G	23318352.86	23318352.99	23318353.12	0.0534	0.0070
Venus	59132-09-04 05:02 G	23318825.51	23318825.71	23318825.91	0.0517	0.0105
Mercury	59137-07-02 12:43 G	23320587.90	23320588.03	23320588.15	0.0492	0.0344
Mercury	59137-09-30 17:02 G	23320678.14	23320678.21	23320678.29	0.0495	0.0448
Venus	59139-02-22 09:36 G	23321187.70	23321187.90	23321188.10	0.0512	0.0079
Mercury	59143-03-08 14:24 G	23322662.99	23322663.10	23322663.22	0.0535	0.0266
Mercury	59143-06-05 22:34 G	23322752.37	23322752.44	23322752.51	0.0533	0.0440
Venus	59144-05-09 21:07 G	23323091.24	23323091.38	23323091.53	0.0520	0.0366
Mercury	59149-07-19 15:07 G	23324987.98	23324988.13	23324988.29	0.0494	0.0244
Venus	59150-10-28 06:43 G	23325453.59	23325453.78	23325453.97	0.0509	0.0164
Mercury	59154-12-25 18:00 G	23326973.18	23326973.25	23326973.32	0.0536	0.0446
Mercury	59155-03-25 02:24 G	23327062.49	23327062.60	23327062.71	0.0533	0.0271
Venus	59156-09-06 22:34 G	23327594.27	23327594.44	23327594.61	0.0513	0.0286
Mercury	59161-05-07 12:43 G	23329297.85	23329298.03	23329298.21	0.0493	0.0033
Earth	59161-10-15 07:12 G	23329458.67	23329458.80	23329458.95	0.0498	0.0394
Moon	59161-10-15 11:02 G	23329458.82	23329458.96	23329459.10	0.0498	0.0398 *
Venus	59162-07-03 03:36 G	23329719.54	23329719.65	23329719.78	0.0507	0.0403

Venus	59163-02-25 00:43 G	23329956.45	23329956.53	23329956.62	0.0517	0.0464
Mercury	59167-01-11 06:29 G	23331372.64	23331372.77	23331372.90	0.0534	0.0105
Venus	59168-05-12 18:58 G	23331860.09	23331860.29	23331860.49	0.0516	0.0042
Mercury	59173-02-23 11:17 G	23333607.80	23333607.97	23333608.14	0.0493	0.0161
Moon	59173-10-19 15:07 G	23333845.91	23333846.13	23333846.36	0.0500	0.0134
Earth	59173-10-19 18:58 G	23333846.06	23333846.29	23333846.52	0.0500	0.0101 *
Venus	59174-10-30 21:36 G	23334222.22	23334222.40	23334222.59	0.0514	0.0220
Mercury	59178-10-30 10:05 G	23335682.79	23335682.92	23335683.05	0.0534	0.0072
Moon	59179-04-14 14:53 G	23335848.96	23335849.12	23335849.29	0.0529	0.0357
Earth	59179-04-14 17:02 G	23335849.04	23335849.21	23335849.40	0.0529	0.0330 *
Venus	59180-01-16 12:58 G	23336125.85	23336126.04	23336126.22	0.0518	0.0212
Mercury	59184-12-12 10:05 G	23337917.80	23337917.92	23337918.04	0.0493	0.0352
Mercury	59185-03-12 14:38 G	23338008.03	23338008.11	23338008.19	0.0495	0.0441
Earth	59185-10-24 07:12 G	23338233.59	23338233.80	23338234.02	0.0502	0.0197
Moon	59185-10-24 10:19 G	23338233.72	23338233.93	23338234.14	0.0502	0.0196 *
Venus	59186-07-05 19:12 G	23338488.10	23338488.30	23338488.51	0.0511	0.0025
Mercury	59190-08-18 13:26 G	23339992.94	23339993.06	23339993.17	0.0535	0.0255
Mercury	59190-11-15 21:22 G	23340082.33	23340082.39	23340082.46	0.0532	0.0450
Earth	59191-04-19 16:19 G	23340236.95	23340237.18	23340237.42	0.0527	0.0023
Moon	59191-04-19 20:10 G	23340237.11	23340237.34	23340237.58	0.0527	0.0047 *
Venus	59191-09-21 06:00 G	23340391.67	23340391.75	23340391.84	0.0521	0.0469
Venus	59192-05-15 11:31 G	23340628.87	23340628.98	23340629.09	0.0511	0.0427
Mercury	59196-12-29 13:12 G	23342317.89	23342318.05	23342318.20	0.0494	0.0244
Earth	59197-10-28 19:26 G	23342621.28	23342621.31	23342621.35	0.0503	0.0497
Venus	59198-03-10 16:48 G	23342754.03	23342754.20	23342754.38	0.0508	0.0263
Mercury	59202-06-06 15:50 G	23344303.10	23344303.16	23344303.23	0.0536	0.0456
Mercury	59202-09-04 00:29 G	23344392.40	23344392.52	23344392.63	0.0533	0.0262
Moon	59203-04-24 08:10 G	23344624.69	23344624.84	23344625.00	0.0525	0.0386
Earth	59203-04-24 12:14 G	23344624.84	23344625.01	23344625.18	0.0525	0.0359 *
Venus	59204-01-19 05:46 G	23344894.55	23344894.74	23344894.93	0.0515	0.0179

Mercury	59208-10-17 11:17 G	23346627.79	23346627.97	23346628.15	0.0493	0.0042
Venus	59209-11-13 14:53 G	23347020.09	23347020.12	23347020.17	0.0506	0.0494
Venus	59210-07-08 09:50 G	23347256.77	23347256.91	23347257.06	0.0515	0.0361
Mercury	59214-06-23 04:05 G	23348702.54	23348702.67	23348702.80	0.0534	0.0087
Venus	59215-09-24 00:58 G	23349160.34	23349160.54	23349160.75	0.0517	0.0071
Mercury	59220-08-05 08:38 G	23350937.70	23350937.86	23350938.03	0.0493	0.0168
Venus	59222-03-13 05:17 G	23351522.52	23351522.72	23351522.92	0.0513	0.0110
Mercury	59226-04-11 08:10 G	23353012.71	23353012.84	23353012.97	0.0535	0.0083
Venus	59227-05-29 20:10 G	23353426.19	23353426.34	23353426.50	0.0520	0.0322
Mercury	59232-05-24 07:26 G	23355247.69	23355247.81	23355247.93	0.0492	0.0359
Mercury	59232-08-22 11:46 G	23355337.91	23355337.99	23355338.08	0.0495	0.0432
Venus	59233-11-16 03:22 G	23355788.44	23355788.64	23355788.83	0.0510	0.0129
Mercury	59238-01-28 11:31 G	23357322.87	23357322.98	23357323.10	0.0535	0.0260
Mercury	59238-04-27 19:41 G	23357412.25	23357412.32	23357412.39	0.0532	0.0447
Venus	59239-09-26 20:10 G	23357929.18	23357929.34	23357929.50	0.0513	0.0324
Mercury	59244-06-10 10:19 G	23359647.77	23359647.93	23359648.09	0.0494	0.0233
Moon	59244-10-14 08:24 G	23359773.76	23359773.85	23359773.95	0.0498	0.0453
Earth	59244-10-14 12:14 G	23359773.91	23359774.01	23359774.12	0.0498	0.0441 *
Venus	59245-07-22 02:10 G	23360054.45	23360054.59	23360054.73	0.0508	0.0361
Venus	59246-03-15 23:31 G	23360291.45	23360291.48	23360291.52	0.0517	0.0506
Mercury	59249-11-16 14:53 G	23361633.05	23361633.12	23361633.19	0.0536	0.0444
Mercury	59250-02-13 23:17 G	23361722.36	23361722.47	23361722.58	0.0533	0.0271
Venus	59251-06-01 15:07 G	23362194.93	23362195.13	23362195.33	0.0515	0.0077
Mars	59253-07-30 12:43 G	23362984.81	23362985.03	23362985.26	0.0490	0.0216
Mercury	59256-03-29 08:53 G	23363957.70	23363957.87	23363958.05	0.0494	0.0041
Earth	59256-10-18 23:46 G	23364161.26	23364161.49	23364161.71	0.0499	0.0146
Moon	59256-10-19 02:38 G	23364161.40	23364161.61	23364161.83	0.0499	0.0178 *
Venus	59257-11-18 19:12 G	23364557.13	23364557.30	23364557.48	0.0514	0.0257
Mercury	59261-12-03 02:10 G	23366032.46	23366032.59	23366032.72	0.0534	0.0079
Earth	59262-04-13 10:19 G	23366163.79	23366163.93	23366164.07	0.0530	0.0413

Moon	59262-04-13 13:41 G	23366163.94	23366164.07	23366164.21	0.0530	0.0433 *
Venus	59263-02-04 07:26 G	23366460.62	23366460.81	23366461.00	0.0519	0.0182
Mercury	59268-01-16 07:12 G	23368267.64	23368267.80	23368267.97	0.0493	0.0158
Moon	59268-10-23 08:10 G	23368548.61	23368548.84	23368549.07	0.0501	0.0143
Earth	59268-10-23 10:05 G	23368548.70	23368548.92	23368549.15	0.0501	0.0146 *
Venus	59269-07-24 15:36 G	23368822.95	23368823.15	23368823.35	0.0511	0.0012
Mercury	59273-09-21 05:46 G	23370342.61	23370342.74	23370342.87	0.0535	0.0100
Moon	59274-04-18 07:26 G	23370551.58	23370551.81	23370552.04	0.0528	0.0031
Earth	59274-04-18 11:31 G	23370551.75	23370551.98	23370552.21	0.0528	0.0055 *
Venus	59274-10-10 01:26 G	23370726.45	23370726.56	23370726.67	0.0521	0.0437
Venus	59275-06-04 07:12 G	23370963.72	23370963.80	23370963.89	0.0512	0.0457
Mercury	59279-11-04 05:02 G	23372577.59	23372577.71	23372577.82	0.0492	0.0366
Mercury	59280-02-02 09:07 G	23372667.79	23372667.88	23372667.98	0.0494	0.0423
Earth	59280-10-27 18:00 G	23372936.14	23372936.25	23372936.37	0.0503	0.0434
Moon	59280-10-27 18:14 G	23372936.18	23372936.26	23372936.35	0.0503	0.0464 *
Venus	59281-03-29 11:31 G	23373088.80	23373088.98	23373089.16	0.0509	0.0232
Mercury	59285-07-10 09:36 G	23374652.79	23374652.90	23374653.01	0.0535	0.0270
Mercury	59285-10-07 17:46 G	23374742.17	23374742.24	23374742.31	0.0533	0.0438
Earth	59286-04-23 14:24 G	23374939.91	23374940.10	23374940.29	0.0526	0.0304
Moon	59286-04-23 17:46 G	23374940.07	23374940.24	23374940.42	0.0526	0.0332 *
Venus	59287-02-07 04:19 G	23375229.50	23375229.68	23375229.87	0.0514	0.0221
Mercury	59291-11-21 07:26 G	23376977.66	23376977.81	23376977.97	0.0494	0.0224
Venus	59292-12-02 10:34 G	23377354.86	23377354.94	23377355.02	0.0506	0.0461
Venus	59293-07-27 06:14 G	23377591.64	23377591.76	23377591.90	0.0516	0.0395
Mercury	59297-04-28 13:12 G	23378962.98	23378963.05	23378963.12	0.0536	0.0449
Mercury	59297-07-26 21:36 G	23379052.29	23379052.40	23379052.51	0.0533	0.0268
Venus	59298-10-12 23:17 G	23379495.27	23379495.47	23379495.67	0.0517	0.0029
Mercury	59303-09-10 06:00 G	23381287.58	23381287.75	23381287.93	0.0494	0.0030
Venus	59305-04-02 03:50 G	23381857.47	23381857.66	23381857.85	0.0513	0.0152
Mars	59307-03-05 20:53 G	23382560.09	23382560.37	23382560.66	0.0538	0.0155

Mercury	59309-05-16 01:12 G	23383362.42	23383362.55	23383362.68	0.0534	0.0090
Venus	59310-06-18 16:48 G	23383761.03	23383761.20	23383761.37	0.0519	0.0283
Mercury	59315-06-29 05:02 G	23385597.54	23385597.71	23385597.88	0.0493	0.0161
Venus	59316-12-06 01:26 G	23386123.36	23386123.56	23386123.76	0.0510	0.0089
Mercury	59321-03-04 03:50 G	23387672.54	23387672.66	23387672.79	0.0534	0.0105
Venus	59322-10-16 14:53 G	23388263.98	23388264.12	23388264.27	0.0513	0.0353
Mercury	59327-04-17 03:22 G	23389907.53	23389907.64	23389907.77	0.0492	0.0356
Mercury	59327-07-16 07:41 G	23389997.74	23389997.82	23389997.91	0.0495	0.0435
Earth	59327-10-15 16:05 G	23390089.13	23390089.17	23390089.21	0.0497	0.0489
Venus	59328-08-10 23:02 G	23390389.31	23390389.46	23390389.62	0.0507	0.0324
Mercury	59332-12-21 07:12 G	23391982.70	23391982.80	23391982.92	0.0535	0.0287
Mercury	59333-03-20 15:22 G	23392072.07	23392072.14	23392072.22	0.0533	0.0424
Venus	59334-06-21 10:48 G	23392529.75	23392529.95	23392530.15	0.0516	0.0109
Mercury	59339-05-04 04:48 G	23394307.55	23394307.70	23394307.87	0.0494	0.0217
Moon	59339-10-19 20:10 G	23394476.13	23394476.34	23394476.55	0.0499	0.0242
Earth	59339-10-19 22:34 G	23394476.23	23394476.44	23394476.65	0.0499	0.0211 *
Venus	59340-12-08 13:55 G	23394891.91	23394892.08	23394892.24	0.0514	0.0285
Mercury	59344-10-09 11:02 G	23396292.90	23396292.96	23396293.03	0.0536	0.0461
Mercury	59345-01-06 19:41 G	23396382.20	23396382.32	23396382.43	0.0534	0.0259
Moon	59345-04-13 08:24 G	23396478.78	23396478.85	23396478.94	0.0530	0.0496
Earth	59345-04-13 12:29 G	23396478.92	23396479.02	23396479.13	0.0530	0.0474 *
Venus	59346-02-24 06:43 G	23396795.59	23396795.78	23396795.98	0.0518	0.0137
Mercury	59351-02-20 03:22 G	23398617.46	23398617.64	23398617.82	0.0493	0.0022
Earth	59351-10-24 10:05 G	23398863.69	23398863.92	23398864.15	0.0501	0.0085
Moon	59351-10-24 10:34 G	23398863.72	23398863.94	23398864.16	0.0501	0.0088 *
Venus	59352-08-13 11:31 G	23399157.77	23399157.98	23399158.18	0.0512	0.0046
Mercury	59356-10-25 23:31 G	23400692.35	23400692.48	23400692.61	0.0534	0.0088
Earth	59357-04-18 14:24 G	23400866.87	23400867.10	23400867.33	0.0528	0.0113
Moon	59357-04-18 18:14 G	23400867.03	23400867.26	23400867.49	0.0528	0.0085 *
Venus	59357-10-30 00:29 G	23401061.39	23401061.52	23401061.66	0.0521	0.0390

Venus	59358-06-24 05:31 G	23401298.69	23401298.73	23401298.79	0.0511	0.0496
Mercury	59362-12-09 02:10 G	23402927.42	23402927.59	23402927.76	0.0493	0.0172
Earth	59363-10-28 22:48 G	23403251.31	23403251.45	23403251.60	0.0503	0.0387
Moon	59363-10-29 00:43 G	23403251.39	23403251.53	23403251.66	0.0503	0.0415 *
Venus	59364-04-18 10:05 G	23403423.73	23403423.92	23403424.11	0.0509	0.0190
Mercury	59368-08-14 02:53 G	23405002.49	23405002.62	23405002.75	0.0534	0.0092
Moon	59369-04-23 11:31 G	23405254.78	23405254.98	23405255.19	0.0526	0.0264
Earth	59369-04-23 14:10 G	23405254.88	23405255.09	23405255.30	0.0526	0.0240 *
Venus	59370-02-27 01:12 G	23405564.38	23405564.55	23405564.73	0.0514	0.0257
Mercury	59374-09-27 01:12 G	23407237.43	23407237.55	23407237.67	0.0492	0.0358
Mercury	59374-12-26 05:31 G	23407327.65	23407327.73	23407327.82	0.0495	0.0432
Venus	59375-12-23 09:07 G	23407689.77	23407689.88	23407690.00	0.0506	0.0420
Venus	59376-08-16 05:02 G	23407926.61	23407926.71	23407926.82	0.0515	0.0434
Mercury	59380-06-02 05:46 G	23409312.63	23409312.74	23409312.85	0.0535	0.0288
Mercury	59380-08-30 13:41 G	23409402.00	23409402.07	23409402.15	0.0533	0.0422
Venus	59381-11-01 18:14 G	23409830.06	23409830.26	23409830.47	0.0517	0.0013
Mercury	59386-10-14 03:36 G	23411637.50	23411637.65	23411637.81	0.0494	0.0230
Venus	59388-04-21 00:58 G	23412192.35	23412192.54	23412192.73	0.0513	0.0188
Mercury	59392-03-21 08:53 G	23413622.81	23413622.87	23413622.93	0.0536	0.0472
Mercury	59392-06-18 17:31 G	23413712.11	23413712.23	23413712.34	0.0533	0.0247
Venus	59393-07-07 12:29 G	23414095.85	23414096.02	23414096.21	0.0520	0.0250
Mercury	59398-08-02 00:58 G	23415947.37	23415947.54	23415947.72	0.0493	0.0019
Venus	59399-12-25 19:41 G	23416458.12	23416458.32	23416458.53	0.0510	0.0060
Mercury	59404-04-07 21:36 G	23418022.27	23418022.40	23418022.53	0.0534	0.0080
Venus	59405-03-13 07:41 G	23418361.76	23418361.82	23418361.88	0.0522	0.0499
Venus	59405-11-05 14:38 G	23418598.99	23418599.11	23418599.24	0.0513	0.0396
Mars	59407-10-26 01:41 G	23419318.32	23419318.57	23419318.82	0.0490	0.0086
Mercury	59410-05-21 23:46 G	23420257.32	23420257.49	23420257.66	0.0493	0.0177
Venus	59411-08-31 18:43 G	23420724.11	23420724.28	23420724.44	0.0508	0.0291
Mercury	59416-01-26 01:26 G	23422332.43	23422332.56	23422332.69	0.0535	0.0094

Venus	59417-07-11 10:19 G	23422864.74	23422864.93	23422865.13	0.0515	0.0155
Mercury	59422-03-09 22:34 G	23424567.33	23424567.44	23424567.56	0.0492	0.0366
Mercury	59422-06-08 02:53 G	23424657.53	23424657.62	23424657.71	0.0495	0.0423
Earth	59422-10-20 04:05 G	23424791.47	23424791.67	23424791.87	0.0499	0.0256
Moon	59422-10-20 04:48 G	23424791.52	23424791.70	23424791.88	0.0499	0.0285 *
Venus	59423-12-29 13:12 G	23425226.90	23425227.05	23425227.21	0.0515	0.0330
Mercury	59427-11-14 04:48 G	23426642.59	23426642.70	23426642.81	0.0535	0.0273
Mercury	59428-02-11 12:58 G	23426731.97	23426732.04	23426732.11	0.0533	0.0435
Venus	59429-03-16 04:48 G	23427130.50	23427130.70	23427130.91	0.0518	0.0095
Mercury	59434-03-27 01:26 G	23428967.41	23428967.56	23428967.72	0.0494	0.0230
Earth	59434-10-24 16:48 G	23429178.97	23429179.20	23429179.43	0.0500	0.0044
Moon	59434-10-24 18:29 G	23429179.03	23429179.27	23429179.51	0.0500	0.0057 *
Venus	59435-09-03 11:02 G	23429492.76	23429492.96	23429493.16	0.0512	0.0089
Mercury	59439-09-02 07:26 G	23430952.76	23430952.81	23430952.88	0.0536	0.0470
Mercury	59439-11-30 16:05 G	23431042.06	23431042.17	23431042.29	0.0533	0.0249
Moon	59440-04-18 07:55 G	23431181.60	23431181.83	23431182.06	0.0529	0.0163
Earth	59440-04-18 11:02 G	23431181.75	23431181.96	23431182.18	0.0529	0.0187 *
Venus	59440-11-18 20:24 G	23431396.21	23431396.35	23431396.50	0.0521	0.0355
Mercury	59446-01-13 00:00 G	23433277.32	23433277.50	23433277.68	0.0493	0.0031
Moon	59446-10-29 00:58 G	23433566.39	23433566.54	23433566.69	0.0502	0.0372
Earth	59446-10-29 04:05 G	23433566.50	23433566.67	23433566.84	0.0502	0.0342 *
Venus	59447-05-09 08:10 G	23433758.65	23433758.84	23433759.04	0.0509	0.0150
Mercury	59451-09-18 19:41 G	23435352.19	23435352.32	23435352.45	0.0534	0.0073
Earth	59452-04-23 11:46 G	23435569.77	23435569.99	23435570.21	0.0527	0.0171
Moon	59452-04-23 12:43 G	23435569.82	23435570.03	23435570.24	0.0527	0.0190 *
Venus	59453-03-18 22:19 G	23435899.26	23435899.43	23435899.60	0.0514	0.0291
Mercury	59457-10-31 21:36 G	23437587.23	23437587.40	23437587.56	0.0493	0.0178
Venus	59459-01-12 04:05 G	23438024.55	23438024.67	23438024.81	0.0506	0.0387
Venus	59459-09-06 00:00 G	23438261.42	23438261.50	23438261.59	0.0516	0.0465
Mars	59461-05-29 23:17 G	23438893.20	23438893.47	23438893.73	0.0538	0.0252

Mercury	59463-07-07 23:31 G	23439662.35	23439662.48	23439662.61	0.0535	0.0100
Moon	59464-04-28 16:05 G	23439958.10	23439958.17	23439958.25	0.0525	0.0499
Venus	59464-11-21 18:58 G	23440165.09	23440165.29	23440165.50	0.0517	0.0052
Mercury	59469-08-19 20:24 G	23441897.24	23441897.35	23441897.47	0.0492	0.0367
Mercury	59469-11-18 00:29 G	23441987.43	23441987.52	23441987.62	0.0494	0.0420
Venus	59471-05-11 21:22 G	23442527.21	23442527.39	23442527.57	0.0513	0.0224
Mercury	59475-04-26 03:22 G	23443972.53	23443972.64	23443972.75	0.0536	0.0273
Mercury	59475-07-24 11:31 G	23444061.91	23444061.98	23444062.05	0.0533	0.0437
Venus	59476-07-27 13:41 G	23444430.88	23444431.07	23444431.26	0.0519	0.0197
Mercury	59481-09-05 23:02 G	23446297.30	23446297.46	23446297.62	0.0494	0.0224
Venus	59483-01-14 19:41 G	23446793.12	23446793.32	23446793.53	0.0511	0.0013
Mercury	59487-02-12 06:43 G	23448282.71	23448282.78	23448282.85	0.0536	0.0453
Mercury	59487-05-12 15:22 G	23448372.03	23448372.14	23448372.25	0.0533	0.0266
Venus	59488-04-01 06:58 G	23448696.70	23448696.79	23448696.90	0.0522	0.0451
Venus	59488-11-24 13:26 G	23448933.96	23448934.06	23448934.17	0.0512	0.0437
Mercury	59493-06-24 22:05 G	23450607.24	23450607.42	23450607.60	0.0493	0.0034
Venus	59494-09-19 18:58 G	23451059.11	23451059.29	23451059.47	0.0508	0.0244
Mercury	59499-02-28 18:29 G	23452682.14	23452682.27	23452682.40	0.0534	0.0080
Venus	59500-07-31 07:26 G	23453199.62	23453199.81	23453200.00	0.0515	0.0191
Mercury	59505-04-13 20:38 G	23454917.19	23454917.36	23454917.53	0.0493	0.0160
Earth	59505-10-20 11:17 G	23455106.78	23455106.97	23455107.16	0.0498	0.0297
Moon	59505-10-20 12:29 G	23455106.84	23455107.02	23455107.22	0.0498	0.0318 *
Venus	59506-05-26 17:46 G	23455325.17	23455325.24	23455325.31	0.0505	0.0470
Venus	59507-01-18 12:14 G	23455561.88	23455562.01	23455562.15	0.0514	0.0371
Mercury	59510-12-18 21:50 G	23456992.28	23456992.41	23456992.54	0.0535	0.0101
Venus	59512-04-05 02:38 G	23457465.41	23457465.61	23457465.81	0.0518	0.0055
Mercury	59517-01-30 18:29 G	23459227.16	23459227.27	23459227.39	0.0492	0.0364
Mercury	59517-04-30 22:34 G	23459317.35	23459317.44	23459317.54	0.0494	0.0422
Moon	59517-10-24 15:22 G	23459493.92	23459494.14	23459494.37	0.0499	0.0011
Earth	59517-10-24 18:29 G	23459494.03	23459494.27	23459494.50	0.0499	0.0016 *

Venus	59518-09-23 06:43 G	23459827.58	23459827.78	23459827.97	0.0512	0.0123
Mercury	59522-10-07 01:41 G	23461302.45	23461302.57	23461302.68	0.0536	0.0277
Mercury	59523-01-04 09:50 G	23461391.84	23461391.91	23461391.98	0.0533	0.0435
Earth	59523-04-19 16:19 G	23461496.97	23461497.18	23461497.38	0.0530	0.0240
Moon	59523-04-19 17:46 G	23461497.04	23461497.24	23461497.45	0.0530	0.0213 *
Venus	59523-12-09 21:50 G	23461731.25	23461731.41	23461731.58	0.0521	0.0301
Mercury	59529-02-16 21:07 G	23463627.23	23463627.38	23463627.54	0.0494	0.0226
Earth	59529-10-29 06:29 G	23463881.58	23463881.77	23463881.96	0.0501	0.0286
Moon	59529-10-29 10:19 G	23463881.75	23463881.93	23463882.11	0.0501	0.0317 *
Venus	59530-05-29 04:48 G	23464093.51	23464093.70	23464093.90	0.0509	0.0112
Mercury	59534-07-26 05:17 G	23465612.65	23465612.72	23465612.79	0.0536	0.0451
Mercury	59534-10-23 13:55 G	23465701.97	23465702.08	23465702.19	0.0534	0.0270
Earth	59535-04-24 19:26 G	23465885.08	23465885.31	23465885.53	0.0527	0.0127
Moon	59535-04-24 20:38 G	23465885.13	23465885.36	23465885.59	0.0527	0.0136 *
Venus	59536-04-08 00:00 G	23466234.35	23466234.50	23466234.65	0.0513	0.0342
Mercury	59540-12-05 19:55 G	23467937.15	23467937.33	23467937.51	0.0493	0.0032
Venus	59542-02-01 04:34 G	23468359.54	23468359.69	23468359.84	0.0507	0.0339
Venus	59542-09-26 01:12 G	23468596.53	23468596.55	23468596.58	0.0516	0.0513
Mercury	59546-08-11 17:46 G	23470012.11	23470012.24	23470012.37	0.0534	0.0098
Moon	59547-04-29 17:02 G	23470273.09	23470273.21	23470273.32	0.0525	0.0450
Earth	59547-04-29 19:55 G	23470273.25	23470273.33	23470273.42	0.0525	0.0483 *
Venus	59547-12-12 19:12 G	23470500.10	23470500.30	23470500.51	0.0516	0.0101
Mercury	59552-09-23 18:58 G	23472247.12	23472247.29	23472247.46	0.0493	0.0155
Venus	59554-05-31 22:48 G	23472862.28	23472862.45	23472862.62	0.0514	0.0273
Mercury	59558-05-30 20:53 G	23474322.24	23474322.37	23474322.50	0.0535	0.0090
Venus	59559-08-17 12:00 G	23474765.81	23474766.00	23474766.20	0.0519	0.0155
Mars	59562-01-19 21:50 G	23475652.28	23475652.41	23475652.54	0.0490	0.0421
Mercury	59564-07-12 17:46 G	23476557.12	23476557.24	23476557.37	0.0492	0.0344
Mercury	59564-10-10 22:05 G	23476647.34	23476647.42	23476647.49	0.0494	0.0445
Venus	59566-02-03 19:55 G	23477128.13	23477128.33	23477128.53	0.0511	0.0034

Mercury	59570-03-19 00:14 G	23478632.40	23478632.51	23478632.62	0.0535	0.0272
Mercury	59570-06-16 08:24 G	23478721.78	23478721.85	23478721.93	0.0533	0.0439
Venus	59571-04-22 05:46 G	23479031.62	23479031.74	23479031.87	0.0522	0.0407
Venus	59571-12-15 12:14 G	23479268.94	23479269.01	23479269.09	0.0512	0.0477
Mercury	59576-07-29 19:26 G	23480957.16	23480957.31	23480957.47	0.0493	0.0232
Venus	59577-10-09 15:36 G	23481393.96	23481394.15	23481394.34	0.0508	0.0206
Mercury	59582-01-05 03:36 G	23482942.59	23482942.65	23482942.72	0.0537	0.0454
Mercury	59582-04-04 12:14 G	23483031.90	23483032.01	23483032.13	0.0534	0.0270
Venus	59583-08-20 09:36 G	23483534.72	23483534.90	23483535.08	0.0515	0.0245
Mercury	59588-05-17 18:14 G	23485267.08	23485267.26	23485267.44	0.0493	0.0039
Moon	59588-10-19 12:29 G	23485421.88	23485422.02	23485422.18	0.0497	0.0369
Earth	59588-10-19 15:36 G	23485421.99	23485422.15	23485422.32	0.0497	0.0349 *
Venus	59589-06-14 14:53 G	23485660.03	23485660.12	23485660.23	0.0505	0.0431
Venus	59590-02-06 09:36 G	23485896.79	23485896.90	23485897.03	0.0515	0.0410
Mercury	59594-01-21 16:19 G	23487342.06	23487342.18	23487342.31	0.0535	0.0104
Venus	59595-04-25 05:31 G	23487800.52	23487800.73	23487800.93	0.0517	0.0006
Mercury	59600-03-05 17:02 G	23489577.04	23489577.21	23489577.38	0.0493	0.0152
Earth	59600-10-24 03:22 G	23489809.41	23489809.64	23489809.88	0.0499	0.0052
Moon	59600-10-24 07:26 G	23489809.57	23489809.81	23489810.04	0.0499	0.0028 *
Venus	59601-10-12 08:10 G	23490162.65	23490162.84	23490163.03	0.0512	0.0173
Mercury	59605-11-09 20:10 G	23491652.21	23491652.34	23491652.47	0.0535	0.0071
Earth	59606-04-18 23:46 G	23491812.29	23491812.49	23491812.68	0.0530	0.0284
Moon	59606-04-19 00:14 G	23491812.30	23491812.51	23491812.72	0.0530	0.0253 *
Venus	59606-12-28 23:46 G	23492066.31	23492066.49	23492066.67	0.0520	0.0247
Mercury	59611-12-23 16:19 G	23493887.05	23493887.18	23493887.31	0.0492	0.0336
Mercury	59612-03-22 20:24 G	23493977.28	23493977.35	23493977.42	0.0494	0.0452
Moon	59612-10-28 12:43 G	23494196.85	23494197.03	23494197.23	0.0501	0.0284
Earth	59612-10-28 16:48 G	23494197.00	23494197.20	23494197.41	0.0501	0.0255 *
Venus	59613-06-17 06:58 G	23494428.59	23494428.79	23494428.99	0.0510	0.0060
Mercury	59617-08-28 23:17 G	23495962.36	23495962.47	23495962.59	0.0535	0.0258

Mercury	59617-11-26 07:26 G	23496051.75	23496051.81	23496051.88	0.0533	0.0452
Moon	59618-04-23 19:41 G	23496200.10	23496200.32	23496200.54	0.0528	0.0077
Earth	59618-04-23 22:19 G	23496200.20	23496200.43	23496200.66	0.0528	0.0071 *
Venus	59618-09-02 15:22 G	23496332.09	23496332.14	23496332.19	0.0523	0.0505
Venus	59619-04-27 23:02 G	23496569.33	23496569.46	23496569.60	0.0513	0.0384
Mercury	59624-01-09 18:58 G	23498287.14	23498287.29	23498287.44	0.0494	0.0256
Venus	59625-02-20 05:31 G	23498694.57	23498694.73	23498694.90	0.0507	0.0290
Mercury	59629-06-17 02:38 G	23500272.54	23500272.61	23500272.68	0.0536	0.0442
Mercury	59629-09-14 11:17 G	23500361.86	23500361.97	23500362.08	0.0534	0.0278
Earth	59630-04-28 22:34 G	23500588.31	23500588.44	23500588.58	0.0526	0.0428
Moon	59630-04-29 02:24 G	23500588.45	23500588.60	23500588.76	0.0526	0.0394 *
Venus	59630-12-31 18:43 G	23500835.09	23500835.28	23500835.48	0.0516	0.0145
Mercury	59635-10-28 16:48 G	23502597.03	23502597.20	23502597.38	0.0493	0.0049
Venus	59637-06-19 19:55 G	23503197.17	23503197.33	23503197.49	0.0513	0.0311
Mercury	59641-07-03 14:53 G	23504671.99	23504672.12	23504672.25	0.0535	0.0103
Venus	59642-09-05 14:38 G	23505100.91	23505101.11	23505101.31	0.0519	0.0098
Mercury	59647-08-16 15:50 G	23506906.99	23506907.16	23506907.33	0.0492	0.0141
Venus	59649-02-22 18:00 G	23507463.04	23507463.25	23507463.45	0.0511	0.0076
Mercury	59653-04-21 18:58 G	23508982.16	23508982.29	23508982.42	0.0535	0.0066
Venus	59654-05-11 09:22 G	23509366.74	23509366.89	23509367.04	0.0522	0.0347
Mercury	59659-06-04 14:38 G	23511216.98	23511217.11	23511217.24	0.0492	0.0329
Mercury	59659-09-02 18:43 G	23511307.21	23511307.28	23511307.35	0.0494	0.0457
Venus	59660-10-28 17:02 G	23511729.02	23511729.21	23511729.41	0.0508	0.0156
Mercury	59665-02-07 22:34 G	23513292.33	23513292.44	23513292.56	0.0536	0.0240
Mercury	59665-05-08 06:58 G	23513381.73	23513381.79	23513381.85	0.0533	0.0471
Venus	59666-09-08 11:46 G	23513869.83	23513869.99	23513870.16	0.0514	0.0296
Mercury	59671-06-21 17:31 G	23515617.08	23515617.23	23515617.38	0.0494	0.0266
Earth	59671-10-20 02:38 G	23515737.46	23515737.61	23515737.76	0.0497	0.0379
Moon	59671-10-20 06:43 G	23515737.63	23515737.78	23515737.92	0.0497	0.0393 *
Venus	59672-07-03 17:17 G	23515995.09	23515995.22	23515995.36	0.0506	0.0379

Venus	59673-02-25 12:43 G	23516231.95	23516232.03	23516232.12	0.0515	0.0462
Mercury	59676-11-27 01:55 G	23517602.50	23517602.58	23517602.65	0.0536	0.0427
Mercury	59677-02-24 10:19 G	23517691.83	23517691.93	23517692.04	0.0534	0.0293
Venus	59678-05-14 05:31 G	23518135.53	23518135.73	23518135.93	0.0517	0.0049
Mars	59680-07-12 19:55 G	23518926.10	23518926.33	23518926.56	0.0491	0.0212
Mercury	59683-04-09 16:19 G	23519927.00	23519927.18	23519927.36	0.0493	0.0072
Moon	59683-10-24 10:19 G	23520124.69	23520124.93	23520125.16	0.0499	0.0061
Earth	59683-10-24 14:10 G	23520124.86	23520125.09	23520125.32	0.0499	0.0083 *
Venus	59684-10-31 09:50 G	23520497.73	23520497.91	23520498.09	0.0512	0.0224
Mercury	59688-12-13 13:55 G	23522001.96	23522002.08	23522002.21	0.0534	0.0117
Moon	59689-04-18 00:43 G	23522127.35	23522127.53	23522127.72	0.0530	0.0310
Earth	59689-04-18 02:53 G	23522127.44	23522127.62	23522127.80	0.0530	0.0342 *
Venus	59690-01-16 23:46 G	23522401.31	23522401.49	23522401.68	0.0520	0.0199
Mercury	59695-01-26 14:38 G	23524236.94	23524237.11	23524237.28	0.0492	0.0129
Earth	59695-10-28 22:34 G	23524512.24	23524512.44	23524512.66	0.0500	0.0207
Moon	59695-10-29 01:55 G	23524512.38	23524512.58	23524512.79	0.0500	0.0232 *
Venus	59696-07-06 05:02 G	23524763.51	23524763.71	23524763.92	0.0509	0.0019
Mercury	59700-10-02 17:31 G	23526312.10	23526312.23	23526312.36	0.0536	0.0066
Earth	59701-04-24 04:34 G	23526515.46	23526515.69	23526515.93	0.0529	0.0025
Moon	59701-04-24 08:10 G	23526515.61	23526515.84	23526516.08	0.0529	0.0029 *
Venus	59701-09-22 17:46 G	23526667.14	23526667.24	23526667.35	0.0523	0.0449
Venus	59702-05-18 01:55 G	23526904.48	23526904.58	23526904.69	0.0513	0.0438
Mercury	59706-11-15 13:41 G	23528546.93	23528547.07	23528547.20	0.0492	0.0315
Mercury	59707-02-13 17:31 G	23528637.18	23528637.23	23528637.28	0.0494	0.0470
Moon	59707-11-03 09:07 G	23528899.85	23528899.88	23528899.94	0.0502	0.0492
Venus	59708-03-12 04:19 G	23529029.50	23529029.68	23529029.85	0.0507	0.0246
Mercury	59712-07-21 21:22 G	23530622.27	23530622.39	23530622.51	0.0536	0.0236
Mercury	59712-10-19 05:31 G	23530711.68	23530711.73	23530711.79	0.0534	0.0478
Moon	59713-04-29 04:05 G	23530903.51	23530903.67	23530903.85	0.0527	0.0357
Earth	59713-04-29 08:10 G	23530903.68	23530903.84	23530903.99	0.0527	0.0391 *

Venus	59714-01-20 22:19 G	23531170.24	23531170.43	23531170.62	0.0516	0.0201
Mercury	59718-12-02 15:50 G	23532947.02	23532947.16	23532947.31	0.0493	0.0273
Venus	59719-11-16 04:19 G	23533295.61	23533295.68	23533295.76	0.0505	0.0467
Venus	59720-07-09 22:05 G	23533532.28	23533532.42	23533532.57	0.0514	0.0363
Mercury	59724-05-10 00:58 G	23534932.46	23534932.54	23534932.63	0.0537	0.0410
Mercury	59724-08-07 09:36 G	23535021.80	23535021.90	23535022.01	0.0534	0.0311
Venus	59725-09-25 17:31 G	23535436.03	23535436.23	23535436.44	0.0518	0.0043
Mercury	59730-09-20 14:53 G	23537256.95	23537257.12	23537257.30	0.0493	0.0083
Venus	59732-03-14 20:53 G	23537798.17	23537798.37	23537798.56	0.0511	0.0129
Mars	59734-02-10 21:22 G	23538496.21	23538496.39	23538496.57	0.0537	0.0428
Mercury	59736-05-26 13:12 G	23539331.92	23539332.05	23539332.17	0.0534	0.0132
Venus	59737-05-31 10:05 G	23539701.75	23539701.92	23539702.09	0.0521	0.0296
Mercury	59742-07-09 13:55 G	23541566.90	23541567.08	23541567.25	0.0493	0.0107
Venus	59743-11-18 19:12 G	23542064.10	23542064.30	23542064.50	0.0509	0.0103
Mercury	59748-03-14 16:34 G	23543642.06	23543642.19	23543642.32	0.0535	0.0048
Venus	59749-09-28 12:00 G	23544204.86	23544205.00	23544205.16	0.0514	0.0342
Mercury	59754-04-27 12:29 G	23545876.88	23545877.02	23545877.16	0.0491	0.0301
Mercury	59754-07-26 16:19 G	23545967.15	23545967.18	23545967.21	0.0494	0.0484
Moon	59754-10-20 06:43 G	23546052.67	23546052.78	23546052.89	0.0496	0.0436
Earth	59754-10-20 10:48 G	23546052.83	23546052.95	23546053.07	0.0496	0.0420 *
Venus	59755-07-24 16:19 G	23546330.03	23546330.18	23546330.33	0.0506	0.0333
Venus	59756-03-17 11:02 G	23546566.92	23546566.96	23546567.01	0.0515	0.0502
Mercury	59760-01-01 19:41 G	23547952.21	23547952.32	23547952.44	0.0536	0.0235
Mercury	59760-03-31 04:05 G	23548041.62	23548041.67	23548041.73	0.0534	0.0479
Venus	59761-06-03 07:55 G	23548470.63	23548470.83	23548471.03	0.0518	0.0103
Mercury	59766-02-13 11:46 G	23550186.96	23550186.99	23550187.01	0.0491	0.0484
Mercury	59766-05-14 14:53 G	23550276.98	23550277.12	23550277.27	0.0493	0.0288
Earth	59766-10-24 21:22 G	23550440.17	23550440.39	23550440.62	0.0498	0.0126
Moon	59766-10-25 00:43 G	23550440.30	23550440.53	23550440.75	0.0498	0.0100 *
Venus	59767-11-21 08:24 G	23550832.67	23550832.85	23550833.02	0.0512	0.0265

Mercury	59771-10-20 23:31 G	23552262.40	23552262.48	23552262.57	0.0537	0.0409
Mercury	59772-01-18 08:10 G	23552351.74	23552351.84	23552351.95	0.0534	0.0315
Earth	59772-04-18 10:19 G	23552442.78	23552442.93	23552443.10	0.0531	0.0388
Moon	59772-04-18 13:41 G	23552442.90	23552443.07	23552443.26	0.0531	0.0351 *
Venus	59773-02-06 03:07 G	23552736.43	23552736.63	23552736.82	0.0520	0.0142
Mercury	59778-03-02 13:26 G	23554586.88	23554587.06	23554587.23	0.0493	0.0092
Moon	59778-10-29 06:58 G	23554827.57	23554827.79	23554828.02	0.0500	0.0190
Earth	59778-10-29 08:38 G	23554827.65	23554827.86	23554828.08	0.0500	0.0175 *
Venus	59779-07-27 06:43 G	23555098.58	23555098.78	23555098.99	0.0510	0.0034
Mercury	59783-11-06 12:14 G	23556661.89	23556662.01	23556662.14	0.0535	0.0147
Moon	59784-04-23 10:34 G	23556830.70	23556830.94	23556831.17	0.0529	0.0015
Earth	59784-04-23 14:24 G	23556830.87	23556831.10	23556831.33	0.0529	0.0014 *
Venus	59784-10-11 21:07 G	23557002.25	23557002.38	23557002.51	0.0522	0.0391
Venus	59785-06-06 04:19 G	23557239.62	23557239.68	23557239.74	0.0513	0.0487
Mercury	59789-12-19 12:29 G	23558896.85	23558897.02	23558897.19	0.0492	0.0096
Moon	59790-11-02 21:50 G	23559215.33	23559215.41	23559215.50	0.0502	0.0459
Earth	59790-11-02 22:05 G	23559215.36	23559215.42	23559215.48	0.0502	0.0483 *
Venus	59791-04-01 06:29 G	23559364.59	23559364.77	23559364.96	0.0508	0.0195
Mercury	59795-08-25 15:50 G	23560972.02	23560972.16	23560972.29	0.0535	0.0038
Earth	59796-04-28 13:41 G	23561218.90	23561219.07	23561219.25	0.0527	0.0344
Moon	59796-04-28 16:48 G	23561219.02	23561219.20	23561219.39	0.0527	0.0313 *
Venus	59797-02-08 23:02 G	23561505.28	23561505.46	23561505.64	0.0515	0.0249
Mercury	59801-10-08 11:31 G	23563206.84	23563206.98	23563207.13	0.0492	0.0283
Venus	59802-12-06 06:14 G	23563630.65	23563630.76	23563630.88	0.0505	0.0416
Venus	59803-07-31 00:14 G	23563867.40	23563867.51	23563867.64	0.0514	0.0414
Mercury	59807-06-14 18:58 G	23565282.18	23565282.29	23565282.42	0.0536	0.0217
Mercury	59807-09-12 03:22 G	23565371.60	23565371.64	23565371.69	0.0533	0.0495
Venus	59808-10-15 17:46 G	23565771.04	23565771.24	23565771.44	0.0518	0.0005
Mercury	59813-07-27 10:19 G	23567516.89	23567516.93	23567516.99	0.0491	0.0471
Mercury	59813-10-25 13:41 G	23567606.93	23567607.07	23567607.21	0.0493	0.0302

Venus	59815-04-04 19:41 G	23568133.13	23568133.32	23568133.51	0.0511	0.0171
Mercury	59819-04-02 22:05 G	23569592.33	23569592.42	23569592.50	0.0537	0.0409
Mercury	59819-07-01 06:43 G	23569681.68	23569681.78	23569681.89	0.0535	0.0315
Venus	59820-06-20 11:17 G	23570036.79	23570036.97	23570037.15	0.0522	0.0244
Mercury	59825-08-13 12:29 G	23571916.85	23571917.02	23571917.19	0.0492	0.0109
Venus	59826-12-08 17:46 G	23572399.04	23572399.24	23572399.45	0.0508	0.0061
Mercury	59831-04-19 10:48 G	23573991.82	23573991.95	23573992.07	0.0535	0.0147
Venus	59832-02-24 05:17 G	23574302.65	23574302.72	23574302.78	0.0524	0.0494
Venus	59832-10-18 14:38 G	23574539.98	23574540.11	23574540.24	0.0514	0.0393
Mars	59834-10-09 08:10 G	23575260.62	23575260.84	23575261.08	0.0490	0.0208
Mercury	59837-06-01 11:02 G	23576226.78	23576226.96	23576227.13	0.0492	0.0088
Earth	59837-10-20 19:55 G	23576368.24	23576368.33	23576368.42	0.0496	0.0455
Moon	59837-10-20 23:17 G	23576368.39	23576368.47	23576368.55	0.0496	0.0463 *
Venus	59838-08-13 17:17 G	23576665.05	23576665.22	23576665.39	0.0506	0.0286
Mercury	59843-02-05 14:38 G	23578301.98	23578302.11	23578302.24	0.0536	0.0023
Venus	59844-06-23 10:19 G	23578805.74	23578805.93	23578806.13	0.0517	0.0156
Mercury	59849-03-20 10:05 G	23580536.78	23580536.92	23580537.07	0.0492	0.0273
Moon	59849-10-25 05:46 G	23580755.51	23580755.74	23580755.98	0.0498	0.0131
Earth	59849-10-25 07:41 G	23580755.59	23580755.82	23580756.04	0.0498	0.0158 *
Venus	59850-04-18 17:46 G	23580931.24	23580931.24	23580931.26	0.0504	0.0503
Venus	59850-12-11 10:34 G	23581167.78	23581167.94	23581168.10	0.0513	0.0316
Mercury	59854-11-24 18:00 G	23582612.13	23582612.25	23582612.37	0.0536	0.0205
Mercury	59855-02-22 02:24 G	23582701.56	23582701.60	23582701.64	0.0533	0.0506
Moon	59855-04-19 12:29 G	23582757.87	23582758.02	23582758.17	0.0531	0.0404
Earth	59855-04-19 16:05 G	23582758.05	23582758.17	23582758.31	0.0531	0.0438 *
Venus	59856-02-27 03:50 G	23583071.45	23583071.66	23583071.86	0.0519	0.0093
Mercury	59861-01-06 09:22 G	23584846.83	23584846.89	23584846.95	0.0491	0.0457
Mercury	59861-04-06 12:43 G	23584936.89	23584937.03	23584937.16	0.0493	0.0318
Moon	59861-10-29 19:12 G	23585143.09	23585143.30	23585143.52	0.0500	0.0153
Earth	59861-10-29 19:26 G	23585143.09	23585143.31	23585143.54	0.0500	0.0143 *

Venus	59862-08-16 08:38 G	23585433.66	23585433.86	23585434.06	0.0510	0.0084
Mercury	59866-09-12 21:22 G	23586922.30	23586922.39	23586922.48	0.0537	0.0390
Mercury	59866-12-11 06:00 G	23587011.65	23587011.75	23587011.85	0.0534	0.0332
Earth	59867-04-24 17:17 G	23587145.99	23587146.22	23587146.45	0.0530	0.0071
Moon	59867-04-24 20:38 G	23587146.14	23587146.36	23587146.59	0.0530	0.0078 *
Venus	59867-11-01 20:53 G	23587337.22	23587337.37	23587337.52	0.0522	0.0343
Mercury	59873-01-23 11:17 G	23589246.79	23589246.97	23589247.14	0.0492	0.0122
Earth	59873-11-03 05:17 G	23589530.62	23589530.72	23589530.84	0.0501	0.0441
Moon	59873-11-03 06:58 G	23589530.66	23589530.79	23589530.94	0.0501	0.0412 *
Venus	59874-04-21 05:46 G	23589699.54	23589699.74	23589699.93	0.0507	0.0150
Mercury	59878-09-29 09:07 G	23591321.75	23591321.88	23591322.00	0.0535	0.0146
Moon	59879-04-29 14:38 G	23591533.90	23591534.11	23591534.32	0.0528	0.0255
Earth	59879-04-29 16:34 G	23591534.00	23591534.19	23591534.39	0.0528	0.0288 *
Venus	59880-02-29 23:31 G	23591840.32	23591840.48	23591840.65	0.0516	0.0296
Mercury	59884-11-11 09:50 G	23593556.74	23593556.91	23593557.09	0.0492	0.0072
Venus	59885-12-25 05:02 G	23593965.57	23593965.71	23593965.84	0.0504	0.0373
Venus	59886-08-18 22:34 G	23594202.34	23594202.44	23594202.53	0.0514	0.0452
Mars	59888-05-07 21:07 G	23594830.09	23594830.38	23594830.68	0.0537	0.0079
Mercury	59890-07-18 12:58 G	23595631.91	23595632.04	23595632.17	0.0536	0.0028
Venus	59891-11-04 18:58 G	23596106.09	23596106.29	23596106.50	0.0518	0.0055
Mercury	59896-08-30 08:24 G	23597866.71	23597866.85	23597867.00	0.0491	0.0266
Venus	59898-04-23 19:55 G	23598468.15	23598468.33	23598468.52	0.0511	0.0217
Mercury	59902-05-07 16:48 G	23599942.08	23599942.20	23599942.32	0.0536	0.0198
Mercury	59902-08-05 01:12 G	23600031.52	23600031.55	23600031.58	0.0534	0.0515
Venus	59903-07-11 13:26 G	23600371.88	23600372.06	23600372.26	0.0521	0.0191
Mercury	59908-06-19 07:41 G	23602176.75	23602176.82	23602176.89	0.0491	0.0450
Mercury	59908-09-17 10:48 G	23602266.82	23602266.95	23602267.09	0.0493	0.0325
Venus	59909-12-28 18:58 G	23602734.09	23602734.29	23602734.49	0.0509	0.0013
Mercury	59914-02-23 20:10 G	23604252.25	23604252.34	23604252.43	0.0537	0.0381
Mercury	59914-05-24 04:48 G	23604341.60	23604341.70	23604341.80	0.0534	0.0340

Venus	59915-03-16 05:46 G	23604637.64	23604637.74	23604637.85	0.0523	0.0444
Venus	59915-11-08 14:24 G	23604875.00	23604875.10	23604875.21	0.0514	0.0436
Mercury	59920-07-06 09:50 G	23606576.73	23606576.91	23606577.08	0.0493	0.0132
Moon	59920-10-21 04:05 G	23606683.64	23606683.67	23606683.71	0.0496	0.0488
Earth	59920-10-21 05:46 G	23606683.71	23606683.74	23606683.78	0.0496	0.0489 *
Venus	59921-09-02 18:14 G	23607000.09	23607000.26	23607000.45	0.0506	0.0238
Mercury	59926-03-12 08:24 G	23608651.72	23608651.85	23608651.97	0.0535	0.0163
Venus	59927-07-14 09:22 G	23609140.70	23609140.89	23609141.08	0.0517	0.0199
Mercury	59932-04-24 08:38 G	23610886.68	23610886.86	23610887.03	0.0492	0.0061
Moon	59932-10-25 15:22 G	23611070.93	23611071.14	23611071.36	0.0497	0.0167
Earth	59932-10-25 15:36 G	23611070.94	23611071.15	23611071.37	0.0497	0.0197 *
Venus	59933-05-08 17:02 G	23611266.13	23611266.21	23611266.30	0.0503	0.0459
Venus	59933-12-31 09:07 G	23611502.74	23611502.88	23611503.03	0.0512	0.0356
Mercury	59937-12-29 11:17 G	23612961.84	23612961.97	23612962.10	0.0536	0.0033
Earth	59938-04-19 15:07 G	23613073.07	23613073.13	23613073.20	0.0533	0.0508
Moon	59938-04-19 18:58 G	23613073.19	23613073.29	23613073.39	0.0533	0.0475 *
Venus	59939-03-19 02:38 G	23613406.41	23613406.61	23613406.82	0.0520	0.0050
Mercury	59944-02-11 07:26 G	23615196.66	23615196.81	23615196.96	0.0491	0.0250
Earth	59944-10-30 01:41 G	23615458.35	23615458.57	23615458.80	0.0498	0.0101
Moon	59944-10-30 03:36 G	23615458.41	23615458.65	23615458.89	0.0498	0.0106 *
Venus	59945-09-05 06:29 G	23615768.58	23615768.77	23615768.97	0.0510	0.0123
Mercury	59949-10-17 14:53 G	23617272.00	23617272.12	23617272.24	0.0537	0.0207
Mercury	59950-01-14 23:17 G	23617361.43	23617361.47	23617361.51	0.0534	0.0508
Moon	59950-04-24 16:34 G	23617460.96	23617461.19	23617461.42	0.0531	0.0143
Earth	59950-04-24 19:12 G	23617461.07	23617461.30	23617461.52	0.0531	0.0130 *
Venus	59950-11-21 20:38 G	23617672.19	23617672.36	23617672.52	0.0523	0.0298
Mars	59953-04-02 01:55 G	23618534.49	23618534.58	23618534.68	0.0492	0.0454
Mercury	59955-11-30 06:00 G	23619506.68	23619506.75	23619506.82	0.0491	0.0445
Mercury	59956-02-28 08:53 G	23619596.75	23619596.87	23619597.01	0.0493	0.0328
Moon	59956-11-03 08:53 G	23619845.71	23619845.87	23619846.02	0.0500	0.0370

Earth	59956-11-03 11:17 G	23619845.84	23619845.97	23619846.12	0.0500	0.0399	*
Venus	59957-05-11 04:34 G	23620034.50	23620034.69	23620034.89	0.0507	0.0109	
Mercury	59961-08-05 18:43 G	23621582.18	23621582.28	23621582.37	0.0537	0.0381	
Mercury	59961-11-03 03:22 G	23621671.54	23621671.64	23621671.74	0.0535	0.0344	
Earth	59962-04-29 23:02 G	23621849.26	23621849.46	23621849.67	0.0528	0.0244	
Moon	59962-04-29 23:31 G	23621849.28	23621849.48	23621849.69	0.0528	0.0215	*
Venus	59963-03-22 00:29 G	23622175.38	23622175.52	23622175.68	0.0515	0.0343	
Mercury	59967-12-17 07:41 G	23623906.65	23623906.82	23623907.00	0.0493	0.0135	
Venus	59969-01-14 04:34 G	23624300.54	23624300.69	23624300.85	0.0505	0.0330	
Venus	59969-09-07 23:02 G	23624537.41	23624537.46	23624537.51	0.0515	0.0496	
Mercury	59973-08-22 06:58 G	23625981.67	23625981.79	23625981.91	0.0535	0.0167	
Venus	59974-11-24 18:29 G	23626441.07	23626441.27	23626441.47	0.0518	0.0100	
Mercury	59979-10-05 06:43 G	23628216.60	23628216.78	23628216.96	0.0492	0.0056	
Venus	59981-05-13 20:38 G	23628803.19	23628803.36	23628803.53	0.0512	0.0263	
Mercury	59985-06-10 10:19 G	23630291.80	23630291.93	23630292.06	0.0536	0.0015	
Venus	59986-07-30 11:46 G	23630706.79	23630706.99	23630707.19	0.0521	0.0149	
Mercury	59991-07-24 05:46 G	23632526.59	23632526.74	23632526.89	0.0491	0.0243	
Venus	59993-01-16 17:31 G	23633069.03	23633069.23	23633069.43	0.0508	0.0029	
Mercury	59997-03-29 12:58 G	23634601.92	23634602.04	23634602.16	0.0537	0.0213	
Mercury	59997-06-26 21:22 G	23634691.35	23634691.39	23634691.43	0.0534	0.0503	
Venus	59998-04-04 02:53 G	23634972.50	23634972.62	23634972.75	0.0524	0.0406	
Venus	59998-11-27 12:14 G	23635209.94	23635210.01	23635210.09	0.0514	0.0474	

61ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 61st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	60003-05-12 04:48	G	23636836.62	23636836.70	23636836.78	0.0491	0.0431	
Mercury	60003-08-10 07:41	G	23636926.70	23636926.82	23636926.95	0.0493	0.0342	
Venus	60004-09-21 16:05	G	23637334.98	23637335.17	23637335.36	0.0506	0.0199	
Mercury	60009-01-15 16:19	G	23638912.10	23638912.18	23638912.27	0.0537	0.0394	
Mercury	60009-04-15 01:12	G	23639001.45	23639001.55	23639001.65	0.0535	0.0333	
Venus	60010-08-02 07:55	G	23639475.65	23639475.83	23639476.01	0.0517	0.0238	
Mercury	60015-05-29 05:46	G	23641236.57	23641236.74	23641236.91	0.0492	0.0135	
Earth	60015-10-25 19:41	G	23641386.12	23641386.32	23641386.53	0.0496	0.0245	
Moon	60015-10-25 21:22	G	23641386.18	23641386.39	23641386.61	0.0496	0.0212	*
Venus	60016-05-27 14:38	G	23641601.00	23641601.11	23641601.22	0.0504	0.0421	
Venus	60017-01-19 07:12	G	23641837.67	23641837.80	23641837.93	0.0513	0.0393	
Mercury	60021-02-01 05:17	G	23643311.60	23643311.72	23643311.84	0.0535	0.0165	
Moon	60021-04-18 17:02	G	23643388.19	23643388.21	23643388.23	0.0533	0.0530	
Venus	60022-04-07 03:07	G	23643741.43	23643741.63	23643741.84	0.0519	0.0006	
Mercury	60027-03-17 04:34	G	23645546.51	23645546.69	23645546.87	0.0492	0.0056	
Moon	60027-10-30 04:05	G	23645773.45	23645773.67	23645773.90	0.0498	0.0059	
Earth	60027-10-30 06:43	G	23645773.55	23645773.78	23645774.02	0.0498	0.0056	*
Venus	60028-09-24 05:31	G	23646103.54	23646103.73	23646103.93	0.0510	0.0163	
Mercury	60032-11-20 08:53	G	23647621.74	23647621.87	23647622.00	0.0536	0.0015	
Earth	60033-04-23 22:05	G	23647776.20	23647776.42	23647776.64	0.0531	0.0188	
Moon	60033-04-23 23:17	G	23647776.26	23647776.47	23647776.67	0.0531	0.0207	*
Venus	60033-12-10 19:41	G	23648007.15	23648007.32	23648007.50	0.0522	0.0252	
Mercury	60039-01-03 03:36	G	23649856.50	23649856.65	23649856.80	0.0492	0.0245	
Earth	60039-11-03 18:29	G	23650161.11	23650161.27	23650161.44	0.0500	0.0358	
Moon	60039-11-03 22:05	G	23650161.25	23650161.42	23650161.60	0.0500	0.0328	*
Venus	60040-05-30 04:19	G	23650369.48	23650369.68	23650369.89	0.0508	0.0065	
Mercury	60044-09-08 12:00	G	23651931.88	23651932.00	23651932.13	0.0536	0.0199	

Mercury	60044-12-06 20:24 G	23652021.32	23652021.35	23652021.38	0.0534	0.0515
Earth	60045-04-28 22:19 G	23652164.21	23652164.43	23652164.65	0.0529	0.0177
Moon	60045-04-28 23:02 G	23652164.23	23652164.46	23652164.70	0.0529	0.0147 *
Venus	60045-08-15 11:31 G	23652272.93	23652272.98	23652273.03	0.0525	0.0506
Venus	60046-04-09 21:50 G	23652510.28	23652510.41	23652510.55	0.0515	0.0378
Mercury	60050-10-22 02:53 G	23654166.54	23654166.62	23654166.70	0.0491	0.0428
Mercury	60051-01-20 06:00 G	23654256.62	23654256.75	23654256.88	0.0493	0.0345
Venus	60052-02-03 03:07 G	23654635.46	23654635.63	23654635.80	0.0505	0.0289
Mercury	60056-06-27 14:24 G	23656242.02	23656242.10	23656242.19	0.0537	0.0401
Mercury	60056-09-24 23:17 G	23656331.37	23656331.47	23656331.58	0.0535	0.0326
Venus	60057-12-13 14:53 G	23656775.92	23656776.12	23656776.31	0.0518	0.0134
Mercury	60062-11-08 04:19 G	23658566.51	23658566.68	23658566.85	0.0492	0.0148
Venus	60064-06-01 17:17 G	23659138.06	23659138.22	23659138.39	0.0511	0.0297
Mercury	60068-07-14 03:07 G	23660641.50	23660641.63	23660641.75	0.0536	0.0151
Venus	60069-08-18 08:53 G	23661041.67	23661041.87	23661042.07	0.0521	0.0113
Mercury	60074-08-27 02:24 G	23662876.42	23662876.60	23662876.77	0.0492	0.0059
Venus	60076-02-05 14:10 G	23663403.89	23663404.09	23663404.29	0.0509	0.0062
Mercury	60080-05-02 06:58 G	23664951.66	23664951.79	23664951.92	0.0536	0.0020
Venus	60081-04-23 02:53 G	23665307.47	23665307.62	23665307.77	0.0524	0.0359
Venus	60081-12-16 11:31 G	23665544.98	23665544.98	23665544.99	0.0514	0.0514
Mercury	60086-06-15 01:12 G	23667186.40	23667186.55	23667186.70	0.0491	0.0248
Venus	60087-10-11 13:26 G	23667669.87	23667670.06	23667670.26	0.0506	0.0162
Mercury	60092-02-19 10:19 G	23669261.81	23669261.93	23669262.06	0.0536	0.0201
Mercury	60092-05-18 18:58 G	23669351.26	23669351.29	23669351.32	0.0534	0.0514
Venus	60093-08-21 06:00 G	23669810.59	23669810.75	23669810.93	0.0516	0.0278
Mercury	60098-04-03 00:14 G	23671496.44	23671496.51	23671496.60	0.0491	0.0434
Mercury	60098-07-02 03:22 G	23671586.52	23671586.64	23671586.77	0.0493	0.0340
Moon	60098-10-24 23:02 G	23671701.27	23671701.46	23671701.66	0.0496	0.0259
Earth	60098-10-25 01:41 G	23671701.38	23671701.57	23671701.76	0.0496	0.0289 *
Venus	60099-06-16 13:26 G	23671935.93	23671936.06	23671936.20	0.0504	0.0380

Venus	60100-02-08 06:29 G	23672172.67	23672172.77	23672172.88	0.0513	0.0435
Mercury	60103-12-09 13:26 G	23673571.97	23673572.06	23673572.15	0.0537	0.0388
Mercury	60104-03-07 22:19 G	23673661.33	23673661.43	23673661.53	0.0534	0.0337
Venus	60105-04-27 00:00 G	23674076.29	23674076.50	23674076.70	0.0519	0.0036
Mars	60107-06-27 18:43 G	23674868.04	23674868.28	23674868.53	0.0492	0.0141
Mercury	60110-04-21 02:10 G	23675896.43	23675896.59	23675896.77	0.0492	0.0148
Earth	60110-10-30 12:29 G	23676088.79	23676089.02	23676089.26	0.0498	0.0012
Moon	60110-10-30 16:05 G	23676088.94	23676089.17	23676089.41	0.0498	0.0010 *
Venus	60111-10-15 03:36 G	23676438.46	23676438.65	23676438.83	0.0510	0.0200
Mercury	60115-12-26 00:58 G	23677971.42	23677971.54	23677971.67	0.0535	0.0144
Moon	60116-04-23 15:36 G	23678090.94	23678091.15	23678091.35	0.0532	0.0290
Earth	60116-04-23 15:36 G	23678090.96	23678091.15	23678091.35	0.0532	0.0272 *
Venus	60116-12-30 14:53 G	23678341.93	23678342.12	23678342.30	0.0522	0.0222
Mercury	60122-02-07 00:58 G	23680206.36	23680206.54	23680206.71	0.0492	0.0049
Moon	60122-11-03 18:29 G	23680476.08	23680476.27	23680476.47	0.0499	0.0277
Earth	60122-11-03 22:19 G	23680476.25	23680476.43	23680476.61	0.0499	0.0309 *
Venus	60123-06-20 01:12 G	23680704.34	23680704.55	23680704.75	0.0507	0.0031
Mercury	60127-10-14 04:34 G	23682281.56	23682281.69	23682281.82	0.0536	0.0037
Moon	60128-04-28 16:05 G	23682478.95	23682479.17	23682479.40	0.0530	0.0073
Earth	60128-04-28 17:46 G	23682479.02	23682479.24	23682479.47	0.0530	0.0102 *
Venus	60128-09-04 07:12 G	23682607.72	23682607.80	23682607.90	0.0525	0.0473
Venus	60129-04-29 18:00 G	23682845.14	23682845.25	23682845.38	0.0515	0.0410
Mercury	60133-11-25 22:48 G	23684516.30	23684516.45	23684516.60	0.0491	0.0252
Venus	60135-02-22 22:34 G	23684970.27	23684970.44	23684970.62	0.0505	0.0258
Mercury	60139-08-02 08:24 G	23686591.73	23686591.85	23686591.97	0.0537	0.0211
Mercury	60139-10-30 16:48 G	23686681.17	23686681.20	23686681.24	0.0534	0.0507
Earth	60140-05-03 21:36 G	23686867.30	23686867.40	23686867.50	0.0528	0.0473
Moon	60140-05-04 00:58 G	23686867.47	23686867.54	23686867.63	0.0528	0.0497 *
Venus	60141-01-02 13:55 G	23687110.89	23687111.08	23687111.27	0.0518	0.0175
Mercury	60145-09-13 21:50 G	23688826.34	23688826.41	23688826.49	0.0491	0.0439

Mercury	60145-12-13 00:43 G	23688916.41	23688916.53	23688916.67	0.0493	0.0333
Venus	60146-10-28 22:48 G	23689236.39	23689236.45	23689236.52	0.0503	0.0472
Venus	60147-06-22 14:10 G	23689472.94	23689473.09	23689473.25	0.0512	0.0331
Mercury	60151-05-21 11:46 G	23690901.90	23690901.99	23690902.08	0.0537	0.0392
Mercury	60151-08-18 20:38 G	23690991.26	23690991.36	23690991.46	0.0535	0.0334
Venus	60152-09-07 07:26 G	23691376.61	23691376.81	23691377.01	0.0520	0.0070
Mercury	60157-09-30 23:31 G	23693226.31	23693226.48	23693226.65	0.0492	0.0139
Venus	60159-02-25 12:43 G	23693738.83	23693739.03	23693739.23	0.0509	0.0103
Mercury	60163-06-07 00:00 G	23695301.38	23695301.50	23695301.63	0.0535	0.0154
Venus	60164-05-12 23:31 G	23695642.32	23695642.48	23695642.64	0.0523	0.0321
Mercury	60169-07-19 22:34 G	23697536.27	23697536.44	23697536.62	0.0492	0.0051
Venus	60170-10-31 11:31 G	23698004.79	23698004.98	23698005.18	0.0506	0.0124
Mercury	60175-03-26 02:38 G	23699611.48	23699611.61	23699611.74	0.0536	0.0045
Venus	60176-09-10 00:58 G	23700145.38	23700145.54	23700145.70	0.0517	0.0305
Mercury	60181-05-07 21:22 G	23701846.24	23701846.39	23701846.54	0.0491	0.0242
Earth	60181-10-25 05:46 G	23702016.57	23702016.74	23702016.91	0.0495	0.0337
Moon	60181-10-25 09:22 G	23702016.71	23702016.89	23702017.08	0.0495	0.0307 *
Venus	60182-07-06 10:19 G	23702270.79	23702270.93	23702271.08	0.0504	0.0345
Venus	60183-02-28 02:38 G	23702507.53	23702507.61	23702507.70	0.0513	0.0465
Mercury	60187-01-12 06:00 G	23703921.63	23703921.75	23703921.87	0.0537	0.0228
Mercury	60187-04-11 14:38 G	23704011.06	23704011.11	23704011.16	0.0534	0.0490
Venus	60188-05-15 19:12 G	23704411.10	23704411.30	23704411.51	0.0519	0.0066
Mercury	60193-02-23 19:26 G	23706156.24	23706156.31	23706156.38	0.0490	0.0444
Mercury	60193-05-24 22:19 G	23706246.30	23706246.43	23706246.56	0.0493	0.0326
Moon	60193-10-29 08:24 G	23706403.61	23706403.85	23706404.08	0.0497	0.0061
Earth	60193-10-29 12:00 G	23706403.77	23706404.00	23706404.24	0.0497	0.0052 *
Venus	60194-11-02 22:19 G	23706773.25	23706773.43	23706773.61	0.0510	0.0229
Mercury	60198-10-31 09:36 G	23708231.82	23708231.90	23708231.99	0.0538	0.0405
Mercury	60199-01-28 18:29 G	23708321.17	23708321.27	23708321.38	0.0535	0.0324
Moon	60199-04-23 16:05 G	23708406.01	23708406.17	23708406.34	0.0532	0.0357

Earth	60199-04-23 17:17 G	23708406.04	23708406.22	23708406.40	0.0532	0.0335	*
Venus	60200-01-19 13:55 G	23708676.89	23708677.08	23708677.27	0.0522	0.0178	
Mercury	60205-03-13 20:53 G	23710556.20	23710556.37	23710556.55	0.0492	0.0131	
Earth	60205-11-03 22:48 G	23710791.24	23710791.45	23710791.65	0.0499	0.0249	
Moon	60205-11-04 01:41 G	23710791.37	23710791.57	23710791.78	0.0499	0.0219	*
Venus	60206-07-09 21:07 G	23711039.17	23711039.38	23711039.58	0.0508	0.0012	
Mercury	60210-11-17 22:19 G	23712631.31	23712631.43	23712631.56	0.0535	0.0150	
Earth	60211-04-29 19:55 G	23712794.10	23712794.33	23712794.56	0.0530	0.0040	
Moon	60211-04-29 23:02 G	23712794.22	23712794.46	23712794.70	0.0530	0.0019	*
Venus	60211-09-25 06:29 G	23712942.65	23712942.77	23712942.89	0.0524	0.0427	
Venus	60212-05-19 16:19 G	23713180.08	23713180.18	23713180.28	0.0515	0.0447	
Mercury	60216-12-30 19:55 G	23714866.15	23714866.33	23714866.50	0.0492	0.0062	
Venus	60218-03-14 20:38 G	23715305.19	23715305.36	23715305.55	0.0505	0.0219	
Mercury	60222-09-06 01:41 G	23716941.44	23716941.57	23716941.70	0.0536	0.0033	
Moon	60223-05-04 16:05 G	23717182.04	23717182.17	23717182.31	0.0528	0.0428	
Earth	60223-05-04 19:55 G	23717182.19	23717182.33	23717182.49	0.0528	0.0404	*
Venus	60224-01-23 10:19 G	23717445.75	23717445.93	23717446.12	0.0518	0.0210	
Mercury	60228-10-18 18:58 G	23719176.14	23719176.29	23719176.45	0.0491	0.0246	
Venus	60229-11-17 21:07 G	23719571.28	23719571.38	23719571.48	0.0503	0.0434	
Venus	60230-07-12 12:14 G	23719807.88	23719808.01	23719808.16	0.0512	0.0368	
Mercury	60234-06-25 04:05 G	23721251.56	23721251.67	23721251.79	0.0537	0.0233	
Mercury	60234-09-22 12:43 G	23721340.98	23721341.03	23721341.08	0.0534	0.0485	
Venus	60235-09-28 01:55 G	23721711.37	23721711.58	23721711.78	0.0521	0.0042	
Mercury	60240-08-06 18:00 G	23723486.17	23723486.25	23723486.33	0.0491	0.0434	
Mercury	60240-11-04 20:53 G	23723576.24	23723576.37	23723576.50	0.0493	0.0337	
Venus	60242-03-17 09:36 G	23724073.70	23724073.90	23724074.09	0.0509	0.0136	
Mercury	60246-04-13 07:12 G	23725561.72	23725561.80	23725561.89	0.0537	0.0421	
Mercury	60246-07-11 16:19 G	23725651.07	23725651.18	23725651.29	0.0535	0.0309	
Venus	60247-06-02 18:43 G	23725977.11	23725977.28	23725977.45	0.0523	0.0291	
Mercury	60252-08-23 18:29 G	23727886.10	23727886.27	23727886.44	0.0492	0.0124	

Venus	60253-11-20 06:00 G	23728339.55	23728339.75	23728339.95	0.0506	0.0095
Mercury	60258-04-29 20:10 G	23729961.22	23729961.34	23729961.47	0.0536	0.0139
Venus	60259-10-01 00:00 G	23730480.35	23730480.50	23730480.65	0.0516	0.0347
Mars	60261-09-21 06:29 G	23731201.54	23731201.77	23731202.02	0.0491	0.0160
Mercury	60264-06-11 17:17 G	23732196.04	23732196.22	23732196.40	0.0491	0.0067
Moon	60264-10-25 02:24 G	23732331.45	23732331.60	23732331.76	0.0495	0.0373
Earth	60264-10-25 06:14 G	23732331.63	23732331.76	23732331.90	0.0495	0.0399 *
Venus	60265-07-26 05:46 G	23732605.58	23732605.74	23732605.90	0.0504	0.0313
Venus	60266-03-19 22:34 G	23732842.40	23732842.44	23732842.50	0.0513	0.0497
Mercury	60270-02-16 00:00 G	23734271.36	23734271.50	23734271.63	0.0536	0.0040
Venus	60271-06-05 18:14 G	23734746.07	23734746.26	23734746.47	0.0519	0.0109
Mercury	60276-03-30 16:19 G	23736506.03	23736506.18	23736506.33	0.0491	0.0256
Earth	60276-10-29 16:34 G	23736718.96	23736719.19	23736719.42	0.0497	0.0101
Moon	60276-10-29 19:41 G	23736719.10	23736719.32	23736719.55	0.0497	0.0116 *
Venus	60277-11-22 20:53 G	23737108.20	23737108.37	23737108.55	0.0511	0.0269
Mercury	60281-12-05 03:07 G	23738581.51	23738581.63	23738581.75	0.0537	0.0221
Mercury	60282-03-04 11:46 G	23738670.95	23738670.99	23738671.04	0.0534	0.0497
Earth	60282-04-23 16:48 G	23738721.05	23738721.20	23738721.35	0.0532	0.0404
Moon	60282-04-23 19:12 G	23738721.16	23738721.30	23738721.45	0.0532	0.0428 *
Venus	60283-02-08 11:17 G	23739011.77	23739011.97	23739012.17	0.0522	0.0138
Mercury	60288-01-17 15:50 G	23740816.08	23740816.16	23740816.23	0.0491	0.0437
Mercury	60288-04-16 18:29 G	23740906.15	23740906.27	23740906.41	0.0493	0.0334
Moon	60288-11-03 02:10 G	23741106.37	23741106.59	23741106.82	0.0498	0.0173
Earth	60288-11-03 04:19 G	23741106.47	23741106.68	23741106.90	0.0498	0.0206 *
Venus	60289-07-28 19:41 G	23741374.12	23741374.32	23741374.52	0.0508	0.0042
Mercury	60293-09-23 05:46 G	23742891.66	23742891.74	23742891.82	0.0537	0.0422
Mercury	60293-12-21 14:38 G	23742981.01	23742981.11	23742981.22	0.0535	0.0307
Moon	60294-04-28 10:19 G	23743108.70	23743108.93	23743109.16	0.0531	0.0065
Earth	60294-04-28 14:10 G	23743108.86	23743109.09	23743109.32	0.0531	0.0044 *
Venus	60294-10-14 01:12 G	23743277.42	23743277.55	23743277.68	0.0524	0.0396

Venus	60295-06-08 11:17 G	23743514.89	23743514.97	23743515.05	0.0515	0.0474
Mercury	60300-02-03 17:02 G	23745216.04	23745216.21	23745216.38	0.0492	0.0137
Venus	60301-04-03 18:14 G	23745640.07	23745640.26	23745640.45	0.0505	0.0182
Mercury	60305-10-10 18:00 G	23747291.13	23747291.25	23747291.38	0.0536	0.0128
Earth	60306-05-04 15:07 G	23747496.95	23747497.13	23747497.32	0.0529	0.0326
Moon	60306-05-04 18:58 G	23747497.12	23747497.29	23747497.46	0.0529	0.0356 *
Venus	60307-02-12 06:00 G	23747780.58	23747780.75	23747780.94	0.0518	0.0241
Mercury	60311-11-23 14:53 G	23749525.95	23749526.12	23749526.30	0.0491	0.0072
Venus	60312-12-07 15:22 G	23749906.03	23749906.14	23749906.27	0.0503	0.0404
Venus	60313-08-01 06:43 G	23750142.66	23750142.78	23750142.91	0.0512	0.0395
Mars	60315-04-15 08:38 G	23750764.69	23750764.86	23750765.06	0.0536	0.0414
Mercury	60317-07-29 21:50 G	23751601.28	23751601.41	23751601.54	0.0537	0.0047
Venus	60318-10-18 01:26 G	23752046.36	23752046.56	23752046.77	0.0521	0.0012
Mercury	60323-09-11 13:55 G	23753835.93	23753836.08	23753836.23	0.0491	0.0260
Venus	60325-04-06 05:17 G	23754408.52	23754408.72	23754408.91	0.0509	0.0169
Mercury	60329-05-18 01:26 G	23755911.44	23755911.56	23755911.68	0.0537	0.0224
Mercury	60329-08-15 10:05 G	23756000.88	23756000.92	23756000.97	0.0534	0.0496
Venus	60330-06-22 18:43 G	23756312.11	23756312.28	23756312.47	0.0523	0.0242
Mercury	60335-06-30 13:12 G	23758145.98	23758146.05	23758146.12	0.0491	0.0445
Mercury	60335-09-28 15:50 G	23758236.03	23758236.16	23758236.29	0.0493	0.0324
Venus	60336-12-10 04:34 G	23758674.49	23758674.69	23758674.90	0.0507	0.0055
Mercury	60341-03-06 04:48 G	23760221.61	23760221.70	23760221.78	0.0537	0.0408
Mercury	60341-06-03 13:41 G	23760310.97	23760311.07	23760311.18	0.0535	0.0321
Venus	60342-02-25 10:48 G	23760577.88	23760577.95	23760578.02	0.0525	0.0492
Venus	60342-10-20 21:50 G	23760815.28	23760815.41	23760815.55	0.0516	0.0384
Mercury	60347-07-17 14:53 G	23762545.95	23762546.12	23762546.29	0.0492	0.0135
Earth	60347-10-26 12:29 G	23762646.93	23762647.02	23762647.13	0.0495	0.0442
Moon	60347-10-26 15:50 G	23762647.04	23762647.16	23762647.28	0.0495	0.0420 *
Venus	60348-08-15 04:48 G	23762940.54	23762940.70	23762940.88	0.0504	0.0272
Mercury	60353-03-22 16:34 G	23764621.07	23764621.19	23764621.32	0.0535	0.0130

Venus	60354-06-25 13:55 G	23765080.89	23765081.08	23765081.28	0.0519	0.0140
Mercury	60359-05-05 13:41 G	23766855.90	23766856.07	23766856.25	0.0492	0.0058
Moon	60359-10-30 19:55 G	23767034.10	23767034.33	23767034.56	0.0496	0.0163
Earth	60359-10-30 22:19 G	23767034.20	23767034.43	23767034.65	0.0496	0.0146 *
Venus	60360-04-20 04:48 G	23767206.65	23767206.70	23767206.75	0.0502	0.0484
Venus	60360-12-12 18:58 G	23767443.13	23767443.29	23767443.45	0.0511	0.0305
Mercury	60365-01-08 19:55 G	23768931.20	23768931.33	23768931.46	0.0536	0.0054
Moon	60365-04-23 09:07 G	23769035.83	23769035.88	23769035.94	0.0533	0.0515
Earth	60365-04-23 12:29 G	23769035.93	23769036.02	23769036.12	0.0533	0.0486 *
Venus	60366-02-28 07:26 G	23769346.62	23769346.81	23769347.02	0.0522	0.0105
Mercury	60371-02-21 11:46 G	23771165.84	23771165.99	23771166.14	0.0491	0.0262
Earth	60371-11-04 04:34 G	23771421.47	23771421.69	23771421.92	0.0498	0.0141
Moon	60371-11-04 05:31 G	23771421.51	23771421.73	23771421.95	0.0498	0.0112 *
Venus	60372-08-17 14:24 G	23771708.90	23771709.10	23771709.30	0.0508	0.0073
Mercury	60376-10-27 23:31 G	23773241.36	23773241.48	23773241.60	0.0537	0.0232
Mercury	60377-01-25 08:10 G	23773330.79	23773330.84	23773330.89	0.0535	0.0489
Earth	60377-04-28 17:02 G	23773423.98	23773424.21	23773424.44	0.0532	0.0104
Moon	60377-04-28 20:53 G	23773424.15	23773424.37	23773424.60	0.0532	0.0120 *
Venus	60377-11-03 01:26 G	23773612.41	23773612.56	23773612.72	0.0525	0.0347
Mercury	60382-12-10 11:02 G	23775475.89	23775475.96	23775476.03	0.0490	0.0445
Mercury	60383-03-10 13:26 G	23775565.93	23775566.06	23775566.20	0.0492	0.0323
Earth	60383-11-08 15:36 G	23775809.05	23775809.15	23775809.26	0.0499	0.0445
Moon	60383-11-08 16:34 G	23775809.09	23775809.19	23775809.29	0.0499	0.0452 *
Venus	60384-04-22 13:55 G	23775974.89	23775975.08	23775975.28	0.0505	0.0148
Mercury	60388-08-16 03:07 G	23777551.55	23777551.63	23777551.71	0.0538	0.0410
Mercury	60388-11-13 12:14 G	23777640.90	23777641.01	23777641.11	0.0535	0.0321
Moon	60389-05-03 17:31 G	23777812.03	23777812.23	23777812.43	0.0529	0.0300
Earth	60389-05-03 20:38 G	23777812.17	23777812.36	23777812.56	0.0529	0.0275 *
Venus	60390-03-03 06:58 G	23778115.62	23778115.79	23778115.96	0.0517	0.0288
Mercury	60394-12-27 12:29 G	23779875.85	23779876.02	23779876.19	0.0492	0.0129

Venus	60395-12-27 14:38 G	23780240.97	23780241.11	23780241.25	0.0503	0.0362
Venus	60396-08-20 06:43 G	23780477.67	23780477.78	23780477.88	0.0513	0.0438
Mercury	60400-09-01 15:50 G	23781951.03	23781951.16	23781951.29	0.0536	0.0145
Venus	60401-11-06 00:43 G	23782381.33	23782381.53	23782381.73	0.0520	0.0048
Mercury	60406-10-15 11:46 G	23784185.81	23784185.99	23784186.16	0.0492	0.0057
Venus	60408-04-25 05:17 G	23784743.54	23784743.72	23784743.91	0.0510	0.0212
Mercury	60412-06-20 18:43 G	23786261.15	23786261.28	23786261.41	0.0536	0.0048
Venus	60413-07-11 15:36 G	23786646.96	23786647.15	23786647.34	0.0523	0.0205
Mars	60415-12-16 21:22 G	23787535.31	23787535.39	23787535.46	0.0492	0.0467
Mercury	60418-08-03 10:34 G	23788495.80	23788495.94	23788496.10	0.0491	0.0246
Venus	60419-12-30 03:36 G	23789009.44	23789009.65	23789009.85	0.0507	0.0014
Mercury	60424-04-08 21:50 G	23790571.29	23790571.41	23790571.53	0.0537	0.0233
Mercury	60424-07-07 06:29 G	23790660.73	23790660.77	23790660.83	0.0534	0.0487
Venus	60425-03-16 07:41 G	23790912.72	23790912.82	23790912.93	0.0526	0.0454
Venus	60425-11-08 19:12 G	23791150.18	23791150.30	23791150.42	0.0516	0.0418
Mercury	60430-05-22 09:07 G	23792805.81	23792805.88	23792805.95	0.0490	0.0443
Mercury	60430-08-20 11:46 G	23792895.85	23792895.99	23792896.12	0.0492	0.0323
Moon	60430-10-25 12:29 G	23792961.98	23792962.02	23792962.09	0.0494	0.0478
Venus	60431-09-04 00:29 G	23793275.34	23793275.52	23793275.70	0.0504	0.0237
Mercury	60436-01-27 01:12 G	23794881.47	23794881.55	23794881.64	0.0538	0.0417
Mercury	60436-04-25 10:19 G	23794970.83	23794970.93	23794971.04	0.0536	0.0317
Venus	60437-07-14 15:07 G	23795415.94	23795416.13	23795416.32	0.0519	0.0189
Mercury	60442-06-08 10:34 G	23797205.77	23797205.94	23797206.11	0.0492	0.0131
Earth	60442-10-30 00:58 G	23797349.33	23797349.54	23797349.76	0.0495	0.0203
Moon	60442-10-30 02:10 G	23797349.38	23797349.59	23797349.79	0.0495	0.0222 *
Venus	60443-05-10 00:58 G	23797541.46	23797541.54	23797541.64	0.0502	0.0448
Venus	60444-01-01 15:22 G	23797777.99	23797778.14	23797778.29	0.0511	0.0339
Mercury	60448-02-12 14:24 G	23799280.97	23799281.10	23799281.22	0.0536	0.0147
Venus	60449-03-19 09:36 G	23799681.69	23799681.90	23799682.10	0.0521	0.0052
Mercury	60454-03-27 09:36 G	23801515.72	23801515.90	23801516.07	0.0491	0.0059

Earth	60454-11-03 12:00 G	23801736.77	23801737.00	23801737.23	0.0497	0.0100
Moon	60454-11-03 12:58 G	23801736.80	23801737.04	23801737.28	0.0497	0.0076 *
Venus	60455-09-06 14:38 G	23802043.91	23802044.11	23802044.31	0.0509	0.0117
Mercury	60459-12-01 18:00 G	23803591.12	23803591.25	23803591.38	0.0536	0.0032
Moon	60460-04-27 18:43 G	23803739.05	23803739.28	23803739.50	0.0532	0.0175
Earth	60460-04-27 22:19 G	23803739.20	23803739.43	23803739.65	0.0532	0.0156 *
Venus	60460-11-22 02:10 G	23803947.43	23803947.59	23803947.76	0.0524	0.0297
Mercury	60466-01-13 08:53 G	23805825.72	23805825.87	23805826.02	0.0491	0.0241
Moon	60466-11-07 21:50 G	23806124.30	23806124.41	23806124.53	0.0499	0.0427
Earth	60466-11-08 00:29 G	23806124.39	23806124.52	23806124.66	0.0499	0.0410 *
Venus	60467-05-12 14:38 G	23806309.91	23806310.11	23806310.31	0.0506	0.0103
Mars	60469-07-09 20:10 G	23807099.06	23807099.34	23807099.63	0.0536	0.0165
Mercury	60471-09-19 20:53 G	23807901.25	23807901.37	23807901.49	0.0537	0.0223
Mercury	60471-12-18 05:31 G	23807990.69	23807990.73	23807990.78	0.0534	0.0496
Earth	60472-05-02 20:53 G	23808127.16	23808127.37	23808127.58	0.0530	0.0209
Moon	60472-05-02 22:34 G	23808127.25	23808127.44	23808127.65	0.0530	0.0238 *
Venus	60473-03-22 04:48 G	23808450.54	23808450.70	23808450.86	0.0517	0.0324
Mercury	60477-11-01 08:10 G	23810135.76	23810135.84	23810135.93	0.0491	0.0426
Mercury	60478-01-30 10:48 G	23810225.83	23810225.95	23810226.08	0.0493	0.0344
Venus	60479-01-15 14:24 G	23810575.94	23810576.10	23810576.26	0.0503	0.0317
Venus	60479-09-09 06:29 G	23810812.70	23810812.77	23810812.84	0.0512	0.0479
Mercury	60483-07-08 23:46 G	23812211.41	23812211.49	23812211.58	0.0537	0.0412
Mercury	60483-10-06 08:53 G	23812300.77	23812300.87	23812300.98	0.0535	0.0321
Venus	60484-11-24 22:48 G	23812716.25	23812716.45	23812716.66	0.0520	0.0088
Mercury	60489-11-18 08:53 G	23814535.70	23814535.87	23814536.04	0.0492	0.0137
Venus	60491-05-15 01:26 G	23815078.39	23815078.56	23815078.74	0.0510	0.0246
Mercury	60495-07-25 12:43 G	23816610.90	23816611.03	23816611.15	0.0536	0.0144
Venus	60496-07-30 17:02 G	23816982.02	23816982.21	23816982.41	0.0523	0.0153
Mercury	60501-09-07 07:55 G	23818845.65	23818845.83	23818846.01	0.0491	0.0051
Venus	60503-01-19 00:29 G	23819344.32	23819344.52	23819344.73	0.0507	0.0027

Mercury	60507-05-14 16:34 G	23820921.06	23820921.19	23820921.32	0.0537	0.0031
Venus	60508-04-05 10:34 G	23821247.81	23821247.94	23821248.07	0.0525	0.0397
Venus	60508-11-28 21:36 G	23821485.32	23821485.40	23821485.49	0.0516	0.0469
Mercury	60513-06-26 06:58 G	23823155.64	23823155.79	23823155.95	0.0491	0.0239
Venus	60514-09-24 00:58 G	23823610.35	23823610.54	23823610.73	0.0505	0.0192
Mercury	60519-03-02 20:10 G	23825231.21	23825231.34	23825231.46	0.0537	0.0206
Mercury	60519-05-31 04:48 G	23825320.67	23825320.70	23825320.73	0.0535	0.0515
Venus	60520-08-03 16:19 G	23825751.00	23825751.18	23825751.36	0.0518	0.0237
Mercury	60525-04-14 06:29 G	23827465.69	23827465.77	23827465.86	0.0490	0.0418
Mercury	60525-07-13 09:07 G	23827555.76	23827555.88	23827556.01	0.0493	0.0351
Earth	60525-10-30 10:48 G	23827664.75	23827664.95	23827665.16	0.0495	0.0237
Moon	60525-10-30 11:31 G	23827664.78	23827664.98	23827665.20	0.0495	0.0259 *
Venus	60526-05-30 02:10 G	23827876.47	23827876.59	23827876.72	0.0502	0.0401
Venus	60527-01-21 17:02 G	23828113.09	23828113.21	23828113.35	0.0511	0.0388
Mercury	60530-12-19 23:02 G	23829541.37	23829541.46	23829541.55	0.0537	0.0398
Mercury	60531-03-19 07:55 G	23829630.74	23829630.83	23829630.94	0.0535	0.0333
Venus	60532-04-08 08:38 G	23830016.65	23830016.86	23830017.06	0.0521	0.0011
Mars	60534-06-09 13:41 G	23830808.84	23830809.07	23830809.30	0.0493	0.0202
Mercury	60537-05-01 08:10 G	23831865.67	23831865.84	23831866.01	0.0492	0.0158
Moon	60537-11-03 18:58 G	23832052.06	23832052.29	23832052.51	0.0497	0.0046
Earth	60537-11-03 21:36 G	23832052.17	23832052.40	23832052.63	0.0497	0.0064 *
Venus	60538-09-26 15:22 G	23832378.95	23832379.14	23832379.34	0.0509	0.0163
Mercury	60543-01-05 11:31 G	23833940.85	23833940.98	23833941.11	0.0536	0.0153
Earth	60543-04-28 23:17 G	23834054.26	23834054.47	23834054.68	0.0532	0.0222
Moon	60543-04-29 01:41 G	23834054.37	23834054.57	23834054.78	0.0532	0.0236 *
Venus	60543-12-13 01:12 G	23834282.37	23834282.55	23834282.73	0.0524	0.0253
Mercury	60549-02-17 06:29 G	23836175.59	23836175.77	23836175.95	0.0491	0.0042
Earth	60549-11-08 05:02 G	23836439.55	23836439.71	23836439.87	0.0498	0.0358
Moon	60549-11-08 08:53 G	23836439.72	23836439.87	23836440.02	0.0498	0.0382 *
Venus	60550-06-01 12:00 G	23836644.80	23836645.00	23836645.20	0.0506	0.0063

Mercury	60554-10-24 14:53 G	23838250.99	23838251.12	23838251.25	0.0537	0.0029
Earth	60555-05-04 02:10 G	23838442.37	23838442.59	23838442.82	0.0531	0.0157
Moon	60555-05-04 02:10 G	23838442.37	23838442.59	23838442.82	0.0531	0.0186 *
Venus	60555-08-17 17:46 G	23838548.18	23838548.24	23838548.30	0.0527	0.0499
Venus	60556-04-11 06:58 G	23838785.65	23838785.79	23838785.93	0.0517	0.0376
Mercury	60560-12-06 05:46 G	23840485.58	23840485.74	23840485.89	0.0490	0.0227
Venus	60562-02-04 12:14 G	23840910.84	23840911.01	23840911.18	0.0503	0.0277
Mercury	60566-08-12 18:43 G	23842561.16	23842561.28	23842561.40	0.0538	0.0203
Mercury	60566-11-10 03:22 G	23842650.62	23842650.64	23842650.67	0.0535	0.0520
Venus	60567-12-16 01:55 G	23843051.39	23843051.58	23843051.78	0.0520	0.0143
Mercury	60572-09-24 05:02 G	23844795.62	23844795.71	23844795.80	0.0490	0.0412
Mercury	60572-12-23 07:26 G	23844885.69	23844885.81	23844885.93	0.0492	0.0356
Venus	60573-10-10 13:26 G	23845177.02	23845177.06	23845177.12	0.0501	0.0484
Venus	60574-06-04 02:53 G	23845413.46	23845413.62	23845413.79	0.0510	0.0294
Mercury	60578-05-31 22:05 G	23846871.33	23846871.42	23846871.52	0.0538	0.0381
Mercury	60578-08-29 07:26 G	23846960.71	23846960.81	23846960.90	0.0535	0.0351
Venus	60579-08-20 19:41 G	23847317.12	23847317.32	23847317.52	0.0522	0.0099
Mercury	60584-10-11 06:43 G	23849195.61	23849195.78	23849195.94	0.0492	0.0168
Venus	60586-02-07 02:38 G	23849679.41	23849679.61	23849679.81	0.0508	0.0074
Mercury	60590-06-17 10:34 G	23851270.82	23851270.94	23851271.07	0.0536	0.0168
Venus	60591-04-25 10:48 G	23851582.80	23851582.95	23851583.10	0.0525	0.0348
Venus	60591-12-18 21:22 G	23851820.37	23851820.39	23851820.42	0.0515	0.0510
Mercury	60596-07-30 05:46 G	23853505.56	23853505.74	23853505.92	0.0491	0.0021
Venus	60597-10-13 02:24 G	23853945.41	23853945.60	23853945.80	0.0505	0.0143
Mercury	60602-04-06 13:55 G	23855580.95	23855581.08	23855581.21	0.0536	0.0016
Venus	60603-08-24 16:05 G	23856086.00	23856086.17	23856086.34	0.0518	0.0280
Mercury	60608-05-19 04:19 G	23857815.53	23857815.68	23857815.84	0.0490	0.0215
Moon	60608-10-30 15:22 G	23857979.97	23857980.14	23857980.32	0.0494	0.0309
Earth	60608-10-30 18:00 G	23857980.06	23857980.25	23857980.44	0.0494	0.0281 *
Venus	60609-06-19 00:43 G	23858211.39	23858211.53	23858211.67	0.0502	0.0359

Venus	60610-02-10 14:53 G	23858448.01	23858448.12	23858448.24	0.0511	0.0425
Mercury	60614-01-23 17:02 G	23859891.09	23859891.21	23859891.33	0.0538	0.0202
Mercury	60614-04-23 01:55 G	23859980.56	23859980.58	23859980.61	0.0535	0.0521
Venus	60615-04-29 10:48 G	23860351.74	23860351.95	23860352.15	0.0521	0.0046
Mercury	60620-03-07 03:50 G	23862125.56	23862125.66	23862125.76	0.0490	0.0396
Mercury	60620-06-05 06:14 G	23862215.65	23862215.76	23862215.88	0.0492	0.0369
Earth	60620-11-04 04:19 G	23862367.44	23862367.68	23862367.91	0.0496	0.0021
Moon	60620-11-04 08:10 G	23862367.60	23862367.84	23862368.07	0.0496	0.0009 *
Venus	60621-10-16 13:41 G	23862713.88	23862714.07	23862714.25	0.0509	0.0203
Mercury	60625-11-11 20:38 G	23864201.27	23864201.36	23864201.46	0.0538	0.0379
Mercury	60626-02-09 06:00 G	23864290.65	23864290.75	23864290.85	0.0536	0.0355
Moon	60626-04-29 06:14 G	23864369.56	23864369.76	23864369.97	0.0533	0.0274
Earth	60626-04-29 06:58 G	23864369.59	23864369.79	23864370.00	0.0533	0.0268 *
Venus	60627-01-02 04:34 G	23864617.50	23864617.69	23864617.88	0.0524	0.0196
Mercury	60632-03-24 05:02 G	23866525.55	23866525.71	23866525.88	0.0492	0.0176
Moon	60632-11-08 10:48 G	23866754.79	23866754.95	23866755.12	0.0498	0.0348
Earth	60632-11-08 15:07 G	23866754.95	23866755.13	23866755.30	0.0498	0.0325 *
Venus	60633-06-21 13:26 G	23866979.85	23866980.06	23866980.26	0.0506	0.0020
Mercury	60637-11-28 09:50 G	23868600.79	23868600.91	23868601.03	0.0536	0.0185
Moon	60638-05-04 09:36 G	23868757.68	23868757.90	23868758.11	0.0531	0.0151
Earth	60638-05-04 11:31 G	23868757.76	23868757.98	23868758.21	0.0531	0.0119 *
Venus	60638-09-06 21:22 G	23868883.28	23868883.39	23868883.50	0.0526	0.0441
Venus	60639-05-02 09:36 G	23869120.79	23869120.90	23869121.02	0.0517	0.0426
Mercury	60644-01-11 04:19 G	23870835.51	23870835.68	23870835.86	0.0491	0.0011
Venus	60645-02-24 14:10 G	23871245.92	23871246.09	23871246.28	0.0504	0.0229
Mercury	60649-09-16 13:12 G	23872910.91	23872911.05	23872911.18	0.0536	0.0015
Earth	60650-05-09 11:31 G	23873145.90	23873145.98	23873146.07	0.0529	0.0488
Moon	60650-05-09 15:07 G	23873146.05	23873146.13	23873146.23	0.0529	0.0488 *
Venus	60651-01-05 02:24 G	23873386.42	23873386.60	23873386.80	0.0519	0.0189
Mercury	60655-10-30 03:36 G	23875145.49	23875145.65	23875145.81	0.0491	0.0195

Venus	60656-10-30 15:07 G	23875512.04	23875512.13	23875512.24	0.0501	0.0436
Venus	60657-06-24 04:48 G	23875748.56	23875748.70	23875748.85	0.0510	0.0342
Mercury	60661-07-05 16:19 G	23877221.06	23877221.18	23877221.31	0.0537	0.0184
Venus	60662-09-09 19:55 G	23877652.13	23877652.33	23877652.53	0.0522	0.0052
Mercury	60667-08-18 02:38 G	23879455.51	23879455.61	23879455.72	0.0490	0.0383
Mercury	60667-11-16 05:02 G	23879545.61	23879545.71	23879545.82	0.0492	0.0384
Venus	60669-02-27 01:26 G	23880014.36	23880014.56	23880014.76	0.0507	0.0115
Mercury	60673-04-23 19:12 G	23881531.21	23881531.30	23881531.39	0.0538	0.0378
Mercury	60673-07-22 04:34 G	23881620.59	23881620.69	23881620.78	0.0536	0.0357
Venus	60674-05-15 12:14 G	23881917.85	23881918.01	23881918.18	0.0526	0.0297
Mercury	60679-09-04 04:05 G	23883855.51	23883855.67	23883855.83	0.0491	0.0192
Venus	60680-11-02 01:12 G	23884280.35	23884280.55	23884280.75	0.0505	0.0101
Mercury	60685-05-10 08:24 G	23885930.73	23885930.85	23885930.97	0.0537	0.0188
Venus	60686-09-12 19:12 G	23886421.15	23886421.30	23886421.46	0.0518	0.0333
Mars	60688-09-04 02:24 G	23887143.38	23887143.60	23887143.83	0.0492	0.0229
Mercury	60691-06-23 02:53 G	23888165.45	23888165.62	23888165.80	0.0491	0.0007
Earth	60691-10-31 03:50 G	23888295.48	23888295.66	23888295.84	0.0494	0.0314
Moon	60691-10-31 07:41 G	23888295.65	23888295.82	23888295.99	0.0494	0.0345 *
Venus	60692-07-08 01:41 G	23888546.41	23888546.57	23888546.73	0.0502	0.0313
Venus	60693-03-01 16:34 G	23888783.12	23888783.19	23888783.27	0.0512	0.0472
Mercury	60697-02-26 12:14 G	23890240.88	23890241.01	23890241.14	0.0537	0.0016
Venus	60698-05-18 13:55 G	23890686.88	23890687.08	23890687.28	0.0521	0.0099
Mercury	60703-04-12 02:24 G	23892475.44	23892475.60	23892475.76	0.0491	0.0183
Moon	60703-11-05 11:02 G	23892682.73	23892682.96	23892683.20	0.0496	0.0025
Earth	60703-11-05 15:07 G	23892682.90	23892683.13	23892683.37	0.0496	0.0011 *
Venus	60704-11-05 16:05 G	23893048.99	23893049.17	23893049.35	0.0509	0.0252
Mercury	60708-12-16 15:22 G	23894551.02	23894551.14	23894551.27	0.0537	0.0170
Moon	60709-04-29 11:31 G	23894684.81	23894684.98	23894685.17	0.0533	0.0316
Earth	60709-04-29 12:58 G	23894684.86	23894685.04	23894685.23	0.0533	0.0319 *
Venus	60710-01-22 05:46 G	23894952.54	23894952.74	23894952.93	0.0523	0.0146

Mercury	60715-01-29 01:41 G	23896785.46	23896785.57	23896785.69	0.0490	0.0366
Mercury	60715-04-29 04:05 G	23896875.58	23896875.67	23896875.78	0.0492	0.0403
Earth	60715-11-10 02:10 G	23897070.41	23897070.59	23897070.78	0.0498	0.0295
Moon	60715-11-10 05:46 G	23897070.57	23897070.74	23897070.92	0.0498	0.0322 *
Venus	60716-07-11 15:22 G	23897314.94	23897315.14	23897315.34	0.0506	0.0034
Mercury	60720-10-04 18:29 G	23898861.18	23898861.27	23898861.37	0.0538	0.0357
Mercury	60721-01-02 03:50 G	23898950.56	23898950.66	23898950.75	0.0535	0.0375
Earth	60721-05-04 14:53 G	23899072.89	23899073.12	23899073.35	0.0532	0.0061
Moon	60721-05-04 18:14 G	23899073.03	23899073.26	23899073.50	0.0532	0.0097 *
Venus	60721-09-26 21:36 G	23899218.27	23899218.40	23899218.54	0.0526	0.0393
Venus	60722-05-22 09:36 G	23899455.82	23899455.90	23899455.99	0.0516	0.0469
Mercury	60727-02-15 02:53 G	23901185.46	23901185.62	23901185.78	0.0491	0.0207
Venus	60728-03-16 13:41 G	23901580.88	23901581.07	23901581.26	0.0503	0.0185
Mercury	60732-10-21 06:43 G	23903260.66	23903260.78	23903260.91	0.0537	0.0189
Moon	60733-05-09 11:31 G	23903460.85	23903460.98	23903461.11	0.0530	0.0436
Earth	60733-05-09 15:22 G	23903461.01	23903461.14	23903461.28	0.0530	0.0435 *
Venus	60734-01-25 03:50 G	23903721.48	23903721.66	23903721.85	0.0520	0.0237
Mercury	60738-12-04 01:55 G	23905495.41	23905495.58	23905495.76	0.0491	0.0022
Venus	60739-11-20 14:24 G	23905846.98	23905847.10	23905847.23	0.0501	0.0393
Venus	60740-07-14 03:22 G	23906083.51	23906083.64	23906083.78	0.0510	0.0381
Mercury	60744-08-09 10:34 G	23907570.81	23907570.94	23907571.07	0.0537	0.0017
Venus	60745-09-29 22:19 G	23907987.23	23907987.43	23907987.64	0.0522	0.0002
Mercury	60750-09-22 00:58 G	23909805.37	23909805.54	23909805.70	0.0490	0.0174
Venus	60752-03-19 02:24 G	23910349.41	23910349.60	23910349.79	0.0508	0.0160
Mercury	60756-05-28 14:24 G	23911880.97	23911881.10	23911881.22	0.0538	0.0158
Venus	60757-06-04 15:36 G	23912252.98	23912253.15	23912253.34	0.0525	0.0242
Mercury	60762-07-11 00:14 G	23914115.40	23914115.51	23914115.64	0.0490	0.0355
Mercury	60762-10-09 02:53 G	23914205.52	23914205.62	23914205.71	0.0492	0.0413
Venus	60763-11-23 02:53 G	23914615.42	23914615.62	23914615.82	0.0505	0.0054
Mercury	60768-03-16 17:31 G	23916191.13	23916191.23	23916191.33	0.0538	0.0344

Mercury	60768-06-14 02:38 G	23916280.53	23916280.61	23916280.70	0.0536	0.0388
Venus	60769-02-07 06:29 G	23916518.70	23916518.77	23916518.85	0.0527	0.0490
Venus	60769-10-02 19:55 G	23916756.20	23916756.33	23916756.47	0.0518	0.0378
Mercury	60774-07-28 01:55 G	23918515.42	23918515.58	23918515.73	0.0492	0.0223
Moon	60774-10-31 10:48 G	23918610.81	23918610.95	23918611.11	0.0494	0.0380
Earth	60774-10-31 14:53 G	23918610.96	23918611.12	23918611.30	0.0494	0.0346 *
Venus	60775-07-29 03:22 G	23918881.47	23918881.64	23918881.82	0.0503	0.0265
Mercury	60780-01-03 20:38 G	23920501.35	23920501.36	23920501.37	0.0539	0.0534
Mercury	60780-04-02 06:14 G	23920590.64	23920590.76	23920590.88	0.0536	0.0208
Venus	60781-06-07 13:41 G	23921021.88	23921022.07	23921022.27	0.0521	0.0143
Mercury	60786-05-16 00:43 G	23922825.36	23922825.53	23922825.71	0.0491	0.0033
Earth	60786-11-05 00:00 G	23922998.27	23922998.50	23922998.73	0.0495	0.0048
Moon	60786-11-05 03:36 G	23922998.42	23922998.65	23922998.88	0.0495	0.0056 *
Venus	60787-04-03 03:22 G	23923147.59	23923147.64	23923147.71	0.0500	0.0472
Venus	60787-11-25 15:07 G	23923383.97	23923384.13	23923384.30	0.0509	0.0292
Mercury	60792-01-20 09:07 G	23924900.74	23924900.88	23924901.01	0.0537	0.0024
Earth	60792-04-28 13:41 G	23924999.92	23925000.07	23925000.24	0.0535	0.0386
Moon	60792-04-28 16:34 G	23925000.03	23925000.19	23925000.37	0.0535	0.0374 *
Venus	60793-02-10 05:46 G	23925287.54	23925287.74	23925287.94	0.0524	0.0101
Mercury	60798-03-04 00:00 G	23927135.33	23927135.50	23927135.67	0.0490	0.0155
Moon	60798-11-09 07:41 G	23927385.63	23927385.82	23927386.03	0.0497	0.0280
Earth	60798-11-09 10:05 G	23927385.72	23927385.92	23927386.12	0.0497	0.0254 *
Venus	60799-07-31 14:10 G	23927649.89	23927650.09	23927650.29	0.0506	0.0074
Mercury	60803-11-08 12:29 G	23929210.90	23929211.02	23929211.15	0.0538	0.0164
Moon	60804-05-03 15:07 G	23929387.90	23929388.13	23929388.36	0.0533	0.0042
Earth	60804-05-03 18:58 G	23929388.06	23929388.29	23929388.52	0.0533	0.0008 *
Venus	60804-10-15 22:48 G	23929553.30	23929553.45	23929553.60	0.0527	0.0345
Venus	60805-06-10 11:02 G	23929790.95	23929790.96	23929790.98	0.0517	0.0514
Mars	60807-02-26 20:24 G	23930417.24	23930417.35	23930417.48	0.0493	0.0432
Mercury	60809-12-20 22:48 G	23931445.33	23931445.45	23931445.58	0.0490	0.0346

Mercury	60810-03-21 01:12 G	23931535.46	23931535.55	23931535.64	0.0492	0.0421
Venus	60811-04-05 13:41 G	23931915.88	23931916.07	23931916.27	0.0504	0.0143
Mercury	60815-08-27 16:19 G	23933521.08	23933521.18	23933521.28	0.0538	0.0338
Mercury	60815-11-25 01:26 G	23933610.48	23933610.56	23933610.65	0.0536	0.0397
Earth	60816-05-08 23:46 G	23933776.33	23933776.49	23933776.64	0.0530	0.0396
Moon	60816-05-09 03:22 G	23933776.49	23933776.64	23933776.80	0.0530	0.0391 *
Venus	60817-02-13 06:14 G	23934056.60	23934056.76	23934056.94	0.0519	0.0287
Mercury	60822-01-07 00:14 G	23935845.35	23935845.51	23935845.67	0.0491	0.0231
Venus	60822-12-09 15:07 G	23936181.98	23936182.13	23936182.27	0.0502	0.0349
Venus	60823-08-03 05:02 G	23936418.60	23936418.71	23936418.82	0.0511	0.0426
Mercury	60827-06-15 19:26 G	23937831.28	23937831.31	23937831.34	0.0539	0.0525
Mercury	60827-09-13 05:02 G	23937920.59	23937920.71	23937920.83	0.0536	0.0217
Venus	60828-10-18 23:02 G	23938322.26	23938322.46	23938322.67	0.0522	0.0048
Mercury	60833-10-25 23:17 G	23940155.30	23940155.47	23940155.65	0.0491	0.0044
Venus	60835-04-08 03:50 G	23940684.48	23940684.66	23940684.85	0.0508	0.0208
Mercury	60839-07-02 08:24 G	23942230.72	23942230.85	23942230.98	0.0537	0.0036
Venus	60840-06-23 15:07 G	23942587.94	23942588.13	23942588.32	0.0525	0.0197
Mercury	60845-08-13 22:34 G	23944465.28	23944465.44	23944465.61	0.0490	0.0144
Venus	60846-12-12 02:10 G	23944950.39	23944950.59	23944950.80	0.0505	0.0014
Mercury	60851-04-20 10:48 G	23946540.83	23946540.95	23946541.08	0.0538	0.0166
Venus	60852-02-27 05:02 G	23946853.61	23946853.71	23946853.82	0.0528	0.0449
Venus	60852-10-21 19:26 G	23947091.19	23947091.31	23947091.43	0.0518	0.0419
Mercury	60857-06-01 21:50 G	23948775.29	23948775.41	23948775.54	0.0490	0.0329
Mercury	60857-08-31 00:14 G	23948865.43	23948865.51	23948865.59	0.0491	0.0437
Earth	60857-10-30 23:17 G	23948926.33	23948926.47	23948926.62	0.0493	0.0382
Moon	60857-10-31 02:38 G	23948926.49	23948926.61	23948926.74	0.0493	0.0414 *
Venus	60858-08-17 02:10 G	23949216.41	23949216.59	23949216.78	0.0502	0.0225
Mercury	60863-02-06 14:10 G	23950850.99	23950851.09	23950851.20	0.0539	0.0347
Mercury	60863-05-06 23:31 G	23950940.40	23950940.48	23950940.57	0.0536	0.0390
Venus	60864-06-26 13:41 G	23951356.89	23951357.07	23951357.27	0.0521	0.0187

Mercury	60869-06-18 22:34 G	23953175.28	23953175.44	23953175.59	0.0491	0.0236
Moon	60869-11-04 04:34 G	23953313.45	23953313.69	23953313.93	0.0495	0.0094
Earth	60869-11-04 06:43 G	23953313.55	23953313.78	23953314.02	0.0495	0.0090 *
Venus	60870-04-22 02:24 G	23953482.50	23953482.60	23953482.70	0.0500	0.0432
Venus	60870-12-14 14:24 G	23953718.95	23953719.10	23953719.26	0.0509	0.0332
Mercury	60874-11-25 17:46 G	23955161.22	23955161.24	23955161.27	0.0539	0.0524
Mercury	60875-02-23 03:36 G	23955250.53	23955250.65	23955250.77	0.0537	0.0221
Moon	60875-04-28 17:02 G	23955315.08	23955315.21	23955315.35	0.0535	0.0423
Earth	60875-04-28 20:53 G	23955315.23	23955315.37	23955315.50	0.0535	0.0432 *
Venus	60876-03-01 07:55 G	23955622.63	23955622.83	23955623.03	0.0523	0.0051
Mercury	60881-04-06 21:36 G	23957485.22	23957485.40	23957485.58	0.0491	0.0048
Earth	60881-11-08 17:31 G	23957701.02	23957701.23	23957701.44	0.0497	0.0215
Moon	60881-11-08 17:31 G	23957701.04	23957701.23	23957701.43	0.0497	0.0245 *
Venus	60882-08-19 14:10 G	23957984.90	23957985.09	23957985.29	0.0507	0.0116
Mercury	60886-12-12 06:58 G	23959560.66	23959560.79	23959560.92	0.0537	0.0042
Earth	60887-05-03 23:31 G	23959703.25	23959703.48	23959703.72	0.0533	0.0048
Moon	60887-05-04 03:36 G	23959703.41	23959703.65	23959703.88	0.0533	0.0016 *
Venus	60887-11-04 23:17 G	23959888.31	23959888.47	23959888.64	0.0526	0.0296
Mercury	60893-01-23 20:53 G	23961795.20	23961795.37	23961795.54	0.0490	0.0139
Venus	60894-04-24 14:24 G	23962250.90	23962251.10	23962251.30	0.0504	0.0097
Mars	60896-06-17 23:02 G	23963036.16	23963036.46	23963036.76	0.0535	0.0003
Mercury	60898-09-30 10:05 G	23963870.80	23963870.92	23963871.05	0.0538	0.0147
Moon	60899-05-08 22:05 G	23964091.24	23964091.42	23964091.62	0.0531	0.0321
Earth	60899-05-09 00:58 G	23964091.36	23964091.54	23964091.72	0.0531	0.0333 *
Venus	60900-03-05 05:02 G	23964391.55	23964391.71	23964391.86	0.0519	0.0326
Mercury	60904-11-12 20:24 G	23966105.22	23966105.35	23966105.48	0.0490	0.0320
Mercury	60905-02-10 22:34 G	23966195.37	23966195.44	23966195.52	0.0492	0.0446
Venus	60905-12-29 14:24 G	23966516.94	23966517.10	23966517.26	0.0501	0.0308
Venus	60906-08-23 03:36 G	23966753.58	23966753.65	23966753.74	0.0510	0.0463
Mercury	60910-07-20 12:29 G	23968180.92	23968181.02	23968181.12	0.0539	0.0350

Mercury	60910-10-17 21:50 G	23968270.32	23968270.41	23968270.50	0.0536	0.0385
Venus	60911-11-08 20:38 G	23968657.16	23968657.36	23968657.56	0.0522	0.0084
Mercury	60916-11-29 21:22 G	23970505.24	23970505.39	23970505.54	0.0491	0.0252
Venus	60918-04-28 01:55 G	23971019.40	23971019.58	23971019.76	0.0507	0.0243
Mercury	60922-05-08 15:50 G	23972491.15	23972491.16	23972491.16	0.0539	0.0537
Mercury	60922-08-06 01:26 G	23972580.44	23972580.56	23972580.68	0.0537	0.0210
Venus	60923-07-14 13:26 G	23972922.87	23972923.06	23972923.26	0.0525	0.0158
Mercury	60928-09-17 19:41 G	23974815.15	23974815.32	23974815.50	0.0490	0.0051
Venus	60930-01-01 00:14 G	23975285.30	23975285.51	23975285.71	0.0505	0.0025
Mercury	60934-05-25 05:17 G	23976890.59	23976890.72	23976890.85	0.0538	0.0040
Venus	60935-03-19 06:29 G	23977188.64	23977188.77	23977188.90	0.0527	0.0399
Venus	60935-11-11 20:10 G	23977426.25	23977426.34	23977426.43	0.0518	0.0461
Mercury	60940-07-06 18:58 G	23979125.12	23979125.29	23979125.46	0.0490	0.0136
Moon	60940-10-31 02:24 G	23979241.53	23979241.60	23979241.70	0.0493	0.0457
Earth	60940-10-31 05:02 G	23979241.60	23979241.71	23979241.82	0.0493	0.0428 *
Venus	60941-09-06 00:58 G	23979551.35	23979551.54	23979551.73	0.0503	0.0186
Mercury	60946-03-13 08:38 G	23981200.74	23981200.86	23981200.99	0.0538	0.0144
Venus	60947-07-17 13:12 G	23981691.87	23981692.05	23981692.24	0.0520	0.0229
Mercury	60952-04-24 18:14 G	23983435.13	23983435.26	23983435.39	0.0490	0.0321
Mercury	60952-07-23 20:24 G	23983525.28	23983525.35	23983525.43	0.0492	0.0447
Earth	60952-11-04 14:38 G	23983628.89	23983629.11	23983629.34	0.0495	0.0130
Moon	60952-11-04 14:53 G	23983628.90	23983629.12	23983629.34	0.0495	0.0123 *
Venus	60953-05-12 02:10 G	23983817.46	23983817.59	23983817.72	0.0501	0.0390
Venus	60954-01-03 14:38 G	23984053.98	23984054.11	23984054.25	0.0510	0.0374
Mercury	60957-12-30 11:46 G	23985510.89	23985510.99	23985511.09	0.0538	0.0333
Mercury	60958-03-29 20:53 G	23985600.29	23985600.37	23985600.46	0.0536	0.0401
Earth	60958-04-28 20:38 G	23985630.29	23985630.36	23985630.44	0.0535	0.0502
Moon	60958-04-29 00:29 G	23985630.44	23985630.52	23985630.62	0.0535	0.0488 *
Venus	60959-03-22 05:46 G	23985957.54	23985957.74	23985957.95	0.0523	0.0012
Mars	60961-05-23 18:29 G	23986751.02	23986751.27	23986751.52	0.0493	0.0083

Mercury	60964-05-11 19:26 G	23987835.17	23987835.31	23987835.47	0.0491	0.0257
Earth	60964-11-09 00:43 G	23988016.32	23988016.53	23988016.75	0.0496	0.0176
Moon	60964-11-09 02:24 G	23988016.39	23988016.60	23988016.83	0.0496	0.0206 *
Venus	60965-09-08 12:58 G	23988319.85	23988320.04	23988320.24	0.0506	0.0154
Mercury	60970-01-15 23:46 G	23989910.36	23989910.49	23989910.61	0.0537	0.0205
Moon	60970-05-03 15:22 G	23990017.91	23990018.14	23990018.38	0.0534	0.0099
Earth	60970-05-03 18:43 G	23990018.06	23990018.28	23990018.51	0.0534	0.0129 *
Venus	60970-11-24 19:26 G	23990223.13	23990223.31	23990223.48	0.0526	0.0263
Mercury	60976-02-28 18:29 G	23992145.09	23992145.27	23992145.44	0.0490	0.0064
Moon	60976-11-13 07:26 G	23992403.76	23992403.81	23992403.87	0.0497	0.0482
Earth	60976-11-13 10:05 G	23992403.87	23992403.92	23992403.99	0.0497	0.0478 *
Venus	60977-05-14 12:14 G	23992585.80	23992586.01	23992586.21	0.0504	0.0062
Mercury	60981-11-04 03:07 G	23994220.49	23994220.63	23994220.76	0.0538	0.0028
Earth	60982-05-08 22:05 G	23994406.22	23994406.42	23994406.63	0.0532	0.0260
Moon	60982-05-08 23:31 G	23994406.28	23994406.48	23994406.68	0.0532	0.0244 *
Venus	60982-07-30 10:34 G	23994488.89	23994488.94	23994489.00	0.0529	0.0510
Venus	60983-03-25 02:24 G	23994726.46	23994726.60	23994726.75	0.0519	0.0360
Mercury	60987-12-17 16:48 G	23996455.03	23996455.20	23996455.37	0.0490	0.0136
Venus	60989-01-17 11:02 G	23996851.79	23996851.96	23996852.13	0.0501	0.0274
Venus	60989-09-11 00:43 G	23997088.49	23997088.53	23997088.58	0.0511	0.0496
Mercury	60993-08-23 06:43 G	23998530.65	23998530.78	23998530.91	0.0538	0.0151
Venus	60994-11-27 20:53 G	23998992.17	23998992.37	23998992.57	0.0522	0.0128
Mercury	60999-10-05 16:05 G	24000765.04	24000765.17	24000765.30	0.0490	0.0321
Mercury	61000-01-03 18:14 G	24000855.19	24000855.26	24000855.33	0.0492	0.0445
Venus	61000-09-23 12:29 G	24001117.97	24001118.02	24001118.09	0.0499	0.0475

62ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 62nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	61001-05-17 23:46	G	24001354.32	24001354.49	24001354.66	0.0508	0.0279	
Mercury	61005-06-12 10:05	G	24002840.82	24002840.92	24002841.02	0.0538	0.0334	
Mercury	61005-09-09 19:26	G	24002930.22	24002930.31	24002930.39	0.0536	0.0400	
Venus	61006-08-03 12:58	G	24003257.84	24003258.04	24003258.24	0.0524	0.0113	
Mercury	61011-10-23 17:02	G	24005165.06	24005165.21	24005165.37	0.0491	0.0253	
Venus	61013-01-20 23:17	G	24005620.27	24005620.47	24005620.68	0.0506	0.0066	
Mercury	61017-03-31 12:58	G	24007151.02	24007151.04	24007151.07	0.0539	0.0527	
Mercury	61017-06-28 22:48	G	24007240.33	24007240.45	24007240.57	0.0537	0.0219	
Venus	61018-04-08 04:05	G	24007523.52	24007523.67	24007523.81	0.0527	0.0359	
Venus	61018-12-01 17:02	G	24007761.16	24007761.21	24007761.27	0.0517	0.0495	
Mercury	61023-08-11 16:19	G	24009475.01	24009475.18	24009475.36	0.0491	0.0067	
Earth	61023-11-01 11:46	G	24009556.93	24009556.99	24009557.06	0.0492	0.0470	
Venus	61024-09-25 23:31	G	24009886.28	24009886.48	24009886.67	0.0503	0.0148	
Mercury	61029-04-17 01:12	G	24011550.42	24011550.55	24011550.68	0.0537	0.0019	
Venus	61030-08-06 08:38	G	24012026.68	24012026.86	24012027.04	0.0521	0.0258	
Mercury	61035-05-30 15:22	G	24013784.97	24013785.14	24013785.31	0.0490	0.0125	
Earth	61035-11-05 20:10	G	24013944.12	24013944.34	24013944.56	0.0494	0.0174	
Moon	61035-11-05 21:36	G	24013944.18	24013944.40	24013944.64	0.0494	0.0160	*
Venus	61036-05-31 23:31	G	24014152.34	24014152.48	24014152.63	0.0500	0.0354	
Venus	61037-01-23 11:31	G	24014388.86	24014388.98	24014389.11	0.0509	0.0405	
Mercury	61041-02-03 04:19	G	24015860.56	24015860.68	24015860.81	0.0538	0.0168	
Venus	61042-04-11 01:55	G	24016292.37	24016292.58	24016292.78	0.0523	0.0021	

Mercury	61047-03-18 13:55 G	24018094.95	24018095.08	24018095.21	0.0489	0.0323
Mercury	61047-06-16 15:50 G	24018185.09	24018185.16	24018185.24	0.0491	0.0441
Moon	61047-11-09 23:31 G	24018331.27	24018331.48	24018331.70	0.0495	0.0149
Earth	61047-11-10 02:24 G	24018331.37	24018331.60	24018331.82	0.0495	0.0117 *
Venus	61048-09-28 08:53 G	24018654.68	24018654.87	24018655.06	0.0507	0.0184
Mars	61050-09-13 03:07 G	24019369.45	24019369.63	24019369.83	0.0535	0.0409
Mercury	61052-11-22 07:55 G	24020170.73	24020170.83	24020170.93	0.0539	0.0346
Mercury	61053-02-19 17:17 G	24020260.14	24020260.22	24020260.31	0.0537	0.0393
Earth	61053-05-03 21:07 G	24020333.17	24020333.38	24020333.60	0.0534	0.0190
Moon	61053-05-03 23:17 G	24020333.25	24020333.47	24020333.68	0.0534	0.0164 *
Venus	61053-12-14 18:58 G	24020558.11	24020558.29	24020558.48	0.0526	0.0219
Mercury	61059-04-04 14:38 G	24022494.96	24022495.11	24022495.27	0.0491	0.0248
Earth	61059-11-14 12:14 G	24022718.89	24022719.01	24022719.13	0.0497	0.0423
Moon	61059-11-14 15:36 G	24022719.04	24022719.15	24022719.28	0.0497	0.0423 *
Venus	61060-06-03 08:38 G	24022920.66	24022920.86	24022921.06	0.0504	0.0028
Mercury	61064-09-10 11:17 G	24024480.95	24024480.97	24024480.99	0.0539	0.0531
Mercury	61064-12-08 20:53 G	24024570.26	24024570.37	24024570.50	0.0537	0.0217
Moon	61065-05-09 00:29 G	24024721.30	24024721.52	24024721.75	0.0532	0.0177
Earth	61065-05-09 00:29 G	24024721.31	24024721.52	24024721.74	0.0532	0.0199 *
Venus	61065-08-19 10:05 G	24024823.83	24024823.92	24024824.02	0.0528	0.0463
Venus	61066-04-14 00:58 G	24025061.42	24025061.54	24025061.67	0.0519	0.0398
Mercury	61071-01-21 13:55 G	24026804.90	24026805.08	24026805.25	0.0491	0.0059
Venus	61072-02-07 09:36 G	24027186.72	24027186.90	24027187.08	0.0502	0.0235
Mercury	61076-09-27 00:14 G	24028880.38	24028880.51	24028880.64	0.0537	0.0031
Venus	61077-12-17 17:46 G	24029327.05	24029327.24	24029327.43	0.0521	0.0164
Mercury	61082-11-09 13:12 G	24031114.88	24031115.05	24031115.22	0.0490	0.0126
Venus	61083-10-13 11:02 G	24031452.87	24031452.96	24031453.06	0.0499	0.0437
Venus	61084-06-05 21:50 G	24031689.26	24031689.41	24031689.57	0.0508	0.0314
Mercury	61088-07-16 02:38 G	24033190.48	24033190.61	24033190.73	0.0538	0.0174
Venus	61089-08-22 07:26 G	24033592.61	24033592.81	24033593.01	0.0525	0.0085

Mercury	61094-08-28 12:14 G	24035424.88	24035425.01	24035425.15	0.0490	0.0314
Mercury	61094-11-26 14:24 G	24035515.04	24035515.10	24035515.17	0.0491	0.0452
Venus	61096-02-09 20:24 G	24035955.15	24035955.35	24035955.55	0.0505	0.0097
Mercury	61100-05-05 05:31 G	24037500.63	24037500.73	24037500.83	0.0539	0.0363
Mercury	61100-08-02 15:07 G	24037590.03	24037590.13	24037590.22	0.0536	0.0376
Venus	61101-04-27 23:02 G	24037858.30	24037858.46	24037858.62	0.0527	0.0329
Mercury	61106-09-15 12:14 G	24039824.86	24039825.01	24039825.17	0.0491	0.0243
Venus	61107-10-16 18:14 G	24040221.07	24040221.26	24040221.46	0.0503	0.0119
Mercury	61112-05-21 18:43 G	24041900.16	24041900.28	24041900.41	0.0537	0.0205
Venus	61113-08-26 07:41 G	24042361.66	24042361.82	24042361.99	0.0520	0.0299
Mars	61115-08-19 07:26 G	24043084.59	24043084.81	24043085.04	0.0493	0.0235
Mercury	61118-07-04 11:17 G	24044134.80	24044134.97	24044135.15	0.0490	0.0052
Moon	61118-11-05 18:43 G	24044259.08	24044259.28	24044259.48	0.0493	0.0221
Earth	61118-11-05 21:22 G	24044259.18	24044259.39	24044259.59	0.0493	0.0235 *
Venus	61119-06-21 19:12 G	24044487.15	24044487.30	24044487.45	0.0501	0.0323
Venus	61120-02-13 07:41 G	24044723.72	24044723.82	24044723.93	0.0510	0.0436
Mercury	61124-03-09 22:19 G	24046210.30	24046210.43	24046210.57	0.0538	0.0030
Venus	61125-05-01 00:58 G	24046627.33	24046627.54	24046627.74	0.0523	0.0064
Mercury	61130-04-22 10:34 G	24048444.77	24048444.94	24048445.11	0.0490	0.0136
Earth	61130-11-10 06:58 G	24048646.56	24048646.79	24048647.02	0.0495	0.0068
Moon	61130-11-10 10:34 G	24048646.71	24048646.94	24048647.17	0.0495	0.0099 *
Venus	61131-10-19 07:12 G	24048989.62	24048989.80	24048989.98	0.0507	0.0222
Mercury	61135-12-28 01:26 G	24050520.44	24050520.56	24050520.69	0.0538	0.0161
Moon	61136-05-03 19:12 G	24050648.08	24050648.30	24050648.51	0.0534	0.0238
Earth	61136-05-03 19:55 G	24050648.13	24050648.33	24050648.54	0.0534	0.0264 *
Venus	61137-01-03 16:05 G	24050892.98	24050893.17	24050893.37	0.0525	0.0181
Mercury	61142-02-08 10:05 G	24052754.79	24052754.92	24052755.05	0.0490	0.0316
Mercury	61142-05-09 12:00 G	24052844.94	24052845.00	24052845.08	0.0492	0.0450
Moon	61142-11-14 14:10 G	24053033.94	24053034.09	24053034.25	0.0497	0.0373
Earth	61142-11-14 17:46 G	24053034.10	24053034.24	24053034.40	0.0497	0.0379 *

Venus	61143-06-24 06:58 G	24053255.59	24053255.79	24053255.99	0.0504	0.0009
Mercury	61147-10-16 03:50 G	24054830.56	24054830.66	24054830.75	0.0538	0.0367
Mercury	61148-01-13 13:12 G	24054919.96	24054920.05	24054920.15	0.0536	0.0371
Moon	61148-05-08 16:34 G	24055035.97	24055036.19	24055036.42	0.0533	0.0091
Earth	61148-05-08 17:31 G	24055036.00	24055036.23	24055036.46	0.0533	0.0110 *
Venus	61148-09-08 04:34 G	24055158.57	24055158.69	24055158.80	0.0528	0.0435
Venus	61149-05-03 19:26 G	24055396.20	24055396.31	24055396.43	0.0519	0.0424
Mercury	61154-02-25 10:48 G	24057154.80	24057154.95	24057155.10	0.0491	0.0253
Venus	61155-02-27 06:43 G	24057521.59	24057521.78	24057521.97	0.0502	0.0201
Mercury	61159-11-01 16:34 G	24059230.07	24059230.19	24059230.31	0.0537	0.0189
Earth	61160-05-13 19:12 G	24059424.22	24059424.30	24059424.39	0.0531	0.0493
Moon	61160-05-13 22:05 G	24059424.31	24059424.42	24059424.53	0.0531	0.0467 *
Venus	61161-01-06 12:43 G	24059661.84	24059662.03	24059662.22	0.0522	0.0192
Mercury	61165-12-14 08:53 G	24061464.70	24061464.87	24061465.05	0.0490	0.0046
Venus	61166-11-02 05:31 G	24061787.61	24061787.73	24061787.84	0.0499	0.0408
Venus	61167-06-26 16:19 G	24062024.03	24062024.18	24062024.33	0.0508	0.0341
Mercury	61171-08-20 20:10 G	24063540.21	24063540.34	24063540.47	0.0538	0.0018
Venus	61172-09-11 06:43 G	24063927.58	24063927.78	24063927.98	0.0524	0.0042
Mercury	61177-10-02 08:10 G	24065774.67	24065774.84	24065775.00	0.0490	0.0141
Venus	61179-03-01 15:50 G	24066289.96	24066290.16	24066290.35	0.0506	0.0128
Mercury	61183-06-08 23:46 G	24067850.36	24067850.49	24067850.62	0.0538	0.0166
Venus	61184-05-16 22:48 G	24068193.27	24068193.45	24068193.62	0.0527	0.0283
Mercury	61189-07-21 07:26 G	24070084.68	24070084.81	24070084.94	0.0490	0.0326
Mercury	61189-10-19 09:22 G	24070174.81	24070174.89	24070174.97	0.0491	0.0438
Venus	61190-11-04 16:19 G	24070555.98	24070556.18	24070556.38	0.0503	0.0081
Mercury	61195-03-28 02:53 G	24072160.52	24072160.62	24072160.72	0.0539	0.0354
Mercury	61195-06-25 12:14 G	24072249.92	24072250.01	24072250.10	0.0536	0.0384
Venus	61196-01-20 12:58 G	24072459.04	24072459.04	24072459.04	0.0529	0.0529
Venus	61196-09-14 05:02 G	24072696.56	24072696.71	24072696.87	0.0520	0.0333
Mercury	61201-08-07 08:38 G	24074484.71	24074484.86	24074485.01	0.0491	0.0250

Earth	61201-11-05 02:53 G	24074574.43	24074574.62	24074574.82	0.0493	0.0280
Moon	61201-11-05 06:29 G	24074574.57	24074574.77	24074574.97	0.0493	0.0261 *
Venus	61202-07-10 17:31 G	24074822.07	24074822.23	24074822.40	0.0501	0.0286
Venus	61203-03-04 06:14 G	24075058.69	24075058.76	24075058.84	0.0510	0.0471
Mercury	61207-04-13 14:53 G	24076560.00	24076560.12	24076560.25	0.0537	0.0188
Venus	61208-05-19 19:26 G	24076962.11	24076962.31	24076962.51	0.0523	0.0091
Mercury	61213-05-26 07:26 G	24078794.64	24078794.81	24078794.99	0.0490	0.0057
Moon	61213-11-09 07:55 G	24078961.60	24078961.83	24078962.07	0.0495	0.0048
Earth	61213-11-09 11:46 G	24078961.76	24078961.99	24078962.23	0.0495	0.0020 *
Venus	61214-03-15 18:43 G	24079088.23	24079088.28	24079088.32	0.0498	0.0485
Venus	61214-11-07 04:19 G	24079324.51	24079324.68	24079324.86	0.0507	0.0256
Mercury	61219-01-30 18:00 G	24080870.12	24080870.25	24080870.39	0.0538	0.0013
Moon	61219-05-03 13:26 G	24080962.89	24080963.06	24080963.24	0.0535	0.0330
Earth	61219-05-03 13:41 G	24080962.90	24080963.07	24080963.24	0.0535	0.0354 *
Venus	61220-01-23 11:17 G	24081227.78	24081227.97	24081228.17	0.0526	0.0150
Mercury	61225-03-14 05:46 G	24083104.57	24083104.74	24083104.91	0.0490	0.0145
Earth	61225-11-13 17:17 G	24083349.04	24083349.22	24083349.41	0.0496	0.0312
Moon	61225-11-13 20:38 G	24083349.18	24083349.36	24083349.54	0.0496	0.0300 *
Venus	61226-07-13 01:26 G	24083590.35	24083590.56	24083590.76	0.0504	0.0039
Mercury	61230-11-18 21:36 G	24085180.27	24085180.40	24085180.52	0.0539	0.0179
Earth	61231-05-08 18:58 G	24085351.05	24085351.29	24085351.52	0.0534	0.0045
Moon	61231-05-08 21:07 G	24085351.14	24085351.38	24085351.62	0.0534	0.0022 *
Venus	61231-09-28 03:50 G	24085493.53	24085493.66	24085493.80	0.0528	0.0389
Venus	61232-05-22 18:43 G	24085731.20	24085731.28	24085731.38	0.0519	0.0465
Mercury	61236-12-31 05:02 G	24087414.59	24087414.71	24087414.84	0.0489	0.0329
Mercury	61237-03-31 06:43 G	24087504.71	24087504.78	24087504.87	0.0491	0.0434
Venus	61238-03-18 01:55 G	24087856.39	24087856.58	24087856.77	0.0502	0.0170
Mercury	61242-09-07 00:58 G	24089490.44	24089490.54	24089490.64	0.0539	0.0359
Mercury	61242-12-05 10:34 G	24089579.85	24089579.94	24089580.03	0.0537	0.0381
Moon	61243-05-13 19:12 G	24089739.16	24089739.30	24089739.45	0.0531	0.0414

Earth	61243-05-13 22:48 G	24089739.33	24089739.45	24089739.59	0.0531	0.0435 *
Venus	61244-01-26 12:43 G	24089996.85	24089997.03	24089997.21	0.0521	0.0236
Mercury	61249-01-17 05:46 G	24091814.59	24091814.74	24091814.90	0.0491	0.0241
Venus	61249-11-21 03:22 G	24092122.51	24092122.64	24092122.78	0.0500	0.0371
Venus	61250-07-15 15:07 G	24092358.99	24092359.13	24092359.26	0.0509	0.0379
Mercury	61254-09-23 13:55 G	24093889.96	24093890.08	24093890.20	0.0537	0.0201
Venus	61255-10-01 05:02 G	24094262.51	24094262.71	24094262.91	0.0524	0.0002
Mercury	61260-11-05 05:17 G	24096124.54	24096124.72	24096124.89	0.0490	0.0056
Venus	61262-03-20 14:53 G	24096624.93	24096625.12	24096625.31	0.0506	0.0166
Mercury	61266-07-12 16:34 G	24098200.06	24098200.19	24098200.32	0.0537	0.0007
Venus	61267-06-05 18:00 G	24098528.08	24098528.25	24098528.43	0.0527	0.0251
Mercury	61272-08-24 04:19 G	24100434.52	24100434.68	24100434.85	0.0490	0.0133
Venus	61273-11-23 14:24 G	24100890.90	24100891.10	24100891.30	0.0503	0.0045
Mercury	61278-04-30 19:41 G	24102510.19	24102510.32	24102510.44	0.0538	0.0185
Venus	61279-02-08 08:38 G	24102793.79	24102793.86	24102793.93	0.0529	0.0496
Venus	61279-10-04 00:58 G	24103031.40	24103031.54	24103031.69	0.0520	0.0364
Mercury	61284-06-12 02:53 G	24104744.50	24104744.62	24104744.75	0.0489	0.0331
Mercury	61284-09-10 04:48 G	24104834.61	24104834.70	24104834.78	0.0491	0.0431
Moon	61284-11-04 00:14 G	24104889.34	24104889.51	24104889.69	0.0492	0.0325
Earth	61284-11-04 04:05 G	24104889.51	24104889.67	24104889.84	0.0492	0.0343 *
Venus	61285-07-29 12:29 G	24105156.84	24105157.02	24105157.19	0.0501	0.0254
Venus	61286-03-23 00:58 G	24105393.50	24105393.54	24105393.58	0.0510	0.0498
Mercury	61290-02-16 22:48 G	24106820.36	24106820.45	24106820.55	0.0539	0.0371
Mercury	61290-05-17 08:24 G	24106909.76	24106909.85	24106909.95	0.0537	0.0372
Venus	61291-06-08 19:26 G	24107297.11	24107297.31	24107297.51	0.0523	0.0136
Mercury	61296-06-29 03:36 G	24109144.50	24109144.65	24109144.81	0.0491	0.0239
Earth	61296-11-08 13:12 G	24109276.82	24109277.05	24109277.28	0.0494	0.0042
Moon	61296-11-08 16:34 G	24109276.96	24109277.19	24109277.42	0.0494	0.0020 *
Venus	61297-04-03 14:10 G	24109423.01	24109423.09	24109423.17	0.0498	0.0452
Venus	61297-11-26 00:00 G	24109659.33	24109659.50	24109659.67	0.0507	0.0286

Mercury	61302-03-06 12:14 G	24111219.89	24111220.01	24111220.13	0.0537	0.0200
Earth	61302-05-03 18:00 G	24111278.10	24111278.25	24111278.39	0.0536	0.0414
Moon	61302-05-03 19:26 G	24111278.15	24111278.31	24111278.48	0.0536	0.0390 *
Venus	61303-02-12 12:14 G	24111562.81	24111563.01	24111563.21	0.0525	0.0101
Mercury	61308-04-18 02:53 G	24113454.44	24113454.62	24113454.79	0.0490	0.0050
Moon	61308-11-13 20:53 G	24113664.16	24113664.37	24113664.58	0.0496	0.0248
Earth	61308-11-13 23:17 G	24113664.27	24113664.47	24113664.67	0.0496	0.0266 *
Venus	61309-08-02 00:14 G	24113925.31	24113925.51	24113925.71	0.0505	0.0077
Mercury	61313-12-23 15:50 G	24115530.02	24115530.16	24115530.29	0.0538	0.0026
Moon	61314-05-08 18:14 G	24115666.04	24115666.26	24115666.49	0.0534	0.0047
Earth	61314-05-08 21:36 G	24115666.17	24115666.40	24115666.63	0.0534	0.0018 *
Venus	61314-10-18 03:36 G	24115828.50	24115828.65	24115828.80	0.0528	0.0343
Venus	61315-06-12 17:46 G	24116066.19	24116066.24	24116066.29	0.0518	0.0502
Mercury	61320-02-05 02:24 G	24117764.43	24117764.60	24117764.77	0.0490	0.0133
Venus	61321-04-07 01:26 G	24118191.37	24118191.56	24118191.76	0.0502	0.0129
Mars	61323-05-26 13:41 G	24118970.95	24118971.07	24118971.21	0.0533	0.0479
Mercury	61325-10-11 18:14 G	24119840.14	24119840.26	24119840.39	0.0538	0.0180
Earth	61326-05-13 20:10 G	24120054.17	24120054.34	24120054.51	0.0532	0.0358
Moon	61326-05-14 00:00 G	24120054.33	24120054.50	24120054.68	0.0532	0.0343 *
Venus	61327-02-15 09:07 G	24120331.71	24120331.88	24120332.05	0.0521	0.0269
Mercury	61331-11-24 01:41 G	24122074.44	24122074.57	24122074.70	0.0490	0.0317
Mercury	61332-02-22 03:22 G	24122164.58	24122164.64	24122164.72	0.0491	0.0447
Venus	61332-12-11 02:10 G	24122457.44	24122457.59	24122457.74	0.0500	0.0331
Venus	61333-08-04 13:41 G	24122693.96	24122694.07	24122694.19	0.0509	0.0416
Mercury	61337-07-30 21:07 G	24124150.29	24124150.38	24124150.48	0.0539	0.0372
Mercury	61337-10-28 06:58 G	24124239.69	24124239.79	24124239.88	0.0536	0.0370
Venus	61338-10-21 01:41 G	24124597.37	24124597.57	24124597.77	0.0524	0.0034
Mercury	61343-12-11 01:41 G	24126474.42	24126474.57	24126474.72	0.0490	0.0240
Venus	61345-04-09 10:05 G	24126959.74	24126959.92	24126960.11	0.0506	0.0198
Mercury	61349-08-16 10:19 G	24128549.81	24128549.93	24128550.06	0.0538	0.0192

Venus	61350-06-25 18:29 G	24128863.09	24128863.27	24128863.46	0.0527	0.0203
Mercury	61355-09-29 00:58 G	24130784.36	24130784.54	24130784.71	0.0490	0.0053
Venus	61356-12-13 10:19 G	24131225.73	24131225.93	24131226.14	0.0503	0.0015
Mercury	61361-06-04 14:10 G	24132859.95	24132860.09	24132860.22	0.0538	0.0023
Venus	61362-02-28 10:19 G	24133128.83	24133128.93	24133129.05	0.0529	0.0444
Venus	61362-10-24 02:24 G	24133366.48	24133366.60	24133366.73	0.0520	0.0411
Mercury	61367-07-18 00:14 G	24135094.34	24135094.51	24135094.67	0.0490	0.0135
Earth	61367-11-05 11:02 G	24135204.82	24135204.96	24135205.11	0.0492	0.0386
Moon	61367-11-05 14:24 G	24135204.94	24135205.10	24135205.26	0.0492	0.0360 *
Venus	61368-08-18 11:46 G	24135491.81	24135491.99	24135492.17	0.0501	0.0214
Mercury	61373-03-23 17:31 G	24137170.10	24137170.23	24137170.35	0.0538	0.0164
Venus	61374-06-28 19:41 G	24137632.13	24137632.32	24137632.52	0.0522	0.0181
Mercury	61379-05-05 23:46 G	24139404.36	24139404.49	24139404.63	0.0489	0.0314
Mercury	61379-08-04 01:41 G	24139494.50	24139494.57	24139494.64	0.0491	0.0449
Moon	61379-11-09 19:12 G	24139592.06	24139592.30	24139592.54	0.0494	0.0061
Earth	61379-11-09 21:22 G	24139592.16	24139592.39	24139592.63	0.0494	0.0081 *
Venus	61380-04-23 13:55 G	24139757.97	24139758.08	24139758.20	0.0499	0.0411
Venus	61380-12-16 00:29 G	24139994.37	24139994.52	24139994.68	0.0508	0.0328
Mercury	61385-01-09 20:10 G	24141480.24	24141480.34	24141480.44	0.0539	0.0361
Mercury	61385-04-09 05:46 G	24141569.65	24141569.74	24141569.83	0.0536	0.0379
Moon	61385-05-02 14:53 G	24141593.01	24141593.12	24141593.22	0.0536	0.0471
Earth	61385-05-02 17:31 G	24141593.14	24141593.23	24141593.33	0.0536	0.0487 *
Venus	61386-03-03 10:05 G	24141897.72	24141897.92	24141898.12	0.0525	0.0062
Mars	61388-05-04 23:46 G	24142691.25	24142691.49	24142691.73	0.0495	0.0192
Mercury	61391-05-23 00:29 G	24143804.38	24143804.52	24143804.68	0.0491	0.0258
Earth	61391-11-14 07:12 G	24143979.59	24143979.80	24143980.01	0.0495	0.0225
Moon	61391-11-14 08:10 G	24143979.64	24143979.84	24143980.05	0.0495	0.0206 *
Venus	61392-08-20 23:46 G	24144260.30	24144260.49	24144260.69	0.0505	0.0118
Mercury	61397-01-26 08:53 G	24145879.75	24145879.87	24145880.00	0.0537	0.0197
Earth	61397-05-07 19:55 G	24145981.10	24145981.33	24145981.56	0.0534	0.0094

Moon	61397-05-07 23:46 G	24145981.27	24145981.49	24145981.72	0.0534	0.0126	*
Venus	61397-11-06 01:12 G	24146163.38	24146163.55	24146163.72	0.0528	0.0304	
Mercury	61403-03-11 23:02 G	24148114.29	24148114.46	24148114.64	0.0490	0.0058	
Moon	61403-11-19 14:10 G	24148367.07	24148367.09	24148367.11	0.0497	0.0494	
Venus	61404-04-26 21:50 G	24148526.21	24148526.41	24148526.61	0.0502	0.0094	
Mercury	61408-11-15 12:14 G	24150189.88	24150190.01	24150190.14	0.0538	0.0013	
Moon	61409-05-13 20:10 G	24150369.15	24150369.34	24150369.55	0.0533	0.0282	
Earth	61409-05-13 23:46 G	24150369.31	24150369.49	24150369.69	0.0533	0.0300	*
Venus	61410-03-07 10:19 G	24150666.77	24150666.93	24150667.09	0.0521	0.0316	
Mercury	61414-12-28 22:34 G	24152424.27	24152424.44	24152424.61	0.0489	0.0127	
Venus	61415-12-31 23:02 G	24152792.30	24152792.46	24152792.63	0.0500	0.0295	
Venus	61416-08-24 10:34 G	24153028.85	24153028.94	24153029.03	0.0509	0.0449	
Mercury	61420-09-03 15:50 G	24154500.04	24154500.16	24154500.29	0.0539	0.0164	
Venus	61421-11-10 04:05 G	24154932.47	24154932.67	24154932.87	0.0524	0.0085	
Mercury	61426-10-16 21:50 G	24156734.28	24156734.41	24156734.55	0.0489	0.0311	
Mercury	61427-01-14 23:46 G	24156824.42	24156824.49	24156824.55	0.0491	0.0450	
Venus	61427-09-06 01:26 G	24157058.53	24157058.56	24157058.59	0.0498	0.0489	
Venus	61428-04-29 10:34 G	24157294.76	24157294.94	24157295.12	0.0506	0.0240	
Mercury	61432-06-22 19:12 G	24158810.20	24158810.30	24158810.41	0.0539	0.0346	
Mercury	61432-09-20 04:48 G	24158899.62	24158899.70	24158899.79	0.0537	0.0397	
Venus	61433-07-15 20:24 G	24159198.15	24159198.35	24159198.54	0.0526	0.0153	
Mercury	61438-08-04 21:50 G	24161044.40	24161044.41	24161044.42	0.0489	0.0487	
Mercury	61438-11-02 23:02 G	24161134.31	24161134.46	24161134.61	0.0491	0.0264	
Venus	61440-01-03 11:17 G	24161560.77	24161560.97	24161561.18	0.0504	0.0034	
Mercury	61444-07-09 07:55 G	24163209.71	24163209.83	24163209.95	0.0537	0.0209	
Venus	61445-03-20 09:36 G	24163463.77	24163463.90	24163464.04	0.0529	0.0399	
Venus	61445-11-13 01:12 G	24163701.45	24163701.55	24163701.65	0.0519	0.0448	
Mercury	61450-08-21 22:19 G	24165444.25	24165444.43	24165444.60	0.0490	0.0076	
Moon	61450-11-05 18:00 G	24165520.12	24165520.25	24165520.40	0.0492	0.0394	
Earth	61450-11-05 20:24 G	24165520.24	24165520.35	24165520.47	0.0492	0.0424	*

Venus	61451-09-08 12:00 G	24165826.82	24165827.00	24165827.20	0.0501	0.0171
Mercury	61456-04-27 11:17 G	24167519.83	24167519.97	24167520.10	0.0538	0.0029
Venus	61457-07-18 18:14 G	24167967.08	24167967.26	24167967.45	0.0522	0.0221
Mercury	61462-06-09 21:07 G	24169754.21	24169754.38	24169754.55	0.0489	0.0119
Earth	61462-11-10 03:07 G	24169907.40	24169907.63	24169907.85	0.0493	0.0130
Moon	61462-11-10 04:05 G	24169907.45	24169907.67	24169907.89	0.0493	0.0114 *
Venus	61463-05-14 11:31 G	24170092.85	24170092.98	24170093.12	0.0499	0.0372
Venus	61464-01-05 21:22 G	24170329.26	24170329.39	24170329.54	0.0507	0.0363
Mercury	61468-02-14 14:10 G	24171829.97	24171830.09	24171830.22	0.0539	0.0166
Venus	61469-03-23 11:31 G	24172232.78	24172232.98	24172233.18	0.0525	0.0012
Mercury	61474-03-28 20:38 G	24174064.23	24174064.36	24174064.50	0.0489	0.0299
Mercury	61474-06-26 22:05 G	24174154.37	24174154.42	24174154.48	0.0491	0.0461
Earth	61474-11-14 12:43 G	24174294.81	24174295.03	24174295.25	0.0494	0.0176
Moon	61474-11-14 13:12 G	24174294.82	24174295.05	24174295.28	0.0494	0.0154 *
Venus	61475-09-10 21:22 G	24174595.20	24174595.39	24174595.59	0.0505	0.0154
Mars	61477-08-20 08:38 G	24175304.57	24175304.86	24175305.16	0.0534	0.0006
Mercury	61479-12-03 17:46 G	24176140.14	24176140.24	24176140.34	0.0540	0.0345
Mercury	61480-03-02 03:22 G	24176229.56	24176229.64	24176229.73	0.0537	0.0399
Moon	61480-05-07 23:02 G	24176296.24	24176296.46	24176296.68	0.0535	0.0179
Earth	61480-05-08 02:53 G	24176296.40	24176296.62	24176296.84	0.0535	0.0143 *
Venus	61480-11-26 04:05 G	24176498.49	24176498.67	24176498.85	0.0528	0.0250
Mercury	61486-01-14 20:10 G	24178374.31	24178374.34	24178374.37	0.0489	0.0480
Mercury	61486-04-14 21:07 G	24178464.24	24178464.38	24178464.53	0.0490	0.0269
Moon	61486-11-18 20:38 G	24178682.28	24178682.36	24178682.44	0.0496	0.0466
Earth	61486-11-18 22:48 G	24178682.41	24178682.45	24178682.50	0.0496	0.0486 *
Venus	61487-05-16 22:19 G	24178861.23	24178861.43	24178861.63	0.0503	0.0051
Mercury	61491-09-21 21:07 G	24180450.35	24180450.38	24180450.40	0.0540	0.0527
Mercury	61491-12-20 07:12 G	24180539.68	24180539.80	24180539.92	0.0538	0.0226
Earth	61492-05-13 07:55 G	24180684.63	24180684.83	24180685.03	0.0533	0.0256
Moon	61492-05-13 10:19 G	24180684.73	24180684.93	24180685.13	0.0533	0.0246 *

Venus	61492-07-31 19:12 G	24180764.23	24180764.30	24180764.38	0.0530	0.0490
Venus	61493-03-26 12:43 G	24181001.88	24181002.03	24181002.17	0.0521	0.0364
Mercury	61498-01-31 20:38 G	24182774.19	24182774.36	24182774.54	0.0490	0.0085
Venus	61499-01-20 00:14 G	24183127.34	24183127.51	24183127.69	0.0500	0.0250
Venus	61499-09-13 12:29 G	24183363.98	24183364.02	24183364.07	0.0509	0.0494
Mercury	61503-10-09 10:19 G	24184849.79	24184849.93	24184850.06	0.0538	0.0040
Venus	61504-11-30 04:05 G	24185267.47	24185267.67	24185267.86	0.0523	0.0129
Mercury	61509-11-20 20:10 G	24187084.17	24187084.34	24187084.51	0.0490	0.0100
Venus	61510-09-26 02:24 G	24187393.51	24187393.60	24187393.69	0.0498	0.0444
Venus	61511-05-20 11:46 G	24187629.82	24187629.99	24187630.16	0.0507	0.0284
Mercury	61515-07-28 13:12 G	24189159.93	24189160.05	24189160.18	0.0538	0.0151
Venus	61516-08-04 19:41 G	24189533.12	24189533.32	24189533.52	0.0526	0.0108
Mercury	61521-09-08 19:12 G	24191394.17	24191394.30	24191394.45	0.0489	0.0288
Mercury	61521-12-07 20:53 G	24191484.33	24191484.37	24191484.42	0.0491	0.0472
Venus	61523-01-23 09:22 G	24191895.69	24191895.89	24191896.09	0.0503	0.0072
Mercury	61527-05-16 16:05 G	24193470.07	24193470.17	24193470.27	0.0540	0.0345
Mercury	61527-08-14 01:55 G	24193559.49	24193559.58	24193559.66	0.0537	0.0399
Venus	61528-04-09 10:48 G	24193798.80	24193798.95	24193799.11	0.0529	0.0350
Venus	61528-12-03 03:07 G	24194036.57	24194036.63	24194036.69	0.0520	0.0496
Mercury	61533-06-27 19:12 G	24195704.25	24195704.30	24195704.35	0.0488	0.0465
Mercury	61533-09-25 20:10 G	24195794.19	24195794.34	24195794.48	0.0490	0.0283
Earth	61533-11-06 04:05 G	24195835.61	24195835.67	24195835.75	0.0491	0.0465
Moon	61533-11-06 05:02 G	24195835.61	24195835.71	24195835.81	0.0491	0.0435 *
Venus	61534-09-28 10:34 G	24196161.74	24196161.94	24196162.13	0.0501	0.0131
Mercury	61539-03-04 19:26 G	24197780.29	24197780.31	24197780.34	0.0540	0.0527
Mercury	61539-06-02 05:46 G	24197869.62	24197869.74	24197869.86	0.0538	0.0228
Venus	61540-08-07 21:22 G	24198302.22	24198302.39	24198302.57	0.0522	0.0272
Mars	61542-08-01 10:19 G	24199025.71	24199025.93	24199026.16	0.0494	0.0235
Mercury	61545-07-14 19:12 G	24200104.13	24200104.30	24200104.47	0.0490	0.0093
Earth	61545-11-10 12:43 G	24200222.81	24200223.03	24200223.25	0.0493	0.0165

Moon	61545-11-10 13:12 G	24200222.82	24200223.05	24200223.29	0.0493	0.0152 *
Venus	61546-06-03 12:00 G	24200427.85	24200428.00	24200428.16	0.0499	0.0329
Venus	61547-01-25 22:34 G	24200664.33	24200664.44	24200664.57	0.0508	0.0406
Mercury	61551-03-21 09:22 G	24202179.76	24202179.89	24202180.02	0.0538	0.0054
Venus	61552-04-12 14:38 G	24202567.91	24202568.11	24202568.32	0.0525	0.0041
Mercury	61557-05-02 18:43 G	24204414.11	24204414.28	24204414.46	0.0490	0.0089
Moon	61557-11-14 21:07 G	24204610.16	24204610.38	24204610.60	0.0494	0.0119
Earth	61557-11-14 23:17 G	24204610.25	24204610.47	24204610.70	0.0494	0.0146 *
Venus	61558-09-30 23:17 G	24204930.29	24204930.47	24204930.66	0.0505	0.0200
Mercury	61563-01-07 12:29 G	24206489.89	24206490.02	24206490.15	0.0538	0.0135
Earth	61563-05-09 07:55 G	24206611.62	24206611.83	24206612.05	0.0535	0.0199
Moon	61563-05-09 11:02 G	24206611.76	24206611.96	24206612.16	0.0535	0.0233 *
Venus	61563-12-17 05:02 G	24206833.52	24206833.71	24206833.90	0.0527	0.0201
Mercury	61569-02-18 18:29 G	24208724.13	24208724.27	24208724.41	0.0489	0.0270
Earth	61569-11-19 09:36 G	24208997.82	24208997.90	24208998.00	0.0496	0.0455
Moon	61569-11-19 13:26 G	24208997.96	24208998.06	24208998.17	0.0496	0.0443 *
Venus	61570-06-05 23:46 G	24209196.29	24209196.49	24209196.70	0.0503	0.0012
Mercury	61574-10-26 15:22 G	24210800.04	24210800.14	24210800.25	0.0539	0.0326
Mercury	61575-01-24 01:12 G	24210889.47	24210889.55	24210889.63	0.0537	0.0416
Moon	61575-05-14 09:36 G	24210999.67	24210999.90	24211000.12	0.0533	0.0186
Earth	61575-05-14 10:34 G	24210999.73	24210999.94	24211000.16	0.0533	0.0195 *
Venus	61575-08-21 19:12 G	24211099.20	24211099.30	24211099.42	0.0530	0.0444
Venus	61576-04-15 12:29 G	24211336.90	24211337.02	24211337.15	0.0520	0.0406
Mercury	61580-12-07 18:00 G	24213034.19	24213034.25	24213034.31	0.0488	0.0451
Mercury	61581-03-07 18:43 G	24213124.15	24213124.28	24213124.43	0.0490	0.0298
Venus	61582-02-08 23:17 G	24213462.29	24213462.47	24213462.66	0.0500	0.0209
Mercury	61586-08-14 18:00 G	24215110.22	24215110.25	24215110.27	0.0540	0.0526
Mercury	61586-11-12 04:05 G	24215199.55	24215199.67	24215199.79	0.0538	0.0229
Venus	61587-12-20 05:17 G	24215602.53	24215602.72	24215602.92	0.0524	0.0178
Mercury	61592-12-24 18:14 G	24217434.09	24217434.26	24217434.43	0.0489	0.0110

Venus	61593-10-15 01:26 G	24217728.44	24217728.56	24217728.68	0.0498	0.0403
Venus	61594-06-08 10:05 G	24217964.77	24217964.92	24217965.08	0.0506	0.0322
Mercury	61598-08-31 07:55 G	24219509.69	24219509.83	24219509.96	0.0539	0.0057
Venus	61599-08-24 22:34 G	24219868.23	24219868.44	24219868.64	0.0526	0.0057
Mercury	61604-10-12 17:17 G	24221744.05	24221744.22	24221744.40	0.0489	0.0079
Venus	61606-02-11 10:19 G	24222230.73	24222230.93	24222231.13	0.0504	0.0115
Mercury	61610-06-19 11:31 G	24223819.85	24223819.98	24223820.11	0.0539	0.0121
Venus	61611-04-29 14:38 G	24224133.94	24224134.11	24224134.28	0.0529	0.0293
Mercury	61616-07-31 17:02 G	24226054.07	24226054.21	24226054.36	0.0489	0.0257
Moon	61616-11-05 15:22 G	24226151.07	24226151.14	24226151.22	0.0491	0.0465
Venus	61617-10-17 12:00 G	24226496.80	24226497.00	24226497.20	0.0502	0.0086
Mercury	61622-04-07 14:24 G	24228130.00	24228130.10	24228130.21	0.0539	0.0311
Mercury	61622-07-06 00:14 G	24228219.43	24228219.51	24228219.58	0.0537	0.0431
Venus	61623-08-27 22:19 G	24228637.27	24228637.43	24228637.59	0.0522	0.0317
Mercury	61628-05-19 16:48 G	24230364.13	24230364.20	24230364.28	0.0489	0.0436
Mercury	61628-08-17 17:46 G	24230454.11	24230454.24	24230454.38	0.0490	0.0315
Moon	61628-11-09 21:50 G	24230538.20	24230538.41	24230538.62	0.0493	0.0193
Earth	61628-11-10 00:00 G	24230538.29	24230538.50	24230538.72	0.0493	0.0196 *
Venus	61629-06-22 13:41 G	24230762.91	24230763.07	24230763.24	0.0499	0.0282
Venus	61630-02-14 00:43 G	24230999.44	24230999.53	24230999.62	0.0508	0.0452
Mercury	61634-01-24 17:17 G	24232440.18	24232440.22	24232440.27	0.0540	0.0503
Mercury	61634-04-24 03:22 G	24232529.53	24232529.64	24232529.76	0.0538	0.0250
Venus	61635-05-02 14:53 G	24232902.92	24232903.12	24232903.32	0.0525	0.0086
Mercury	61640-06-05 17:02 G	24234764.04	24234764.21	24234764.38	0.0490	0.0125
Earth	61640-11-14 08:24 G	24234925.62	24234925.85	24234926.08	0.0493	0.0108
Moon	61640-11-14 12:00 G	24234925.77	24234926.00	24234926.24	0.0493	0.0078 *
Venus	61641-02-25 14:53 G	24235029.07	24235029.12	24235029.18	0.0497	0.0477
Venus	61641-10-19 22:34 G	24235265.26	24235265.44	24235265.62	0.0505	0.0239
Mercury	61646-02-10 06:14 G	24236839.63	24236839.76	24236839.89	0.0539	0.0056
Moon	61646-05-08 07:55 G	24236926.63	24236926.83	24236927.03	0.0536	0.0297

Earth	61646-05-08 09:36 G	24236926.71	24236926.90	24236927.11	0.0536	0.0265	*
Venus	61647-01-05 05:31 G	24237168.54	24237168.73	24237168.93	0.0528	0.0155	
Mercury	61652-03-24 16:34 G	24239074.02	24239074.19	24239074.36	0.0489	0.0059	
Moon	61652-11-18 14:10 G	24239312.96	24239313.09	24239313.22	0.0495	0.0403	
Earth	61652-11-18 18:14 G	24239313.13	24239313.26	24239313.38	0.0495	0.0415	*
Venus	61653-06-24 22:48 G	24239531.25	24239531.45	24239531.66	0.0502	0.0036	
Mercury	61657-11-29 09:50 G	24241149.78	24241149.91	24241150.04	0.0539	0.0123	
Moon	61658-05-13 14:53 G	24241314.91	24241315.12	24241315.34	0.0535	0.0146	
Earth	61658-05-13 15:50 G	24241314.94	24241315.16	24241315.38	0.0535	0.0144	*
Venus	61658-09-09 21:22 G	24241434.25	24241434.39	24241434.52	0.0530	0.0394	
Venus	61659-05-05 14:53 G	24241672.02	24241672.12	24241672.22	0.0521	0.0453	
Mars	61661-01-22 00:58 G	24242299.44	24242299.54	24242299.67	0.0496	0.0442	
Mercury	61664-01-11 15:50 G	24243384.01	24243384.16	24243384.31	0.0489	0.0246	
Venus	61665-02-27 23:46 G	24243797.30	24243797.49	24243797.69	0.0500	0.0167	
Mercury	61669-09-17 13:26 G	24245459.95	24245460.06	24245460.17	0.0540	0.0300	
Mercury	61669-12-15 23:02 G	24245549.39	24245549.46	24245549.54	0.0537	0.0444	
Venus	61671-01-08 08:38 G	24245937.68	24245937.86	24245938.04	0.0523	0.0228	
Mercury	61675-10-30 15:36 G	24247694.07	24247694.15	24247694.24	0.0488	0.0423	
Mercury	61676-01-28 16:34 G	24247784.06	24247784.19	24247784.32	0.0490	0.0326	
Venus	61676-11-03 02:24 G	24248063.46	24248063.60	24248063.74	0.0498	0.0360	
Venus	61677-06-27 11:46 G	24248299.86	24248299.99	24248300.14	0.0507	0.0367	
Mercury	61681-07-06 16:19 G	24249770.13	24249770.18	24249770.24	0.0540	0.0490	
Mercury	61681-10-04 02:24 G	24249859.49	24249859.60	24249859.72	0.0538	0.0264	
Venus	61682-09-13 00:00 G	24250203.30	24250203.50	24250203.70	0.0526	0.0008	
Mercury	61687-11-16 15:50 G	24252094.00	24252094.16	24252094.33	0.0490	0.0140	
Venus	61689-03-02 12:14 G	24252565.82	24252566.01	24252566.20	0.0504	0.0162	
Mercury	61693-07-23 05:46 G	24254169.61	24254169.74	24254169.87	0.0538	0.0078	
Venus	61694-05-18 14:38 G	24254468.94	24254469.11	24254469.30	0.0528	0.0248	
Mercury	61699-09-04 15:22 G	24256403.97	24256404.14	24256404.31	0.0489	0.0045	
Venus	61700-11-06 11:46 G	24256831.79	24256831.99	24256832.20	0.0501	0.0046	

Mercury	61705-05-12 08:10 G	24258479.71	24258479.84	24258479.97	0.0539	0.0122
Venus	61706-01-22 03:22 G	24258734.57	24258734.64	24258734.72	0.0532	0.0495
Venus	61706-09-16 22:34 G	24258972.30	24258972.44	24258972.59	0.0522	0.0359
Mercury	61711-06-24 14:53 G	24260713.97	24260714.12	24260714.28	0.0488	0.0227
Earth	61711-11-11 09:22 G	24260853.69	24260853.89	24260854.10	0.0492	0.0230
Moon	61711-11-11 12:58 G	24260853.84	24260854.04	24260854.25	0.0492	0.0237 *
Venus	61712-07-12 13:12 G	24261097.87	24261098.05	24261098.23	0.0499	0.0242
Venus	61713-03-05 23:31 G	24261334.42	24261334.48	24261334.53	0.0508	0.0487
Mercury	61717-02-28 11:31 G	24262789.87	24262789.98	24262790.09	0.0540	0.0305
Mercury	61717-05-28 21:22 G	24262879.32	24262879.39	24262879.46	0.0538	0.0441
Venus	61718-05-22 16:05 G	24263237.97	24263238.17	24263238.37	0.0525	0.0131
Mercury	61723-04-12 14:10 G	24265024.00	24265024.09	24265024.18	0.0488	0.0413
Mercury	61723-07-11 14:53 G	24265114.00	24265114.12	24265114.25	0.0490	0.0336
Moon	61723-11-15 12:58 G	24265240.81	24265241.04	24265241.28	0.0493	0.0038
Earth	61723-11-15 17:02 G	24265240.98	24265241.21	24265241.44	0.0493	0.0071 *
Venus	61724-03-17 14:53 G	24265364.02	24265364.12	24265364.21	0.0497	0.0436
Venus	61724-11-08 22:34 G	24265600.28	24265600.44	24265600.62	0.0505	0.0281
Mercury	61728-12-17 15:07 G	24267100.07	24267100.13	24267100.18	0.0540	0.0485
Mercury	61729-03-17 01:12 G	24267189.44	24267189.55	24267189.67	0.0538	0.0271
Earth	61729-05-08 18:00 G	24267242.07	24267242.25	24267242.45	0.0537	0.0308
Moon	61729-05-08 18:00 G	24267242.08	24267242.25	24267242.42	0.0537	0.0339 *
Venus	61730-01-25 08:53 G	24267503.67	24267503.87	24267504.07	0.0527	0.0103
Mercury	61735-04-29 14:24 G	24269423.93	24269424.10	24269424.27	0.0490	0.0150
Earth	61735-11-20 03:07 G	24269628.49	24269628.63	24269628.78	0.0495	0.0381
Moon	61735-11-20 06:43 G	24269628.63	24269628.78	24269628.93	0.0495	0.0375 *
Venus	61736-07-14 23:46 G	24269866.29	24269866.49	24269866.69	0.0503	0.0078
Mercury	61741-01-03 04:34 G	24271499.56	24271499.69	24271499.82	0.0538	0.0088
Earth	61741-05-13 21:50 G	24271630.18	24271630.41	24271630.64	0.0535	0.0092
Moon	61741-05-14 00:43 G	24271630.29	24271630.53	24271630.76	0.0535	0.0106 *
Venus	61741-09-29 23:02 G	24271769.31	24271769.46	24271769.62	0.0530	0.0343

Venus	61742-05-25 15:36 G	24272007.09	24272007.15	24272007.21	0.0520	0.0496
Mercury	61747-02-15 13:55 G	24273733.91	24273734.08	24273734.25	0.0489	0.0035
Venus	61748-03-20 01:12 G	24274132.35	24274132.55	24274132.75	0.0501	0.0121
Mercury	61752-10-22 07:41 G	24275809.69	24275809.82	24275809.95	0.0539	0.0101
Moon	61753-05-18 20:10 G	24276018.30	24276018.34	24276018.39	0.0533	0.0519
Earth	61753-05-19 00:14 G	24276018.41	24276018.51	24276018.60	0.0533	0.0484
Venus	61754-01-28 08:10 G	24276272.67	24276272.84	24276273.02	0.0523	0.0270
Mercury	61758-12-04 13:26 G	24278043.91	24278044.06	24278044.22	0.0489	0.0216
Venus	61759-11-24 02:24 G	24278398.45	24278398.60	24278398.76	0.0498	0.0318
Venus	61760-07-17 11:31 G	24278634.86	24278634.98	24278635.10	0.0506	0.0404
Mercury	61764-08-10 09:50 G	24280119.80	24280119.91	24280120.02	0.0540	0.0306
Mercury	61764-11-07 19:41 G	24280209.25	24280209.32	24280209.40	0.0538	0.0440
Venus	61765-10-02 22:48 G	24280538.25	24280538.45	24280538.65	0.0526	0.0032
Mercury	61770-09-22 13:12 G	24282353.95	24282354.05	24282354.15	0.0488	0.0395
Mercury	61770-12-21 14:10 G	24282443.97	24282444.09	24282444.21	0.0490	0.0354
Venus	61772-03-22 11:02 G	24282900.77	24282900.96	24282901.15	0.0504	0.0198
Mercury	61776-05-29 12:58 G	24284429.99	24284430.04	24284430.10	0.0541	0.0493
Mercury	61776-08-26 23:17 G	24284519.36	24284519.47	24284519.59	0.0538	0.0264
Venus	61777-06-07 14:38 G	24284803.92	24284804.11	24284804.30	0.0529	0.0206
Mercury	61782-10-09 12:43 G	24286753.87	24286754.03	24286754.20	0.0489	0.0158
Venus	61783-11-26 11:02 G	24287166.76	24287166.96	24287167.16	0.0502	0.0006
Mercury	61788-06-15 03:07 G	24288829.50	24288829.63	24288829.76	0.0539	0.0091
Venus	61789-02-10 06:14 G	24289069.65	24289069.76	24289069.87	0.0531	0.0442
Venus	61789-10-06 00:43 G	24289307.41	24289307.53	24289307.66	0.0522	0.0406
Mercury	61794-07-28 12:14 G	24291063.84	24291064.01	24291064.19	0.0489	0.0028
Moon	61794-11-10 13:12 G	24291168.86	24291169.05	24291169.25	0.0491	0.0282
Earth	61794-11-10 17:17 G	24291169.03	24291169.22	24291169.42	0.0491	0.0270 *
Venus	61795-08-01 12:58 G	24291432.85	24291433.04	24291433.22	0.0499	0.0203
Mercury	61800-04-04 06:29 G	24293139.63	24293139.77	24293139.90	0.0539	0.0094
Venus	61801-06-11 16:48 G	24293573.01	24293573.20	24293573.39	0.0524	0.0176

Mercury	61806-05-17 11:46 G	24295373.84	24295373.99	24295374.15	0.0489	0.0210
Earth	61806-11-16 02:24 G	24295556.37	24295556.60	24295556.84	0.0493	0.0036
Moon	61806-11-16 06:00 G	24295556.52	24295556.75	24295556.98	0.0493	0.0005 *
Venus	61807-04-07 15:22 G	24295699.02	24295699.14	24295699.27	0.0497	0.0393
Venus	61807-11-29 23:46 G	24295935.34	24295935.49	24295935.65	0.0506	0.0323
Mercury	61812-01-22 09:22 G	24297449.77	24297449.89	24297450.00	0.0540	0.0284
Mercury	61812-04-20 18:58 G	24297539.23	24297539.29	24297539.36	0.0537	0.0460
Earth	61812-05-08 19:41 G	24297557.16	24297557.32	24297557.49	0.0537	0.0374
Moon	61812-05-08 21:50 G	24297557.25	24297557.41	24297557.57	0.0537	0.0401 *
Venus	61813-02-14 07:55 G	24297838.63	24297838.83	24297839.04	0.0527	0.0060
Mars	61815-04-20 04:34 G	24298633.44	24298633.69	24298633.95	0.0496	0.0056
Mercury	61818-03-05 11:46 G	24299683.89	24299683.99	24299684.10	0.0488	0.0385
Mercury	61818-06-03 12:29 G	24299773.91	24299774.02	24299774.14	0.0490	0.0364
Moon	61818-11-20 09:22 G	24299943.72	24299943.89	24299944.07	0.0494	0.0339
Earth	61818-11-20 12:00 G	24299943.84	24299944.00	24299944.17	0.0494	0.0345 *
Venus	61819-08-04 23:17 G	24300201.27	24300201.47	24300201.67	0.0503	0.0116
Mercury	61823-11-10 11:17 G	24301759.92	24301759.97	24301760.02	0.0540	0.0495
Mercury	61824-02-07 21:36 G	24301849.29	24301849.40	24301849.52	0.0538	0.0262
Moon	61824-05-13 15:22 G	24301944.91	24301945.14	24301945.37	0.0536	0.0026
Earth	61824-05-13 18:43 G	24301945.05	24301945.28	24301945.52	0.0536	0.0019 *
Venus	61824-10-19 20:10 G	24302104.18	24302104.34	24302104.51	0.0530	0.0308
Mercury	61830-03-22 11:46 G	24304083.83	24304083.99	24304084.16	0.0489	0.0174
Venus	61831-04-10 00:00 G	24304467.30	24304467.50	24304467.70	0.0500	0.0084
Mercury	61835-11-27 00:58 G	24306159.41	24306159.54	24306159.67	0.0539	0.0081
Earth	61836-05-18 23:17 G	24306333.33	24306333.47	24306333.62	0.0534	0.0417
Moon	61836-05-19 03:22 G	24306333.52	24306333.64	24306333.76	0.0534	0.0453 *
Venus	61837-02-17 07:12 G	24306607.63	24306607.80	24306607.96	0.0523	0.0307
Mercury	61842-01-08 10:34 G	24308393.76	24308393.94	24308394.11	0.0489	0.0022
Venus	61842-12-14 00:29 G	24308733.35	24308733.52	24308733.69	0.0498	0.0283
Venus	61843-08-07 09:50 G	24308969.81	24308969.91	24308970.01	0.0507	0.0438

Mercury	61847-09-15 04:34 G	24310469.56	24310469.69	24310469.82	0.0540	0.0096
Venus	61848-10-23 00:29 G	24310873.32	24310873.52	24310873.72	0.0526	0.0079
Mercury	61853-10-27 10:05 G	24312703.76	24312703.92	24312704.08	0.0488	0.0204
Venus	61854-08-19 03:07 G	24312999.57	24312999.63	24312999.70	0.0496	0.0471
Venus	61855-04-12 10:05 G	24313235.74	24313235.92	24313236.10	0.0504	0.0236
Mercury	61859-07-04 07:41 G	24314779.71	24314779.82	24314779.94	0.0540	0.0282
Mercury	61859-10-01 17:31 G	24314869.17	24314869.23	24314869.30	0.0537	0.0464
Venus	61860-06-27 15:22 G	24315138.94	24315139.14	24315139.33	0.0528	0.0158
Mercury	61865-08-15 09:50 G	24317013.80	24317013.91	24317014.01	0.0488	0.0384
Mercury	61865-11-13 10:34 G	24317103.83	24317103.94	24317104.06	0.0490	0.0365
Venus	61866-12-16 11:02 G	24317501.76	24317501.96	24317502.17	0.0502	0.0036
Mercury	61871-04-22 10:34 G	24319089.88	24319089.94	24319090.00	0.0540	0.0475
Mercury	61871-07-20 20:53 G	24319179.26	24319179.37	24319179.48	0.0538	0.0280
Venus	61872-03-02 05:02 G	24319404.58	24319404.71	24319404.84	0.0531	0.0400
Venus	61872-10-25 23:02 G	24319642.36	24319642.46	24319642.57	0.0521	0.0442
Mercury	61877-09-01 10:05 G	24321413.76	24321413.92	24321414.08	0.0489	0.0180
Earth	61877-11-11 01:41 G	24321484.39	24321484.57	24321484.75	0.0491	0.0307
Moon	61877-11-11 05:02 G	24321484.54	24321484.71	24321484.89	0.0491	0.0322 *
Venus	61878-08-21 12:14 G	24321767.82	24321768.01	24321768.21	0.0499	0.0164
Mercury	61883-05-08 23:17 G	24323489.34	24323489.47	24323489.60	0.0539	0.0079
Venus	61884-06-30 13:12 G	24323907.87	24323908.05	24323908.24	0.0525	0.0207
Mercury	61889-06-20 09:22 G	24325723.71	24325723.89	24325724.06	0.0489	0.0008
Moon	61889-11-15 07:12 G	24325871.56	24325871.80	24325872.04	0.0492	0.0035
Earth	61889-11-15 09:50 G	24325871.67	24325871.91	24325872.14	0.0492	0.0008 *
Venus	61890-04-26 13:55 G	24326033.94	24326034.08	24326034.22	0.0497	0.0357
Venus	61890-12-18 21:36 G	24326270.26	24326270.40	24326270.55	0.0505	0.0355
Mercury	61895-02-25 02:24 G	24327799.47	24327799.60	24327799.73	0.0540	0.0109
Moon	61895-05-08 12:43 G	24327871.94	24327872.03	24327872.12	0.0538	0.0490
Earth	61895-05-08 15:36 G	24327872.04	24327872.15	24327872.28	0.0538	0.0457 *
Venus	61896-03-05 05:17 G	24328173.51	24328173.72	24328173.92	0.0527	0.0026

Mercury	61901-04-09 08:10 G	24330033.68	24330033.84	24330034.00	0.0488	0.0202
Earth	61901-11-20 15:50 G	24330258.98	24330259.16	24330259.35	0.0494	0.0292
Moon	61901-11-20 16:34 G	24330259.01	24330259.19	24330259.37	0.0494	0.0298 *
Venus	61902-08-24 20:24 G	24330536.16	24330536.35	24330536.54	0.0503	0.0149
Mars	61904-07-30 13:26 G	24331241.79	24331242.06	24331242.34	0.0532	0.0173
Mercury	61906-12-15 05:46 G	24332109.63	24332109.74	24332109.86	0.0540	0.0289
Mercury	61907-03-14 15:50 G	24332199.09	24332199.16	24332199.22	0.0538	0.0458
Earth	61907-05-14 22:48 G	24332260.22	24332260.45	24332260.68	0.0536	0.0044
Moon	61907-05-15 02:53 G	24332260.38	24332260.62	24332260.85	0.0536	0.0029 *
Venus	61907-11-09 21:22 G	24332439.21	24332439.39	24332439.56	0.0530	0.0261
Mercury	61913-01-26 07:55 G	24334343.72	24334343.83	24334343.93	0.0488	0.0382
Mercury	61913-04-26 08:24 G	24334433.74	24334433.85	24334433.97	0.0490	0.0366
Venus	61914-04-29 21:36 G	24334802.20	24334802.40	24334802.61	0.0501	0.0050
Mercury	61918-10-03 08:53 G	24336419.81	24336419.87	24336419.94	0.0540	0.0476
Mercury	61918-12-31 19:12 G	24336509.19	24336509.30	24336509.42	0.0538	0.0281
Moon	61919-05-19 23:31 G	24336648.32	24336648.48	24336648.64	0.0534	0.0389
Earth	61919-05-20 03:07 G	24336648.46	24336648.63	24336648.80	0.0534	0.0359 *
Venus	61919-07-15 11:02 G	24336704.90	24336704.96	24336705.03	0.0532	0.0500
Venus	61920-03-09 06:43 G	24336942.63	24336942.78	24336942.94	0.0523	0.0348
Mercury	61925-02-12 07:41 G	24338743.66	24338743.82	24338743.99	0.0490	0.0178
Venus	61926-01-02 23:31 G	24339068.30	24339068.48	24339068.66	0.0498	0.0244
Venus	61926-08-27 09:22 G	24339304.83	24339304.89	24339304.96	0.0507	0.0477
Mercury	61930-10-19 22:19 G	24340819.30	24340819.43	24340819.56	0.0539	0.0094
Venus	61931-11-12 22:19 G	24341208.23	24341208.43	24341208.63	0.0525	0.0116
Mercury	61936-12-01 07:26 G	24343053.63	24343053.81	24343053.98	0.0489	0.0005
Venus	61937-09-08 02:10 G	24343334.50	24343334.59	24343334.69	0.0496	0.0433
Venus	61938-05-02 08:53 G	24343570.71	24343570.87	24343571.05	0.0504	0.0271
Mercury	61942-08-08 00:29 G	24345129.39	24345129.52	24345129.65	0.0539	0.0114
Venus	61943-07-18 10:34 G	24345473.74	24345473.94	24345474.14	0.0529	0.0129
Mercury	61948-09-19 06:43 G	24347363.63	24347363.78	24347363.94	0.0488	0.0190

Venus	61950-01-05 08:53 G	24347836.67	24347836.87	24347837.07	0.0502	0.0069
Mercury	61954-05-27 03:36 G	24349439.54	24349439.65	24349439.76	0.0540	0.0304
Mercury	61954-08-24 13:26 G	24349528.99	24349529.06	24349529.13	0.0538	0.0443
Venus	61955-03-23 00:43 G	24349739.39	24349739.53	24349739.68	0.0531	0.0369
Venus	61955-11-15 19:26 G	24349977.23	24349977.31	24349977.40	0.0522	0.0470
Mercury	61960-07-08 05:46 G	24351673.63	24351673.74	24351673.84	0.0488	0.0383
Mercury	61960-10-06 06:14 G	24351763.65	24351763.76	24351763.88	0.0490	0.0364
Moon	61960-11-11 01:41 G	24351799.42	24351799.57	24351799.72	0.0490	0.0377
Earth	61960-11-11 04:19 G	24351799.53	24351799.68	24351799.84	0.0490	0.0364 *
Venus	61961-09-10 08:10 G	24352102.65	24352102.84	24352103.04	0.0499	0.0133
Mercury	61966-03-15 06:43 G	24353749.73	24353749.78	24353749.84	0.0541	0.0488
Mercury	61966-06-12 17:17 G	24353839.10	24353839.22	24353839.33	0.0539	0.0271
Venus	61967-07-21 13:12 G	24354242.87	24354243.05	24354243.23	0.0524	0.0249
Mars	61969-07-15 00:00 G	24354967.30	24354967.50	24354967.71	0.0496	0.0298
Mercury	61972-07-25 05:31 G	24356073.57	24356073.73	24356073.89	0.0489	0.0175
Earth	61972-11-15 12:29 G	24356186.79	24356187.02	24356187.26	0.0492	0.0062
Moon	61972-11-15 13:26 G	24356186.84	24356187.06	24356187.28	0.0492	0.0086 *
Venus	61973-05-16 10:05 G	24356368.78	24356368.92	24356369.08	0.0497	0.0326
Venus	61974-01-07 18:29 G	24356605.15	24356605.27	24356605.41	0.0506	0.0387
Mercury	61978-03-31 20:38 G	24358149.23	24358149.36	24358149.49	0.0539	0.0091
Earth	61978-05-08 18:43 G	24358187.23	24358187.28	24358187.34	0.0538	0.0520
Venus	61979-03-26 05:02 G	24358508.50	24358508.71	24358508.91	0.0527	0.0019
Mercury	61984-05-13 04:48 G	24360383.53	24360383.70	24360383.88	0.0489	0.0015
Earth	61984-11-19 21:50 G	24360574.21	24360574.41	24360574.61	0.0494	0.0247
Moon	61984-11-19 23:02 G	24360574.26	24360574.46	24360574.67	0.0494	0.0260 *
Venus	61985-09-12 19:12 G	24360871.11	24360871.30	24360871.49	0.0503	0.0186
Mercury	61990-01-17 23:31 G	24362459.35	24362459.48	24362459.62	0.0539	0.0100
Moon	61990-05-13 18:14 G	24362575.03	24362575.26	24362575.49	0.0536	0.0105
Earth	61990-05-13 22:05 G	24362575.20	24362575.42	24362575.65	0.0536	0.0117 *
Venus	61990-11-28 18:58 G	24362774.11	24362774.29	24362774.48	0.0529	0.0222

Mercury 61996-03-01 04:34 G 24364693.54 24364693.69 24364693.85 0.0489 0.0191
 Venus 61997-05-18 20:10 G 24365137.14 24365137.34 24365137.55 0.0501 0.0017

63RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 63rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	62001-11-06 01:41	G	24366769.46	24366769.57	24366769.68	0.0540	0.0308	
Mercury	62002-02-03 11:46	G	24366858.91	24366858.99	24366859.06	0.0538	0.0439	
Earth	62002-05-18 19:55	G	24366963.13	24366963.33	24366963.54	0.0535	0.0269	
Moon	62002-05-18 22:19	G	24366963.25	24366963.43	24366963.62	0.0535	0.0298	*
Venus	62002-08-03 05:31	G	24367039.64	24367039.73	24367039.82	0.0532	0.0471	
Venus	62003-03-29 01:41	G	24367277.43	24367277.57	24367277.71	0.0523	0.0373	
Mercury	62007-12-19 04:05	G	24369003.57	24369003.67	24369003.79	0.0488	0.0373	
Mercury	62008-03-18 04:48	G	24369093.59	24369093.70	24369093.81	0.0490	0.0376	
Venus	62009-01-21 21:07	G	24369403.20	24369403.38	24369403.56	0.0498	0.0210	
Venus	62009-09-15 06:29	G	24369639.77	24369639.77	24369639.78	0.0507	0.0506	
Mercury	62013-08-25 04:19	G	24371079.64	24371079.68	24371079.73	0.0540	0.0504	
Mercury	62013-11-22 14:53	G	24371169.00	24371169.12	24371169.23	0.0538	0.0255	
Venus	62014-12-01 17:31	G	24371543.04	24371543.23	24371543.43	0.0526	0.0144	
Mercury	62020-01-05 03:07	G	24373403.47	24373403.63	24373403.80	0.0489	0.0172	
Venus	62020-09-26 21:22	G	24373669.27	24373669.39	24373669.51	0.0496	0.0403	
Venus	62021-05-21 04:05	G	24373905.51	24373905.67	24373905.84	0.0504	0.0298	
Mercury	62025-09-10 18:29	G	24375479.14	24375479.27	24375479.40	0.0539	0.0079	

Venus	62026-08-06 10:05 G	24375808.72	24375808.92	24375809.12	0.0528	0.0086
Mercury	62031-10-24 02:38 G	24377713.43	24377713.61	24377713.78	0.0489	0.0017
Venus	62033-01-24 04:34 G	24378171.49	24378171.69	24378171.89	0.0502	0.0099
Mercury	62037-06-29 21:50 G	24379789.28	24379789.41	24379789.54	0.0539	0.0103
Venus	62038-04-11 00:43 G	24380074.37	24380074.53	24380074.69	0.0531	0.0323
Venus	62038-12-04 18:29 G	24380312.23	24380312.27	24380312.32	0.0521	0.0508
Mercury	62043-08-12 01:55 G	24382023.43	24382023.58	24382023.74	0.0488	0.0199
Earth	62043-11-11 09:07 G	24382114.77	24382114.88	24382115.01	0.0490	0.0414
Moon	62043-11-11 10:05 G	24382114.82	24382114.92	24382115.03	0.0490	0.0433 *
Venus	62044-09-29 06:14 G	24382437.56	24382437.76	24382437.96	0.0500	0.0097
Mercury	62049-04-18 00:43 G	24384099.42	24384099.53	24384099.64	0.0540	0.0295
Mercury	62049-07-16 10:34 G	24384188.88	24384188.94	24384189.01	0.0538	0.0453
Venus	62050-08-09 10:34 G	24384577.77	24384577.94	24384578.11	0.0524	0.0284
Mercury	62055-05-31 01:55 G	24386333.48	24386333.58	24386333.69	0.0488	0.0375
Mercury	62055-08-29 02:38 G	24386423.50	24386423.61	24386423.72	0.0490	0.0373
Earth	62055-11-15 18:43 G	24386502.05	24386502.28	24386502.51	0.0492	0.0106
Moon	62055-11-15 19:55 G	24386502.10	24386502.33	24386502.57	0.0492	0.0125 *
Venus	62056-06-04 08:38 G	24386703.69	24386703.86	24386704.02	0.0497	0.0289
Venus	62057-01-26 16:48 G	24386940.10	24386940.20	24386940.32	0.0506	0.0421
Mars	62058-10-24 06:58 G	24387575.55	24387575.79	24387576.04	0.0531	0.0297
Mercury	62061-02-04 02:38 G	24388409.57	24388409.61	24388409.66	0.0540	0.0507
Mercury	62061-05-04 13:12 G	24388498.93	24388499.05	24388499.16	0.0538	0.0252
Venus	62062-04-13 23:17 G	24388843.27	24388843.47	24388843.67	0.0527	0.0044
Mercury	62067-06-17 01:41 G	24390733.41	24390733.57	24390733.73	0.0489	0.0182
Moon	62067-11-20 00:00 G	24390889.30	24390889.50	24390889.71	0.0493	0.0216
Earth	62067-11-20 02:38 G	24390889.40	24390889.61	24390889.83	0.0493	0.0199 *
Venus	62068-02-08 10:19 G	24390969.89	24390969.93	24390969.99	0.0495	0.0476
Venus	62068-10-01 16:19 G	24391206.00	24391206.18	24391206.37	0.0503	0.0218
Mercury	62073-02-20 16:05 G	24392809.04	24392809.17	24392809.31	0.0539	0.0066
Earth	62073-05-12 14:38 G	24392889.90	24392890.11	24392890.33	0.0537	0.0212

Moon	62073-05-12 17:46 G	24392890.03	24392890.24	24392890.46	0.0537	0.0194 *
Venus	62073-12-17 13:26 G	24393108.88	24393109.06	24393109.26	0.0530	0.0194
Mercury	62079-04-05 00:14 G	24395043.33	24395043.51	24395043.68	0.0489	0.0020
Venus	62080-06-06 14:53 G	24395471.91	24395472.12	24395472.32	0.0501	0.0017
Mercury	62084-12-09 19:26 G	24397119.18	24397119.31	24397119.44	0.0540	0.0119
Moon	62085-05-17 19:41 G	24397278.11	24397278.32	24397278.55	0.0535	0.0224
Earth	62085-05-17 20:53 G	24397278.16	24397278.37	24397278.59	0.0535	0.0199 *
Venus	62085-08-22 04:34 G	24397374.58	24397374.69	24397374.82	0.0532	0.0428
Venus	62086-04-17 00:43 G	24397612.41	24397612.53	24397612.66	0.0523	0.0412
Mars	62088-01-04 18:29 G	24398240.22	24398240.27	24398240.32	0.0497	0.0486
Mercury	62091-01-21 23:46 G	24399353.33	24399353.49	24399353.65	0.0488	0.0202
Venus	62092-02-10 16:19 G	24399737.99	24399738.18	24399738.37	0.0498	0.0180
Mercury	62096-09-27 22:48 G	24401429.34	24401429.45	24401429.56	0.0540	0.0301
Mercury	62096-12-26 08:53 G	24401518.80	24401518.87	24401518.94	0.0538	0.0448
Venus	62097-12-20 17:02 G	24401878.02	24401878.21	24401878.41	0.0525	0.0187
Mercury	62102-11-10 23:17 G	24403663.37	24403663.47	24403663.58	0.0488	0.0384
Mercury	62103-02-08 23:46 G	24403753.38	24403753.49	24403753.61	0.0490	0.0364
Venus	62103-10-17 18:43 G	24404004.15	24404004.28	24404004.42	0.0496	0.0369
Venus	62104-06-10 02:10 G	24404240.45	24404240.59	24404240.75	0.0505	0.0334
Mercury	62108-07-18 01:41 G	24405739.52	24405739.57	24405739.62	0.0540	0.0494
Mercury	62108-10-15 12:14 G	24405828.89	24405829.01	24405829.12	0.0538	0.0266
Venus	62109-08-26 07:55 G	24406143.62	24406143.83	24406144.03	0.0528	0.0048
Mercury	62114-11-27 23:17 G	24408063.31	24408063.47	24408063.64	0.0489	0.0180
Venus	62116-02-14 03:07 G	24408506.44	24408506.63	24408506.83	0.0502	0.0134
Mercury	62120-08-03 14:24 G	24410138.97	24410139.10	24410139.24	0.0539	0.0065
Venus	62121-04-30 19:12 G	24410409.14	24410409.30	24410409.47	0.0530	0.0293
Mercury	62126-09-15 22:48 G	24412373.27	24412373.45	24412373.62	0.0489	0.0013
Earth	62126-11-11 14:24 G	24412430.03	24412430.10	24412430.18	0.0490	0.0462
Moon	62126-11-11 15:50 G	24412430.13	24412430.16	24412430.19	0.0490	0.0485 *
Venus	62127-10-20 03:50 G	24412772.46	24412772.66	24412772.86	0.0500	0.0063

Mercury	62132-05-22 17:17 G	24414449.09	24414449.22	24414449.35	0.0539	0.0130
Venus	62133-08-29 05:31 G	24414912.56	24414912.73	24414912.89	0.0524	0.0311
Mercury	62138-07-04 21:22 G	24416683.24	24416683.39	24416683.55	0.0488	0.0206
Moon	62138-11-15 16:34 G	24416816.99	24416817.19	24416817.41	0.0491	0.0192
Earth	62138-11-15 19:12 G	24416817.08	24416817.30	24416817.52	0.0491	0.0171 *
Venus	62139-06-25 03:07 G	24417038.46	24417038.63	24417038.80	0.0497	0.0260
Venus	62140-02-16 11:17 G	24417274.88	24417274.97	24417275.07	0.0506	0.0446
Mercury	62144-03-10 20:38 G	24418759.25	24418759.36	24418759.46	0.0540	0.0316
Mercury	62144-06-08 06:43 G	24418848.70	24418848.78	24418848.85	0.0538	0.0436
Venus	62145-05-03 22:34 G	24419178.24	24419178.44	24419178.64	0.0527	0.0087
Mercury	62150-04-22 21:07 G	24420993.28	24420993.38	24420993.49	0.0488	0.0385
Mercury	62150-07-21 21:22 G	24421083.28	24421083.39	24421083.52	0.0489	0.0360
Earth	62150-11-20 03:36 G	24421204.43	24421204.65	24421204.88	0.0492	0.0135
Moon	62150-11-20 07:12 G	24421204.57	24421204.80	24421205.03	0.0492	0.0155 *
Venus	62151-02-28 05:46 G	24421304.65	24421304.74	24421304.83	0.0495	0.0445
Venus	62151-10-22 11:31 G	24421540.81	24421540.98	24421541.16	0.0503	0.0247
Mercury	62155-12-28 23:46 G	24423069.44	24423069.49	24423069.54	0.0541	0.0501
Mercury	62156-03-27 10:19 G	24423158.81	24423158.93	24423159.04	0.0539	0.0260
Moon	62156-05-12 15:50 G	24423204.95	24423205.16	24423205.37	0.0537	0.0254
Earth	62156-05-12 17:46 G	24423205.04	24423205.24	24423205.44	0.0537	0.0277 *
Venus	62157-01-06 13:55 G	24423443.88	24423444.08	24423444.27	0.0529	0.0147
Mercury	62162-05-09 20:38 G	24425393.20	24425393.36	24425393.53	0.0489	0.0171
Moon	62162-11-24 09:07 G	24425591.82	24425591.88	24425591.94	0.0494	0.0475
Earth	62162-11-24 12:43 G	24425591.94	24425592.03	24425592.14	0.0494	0.0446 *
Venus	62163-06-27 12:43 G	24425806.83	24425807.03	24425807.24	0.0501	0.0050
Mercury	62168-01-14 13:26 G	24427468.93	24427469.06	24427469.19	0.0539	0.0077
Moon	62168-05-17 21:22 G	24427593.18	24427593.39	24427593.61	0.0536	0.0154
Earth	62168-05-17 21:36 G	24427593.18	24427593.40	24427593.63	0.0536	0.0131 *
Venus	62168-09-11 03:36 G	24427709.51	24427709.65	24427709.79	0.0532	0.0385
Venus	62169-05-06 22:48 G	24427947.35	24427947.45	24427947.56	0.0522	0.0448

Mercury	62174-02-25 20:24 G	24429703.18	24429703.35	24429703.53	0.0489	0.0017
Venus	62175-03-02 14:53 G	24430072.93	24430073.12	24430073.32	0.0499	0.0144
Mercury	62179-11-02 15:50 G	24431779.03	24431779.16	24431779.29	0.0539	0.0127
Earth	62180-05-22 20:24 G	24431981.30	24431981.35	24431981.40	0.0534	0.0518
Moon	62180-05-22 22:19 G	24431981.35	24431981.43	24431981.52	0.0534	0.0494 *
Venus	62181-01-09 12:14 G	24432212.83	24432213.01	24432213.20	0.0525	0.0216
Mercury	62185-12-14 19:55 G	24434013.18	24434013.33	24434013.49	0.0488	0.0196
Venus	62186-11-05 16:48 G	24434339.05	24434339.20	24434339.35	0.0497	0.0332
Venus	62187-06-30 00:00 G	24434575.37	24434575.50	24434575.64	0.0505	0.0367
Mercury	62191-08-21 18:43 G	24436089.17	24436089.28	24436089.38	0.0540	0.0322
Mercury	62191-11-19 04:48 G	24436178.62	24436178.70	24436178.78	0.0538	0.0428
Venus	62192-09-14 03:07 G	24436478.43	24436478.63	24436478.84	0.0528	0.0019
Mercury	62197-10-02 18:58 G	24438323.19	24438323.29	24438323.39	0.0488	0.0387
Mercury	62197-12-31 19:12 G	24438413.19	24438413.30	24438413.42	0.0489	0.0357
Venus	62199-03-04 21:50 G	24438841.22	24438841.41	24438841.60	0.0502	0.0162
Mercury	62203-06-10 21:36 G	24440399.36	24440399.40	24440399.44	0.0541	0.0514
Mercury	62203-09-08 08:10 G	24440488.72	24440488.84	24440488.96	0.0539	0.0249
Venus	62204-05-20 18:43 G	24440744.10	24440744.28	24440744.46	0.0531	0.0249
Mercury	62209-10-20 18:43 G	24442723.11	24442723.28	24442723.44	0.0489	0.0169
Venus	62210-11-08 23:02 G	24443107.26	24443107.46	24443107.67	0.0500	0.0034
Mercury	62215-06-27 11:46 G	24444798.86	24444798.99	24444799.12	0.0539	0.0072
Venus	62216-01-24 09:07 G	24445009.80	24445009.88	24445009.97	0.0533	0.0485
Venus	62216-09-18 06:00 G	24445247.61	24445247.75	24445247.90	0.0524	0.0355
Mercury	62221-08-08 18:00 G	24447033.08	24447033.25	24447033.43	0.0489	0.0018
Earth	62221-11-16 00:29 G	24447132.32	24447132.52	24447132.74	0.0491	0.0219
Moon	62221-11-16 04:05 G	24447132.47	24447132.67	24447132.89	0.0491	0.0237 *
Venus	62222-07-15 01:12 G	24447373.37	24447373.55	24447373.74	0.0498	0.0224
Venus	62223-03-08 10:05 G	24447609.86	24447609.92	24447609.98	0.0506	0.0482
Mercury	62227-04-15 14:53 G	24449108.99	24449109.12	24449109.25	0.0540	0.0113
Venus	62228-05-23 21:50 G	24449513.21	24449513.41	24449513.61	0.0526	0.0128

Mercury	62233-05-27 18:00 G	24451343.09	24451343.25	24451343.40	0.0488	0.0195
Moon	62233-11-20 06:29 G	24451519.55	24451519.77	24451520.00	0.0492	0.0111
Earth	62233-11-20 10:19 G	24451519.70	24451519.93	24451520.17	0.0492	0.0092 *
Venus	62234-03-20 04:34 G	24451639.58	24451639.69	24451639.81	0.0496	0.0408
Venus	62234-11-11 11:02 G	24451875.79	24451875.96	24451876.13	0.0504	0.0284
Mercury	62239-02-01 17:17 G	24453419.11	24453419.22	24453419.33	0.0540	0.0316
Mercury	62239-05-02 03:22 G	24453508.57	24453508.64	24453508.72	0.0538	0.0433
Earth	62239-05-13 14:24 G	24453519.93	24453520.10	24453520.27	0.0537	0.0362
Moon	62239-05-13 14:53 G	24453519.95	24453520.12	24453520.30	0.0537	0.0336 *
Venus	62240-01-27 10:19 G	24453778.73	24453778.93	24453779.13	0.0529	0.0113
Mars	62242-04-01 05:31 G	24454573.49	24454573.73	24454573.97	0.0497	0.0179
Mercury	62245-03-15 17:31 G	24455653.13	24455653.23	24455653.34	0.0488	0.0376
Mercury	62245-06-13 18:00 G	24455743.14	24455743.25	24455743.36	0.0490	0.0370
Earth	62245-11-24 18:58 G	24455907.16	24455907.29	24455907.43	0.0494	0.0401
Moon	62245-11-24 22:34 G	24455907.32	24455907.44	24455907.55	0.0494	0.0425 *
Venus	62246-07-17 11:17 G	24456141.77	24456141.97	24456142.17	0.0501	0.0087
Mercury	62250-11-20 19:55 G	24457729.29	24457729.33	24457729.37	0.0540	0.0514
Mercury	62251-02-18 06:29 G	24457818.65	24457818.77	24457818.89	0.0538	0.0247
Earth	62251-05-18 17:17 G	24457907.99	24457908.22	24457908.45	0.0536	0.0044
Moon	62251-05-18 18:43 G	24457908.04	24457908.28	24457908.52	0.0536	0.0067 *
Venus	62251-10-01 23:46 G	24458044.34	24458044.49	24458044.64	0.0532	0.0350
Venus	62252-05-26 18:58 G	24458282.22	24458282.29	24458282.38	0.0522	0.0478
Mercury	62257-04-01 16:34 G	24460053.03	24460053.19	24460053.35	0.0489	0.0170
Venus	62258-03-22 10:19 G	24460407.74	24460407.93	24460408.13	0.0499	0.0112
Mercury	62262-12-07 09:36 G	24462128.77	24462128.90	24462129.04	0.0540	0.0064
Moon	62263-05-23 18:58 G	24462296.16	24462296.29	24462296.43	0.0535	0.0426
Earth	62263-05-23 21:50 G	24462296.30	24462296.41	24462296.54	0.0535	0.0452 *
Venus	62264-01-30 12:29 G	24462547.84	24462548.02	24462548.19	0.0525	0.0259
Mercury	62269-01-18 16:05 G	24464363.00	24464363.17	24464363.35	0.0488	0.0017
Venus	62269-11-25 12:43 G	24464673.87	24464674.03	24464674.20	0.0496	0.0300

Venus	62270-07-19 19:55 G	24464910.21	24464910.33	24464910.45	0.0505	0.0397
Mercury	62274-09-25 13:12 G	24466438.92	24466439.05	24466439.18	0.0540	0.0117
Venus	62275-10-05 04:48 G	24466813.50	24466813.70	24466813.90	0.0528	0.0032
Mercury	62280-11-06 15:36 G	24468673.00	24468673.15	24468673.31	0.0488	0.0197
Venus	62281-07-31 15:50 G	24468940.12	24468940.16	24468940.20	0.0495	0.0483
Venus	62282-03-24 20:53 G	24469176.18	24469176.37	24469176.56	0.0503	0.0200
Mercury	62286-07-14 16:19 G	24470749.07	24470749.18	24470749.29	0.0540	0.0302
Mercury	62286-10-12 02:24 G	24470838.53	24470838.60	24470838.67	0.0538	0.0449
Venus	62287-06-09 19:26 G	24471079.12	24471079.31	24471079.50	0.0530	0.0202
Mercury	62292-08-25 15:36 G	24472983.05	24472983.15	24472983.27	0.0488	0.0373
Mercury	62292-11-23 16:05 G	24473073.06	24473073.17	24473073.28	0.0490	0.0373
Venus	62293-11-27 22:48 G	24473442.25	24473442.45	24473442.66	0.0500	0.0014
Mercury	62298-05-02 18:43 G	24475059.24	24475059.28	24475059.33	0.0540	0.0505
Mercury	62298-07-31 05:17 G	24475148.61	24475148.72	24475148.84	0.0538	0.0256
Venus	62299-02-12 06:58 G	24475344.69	24475344.79	24475344.91	0.0532	0.0444
Venus	62299-10-08 03:22 G	24475582.51	24475582.64	24475582.78	0.0523	0.0389
Mercury	62304-09-12 15:22 G	24477382.98	24477383.14	24477383.31	0.0489	0.0185
Moon	62304-11-16 04:19 G	24477447.50	24477447.68	24477447.88	0.0491	0.0281
Earth	62304-11-16 08:24 G	24477447.65	24477447.85	24477448.05	0.0491	0.0262 *
Venus	62305-08-04 00:29 G	24477708.34	24477708.52	24477708.71	0.0498	0.0184
Mercury	62310-05-20 08:24 G	24479458.71	24479458.85	24479458.98	0.0539	0.0069
Venus	62311-06-13 18:58 G	24479848.10	24479848.29	24479848.48	0.0526	0.0163
Mercury	62316-07-01 14:24 G	24481692.92	24481693.10	24481693.27	0.0488	0.0010
Earth	62316-11-20 14:10 G	24481834.85	24481835.09	24481835.32	0.0491	0.0036
Moon	62316-11-20 17:31 G	24481835.00	24481835.23	24481835.46	0.0491	0.0062 *
Venus	62317-04-09 01:12 G	24481974.42	24481974.55	24481974.68	0.0495	0.0374
Venus	62317-12-01 06:58 G	24482210.63	24482210.79	24482210.95	0.0504	0.0315
Mercury	62322-03-08 11:17 G	24483768.84	24483768.97	24483769.10	0.0540	0.0123
Earth	62322-05-13 15:22 G	24483835.01	24483835.14	24483835.28	0.0539	0.0435
Moon	62322-05-13 16:05 G	24483835.02	24483835.17	24483835.33	0.0539	0.0404 *

Venus	62323-02-16 10:34 G	24484113.74	24484113.94	24484114.15	0.0529	0.0067
Mercury	62328-04-19 14:10 G	24486002.93	24486003.09	24486003.25	0.0488	0.0190
Moon	62328-11-24 20:53 G	24486222.21	24486222.37	24486222.53	0.0493	0.0364
Earth	62328-11-24 23:02 G	24486222.30	24486222.46	24486222.63	0.0493	0.0346 *
Venus	62329-08-06 07:55 G	24486476.63	24486476.83	24486477.03	0.0501	0.0119
Mercury	62333-12-25 14:38 G	24488079.00	24488079.11	24488079.22	0.0541	0.0305
Mercury	62334-03-25 00:58 G	24488168.47	24488168.54	24488168.61	0.0539	0.0449
Moon	62334-05-18 19:55 G	24488223.11	24488223.33	24488223.56	0.0537	0.0008
Earth	62334-05-18 22:34 G	24488223.21	24488223.44	24488223.67	0.0537	0.0012 *
Venus	62334-10-22 01:55 G	24488379.41	24488379.58	24488379.75	0.0532	0.0300
Mercury	62340-02-06 13:55 G	24490312.97	24490313.08	24490313.19	0.0488	0.0370
Mercury	62340-05-06 13:55 G	24490402.98	24490403.08	24490403.20	0.0489	0.0374
Venus	62341-04-11 09:50 G	24490742.71	24490742.91	24490743.11	0.0499	0.0073
Mercury	62345-10-13 17:46 G	24492389.19	24492389.24	24492389.30	0.0541	0.0491
Mercury	62346-01-11 04:19 G	24492478.57	24492478.68	24492478.80	0.0539	0.0272
Earth	62346-05-24 03:36 G	24492611.51	24492611.65	24492611.81	0.0535	0.0401
Moon	62346-05-24 07:26 G	24492611.65	24492611.81	24492611.99	0.0535	0.0370 *
Venus	62347-02-19 13:41 G	24492882.91	24492883.07	24492883.24	0.0525	0.0305
Mercury	62352-02-23 13:41 G	24494712.91	24494713.07	24494713.23	0.0489	0.0191
Venus	62352-12-15 12:43 G	24495008.86	24495009.03	24495009.21	0.0497	0.0260
Venus	62353-08-08 20:38 G	24495245.27	24495245.36	24495245.46	0.0505	0.0437
Mercury	62357-10-30 07:12 G	24496788.67	24496788.80	24496788.93	0.0539	0.0080
Venus	62358-10-25 03:36 G	24497148.45	24497148.65	24497148.85	0.0527	0.0072
Mercury	62363-12-12 13:12 G	24499022.88	24499023.05	24499023.23	0.0489	0.0012
Venus	62364-08-20 15:36 G	24499275.07	24499275.15	24499275.25	0.0495	0.0442
Venus	62365-04-13 21:07 G	24499511.20	24499511.38	24499511.56	0.0503	0.0241
Mercury	62369-08-18 10:05 G	24501098.79	24501098.92	24501099.05	0.0540	0.0113
Venus	62370-06-29 17:31 G	24501414.04	24501414.23	24501414.43	0.0530	0.0163
Mercury	62375-09-30 12:29 G	24503332.86	24503333.02	24503333.18	0.0488	0.0182
Venus	62376-12-17 20:10 G	24503777.13	24503777.34	24503777.54	0.0500	0.0042

Mercury	62381-06-06 12:43 G	24505408.92	24505409.03	24505409.14	0.0541	0.0309
Mercury	62381-09-03 23:02 G	24505498.39	24505498.46	24505498.54	0.0539	0.0446
Venus	62382-03-04 07:26 G	24505679.68	24505679.81	24505679.95	0.0533	0.0399
Venus	62382-10-28 04:34 G	24505917.58	24505917.69	24505917.80	0.0524	0.0433
Mercury	62387-07-19 12:29 G	24507642.91	24507643.02	24507643.14	0.0487	0.0358
Mercury	62387-10-17 12:43 G	24507732.92	24507733.03	24507733.13	0.0489	0.0384
Earth	62387-11-16 14:38 G	24507762.93	24507763.11	24507763.30	0.0490	0.0308
Moon	62387-11-16 18:14 G	24507763.08	24507763.26	24507763.43	0.0490	0.0316 *
Venus	62388-08-22 22:05 G	24508043.23	24508043.42	24508043.62	0.0498	0.0148
Mercury	62393-03-25 16:05 G	24509719.12	24509719.17	24509719.22	0.0541	0.0493
Mercury	62393-06-23 02:53 G	24509808.50	24509808.62	24509808.73	0.0539	0.0273
Venus	62394-07-02 21:36 G	24510183.21	24510183.40	24510183.59	0.0526	0.0212
Mars	62396-06-26 12:58 G	24510907.82	24510908.04	24510908.27	0.0497	0.0235
Mercury	62399-08-05 12:00 G	24512042.84	24512043.00	24512043.16	0.0489	0.0196
Moon	62399-11-20 20:24 G	24512150.11	24512150.35	24512150.59	0.0491	0.0026
Earth	62399-11-20 22:48 G	24512150.21	24512150.45	24512150.68	0.0491	0.0009 *
Venus	62400-04-28 00:43 G	24512309.39	24512309.53	24512309.69	0.0496	0.0335
Venus	62400-12-20 07:12 G	24512545.66	24512545.80	24512545.95	0.0504	0.0355
Mercury	62405-04-11 06:14 G	24514118.63	24514118.76	24514118.89	0.0540	0.0096
Moon	62405-05-12 20:53 G	24514150.26	24514150.37	24514150.49	0.0539	0.0454
Earth	62405-05-12 22:48 G	24514150.36	24514150.45	24514150.56	0.0539	0.0483 *
Venus	62406-03-07 13:26 G	24514448.85	24514449.06	24514449.26	0.0529	0.0020
Mercury	62411-05-24 11:46 G	24516352.82	24516352.99	24516353.16	0.0489	0.0016
Earth	62411-11-25 08:38 G	24516537.68	24516537.86	24516538.04	0.0493	0.0311
Moon	62411-11-25 09:36 G	24516537.73	24516537.90	24516538.07	0.0493	0.0327 *
Venus	62412-08-25 08:53 G	24516811.68	24516811.87	24516812.07	0.0502	0.0162
Mercury	62417-01-28 09:07 G	24518428.75	24518428.88	24518429.01	0.0540	0.0099
Earth	62417-05-18 01:55 G	24518538.35	24518538.58	24518538.81	0.0537	0.0076
Moon	62417-05-18 05:31 G	24518538.50	24518538.73	24518538.96	0.0537	0.0064 *
Venus	62417-11-10 02:10 G	24518714.41	24518714.59	24518714.77	0.0531	0.0254

Mercury	62423-03-12 11:31 G	24520662.82	24520662.98	24520663.14	0.0488	0.0166
Venus	62424-04-30 10:34 G	24521077.74	24521077.94	24521078.15	0.0499	0.0032
Mercury	62428-11-16 12:00 G	24522738.89	24522739.00	24522739.11	0.0540	0.0292
Mercury	62429-02-13 22:05 G	24522828.36	24522828.42	24522828.49	0.0538	0.0460
Moon	62429-05-23 01:12 G	24522926.36	24522926.55	24522926.75	0.0535	0.0296
Earth	62429-05-23 04:48 G	24522926.53	24522926.70	24522926.89	0.0535	0.0333 *
Venus	62429-07-15 14:53 G	24522980.05	24522980.12	24522980.20	0.0534	0.0491
Venus	62430-03-10 12:58 G	24523217.88	24523218.04	24523218.19	0.0525	0.0344
Mercury	62434-12-29 11:02 G	24524972.85	24524972.96	24524973.08	0.0487	0.0348
Mercury	62435-03-29 11:17 G	24525062.87	24525062.97	24525063.07	0.0489	0.0395
Venus	62436-01-04 11:02 G	24525343.79	24525343.96	24525344.15	0.0496	0.0223
Venus	62436-08-27 18:29 G	24525580.20	24525580.27	24525580.34	0.0505	0.0470
Mercury	62440-09-04 14:24 G	24527049.05	24527049.10	24527049.15	0.0541	0.0494
Mercury	62440-12-03 01:12 G	24527138.44	24527138.55	24527138.66	0.0539	0.0272
Venus	62441-11-13 04:34 G	24527483.49	24527483.69	24527483.89	0.0528	0.0118
Mercury	62447-01-15 10:48 G	24529372.79	24529372.95	24529373.11	0.0488	0.0210
Venus	62447-09-09 14:24 G	24529609.98	24529610.10	24529610.22	0.0494	0.0404
Venus	62448-05-02 19:12 G	24529846.13	24529846.30	24529846.47	0.0502	0.0276
Mercury	62452-09-21 04:48 G	24531448.57	24531448.70	24531448.83	0.0540	0.0096
Venus	62453-07-18 20:24 G	24531749.15	24531749.35	24531749.54	0.0530	0.0113
Mercury	62458-11-03 10:19 G	24533682.75	24533682.93	24533683.10	0.0488	0.0026
Venus	62460-01-06 20:24 G	24534112.15	24534112.35	24534112.55	0.0500	0.0082
Mercury	62464-07-10 08:10 G	24535758.71	24535758.84	24535758.97	0.0540	0.0084
Venus	62465-03-23 11:02 G	24536014.81	24536014.96	24536015.12	0.0533	0.0345
Venus	62465-11-16 07:26 G	24536252.73	24536252.81	24536252.89	0.0523	0.0480
Mercury	62470-08-22 10:05 G	24537992.76	24537992.92	24537993.09	0.0488	0.0154
Moon	62470-11-15 22:34 G	24538078.27	24538078.44	24538078.62	0.0490	0.0342
Earth	62470-11-16 00:58 G	24538078.37	24538078.54	24538078.70	0.0490	0.0342 *
Venus	62471-09-11 23:17 G	24538378.27	24538378.47	24538378.67	0.0498	0.0106
Mercury	62476-04-28 11:02 G	24540068.85	24540068.96	24540069.08	0.0540	0.0276

Mercury	62476-07-26 21:22 G	24540158.33	24540158.39	24540158.45	0.0538	0.0475
Venus	62477-07-21 22:19 G	24540518.25	24540518.43	24540518.60	0.0526	0.0256
Mercury	62482-06-10 10:05 G	24542302.80	24542302.92	24542303.05	0.0488	0.0332
Mercury	62482-09-08 10:19 G	24542392.84	24542392.93	24542393.02	0.0489	0.0413
Earth	62482-11-20 09:36 G	24542465.66	24542465.90	24542466.13	0.0491	0.0036
Moon	62482-11-20 10:19 G	24542465.70	24542465.93	24542466.15	0.0491	0.0010 *
Venus	62483-05-18 01:55 G	24542644.42	24542644.58	24542644.75	0.0496	0.0291
Venus	62484-01-09 08:38 G	24542880.74	24542880.86	24542880.99	0.0504	0.0398
Mars	62485-10-01 19:55 G	24543512.04	24543512.33	24543512.62	0.0530	0.0019
Mercury	62488-02-15 13:41 G	24544379.01	24544379.07	24544379.14	0.0541	0.0473
Moon	62488-05-12 04:19 G	24544465.62	24544465.68	24544465.75	0.0539	0.0516
Mercury	62488-05-15 00:29 G	24544468.41	24544468.52	24544468.63	0.0539	0.0290
Venus	62489-03-26 13:12 G	24544783.84	24544784.05	24544784.25	0.0528	0.0028
Mercury	62494-06-27 09:36 G	24546702.74	24546702.90	24546703.05	0.0489	0.0224
Earth	62494-11-24 17:02 G	24546853.02	24546853.21	24546853.41	0.0492	0.0272
Moon	62494-11-24 17:46 G	24546853.04	24546853.24	24546853.44	0.0492	0.0282 *
Venus	62495-01-21 04:05 G	24546910.62	24546910.67	24546910.73	0.0493	0.0473
Venus	62495-09-14 07:55 G	24547146.64	24547146.83	24547147.01	0.0501	0.0198
Mercury	62500-03-04 03:07 G	24548778.50	24548778.63	24548778.76	0.0540	0.0096
Moon	62500-05-17 23:31 G	24548853.26	24548853.48	24548853.71	0.0538	0.0138
Earth	62500-05-18 03:22 G	24548853.42	24548853.64	24548853.87	0.0538	0.0143 *
Venus	62500-11-30 02:38 G	24549049.42	24549049.61	24549049.80	0.0532	0.0209
Mercury	62506-04-16 09:22 G	24551012.71	24551012.89	24551013.06	0.0488	0.0043
Venus	62507-05-21 09:36 G	24551412.69	24551412.90	24551413.10	0.0499	0.0011
Mercury	62511-12-22 06:29 G	24553088.64	24553088.77	24553088.91	0.0541	0.0085
Earth	62512-05-23 10:19 G	24553241.74	24553241.93	24553242.13	0.0537	0.0281
Moon	62512-05-23 13:12 G	24553241.86	24553242.05	24553242.26	0.0537	0.0247 *
Venus	62512-08-04 17:02 G	24553315.10	24553315.21	24553315.33	0.0534	0.0443
Venus	62513-03-30 15:22 G	24553553.02	24553553.14	24553553.28	0.0525	0.0391
Mars	62514-12-18 20:38 G	24554181.30	24554181.36	24554181.45	0.0499	0.0476

Mercury	62518-02-02 08:53 G	24555322.70	24555322.87	24555323.03	0.0488	0.0143
Venus	62519-01-24 11:31 G	24555678.79	24555678.98	24555679.17	0.0497	0.0181
Mercury	62523-10-10 10:05 G	24557398.80	24557398.92	24557399.03	0.0541	0.0265
Mercury	62524-01-07 20:10 G	24557488.29	24557488.34	24557488.40	0.0539	0.0490
Venus	62524-12-03 08:10 G	24557818.65	24557818.84	24557819.03	0.0527	0.0169
Mercury	62529-11-21 08:53 G	24559632.74	24559632.87	24559633.00	0.0487	0.0318
Mercury	62530-02-19 08:53 G	24559722.79	24559722.87	24559722.96	0.0489	0.0426
Venus	62530-09-29 15:07 G	24559945.00	24559945.13	24559945.27	0.0495	0.0363
Venus	62531-05-23 20:38 G	24560181.21	24560181.36	24560181.52	0.0503	0.0318
Mercury	62535-07-29 12:43 G	24561708.97	24561709.03	24561709.10	0.0541	0.0458
Mercury	62535-10-26 23:31 G	24561798.37	24561798.48	24561798.59	0.0539	0.0306
Venus	62536-08-07 21:50 G	24562084.21	24562084.41	24562084.61	0.0530	0.0064
Mercury	62541-12-08 08:24 G	24564032.71	24564032.85	24564033.01	0.0489	0.0241
Venus	62543-01-26 22:05 G	24564447.22	24564447.42	24564447.62	0.0501	0.0126
Mercury	62547-08-15 02:38 G	24566108.48	24566108.61	24566108.74	0.0539	0.0119
Venus	62548-04-12 11:17 G	24566349.81	24566349.97	24566350.14	0.0532	0.0299
Venus	62548-12-06 07:12 G	24566587.79	24566587.80	24566587.83	0.0523	0.0520
Mercury	62553-09-26 08:10 G	24568342.67	24568342.84	24568343.01	0.0488	0.0056
Earth	62553-11-16 10:48 G	24568393.81	24568393.95	24568394.10	0.0489	0.0376
Moon	62553-11-16 11:17 G	24568393.83	24568393.97	24568394.12	0.0489	0.0370 *
Venus	62554-10-01 23:02 G	24568713.25	24568713.46	24568713.66	0.0498	0.0067
Mercury	62559-06-03 05:02 G	24570418.58	24570418.71	24570418.84	0.0541	0.0083
Venus	62560-08-10 22:48 G	24570853.28	24570853.45	24570853.62	0.0526	0.0298
Mercury	62565-07-15 07:55 G	24572652.67	24572652.83	24572653.00	0.0487	0.0124
Earth	62565-11-20 19:12 G	24572781.07	24572781.30	24572781.53	0.0490	0.0070
Moon	62565-11-20 20:10 G	24572781.09	24572781.34	24572781.58	0.0490	0.0038 *
Venus	62566-06-07 01:26 G	24572979.39	24572979.56	24572979.74	0.0496	0.0252
Venus	62567-01-29 07:26 G	24573215.72	24573215.81	24573215.92	0.0504	0.0432
Mercury	62571-03-22 08:10 G	24574728.73	24574728.84	24574728.96	0.0541	0.0267
Mercury	62571-06-19 18:43 G	24574818.23	24574818.28	24574818.33	0.0539	0.0489

Venus	62572-04-15 15:07 G	24575118.93	24575119.13	24575119.33	0.0529	0.0073
Mercury	62577-05-03 07:26 G	24576962.68	24576962.81	24576962.95	0.0487	0.0307
Mercury	62577-08-01 07:26 G	24577052.74	24577052.81	24577052.89	0.0489	0.0437
Moon	62577-11-25 00:29 G	24577168.32	24577168.52	24577168.72	0.0492	0.0242
Earth	62577-11-25 02:38 G	24577168.41	24577168.61	24577168.82	0.0492	0.0237 *
Venus	62578-02-10 04:05 G	24577245.58	24577245.67	24577245.77	0.0494	0.0433
Venus	62578-10-04 08:24 G	24577481.67	24577481.85	24577482.03	0.0502	0.0238
Mercury	62583-01-08 11:31 G	24579038.91	24579038.98	24579039.06	0.0541	0.0449
Mercury	62583-04-07 22:19 G	24579128.33	24579128.43	24579128.54	0.0539	0.0317
Earth	62583-05-18 12:29 G	24579168.80	24579169.02	24579169.24	0.0538	0.0184
Moon	62583-05-18 15:50 G	24579168.94	24579169.16	24579169.37	0.0538	0.0184 *
Venus	62583-12-20 06:29 G	24579384.58	24579384.77	24579384.97	0.0531	0.0156
Mercury	62589-02-19 07:41 G	24581272.80	24581272.82	24581272.85	0.0487	0.0480
Mercury	62589-05-20 07:12 G	24581362.65	24581362.80	24581362.95	0.0489	0.0253
Venus	62590-06-09 10:34 G	24581747.74	24581747.94	24581748.14	0.0499	0.0049
Mercury	62595-01-25 01:41 G	24583438.44	24583438.57	24583438.70	0.0540	0.0133
Moon	62595-05-23 15:07 G	24583556.91	24583557.13	24583557.36	0.0536	0.0195
Earth	62595-05-23 17:02 G	24583557.00	24583557.21	24583557.42	0.0536	0.0230 *
Venus	62595-08-24 19:26 G	24583650.17	24583650.31	24583650.45	0.0533	0.0391
Venus	62596-04-18 16:48 G	24583888.10	24583888.20	24583888.32	0.0524	0.0434
Mercury	62601-03-09 06:58 G	24585672.62	24585672.79	24585672.96	0.0488	0.0070
Venus	62602-02-13 12:58 G	24586013.85	24586014.04	24586014.24	0.0497	0.0137
Mercury	62606-11-14 04:34 G	24587748.55	24587748.69	24587748.82	0.0540	0.0059
Venus	62607-12-24 08:10 G	24588153.66	24588153.84	24588154.03	0.0527	0.0211
Mercury	62612-12-26 06:43 G	24589982.61	24589982.78	24589982.95	0.0488	0.0110
Venus	62613-10-19 15:22 G	24590279.99	24590280.14	24590280.30	0.0495	0.0322
Venus	62614-06-12 20:24 G	24590516.21	24590516.35	24590516.49	0.0503	0.0355
Mercury	62618-09-02 06:43 G	24592058.66	24592058.78	24592058.89	0.0541	0.0265
Mercury	62618-11-30 17:02 G	24592148.16	24592148.21	24592148.26	0.0539	0.0490
Venus	62619-08-28 21:22 G	24592419.19	24592419.39	24592419.59	0.0530	0.0023

Mercury	62624-10-14 06:43 G	24594292.64	24594292.78	24594292.92	0.0487	0.0286
Mercury	62625-01-12 06:43 G	24594382.72	24594382.78	24594382.84	0.0489	0.0456
Venus	62626-02-15 21:22 G	24594782.20	24594782.39	24594782.58	0.0500	0.0163
Mercury	62630-06-21 09:50 G	24596368.83	24596368.91	24596368.98	0.0542	0.0454
Mercury	62630-09-18 20:38 G	24596458.25	24596458.36	24596458.46	0.0540	0.0314
Venus	62631-05-03 12:14 G	24596684.83	24596685.01	24596685.19	0.0533	0.0255
Mercury	62636-08-02 06:29 G	24598602.72	24598602.77	24598602.81	0.0487	0.0468
Mercury	62636-10-31 05:46 G	24598692.60	24598692.74	24598692.89	0.0488	0.0263
Earth	62636-11-16 19:41 G	24598709.21	24598709.32	24598709.46	0.0489	0.0414
Moon	62636-11-16 20:53 G	24598709.24	24598709.37	24598709.51	0.0489	0.0400 *
Venus	62637-10-21 22:48 G	24599048.25	24599048.45	24599048.65	0.0498	0.0028
Mercury	62642-07-08 00:14 G	24600768.38	24600768.51	24600768.64	0.0540	0.0139
Venus	62643-01-06 02:38 G	24600950.53	24600950.61	24600950.69	0.0535	0.0486
Venus	62643-09-01 01:55 G	24601188.43	24601188.58	24601188.74	0.0526	0.0347
Mercury	62648-08-19 05:31 G	24603002.56	24603002.73	24603002.90	0.0488	0.0081
Moon	62648-11-21 02:10 G	24603096.37	24603096.59	24603096.82	0.0490	0.0077
Earth	62648-11-21 04:34 G	24603096.46	24603096.69	24603096.92	0.0490	0.0106 *
Venus	62649-06-27 01:41 G	24603314.39	24603314.57	24603314.76	0.0496	0.0212
Venus	62650-02-18 08:38 G	24603550.79	24603550.86	24603550.93	0.0505	0.0472
Mercury	62654-04-26 03:22 G	24605078.51	24605078.64	24605078.77	0.0540	0.0047
Venus	62655-05-06 16:48 G	24605454.00	24605454.20	24605454.40	0.0528	0.0121
Mercury	62660-06-07 05:17 G	24607312.55	24607312.72	24607312.89	0.0488	0.0100
Earth	62660-11-25 13:26 G	24607483.85	24607484.06	24607484.27	0.0492	0.0205
Moon	62660-11-25 17:02 G	24607483.99	24607484.21	24607484.43	0.0492	0.0198 *
Venus	62661-03-02 05:02 G	24607580.60	24607580.71	24607580.84	0.0494	0.0392
Venus	62661-10-24 09:50 G	24607816.74	24607816.91	24607817.08	0.0502	0.0281
Mercury	62666-02-12 06:14 G	24609388.64	24609388.76	24609388.88	0.0541	0.0240
Mercury	62666-05-12 16:34 G	24609478.15	24609478.19	24609478.23	0.0539	0.0512
Moon	62666-05-18 12:58 G	24609483.83	24609484.04	24609484.25	0.0538	0.0249
Earth	62666-05-18 15:22 G	24609483.94	24609484.14	24609484.35	0.0538	0.0249 *

Venus	62667-01-09 06:29 G	24609719.57	24609719.77	24609719.97	0.0531	0.0112
Mars	62669-03-15 03:22 G	24610515.38	24610515.64	24610515.90	0.0499	0.0061
Mercury	62672-03-26 05:31 G	24611622.59	24611622.73	24611622.87	0.0487	0.0274
Mercury	62672-06-24 05:17 G	24611712.68	24611712.72	24611712.77	0.0489	0.0470
Moon	62672-11-29 18:14 G	24611871.23	24611871.26	24611871.31	0.0493	0.0485
Venus	62673-06-29 10:34 G	24612082.74	24612082.94	24612083.14	0.0499	0.0087
Mercury	62677-12-01 08:10 G	24613698.77	24613698.84	24613698.91	0.0542	0.0453
Mercury	62678-02-28 18:58 G	24613788.19	24613788.29	24613788.40	0.0540	0.0314
Earth	62678-05-23 15:36 G	24613871.92	24613872.15	24613872.37	0.0537	0.0156
Moon	62678-05-23 15:36 G	24613871.94	24613872.15	24613872.37	0.0537	0.0125 *
Venus	62678-09-13 17:46 G	24613985.09	24613985.24	24613985.39	0.0534	0.0354
Venus	62679-05-09 16:05 G	24614223.08	24614223.17	24614223.25	0.0525	0.0470
Mercury	62684-01-13 05:31 G	24615932.67	24615932.73	24615932.79	0.0487	0.0449
Mercury	62684-04-12 04:48 G	24616022.57	24616022.70	24616022.85	0.0488	0.0284
Venus	62685-03-04 12:29 G	24616348.82	24616349.02	24616349.22	0.0497	0.0100
Mercury	62689-12-17 22:19 G	24618098.30	24618098.43	24618098.56	0.0540	0.0133
Venus	62691-01-12 08:10 G	24618488.66	24618488.84	24618489.02	0.0527	0.0251
Mercury	62696-01-30 04:05 G	24620332.50	24620332.67	24620332.84	0.0488	0.0091
Venus	62696-11-07 14:24 G	24620614.94	24620615.10	24620615.27	0.0495	0.0285
Venus	62697-07-01 19:41 G	24620851.20	24620851.32	24620851.45	0.0503	0.0391
Mercury	62701-10-07 01:55 G	24622408.44	24622408.58	24622408.71	0.0541	0.0046
Venus	62702-09-18 00:14 G	24622754.31	24622754.51	24622754.72	0.0530	0.0027
Mercury	62707-11-19 03:50 G	24624642.49	24624642.66	24624642.83	0.0488	0.0090
Venus	62708-07-14 18:14 G	24624881.19	24624881.26	24624881.33	0.0493	0.0461
Venus	62709-03-07 21:22 G	24625117.20	24625117.39	24625117.58	0.0501	0.0201
Mercury	62713-07-26 05:02 G	24626718.59	24626718.71	24626718.83	0.0541	0.0232
Mercury	62713-10-23 15:22 G	24626808.11	24626808.14	24626808.17	0.0539	0.0521
Venus	62714-05-23 13:55 G	24627019.90	24627020.08	24627020.27	0.0532	0.0206
Mercury	62719-09-07 03:36 G	24628952.52	24628952.65	24628952.80	0.0487	0.0269
Moon	62719-11-18 03:07 G	24629024.54	24629024.63	24629024.74	0.0489	0.0435

Earth	62719-11-18 05:46 G	24629024.65	24629024.74	24629024.83	0.0489	0.0449	*
Mercury	62719-12-06 03:36 G	24629042.62	24629042.65	24629042.70	0.0489	0.0477	
Venus	62720-11-10 23:31 G	24629383.28	24629383.48	24629383.69	0.0499	0.0016	
Mercury	62725-05-14 07:41 G	24631028.74	24631028.82	24631028.90	0.0541	0.0429	
Mercury	62725-08-11 18:29 G	24631118.16	24631118.27	24631118.37	0.0539	0.0336	
Venus	62726-01-26 02:38 G	24631285.49	24631285.61	24631285.72	0.0534	0.0442	
Venus	62726-09-21 01:12 G	24631523.42	24631523.55	24631523.70	0.0525	0.0385	
Mercury	62731-06-26 03:50 G	24633262.60	24633262.66	24633262.74	0.0487	0.0440	
Mercury	62731-09-24 03:22 G	24633352.51	24633352.64	24633352.78	0.0488	0.0294	
Earth	62731-11-22 14:10 G	24633411.87	24633412.09	24633412.32	0.0490	0.0140	
Moon	62731-11-22 17:46 G	24633412.01	24633412.24	24633412.48	0.0490	0.0113	*
Venus	62732-07-17 01:55 G	24633649.39	24633649.58	24633649.77	0.0496	0.0173	
Mercury	62737-05-30 20:38 G	24635428.23	24635428.36	24635428.49	0.0540	0.0132	
Venus	62738-05-26 14:24 G	24635788.90	24635789.10	24635789.29	0.0529	0.0154	
Mercury	62743-07-13 03:07 G	24637662.46	24637662.63	24637662.80	0.0488	0.0109	
Moon	62743-11-26 18:29 G	24637799.04	24637799.27	24637799.49	0.0491	0.0155	
Earth	62743-11-26 22:19 G	24637799.21	24637799.43	24637799.65	0.0491	0.0169	*
Venus	62744-03-22 04:34 G	24637915.56	24637915.69	24637915.84	0.0494	0.0354	
Venus	62744-11-13 08:38 G	24638151.70	24638151.86	24638152.02	0.0502	0.0314	
Mercury	62749-03-18 23:46 G	24639738.36	24639738.49	24639738.62	0.0541	0.0055	
Earth	62749-05-18 13:26 G	24639798.88	24639799.06	24639799.24	0.0539	0.0327	
Moon	62749-05-18 14:24 G	24639798.93	24639799.10	24639799.28	0.0539	0.0332	*
Venus	62750-01-29 05:02 G	24640054.51	24640054.71	24640054.91	0.0531	0.0075	
Mercury	62755-05-01 02:10 G	24641972.42	24641972.59	24641972.76	0.0487	0.0083	
Earth	62755-12-01 04:19 G	24642186.62	24642186.68	24642186.75	0.0492	0.0473	
Moon	62755-12-01 07:55 G	24642186.73	24642186.83	24642186.93	0.0492	0.0442	*
Venus	62756-07-19 08:53 G	24642417.67	24642417.87	24642418.07	0.0499	0.0122	
Mercury	62761-01-05 03:07 G	24644048.51	24644048.63	24644048.75	0.0541	0.0236	
Mercury	62761-04-04 13:41 G	24644138.04	24644138.07	24644138.10	0.0539	0.0521	
Earth	62761-05-23 21:22 G	24644187.16	24644187.39	24644187.62	0.0538	0.0103	

Moon	62761-05-23 23:17 G	24644187.23	24644187.47	24644187.71	0.0538	0.0074 *
Venus	62761-10-03 19:55 G	24644320.17	24644320.33	24644320.50	0.0534	0.0304
Venus	62762-05-29 17:31 G	24644558.20	24644558.23	24644558.28	0.0524	0.0514
Mercury	62767-02-17 02:10 G	24646282.44	24646282.59	24646282.73	0.0487	0.0261
Mercury	62767-05-18 01:55 G	24646372.56	24646372.58	24646372.61	0.0489	0.0483
Venus	62768-03-24 11:17 G	24646683.77	24646683.97	24646684.17	0.0497	0.0064
Mercury	62772-10-24 06:14 G	24648358.68	24648358.76	24648358.84	0.0541	0.0425
Mercury	62773-01-21 17:02 G	24648448.11	24648448.21	24648448.31	0.0539	0.0341
Moon	62773-05-28 22:48 G	24648575.43	24648575.45	24648575.47	0.0536	0.0533
Earth	62773-05-29 02:24 G	24648575.55	24648575.60	24648575.66	0.0536	0.0518
Venus	62774-02-01 09:07 G	24648823.71	24648823.88	24648824.05	0.0527	0.0294
Mercury	62778-12-06 02:10 G	24650592.52	24650592.59	24650592.66	0.0487	0.0437
Mercury	62779-03-06 01:26 G	24650682.43	24650682.56	24650682.70	0.0488	0.0296
Venus	62779-11-28 14:24 G	24650949.93	24650950.10	24650950.28	0.0495	0.0245
Venus	62780-07-21 20:10 G	24651186.24	24651186.34	24651186.44	0.0504	0.0430
Mercury	62784-11-09 19:55 G	24652758.21	24652758.33	24652758.46	0.0540	0.0153
Venus	62785-10-06 23:17 G	24653089.27	24653089.47	24653089.68	0.0529	0.0067
Mercury	62790-12-23 01:26 G	24654992.39	24654992.56	24654992.73	0.0488	0.0116
Venus	62791-08-03 18:00 G	24655216.15	24655216.25	24655216.35	0.0493	0.0423
Venus	62792-03-26 20:53 G	24655452.20	24655452.37	24655452.55	0.0501	0.0237
Mercury	62796-08-28 22:05 G	24657068.29	24657068.42	24657068.55	0.0541	0.0056
Venus	62797-06-11 10:19 G	24657354.74	24657354.93	24657355.12	0.0532	0.0175
Mercury	62802-10-11 01:12 G	24659302.38	24659302.55	24659302.72	0.0487	0.0068
Earth	62802-11-17 14:10 G	24659340.08	24659340.09	24659340.11	0.0488	0.0486
Moon	62802-11-17 18:00 G	24659340.17	24659340.25	24659340.32	0.0488	0.0461
Venus	62803-11-30 22:19 G	24659718.23	24659718.43	24659718.63	0.0498	0.0048
Mercury	62808-06-17 00:58 G	24661378.42	24661378.54	24661378.66	0.0541	0.0248
Mercury	62808-09-14 11:17 G	24661467.94	24661467.97	24661468.02	0.0539	0.0510
Venus	62809-02-13 23:17 G	24661620.35	24661620.47	24661620.61	0.0535	0.0409
Venus	62809-10-09 22:48 G	24661858.34	24661858.45	24661858.58	0.0526	0.0417

Mercury	62814-07-30 00:14 G	24663612.37	24663612.51	24663612.66	0.0487	0.0257
Mercury	62814-10-28 00:00 G	24663702.49	24663702.50	24663702.52	0.0489	0.0486
Moon	62814-11-21 15:36 G	24663726.92	24663727.15	24663727.37	0.0489	0.0167
Earth	62814-11-21 19:12 G	24663727.09	24663727.30	24663727.52	0.0489	0.0190 *
Venus	62815-08-05 23:02 G	24663984.27	24663984.46	24663984.66	0.0496	0.0140
Mercury	62820-04-05 04:19 G	24665688.60	24665688.68	24665688.75	0.0542	0.0433
Mercury	62820-07-03 15:07 G	24665778.03	24665778.13	24665778.23	0.0540	0.0335
Venus	62821-06-14 15:36 G	24666123.96	24666124.15	24666124.34	0.0528	0.0199
Mars	62823-06-10 05:02 G	24666849.52	24666849.71	24666849.90	0.0498	0.0337
Mercury	62826-05-18 00:14 G	24667922.44	24667922.51	24667922.59	0.0487	0.0433
Mercury	62826-08-15 23:31 G	24668012.35	24668012.48	24668012.62	0.0488	0.0299
Earth	62826-11-26 03:07 G	24668114.41	24668114.63	24668114.86	0.0490	0.0120
Moon	62826-11-26 06:29 G	24668114.55	24668114.77	24668115.00	0.0490	0.0104 *
Venus	62827-04-11 02:24 G	24668250.45	24668250.60	24668250.75	0.0494	0.0319
Venus	62827-12-03 06:43 G	24668486.63	24668486.78	24668486.92	0.0502	0.0348
Mercury	62832-04-21 18:29 G	24670088.14	24670088.27	24670088.40	0.0540	0.0154
Earth	62832-05-17 18:00 G	24670114.09	24670114.25	24670114.41	0.0539	0.0387
Moon	62832-05-17 18:58 G	24670114.13	24670114.29	24670114.45	0.0539	0.0399 *
Venus	62833-02-17 05:46 G	24670389.54	24670389.74	24670389.95	0.0531	0.0032
Mercury	62838-06-03 23:17 G	24672322.30	24672322.47	24672322.64	0.0488	0.0114
Moon	62838-11-30 09:22 G	24672501.75	24672501.89	24672502.03	0.0492	0.0399
Earth	62838-11-30 11:46 G	24672501.89	24672501.99	24672502.11	0.0492	0.0432 *
Venus	62839-08-08 08:24 G	24672752.66	24672752.85	24672753.04	0.0500	0.0159
Mercury	62844-02-08 21:22 G	24674398.25	24674398.39	24674398.52	0.0540	0.0039
Moon	62844-05-22 18:43 G	24674502.06	24674502.28	24674502.51	0.0538	0.0006
Earth	62844-05-22 22:05 G	24674502.18	24674502.42	24674502.65	0.0538	0.0033 *
Venus	62844-10-22 18:43 G	24674655.11	24674655.28	24674655.46	0.0533	0.0264
Mercury	62850-03-22 23:17 G	24676632.30	24676632.47	24676632.64	0.0488	0.0064
Venus	62851-04-13 10:34 G	24677018.74	24677018.94	24677019.15	0.0497	0.0030
Mercury	62855-11-27 23:17 G	24678708.35	24678708.47	24678708.59	0.0541	0.0251

Mercury	62856-02-25 09:36 G	24678797.86	24678797.90	24678797.95	0.0539	0.0506
Earth	62856-05-27 20:24 G	24678890.21	24678890.35	24678890.49	0.0537	0.0429
Moon	62856-05-28 00:29 G	24678890.39	24678890.52	24678890.65	0.0537	0.0446 *
Venus	62856-06-27 04:05 G	24678920.61	24678920.67	24678920.73	0.0536	0.0508
Venus	62857-02-20 04:34 G	24679158.53	24679158.69	24679158.86	0.0527	0.0321
Mercury	62862-01-08 23:02 G	24680942.31	24680942.46	24680942.61	0.0487	0.0244
Venus	62862-12-17 12:58 G	24681284.85	24681285.04	24681285.22	0.0495	0.0211
Venus	62863-08-10 18:00 G	24681521.18	24681521.25	24681521.34	0.0503	0.0459
Mercury	62867-09-16 01:55 G	24683018.50	24683018.58	24683018.65	0.0542	0.0447
Mercury	62867-12-14 12:43 G	24683107.93	24683108.03	24683108.14	0.0540	0.0322
Venus	62868-10-25 19:26 G	24683424.11	24683424.31	24683424.51	0.0530	0.0096
Mercury	62873-10-27 22:19 G	24685252.35	24685252.43	24685252.51	0.0487	0.0432
Mercury	62874-01-25 21:36 G	24685342.26	24685342.40	24685342.53	0.0488	0.0299
Venus	62874-08-22 14:10 G	24685550.98	24685551.09	24685551.22	0.0493	0.0392
Venus	62875-04-15 17:17 G	24685787.05	24685787.22	24685787.39	0.0501	0.0266
Mercury	62879-10-02 16:19 G	24687418.05	24687418.18	24687418.31	0.0540	0.0144
Venus	62880-06-30 10:48 G	24687689.75	24687689.95	24687690.14	0.0532	0.0130
Mercury	62885-11-13 21:07 G	24689652.21	24689652.38	24689652.55	0.0488	0.0114
Venus	62886-12-19 18:58 G	24690053.09	24690053.29	24690053.50	0.0498	0.0081
Mercury	62891-07-21 19:26 G	24691728.18	24691728.31	24691728.45	0.0541	0.0043
Venus	62892-03-05 00:14 G	24691955.36	24691955.51	24691955.66	0.0534	0.0361
Venus	62892-10-28 22:48 G	24692193.36	24692193.45	24692193.55	0.0525	0.0456
Mercury	62897-09-01 20:53 G	24693962.20	24693962.37	24693962.54	0.0488	0.0069
Earth	62897-11-21 01:26 G	24694042.36	24694042.56	24694042.77	0.0489	0.0236
Moon	62897-11-21 04:34 G	24694042.49	24694042.69	24694042.91	0.0489	0.0217 *
Venus	62898-08-24 21:36 G	24694319.21	24694319.40	24694319.60	0.0496	0.0105
Mercury	62903-05-10 22:19 G	24696038.31	24696038.43	24696038.55	0.0541	0.0234
Mercury	62903-08-08 08:53 G	24696127.84	24696127.87	24696127.90	0.0539	0.0522
Venus	62904-07-04 13:26 G	24696458.88	24696459.06	24696459.24	0.0528	0.0234
Mercury	62909-06-21 20:53 G	24698272.23	24698272.37	24698272.52	0.0487	0.0243

Moon	62909-11-26 07:55 G	24698429.59	24698429.83	24698430.07	0.0490	0.0060
Earth	62909-11-26 10:19 G	24698429.70	24698429.93	24698430.16	0.0490	0.0078 *
Venus	62910-05-01 01:12 G	24698585.38	24698585.55	24698585.72	0.0494	0.0284
Venus	62910-12-23 05:31 G	24698821.60	24698821.73	24698821.86	0.0502	0.0380
Mars	62912-09-10 18:43 G	24699449.02	24699449.28	24699449.56	0.0528	0.0199
Mercury	62915-02-27 00:00 G	24700348.43	24700348.50	24700348.58	0.0541	0.0450
Moon	62915-05-18 08:24 G	24700428.78	24700428.85	24700428.93	0.0540	0.0505
Earth	62915-05-18 10:48 G	24700428.85	24700428.95	24700429.05	0.0540	0.0484 *
Mercury	62915-05-27 11:02 G	24700437.85	24700437.96	24700438.07	0.0540	0.0319
Venus	62916-03-09 00:43 G	24700724.32	24700724.53	24700724.73	0.0531	0.0011
Mercury	62921-04-09 20:53 G	24702582.29	24702582.37	24702582.46	0.0487	0.0421
Mercury	62921-07-08 20:10 G	24702672.21	24702672.34	24702672.47	0.0488	0.0311
Earth	62921-11-30 18:00 G	24702817.11	24702817.25	24702817.39	0.0491	0.0387
Moon	62921-11-30 18:43 G	24702817.13	24702817.28	24702817.43	0.0491	0.0362 *
Venus	62922-01-04 04:05 G	24702851.61	24702851.67	24702851.74	0.0492	0.0460
Venus	62922-08-28 06:00 G	24703087.57	24703087.75	24703087.95	0.0500	0.0192
Mercury	62927-03-15 13:55 G	24704747.95	24704748.08	24704748.21	0.0540	0.0130
Earth	62927-05-23 14:53 G	24704816.89	24704817.12	24704817.35	0.0539	0.0065
Moon	62927-05-23 18:43 G	24704817.05	24704817.28	24704817.51	0.0539	0.0095 *
Venus	62927-11-12 13:41 G	24704989.89	24704990.07	24704990.26	0.0533	0.0235
Mercury	62933-04-26 18:58 G	24706982.12	24706982.29	24706982.46	0.0488	0.0113
Venus	62934-05-03 06:00 G	24707353.55	24707353.75	24707353.96	0.0497	0.0009
Mercury	62939-01-01 17:17 G	24709058.09	24709058.22	24709058.36	0.0541	0.0054
Moon	62939-05-28 18:00 G	24709205.09	24709205.25	24709205.42	0.0537	0.0374
Earth	62939-05-28 21:50 G	24709205.25	24709205.41	24709205.59	0.0537	0.0361 *
Venus	62939-07-18 03:36 G	24709255.56	24709255.65	24709255.75	0.0536	0.0464
Venus	62940-03-12 04:19 G	24709493.54	24709493.68	24709493.83	0.0527	0.0361
Mars	62941-11-30 17:31 G	24710122.15	24710122.23	24710122.32	0.0500	0.0470
Mercury	62945-02-12 18:43 G	24711292.11	24711292.28	24711292.45	0.0487	0.0070
Venus	62946-01-06 08:38 G	24711619.67	24711619.86	24711620.05	0.0495	0.0181

Venus	62946-08-30 14:24 G	24711856.05	24711856.10	24711856.14	0.0504	0.0488
Mercury	62950-10-20 20:24 G	24713368.23	24713368.35	24713368.47	0.0541	0.0240
Mercury	62951-01-18 06:58 G	24713457.76	24713457.79	24713457.83	0.0539	0.0518
Venus	62951-11-15 19:26 G	24713759.12	24713759.31	24713759.51	0.0529	0.0139
Mercury	62956-12-01 18:29 G	24715602.12	24715602.27	24715602.42	0.0487	0.0250
Venus	62957-09-11 12:00 G	24715885.87	24715886.00	24715886.15	0.0493	0.0358
Venus	62958-05-05 15:36 G	24716121.99	24716122.15	24716122.31	0.0501	0.0300
Mercury	62962-08-08 23:02 G	24717678.39	24717678.46	24717678.54	0.0541	0.0436
Mercury	62962-11-06 10:05 G	24717767.82	24717767.92	24717768.03	0.0540	0.0333
Venus	62963-07-21 08:53 G	24718024.67	24718024.87	24718025.07	0.0532	0.0092
Mercury	62968-09-19 18:43 G	24719912.20	24719912.28	24719912.36	0.0487	0.0423
Mercury	62968-12-18 18:00 G	24720002.11	24720002.25	24720002.38	0.0488	0.0310
Venus	62970-01-08 17:31 G	24720388.04	24720388.23	24720388.43	0.0499	0.0114
Mercury	62974-08-25 12:14 G	24722077.88	24722078.01	24722078.14	0.0540	0.0127
Venus	62975-03-25 18:43 G	24722290.12	24722290.28	24722290.44	0.0534	0.0333
Venus	62975-11-18 17:17 G	24722528.15	24722528.22	24722528.31	0.0525	0.0480
Mercury	62980-10-06 17:31 G	24724312.06	24724312.23	24724312.39	0.0488	0.0123
Moon	62980-11-21 04:48 G	24724357.50	24724357.70	24724357.91	0.0489	0.0264
Earth	62980-11-21 07:12 G	24724357.62	24724357.80	24724358.00	0.0489	0.0284 *
Venus	62981-09-13 19:26 G	24724654.11	24724654.31	24724654.51	0.0496	0.0071
Mercury	62986-06-13 15:07 G	24726387.99	24726388.13	24726388.26	0.0541	0.0069
Venus	62987-07-24 08:10 G	24726793.67	24726793.84	24726794.02	0.0528	0.0261
Mercury	62992-07-25 16:19 G	24728622.01	24728622.18	24728622.35	0.0487	0.0073
Earth	62992-11-25 11:46 G	24728744.75	24728744.99	24728745.22	0.0490	0.0016
Moon	62992-11-25 12:29 G	24728744.80	24728745.02	24728745.25	0.0490	0.0011 *
Venus	62993-05-19 20:10 G	24728920.16	24728920.34	24728920.51	0.0494	0.0255
Venus	62994-01-11 00:14 G	24729156.40	24729156.51	24729156.63	0.0502	0.0406
Mercury	62998-04-01 18:00 G	24730698.14	24730698.25	24730698.37	0.0542	0.0256
Mercury	62998-06-30 04:48 G	24730787.66	24730787.70	24730787.74	0.0540	0.0505
Venus	62999-03-29 00:00 G	24731059.29	24731059.50	24731059.70	0.0531	0.0040

64TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 64th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	63004-05-14 16:19	G	24732932.03	24732932.18	24732932.32	0.0487	0.0252	
Earth	63004-11-30 19:26	G	24733132.14	24733132.31	24733132.49	0.0491	0.0324	
Moon	63004-11-30 20:38	G	24733132.17	24733132.36	24733132.56	0.0491	0.0304	*
Venus	63005-01-23 23:31	G	24733186.38	24733186.48	24733186.57	0.0492	0.0430	
Venus	63005-09-17 01:41	G	24733422.39	24733422.57	24733422.75	0.0500	0.0220	
Mercury	63010-01-19 21:07	G	24735008.31	24735008.38	24735008.46	0.0542	0.0443	
Mercury	63010-04-19 08:10	G	24735097.74	24735097.84	24735097.95	0.0540	0.0328	
Moon	63010-05-23 13:26	G	24735131.85	24735132.06	24735132.29	0.0539	0.0166	
Earth	63010-05-23 17:31	G	24735132.01	24735132.23	24735132.46	0.0539	0.0132	*
Venus	63010-12-02 13:55	G	24735324.89	24735325.08	24735325.27	0.0533	0.0190	
Mercury	63016-03-02 16:05	G	24737242.10	24737242.17	24737242.25	0.0487	0.0430	
Mercury	63016-05-31 15:07	G	24737332.00	24737332.13	24737332.27	0.0488	0.0301	
Venus	63017-05-23 03:50	G	24737688.46	24737688.66	24737688.86	0.0498	0.0035	
Mercury	63022-02-05 11:17	G	24739407.84	24739407.97	24739408.10	0.0540	0.0141	
Earth	63022-05-28 22:05	G	24739520.22	24739520.42	24739520.61	0.0537	0.0288	
Moon	63022-05-29 00:58	G	24739520.36	24739520.54	24739520.73	0.0537	0.0308	*
Venus	63022-08-07 02:24	G	24739590.47	24739590.60	24739590.72	0.0535	0.0423	
Venus	63023-04-02 02:24	G	24739828.46	24739828.60	24739828.73	0.0526	0.0395	
Mercury	63028-03-19 15:07	G	24741641.96	24741642.13	24741642.30	0.0488	0.0120	

Venus	63029-01-26 06:58 G	24741954.60	24741954.79	24741954.98	0.0496	0.0146
Mercury	63033-11-24 13:26 G	24743717.92	24743718.06	24743718.19	0.0540	0.0068
Venus	63034-12-05 13:55 G	24744093.89	24744094.08	24744094.28	0.0529	0.0166
Mercury	63040-01-06 14:53 G	24745951.95	24745952.12	24745952.29	0.0488	0.0064
Venus	63040-10-01 09:36 G	24746220.76	24746220.90	24746221.06	0.0493	0.0325
Venus	63041-05-25 13:12 G	24746456.90	24746457.05	24746457.20	0.0501	0.0331
Mercury	63045-09-12 15:50 G	24748028.05	24748028.16	24748028.28	0.0541	0.0266
Mercury	63045-12-11 02:38 G	24748117.56	24748117.61	24748117.66	0.0539	0.0494
Venus	63046-08-10 03:22 G	24748359.44	24748359.64	24748359.84	0.0532	0.0063
Mercury	63051-10-25 13:55 G	24750261.94	24750262.08	24750262.23	0.0487	0.0255
Mercury	63052-01-23 13:26 G	24750352.05	24750352.06	24750352.08	0.0488	0.0485
Venus	63053-01-28 12:14 G	24750722.81	24750723.01	24750723.20	0.0499	0.0140
Mercury	63057-07-01 18:43 G	24752338.22	24752338.28	24752338.36	0.0542	0.0459
Mercury	63057-09-29 06:00 G	24752427.64	24752427.75	24752427.86	0.0540	0.0314
Venus	63058-04-14 17:31 G	24752625.07	24752625.23	24752625.41	0.0534	0.0291
Venus	63058-12-08 16:34 G	24752863.16	24752863.19	24752863.23	0.0525	0.0517
Mercury	63063-08-13 14:10 G	24754572.01	24754572.09	24754572.16	0.0486	0.0431
Mercury	63063-11-11 12:58 G	24754661.91	24754662.04	24754662.18	0.0488	0.0298
Earth	63063-11-22 09:07 G	24754672.72	24754672.88	24754673.05	0.0488	0.0345
Moon	63063-11-22 10:05 G	24754672.75	24754672.92	24754673.08	0.0488	0.0332 *
Venus	63064-10-03 14:38 G	24754988.90	24754989.11	24754989.31	0.0496	0.0043
Mars	63066-12-06 01:26 G	24755782.30	24755782.56	24755782.83	0.0529	0.0199
Mercury	63069-07-18 09:22 G	24756737.76	24756737.89	24756738.02	0.0541	0.0134
Venus	63069-12-18 06:43 G	24756890.74	24756890.78	24756890.83	0.0536	0.0521
Venus	63070-08-13 08:24 G	24757128.68	24757128.85	24757129.02	0.0528	0.0302
Mercury	63075-08-30 12:29 G	24758971.86	24758972.02	24758972.19	0.0488	0.0113
Earth	63075-11-26 16:19 G	24759059.95	24759060.18	24759060.42	0.0489	0.0038
Moon	63075-11-26 17:31 G	24759059.99	24759060.23	24759060.48	0.0489	0.0062 *
Venus	63076-06-08 17:31 G	24759255.05	24759255.23	24759255.41	0.0495	0.0222
Venus	63077-01-30 22:19 G	24759491.34	24759491.43	24759491.53	0.0503	0.0439

Mercury	63081-05-06 12:29 G	24761047.88	24761048.02	24761048.15	0.0541	0.0057
Venus	63082-04-17 22:34 G	24761394.24	24761394.44	24761394.65	0.0530	0.0079
Mercury	63087-06-18 12:43 G	24763281.86	24763282.03	24763282.20	0.0487	0.0066
Moon	63087-11-30 22:48 G	24763447.26	24763447.45	24763447.64	0.0491	0.0261
Earth	63087-12-01 01:26 G	24763447.38	24763447.56	24763447.76	0.0491	0.0279 *
Venus	63088-02-12 21:22 G	24763521.28	24763521.39	24763521.52	0.0493	0.0396
Venus	63088-10-06 00:14 G	24763757.34	24763757.51	24763757.69	0.0500	0.0254
Mercury	63093-02-22 14:24 G	24765357.99	24765358.10	24765358.22	0.0541	0.0263
Earth	63093-05-22 12:14 G	24765446.80	24765447.01	24765447.22	0.0539	0.0226
Moon	63093-05-22 15:50 G	24765446.96	24765447.16	24765447.36	0.0539	0.0253 *
Mercury	63093-05-23 01:12 G	24765447.50	24765447.55	24765447.60	0.0539	0.0496
Venus	63093-12-21 09:07 G	24765659.69	24765659.88	24765660.08	0.0533	0.0159
Mars	63096-02-25 00:14 G	24766455.26	24766455.51	24766455.76	0.0501	0.0172
Mercury	63099-04-06 12:29 G	24767591.87	24767592.02	24767592.17	0.0487	0.0246
Venus	63100-06-12 01:41 G	24768023.37	24768023.57	24768023.77	0.0498	0.0068
Mercury	63104-12-12 16:48 G	24769668.14	24769668.20	24769668.27	0.0541	0.0464
Mercury	63105-03-12 04:05 G	24769757.56	24769757.67	24769757.78	0.0540	0.0307
Moon	63105-05-28 13:26 G	24769834.85	24769835.06	24769835.29	0.0538	0.0213
Earth	63105-05-28 15:36 G	24769834.93	24769835.15	24769835.37	0.0538	0.0191 *
Venus	63105-08-26 21:07 G	24769925.25	24769925.38	24769925.52	0.0535	0.0392
Venus	63106-04-21 21:22 G	24770163.27	24770163.39	24770163.51	0.0526	0.0422
Mercury	63111-01-24 11:46 G	24771901.92	24771901.99	24771902.07	0.0486	0.0433
Mercury	63111-04-24 10:48 G	24771991.81	24771991.95	24771992.09	0.0488	0.0296
Venus	63112-02-16 01:41 G	24772289.38	24772289.57	24772289.77	0.0495	0.0118
Mercury	63116-12-29 07:12 G	24774067.67	24774067.80	24774067.93	0.0541	0.0122
Venus	63117-12-25 13:12 G	24774428.87	24774429.05	24774429.24	0.0529	0.0207
Mercury	63123-02-10 10:34 G	24776301.77	24776301.94	24776302.11	0.0487	0.0112
Venus	63123-10-22 05:02 G	24776555.55	24776555.71	24776555.88	0.0493	0.0294
Venus	63124-06-14 08:24 G	24776791.71	24776791.85	24776791.99	0.0501	0.0359
Mercury	63128-10-17 10:19 G	24778377.80	24778377.93	24778378.07	0.0541	0.0064

Venus	63129-08-30 04:05 G	24778694.47	24778694.67	24778694.87	0.0532	0.0018
Mercury	63134-11-29 10:05 G	24780611.75	24780611.92	24780612.09	0.0487	0.0072
Venus	63135-06-27 08:38 G	24780821.81	24780821.86	24780821.93	0.0492	0.0467
Venus	63136-02-18 10:05 G	24781057.73	24781057.92	24781058.12	0.0499	0.0175
Mercury	63140-08-05 13:26 G	24782687.94	24782688.06	24782688.18	0.0541	0.0250
Mercury	63140-11-03 00:00 G	24782777.46	24782777.50	24782777.54	0.0539	0.0510
Venus	63141-05-04 17:17 G	24782960.05	24782960.22	24782960.41	0.0534	0.0248
Mercury	63146-09-17 10:19 G	24784921.79	24784921.93	24784922.08	0.0487	0.0246
Earth	63146-11-22 15:07 G	24784988.00	24784988.13	24784988.28	0.0488	0.0392
Moon	63146-11-22 16:34 G	24784988.04	24784988.19	24784988.34	0.0488	0.0387 *
Venus	63147-10-24 13:12 G	24785323.85	24785324.05	24785324.26	0.0497	0.0011
Mercury	63152-05-24 15:36 G	24786998.08	24786998.15	24786998.22	0.0541	0.0459
Mercury	63152-08-22 02:38 G	24787087.50	24787087.61	24787087.72	0.0540	0.0312
Venus	63153-01-07 03:07 G	24787225.56	24787225.63	24787225.72	0.0536	0.0485
Venus	63153-09-02 04:19 G	24787463.53	24787463.68	24787463.84	0.0527	0.0332
Mercury	63158-07-06 10:19 G	24789231.85	24789231.93	24789232.02	0.0487	0.0423
Mercury	63158-10-04 09:22 G	24789321.76	24789321.89	24789322.03	0.0488	0.0307
Moon	63158-11-26 19:55 G	24789375.11	24789375.33	24789375.56	0.0489	0.0116
Earth	63158-11-26 22:48 G	24789375.22	24789375.45	24789375.68	0.0489	0.0084 *
Venus	63159-06-29 15:50 G	24789589.97	24789590.16	24789590.35	0.0495	0.0186
Venus	63160-02-20 20:38 G	24789826.30	24789826.36	24789826.43	0.0503	0.0472
Mercury	63164-06-10 05:31 G	24791397.60	24791397.73	24791397.86	0.0540	0.0121
Venus	63165-05-07 18:14 G	24791729.07	24791729.26	24791729.47	0.0530	0.0111
Mercury	63170-07-23 08:24 G	24793631.68	24793631.85	24793632.02	0.0487	0.0112
Earth	63170-12-01 03:50 G	24793762.45	24793762.66	24793762.87	0.0490	0.0218
Moon	63170-12-01 07:41 G	24793762.60	24793762.82	24793763.04	0.0490	0.0202 *
Venus	63171-03-04 17:17 G	24793856.08	24793856.22	24793856.35	0.0492	0.0364
Venus	63171-10-26 19:26 G	24794092.14	24794092.31	24794092.48	0.0500	0.0281
Mercury	63176-03-29 08:24 G	24795707.71	24795707.85	24795707.98	0.0541	0.0073
Moon	63176-05-22 09:07 G	24795761.69	24795761.88	24795762.06	0.0540	0.0330

Earth	63176-05-22 11:31 G	24795761.80	24795761.98	24795762.18	0.0540	0.0306	*
Venus	63177-01-10 08:24 G	24795994.66	24795994.85	24795995.05	0.0533	0.0117	
Mercury	63182-05-11 08:24 G	24797941.68	24797941.85	24797942.02	0.0487	0.0068	
Venus	63183-07-01 21:22 G	24798358.19	24798358.39	24798358.59	0.0498	0.0098	
Mercury	63188-01-16 11:31 G	24800017.86	24800017.98	24800018.10	0.0542	0.0256	
Mercury	63188-04-14 22:19 G	24800107.39	24800107.43	24800107.47	0.0540	0.0506	
Earth	63188-05-27 19:12 G	24800150.07	24800150.30	24800150.53	0.0539	0.0129	
Moon	63188-05-27 19:26 G	24800150.10	24800150.31	24800150.52	0.0539	0.0158	*
Venus	63188-09-14 22:34 G	24800260.28	24800260.44	24800260.59	0.0535	0.0345	
Venus	63189-05-10 22:34 G	24800498.35	24800498.44	24800498.54	0.0526	0.0465	
Mercury	63194-02-27 08:10 G	24802251.70	24802251.84	24802251.99	0.0487	0.0248	
Venus	63195-03-07 00:00 G	24802624.30	24802624.50	24802624.70	0.0496	0.0083	
Mercury	63199-11-04 14:24 G	24804328.03	24804328.10	24804328.18	0.0542	0.0447	
Mercury	63200-02-02 01:41 G	24804417.46	24804417.57	24804417.67	0.0540	0.0326	
Venus	63201-01-13 13:41 G	24804763.89	24804764.07	24804764.25	0.0529	0.0248	
Mercury	63205-12-16 08:38 G	24806561.77	24806561.86	24806561.94	0.0487	0.0420	
Mercury	63206-03-16 07:26 G	24806651.68	24806651.81	24806651.94	0.0488	0.0309	
Venus	63206-11-10 04:05 G	24806890.50	24806890.67	24806890.84	0.0494	0.0258	
Venus	63207-07-04 07:55 G	24807126.71	24807126.83	24807126.96	0.0502	0.0395	
Mercury	63211-11-21 04:19 G	24808727.55	24808727.68	24808727.81	0.0540	0.0129	
Venus	63212-09-18 01:26 G	24809029.36	24809029.56	24809029.77	0.0531	0.0021	
Mercury	63218-01-02 07:12 G	24810961.63	24810961.80	24810961.96	0.0488	0.0125	
Venus	63218-07-16 07:41 G	24811156.72	24811156.82	24811156.92	0.0492	0.0429	
Venus	63219-03-09 09:07 G	24811392.70	24811392.88	24811393.07	0.0499	0.0211	
Mercury	63223-09-09 06:58 G	24813037.65	24813037.79	24813037.92	0.0541	0.0067	
Venus	63224-05-23 14:10 G	24813294.90	24813295.09	24813295.28	0.0534	0.0212	
Mercury	63229-10-21 06:29 G	24815271.60	24815271.77	24815271.94	0.0487	0.0064	
Moon	63229-11-21 17:02 G	24815303.13	24815303.21	24815303.30	0.0487	0.0449	
Earth	63229-11-21 19:41 G	24815303.24	24815303.32	24815303.42	0.0487	0.0446	*
Venus	63230-11-12 09:22 G	24815658.69	24815658.89	24815659.10	0.0496	0.0026	

Mercury	63235-06-28 09:36 G	24817347.78	24817347.90	24817348.01	0.0542	0.0265
Mercury	63235-09-25 20:24 G	24817437.30	24817437.35	24817437.40	0.0540	0.0500
Venus	63236-01-27 02:38 G	24817560.50	24817560.61	24817560.72	0.0537	0.0443
Venus	63236-09-21 04:19 G	24817798.54	24817798.68	24817798.83	0.0528	0.0374
Mercury	63241-08-09 06:29 G	24819581.63	24819581.77	24819581.92	0.0487	0.0241
Earth	63241-11-26 03:22 G	24819690.42	24819690.64	24819690.87	0.0488	0.0137
Moon	63241-11-26 07:12 G	24819690.58	24819690.80	24819691.03	0.0488	0.0168 *
Venus	63242-07-18 12:14 G	24819924.82	24819925.01	24819925.21	0.0494	0.0155
Venus	63243-03-11 16:48 G	24820161.19	24820161.20	24820161.22	0.0503	0.0501
Mercury	63247-04-16 12:43 G	24821657.95	24821658.03	24821658.10	0.0542	0.0452
Mercury	63247-07-14 23:46 G	24821747.39	24821747.49	24821747.60	0.0540	0.0325
Venus	63248-05-26 20:10 G	24822064.14	24822064.34	24822064.53	0.0530	0.0156
Mars	63250-05-22 01:55 G	24822789.35	24822789.58	24822789.82	0.0500	0.0226
Mercury	63253-05-28 06:29 G	24823891.69	24823891.77	24823891.86	0.0486	0.0418
Mercury	63253-08-26 05:17 G	24823981.59	24823981.72	24823981.86	0.0488	0.0310
Moon	63253-11-30 06:58 G	24824077.57	24824077.79	24824078.01	0.0490	0.0158
Earth	63253-11-30 10:48 G	24824077.74	24824077.95	24824078.18	0.0490	0.0175 *
Venus	63254-03-23 15:50 G	24824191.01	24824191.16	24824191.32	0.0493	0.0329
Venus	63254-11-14 18:29 G	24824427.12	24824427.27	24824427.43	0.0500	0.0317
Mercury	63259-05-03 03:07 G	24826057.50	24826057.63	24826057.76	0.0541	0.0143
Earth	63259-05-22 17:02 G	24826077.04	24826077.21	24826077.39	0.0540	0.0363
Moon	63259-05-22 18:00 G	24826077.10	24826077.25	24826077.41	0.0540	0.0379 *
Venus	63260-01-30 10:19 G	24826329.72	24826329.93	24826330.13	0.0533	0.0070
Mercury	63265-06-14 05:17 G	24828291.56	24828291.72	24828291.89	0.0488	0.0131
Venus	63266-07-20 21:07 G	24828693.19	24828693.38	24828693.58	0.0498	0.0136
Mercury	63271-02-19 05:46 G	24830367.61	24830367.74	24830367.88	0.0541	0.0055
Earth	63271-05-27 19:55 G	24830465.10	24830465.33	24830465.57	0.0538	0.0057
Moon	63271-05-27 21:07 G	24830465.14	24830465.38	24830465.62	0.0538	0.0087 *
Venus	63271-10-04 21:36 G	24830595.23	24830595.40	24830595.57	0.0535	0.0302
Venus	63272-05-29 20:53 G	24830833.31	24830833.37	24830833.43	0.0526	0.0499

Mercury	63277-04-02 05:17 G	24832601.55	24832601.72	24832601.89	0.0487	0.0051
Venus	63278-03-25 23:46 G	24832959.29	24832959.49	24832959.70	0.0496	0.0045
Mercury	63282-12-08 08:24 G	24834677.73	24834677.85	24834677.97	0.0541	0.0253
Mercury	63283-03-07 19:12 G	24834767.26	24834767.30	24834767.34	0.0539	0.0508
Moon	63283-06-01 20:38 G	24834853.28	24834853.36	24834853.45	0.0537	0.0494
Earth	63283-06-01 23:17 G	24834853.37	24834853.47	24834853.58	0.0537	0.0474 *
Venus	63283-06-09 08:53 G	24834860.86	24834860.87	24834860.89	0.0537	0.0534
Venus	63284-02-02 11:17 G	24835098.80	24835098.97	24835099.15	0.0529	0.0284
Mercury	63289-01-19 05:02 G	24836911.56	24836911.71	24836911.86	0.0487	0.0234
Venus	63289-11-29 01:26 G	24837225.38	24837225.56	24837225.74	0.0493	0.0224
Venus	63290-07-23 04:48 G	24837461.59	24837461.70	24837461.81	0.0501	0.0425
Mercury	63294-09-26 10:48 G	24838987.88	24838987.95	24838988.02	0.0542	0.0457
Mercury	63294-12-24 22:05 G	24839077.31	24839077.42	24839077.53	0.0541	0.0320
Venus	63295-10-08 01:41 G	24839364.37	24839364.57	24839364.77	0.0532	0.0061
Mercury	63300-11-08 05:17 G	24841221.63	24841221.72	24841221.81	0.0486	0.0406
Mercury	63301-02-06 04:05 G	24841311.54	24841311.67	24841311.80	0.0488	0.0321
Venus	63301-08-05 05:17 G	24841491.61	24841491.72	24841491.84	0.0492	0.0395
Venus	63302-03-29 06:29 G	24841727.59	24841727.77	24841727.95	0.0499	0.0242
Mercury	63306-10-14 01:26 G	24843387.43	24843387.56	24843387.69	0.0541	0.0141
Venus	63307-06-13 16:05 G	24843629.98	24843630.17	24843630.37	0.0534	0.0165
Earth	63312-11-22 03:50 G	24845618.65	24845618.66	24845618.68	0.0487	0.0485
Mercury	63312-11-25 03:36 G	24845621.49	24845621.65	24845621.82	0.0487	0.0136
Venus	63313-12-02 08:53 G	24845993.67	24845993.87	24845994.07	0.0497	0.0061
Mercury	63318-08-02 04:48 G	24847697.57	24847697.70	24847697.83	0.0541	0.0041
Venus	63319-02-16 05:31 G	24847895.60	24847895.73	24847895.87	0.0536	0.0392
Venus	63319-10-12 06:43 G	24848133.66	24848133.78	24848133.90	0.0527	0.0418
Mercury	63324-09-13 03:50 G	24849931.49	24849931.66	24849931.83	0.0487	0.0043
Moon	63324-11-26 08:24 G	24850005.64	24850005.85	24850006.07	0.0488	0.0208
Earth	63324-11-26 12:29 G	24850005.80	24850006.02	24850006.24	0.0488	0.0175 *
Venus	63325-08-07 12:29 G	24850259.82	24850260.02	24850260.22	0.0495	0.0116

Mercury	63330-05-21 07:26 G	24852007.69	24852007.81	24852007.93	0.0541	0.0239
Mercury	63330-08-18 18:14 G	24852097.23	24852097.26	24852097.29	0.0539	0.0522
Venus	63331-06-16 19:55 G	24852399.14	24852399.33	24852399.52	0.0530	0.0197
Mercury	63336-07-02 03:50 G	24854241.51	24854241.66	24854241.81	0.0487	0.0219
Earth	63336-11-30 20:24 G	24854393.13	24854393.35	24854393.58	0.0490	0.0137
Moon	63336-11-30 23:46 G	24854393.27	24854393.49	24854393.72	0.0490	0.0132 *
Venus	63337-04-12 16:05 G	24854526.01	24854526.17	24854526.34	0.0493	0.0289
Venus	63337-12-04 19:12 G	24854762.16	24854762.30	24854762.44	0.0501	0.0356
Mars	63339-08-20 06:29 G	24855385.69	24855385.77	24855385.85	0.0526	0.0502
Mercury	63342-03-09 09:50 G	24856317.84	24856317.91	24856317.99	0.0542	0.0439
Earth	63342-05-22 17:17 G	24856392.09	24856392.22	24856392.36	0.0540	0.0439
Moon	63342-05-22 17:46 G	24856392.11	24856392.24	24856392.38	0.0540	0.0451 *
Mercury	63342-06-06 21:07 G	24856407.28	24856407.38	24856407.48	0.0540	0.0334
Venus	63343-02-19 09:07 G	24856664.68	24856664.88	24856665.08	0.0532	0.0029
Mercury	63348-04-20 03:50 G	24858551.56	24858551.66	24858551.76	0.0486	0.0396
Mercury	63348-07-19 02:38 G	24858641.48	24858641.61	24858641.73	0.0488	0.0331
Moon	63348-12-05 00:58 G	24858780.49	24858780.54	24858780.61	0.0490	0.0474
Earth	63348-12-05 03:07 G	24858780.54	24858780.63	24858780.73	0.0490	0.0447 *
Venus	63348-12-16 19:12 G	24858792.23	24858792.30	24858792.37	0.0491	0.0460
Venus	63349-08-09 19:12 G	24859028.11	24859028.30	24859028.49	0.0498	0.0169
Mercury	63354-03-25 23:46 G	24860717.36	24860717.49	24860717.62	0.0541	0.0139
Moon	63354-05-27 18:29 G	24860780.04	24860780.27	24860780.49	0.0540	0.0015
Earth	63354-05-27 20:38 G	24860780.13	24860780.36	24860780.59	0.0540	0.0017 *
Venus	63354-10-24 21:22 G	24860930.22	24860930.39	24860930.57	0.0535	0.0261
Mercury	63360-05-07 02:24 G	24862951.44	24862951.60	24862951.77	0.0487	0.0150
Venus	63361-04-14 22:05 G	24863294.22	24863294.42	24863294.62	0.0496	0.0010
Mercury	63366-01-12 03:07 G	24865027.49	24865027.63	24865027.76	0.0542	0.0044
Earth	63366-06-02 04:05 G	24865168.53	24865168.67	24865168.82	0.0538	0.0420
Moon	63366-06-02 07:41 G	24865168.69	24865168.82	24865168.97	0.0538	0.0430 *
Venus	63366-06-29 10:48 G	24865195.87	24865195.95	24865196.03	0.0537	0.0488

Venus	63367-02-22 13:41 G	24865433.92	24865434.07	24865434.23	0.0529	0.0329
Mercury	63372-02-24 02:10 G	24867261.42	24867261.59	24867261.76	0.0487	0.0033
Venus	63372-12-19 01:12 G	24867560.36	24867560.55	24867560.74	0.0494	0.0186
Venus	63373-08-12 05:02 G	24867796.63	24867796.71	24867796.78	0.0502	0.0461
Mercury	63377-10-31 06:14 G	24869337.64	24869337.76	24869337.89	0.0542	0.0227
Mercury	63378-01-28 17:02 G	24869427.21	24869427.21	24869427.23	0.0540	0.0537
Venus	63378-10-28 05:02 G	24869699.51	24869699.71	24869699.91	0.0531	0.0110
Mercury	63383-12-13 02:24 G	24871571.45	24871571.60	24871571.76	0.0487	0.0207
Venus	63384-08-24 05:31 G	24871826.60	24871826.73	24871826.88	0.0492	0.0357
Venus	63385-04-17 07:26 G	24872062.64	24872062.81	24872062.98	0.0500	0.0281
Mercury	63389-08-19 08:53 G	24873647.79	24873647.87	24873647.96	0.0542	0.0424
Mercury	63389-11-16 20:10 G	24873737.24	24873737.34	24873737.44	0.0540	0.0350
Venus	63390-07-02 17:17 G	24873965.02	24873965.22	24873965.42	0.0533	0.0118
Mercury	63395-10-01 02:38 G	24875881.51	24875881.61	24875881.72	0.0486	0.0382
Mercury	63395-12-30 01:26 G	24875971.44	24875971.56	24875971.68	0.0488	0.0347
Venus	63396-12-21 09:50 G	24876328.72	24876328.91	24876329.11	0.0497	0.0102
Mercury	63401-09-05 23:02 G	24878047.33	24878047.46	24878047.59	0.0541	0.0159
Venus	63402-03-08 05:31 G	24878230.57	24878230.73	24878230.88	0.0536	0.0348
Venus	63402-11-01 06:14 G	24878468.66	24878468.76	24878468.86	0.0527	0.0456
Mercury	63407-10-19 01:12 G	24880281.39	24880281.55	24880281.71	0.0487	0.0163
Earth	63407-11-27 21:36 G	24880321.18	24880321.40	24880321.61	0.0488	0.0212
Moon	63407-11-28 00:43 G	24880321.33	24880321.53	24880321.73	0.0488	0.0242 *
Venus	63408-08-27 11:46 G	24880594.79	24880594.99	24880595.19	0.0495	0.0079
Mercury	63413-06-25 01:26 G	24882357.42	24882357.56	24882357.69	0.0542	0.0043
Venus	63414-07-06 20:10 G	24882734.16	24882734.34	24882734.52	0.0530	0.0237
Mercury	63419-08-07 01:12 G	24884591.38	24884591.55	24884591.72	0.0487	0.0016
Moon	63419-12-02 03:22 G	24884708.41	24884708.64	24884708.89	0.0489	0.0102
Earth	63419-12-02 05:31 G	24884708.50	24884708.73	24884708.96	0.0489	0.0100 *
Venus	63420-05-02 15:22 G	24884860.97	24884861.14	24884861.32	0.0493	0.0252
Venus	63420-12-24 17:46 G	24885097.11	24885097.24	24885097.37	0.0500	0.0388

Mercury	63425-04-13 04:34 G	24886667.57	24886667.69	24886667.81	0.0542	0.0229
Moon	63425-05-22 19:12 G	24886707.24	24886707.30	24886707.36	0.0541	0.0516
Earth	63425-05-22 20:53 G	24886707.28	24886707.37	24886707.45	0.0541	0.0502 *
Mercury	63425-07-11 15:22 G	24886757.14	24886757.14	24886757.16	0.0540	0.0538
Venus	63426-03-11 11:17 G	24886999.76	24886999.97	24887000.17	0.0533	0.0018
Mercury	63431-05-26 00:58 G	24888901.39	24888901.54	24888901.70	0.0486	0.0197
Earth	63431-12-06 12:43 G	24889095.90	24889096.03	24889096.15	0.0490	0.0411
Moon	63431-12-06 12:43 G	24889095.95	24889096.03	24889096.14	0.0490	0.0444 *
Venus	63432-01-06 19:12 G	24889127.20	24889127.30	24889127.40	0.0491	0.0422
Venus	63432-08-29 19:27 G	24889363.13	24889363.31	24889363.50	0.0498	0.0207
Mercury	63437-01-30 07:41 G	24890977.74	24890977.82	24890977.91	0.0542	0.0414
Mercury	63437-04-29 19:12 G	24891067.20	24891067.30	24891067.40	0.0541	0.0362
Earth	63437-05-28 05:17 G	24891095.49	24891095.72	24891095.95	0.0540	0.0061
Moon	63437-05-28 08:39 G	24891095.63	24891095.86	24891096.10	0.0540	0.0027 *
Venus	63437-11-14 01:27 G	24891265.37	24891265.56	24891265.75	0.0535	0.0208
Mercury	63443-03-14 01:27 G	24893211.45	24893211.56	24893211.67	0.0486	0.0368
Mercury	63443-06-12 00:15 G	24893301.39	24893301.51	24893301.62	0.0488	0.0360
Venus	63444-05-04 23:03 G	24893629.25	24893629.46	24893629.66	0.0496	0.0031
Mercury	63449-02-15 22:05 G	24895377.30	24895377.42	24895377.55	0.0541	0.0175
Moon	63449-06-02 06:29 G	24895483.60	24895483.77	24895483.94	0.0538	0.0367
Earth	63449-06-02 10:05 G	24895483.76	24895483.92	24895484.10	0.0538	0.0366 *
Venus	63449-07-19 13:12 G	24895530.93	24895531.05	24895531.17	0.0537	0.0437
Venus	63450-03-14 15:07 G	24895768.99	24895769.13	24895769.28	0.0528	0.0372
Mercury	63455-03-31 00:00 G	24897611.34	24897611.50	24897611.66	0.0487	0.0178
Venus	63456-01-09 02:24 G	24897895.41	24897895.60	24897895.80	0.0494	0.0145
Venus	63456-09-01 06:43 G	24898131.77	24898131.78	24898131.78	0.0502	0.0502
Mercury	63460-12-05 00:58 G	24899687.40	24899687.54	24899687.67	0.0541	0.0020
Venus	63461-11-17 05:03 G	24900034.52	24900034.71	24900034.91	0.0531	0.0152
Mercury	63467-01-17 00:00 G	24901921.33	24901921.50	24901921.67	0.0487	0.0003
Venus	63467-09-14 05:46 G	24902161.58	24902161.74	24902161.89	0.0492	0.0318

Venus	63468-05-07 06:58 G	24902397.64	24902397.79	24902397.95	0.0499	0.0316
Mercury	63472-09-23 03:07 G	24903997.50	24903997.63	24903997.75	0.0542	0.0227
Mercury	63472-12-21 13:55 G	24904087.08	24904087.08	24904087.09	0.0540	0.0539
Venus	63473-07-22 17:03 G	24904300.01	24904300.21	24904300.41	0.0534	0.0078
Mercury	63478-11-05 00:15 G	24906231.35	24906231.51	24906231.67	0.0486	0.0176
Venus	63479-05-20 10:05 G	24906427.90	24906427.92	24906427.95	0.0490	0.0484
Venus	63480-01-11 09:22 G	24906663.69	24906663.89	24906664.08	0.0497	0.0137
Mercury	63484-07-12 06:00 G	24908307.66	24908307.75	24908307.83	0.0543	0.0417
Mercury	63484-10-09 17:17 G	24908397.13	24908397.22	24908397.32	0.0541	0.0362
Venus	63485-03-27 06:43 G	24908565.61	24908565.78	24908565.95	0.0536	0.0304
Venus	63485-11-20 08:10 G	24908803.78	24908803.84	24908803.91	0.0527	0.0497
Mercury	63490-08-24 00:00 G	24910541.39	24910541.50	24910541.62	0.0486	0.0356
Mercury	63490-11-21 22:48 G	24910631.34	24910631.45	24910631.56	0.0487	0.0371
Moon	63490-11-27 05:31 G	24910636.53	24910636.73	24910636.93	0.0487	0.0274
Earth	63490-11-27 07:12 G	24910636.60	24910636.80	24910637.01	0.0487	0.0248 *
Venus	63491-09-16 11:46 G	24910929.79	24910929.99	24910930.20	0.0495	0.0042
Mars	63493-11-14 10:48 G	24911719.67	24911719.95	24911720.24	0.0527	0.0011
Mercury	63496-07-28 20:53 G	24912707.25	24912707.37	24912707.50	0.0541	0.0184
Venus	63496-11-29 19:55 G	24912831.31	24912831.33	24912831.37	0.0538	0.0529
Venus	63497-07-26 00:00 G	24913069.33	24913069.50	24913069.67	0.0530	0.0286
Mercury	63502-09-10 22:48 G	24914941.29	24914941.45	24914941.61	0.0487	0.0191
Earth	63502-12-02 15:22 G	24915023.91	24915024.14	24915024.38	0.0489	0.0065
Moon	63502-12-02 15:36 G	24915023.92	24915024.15	24915024.37	0.0489	0.0076 *
Venus	63503-05-23 15:51 G	24915195.98	24915196.16	24915196.35	0.0493	0.0214
Venus	63504-01-14 18:43 G	24915432.18	24915432.28	24915432.39	0.0501	0.0427
Mercury	63508-05-18 00:00 G	24917017.36	24917017.50	24917017.63	0.0541	0.0014
Venus	63509-03-31 13:27 G	24917334.86	24917335.06	24917335.26	0.0532	0.0064
Mercury	63514-06-29 22:48 G	24919251.28	24919251.45	24919251.62	0.0487	0.0012
Earth	63514-12-06 23:46 G	24919411.35	24919411.49	24919411.64	0.0490	0.0380
Moon	63514-12-07 00:58 G	24919411.42	24919411.54	24919411.68	0.0490	0.0411 *

Venus	63515-01-26 20:10 G	24919462.21	24919462.34	24919462.47	0.0491	0.0381
Venus	63515-09-19 21:07 G	24919698.21	24919698.38	24919698.56	0.0499	0.0248
Mercury	63520-03-06 02:39 G	24921327.48	24921327.61	24921327.73	0.0542	0.0201
Moon	63520-05-28 04:48 G	24921410.48	24921410.70	24921410.93	0.0540	0.0092
Earth	63520-05-28 08:39 G	24921410.64	24921410.86	24921411.09	0.0540	0.0125 *
Venus	63520-12-04 01:55 G	24921600.39	24921600.58	24921600.78	0.0534	0.0164
Mars	63523-02-08 06:29 G	24922396.52	24922396.77	24922397.03	0.0502	0.0108
Mercury	63526-04-17 23:03 G	24923561.30	24923561.46	24923561.62	0.0486	0.0163
Venus	63527-05-25 23:03 G	24923964.26	24923964.46	24923964.67	0.0496	0.0067
Mercury	63531-12-24 04:19 G	24925637.60	24925637.68	24925637.77	0.0543	0.0415
Mercury	63532-03-22 15:51 G	24925727.06	24925727.16	24925727.26	0.0541	0.0363
Earth	63532-06-02 09:36 G	24925798.71	24925798.90	24925799.09	0.0539	0.0293
Moon	63532-06-02 12:43 G	24925798.84	24925799.03	24925799.22	0.0539	0.0293 *
Venus	63532-08-08 12:00 G	24925865.86	24925866.00	24925866.13	0.0537	0.0400
Venus	63533-04-03 14:53 G	24926103.99	24926104.12	24926104.25	0.0529	0.0409
Mercury	63538-02-03 23:17 G	24927871.35	24927871.47	24927871.60	0.0486	0.0335
Mercury	63538-05-04 21:51 G	24927961.32	24927961.41	24927961.52	0.0487	0.0393
Venus	63539-01-29 02:10 G	24928230.40	24928230.59	24928230.79	0.0494	0.0108
Mercury	63544-01-09 19:12 G	24930037.17	24930037.30	24930037.42	0.0542	0.0182
Venus	63544-12-07 06:00 G	24930369.56	24930369.75	24930369.94	0.0531	0.0193
Mercury	63550-02-20 21:22 G	24932271.24	24932271.39	24932271.55	0.0487	0.0203
Venus	63550-10-04 05:17 G	24932496.56	24932496.72	24932496.89	0.0492	0.0281
Venus	63551-05-28 06:58 G	24932732.65	24932732.79	24932732.93	0.0499	0.0352
Mercury	63555-10-28 22:34 G	24934347.30	24934347.44	24934347.57	0.0542	0.0004
Venus	63556-08-11 20:53 G	24934635.16	24934635.37	24934635.57	0.0534	0.0029
Mercury	63561-12-09 21:36 G	24936581.23	24936581.40	24936581.57	0.0487	0.0027
Venus	63562-06-09 10:05 G	24936762.84	24936762.92	24936763.00	0.0490	0.0446
Venus	63563-01-31 09:36 G	24936998.71	24936998.90	24936999.09	0.0497	0.0175
Mercury	63567-08-17 01:27 G	24938657.44	24938657.56	24938657.69	0.0542	0.0188
Venus	63568-04-16 09:22 G	24938900.72	24938900.89	24938901.08	0.0535	0.0254

Mercury	63573-09-27 21:36 G	24940891.24	24940891.40	24940891.56	0.0487	0.0152
Earth	63573-11-27 18:00 G	24940952.06	24940952.25	24940952.45	0.0488	0.0281
Moon	63573-11-27 17:46 G	24940952.07	24940952.24	24940952.42	0.0488	0.0305 *
Venus	63574-10-06 12:58 G	24941264.84	24941265.04	24941265.25	0.0495	0.0009
Mercury	63579-06-05 04:05 G	24942967.58	24942967.67	24942967.76	0.0542	0.0387
Mercury	63579-09-02 15:22 G	24943057.05	24943057.14	24943057.23	0.0540	0.0388
Venus	63579-12-20 20:53 G	24943166.28	24943166.37	24943166.46	0.0538	0.0483
Venus	63580-08-15 00:15 G	24943404.35	24943404.51	24943404.67	0.0529	0.0326
Mercury	63585-07-16 22:05 G	24945201.30	24945201.42	24945201.55	0.0486	0.0323
Mercury	63585-10-14 20:39 G	24945291.27	24945291.36	24945291.46	0.0487	0.0405
Earth	63585-12-02 02:10 G	24945339.35	24945339.59	24945339.82	0.0488	0.0034
Moon	63585-12-02 03:36 G	24945339.41	24945339.65	24945339.89	0.0488	0.0050 *
Venus	63586-06-11 16:19 G	24945530.99	24945531.18	24945531.37	0.0493	0.0175
Venus	63587-02-02 18:58 G	24945767.21	24945767.29	24945767.37	0.0501	0.0461
Mercury	63591-06-21 17:31 G	24947367.11	24947367.23	24947367.36	0.0541	0.0183
Venus	63592-04-19 12:00 G	24947669.80	24947670.00	24947670.20	0.0532	0.0100
Mercury	63597-08-02 20:39 G	24949601.21	24949601.36	24949601.51	0.0487	0.0223
Moon	63597-12-06 07:27 G	24949726.67	24949726.81	24949726.96	0.0489	0.0378
Earth	63597-12-06 10:05 G	24949726.75	24949726.92	24949727.08	0.0489	0.0348 *
Venus	63598-02-14 20:10 G	24949797.20	24949797.34	24949797.49	0.0491	0.0344
Venus	63598-10-08 20:39 G	24950033.20	24950033.36	24950033.53	0.0498	0.0282
Mercury	63603-04-09 20:39 G	24951677.22	24951677.36	24951677.49	0.0542	0.0013
Earth	63603-05-28 08:10 G	24951725.63	24951725.84	24951726.06	0.0541	0.0199
Moon	63603-05-28 11:46 G	24951725.77	24951725.99	24951726.21	0.0541	0.0162 *
Venus	63603-12-24 01:27 G	24951935.36	24951935.56	24951935.76	0.0535	0.0125
Mercury	63609-05-21 20:10 G	24953911.17	24953911.34	24953911.51	0.0486	0.0036
Venus	63610-06-13 22:19 G	24954299.23	24954299.43	24954299.63	0.0496	0.0102
Mercury	63615-01-26 23:46 G	24955987.37	24955987.49	24955987.62	0.0542	0.0188
Moon	63615-06-02 14:53 G	24956113.91	24956114.12	24956114.34	0.0540	0.0240
Earth	63615-06-02 17:17 G	24956114.01	24956114.22	24956114.42	0.0540	0.0245 *

Venus	63615-08-28 15:22 G	24956200.98	24956201.14	24956201.29	0.0537	0.0348
Venus	63616-04-22 18:00 G	24956439.15	24956439.25	24956439.35	0.0528	0.0454
Mercury	63621-03-09 20:10 G	24958221.18	24958221.34	24958221.51	0.0486	0.0141
Venus	63622-02-17 01:55 G	24958565.37	24958565.58	24958565.78	0.0494	0.0072
Mercury	63626-11-15 02:39 G	24960297.52	24960297.61	24960297.71	0.0542	0.0379
Mercury	63627-02-12 14:10 G	24960387.00	24960387.09	24960387.18	0.0541	0.0397
Venus	63627-12-27 07:55 G	24960704.65	24960704.83	24960705.02	0.0531	0.0239
Mercury	63632-12-26 20:24 G	24962531.23	24962531.35	24962531.48	0.0486	0.0316
Mercury	63633-03-26 19:12 G	24962621.21	24962621.30	24962621.39	0.0488	0.0413
Venus	63633-10-23 06:00 G	24962831.57	24962831.75	24962831.93	0.0492	0.0242
Venus	63634-06-16 07:55 G	24963067.71	24963067.83	24963067.96	0.0500	0.0391
Mercury	63638-12-01 17:03 G	24964697.09	24964697.21	24964697.33	0.0541	0.0207
Venus	63639-08-31 20:53 G	24964970.17	24964970.37	24964970.57	0.0533	0.0015
Mercury	63644-10-14 21:07 G	24966841.37	24966841.38	24966841.39	0.0486	0.0483
Mercury	63645-01-12 19:12 G	24966931.15	24966931.30	24966931.45	0.0487	0.0234
Venus	63645-06-28 10:19 G	24967097.82	24967097.93	24967098.04	0.0490	0.0409
Venus	63646-02-19 09:51 G	24967333.73	24967333.91	24967334.10	0.0497	0.0211
Mercury	63650-09-19 18:58 G	24969007.16	24969007.29	24969007.42	0.0542	0.0004
Venus	63651-05-06 06:43 G	24969235.59	24969235.78	24969235.97	0.0536	0.0221
Mercury	63656-10-31 19:12 G	24971241.13	24971241.30	24971241.47	0.0486	0.0054
Earth	63656-11-27 04:19 G	24971267.50	24971267.68	24971267.86	0.0487	0.0313
Moon	63656-11-27 06:00 G	24971267.57	24971267.75	24971267.93	0.0487	0.0332 *
Venus	63657-10-25 12:43 G	24971599.82	24971600.03	24971600.23	0.0495	0.0036
Mercury	63662-07-08 21:51 G	24973317.28	24973317.41	24973317.53	0.0542	0.0196
Venus	63663-01-08 18:43 G	24973501.17	24973501.28	24973501.40	0.0538	0.0448
Venus	63663-09-03 22:48 G	24973739.31	24973739.45	24973739.61	0.0530	0.0361
Mercury	63668-08-19 18:43 G	24975551.12	24975551.28	24975551.44	0.0486	0.0132
Moon	63668-12-01 06:43 G	24975654.55	24975654.78	24975655.01	0.0488	0.0010
Earth	63668-12-01 09:22 G	24975654.66	24975654.89	24975655.13	0.0488	0.0011 *
Venus	63669-06-30 14:39 G	24975865.92	24975866.11	24975866.31	0.0493	0.0141

Venus	63670-02-21 17:17 G	24976102.20	24976102.22	24976102.26	0.0501	0.0493
Mercury	63674-04-27 00:58 G	24977627.44	24977627.54	24977627.63	0.0543	0.0382
Mercury	63674-07-25 12:29 G	24977716.93	24977717.02	24977717.11	0.0541	0.0396
Venus	63675-05-09 14:24 G	24978004.90	24978005.10	24978005.30	0.0532	0.0146
Mars	63677-05-04 15:07 G	24978730.94	24978731.13	24978731.33	0.0502	0.0339
Mercury	63680-06-07 18:58 G	24979861.16	24979861.29	24979861.42	0.0486	0.0306
Mercury	63680-09-05 17:31 G	24979951.15	24979951.23	24979951.32	0.0487	0.0421
Earth	63680-12-05 17:03 G	24980042.03	24980042.21	24980042.40	0.0489	0.0304
Moon	63680-12-05 20:39 G	24980042.19	24980042.36	24980042.54	0.0489	0.0329 *
Venus	63681-03-05 18:58 G	24980132.13	24980132.29	24980132.45	0.0491	0.0309
Venus	63681-10-27 19:41 G	24980368.17	24980368.32	24980368.48	0.0499	0.0316
Mercury	63686-05-13 15:36 G	24982027.03	24982027.15	24982027.28	0.0541	0.0213
Moon	63686-05-27 11:46 G	24982040.77	24982040.99	24982041.21	0.0541	0.0219
Earth	63686-05-27 14:24 G	24982040.90	24982041.10	24982041.31	0.0541	0.0255 *
Venus	63687-01-12 03:36 G	24982270.45	24982270.65	24982270.85	0.0534	0.0078
Mercury	63692-03-26 19:12 G	24984171.28	24984171.30	24984171.33	0.0486	0.0480
Mercury	63692-06-24 17:17 G	24984261.07	24984261.22	24984261.37	0.0487	0.0238
Venus	63692-11-08 23:31 G	24984398.44	24984398.48	24984398.53	0.0490	0.0473
Venus	63693-07-02 22:34 G	24984634.24	24984634.44	24984634.63	0.0496	0.0140
Mercury	63698-03-01 18:29 G	24986337.13	24986337.27	24986337.40	0.0542	0.0021
Earth	63698-06-01 19:12 G	24986429.08	24986429.30	24986429.52	0.0539	0.0177
Moon	63698-06-01 19:55 G	24986429.12	24986429.33	24986429.54	0.0539	0.0171 *
Venus	63698-09-16 15:22 G	24986535.97	24986536.14	24986536.30	0.0536	0.0306
Venus	63699-05-12 17:03 G	24986774.15	24986774.21	24986774.29	0.0528	0.0490
Mercury	63704-04-13 17:31 G	24988571.06	24988571.23	24988571.40	0.0487	0.0063
Venus	63705-03-09 01:55 G	24988900.37	24988900.58	24988900.78	0.0494	0.0036
Mercury	63709-12-19 20:10 G	24990647.21	24990647.34	24990647.47	0.0542	0.0196
Venus	63711-01-16 04:34 G	24991039.51	24991039.69	24991039.87	0.0531	0.0268
Mercury	63716-01-31 17:46 G	24992881.07	24992881.24	24992881.40	0.0486	0.0116
Venus	63716-11-12 05:17 G	24993166.54	24993166.72	24993166.91	0.0492	0.0206

Venus	63717-07-06 06:58 G	24993402.68	24993402.79	24993402.89	0.0499	0.0422
Mercury	63721-10-07 22:48 G	24994957.36	24994957.45	24994957.54	0.0543	0.0393
Mercury	63722-01-05 10:19 G	24995046.84	24995046.93	24995047.02	0.0541	0.0386
Venus	63722-09-20 18:00 G	24995305.05	24995305.25	24995305.46	0.0534	0.0048
Mercury	63727-11-19 17:17 G	24997191.09	24997191.22	24997191.35	0.0486	0.0301
Mercury	63728-02-17 15:36 G	24997281.08	24997281.15	24997281.24	0.0487	0.0426
Venus	63728-07-18 07:55 G	24997432.70	24997432.83	24997432.96	0.0490	0.0375
Venus	63729-03-11 07:12 G	24997668.63	24997668.80	24997668.99	0.0497	0.0243
Mercury	63733-10-24 13:41 G	24999356.95	24999357.07	24999357.19	0.0542	0.0207
Venus	63734-05-26 08:24 G	24999570.66	24999570.85	24999571.04	0.0536	0.0174
Mercury	63739-09-07 17:31 G	25001501.20	25001501.23	25001501.27	0.0485	0.0473
Moon	63739-11-28 07:12 G	25001582.66	25001582.80	25001582.94	0.0487	0.0382
Earth	63739-11-28 09:51 G	25001582.76	25001582.91	25001583.07	0.0487	0.0363 *
Mercury	63739-12-06 15:36 G	25001591.00	25001591.15	25001591.30	0.0487	0.0243
Venus	63740-11-14 10:34 G	25001934.74	25001934.94	25001935.14	0.0495	0.0068
Mercury	63745-08-12 16:48 G	25003667.07	25003667.20	25003667.34	0.0542	0.0022
Venus	63746-01-28 20:39 G	25003836.23	25003836.36	25003836.50	0.0538	0.0400
Venus	63746-09-24 00:00 G	25004074.37	25004074.50	25004074.63	0.0529	0.0401
Mercury	63751-09-24 15:22 G	25005900.97	25005901.14	25005901.31	0.0487	0.0063
Earth	63751-12-02 17:03 G	25005969.98	25005970.21	25005970.44	0.0488	0.0052
Moon	63751-12-02 20:39 G	25005970.12	25005970.36	25005970.60	0.0488	0.0027 *
Venus	63752-07-20 13:55 G	25006200.89	25006201.08	25006201.28	0.0493	0.0105
Mercury	63757-05-31 19:27 G	25007977.18	25007977.31	25007977.44	0.0542	0.0175
Venus	63758-05-29 13:27 G	25008339.87	25008340.06	25008340.25	0.0532	0.0184
Mercury	63763-07-13 15:51 G	25010210.99	25010211.16	25010211.33	0.0486	0.0111
Moon	63763-12-06 21:51 G	25010357.22	25010357.41	25010357.61	0.0489	0.0287
Earth	63763-12-07 01:41 G	25010357.37	25010357.57	25010357.77	0.0489	0.0266 *
Venus	63764-03-25 18:29 G	25010467.10	25010467.27	25010467.44	0.0491	0.0274
Venus	63764-11-16 19:12 G	25010703.16	25010703.30	25010703.45	0.0499	0.0349
Mercury	63769-03-19 21:07 G	25012287.29	25012287.38	25012287.47	0.0542	0.0394

Earth	63769-05-27 08:24 G	25012355.68	25012355.85	25012356.03	0.0541	0.0351
Moon	63769-05-27 10:05 G	25012355.74	25012355.92	25012356.10	0.0541	0.0318 *
Mercury	63769-06-17 08:39 G	25012376.76	25012376.86	25012376.95	0.0541	0.0385
Venus	63770-01-31 23:03 G	25012605.26	25012605.46	25012605.66	0.0534	0.0049
Mercury	63775-05-01 15:51 G	25014521.03	25014521.16	25014521.30	0.0486	0.0288
Mercury	63775-07-30 14:24 G	25014611.04	25014611.10	25014611.18	0.0487	0.0441
Venus	63775-11-29 22:34 G	25014733.35	25014733.44	25014733.53	0.0490	0.0438
Venus	63776-07-22 21:07 G	25014969.19	25014969.38	25014969.57	0.0496	0.0173
Mercury	63781-04-05 11:31 G	25016686.85	25016686.98	25016687.10	0.0541	0.0195
Earth	63781-06-01 13:27 G	25016743.83	25016744.06	25016744.29	0.0540	0.0084
Moon	63781-06-01 14:24 G	25016743.86	25016744.10	25016744.34	0.0540	0.0072 *
Venus	63781-10-06 11:03 G	25016870.79	25016870.96	25016871.14	0.0537	0.0275
Venus	63782-06-01 13:27 G	25017109.03	25017109.06	25017109.11	0.0528	0.0517
Mercury	63787-02-17 15:36 G	25018831.12	25018831.15	25018831.20	0.0485	0.0471
Mercury	63787-05-18 13:41 G	25018920.92	25018921.07	25018921.22	0.0487	0.0246
Venus	63788-03-27 22:19 G	25019235.23	25019235.43	25019235.64	0.0494	0.0012
Mercury	63793-01-22 14:39 G	25020996.98	25020997.11	25020997.25	0.0542	0.0013
Moon	63793-06-06 18:15 G	25021132.17	25021132.26	25021132.35	0.0539	0.0495
Earth	63793-06-06 21:22 G	25021132.34	25021132.39	25021132.44	0.0539	0.0524 *
Venus	63793-06-11 00:15 G	25021136.43	25021136.51	25021136.58	0.0539	0.0497
Venus	63794-02-04 05:17 G	25021374.55	25021374.72	25021374.88	0.0531	0.0309
Mars	63795-10-25 23:46 G	25022003.44	25022003.49	25022003.56	0.0504	0.0489
Mercury	63799-03-06 13:41 G	25023230.90	25023231.07	25023231.24	0.0486	0.0066
Venus	63799-12-02 02:10 G	25023501.40	25023501.59	25023501.78	0.0492	0.0174
Venus	63800-07-26 03:51 G	25023737.58	25023737.66	25023737.75	0.0500	0.0452
Mercury	63804-11-11 17:46 G	25025307.11	25025307.24	25025307.37	0.0542	0.0177
Venus	63805-10-10 19:12 G	25025640.10	25025640.30	25025640.50	0.0533	0.0091
Mercury	63810-12-24 13:41 G	25027540.90	25027541.07	25027541.23	0.0486	0.0115
Venus	63811-08-08 06:15 G	25027767.62	25027767.76	25027767.91	0.0491	0.0342
Venus	63812-03-31 06:15 G	25028003.60	25028003.76	25028003.93	0.0498	0.0276

Mercury	63816-08-30 20:10 G	25029617.25	25029617.34	25029617.44	0.0542	0.0376
Mercury	63816-11-28 07:41 G	25029706.74	25029706.82	25029706.91	0.0541	0.0403
Venus	63817-06-15 07:12 G	25029905.61	25029905.80	25029906.00	0.0535	0.0134
Mercury	63822-10-12 13:55 G	25031850.95	25031851.08	25031851.22	0.0486	0.0286
Earth	63822-11-28 17:17 G	25031898.09	25031898.22	25031898.35	0.0487	0.0405
Moon	63822-11-28 20:39 G	25031898.25	25031898.36	25031898.50	0.0487	0.0414 *
Mercury	63823-01-10 12:29 G	25031940.95	25031941.02	25031941.09	0.0487	0.0443
Venus	63823-12-05 09:36 G	25032269.70	25032269.90	25032270.10	0.0495	0.0101
Mercury	63828-09-16 09:51 G	25034016.78	25034016.91	25034017.03	0.0541	0.0193
Venus	63829-02-17 15:36 G	25034171.01	25034171.15	25034171.30	0.0537	0.0370
Venus	63829-10-13 18:58 G	25034409.17	25034409.29	25034409.41	0.0529	0.0426
Mercury	63834-07-31 14:24 G	25036161.05	25036161.10	25036161.15	0.0486	0.0460
Mercury	63834-10-29 12:15 G	25036250.87	25036251.01	25036251.16	0.0487	0.0258
Moon	63834-12-02 20:24 G	25036285.12	25036285.35	25036285.59	0.0487	0.0069
Earth	63834-12-03 00:15 G	25036285.28	25036285.51	25036285.74	0.0487	0.0096 *
Venus	63835-08-10 12:29 G	25036535.81	25036536.02	25036536.22	0.0493	0.0073
Mercury	63840-07-05 12:29 G	25038326.88	25038327.02	25038327.15	0.0542	0.0011
Venus	63841-06-18 08:39 G	25038674.67	25038674.86	25038675.05	0.0532	0.0211
Mercury	63846-08-17 11:31 G	25040560.81	25040560.98	25040561.15	0.0486	0.0065
Earth	63846-12-07 04:19 G	25040672.47	25040672.68	25040672.90	0.0488	0.0208
Moon	63846-12-07 07:27 G	25040672.61	25040672.81	25040673.02	0.0488	0.0227 *
Venus	63847-04-15 14:24 G	25040801.92	25040802.10	25040802.27	0.0491	0.0244
Venus	63847-12-07 14:53 G	25041037.99	25041038.12	25041038.26	0.0499	0.0376
Mercury	63852-04-23 15:22 G	25042637.02	25042637.14	25042637.27	0.0543	0.0192
Moon	63852-05-27 08:53 G	25042670.72	25042670.87	25042671.04	0.0542	0.0398
Earth	63852-05-27 09:07 G	25042670.74	25042670.88	25042671.02	0.0542	0.0428 *
Venus	63853-02-20 23:03 G	25042940.25	25042940.46	25042940.66	0.0534	0.0011
Mercury	63858-06-05 11:31 G	25044870.82	25044870.98	25044871.15	0.0486	0.0114
Venus	63858-12-19 18:43 G	25045068.17	25045068.28	25045068.39	0.0490	0.0408
Venus	63859-08-12 17:17 G	25045304.04	25045304.22	25045304.41	0.0496	0.0201

Mercury	63864-02-10 18:15 G	25046947.17	25046947.26	25046947.36	0.0543	0.0381
Mercury	63864-05-10 06:00 G	25047036.66	25047036.75	25047036.84	0.0541	0.0399
Moon	63864-06-01 14:10 G	25047058.87	25047059.09	25047059.32	0.0541	0.0004
Earth	63864-06-01 16:48 G	25047058.97	25047059.20	25047059.43	0.0540	0.0018 *
Venus	63864-10-26 12:00 G	25047205.82	25047206.00	25047206.19	0.0536	0.0230
Mercury	63870-03-24 11:46 G	25049180.85	25049180.99	25049181.12	0.0486	0.0291
Mercury	63870-06-22 09:51 G	25049270.84	25049270.91	25049270.99	0.0487	0.0437
Venus	63871-04-17 20:39 G	25049570.15	25049570.36	25049570.56	0.0495	0.0030
Mercury	63876-02-27 08:53 G	25051346.74	25051346.87	25051346.99	0.0541	0.0209
Earth	63876-06-06 21:36 G	25051447.27	25051447.40	25051447.52	0.0539	0.0450
Moon	63876-06-07 01:41 G	25051447.42	25051447.57	25051447.71	0.0539	0.0422 *
Venus	63876-06-30 23:17 G	25051471.36	25051471.47	25051471.57	0.0538	0.0456
Venus	63877-02-24 03:22 G	25051709.49	25051709.64	25051709.80	0.0530	0.0344
Mercury	63882-01-10 12:15 G	25053490.96	25053491.01	25053491.06	0.0486	0.0460
Mercury	63882-04-10 10:05 G	25053580.78	25053580.92	25053581.07	0.0487	0.0257
Venus	63882-12-22 00:43 G	25053836.33	25053836.53	25053836.72	0.0493	0.0142
Venus	63883-08-15 02:39 G	25054072.57	25054072.61	25054072.67	0.0500	0.0482
Mercury	63887-12-16 10:48 G	25055656.81	25055656.95	25055657.08	0.0542	0.0012
Venus	63888-10-29 13:41 G	25055974.87	25055975.07	25055975.27	0.0533	0.0118
Mercury	63894-01-27 09:51 G	25057890.75	25057890.91	25057891.08	0.0487	0.0075
Venus	63894-08-27 04:19 G	25058102.52	25058102.68	25058102.84	0.0491	0.0308
Venus	63895-04-20 04:05 G	25058338.52	25058338.67	25058338.84	0.0498	0.0307
Mercury	63899-10-04 13:12 G	25059966.92	25059967.05	25059967.17	0.0542	0.0203
Venus	63900-07-05 01:41 G	25060240.37	25060240.57	25060240.77	0.0535	0.0108
Mercury	63905-11-16 09:22 G	25062200.72	25062200.89	25062201.05	0.0486	0.0116
Moon	63905-11-28 15:51 G	25062213.12	25062213.16	25062213.23	0.0486	0.0472
Earth	63905-11-28 19:41 G	25062213.26	25062213.32	25062213.39	0.0486	0.0467
Venus	63906-05-03 06:58 G	25062368.75	25062368.79	25062368.84	0.0489	0.0473
Venus	63906-12-25 04:34 G	25062604.50	25062604.69	25062604.89	0.0495	0.0129
Mercury	63911-07-24 15:51 G	25064277.07	25064277.16	25064277.26	0.0543	0.0398

Mercury	63911-10-22 03:36 G	25064366.56	25064366.65	25064366.74	0.0541	0.0385
Venus	63912-03-09 14:53 G	25064505.96	25064506.12	25064506.28	0.0538	0.0328
Venus	63912-11-02 18:15 G	25064744.17	25064744.26	25064744.36	0.0529	0.0464
Mercury	63917-09-04 09:36 G	25066510.77	25066510.90	25066511.03	0.0486	0.0291
Earth	63917-12-03 02:24 G	25066600.38	25066600.60	25066600.83	0.0487	0.0157
Moon	63917-12-03 05:31 G	25066600.51	25066600.73	25066600.95	0.0487	0.0125 *
Mercury	63917-12-03 07:55 G	25066600.75	25066600.83	25066600.90	0.0487	0.0434 *
Venus	63918-08-30 07:55 G	25066870.63	25066870.83	25066871.03	0.0493	0.0043
Mars	63920-10-24 18:00 G	25067656.99	25067657.25	25067657.51	0.0525	0.0205
Mercury	63923-08-10 06:58 G	25068676.66	25068676.79	25068676.91	0.0542	0.0203
Venus	63924-07-08 08:53 G	25069009.69	25069009.87	25069010.05	0.0532	0.0252
Mercury	63929-06-23 09:51 G	25070820.87	25070820.91	25070820.95	0.0486	0.0466
Mercury	63929-09-21 07:27 G	25070910.67	25070910.81	25070910.96	0.0487	0.0250
Moon	63929-12-07 06:58 G	25070987.57	25070987.79	25070988.02	0.0488	0.0173
Earth	63929-12-07 09:22 G	25070987.66	25070987.89	25070988.11	0.0488	0.0157 *
Venus	63930-05-05 11:46 G	25071136.81	25071136.99	25071137.18	0.0492	0.0212
Venus	63930-12-27 12:58 G	25071372.92	25071373.04	25071373.15	0.0499	0.0407
Moon	63935-05-28 07:55 G	25072985.74	25072985.83	25072985.94	0.0542	0.0480
Earth	63935-05-28 09:51 G	25072985.83	25072985.91	25072985.99	0.0542	0.0503 *
Mercury	63935-05-29 09:51 G	25072986.77	25072986.91	25072987.04	0.0542	0.0018
Venus	63936-03-12 21:36 G	25073275.20	25073275.40	25073275.61	0.0534	0.0034
Mercury	63941-07-10 07:41 G	25075220.65	25075220.82	25075220.99	0.0487	0.0073
Moon	63941-12-11 18:15 G	25075375.19	25075375.26	25075375.35	0.0489	0.0457
Earth	63941-12-11 17:46 G	25075375.20	25075375.24	25075375.30	0.0489	0.0477 *
Venus	63942-01-08 16:34 G	25075403.06	25075403.19	25075403.32	0.0490	0.0376
Venus	63942-09-01 15:51 G	25075638.98	25075639.16	25075639.34	0.0497	0.0234
Mercury	63947-03-17 11:31 G	25077296.86	25077296.98	25077297.11	0.0542	0.0203
Earth	63947-06-02 10:05 G	25077373.70	25077373.92	25077374.15	0.0540	0.0083
Moon	63947-06-02 13:55 G	25077373.85	25077374.08	25077374.31	0.0540	0.0107 *
Venus	63947-11-16 06:58 G	25077540.60	25077540.79	25077540.97	0.0536	0.0201

Mars	63950-01-20 06:58 G	25078336.55	25078336.79	25078337.04	0.0504	0.0180
Mercury	63953-04-28 07:41 G	25079530.66	25079530.82	25079530.99	0.0486	0.0108
Venus	63954-05-07 18:15 G	25079905.06	25079905.26	25079905.47	0.0495	0.0062
Mercury	63959-01-03 13:55 G	25081606.99	25081607.08	25081607.17	0.0542	0.0406
Mercury	63959-04-03 01:27 G	25081696.47	25081696.56	25081696.66	0.0541	0.0374
Moon	63959-06-07 09:51 G	25081761.72	25081761.91	25081762.10	0.0539	0.0315
Earth	63959-06-07 13:55 G	25081761.91	25081762.08	25081762.26	0.0539	0.0348 *
Venus	63959-07-21 17:31 G	25081806.11	25081806.23	25081806.36	0.0538	0.0427
Venus	63960-03-15 22:05 G	25082044.28	25082044.42	25082044.57	0.0530	0.0369
Mercury	63965-02-14 07:27 G	25083840.67	25083840.81	25083840.94	0.0486	0.0294
Mercury	63965-05-15 05:31 G	25083930.66	25083930.73	25083930.81	0.0487	0.0432
Venus	63966-01-10 19:41 G	25084171.12	25084171.32	25084171.52	0.0492	0.0114
Mercury	63971-01-20 04:34 G	25086006.57	25086006.69	25086006.82	0.0542	0.0188
Venus	63971-11-19 12:43 G	25086309.84	25086310.03	25086310.23	0.0533	0.0157
Mercury	63976-12-03 07:41 G	25088150.78	25088150.82	25088150.87	0.0485	0.0466
Mercury	63977-03-03 05:17 G	25088240.58	25088240.72	25088240.87	0.0487	0.0249
Venus	63977-09-15 23:31 G	25088437.32	25088437.48	25088437.66	0.0491	0.0280
Venus	63978-05-09 23:31 G	25088673.33	25088673.48	25088673.63	0.0498	0.0333
Mercury	63982-11-08 07:41 G	25090316.69	25090316.82	25090316.96	0.0542	0.0008
Venus	63983-07-25 02:10 G	25090575.39	25090575.59	25090575.80	0.0535	0.0064
Mercury	63988-12-20 05:17 G	25092550.55	25092550.72	25092550.89	0.0486	0.0066
Venus	63989-05-22 04:05 G	25092703.59	25092703.67	25092703.76	0.0489	0.0442
Venus	63990-01-13 02:10 G	25092939.40	25092939.59	25092939.79	0.0496	0.0159
Mercury	63994-08-27 10:34 G	25094626.81	25094626.94	25094627.06	0.0542	0.0190
Venus	63995-03-29 14:24 G	25094840.92	25094841.10	25094841.27	0.0537	0.0287
Venus	63995-11-22 17:03 G	25095079.15	25095079.21	25095079.28	0.0529	0.0498
Mercury	64000-10-08 05:31 G	25096860.57	25096860.73	25096860.90	0.0486	0.0109
Moon	64000-12-02 06:15 G	25096915.53	25096915.76	25096915.99	0.0487	0.0174
Earth	64000-12-02 08:24 G	25096915.63	25096915.85	25096916.06	0.0487	0.0206 *

65TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 65th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	64001-09-18 06:15	G	25097205.55	25097205.76	25097205.96	0.0494	0.0013	
Mercury	64006-06-15 12:15	G	25098936.92	25098937.01	25098937.10	0.0542	0.0404	
Mercury	64006-09-13 00:00	G	25099026.41	25099026.50	25099026.59	0.0541	0.0377	
Venus	64006-12-01 22:48	G	25099106.40	25099106.45	25099106.50	0.0539	0.0518	
Venus	64007-07-28 04:05	G	25099344.50	25099344.67	25099344.84	0.0531	0.0280	
Mercury	64012-07-27 05:46	G	25101170.60	25101170.74	25101170.88	0.0486	0.0286	
Mercury	64012-10-25 04:05	G	25101260.60	25101260.67	25101260.74	0.0487	0.0441	
Earth	64012-12-06 15:07	G	25101302.90	25101303.13	25101303.36	0.0488	0.0107	
Moon	64012-12-06 15:36	G	25101302.93	25101303.15	25101303.37	0.0488	0.0119	*
Venus	64013-05-24 09:36	G	25101471.71	25101471.90	25101472.09	0.0492	0.0179	
Venus	64014-01-15 10:48	G	25101707.86	25101707.95	25101708.05	0.0499	0.0438	
Mercury	64018-07-02 02:39	G	25103336.48	25103336.61	25103336.74	0.0541	0.0181	
Venus	64019-04-01 16:34	G	25103609.99	25103610.19	25103610.39	0.0534	0.0061	
Mercury	64024-05-15 05:31	G	25105480.69	25105480.73	25105480.78	0.0485	0.0467	
Mercury	64024-08-13 03:07	G	25105570.49	25105570.63	25105570.78	0.0487	0.0246	
Earth	64024-12-10 19:27	G	25105690.19	25105690.31	25105690.44	0.0489	0.0414	
Moon	64024-12-10 20:53	G	25105690.23	25105690.37	25105690.52	0.0489	0.0387	*
Venus	64025-01-27 11:46	G	25105737.85	25105737.99	25105738.14	0.0490	0.0346	
Venus	64025-09-20 10:34	G	25105973.77	25105973.94	25105974.12	0.0496	0.0260	
Mercury	64030-04-20 05:17	G	25107646.59	25107646.72	25107646.86	0.0542	0.0022	

Moon	64030-06-01 04:34 G	25107688.48	25107688.69	25107688.91	0.0541	0.0192
Earth	64030-06-01 08:39 G	25107688.64	25107688.86	25107689.08	0.0541	0.0167 *
Venus	64030-12-05 05:31 G	25107875.53	25107875.73	25107875.92	0.0537	0.0161
Mercury	64036-06-01 03:07 G	25109880.47	25109880.63	25109880.80	0.0486	0.0068
Venus	64037-05-26 13:41 G	25110239.87	25110240.07	25110240.27	0.0494	0.0088
Mercury	64042-02-06 08:24 G	25111956.73	25111956.85	25111956.98	0.0543	0.0199
Earth	64042-06-06 16:19 G	25112076.99	25112077.18	25112077.38	0.0540	0.0281
Moon	64042-06-06 19:55 G	25112077.13	25112077.33	25112077.53	0.0540	0.0255 *
Venus	64042-08-09 18:15 G	25112141.12	25112141.26	25112141.40	0.0538	0.0383
Venus	64043-04-04 22:48 G	25112379.32	25112379.45	25112379.58	0.0530	0.0410
Mercury	64048-03-20 03:07 G	25114190.47	25114190.63	25114190.80	0.0486	0.0114
Venus	64049-01-29 17:03 G	25114506.01	25114506.21	25114506.41	0.0493	0.0082
Mercury	64053-11-25 11:17 G	25116266.87	25116266.97	25116267.06	0.0543	0.0393
Mercury	64054-02-22 22:48 G	25116356.36	25116356.45	25116356.55	0.0541	0.0390
Venus	64054-12-08 12:15 G	25116644.83	25116645.01	25116645.20	0.0532	0.0196
Mercury	64060-01-07 03:36 G	25118500.52	25118500.65	25118500.79	0.0486	0.0286
Mercury	64060-04-06 01:55 G	25118590.51	25118590.58	25118590.65	0.0487	0.0440
Venus	64060-10-04 21:51 G	25118772.23	25118772.41	25118772.59	0.0491	0.0247
Venus	64061-05-28 22:05 G	25119008.29	25119008.42	25119008.56	0.0498	0.0365
Mercury	64065-12-12 01:12 G	25120666.43	25120666.55	25120666.68	0.0541	0.0187
Venus	64066-08-12 22:34 G	25120910.23	25120910.44	25120910.64	0.0535	0.0031
Mercury	64071-10-26 04:05 G	25122810.62	25122810.67	25122810.72	0.0486	0.0460
Mercury	64072-01-24 01:41 G	25122900.43	25122900.57	25122900.72	0.0487	0.0256
Venus	64072-06-10 01:55 G	25123038.48	25123038.58	25123038.70	0.0490	0.0408
Venus	64073-02-01 00:15 G	25123274.33	25123274.51	25123274.70	0.0496	0.0193
Mars	64075-01-18 12:15 G	25123990.76	25123991.01	25123991.27	0.0525	0.0243
Mercury	64077-09-30 03:51 G	25124976.52	25124976.66	25124976.79	0.0542	0.0019
Venus	64078-04-17 09:51 G	25125175.73	25125175.91	25125176.09	0.0537	0.0255
Venus	64078-12-11 12:29 G	25125414.00	25125414.02	25125414.04	0.0529	0.0525
Mercury	64083-11-12 01:12 G	25127210.38	25127210.55	25127210.72	0.0486	0.0067

Earth	64083-12-02 11:17 G	25127230.78	25127230.97	25127231.18	0.0486	0.0265
Moon	64083-12-02 12:00 G	25127230.80	25127231.00	25127231.20	0.0486	0.0235 *
Venus	64084-10-07 01:41 G	25127540.36	25127540.57	25127540.77	0.0493	0.0018
Mercury	64089-07-19 06:15 G	25129286.64	25129286.76	25129286.89	0.0543	0.0211
Venus	64089-12-20 20:53 G	25129441.29	25129441.37	25129441.47	0.0539	0.0480
Venus	64090-08-16 03:07 G	25129679.47	25129679.63	25129679.79	0.0532	0.0318
Mercury	64095-08-31 01:27 G	25131520.39	25131520.56	25131520.72	0.0486	0.0110
Earth	64095-12-06 18:29 G	25131618.04	25131618.27	25131618.51	0.0487	0.0050
Moon	64095-12-06 19:55 G	25131618.09	25131618.33	25131618.57	0.0487	0.0053 *
Venus	64096-06-12 05:17 G	25131806.53	25131806.72	25131806.92	0.0492	0.0150
Venus	64097-02-03 06:15 G	25132042.69	25132042.76	25132042.84	0.0499	0.0463
Mercury	64101-05-08 09:07 G	25133596.79	25133596.88	25133596.97	0.0543	0.0401
Mercury	64101-08-05 20:53 G	25133686.28	25133686.37	25133686.47	0.0542	0.0385
Venus	64102-04-21 17:31 G	25133945.03	25133945.23	25133945.43	0.0534	0.0103
Mars	64104-04-16 05:03 G	25134670.47	25134670.71	25134670.95	0.0503	0.0208
Mercury	64107-06-20 01:27 G	25135830.43	25135830.56	25135830.70	0.0486	0.0287
Mercury	64107-09-17 23:31 G	25135920.41	25135920.48	25135920.56	0.0487	0.0437
Moon	64107-12-11 22:19 G	25136005.27	25136005.43	25136005.60	0.0489	0.0335
Earth	64107-12-12 01:12 G	25136005.40	25136005.55	25136005.71	0.0489	0.0366 *
Venus	64108-02-17 09:22 G	25136072.74	25136072.89	25136073.05	0.0490	0.0314
Venus	64108-10-10 08:39 G	25136308.70	25136308.86	25136309.03	0.0497	0.0292
Mercury	64113-05-25 00:00 G	25137996.38	25137996.50	25137996.63	0.0542	0.0200
Earth	64113-06-01 12:00 G	25138003.79	25138004.00	25138004.21	0.0542	0.0232
Moon	64113-06-01 15:51 G	25138003.96	25138004.16	25138004.36	0.0542	0.0256 *
Venus	64113-12-25 06:15 G	25138210.56	25138210.76	25138210.96	0.0536	0.0117
Mercury	64119-04-08 02:10 G	25140140.54	25140140.59	25140140.64	0.0486	0.0456
Mercury	64119-07-06 23:46 G	25140230.34	25140230.49	25140230.63	0.0487	0.0258
Venus	64119-10-23 14:53 G	25140339.07	25140339.12	25140339.17	0.0489	0.0472
Venus	64120-06-15 12:29 G	25140574.82	25140575.02	25140575.22	0.0495	0.0122
Mercury	64125-03-13 02:24 G	25142306.47	25142306.60	25142306.74	0.0542	0.0010

Moon	64125-06-06 12:15 G	25142391.79	25142392.01	25142392.24	0.0540	0.0173
Earth	64125-06-06 14:53 G	25142391.90	25142392.12	25142392.33	0.0540	0.0197 *
Venus	64125-08-29 15:51 G	25142476.01	25142476.16	25142476.32	0.0538	0.0345
Venus	64126-04-24 19:41 G	25142714.22	25142714.32	25142714.44	0.0530	0.0441
Mercury	64131-04-24 23:46 G	25144540.32	25144540.49	25144540.66	0.0487	0.0077
Venus	64132-02-19 15:36 G	25144840.95	25144841.15	25144841.36	0.0493	0.0048
Mercury	64136-12-30 04:48 G	25146616.58	25146616.70	25146616.83	0.0542	0.0205
Venus	64137-12-28 08:39 G	25146979.68	25146979.86	25146980.05	0.0532	0.0228
Mercury	64143-02-10 23:31 G	25148850.31	25148850.48	25148850.64	0.0486	0.0107
Venus	64143-10-25 18:15 G	25149107.08	25149107.26	25149107.44	0.0491	0.0216
Venus	64144-06-17 18:00 G	25149343.13	25149343.25	25149343.38	0.0498	0.0392
Mercury	64148-10-18 06:58 G	25150926.71	25150926.79	25150926.88	0.0543	0.0411
Mercury	64149-01-15 18:58 G	25151016.19	25151016.29	25151016.38	0.0542	0.0376
Venus	64149-09-01 21:36 G	25151245.19	25151245.40	25151245.60	0.0535	0.0014
Mercury	64154-11-29 23:46 G	25153160.36	25153160.49	25153160.63	0.0485	0.0280
Mercury	64155-02-27 21:51 G	25153250.35	25153250.41	25153250.48	0.0487	0.0443
Venus	64155-06-30 22:48 G	25153373.32	25153373.45	25153373.58	0.0489	0.0377
Venus	64156-02-21 20:39 G	25153609.18	25153609.36	25153609.54	0.0496	0.0221
Mercury	64160-11-03 22:19 G	25155326.30	25155326.43	25155326.55	0.0542	0.0195
Venus	64161-05-07 10:48 G	25155510.77	25155510.95	25155511.14	0.0537	0.0211
Mercury	64166-09-18 00:00 G	25157470.45	25157470.50	25157470.57	0.0485	0.0455
Earth	64166-12-02 18:00 G	25157546.07	25157546.25	25157546.43	0.0486	0.0310
Moon	64166-12-02 19:27 G	25157546.12	25157546.31	25157546.52	0.0486	0.0281 *
Mercury	64166-12-16 21:36 G	25157560.26	25157560.40	25157560.55	0.0486	0.0259
Venus	64167-10-28 00:00 G	25157875.30	25157875.50	25157875.70	0.0494	0.0051
Mercury	64172-08-23 01:12 G	25159636.42	25159636.55	25159636.69	0.0542	0.0021
Venus	64173-01-09 23:03 G	25159776.34	25159776.46	25159776.58	0.0539	0.0432
Venus	64173-09-05 04:19 G	25160014.54	25160014.68	25160014.84	0.0531	0.0360
Mercury	64178-10-04 21:51 G	25161870.25	25161870.41	25161870.58	0.0486	0.0083
Moon	64178-12-06 23:03 G	25161933.23	25161933.46	25161933.69	0.0487	0.0010

Earth	64178-12-07 01:55 G	25161933.35	25161933.58	25161933.82	0.0487	0.0009	*
Venus	64179-07-03 04:19 G	25162141.49	25162141.68	25162141.88	0.0492	0.0115	
Venus	64180-02-24 06:00 G	25162377.74	25162377.75	25162377.77	0.0500	0.0497	
Mercury	64184-06-11 03:36 G	25163946.53	25163946.65	25163946.78	0.0542	0.0194	
Venus	64185-05-10 16:05 G	25164279.97	25164280.17	25164280.37	0.0533	0.0141	
Mercury	64190-07-23 22:05 G	25166180.26	25166180.42	25166180.59	0.0486	0.0096	
Earth	64190-12-11 09:07 G	25166320.71	25166320.88	25166321.07	0.0489	0.0324	
Moon	64190-12-11 13:12 G	25166320.87	25166321.05	25166321.25	0.0489	0.0291	*
Venus	64191-03-08 08:39 G	25166407.69	25166407.86	25166408.03	0.0490	0.0278	
Venus	64191-10-30 08:10 G	25166643.69	25166643.84	25166644.00	0.0497	0.0327	
Mercury	64196-03-30 06:00 G	25168256.66	25168256.75	25168256.84	0.0543	0.0397	
Moon	64196-05-31 06:43 G	25168318.60	25168318.78	25168318.97	0.0542	0.0344	
Earth	64196-05-31 10:05 G	25168318.73	25168318.92	25168319.11	0.0542	0.0318	*
Mercury	64196-06-27 17:46 G	25168346.15	25168346.24	25168346.33	0.0541	0.0385	
Venus	64197-01-13 03:36 G	25168545.45	25168545.65	25168545.86	0.0536	0.0082	
Mercury	64202-05-12 22:05 G	25170490.29	25170490.42	25170490.56	0.0485	0.0274	
Mercury	64202-08-10 20:10 G	25170580.28	25170580.34	25170580.41	0.0487	0.0449	
Venus	64202-11-12 12:15 G	25170673.93	25170674.01	25170674.10	0.0488	0.0439	
Venus	64203-07-06 09:22 G	25170909.70	25170909.89	25170910.09	0.0495	0.0152	
Mercury	64208-04-16 20:24 G	25172656.22	25172656.35	25172656.47	0.0542	0.0189	
Earth	64208-06-06 13:41 G	25172706.85	25172707.07	25172707.30	0.0541	0.0118	
Moon	64208-06-06 14:39 G	25172706.89	25172707.11	25172707.33	0.0541	0.0103	*
Venus	64208-09-18 14:39 G	25172810.95	25172811.11	25172811.28	0.0538	0.0307	
Venus	64209-05-14 19:27 G	25173049.23	25173049.31	25173049.40	0.0530	0.0479	
Mercury	64214-02-28 22:48 G	25174800.39	25174800.45	25174800.52	0.0485	0.0443	
Mercury	64214-05-29 20:10 G	25174890.20	25174890.34	25174890.49	0.0486	0.0269	
Venus	64215-03-11 12:58 G	25175175.84	25175176.04	25175176.25	0.0493	0.0018	
Mercury	64220-02-03 23:31 G	25176966.34	25176966.48	25176966.61	0.0543	0.0008	
Venus	64220-05-24 03:22 G	25177076.59	25177076.64	25177076.68	0.0540	0.0526	
Venus	64221-01-17 10:19 G	25177314.76	25177314.93	25177315.11	0.0533	0.0270	

Mercury	64226-03-17 20:10 G	25179200.17	25179200.34	25179200.51	0.0486	0.0087
Venus	64226-11-14 17:03 G	25179442.02	25179442.21	25179442.40	0.0491	0.0181
Venus	64227-07-08 17:03 G	25179678.12	25179678.21	25179678.32	0.0498	0.0426
Mercury	64231-11-23 02:24 G	25181276.48	25181276.60	25181276.73	0.0543	0.0184
Venus	64232-09-22 00:00 G	25181580.30	25181580.50	25181580.71	0.0535	0.0056
Mercury	64238-01-03 20:39 G	25183510.19	25183510.36	25183510.52	0.0486	0.0088
Venus	64238-07-20 22:05 G	25183708.28	25183708.42	25183708.57	0.0490	0.0342
Venus	64239-03-13 20:39 G	25183944.18	25183944.36	25183944.53	0.0496	0.0257
Mercury	64243-09-11 04:48 G	25185586.61	25185586.70	25185586.80	0.0543	0.0385
Mercury	64243-12-09 16:48 G	25185676.11	25185676.20	25185676.29	0.0541	0.0399
Venus	64244-05-27 11:03 G	25185845.77	25185845.96	25185846.16	0.0537	0.0168
Mercury	64249-10-22 20:53 G	25187820.23	25187820.37	25187820.51	0.0486	0.0262
Moon	64249-12-02 23:46 G	25187861.33	25187861.49	25187861.67	0.0486	0.0325
Earth	64249-12-03 02:53 G	25187861.47	25187861.62	25187861.79	0.0486	0.0350 *
Mercury	64250-01-20 18:58 G	25187910.24	25187910.29	25187910.34	0.0487	0.0463
Venus	64250-11-17 00:00 G	25188210.30	25188210.50	25188210.70	0.0494	0.0089
Mercury	64255-09-27 19:27 G	25189986.18	25189986.31	25189986.43	0.0542	0.0205
Venus	64256-01-30 21:51 G	25190111.27	25190111.41	25190111.55	0.0539	0.0392
Venus	64256-09-25 02:39 G	25190349.49	25190349.61	25190349.76	0.0531	0.0395
Mercury	64261-08-10 21:22 G	25192130.32	25192130.39	25192130.46	0.0485	0.0434
Mercury	64261-11-08 18:43 G	25192220.14	25192220.28	25192220.42	0.0486	0.0278
Earth	64261-12-07 09:22 G	25192248.65	25192248.89	25192249.12	0.0487	0.0036
Moon	64261-12-07 13:27 G	25192248.82	25192249.06	25192249.29	0.0487	0.0047 *
Venus	64262-07-23 02:39 G	25192476.41	25192476.61	25192476.81	0.0492	0.0081
Mercury	64267-07-16 21:36 G	25194296.27	25194296.40	25194296.54	0.0543	0.0011
Venus	64268-05-30 15:36 G	25194614.96	25194615.15	25194615.34	0.0534	0.0180
Mercury	64273-08-27 18:58 G	25196530.12	25196530.29	25196530.46	0.0486	0.0101
Moon	64273-12-11 12:58 G	25196635.84	25196636.04	25196636.25	0.0488	0.0247
Earth	64273-12-11 17:03 G	25196636.02	25196636.21	25196636.40	0.0488	0.0281 *
Venus	64274-03-28 07:12 G	25196742.62	25196742.80	25196742.98	0.0490	0.0244

Venus	64274-11-19 06:00 G	25196978.62	25196978.75	25196978.90	0.0497	0.0357
Mercury	64279-05-05 00:43 G	25198606.40	25198606.53	25198606.66	0.0543	0.0187
Earth	64279-06-01 12:29 G	25198633.86	25198634.02	25198634.18	0.0543	0.0386
Moon	64279-06-01 13:55 G	25198633.95	25198634.08	25198634.23	0.0543	0.0418 *
Venus	64280-02-03 05:17 G	25198880.52	25198880.72	25198880.92	0.0536	0.0037
Mercury	64285-06-15 18:58 G	25200840.13	25200840.29	25200840.46	0.0486	0.0079
Venus	64285-12-01 11:46 G	25201008.88	25201008.99	25201009.10	0.0489	0.0404
Venus	64286-07-25 08:53 G	25201244.68	25201244.87	25201245.06	0.0495	0.0187
Mercury	64291-02-21 03:36 G	25202916.56	25202916.65	25202916.75	0.0543	0.0375
Mercury	64291-05-21 15:36 G	25203006.07	25203006.15	25203006.24	0.0542	0.0411
Earth	64291-06-06 21:22 G	25203022.16	25203022.39	25203022.62	0.0541	0.0068
Moon	64291-06-06 22:05 G	25203022.19	25203022.42	25203022.66	0.0541	0.0059 *
Venus	64291-10-08 18:15 G	25203146.09	25203146.26	25203146.44	0.0538	0.0256
Venus	64292-06-02 22:19 G	25203384.41	25203384.43	25203384.47	0.0530	0.0522
Mercury	64297-04-03 19:41 G	25205150.17	25205150.32	25205150.46	0.0485	0.0250
Mercury	64297-07-02 17:31 G	25205240.20	25205240.23	25205240.27	0.0487	0.0474
Venus	64298-03-30 13:12 G	25205510.84	25205511.05	25205511.25	0.0493	0.0021
Mercury	64303-03-10 18:29 G	25207316.15	25207316.27	25207316.39	0.0542	0.0220
Moon	64303-06-12 23:46 G	25207410.49	25207410.49	25207410.51	0.0540	0.0539
Earth	64303-06-13 02:10 G	25207410.52	25207410.59	25207410.68	0.0540	0.0505
Venus	64303-06-14 04:48 G	25207411.62	25207411.70	25207411.80	0.0540	0.0479
Venus	64304-02-07 11:03 G	25207649.80	25207649.96	25207650.13	0.0532	0.0312
Mercury	64309-01-21 20:10 G	25209460.26	25209460.34	25209460.42	0.0485	0.0422
Mercury	64309-04-21 17:31 G	25209550.10	25209550.23	25209550.37	0.0487	0.0293
Venus	64309-12-04 17:31 G	25209777.03	25209777.23	25209777.42	0.0491	0.0143
Venus	64310-07-28 18:00 G	25210013.18	25210013.25	25210013.33	0.0499	0.0462
Mercury	64314-12-27 21:07 G	25211626.24	25211626.38	25211626.51	0.0542	0.0026
Venus	64315-10-12 23:31 G	25211915.28	25211915.48	25211915.68	0.0534	0.0095
Mercury	64321-02-07 17:31 G	25213860.07	25213860.23	25213860.40	0.0486	0.0114
Venus	64321-08-09 21:22 G	25214043.24	25214043.39	25214043.55	0.0489	0.0307

Venus	64322-04-02 19:27 G	25214279.15	25214279.31	25214279.48	0.0496	0.0288
Mercury	64326-10-15 23:03 G	25215936.33	25215936.46	25215936.59	0.0543	0.0186
Venus	64327-06-17 10:19 G	25216180.73	25216180.93	25216181.13	0.0537	0.0130
Mercury	64332-11-26 18:00 G	25218170.08	25218170.25	25218170.42	0.0485	0.0061
Earth	64332-12-03 12:43 G	25218176.89	25218177.03	25218177.18	0.0486	0.0384
Moon	64332-12-03 16:48 G	25218177.04	25218177.20	25218177.36	0.0486	0.0358 *
Venus	64333-04-15 02:53 G	25218309.56	25218309.62	25218309.68	0.0488	0.0462
Venus	64333-12-06 22:48 G	25218545.26	25218545.45	25218545.65	0.0494	0.0122
Mercury	64338-08-04 01:55 G	25220246.48	25220246.58	25220246.68	0.0544	0.0378
Mercury	64338-11-01 13:55 G	25220335.99	25220336.08	25220336.16	0.0542	0.0410
Venus	64339-02-19 22:48 G	25220446.30	25220446.45	25220446.61	0.0539	0.0350
Venus	64339-10-16 04:34 G	25220684.58	25220684.69	25220684.81	0.0531	0.0436
Mercury	64344-09-14 18:15 G	25222480.11	25222480.26	25222480.41	0.0485	0.0238
Moon	64344-12-07 14:39 G	25222563.88	25222564.11	25222564.35	0.0486	0.0086
Earth	64344-12-07 18:43 G	25222564.05	25222564.28	25222564.52	0.0486	0.0074 *
Mercury	64344-12-13 16:05 G	25222570.16	25222570.17	25222570.18	0.0487	0.0484
Venus	64345-08-12 02:24 G	25222811.40	25222811.60	25222811.80	0.0492	0.0046
Mars	64347-10-04 05:03 G	25223594.55	25223594.71	25223594.88	0.0523	0.0423
Mercury	64350-08-20 17:17 G	25224646.10	25224646.22	25224646.34	0.0542	0.0230
Venus	64351-06-20 19:27 G	25224950.12	25224950.31	25224950.49	0.0534	0.0228
Mercury	64356-07-03 18:58 G	25226790.20	25226790.29	25226790.38	0.0485	0.0407
Mercury	64356-10-01 16:19 G	25226880.05	25226880.18	25226880.31	0.0486	0.0306
Earth	64356-12-12 02:24 G	25226951.40	25226951.60	25226951.81	0.0488	0.0246
Moon	64356-12-12 05:46 G	25226951.53	25226951.74	25226951.95	0.0488	0.0217 *
Venus	64357-04-17 07:27 G	25227077.62	25227077.81	25227077.99	0.0490	0.0207
Venus	64357-12-09 06:43 G	25227313.66	25227313.78	25227313.91	0.0497	0.0393
Earth	64362-06-01 18:58 G	25228949.16	25228949.29	25228949.42	0.0542	0.0442
Moon	64362-06-01 18:58 G	25228949.18	25228949.29	25228949.41	0.0542	0.0475 *
Mercury	64362-06-08 20:10 G	25228956.20	25228956.34	25228956.47	0.0542	0.0042
Venus	64363-02-23 07:27 G	25229215.60	25229215.81	25229216.01	0.0535	0.0011

Mercury	64368-07-20 16:19 G	25231190.02	25231190.18	25231190.35	0.0486	0.0127
Venus	64368-12-21 12:15 G	25231343.88	25231344.01	25231344.15	0.0489	0.0366
Venus	64369-08-14 10:05 G	25231579.74	25231579.92	25231580.10	0.0495	0.0225
Mercury	64374-03-27 22:34 G	25233266.31	25233266.44	25233266.57	0.0543	0.0161
Moon	64374-06-06 22:05 G	25233337.19	25233337.42	25233337.64	0.0541	0.0012
Earth	64374-06-07 00:00 G	25233337.27	25233337.50	25233337.73	0.0541	0.0004 *
Venus	64374-10-28 18:43 G	25233481.10	25233481.28	25233481.47	0.0538	0.0213
Mars	64377-01-01 18:58 G	25234277.04	25234277.29	25234277.53	0.0505	0.0193
Mercury	64380-05-08 16:48 G	25235500.03	25235500.20	25235500.37	0.0486	0.0048
Venus	64381-04-19 12:58 G	25235845.84	25235846.04	25235846.24	0.0493	0.0056
Mercury	64386-01-14 00:15 G	25237576.41	25237576.51	25237576.61	0.0543	0.0376
Mercury	64386-04-13 12:15 G	25237665.93	25237666.01	25237666.10	0.0542	0.0411
Earth	64386-06-12 01:41 G	25237725.43	25237725.57	25237725.71	0.0541	0.0430
Moon	64386-06-12 05:03 G	25237725.59	25237725.71	25237725.83	0.0541	0.0465 *
Venus	64386-07-03 03:36 G	25237746.54	25237746.65	25237746.77	0.0540	0.0442
Venus	64387-02-26 10:34 G	25237984.79	25237984.94	25237985.10	0.0533	0.0348
Mercury	64392-02-25 17:17 G	25239810.07	25239810.22	25239810.37	0.0485	0.0219
Venus	64392-12-23 17:17 G	25240112.02	25240112.22	25240112.42	0.0491	0.0108
Venus	64393-08-16 17:03 G	25240348.19	25240348.21	25240348.24	0.0498	0.0492
Mercury	64398-01-30 15:22 G	25241976.02	25241976.14	25241976.26	0.0543	0.0228
Venus	64398-11-01 00:43 G	25242250.34	25242250.53	25242250.73	0.0535	0.0136
Mercury	64403-12-14 17:31 G	25244120.14	25244120.23	25244120.33	0.0485	0.0395
Mercury	64404-03-13 14:53 G	25244209.99	25244210.12	25244210.25	0.0486	0.0318
Venus	64404-08-28 21:07 G	25244378.22	25244378.38	25244378.56	0.0489	0.0271
Venus	64405-04-21 19:27 G	25244614.16	25244614.31	25244614.46	0.0496	0.0323
Mercury	64409-11-18 18:43 G	25246286.14	25246286.28	25246286.41	0.0543	0.0046
Venus	64410-07-06 14:24 G	25246515.90	25246516.10	25246516.30	0.0537	0.0079
Moon	64415-12-03 18:29 G	25248492.14	25248492.27	25248492.41	0.0485	0.0397
Earth	64415-12-03 22:34 G	25248492.33	25248492.44	25248492.56	0.0485	0.0421 *
Mercury	64415-12-31 15:07 G	25248519.97	25248520.13	25248520.30	0.0486	0.0142

Venus	64416-05-04 02:39 G	25248644.52	25248644.61	25248644.72	0.0488	0.0426
Venus	64416-12-25 23:17 G	25248880.28	25248880.47	25248880.67	0.0494	0.0158
Mercury	64421-09-06 21:36 G	25250596.27	25250596.40	25250596.53	0.0543	0.0147
Venus	64422-03-11 01:55 G	25250781.42	25250781.58	25250781.75	0.0539	0.0300
Venus	64422-11-04 06:43 G	25251019.70	25251019.78	25251019.87	0.0530	0.0478
Mercury	64427-10-19 15:36 G	25252829.98	25252830.15	25252830.32	0.0486	0.0037
Earth	64427-12-08 05:31 G	25252879.50	25252879.73	25252879.96	0.0487	0.0106
Moon	64427-12-08 08:39 G	25252879.64	25252879.86	25252880.09	0.0487	0.0122 *
Venus	64428-08-31 03:36 G	25253146.44	25253146.65	25253146.85	0.0492	0.0011
Mercury	64433-06-25 23:46 G	25254906.39	25254906.49	25254906.60	0.0543	0.0348
Mercury	64433-09-23 11:46 G	25254995.92	25254995.99	25254996.07	0.0541	0.0437
Venus	64433-11-13 12:29 G	25255046.97	25255047.02	25255047.07	0.0540	0.0522
Venus	64434-07-09 19:41 G	25255285.15	25255285.32	25255285.50	0.0533	0.0268
Mercury	64439-08-07 16:05 G	25257140.02	25257140.17	25257140.32	0.0485	0.0206
Moon	64439-12-12 11:31 G	25257266.76	25257266.98	25257267.21	0.0487	0.0189
Earth	64439-12-12 13:12 G	25257266.84	25257267.05	25257267.26	0.0487	0.0214 *
Venus	64440-05-06 07:41 G	25257412.64	25257412.82	25257413.02	0.0490	0.0172
Venus	64440-12-28 06:43 G	25257648.69	25257648.78	25257648.89	0.0497	0.0426
Earth	64445-05-31 17:03 G	25259264.15	25259264.21	25259264.26	0.0543	0.0526
Mercury	64445-07-12 13:55 G	25259305.96	25259306.08	25259306.20	0.0542	0.0231
Venus	64446-03-14 06:15 G	25259550.56	25259550.76	25259550.96	0.0536	0.0045
Mercury	64451-05-26 16:48 G	25261450.10	25261450.20	25261450.31	0.0485	0.0374
Mercury	64451-08-24 14:10 G	25261539.97	25261540.09	25261540.21	0.0486	0.0338
Venus	64452-01-10 12:43 G	25261678.88	25261679.03	25261679.18	0.0489	0.0329
Venus	64452-09-02 09:51 G	25261914.74	25261914.91	25261915.08	0.0495	0.0258
Mercury	64457-04-30 16:48 G	25263616.07	25263616.20	25263616.34	0.0543	0.0044
Earth	64457-06-06 00:29 G	25263652.29	25263652.52	25263652.75	0.0542	0.0073
Moon	64457-06-06 03:36 G	25263652.42	25263652.65	25263652.88	0.0542	0.0076 *
Venus	64457-11-16 18:58 G	25263816.10	25263816.29	25263816.48	0.0538	0.0174
Mercury	64463-06-12 13:55 G	25265849.92	25265850.08	25265850.24	0.0486	0.0154

Venus	64463-09-15 17:17 G	25265945.20	25265945.22	25265945.24	0.0487	0.0485
Venus	64464-05-08 12:43 G	25266180.83	25266181.03	25266181.23	0.0493	0.0091
Mercury	64469-02-16 19:55 G	25267926.20	25267926.33	25267926.47	0.0543	0.0144
Moon	64469-06-11 06:15 G	25268040.62	25268040.76	25268040.91	0.0541	0.0417
Earth	64469-06-11 09:51 G	25268040.76	25268040.91	25268041.08	0.0541	0.0384 *
Venus	64469-07-22 07:41 G	25268081.69	25268081.82	25268081.96	0.0540	0.0391
Venus	64470-03-17 14:24 G	25268319.97	25268320.10	25268320.24	0.0532	0.0394
Mercury	64475-03-31 14:24 G	25270159.93	25270160.10	25270160.27	0.0485	0.0023
Venus	64476-01-12 17:17 G	25270447.02	25270447.22	25270447.42	0.0491	0.0072
Mercury	64480-12-05 22:48 G	25272236.34	25272236.45	25272236.56	0.0543	0.0335
Mercury	64481-03-05 10:48 G	25272325.88	25272325.95	25272326.02	0.0542	0.0450
Venus	64481-11-20 03:36 G	25272585.46	25272585.65	25272585.84	0.0534	0.0182
Mercury	64487-01-17 14:39 G	25274469.96	25274470.11	25274470.27	0.0485	0.0196
Venus	64487-09-17 22:05 G	25274713.24	25274713.42	25274713.60	0.0490	0.0232
Venus	64488-05-10 20:39 G	25274949.23	25274949.36	25274949.51	0.0497	0.0362
Mercury	64492-09-24 00:58 G	25276546.53	25276546.54	25276546.56	0.0543	0.0539
Mercury	64492-12-22 13:27 G	25276635.95	25276636.06	25276636.18	0.0542	0.0258
Venus	64493-07-25 15:22 G	25276850.93	25276851.14	25276851.34	0.0536	0.0038
Mercury	64498-11-05 15:36 G	25278780.04	25278780.15	25278780.26	0.0485	0.0362
Earth	64498-12-03 09:22 G	25278807.81	25278807.89	25278807.98	0.0485	0.0452
Moon	64498-12-03 12:15 G	25278807.92	25278808.01	25278808.12	0.0485	0.0434 *
Mercury	64499-02-03 12:43 G	25278869.92	25278870.03	25278870.15	0.0486	0.0352
Venus	64499-05-24 03:22 G	25278979.52	25278979.64	25278979.76	0.0488	0.0390
Venus	64500-01-14 23:46 G	25279215.31	25279215.49	25279215.68	0.0494	0.0192
Mars	64501-12-29 14:10 G	25279928.81	25279929.09	25279929.37	0.0522	0.0105
Mercury	64504-10-11 15:22 G	25280946.00	25280946.14	25280946.27	0.0543	0.0046
Venus	64505-03-30 23:46 G	25281116.32	25281116.49	25281116.68	0.0539	0.0267
Venus	64505-11-24 05:17 G	25281354.68	25281354.72	25281354.79	0.0531	0.0509
Mercury	64510-11-23 12:58 G	25283179.89	25283180.04	25283180.20	0.0486	0.0175
Moon	64510-12-08 15:22 G	25283194.92	25283195.14	25283195.38	0.0486	0.0158

Earth	64510-12-08 16:48 G	25283194.98	25283195.20	25283195.43	0.0486	0.0136	*
Venus	64511-09-21 03:36 G	25283481.45	25283481.65	25283481.86	0.0492	0.0030	
Mercury	64516-07-30 18:00 G	25285256.12	25285256.25	25285256.38	0.0543	0.0148	
Venus	64516-12-03 11:17 G	25285381.89	25285381.97	25285382.06	0.0541	0.0485	
Venus	64517-07-29 19:27 G	25285620.15	25285620.31	25285620.48	0.0534	0.0303	
Mercury	64522-09-11 12:58 G	25287489.87	25287490.04	25287490.21	0.0485	0.0009	
Moon	64522-12-12 21:36 G	25287582.19	25287582.40	25287582.62	0.0487	0.0155	
Earth	64522-12-12 22:05 G	25287582.20	25287582.42	25287582.64	0.0487	0.0174	*
Venus	64523-05-27 06:58 G	25287747.60	25287747.79	25287747.99	0.0490	0.0137	
Venus	64524-01-18 06:15 G	25287983.69	25287983.76	25287983.84	0.0497	0.0457	
Mercury	64528-05-18 21:07 G	25289566.27	25289566.38	25289566.49	0.0544	0.0335	
Mercury	64528-08-16 09:07 G	25289655.81	25289655.88	25289655.95	0.0542	0.0453	
Venus	64529-04-03 09:51 G	25289885.71	25289885.91	25289886.11	0.0536	0.0093	
Mars	64531-03-30 07:55 G	25290611.62	25290611.83	25290612.05	0.0505	0.0295	
Mercury	64534-06-30 13:27 G	25291799.91	25291800.06	25291800.22	0.0485	0.0182	
Venus	64535-01-30 12:00 G	25292013.84	25292014.00	25292014.17	0.0489	0.0294	
Venus	64535-09-23 09:36 G	25292249.74	25292249.90	25292250.07	0.0495	0.0293	
Mercury	64540-03-06 23:46 G	25293876.47	25293876.49	25293876.52	0.0544	0.0530	
Mercury	64540-06-04 12:15 G	25293965.90	25293966.01	25293966.13	0.0542	0.0268	
Moon	64540-06-06 04:19 G	25293967.46	25293967.68	25293967.91	0.0542	0.0123	
Earth	64540-06-06 08:10 G	25293967.61	25293967.84	25293968.06	0.0542	0.0125	*
Venus	64540-12-06 22:05 G	25294151.22	25294151.42	25294151.62	0.0538	0.0125	
Mercury	64546-04-18 13:55 G	25296109.97	25296110.08	25296110.20	0.0485	0.0354	
Mercury	64546-07-17 11:17 G	25296199.86	25296199.97	25296200.08	0.0486	0.0360	
Venus	64546-10-05 17:17 G	25296280.15	25296280.22	25296280.31	0.0488	0.0449	
Venus	64547-05-29 13:27 G	25296515.87	25296516.06	25296516.26	0.0493	0.0129	
Mercury	64552-03-23 14:53 G	25298275.99	25298276.12	25298276.26	0.0542	0.0073	
Earth	64552-06-11 13:12 G	25298355.87	25298356.05	25298356.24	0.0541	0.0319	
Moon	64552-06-11 16:34 G	25298356.02	25298356.19	25298356.36	0.0541	0.0355	*
Venus	64552-08-11 08:39 G	25298416.71	25298416.86	25298417.02	0.0539	0.0346	

Venus	64553-04-06 14:53 G	25298655.00	25298655.12	25298655.24	0.0532	0.0432
Mercury	64558-05-05 11:46 G	25300509.83	25300509.99	25300510.15	0.0486	0.0186
Venus	64559-02-01 17:46 G	25300782.04	25300782.24	25300782.44	0.0491	0.0036
Mercury	64564-01-10 16:34 G	25302586.06	25302586.19	25302586.32	0.0543	0.0145
Venus	64564-12-10 00:58 G	25302920.36	25302920.54	25302920.73	0.0535	0.0213
Mercury	64570-02-21 12:00 G	25304819.83	25304820.00	25304820.17	0.0485	0.0014
Venus	64570-10-07 22:19 G	25305048.25	25305048.43	25305048.62	0.0489	0.0196
Venus	64571-05-31 20:24 G	25305284.23	25305284.35	25305284.48	0.0496	0.0393
Mercury	64575-10-29 18:58 G	25306896.19	25306896.29	25306896.40	0.0544	0.0344
Mercury	64576-01-27 07:12 G	25306985.73	25306985.80	25306985.87	0.0542	0.0446
Venus	64576-08-14 13:27 G	25307185.86	25307186.06	25307186.27	0.0537	0.0010
Moon	64581-12-03 16:19 G	25309123.18	25309123.18	25309123.20	0.0485	0.0484
Mercury	64581-12-10 12:00 G	25309129.84	25309130.00	25309130.16	0.0485	0.0172
Venus	64582-06-13 01:55 G	25309314.45	25309314.58	25309314.73	0.0488	0.0355
Venus	64583-02-03 22:19 G	25309550.26	25309550.43	25309550.62	0.0494	0.0225
Mercury	64587-08-17 21:51 G	25311206.39	25311206.41	25311206.44	0.0544	0.0535
Mercury	64587-11-15 10:34 G	25311295.82	25311295.94	25311296.06	0.0543	0.0266
Venus	64588-04-19 02:53 G	25311451.43	25311451.62	25311451.80	0.0539	0.0217
Mercury	64593-09-28 12:43 G	25313439.91	25313440.03	25313440.14	0.0485	0.0343
Moon	64593-12-08 00:00 G	25313510.29	25313510.50	25313510.70	0.0486	0.0208
Earth	64593-12-08 00:29 G	25313510.31	25313510.52	25313510.75	0.0486	0.0180 *
Mercury	64593-12-27 09:51 G	25313529.80	25313529.91	25313530.02	0.0486	0.0370
Venus	64594-10-10 02:39 G	25313816.41	25313816.61	25313816.81	0.0492	0.0062
Mercury	64599-09-03 13:27 G	25315605.93	25315606.06	25315606.20	0.0543	0.0081
Venus	64599-12-23 14:24 G	25315716.98	25315717.10	25315717.22	0.0540	0.0435
Venus	64600-08-18 21:51 G	25315955.25	25315955.41	25315955.56	0.0533	0.0346
Mercury	64605-10-16 09:51 G	25317839.76	25317839.91	25317840.07	0.0486	0.0191
Earth	64605-12-13 07:12 G	25317897.58	25317897.80	25317898.03	0.0487	0.0138
Moon	64605-12-13 09:22 G	25317897.66	25317897.89	25317898.13	0.0487	0.0120 *
Venus	64606-06-16 06:58 G	25318082.59	25318082.79	25318082.99	0.0491	0.0100

Venus	64607-02-07 06:43 G	25318318.76	25318318.78	25318318.81	0.0498	0.0492
Mercury	64611-06-23 16:05 G	25319916.04	25319916.17	25319916.30	0.0543	0.0119
Venus	64612-04-23 10:05 G	25320220.72	25320220.92	25320221.11	0.0535	0.0133
Mercury	64617-08-04 10:34 G	25322149.77	25322149.94	25322150.11	0.0486	0.0019
Moon	64617-12-17 12:43 G	25322285.00	25322285.03	25322285.07	0.0488	0.0481
Earth	64617-12-17 15:51 G	25322285.08	25322285.16	25322285.23	0.0488	0.0460
Venus	64618-02-19 12:00 G	25322348.84	25322349.00	25322349.18	0.0489	0.0259
Venus	64618-10-13 09:51 G	25322584.76	25322584.91	25322585.06	0.0495	0.0326
Mercury	64623-04-11 17:31 G	25324226.12	25324226.23	25324226.33	0.0543	0.0341
Earth	64623-06-07 03:22 G	25324282.43	25324282.64	25324282.85	0.0542	0.0219
Moon	64623-06-07 06:58 G	25324282.58	25324282.79	25324283.00	0.0542	0.0207 *
Mercury	64623-07-10 05:31 G	25324315.66	25324315.73	25324315.81	0.0542	0.0447
Venus	64623-12-27 18:29 G	25324486.07	25324486.27	25324486.47	0.0538	0.0094
Mercury	64629-05-23 11:03 G	25326459.80	25326459.96	25326460.12	0.0485	0.0156
Venus	64629-10-25 17:17 G	25326615.12	25326615.22	25326615.33	0.0487	0.0413
Venus	64630-06-18 13:12 G	25326850.85	25326851.05	25326851.24	0.0493	0.0161
Mercury	64635-04-28 08:24 G	25328625.73	25328625.85	25328625.97	0.0543	0.0256
Moon	64635-06-12 06:43 G	25328670.58	25328670.78	25328670.99	0.0542	0.0264
Earth	64635-06-12 09:22 G	25328670.68	25328670.89	25328671.10	0.0542	0.0230 *
Venus	64635-09-01 05:31 G	25328751.57	25328751.73	25328751.90	0.0540	0.0314
Venus	64636-04-26 12:15 G	25328989.92	25328990.01	25328990.12	0.0532	0.0461
Mercury	64641-03-11 11:03 G	25330769.84	25330769.96	25330770.08	0.0485	0.0336
Mercury	64641-06-09 08:10 G	25330859.73	25330859.84	25330859.95	0.0486	0.0377
Venus	64642-02-21 15:36 G	25331116.94	25331117.15	25331117.35	0.0491	0.0007
Mercury	64647-02-14 11:31 G	25332935.85	25332935.98	25332936.12	0.0543	0.0072
Venus	64647-05-06 17:46 G	25333017.21	25333017.24	25333017.29	0.0542	0.0528
Venus	64647-12-31 02:53 G	25333255.44	25333255.62	25333255.80	0.0534	0.0257
Mercury	64653-03-28 08:24 G	25335169.69	25335169.85	25335170.00	0.0486	0.0198
Venus	64653-10-27 20:10 G	25335383.15	25335383.34	25335383.54	0.0490	0.0164
Venus	64654-06-20 18:43 G	25335619.18	25335619.28	25335619.39	0.0496	0.0423

Mercury	64658-12-03 14:24 G	25337245.97	25337246.10	25337246.24	0.0543	0.0117
Venus	64659-09-04 15:36 G	25337520.95	25337521.15	25337521.36	0.0536	0.0044
Mercury	64665-01-14 08:39 G	25339479.69	25339479.86	25339480.03	0.0486	0.0023
Venus	64665-07-03 01:12 G	25339649.39	25339649.55	25339649.70	0.0488	0.0321
Venus	64666-02-23 21:51 G	25339885.25	25339885.41	25339885.59	0.0495	0.0260
Mercury	64670-09-21 16:48 G	25341556.09	25341556.20	25341556.31	0.0543	0.0318
Mercury	64670-12-20 04:48 G	25341645.64	25341645.70	25341645.77	0.0542	0.0470
Venus	64671-05-10 02:53 G	25341786.43	25341786.62	25341786.81	0.0538	0.0176
Mercury	64676-11-02 09:07 G	25343789.73	25343789.88	25343790.05	0.0485	0.0151
Earth	64676-12-08 09:22 G	25343825.68	25343825.89	25343826.11	0.0486	0.0218
Moon	64676-12-08 11:46 G	25343825.78	25343825.99	25343826.20	0.0486	0.0248 *
Venus	64677-03-08 06:58 G	25343915.75	25343915.79	25343915.84	0.0487	0.0473
Venus	64677-10-30 02:24 G	25344151.40	25344151.60	25344151.80	0.0492	0.0095
Mercury	64682-07-10 18:00 G	25345866.25	25345866.25	25345866.26	0.0543	0.0543
Mercury	64682-10-08 06:43 G	25345955.66	25345955.78	25345955.90	0.0542	0.0258
Venus	64683-01-12 10:05 G	25346051.79	25346051.92	25346052.05	0.0540	0.0404
Venus	64683-09-07 17:31 G	25346290.09	25346290.23	25346290.38	0.0533	0.0373
Mercury	64688-08-21 09:51 G	25348099.79	25348099.91	25348100.03	0.0485	0.0322
Mercury	64688-11-19 06:58 G	25348189.69	25348189.79	25348189.89	0.0486	0.0392
Moon	64688-12-12 13:12 G	25348212.82	25348213.05	25348213.28	0.0486	0.0082
Earth	64688-12-12 16:19 G	25348212.95	25348213.18	25348213.41	0.0486	0.0099 *
Venus	64689-07-05 06:15 G	25348417.56	25348417.76	25348417.96	0.0490	0.0066
Mercury	64694-07-27 09:22 G	25350265.76	25350265.89	25350266.03	0.0543	0.0061
Venus	64695-05-13 06:00 G	25350555.56	25350555.75	25350555.95	0.0536	0.0163
Mercury	64700-09-08 06:29 G	25352499.62	25352499.77	25352499.93	0.0486	0.0202
Earth	64700-12-17 20:24 G	25352600.23	25352600.35	25352600.49	0.0487	0.0407
Moon	64700-12-18 00:15 G	25352600.41	25352600.51	25352600.62	0.0487	0.0432 *
Venus	64701-03-11 09:22 G	25352683.71	25352683.89	25352684.07	0.0489	0.0227
Venus	64701-11-02 06:43 G	25352919.64	25352919.78	25352919.92	0.0495	0.0354
Mercury	64706-05-16 12:15 G	25354575.88	25354576.01	25354576.15	0.0543	0.0128

Moon	64706-06-07 02:39 G	25354597.41	25354597.61	25354597.82	0.0543	0.0278
Earth	64706-06-07 05:46 G	25354597.55	25354597.74	25354597.94	0.0543	0.0292 *
Venus	64707-01-16 19:27 G	25354821.10	25354821.31	25354821.51	0.0538	0.0051
Mercury	64712-06-27 06:43 G	25356809.61	25356809.78	25356809.95	0.0485	0.0027
Venus	64712-11-14 14:24 G	25356949.98	25356950.10	25356950.23	0.0487	0.0381
Venus	64713-07-08 10:05 G	25357185.74	25357185.92	25357186.11	0.0493	0.0192
Mercury	64718-03-04 15:07 G	25358886.02	25358886.13	25358886.24	0.0544	0.0319
Mercury	64718-06-02 03:22 G	25358975.57	25358975.64	25358975.70	0.0542	0.0469
Earth	64718-06-12 14:10 G	25358985.87	25358986.09	25358986.31	0.0542	0.0168
Moon	64718-06-12 15:22 G	25358985.94	25358986.14	25358986.35	0.0542	0.0202 *
Venus	64718-09-21 07:27 G	25359086.63	25359086.81	25359086.99	0.0539	0.0267
Venus	64719-05-17 13:41 G	25359325.00	25359325.07	25359325.13	0.0531	0.0500
Mercury	64724-04-15 06:58 G	25361119.64	25361119.79	25361119.96	0.0485	0.0152
Venus	64725-03-13 14:10 G	25361451.89	25361452.09	25361452.30	0.0492	0.0029
Mercury	64729-12-21 17:31 G	25363196.19	25363196.23	25363196.26	0.0544	0.0522
Mercury	64730-03-21 06:00 G	25363285.64	25363285.75	25363285.87	0.0542	0.0277
Venus	64730-05-26 17:46 G	25363352.16	25363352.24	25363352.33	0.0541	0.0486
Venus	64731-01-20 01:55 G	25363590.42	25363590.58	25363590.76	0.0534	0.0294
Mercury	64736-02-02 07:55 G	25365429.70	25365429.83	25365429.95	0.0485	0.0319
Mercury	64736-05-02 05:03 G	25365519.61	25365519.71	25365519.81	0.0486	0.0395
Venus	64736-11-16 19:12 G	25365718.11	25365718.30	25365718.50	0.0490	0.0131
Venus	64737-07-10 18:00 G	25365954.17	25365954.25	25365954.33	0.0497	0.0454
Mercury	64742-01-07 07:41 G	25367595.69	25367595.82	25367595.96	0.0543	0.0062
Venus	64742-09-24 10:48 G	25367855.75	25367855.95	25367856.15	0.0536	0.0071
Mercury	64748-02-19 05:03 G	25369829.56	25369829.71	25369829.87	0.0486	0.0214
Venus	64748-07-22 23:46 G	25369984.33	25369984.49	25369984.66	0.0488	0.0287
Venus	64749-03-15 20:39 G	25370220.19	25370220.36	25370220.52	0.0494	0.0290
Mercury	64753-10-26 10:05 G	25371905.79	25371905.92	25371906.05	0.0543	0.0139
Venus	64754-05-29 21:51 G	25372121.22	25372121.41	25372121.61	0.0539	0.0148
Mercury	64759-12-08 04:48 G	25374139.53	25374139.70	25374139.87	0.0485	0.0026

Moon	64759-12-09 10:34 G	25374140.76	25374140.94	25374141.12	0.0485	0.0307
Earth	64759-12-09 13:41 G	25374140.88	25374141.07	25374141.26	0.0485	0.0275 *
Venus	64760-03-28 03:22 G	25374250.56	25374250.64	25374250.73	0.0487	0.0442
Venus	64760-11-18 22:19 G	25374486.24	25374486.43	25374486.63	0.0492	0.0124
Mercury	64765-08-14 12:43 G	25376215.93	25376216.03	25376216.14	0.0544	0.0334
Mercury	64765-11-12 00:58 G	25376305.47	25376305.54	25376305.61	0.0542	0.0457
Venus	64766-02-01 09:51 G	25376386.77	25376386.91	25376387.07	0.0541	0.0363
Venus	64766-09-27 17:46 G	25376625.11	25376625.24	25376625.37	0.0533	0.0411
Mercury	64771-09-26 05:17 G	25378449.56	25378449.72	25378449.88	0.0485	0.0149
Earth	64771-12-13 20:10 G	25378528.10	25378528.34	25378528.57	0.0486	0.0042
Moon	64771-12-13 23:46 G	25378528.25	25378528.49	25378528.73	0.0486	0.0034 *
Venus	64772-07-25 02:24 G	25378752.40	25378752.60	25378752.81	0.0491	0.0039
Mars	64774-09-13 14:10 G	25379533.08	25379533.09	25379533.13	0.0520	0.0518
Mercury	64777-06-02 15:22 G	25380526.12	25380526.14	25380526.17	0.0544	0.0529
Mercury	64777-08-31 04:05 G	25380615.56	25380615.67	25380615.79	0.0543	0.0274
Venus	64778-06-02 07:12 G	25380890.61	25380890.80	25380890.99	0.0535	0.0204
Mercury	64783-07-15 05:31 G	25382759.61	25382759.73	25382759.86	0.0485	0.0323
Mercury	64783-10-13 02:39 G	25382849.51	25382849.61	25382849.71	0.0486	0.0390
Moon	64783-12-17 22:48 G	25382915.31	25382915.45	25382915.60	0.0487	0.0386
Earth	64783-12-18 02:24 G	25382915.45	25382915.60	25382915.76	0.0487	0.0359 *
Venus	64784-03-30 06:58 G	25383018.61	25383018.79	25383018.98	0.0489	0.0196
Venus	64784-11-21 05:03 G	25383254.59	25383254.71	25383254.84	0.0496	0.0385
Earth	64789-06-06 06:58 G	25384912.63	25384912.79	25384912.97	0.0543	0.0366
Moon	64789-06-06 09:22 G	25384912.72	25384912.89	25384913.06	0.0543	0.0351 *
Mercury	64789-06-19 06:43 G	25384925.65	25384925.78	25384925.92	0.0543	0.0081
Venus	64790-02-04 18:43 G	25385156.07	25385156.28	25385156.48	0.0537	0.0015
Mercury	64795-08-01 03:07 G	25387159.48	25387159.63	25387159.78	0.0486	0.0215
Venus	64795-12-04 12:43 G	25387284.89	25387285.03	25387285.17	0.0488	0.0349
Venus	64796-07-27 08:53 G	25387520.69	25387520.87	25387521.05	0.0494	0.0223
Mercury	64801-04-07 08:24 G	25389235.72	25389235.85	25389235.98	0.0543	0.0139

Moon	64801-06-11 07:27 G	25389300.58	25389300.81	25389301.05	0.0542	0.0095
Earth	64801-06-11 07:41 G	25389300.59	25389300.82	25389301.05	0.0542	0.0065 *
Venus	64801-10-10 02:24 G	25389421.42	25389421.60	25389421.79	0.0539	0.0238
Venus	64802-06-05 08:24 G	25389659.82	25389659.85	25389659.88	0.0531	0.0524
Mars	64803-12-14 19:55 G	25390217.09	25390217.33	25390217.57	0.0508	0.0221
Mercury	64807-05-20 03:22 G	25391469.47	25391469.64	25391469.81	0.0486	0.0036
Venus	64808-04-01 12:29 G	25391786.82	25391787.02	25391787.22	0.0492	0.0061
Mercury	64813-01-24 10:34 G	25393545.84	25393545.94	25393546.05	0.0543	0.0345
Mercury	64813-04-23 22:48 G	25393635.38	25393635.45	25393635.53	0.0542	0.0445
Venus	64813-06-14 12:15 G	25393686.91	25393687.01	25393687.12	0.0541	0.0457
Moon	64813-06-16 09:22 G	25393688.80	25393688.89	25393688.99	0.0541	0.0490
Earth	64813-06-16 11:46 G	25393688.92	25393688.99	25393689.07	0.0541	0.0509 *
Venus	64814-02-07 20:39 G	25393925.20	25393925.36	25393925.53	0.0534	0.0319
Mercury	64819-03-08 03:07 G	25395779.47	25395779.63	25395779.79	0.0485	0.0149
Venus	64819-12-06 14:53 G	25396052.92	25396053.12	25396053.32	0.0490	0.0102
Venus	64820-07-29 13:12 G	25396289.01	25396289.05	25396289.11	0.0496	0.0479
Mercury	64825-02-10 01:55 G	25397945.46	25397945.58	25397945.69	0.0543	0.0259
Venus	64825-10-13 10:05 G	25398190.72	25398190.92	25398191.12	0.0537	0.0111
Mercury	64830-12-25 03:36 G	25400089.53	25400089.65	25400089.78	0.0485	0.0322
Mercury	64831-03-25 00:29 G	25400179.43	25400179.52	25400179.63	0.0486	0.0391
Venus	64831-08-11 19:41 G	25400319.15	25400319.32	25400319.49	0.0488	0.0258
Venus	64832-04-03 16:19 G	25400555.03	25400555.18	25400555.34	0.0494	0.0316
Mercury	64836-11-29 04:48 G	25402255.57	25402255.70	25402255.84	0.0543	0.0073
Venus	64837-06-17 22:48 G	25402456.25	25402456.45	25402456.65	0.0538	0.0104
Earth	64842-12-08 18:29 G	25404456.10	25404456.27	25404456.44	0.0485	0.0326
Moon	64842-12-08 22:05 G	25404456.27	25404456.42	25404456.59	0.0485	0.0356 *
Mercury	64843-01-11 00:43 G	25404489.37	25404489.53	25404489.68	0.0486	0.0209
Venus	64843-04-17 00:29 G	25404585.42	25404585.52	25404585.63	0.0487	0.0412
Venus	64843-12-08 19:55 G	25404821.14	25404821.33	25404821.53	0.0493	0.0155
Mercury	64848-09-17 07:27 G	25406565.68	25406565.81	25406565.94	0.0543	0.0124

Venus	64849-02-20 09:36 G	25406721.74	25406721.90	25406722.06	0.0540	0.0322
Venus	64849-10-16 16:19 G	25406960.08	25406960.18	25406960.30	0.0532	0.0446
Mercury	64854-10-30 01:12 G	25408799.38	25408799.55	25408799.72	0.0486	0.0035
Moon	64854-12-12 22:34 G	25408843.20	25408843.44	25408843.68	0.0486	0.0011
Earth	64854-12-13 02:10 G	25408843.35	25408843.59	25408843.82	0.0486	0.0008 *
Venus	64855-08-14 00:43 G	25409087.33	25409087.53	25409087.73	0.0491	0.0006
Mercury	64860-07-06 08:53 G	25410875.77	25410875.87	25410875.98	0.0543	0.0343
Mercury	64860-10-03 21:07 G	25410965.31	25410965.38	25410965.46	0.0542	0.0447
Venus	64861-06-21 01:55 G	25411225.40	25411225.58	25411225.77	0.0535	0.0231
Mercury	64866-08-18 01:27 G	25413109.40	25413109.56	25413109.72	0.0485	0.0142
Earth	64866-12-17 08:24 G	25413230.68	25413230.85	25413231.04	0.0487	0.0310
Moon	64866-12-17 11:03 G	25413230.81	25413230.96	25413231.13	0.0487	0.0343 *
Venus	64867-04-19 05:03 G	25413353.52	25413353.71	25413353.90	0.0489	0.0163
Venus	64867-12-11 02:53 G	25413589.52	25413589.62	25413589.74	0.0496	0.0415
Moon	64872-06-04 22:05 G	25415227.30	25415227.42	25415227.55	0.0543	0.0461
Earth	64872-06-04 23:17 G	25415227.37	25415227.47	25415227.58	0.0543	0.0475 *
Mercury	64872-07-22 23:46 G	25415275.37	25415275.49	25415275.61	0.0542	0.0249
Venus	64873-02-23 12:58 G	25415490.84	25415491.04	25415491.25	0.0537	0.0017
Mercury	64878-06-06 01:27 G	25417419.44	25417419.56	25417419.68	0.0485	0.0323
Mercury	64878-09-03 22:19 G	25417509.33	25417509.43	25417509.53	0.0486	0.0388
Venus	64878-12-23 08:10 G	25417619.69	25417619.84	25417620.00	0.0488	0.0321
Venus	64879-08-16 03:51 G	25417855.49	25417855.66	25417855.84	0.0493	0.0249
Mercury	64884-05-11 02:24 G	25419585.47	25419585.60	25419585.74	0.0543	0.0057
Moon	64884-06-10 04:19 G	25419615.45	25419615.68	25419615.90	0.0543	0.0008
Earth	64884-06-10 06:00 G	25419615.51	25419615.75	25419615.98	0.0543	0.0024 *
Venus	64884-10-29 00:58 G	25419756.36	25419756.54	25419756.73	0.0540	0.0200
Mercury	64890-06-22 22:34 G	25421819.29	25421819.44	25421819.59	0.0485	0.0209
Venus	64890-08-28 13:27 G	25421886.02	25421886.06	25421886.11	0.0486	0.0471
Venus	64891-04-21 07:55 G	25422121.63	25422121.83	25422122.03	0.0492	0.0088
Mercury	64896-02-28 05:17 G	25423895.59	25423895.72	25423895.85	0.0543	0.0133

Earth	64896-06-15 13:55 G	25424003.95	25424004.08	25424004.22	0.0541	0.0440
Moon	64896-06-15 17:46 G	25424004.09	25424004.24	25424004.39	0.0541	0.0413 *
Venus	64896-07-03 12:43 G	25424021.91	25424022.03	25424022.16	0.0541	0.0415
Venus	64897-02-26 21:07 G	25424260.23	25424260.38	25424260.54	0.0534	0.0358
Mercury	64902-04-11 22:48 G	25426129.28	25426129.45	25426129.62	0.0485	0.0031
Venus	64902-12-26 12:00 G	25426387.80	25426388.00	25426388.21	0.0490	0.0073
Mercury	64907-12-18 07:55 G	25428205.72	25428205.83	25428205.94	0.0543	0.0331
Mercury	64908-03-16 20:10 G	25428295.27	25428295.34	25428295.41	0.0542	0.0460
Venus	64908-11-02 09:36 G	25428525.70	25428525.90	25428526.09	0.0536	0.0148
Mercury	64914-01-28 23:17 G	25430439.31	25430439.47	25430439.63	0.0485	0.0143
Venus	64914-08-31 17:17 G	25430654.05	25430654.22	25430654.41	0.0489	0.0228
Venus	64915-04-24 14:39 G	25430889.97	25430890.11	25430890.26	0.0495	0.0346
Mercury	64920-01-03 22:19 G	25432605.31	25432605.43	25432605.54	0.0542	0.0253
Venus	64920-07-07 18:15 G	25432791.06	25432791.26	25432791.46	0.0538	0.0073
Mercury	64925-11-16 23:46 G	25434749.37	25434749.49	25434749.62	0.0485	0.0317
Moon	64925-12-08 20:24 G	25434771.23	25434771.35	25434771.49	0.0485	0.0408
Earth	64925-12-09 00:00 G	25434771.36	25434771.50	25434771.66	0.0485	0.0379 *
Mercury	64926-02-14 20:53 G	25434839.27	25434839.37	25434839.46	0.0486	0.0396
Venus	64926-05-06 22:19 G	25434920.31	25434920.43	25434920.56	0.0487	0.0380
Venus	64926-12-28 18:00 G	25435156.06	25435156.25	25435156.44	0.0493	0.0185
Mars	64928-12-08 06:29 G	25435866.50	25435866.77	25435867.05	0.0520	0.0090
Mercury	64931-10-23 00:29 G	25436915.39	25436915.52	25436915.66	0.0543	0.0052
Venus	64932-03-12 04:19 G	25437056.51	25437056.68	25437056.85	0.0540	0.0292
Venus	64932-11-05 11:03 G	25437294.87	25437294.96	25437295.06	0.0532	0.0471
Mercury	64937-12-03 20:24 G	25439149.20	25439149.35	25439149.50	0.0485	0.0207
Earth	64937-12-13 04:34 G	25439158.46	25439158.69	25439158.93	0.0486	0.0069
Moon	64937-12-13 07:12 G	25439158.58	25439158.80	25439159.03	0.0486	0.0063 *
Venus	64938-09-02 19:55 G	25439422.13	25439422.33	25439422.54	0.0491	0.0023
Mercury	64943-08-11 02:53 G	25441225.49	25441225.62	25441225.76	0.0544	0.0149
Venus	64943-11-15 14:53 G	25441322.05	25441322.12	25441322.19	0.0542	0.0508

Venus	64944-07-11 00:29 G	25441560.35	25441560.52	25441560.70	0.0535	0.0267
Mercury	64949-09-21 20:53 G	25443459.20	25443459.37	25443459.53	0.0485	0.0033
Moon	64949-12-17 09:36 G	25443545.70	25443545.90	25443546.10	0.0486	0.0280
Earth	64949-12-17 11:17 G	25443545.77	25443545.97	25443546.17	0.0486	0.0250 *
Venus	64950-05-09 00:29 G	25443688.33	25443688.52	25443688.72	0.0489	0.0136
Venus	64950-12-30 22:05 G	25443924.34	25443924.42	25443924.52	0.0496	0.0439
Mercury	64955-05-30 05:46 G	25445535.63	25445535.74	25445535.85	0.0544	0.0341
Moon	64955-06-05 23:46 G	25445542.46	25445542.49	25445542.54	0.0544	0.0534
Mercury	64955-08-27 18:15 G	25445625.18	25445625.26	25445625.33	0.0542	0.0453
Venus	64956-03-15 13:41 G	25445825.86	25445826.07	25445826.27	0.0537	0.0058
Mars	64958-03-10 14:53 G	25446550.87	25446551.12	25446551.38	0.0507	0.0169
Mercury	64961-07-10 21:07 G	25447769.22	25447769.38	25447769.54	0.0485	0.0147
Venus	64962-01-12 05:17 G	25447954.56	25447954.72	25447954.88	0.0488	0.0291
Venus	64962-09-05 01:27 G	25448190.39	25448190.56	25448190.73	0.0494	0.0277
Mercury	64967-03-18 08:10 G	25449845.83	25449845.84	25449845.86	0.0544	0.0540
Earth	64967-06-11 07:55 G	25449930.60	25449930.83	25449931.06	0.0543	0.0093
Moon	64967-06-11 11:17 G	25449930.73	25449930.97	25449931.20	0.0543	0.0071 *
Mercury	64967-06-15 21:07 G	25449935.26	25449935.38	25449935.50	0.0543	0.0264
Venus	64967-11-19 01:12 G	25450091.36	25450091.55	25450091.75	0.0539	0.0158
Mercury	64973-04-28 21:51 G	25452079.28	25452079.41	25452079.53	0.0485	0.0316
Mercury	64973-07-27 18:43 G	25452169.18	25452169.28	25452169.38	0.0486	0.0396
Venus	64973-09-17 11:03 G	25452220.88	25452220.96	25452221.05	0.0487	0.0441
Venus	64974-05-11 06:00 G	25452456.55	25452456.75	25452456.95	0.0492	0.0119
Mercury	64979-04-03 23:03 G	25454245.33	25454245.46	25454245.60	0.0542	0.0058
Moon	64979-06-16 06:15 G	25454318.58	25454318.76	25454318.95	0.0541	0.0319
Earth	64979-06-16 10:19 G	25454318.76	25454318.93	25454319.11	0.0541	0.0346 *
Venus	64979-07-24 09:36 G	25454356.76	25454356.90	25454357.04	0.0540	0.0379
Venus	64980-03-18 17:17 G	25454595.08	25454595.22	25454595.36	0.0533	0.0386
Mercury	64985-05-15 18:43 G	25456479.13	25456479.28	25456479.43	0.0486	0.0215
Venus	64986-01-14 10:05 G	25456722.72	25456722.92	25456723.12	0.0490	0.0040

Mercury	64991-01-21 01:12 G	25458555.42	25458555.55	25458555.69	0.0543	0.0149
Venus	64991-11-22 04:48 G	25458860.51	25458860.70	25458860.89	0.0536	0.0177
Mercury	64997-03-03 18:43 G	25460789.11	25460789.28	25460789.44	0.0485	0.0032
Venus	64997-09-19 13:12 G	25460988.87	25460989.05	25460989.24	0.0488	0.0199
Venus	64998-05-13 10:05 G	25461224.79	25461224.92	25461225.05	0.0495	0.0371

66TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 66th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	65002-11-10 03:22 G	25462865.54	25462865.64	25462865.75	0.0544	0.0354		
Mercury	65003-02-07 15:51 G	25462955.09	25462955.16	25462955.24	0.0543	0.0441		
Venus	65003-07-28 16:34 G	25463125.98	25463126.19	25463126.39	0.0538	0.0039		
Earth	65008-12-09 04:19 G	25465086.58	25465086.68	25465086.79	0.0485	0.0433		
Moon	65008-12-09 06:43 G	25465086.72	25465086.78	25465086.86	0.0485	0.0461	*	
Mercury	65008-12-21 19:12 G	25465099.14	25465099.30	25465099.46	0.0485	0.0143		
Venus	65009-05-26 18:29 G	25465255.13	25465255.27	25465255.41	0.0487	0.0351		
Venus	65010-01-17 13:27 G	25465490.88	25465491.06	25465491.25	0.0493	0.0212		
Mercury	65014-11-26 18:58 G	25467265.17	25467265.29	25467265.41	0.0543	0.0257		
Venus	65015-04-02 04:48 G	25467391.52	25467391.70	25467391.88	0.0540	0.0251		
Venus	65015-11-26 11:46 G	25467629.94	25467629.99	25467630.06	0.0533	0.0509		
Mercury	65020-10-09 19:41 G	25469409.19	25469409.32	25469409.44	0.0485	0.0317		
Moon	65020-12-13 08:39 G	25469473.62	25469473.86	25469474.09	0.0485	0.0112		
Earth	65020-12-13 10:05 G	25469473.70	25469473.92	25469474.15	0.0485	0.0119	*	

Mercury	65021-01-07 16:19 G	25469499.09	25469499.18	25469499.28	0.0486	0.0393
Venus	65021-09-22 17:31 G	25469757.03	25469757.23	25469757.44	0.0491	0.0052
Mercury	65026-09-14 21:51 G	25471575.28	25471575.41	25471575.55	0.0543	0.0067
Venus	65026-12-05 15:51 G	25471657.06	25471657.16	25471657.27	0.0542	0.0465
Venus	65027-08-01 00:58 G	25471895.38	25471895.54	25471895.71	0.0535	0.0306
Mercury	65032-07-28 20:39 G	25473719.35	25473719.36	25473719.36	0.0485	0.0484
Mercury	65032-10-26 16:48 G	25473809.05	25473809.20	25473809.35	0.0486	0.0217
Earth	65032-12-17 17:31 G	25473861.01	25473861.23	25473861.44	0.0486	0.0203
Moon	65032-12-17 17:46 G	25473861.04	25473861.24	25473861.44	0.0486	0.0233 *
Venus	65033-05-28 22:48 G	25474023.25	25474023.45	25474023.65	0.0490	0.0104
Venus	65034-01-19 20:53 G	25474259.31	25474259.37	25474259.44	0.0496	0.0469
Mercury	65038-07-04 00:00 G	25475885.37	25475885.50	25475885.63	0.0543	0.0140
Venus	65039-04-05 11:03 G	25476160.76	25476160.96	25476161.16	0.0537	0.0091
Mercury	65044-08-14 17:03 G	25478119.04	25478119.21	25478119.38	0.0486	0.0039
Venus	65045-02-01 03:22 G	25478289.47	25478289.64	25478289.82	0.0488	0.0258
Venus	65045-09-25 00:00 G	25478525.35	25478525.50	25478525.66	0.0494	0.0309
Mercury	65050-04-22 01:55 G	25480195.48	25480195.58	25480195.69	0.0543	0.0348
Moon	65050-06-10 23:46 G	25480245.28	25480245.49	25480245.71	0.0543	0.0167
Earth	65050-06-11 03:36 G	25480245.44	25480245.65	25480245.87	0.0543	0.0190 *
Mercury	65050-07-20 14:24 G	25480285.03	25480285.10	25480285.18	0.0542	0.0444
Venus	65050-12-08 21:22 G	25480426.20	25480426.39	25480426.59	0.0539	0.0126
Mercury	65056-06-02 17:17 G	25482429.06	25482429.22	25482429.38	0.0485	0.0141
Venus	65056-10-07 07:41 G	25482555.72	25482555.82	25482555.93	0.0487	0.0411
Venus	65057-05-31 02:10 G	25482791.40	25482791.59	25482791.79	0.0492	0.0146
Mercury	65062-05-08 16:48 G	25484595.08	25484595.20	25484595.32	0.0543	0.0247
Earth	65062-06-16 07:55 G	25484633.63	25484633.83	25484634.03	0.0542	0.0260
Moon	65062-06-16 11:46 G	25484633.79	25484633.99	25484634.20	0.0542	0.0236 *
Venus	65062-08-13 07:27 G	25484691.66	25484691.81	25484691.97	0.0541	0.0344
Venus	65063-04-08 16:05 G	25484930.05	25484930.17	25484930.30	0.0534	0.0421
Mercury	65068-03-21 18:00 G	25486739.12	25486739.25	25486739.38	0.0485	0.0310

Mercury	65068-06-19 14:39 G	25486829.02	25486829.11	25486829.21	0.0486	0.0400
Venus	65069-02-03 06:29 G	25487057.57	25487057.77	25487057.98	0.0490	0.0014
Mercury	65074-02-24 19:55 G	25488905.19	25488905.33	25488905.46	0.0543	0.0060
Venus	65074-12-12 05:31 G	25489195.55	25489195.73	25489195.92	0.0536	0.0218
Mercury	65080-01-08 18:29 G	25491049.26	25491049.27	25491049.29	0.0484	0.0482
Mercury	65080-04-07 14:39 G	25491138.96	25491139.11	25491139.27	0.0485	0.0218
Venus	65080-10-09 11:17 G	25491323.77	25491323.97	25491324.16	0.0489	0.0168
Venus	65081-06-02 08:10 G	25491559.73	25491559.84	25491559.96	0.0495	0.0401
Mars	65083-03-04 19:27 G	25492200.09	25492200.31	25492200.54	0.0521	0.0314
Mercury	65085-12-13 22:48 G	25493215.31	25493215.45	25493215.58	0.0544	0.0131
Venus	65086-08-16 18:00 G	25493461.05	25493461.25	25493461.46	0.0538	0.0011
Earth	65091-12-09 11:03 G	25495401.94	25495401.96	25495402.00	0.0485	0.0480
Mercury	65092-01-25 15:22 G	25495448.97	25495449.14	25495449.31	0.0485	0.0044
Venus	65092-06-14 16:34 G	25495590.05	25495590.19	25495590.35	0.0487	0.0320
Venus	65093-02-05 12:29 G	25495825.84	25495826.02	25495826.20	0.0493	0.0243
Mercury	65097-10-02 00:58 G	25497525.43	25497525.54	25497525.64	0.0543	0.0337
Mercury	65097-12-30 13:12 G	25497614.98	25497615.05	25497615.12	0.0542	0.0455
Venus	65098-04-21 03:51 G	25497726.47	25497726.66	25497726.85	0.0540	0.0211
Mercury	65103-11-14 15:51 G	25499759.00	25499759.16	25499759.32	0.0485	0.0132
Earth	65103-12-14 17:31 G	25499789.01	25499789.23	25499789.45	0.0486	0.0164
Moon	65103-12-14 17:46 G	25499789.02	25499789.24	25499789.45	0.0486	0.0154 *
Venus	65104-02-19 21:51 G	25499856.37	25499856.41	25499856.47	0.0486	0.0468
Venus	65104-10-12 16:34 G	25500091.99	25500092.19	25500092.39	0.0491	0.0085
Mercury	65109-10-19 15:36 G	25501925.04	25501925.15	25501925.27	0.0542	0.0258
Venus	65109-12-25 13:12 G	25501991.94	25501992.05	25501992.18	0.0541	0.0428
Venus	65110-08-20 22:05 G	25502230.27	25502230.42	25502230.58	0.0534	0.0338
Mercury	65115-09-02 16:05 G	25504069.05	25504069.17	25504069.31	0.0485	0.0306
Mercury	65115-12-01 12:58 G	25504158.95	25504159.04	25504159.13	0.0486	0.0405
Earth	65115-12-18 23:03 G	25504176.24	25504176.46	25504176.69	0.0486	0.0154
Moon	65115-12-19 00:43 G	25504176.31	25504176.53	25504176.76	0.0486	0.0181 *

Venus	65116-06-17 19:55 G	25504358.13	25504358.33	25504358.53	0.0489	0.0075
Venus	65117-02-08 17:46 G	25504594.23	25504594.24	25504594.25	0.0496	0.0494
Mercury	65121-08-07 17:46 G	25506235.11	25506235.24	25506235.38	0.0543	0.0056
Venus	65122-04-25 09:36 G	25506495.71	25506495.90	25506496.10	0.0537	0.0127
Mercury	65127-06-21 17:03 G	25508379.18	25508379.21	25508379.25	0.0484	0.0471
Mercury	65127-09-19 13:12 G	25508468.91	25508469.05	25508469.20	0.0485	0.0228
Moon	65127-12-23 03:22 G	25508563.58	25508563.64	25508563.70	0.0487	0.0468
Earth	65127-12-23 06:29 G	25508563.72	25508563.77	25508563.82	0.0487	0.0475
Venus	65128-02-22 00:58 G	25508624.36	25508624.54	25508624.72	0.0488	0.0227
Venus	65128-10-14 21:07 G	25508860.23	25508860.38	25508860.53	0.0494	0.0336
Mercury	65133-05-26 20:39 G	25510545.23	25510545.36	25510545.50	0.0544	0.0138
Earth	65133-06-11 04:48 G	25510560.50	25510560.70	25510560.91	0.0544	0.0264
Moon	65133-06-11 08:53 G	25510560.67	25510560.87	25510561.08	0.0544	0.0239 *
Venus	65133-12-28 22:19 G	25510761.22	25510761.43	25510761.63	0.0539	0.0085
Mercury	65139-07-08 13:27 G	25512778.90	25512779.06	25512779.23	0.0485	0.0050
Venus	65139-10-28 06:00 G	25512890.63	25512890.75	25512890.88	0.0487	0.0379
Venus	65140-06-20 00:43 G	25513126.34	25513126.53	25513126.72	0.0492	0.0177
Mercury	65145-03-14 23:31 G	25514855.37	25514855.48	25514855.59	0.0544	0.0329
Mercury	65145-06-12 12:00 G	25514944.93	25514945.00	25514945.07	0.0543	0.0466
Moon	65145-06-16 10:34 G	25514948.72	25514948.94	25514949.17	0.0543	0.0175
Earth	65145-06-16 13:55 G	25514948.86	25514949.08	25514949.29	0.0543	0.0203 *
Venus	65145-09-02 10:05 G	25515026.75	25515026.92	25515027.09	0.0541	0.0297
Venus	65146-04-28 18:15 G	25515265.16	25515265.26	25515265.36	0.0533	0.0462
Mercury	65151-04-26 14:10 G	25517088.93	25517089.09	25517089.25	0.0485	0.0123
Venus	65152-02-24 05:31 G	25517392.53	25517392.73	25517392.94	0.0490	0.0025
Mercury	65157-01-01 01:41 G	25519165.55	25519165.57	25519165.59	0.0544	0.0534
Mercury	65157-03-31 14:39 G	25519254.99	25519255.11	25519255.23	0.0542	0.0271
Venus	65157-05-07 19:55 G	25519292.26	25519292.33	25519292.39	0.0542	0.0511
Venus	65158-01-01 05:31 G	25519530.55	25519530.73	25519530.91	0.0535	0.0255
Mercury	65163-02-12 14:53 G	25521398.99	25521399.12	25521399.25	0.0485	0.0295

Mercury	65163-05-13 11:31 G	25521488.90	25521488.98	25521489.07	0.0486	0.0416
Venus	65163-10-30 10:34 G	25521658.75	25521658.94	25521659.14	0.0489	0.0133
Venus	65164-06-22 07:55 G	25521894.74	25521894.83	25521894.93	0.0495	0.0435
Mercury	65169-01-17 17:03 G	25523565.07	25523565.21	25523565.34	0.0543	0.0071
Venus	65169-09-05 16:19 G	25523795.98	25523796.18	25523796.39	0.0538	0.0044
Mercury	65174-12-01 15:36 G	25525709.11	25525709.15	25525709.20	0.0484	0.0463
Mercury	65175-03-01 11:46 G	25525798.84	25525798.99	25525799.14	0.0485	0.0236
Venus	65175-07-05 14:53 G	25525924.96	25525925.12	25525925.29	0.0487	0.0287
Venus	65176-02-26 10:19 G	25526160.76	25526160.93	25526161.10	0.0493	0.0272
Mercury	65180-11-05 18:58 G	25527875.15	25527875.29	25527875.42	0.0544	0.0141
Venus	65181-05-11 02:10 G	25528061.40	25528061.59	25528061.78	0.0540	0.0176
Earth	65186-12-14 01:55 G	25530104.37	25530104.58	25530104.80	0.0485	0.0204
Moon	65186-12-14 03:36 G	25530104.43	25530104.65	25530104.88	0.0485	0.0186 *
Mercury	65186-12-18 12:15 G	25530108.85	25530109.01	25530109.18	0.0485	0.0063
Venus	65187-03-10 20:53 G	25530191.28	25530191.37	25530191.46	0.0486	0.0434
Venus	65187-11-01 14:39 G	25530426.91	25530427.11	25530427.31	0.0491	0.0115
Mercury	65192-08-24 21:36 G	25532185.29	25532185.40	25532185.51	0.0544	0.0335
Mercury	65192-11-22 10:05 G	25532274.86	25532274.92	25532274.99	0.0543	0.0463
Venus	65193-01-13 13:41 G	25532326.93	25532327.07	25532327.22	0.0542	0.0389
Venus	65193-09-08 23:31 G	25532565.33	25532565.48	25532565.62	0.0535	0.0376
Mercury	65198-10-06 12:43 G	25534418.87	25534419.03	25534419.19	0.0485	0.0114
Moon	65198-12-18 04:34 G	25534491.47	25534491.69	25534491.91	0.0486	0.0137
Earth	65198-12-18 07:41 G	25534491.59	25534491.82	25534492.05	0.0486	0.0112 *
Venus	65199-07-07 18:58 G	25534693.08	25534693.29	25534693.49	0.0489	0.0042
Mercury	65204-06-13 00:15 G	25536495.48	25536495.51	25536495.54	0.0544	0.0528
Mercury	65204-09-10 13:27 G	25536584.94	25536585.06	25536585.17	0.0543	0.0281
Venus	65205-05-14 12:43 G	25536830.84	25536831.03	25536831.23	0.0537	0.0173
Mercury	65210-07-25 13:27 G	25538728.93	25538729.06	25538729.20	0.0485	0.0283
Mercury	65210-10-23 10:05 G	25538818.85	25538818.92	25538819.00	0.0486	0.0427
Earth	65210-12-22 14:53 G	25538879.03	25538879.12	25538879.23	0.0487	0.0436

Moon	65210-12-22 19:12 G	25538879.18	25538879.30	25538879.41	0.0487	0.0422 *
Venus	65211-03-13 00:15 G	25538959.33	25538959.51	25538959.70	0.0488	0.0194
Venus	65211-11-03 20:53 G	25539195.24	25539195.37	25539195.51	0.0494	0.0369
Moon	65216-06-10 06:15 G	25540875.57	25540875.76	25540875.95	0.0543	0.0306
Earth	65216-06-10 09:51 G	25540875.73	25540875.91	25540876.10	0.0543	0.0326 *
Mercury	65216-06-29 16:05 G	25540895.03	25540895.17	25540895.30	0.0543	0.0086
Venus	65217-01-16 23:31 G	25541096.28	25541096.48	25541096.69	0.0539	0.0041
Mercury	65222-05-13 14:10 G	25543039.04	25543039.09	25543039.15	0.0485	0.0453
Mercury	65222-08-11 10:19 G	25543128.79	25543128.93	25543129.08	0.0486	0.0249
Venus	65222-11-16 05:46 G	25543225.60	25543225.74	25543225.89	0.0487	0.0343
Venus	65223-07-10 00:58 G	25543461.36	25543461.54	25543461.72	0.0492	0.0213
Mercury	65228-04-17 18:15 G	25545205.13	25545205.26	25545205.39	0.0543	0.0118
Earth	65228-06-15 14:53 G	25545263.90	25545264.12	25545264.35	0.0542	0.0127
Moon	65228-06-15 16:19 G	25545263.97	25545264.18	25545264.41	0.0542	0.0098 *
Venus	65228-09-21 09:36 G	25545361.73	25545361.90	25545362.08	0.0540	0.0257
Venus	65229-05-17 17:17 G	25545600.16	25545600.22	25545600.30	0.0533	0.0496
Mars	65230-11-25 07:41 G	25546156.62	25546156.82	25546157.03	0.0509	0.0326
Mercury	65234-05-30 10:48 G	25547438.79	25547438.95	25547439.12	0.0485	0.0074
Venus	65235-03-15 04:34 G	25547727.49	25547727.69	25547727.89	0.0490	0.0053
Mercury	65240-02-04 19:55 G	25549515.22	25549515.33	25549515.43	0.0544	0.0335
Mercury	65240-05-04 08:24 G	25549604.78	25549604.85	25549604.92	0.0543	0.0463
Venus	65240-05-26 17:46 G	25549627.15	25549627.24	25549627.34	0.0542	0.0478
Venus	65241-01-20 04:34 G	25549865.52	25549865.69	25549865.86	0.0536	0.0290
Mercury	65246-03-18 11:31 G	25551748.82	25551748.98	25551749.15	0.0485	0.0098
Venus	65246-11-18 09:51 G	25551993.71	25551993.91	25551994.11	0.0488	0.0100
Venus	65247-07-12 06:29 G	25552229.71	25552229.77	25552229.85	0.0495	0.0462
Mercury	65251-11-23 22:19 G	25553825.41	25553825.43	25553825.46	0.0545	0.0533
Mercury	65252-02-21 11:31 G	25553914.86	25553914.98	25553915.09	0.0543	0.0277
Venus	65252-09-24 17:17 G	25554131.02	25554131.22	25554131.42	0.0538	0.0082
Mercury	65258-01-04 12:00 G	25556058.87	25556059.00	25556059.14	0.0484	0.0272

Mercury	65258-04-04 08:39 G	25556148.79	25556148.86	25556148.93	0.0485	0.0437
Venus	65258-07-24 14:24 G	25556259.93	25556260.10	25556260.28	0.0487	0.0253
Venus	65259-03-17 09:51 G	25556495.75	25556495.91	25556496.07	0.0493	0.0304
Mercury	65263-12-10 14:39 G	25558224.97	25558225.11	25558225.24	0.0544	0.0093
Venus	65264-05-30 06:00 G	25558396.55	25558396.75	25558396.95	0.0540	0.0127
Mercury	65269-10-23 12:58 G	25560368.98	25560369.04	25560369.11	0.0484	0.0438
Moon	65269-12-13 07:55 G	25560419.62	25560419.83	25560420.04	0.0485	0.0219
Earth	65269-12-13 11:03 G	25560419.76	25560419.96	25560420.17	0.0485	0.0243 *
Mercury	65270-01-21 09:07 G	25560458.74	25560458.88	25560459.02	0.0485	0.0262
Venus	65270-03-29 20:24 G	25560526.24	25560526.35	25560526.47	0.0486	0.0400
Venus	65270-11-20 14:39 G	25560761.92	25560762.11	25560762.30	0.0491	0.0150
Mercury	65275-09-28 17:17 G	25562535.08	25562535.22	25562535.35	0.0543	0.0104
Venus	65276-02-02 16:34 G	25562662.03	25562662.19	25562662.35	0.0541	0.0341
Venus	65276-09-28 00:58 G	25562900.43	25562900.54	25562900.68	0.0534	0.0418
Mercury	65281-11-09 09:36 G	25564768.73	25564768.90	25564769.07	0.0485	0.0086
Earth	65281-12-17 17:46 G	25564807.01	25564807.24	25564807.47	0.0486	0.0077
Moon	65281-12-17 21:51 G	25564807.18	25564807.41	25564807.64	0.0486	0.0100 *
Venus	65282-07-26 19:27 G	25565028.10	25565028.31	25565028.51	0.0490	0.0008
Mercury	65287-07-17 19:27 G	25566845.20	25566845.31	25566845.42	0.0544	0.0307
Mercury	65287-10-15 07:55 G	25566934.77	25566934.83	25566934.89	0.0542	0.0487
Venus	65288-06-02 12:58 G	25567165.85	25567166.04	25567166.23	0.0536	0.0211
Mercury	65293-08-28 10:19 G	25569078.76	25569078.93	25569079.09	0.0485	0.0085
Moon	65293-12-21 20:53 G	25569194.23	25569194.37	25569194.52	0.0486	0.0386
Earth	65293-12-22 00:58 G	25569194.41	25569194.54	25569194.67	0.0486	0.0402 *
Venus	65294-04-01 00:15 G	25569294.32	25569294.51	25569294.70	0.0488	0.0160
Venus	65294-11-22 20:39 G	25569530.24	25569530.36	25569530.47	0.0494	0.0399
Mercury	65299-05-05 20:39 G	25571155.34	25571155.36	25571155.39	0.0544	0.0530
Earth	65299-06-10 07:27 G	25571190.67	25571190.81	25571190.96	0.0544	0.0413
Moon	65299-06-10 09:51 G	25571190.77	25571190.91	25571191.06	0.0544	0.0401 *
Mercury	65299-08-03 09:51 G	25571244.80	25571244.91	25571245.03	0.0543	0.0279

Venus	65300-02-05 22:05 G	25571431.22	25571431.42	25571431.63	0.0539	0.0008
Mercury	65305-06-17 11:17 G	25573388.83	25573388.97	25573389.11	0.0484	0.0253
Mercury	65305-09-15 07:41 G	25573478.77	25573478.82	25573478.88	0.0485	0.0457
Venus	65305-12-06 06:00 G	25573560.60	25573560.75	25573560.91	0.0487	0.0308
Venus	65306-07-30 00:29 G	25573796.34	25573796.52	25573796.70	0.0492	0.0244
Mercury	65311-05-23 12:43 G	25575554.90	25575555.03	25575555.16	0.0544	0.0089
Earth	65311-06-16 15:36 G	25575578.92	25575579.15	25575579.38	0.0543	0.0054
Moon	65311-06-16 15:51 G	25575578.92	25575579.16	25575579.40	0.0543	0.0020 *
Venus	65311-10-12 09:51 G	25575696.73	25575696.91	25575697.10	0.0541	0.0219
Venus	65312-06-06 18:15 G	25575935.26	25575935.26	25575935.28	0.0534	0.0533
Mercury	65317-04-05 11:46 G	25577698.92	25577698.99	25577699.07	0.0484	0.0425
Mercury	65317-07-04 07:55 G	25577788.69	25577788.83	25577788.97	0.0485	0.0274
Venus	65317-08-11 11:03 G	25577826.90	25577826.96	25577827.03	0.0485	0.0456
Venus	65318-04-04 04:19 G	25578062.48	25578062.68	25578062.88	0.0490	0.0087
Mercury	65323-03-11 15:51 G	25579865.02	25579865.16	25579865.29	0.0544	0.0098
Venus	65323-06-16 21:51 G	25579962.30	25579962.41	25579962.54	0.0542	0.0428
Moon	65323-06-21 23:03 G	25579967.41	25579967.46	25579967.53	0.0542	0.0518
Earth	65323-06-22 01:27 G	25579967.50	25579967.56	25579967.62	0.0542	0.0523 *
Venus	65324-02-10 08:24 G	25580200.69	25580200.85	25580201.01	0.0536	0.0335
Mercury	65329-04-22 08:24 G	25582098.69	25582098.85	25582099.02	0.0485	0.0101
Venus	65329-12-08 09:36 G	25582328.70	25582328.90	25582329.11	0.0489	0.0066
Venus	65330-08-01 06:58 G	25582564.79	25582564.79	25582564.79	0.0495	0.0495
Mercury	65334-12-28 18:15 G	25584175.15	25584175.26	25584175.38	0.0544	0.0294
Mercury	65335-03-28 06:58 G	25584264.74	25584264.79	25584264.84	0.0543	0.0501
Venus	65335-10-15 20:10 G	25584466.14	25584466.34	25584466.54	0.0538	0.0128
Mercury	65341-02-08 09:07 G	25586408.71	25586408.88	25586409.04	0.0485	0.0074
Venus	65341-08-13 14:53 G	25586594.94	25586595.12	25586595.31	0.0488	0.0217
Venus	65342-04-06 10:48 G	25586830.81	25586830.95	25586831.10	0.0493	0.0340
Mercury	65346-10-16 20:24 G	25588485.30	25588485.35	25588485.41	0.0544	0.0500
Mercury	65347-01-14 09:36 G	25588574.79	25588574.90	25588575.01	0.0543	0.0307

Venus	65347-06-20 06:58 G	25588731.59	25588731.79	25588731.99	0.0539	0.0085
Mercury	65352-11-27 09:51 G	25590718.77	25590718.91	25590719.06	0.0484	0.0240
Earth	65352-12-13 21:36 G	25590735.21	25590735.40	25590735.60	0.0485	0.0275
Moon	65352-12-14 01:41 G	25590735.37	25590735.57	25590735.78	0.0485	0.0243 *
Mercury	65353-02-25 06:29 G	25590808.73	25590808.77	25590808.81	0.0485	0.0471
Venus	65353-04-18 20:53 G	25590861.24	25590861.37	25590861.51	0.0486	0.0365
Venus	65353-12-10 14:53 G	25591096.93	25591097.12	25591097.31	0.0491	0.0182
Mars	65355-11-18 10:19 G	25591804.69	25591804.93	25591805.18	0.0518	0.0247
Mercury	65358-11-02 11:17 G	25592884.83	25592884.97	25592885.10	0.0544	0.0094
Venus	65359-02-22 14:39 G	25592996.94	25592997.11	25592997.28	0.0542	0.0307
Venus	65359-10-19 00:00 G	25593235.39	25593235.50	25593235.61	0.0535	0.0448
Mercury	65364-09-15 11:03 G	25595028.87	25595028.96	25595029.05	0.0484	0.0405
Mercury	65364-12-14 06:58 G	25595118.66	25595118.79	25595118.93	0.0485	0.0295
Moon	65364-12-18 01:12 G	25595122.31	25595122.55	25595122.79	0.0485	0.0068
Earth	65364-12-18 05:03 G	25595122.48	25595122.71	25595122.95	0.0485	0.0048 *
Venus	65365-08-15 19:41 G	25595363.11	25595363.32	25595363.52	0.0489	0.0029
Mercury	65370-08-21 13:55 G	25597194.94	25597195.08	25597195.21	0.0544	0.0102
Venus	65370-10-28 01:27 G	25597262.50	25597262.56	25597262.62	0.0543	0.0518
Venus	65371-06-23 12:58 G	25597500.86	25597501.04	25597501.23	0.0537	0.0247
Mercury	65376-10-02 07:12 G	25599428.63	25599428.80	25599428.96	0.0485	0.0114
Earth	65376-12-22 10:19 G	25599509.78	25599509.93	25599510.09	0.0486	0.0364
Moon	65376-12-22 13:12 G	25599509.90	25599510.05	25599510.22	0.0486	0.0348 *
Venus	65377-04-21 00:00 G	25599629.30	25599629.50	25599629.70	0.0488	0.0125
Venus	65377-12-12 20:10 G	25599865.25	25599865.34	25599865.44	0.0494	0.0431
Mercury	65382-06-09 16:48 G	25601505.08	25601505.20	25601505.31	0.0544	0.0291
Moon	65382-06-10 14:39 G	25601505.99	25601506.11	25601506.24	0.0544	0.0462
Earth	65382-06-10 15:07 G	25601506.02	25601506.13	25601506.26	0.0544	0.0467 *
Mercury	65382-09-07 05:17 G	25601594.68	25601594.72	25601594.77	0.0543	0.0507
Venus	65383-02-26 02:10 G	25601766.39	25601766.59	25601766.79	0.0539	0.0042
Mars	65385-02-19 23:31 G	25602491.24	25602491.48	25602491.73	0.0509	0.0191

Mercury	65388-07-21 07:55 G	25603738.66	25603738.83	25603739.00	0.0485	0.0058
Venus	65388-12-25 05:46 G	25603895.57	25603895.74	25603895.91	0.0487	0.0274
Venus	65389-08-18 00:29 G	25604131.35	25604131.52	25604131.69	0.0492	0.0277
Mercury	65394-03-28 19:12 G	25605815.25	25605815.30	25605815.36	0.0544	0.0488
Moon	65394-06-15 22:05 G	25605894.19	25605894.42	25605894.64	0.0543	0.0036
Earth	65394-06-15 23:31 G	25605894.25	25605894.48	25605894.71	0.0543	0.0005 *
Mercury	65394-06-26 08:24 G	25605904.74	25605904.85	25605904.96	0.0543	0.0320
Venus	65394-10-31 13:41 G	25606031.87	25606032.07	25606032.26	0.0540	0.0170
Mercury	65400-05-10 08:39 G	25608048.71	25608048.86	25608049.00	0.0485	0.0229
Mercury	65400-08-08 05:03 G	25608138.70	25608138.71	25608138.73	0.0486	0.0482
Venus	65400-08-31 11:31 G	25608161.88	25608161.98	25608162.08	0.0486	0.0420
Venus	65401-04-24 05:03 G	25608397.52	25608397.71	25608397.91	0.0491	0.0124
Mercury	65406-04-15 10:48 G	25610214.82	25610214.95	25610215.09	0.0543	0.0123
Earth	65406-06-22 05:03 G	25610282.60	25610282.71	25610282.84	0.0542	0.0458
Moon	65406-06-22 08:24 G	25610282.73	25610282.85	25610282.98	0.0542	0.0456 *
Venus	65406-07-06 23:31 G	25610297.34	25610297.48	25610297.62	0.0542	0.0383
Venus	65407-03-02 09:07 G	25610535.74	25610535.88	25610536.03	0.0535	0.0374
Mercury	65412-02-27 09:36 G	25612358.81	25612358.90	25612359.00	0.0484	0.0393
Mercury	65412-05-27 05:46 G	25612448.61	25612448.74	25612448.87	0.0485	0.0308
Venus	65412-12-28 10:19 G	25612663.73	25612663.93	25612664.13	0.0489	0.0031
Mercury	65418-02-01 12:29 G	25614524.88	25614525.02	25614525.15	0.0544	0.0098
Venus	65418-11-04 18:15 G	25614801.07	25614801.26	25614801.46	0.0538	0.0160
Mercury	65424-03-15 06:15 G	25616758.60	25616758.76	25616758.93	0.0485	0.0135
Venus	65424-09-02 15:36 G	25616929.97	25616930.15	25616930.34	0.0487	0.0182
Venus	65425-04-26 10:48 G	25617165.83	25617165.95	25617166.09	0.0493	0.0371
Mercury	65429-11-20 14:53 G	25618835.00	25618835.12	25618835.23	0.0544	0.0296
Mercury	65430-02-18 03:36 G	25618924.60	25618924.65	25618924.70	0.0543	0.0502
Venus	65430-07-10 06:00 G	25619066.54	25619066.75	25619066.95	0.0540	0.0051
Moon	65435-12-15 03:22 G	25621050.45	25621050.64	25621050.84	0.0484	0.0284
Earth	65435-12-15 07:27 G	25621050.63	25621050.81	25621050.99	0.0484	0.0314 *

Mercury	65436-01-02 06:43 G	25621068.61	25621068.78	25621068.94	0.0484	0.0047
Venus	65436-05-08 20:24 G	25621196.20	25621196.35	25621196.50	0.0486	0.0330
Venus	65436-12-30 14:10 G	25621431.91	25621432.09	25621432.28	0.0491	0.0215
Mercury	65441-09-08 17:31 G	25623145.17	25623145.23	25623145.29	0.0545	0.0489
Mercury	65441-12-07 06:43 G	25623234.67	25623234.78	25623234.89	0.0544	0.0321
Venus	65442-03-14 18:15 G	25623332.09	25623332.26	25623332.44	0.0542	0.0258
Venus	65442-11-08 03:36 G	25623570.58	25623570.65	25623570.73	0.0534	0.0492
Mercury	65447-10-21 07:27 G	25625378.66	25625378.81	25625378.96	0.0484	0.0215
Earth	65447-12-19 14:10 G	25625437.85	25625438.09	25625438.32	0.0485	0.0011
Moon	65447-12-19 17:03 G	25625437.98	25625438.21	25625438.43	0.0485	0.0025 *
Venus	65448-01-13 02:24 G	25625462.56	25625462.60	25625462.64	0.0485	0.0474
Venus	65448-09-04 19:12 G	25625698.10	25625698.30	25625698.50	0.0490	0.0062
Mercury	65453-09-25 09:36 G	25627544.77	25627544.90	25627545.04	0.0544	0.0134
Venus	65453-11-17 05:17 G	25627597.63	25627597.72	25627597.83	0.0543	0.0468
Venus	65454-07-13 16:05 G	25627836.00	25627836.17	25627836.35	0.0536	0.0292
Mercury	65459-08-09 08:10 G	25629688.74	25629688.84	25629688.94	0.0484	0.0384
Mercury	65459-11-07 04:05 G	25629778.55	25629778.67	25629778.80	0.0485	0.0317
Moon	65459-12-23 19:12 G	25629825.12	25629825.30	25629825.49	0.0486	0.0307
Earth	65459-12-23 20:39 G	25629825.19	25629825.36	25629825.53	0.0486	0.0330 *
Venus	65460-05-11 00:29 G	25629964.32	25629964.52	25629964.72	0.0488	0.0089
Venus	65461-01-01 21:07 G	25630200.32	25630200.38	25630200.45	0.0495	0.0465
Moon	65465-06-10 18:29 G	25631821.24	25631821.27	25631821.32	0.0544	0.0535
Earth	65465-06-10 19:27 G	25631821.27	25631821.31	25631821.37	0.0544	0.0531 *
Mercury	65465-07-14 12:00 G	25631854.87	25631855.00	25631855.14	0.0544	0.0068
Venus	65466-03-18 03:22 G	25632101.44	25632101.64	25632101.84	0.0538	0.0083
Mercury	65471-08-26 05:03 G	25634088.55	25634088.71	25634088.87	0.0485	0.0146
Venus	65472-01-15 06:15 G	25634230.59	25634230.76	25634230.94	0.0487	0.0239
Venus	65472-09-07 01:12 G	25634466.39	25634466.55	25634466.70	0.0492	0.0309
Mercury	65477-05-02 13:12 G	25636164.94	25636165.05	25636165.17	0.0544	0.0292
Earth	65477-06-15 19:55 G	25636209.11	25636209.33	25636209.56	0.0544	0.0090

Moon	65477-06-15 22:34 G	25636209.21	25636209.44	25636209.67	0.0544	0.0125	*
Mercury	65477-07-31 01:55 G	25636254.54	25636254.58	25636254.63	0.0543	0.0507	
Venus	65477-11-20 10:48 G	25636366.76	25636366.95	25636367.15	0.0541	0.0138	
Mercury	65483-06-14 05:46 G	25638398.57	25638398.74	25638398.91	0.0485	0.0026	
Venus	65483-09-20 12:15 G	25638496.89	25638497.01	25638497.13	0.0486	0.0384	
Venus	65484-05-13 05:31 G	25638732.54	25638732.73	25638732.92	0.0490	0.0156	
Mercury	65489-02-18 15:36 G	25640475.09	25640475.15	25640475.20	0.0544	0.0496	
Mercury	65489-05-19 04:48 G	25640564.59	25640564.70	25640564.81	0.0543	0.0315	
Moon	65489-06-20 23:03 G	25640597.30	25640597.46	25640597.63	0.0543	0.0373	
Earth	65489-06-21 02:39 G	25640597.45	25640597.61	25640597.79	0.0543	0.0373	*
Venus	65489-07-25 21:07 G	25640632.23	25640632.38	25640632.54	0.0542	0.0351	
Venus	65490-03-21 07:41 G	25640870.69	25640870.82	25640870.96	0.0536	0.0405	
Mercury	65495-04-02 06:00 G	25642708.60	25642708.75	25642708.90	0.0484	0.0204	
Venus	65496-01-17 09:07 G	25642998.68	25642998.88	25642999.09	0.0489	0.0006	
Mercury	65501-03-08 07:55 G	25644874.69	25644874.83	25644874.96	0.0544	0.0131	
Venus	65501-11-24 21:22 G	25645136.20	25645136.39	25645136.58	0.0538	0.0205	
Mercury	65507-01-20 06:58 G	25647018.69	25647018.79	25647018.90	0.0484	0.0371	
Mercury	65507-04-20 02:53 G	25647108.50	25647108.62	25647108.74	0.0485	0.0329	
Venus	65507-09-23 14:39 G	25647264.92	25647265.11	25647265.30	0.0487	0.0148	
Venus	65508-05-16 10:05 G	25647500.81	25647500.92	25647501.04	0.0493	0.0402	
Mars	65510-02-13 21:51 G	25648139.18	25648139.41	25648139.65	0.0519	0.0277	
Mercury	65512-12-25 10:34 G	25649184.81	25649184.94	25649185.08	0.0544	0.0063	
Venus	65513-07-30 09:07 G	25649401.68	25649401.88	25649402.09	0.0539	0.0009	
Earth	65518-12-15 16:34 G	25651366.03	25651366.19	25651366.35	0.0484	0.0353	
Moon	65518-12-15 19:12 G	25651366.13	25651366.30	25651366.47	0.0484	0.0323	*
Mercury	65519-02-06 03:22 G	25651418.48	25651418.64	25651418.80	0.0485	0.0152	
Venus	65519-05-29 20:10 G	25651531.18	25651531.34	25651531.50	0.0486	0.0296	
Venus	65520-01-20 14:24 G	25651766.93	25651767.10	25651767.28	0.0492	0.0249	
Mercury	65524-10-13 12:58 G	25653494.92	25653495.04	25653495.16	0.0544	0.0263	
Mercury	65525-01-11 01:27 G	25653584.54	25653584.56	25653584.59	0.0543	0.0533	

Venus	65525-04-03 19:27 G	25653667.13	25653667.31	25653667.50	0.0541	0.0215
Venus	65525-11-28 04:05 G	25653905.64	25653905.67	25653905.70	0.0534	0.0527
Mercury	65530-11-25 04:05 G	25655728.51	25655728.67	25655728.84	0.0485	0.0022
Moon	65530-12-19 23:17 G	25655753.22	25655753.47	25655753.71	0.0485	0.0020
Earth	65530-12-20 00:15 G	25655753.28	25655753.51	25655753.75	0.0485	0.0027 *
Venus	65531-02-02 02:24 G	25655797.52	25655797.60	25655797.69	0.0485	0.0441
Venus	65531-09-25 19:27 G	25656033.12	25656033.31	25656033.52	0.0490	0.0097
Mercury	65536-08-01 13:55 G	25657805.03	25657805.08	25657805.14	0.0544	0.0491
Mercury	65536-10-30 03:07 G	25657894.53	25657894.63	25657894.74	0.0543	0.0319
Venus	65536-12-07 01:55 G	25657932.47	25657932.58	25657932.71	0.0543	0.0436
Venus	65537-08-02 12:58 G	25658170.88	25658171.04	25658171.20	0.0537	0.0319
Mercury	65542-09-13 05:03 G	25660038.56	25660038.71	25660038.86	0.0484	0.0187
Moon	65542-12-24 06:15 G	25660140.57	25660140.76	25660140.95	0.0485	0.0269
Earth	65542-12-24 06:58 G	25660140.61	25660140.79	25660140.98	0.0485	0.0296 *
Venus	65543-06-01 00:29 G	25660299.32	25660299.52	25660299.73	0.0488	0.0057
Mercury	65548-08-18 05:46 G	25662204.61	25662204.74	25662204.87	0.0544	0.0122
Venus	65549-04-07 00:29 G	25662436.32	25662436.52	25662436.72	0.0539	0.0114
Mercury	65554-07-02 05:31 G	25664348.62	25664348.73	25664348.84	0.0484	0.0363
Mercury	65554-09-30 01:27 G	25664438.44	25664438.56	25664438.68	0.0485	0.0337
Venus	65555-02-04 04:34 G	25664565.51	25664565.69	25664565.88	0.0487	0.0206
Venus	65555-09-27 23:17 G	25664801.32	25664801.47	25664801.62	0.0492	0.0339
Mercury	65560-06-06 08:39 G	25666514.72	25666514.86	25666515.00	0.0544	0.0068
Moon	65560-06-15 20:53 G	25666524.16	25666524.37	25666524.59	0.0544	0.0193
Earth	65560-06-16 00:29 G	25666524.30	25666524.52	25666524.74	0.0544	0.0156 *
Venus	65560-12-10 12:58 G	25666701.84	25666702.04	25666702.24	0.0541	0.0093
Mercury	65566-07-19 01:55 G	25668748.42	25668748.58	25668748.74	0.0485	0.0161
Venus	65566-10-10 10:19 G	25668831.80	25668831.93	25668832.07	0.0486	0.0352
Venus	65567-06-03 03:51 G	25669067.47	25669067.66	25669067.85	0.0491	0.0187
Mercury	65572-03-25 11:17 G	25670824.85	25670824.97	25670825.09	0.0544	0.0261
Earth	65572-06-21 09:07 G	25670912.69	25670912.88	25670913.07	0.0543	0.0316

Moon	65572-06-21 12:29 G	25670912.85	25670913.02	25670913.21	0.0543	0.0331 *
Mercury	65572-06-23 00:00 G	25670914.49	25670914.50	25670914.52	0.0543	0.0537
Venus	65572-08-15 00:15 G	25670967.35	25670967.51	25670967.68	0.0542	0.0302
Venus	65573-04-10 10:05 G	25671205.82	25671205.92	25671206.04	0.0535	0.0446
Mercury	65578-05-07 02:24 G	25673058.43	25673058.60	25673058.77	0.0485	0.0015
Venus	65579-02-06 08:39 G	25673333.65	25673333.86	25673334.06	0.0489	0.0036
Mercury	65584-01-12 13:27 G	25675134.99	25675135.06	25675135.13	0.0544	0.0466
Mercury	65584-04-11 02:39 G	25675224.51	25675224.61	25675224.72	0.0543	0.0344
Venus	65584-04-19 10:05 G	25675232.86	25675232.92	25675232.99	0.0543	0.0512
Venus	65584-12-13 21:36 G	25675471.22	25675471.40	25675471.59	0.0537	0.0244
Mercury	65590-02-23 03:22 G	25677368.49	25677368.64	25677368.79	0.0484	0.0181
Venus	65590-10-12 14:24 G	25677599.90	25677600.10	25677600.30	0.0488	0.0115
Venus	65591-06-05 10:19 G	25677835.83	25677835.93	25677836.02	0.0493	0.0433
Mercury	65596-01-29 04:19 G	25679534.54	25679534.68	25679534.81	0.0543	0.0126
Venus	65596-08-18 05:17 G	25679736.51	25679736.72	25679736.92	0.0539	0.0027
Mercury	65601-12-12 04:19 G	25681678.57	25681678.68	25681678.79	0.0484	0.0349
Moon	65601-12-15 01:12 G	25681681.39	25681681.55	25681681.71	0.0484	0.0363
Earth	65601-12-15 01:55 G	25681681.45	25681681.58	25681681.72	0.0484	0.0392 *
Mercury	65602-03-12 00:15 G	25681768.39	25681768.51	25681768.62	0.0485	0.0353
Venus	65602-06-17 19:41 G	25681866.15	25681866.32	25681866.50	0.0486	0.0262
Venus	65603-02-08 13:55 G	25682101.92	25682102.08	25682102.25	0.0491	0.0280
Mercury	65607-11-17 06:29 G	25683844.63	25683844.77	25683844.91	0.0544	0.0077
Venus	65608-04-22 15:36 G	25684001.96	25684002.15	25684002.34	0.0541	0.0185
Moon	65613-12-19 05:31 G	25686068.51	25686068.73	25686068.96	0.0484	0.0080
Earth	65613-12-19 06:29 G	25686068.54	25686068.77	25686069.01	0.0484	0.0078 *
Mercury	65613-12-29 00:00 G	25686078.35	25686078.50	25686078.66	0.0485	0.0167
Venus	65614-02-21 00:00 G	25686132.40	25686132.50	25686132.61	0.0485	0.0408
Venus	65614-10-14 17:03 G	25686368.01	25686368.21	25686368.40	0.0490	0.0126
Mercury	65619-09-05 09:07 G	25688154.76	25688154.88	25688155.00	0.0544	0.0272
Mercury	65619-12-03 21:51 G	25688244.39	25688244.41	25688244.44	0.0543	0.0528

Venus	65619-12-27 02:53 G	25688267.49	25688267.62	25688267.76	0.0543	0.0392
Venus	65620-08-21 14:10 G	25688505.94	25688506.09	25688506.24	0.0537	0.0360
Mercury	65625-10-17 00:43 G	25690388.36	25690388.53	25690388.70	0.0484	0.0007
Earth	65625-12-23 12:43 G	25690455.83	25690456.03	25690456.24	0.0485	0.0245
Moon	65625-12-23 15:22 G	25690455.92	25690456.14	25690456.36	0.0485	0.0213 *
Venus	65626-06-19 22:05 G	25690634.21	25690634.42	25690634.62	0.0488	0.0027
Mercury	65631-06-24 11:46 G	25692464.92	25692464.99	25692465.06	0.0544	0.0468
Mercury	65631-09-22 00:58 G	25692554.44	25692554.54	25692554.65	0.0543	0.0343
Venus	65632-04-26 02:39 G	25692771.42	25692771.61	25692771.81	0.0538	0.0157
Mercury	65637-08-05 01:12 G	25694698.40	25694698.55	25694698.71	0.0484	0.0181
Venus	65638-02-23 02:53 G	25694900.44	25694900.62	25694900.82	0.0487	0.0175
Venus	65638-10-16 22:19 G	25695136.30	25695136.43	25695136.56	0.0493	0.0370
Earth	65643-06-16 02:53 G	25696839.41	25696839.62	25696839.83	0.0544	0.0227
Moon	65643-06-16 06:29 G	25696839.58	25696839.77	25696839.98	0.0544	0.0258 *
Mercury	65643-07-11 03:36 G	25696864.52	25696864.65	25696864.78	0.0544	0.0147
Venus	65643-12-30 13:12 G	25697036.85	25697037.05	25697037.26	0.0540	0.0053
Mercury	65649-05-24 02:24 G	25699008.49	25699008.60	25699008.72	0.0484	0.0345
Mercury	65649-08-21 22:19 G	25699098.32	25699098.43	25699098.54	0.0485	0.0356
Venus	65649-10-29 09:22 G	25699166.74	25699166.89	25699167.04	0.0486	0.0320
Venus	65650-06-22 03:07 G	25699402.45	25699402.63	25699402.81	0.0491	0.0218
Mercury	65655-04-29 04:48 G	25701174.57	25701174.70	25701174.84	0.0544	0.0076
Moon	65655-06-21 00:29 G	25701227.30	25701227.52	25701227.73	0.0543	0.0227
Earth	65655-06-21 03:36 G	25701227.44	25701227.65	25701227.86	0.0543	0.0214 *
Venus	65655-09-03 19:55 G	25701302.16	25701302.33	25701302.51	0.0542	0.0271
Venus	65656-04-29 05:31 G	25701540.64	25701540.73	25701540.83	0.0535	0.0471
Mars	65657-11-06 09:51 G	25702096.70	25702096.91	25702097.12	0.0512	0.0319
Mercury	65661-06-09 22:48 G	25703408.29	25703408.45	25703408.61	0.0485	0.0179
Venus	65661-07-04 14:53 G	25703433.07	25703433.12	25703433.18	0.0485	0.0462
Venus	65662-02-25 07:27 G	25703668.61	25703668.81	25703669.02	0.0489	0.0068
Mercury	65667-02-15 06:58 G	25705484.67	25705484.79	25705484.91	0.0544	0.0281

Venus	65667-05-09 05:17 G	25705567.63	25705567.72	25705567.82	0.0543	0.0482
Mercury	65667-05-15 19:41 G	25705574.29	25705574.32	25705574.36	0.0543	0.0518
Venus	65668-01-02 17:03 G	25705806.03	25705806.21	25705806.39	0.0537	0.0270
Mercury	65673-03-28 22:48 G	25707718.28	25707718.45	25707718.62	0.0484	0.0006
Venus	65673-10-31 11:03 G	25707934.76	25707934.96	25707935.16	0.0487	0.0086
Venus	65674-06-24 06:29 G	25708170.71	25708170.77	25708170.85	0.0493	0.0459
Mercury	65678-12-04 09:22 G	25709794.83	25709794.89	25709794.95	0.0545	0.0482
Mercury	65679-03-03 22:48 G	25709884.34	25709884.45	25709884.55	0.0544	0.0331
Venus	65679-09-07 05:17 G	25710071.52	25710071.72	25710071.93	0.0540	0.0068
Moon	65684-12-14 05:46 G	25711996.63	25711996.74	25711996.85	0.0484	0.0421
Earth	65684-12-14 06:43 G	25711996.70	25711996.78	25711996.88	0.0484	0.0446 *
Mercury	65685-01-14 23:31 G	25712028.33	25712028.48	25712028.64	0.0484	0.0176
Venus	65685-07-06 16:19 G	25712201.01	25712201.18	25712201.36	0.0486	0.0233
Venus	65686-02-27 10:34 G	25712436.78	25712436.94	25712437.10	0.0492	0.0307
Mercury	65690-12-21 01:41 G	25714194.44	25714194.57	25714194.70	0.0544	0.0143
Venus	65691-05-12 17:17 G	25714337.02	25714337.22	25714337.41	0.0541	0.0141
Mercury	65696-11-03 00:15 G	25716338.40	25716338.51	25716338.63	0.0484	0.0347
Earth	65696-12-18 12:29 G	25716383.79	25716384.02	25716384.25	0.0485	0.0126
Moon	65696-12-18 15:07 G	25716383.90	25716384.13	25716384.37	0.0485	0.0134 *
Mercury	65697-01-31 19:55 G	25716428.22	25716428.33	25716428.45	0.0485	0.0354
Venus	65697-03-11 21:51 G	25716467.28	25716467.41	25716467.54	0.0485	0.0378
Venus	65697-11-02 15:07 G	25716702.94	25716703.13	25716703.32	0.0490	0.0155
Mercury	65702-10-10 04:05 G	25718504.53	25718504.67	25718504.81	0.0544	0.0056
Venus	65703-01-16 03:07 G	25718602.48	25718602.63	25718602.79	0.0542	0.0351
Venus	65703-09-11 13:41 G	25718840.93	25718841.07	25718841.21	0.0536	0.0395
Mercury	65708-11-20 20:53 G	25720738.21	25720738.37	25720738.52	0.0485	0.0181
Moon	65708-12-23 16:34 G	25720770.97	25720771.19	25720771.41	0.0485	0.0167
Earth	65708-12-23 19:55 G	25720771.12	25720771.33	25720771.55	0.0485	0.0200 *
Venus	65709-07-09 20:39 G	25720969.15	25720969.36	25720969.56	0.0489	0.0013
Mercury	65714-07-29 05:31 G	25722814.61	25722814.73	25722814.85	0.0544	0.0279

Mercury	65714-10-26 18:15 G	25722904.22	25722904.26	25722904.30	0.0543	0.0520
Venus	65715-05-16 21:51 G	25723106.22	25723106.41	25723106.60	0.0538	0.0184
Mercury	65720-09-08 21:22 G	25725048.22	25725048.39	25725048.56	0.0485	0.0005
Venus	65721-03-15 01:27 G	25725235.37	25725235.56	25725235.76	0.0487	0.0142
Venus	65721-11-05 20:39 G	25725471.25	25725471.36	25725471.48	0.0493	0.0399
Mercury	65726-05-17 07:12 G	25727124.74	25727124.80	25727124.86	0.0544	0.0490
Moon	65726-06-15 15:51 G	25727154.00	25727154.16	25727154.34	0.0544	0.0371
Earth	65726-06-15 19:27 G	25727154.14	25727154.31	25727154.50	0.0544	0.0338 *
Mercury	65726-08-14 20:39 G	25727214.25	25727214.36	25727214.47	0.0543	0.0321
Venus	65727-01-19 07:55 G	25727371.63	25727371.83	25727372.03	0.0540	0.0025
Mercury	65732-06-27 21:36 G	25729358.24	25729358.40	25729358.55	0.0484	0.0175
Venus	65732-11-18 05:31 G	25729501.57	25729501.73	25729501.89	0.0486	0.0291
Venus	65733-07-11 22:48 G	25729737.28	25729737.45	25729737.63	0.0491	0.0245
Mercury	65738-06-02 23:17 G	25731524.34	25731524.47	25731524.60	0.0544	0.0128
Earth	65738-06-21 02:39 G	25731542.39	25731542.61	25731542.84	0.0544	0.0130
Moon	65738-06-21 04:48 G	25731542.49	25731542.70	25731542.92	0.0544	0.0147 *
Venus	65738-09-23 18:58 G	25731637.11	25731637.29	25731637.48	0.0542	0.0233
Venus	65739-05-20 05:03 G	25731875.65	25731875.71	25731875.78	0.0535	0.0506
Mercury	65744-04-15 22:19 G	25733668.32	25733668.43	25733668.55	0.0484	0.0344
Mercury	65744-07-14 18:00 G	25733758.14	25733758.25	25733758.37	0.0485	0.0356
Venus	65744-07-24 11:03 G	25733767.88	25733767.96	25733768.06	0.0485	0.0433
Venus	65745-03-17 03:22 G	25734003.45	25734003.64	25734003.85	0.0489	0.0095
Mercury	65750-03-22 01:55 G	25735834.45	25735834.58	25735834.72	0.0544	0.0066
Venus	65750-05-29 06:15 G	25735902.65	25735902.76	25735902.88	0.0543	0.0439
Venus	65751-01-22 18:00 G	25736141.08	25736141.25	25736141.41	0.0537	0.0310
Mercury	65756-05-02 18:29 G	25738068.11	25738068.27	25738068.42	0.0485	0.0176
Venus	65756-11-20 08:24 G	25738269.65	25738269.85	25738270.06	0.0488	0.0056
Venus	65757-07-14 04:34 G	25738505.66	25738505.69	25738505.72	0.0494	0.0486
Mercury	65762-01-08 04:19 G	25740144.56	25740144.68	25740144.80	0.0544	0.0264
Mercury	65762-04-07 17:17 G	25740234.20	25740234.22	25740234.24	0.0543	0.0535

Venus	65762-09-27 05:03 G	25740406.51	25740406.71	25740406.91	0.0539	0.0105
Moon	65767-12-15 15:22 G	25742312.09	25742312.14	25742312.20	0.0484	0.0469
Mercury	65768-02-19 19:12 G	25742378.14	25742378.30	25742378.47	0.0485	0.0008
Venus	65768-07-26 14:10 G	25742535.91	25742536.09	25742536.28	0.0487	0.0203
Venus	65769-03-19 08:53 G	25742771.73	25742771.87	25742772.02	0.0492	0.0336
Mercury	65773-10-27 05:46 G	25744454.68	25744454.74	25744454.80	0.0544	0.0487
Mercury	65774-01-24 18:58 G	25744544.18	25744544.29	25744544.40	0.0543	0.0324
Venus	65774-06-01 12:43 G	25744671.83	25744672.03	25744672.23	0.0541	0.0111
Mercury	65779-12-08 19:55 G	25746688.17	25746688.33	25746688.49	0.0485	0.0168
Moon	65779-12-19 15:07 G	25746698.92	25746699.13	25746699.35	0.0485	0.0188
Earth	65779-12-19 18:43 G	25746699.06	25746699.28	25746699.50	0.0485	0.0177 *
Venus	65780-03-31 19:41 G	25746802.18	25746802.32	25746802.46	0.0486	0.0347
Venus	65780-11-22 13:12 G	25747037.86	25747038.05	25747038.24	0.0490	0.0186
Mars	65782-10-29 07:12 G	25747743.59	25747743.80	25747744.02	0.0516	0.0327
Mercury	65785-11-12 21:07 G	25748854.25	25748854.38	25748854.52	0.0543	0.0121
Venus	65786-02-03 21:36 G	25748937.24	25748937.40	25748937.57	0.0542	0.0322
Venus	65786-09-30 08:10 G	25749175.71	25749175.84	25749175.96	0.0536	0.0419
Mercury	65791-09-26 20:10 G	25750998.23	25750998.34	25750998.46	0.0484	0.0345
Earth	65791-12-23 22:48 G	25751086.23	25751086.45	25751086.68	0.0485	0.0140
Moon	65791-12-24 02:39 G	25751086.38	25751086.61	25751086.84	0.0485	0.0109 *
Mercury	65791-12-25 15:51 G	25751088.05	25751088.16	25751088.28	0.0485	0.0355
Venus	65792-07-28 16:05 G	25751303.97	25751304.17	25751304.37	0.0488	0.0033
Mercury	65797-08-31 23:31 G	25753164.35	25753164.48	25753164.62	0.0544	0.0080
Venus	65797-10-09 07:41 G	25753202.78	25753202.82	25753202.87	0.0544	0.0529
Venus	65798-06-04 20:24 G	25753441.17	25753441.35	25753441.54	0.0539	0.0221
Mercury	65803-10-14 16:34 G	25755398.03	25755398.19	25755398.34	0.0485	0.0178
Moon	65803-12-29 01:41 G	25755473.50	25755473.57	25755473.65	0.0485	0.0459
Earth	65803-12-29 05:17 G	25755473.65	25755473.72	25755473.79	0.0485	0.0462 *
Venus	65804-04-03 21:07 G	25755570.19	25755570.38	25755570.58	0.0487	0.0116
Venus	65804-11-25 16:05 G	25755806.08	25755806.17	25755806.28	0.0493	0.0424

Earth	65809-06-15 20:53 G	25757469.23	25757469.37	25757469.52	0.0544	0.0414
Moon	65809-06-15 23:31 G	25757469.36	25757469.48	25757469.61	0.0544	0.0446 *
Mercury	65809-06-21 02:10 G	25757474.47	25757474.59	25757474.71	0.0544	0.0274
Mercury	65809-09-18 15:07 G	25757564.10	25757564.13	25757564.16	0.0543	0.0527
Venus	65810-02-08 08:24 G	25757706.65	25757706.85	25757707.05	0.0540	0.0016
Mars	65812-02-02 06:58 G	25758430.52	25758430.79	25758431.06	0.0511	0.0093
Mercury	65815-08-02 17:03 G	25759708.04	25759708.21	25759708.37	0.0484	0.0012
Venus	65815-12-09 02:24 G	25759836.43	25759836.60	25759836.78	0.0486	0.0262
Venus	65816-07-31 20:10 G	25760072.17	25760072.34	25760072.51	0.0491	0.0272
Mercury	65821-04-09 04:34 G	25761784.62	25761784.69	25761784.75	0.0544	0.0476
Moon	65821-06-21 03:22 G	25761857.41	25761857.64	25761857.88	0.0544	0.0072
Earth	65821-06-21 04:19 G	25761857.45	25761857.68	25761857.91	0.0544	0.0055 *
Mercury	65821-07-07 18:00 G	25761874.14	25761874.25	25761874.35	0.0543	0.0337
Venus	65821-10-13 19:12 G	25761972.11	25761972.30	25761972.49	0.0542	0.0193
Mercury	65827-05-21 17:46 G	25764018.09	25764018.24	25764018.40	0.0484	0.0169
Venus	65827-08-14 08:24 G	25764102.75	25764102.85	25764102.97	0.0485	0.0405
Venus	65828-04-06 01:27 G	25764338.36	25764338.56	25764338.76	0.0489	0.0123
Mercury	65833-04-25 19:41 G	25766184.19	25766184.32	25766184.45	0.0543	0.0124
Venus	65833-06-18 02:24 G	25766237.47	25766237.60	25766237.74	0.0542	0.0406
Moon	65833-06-26 04:34 G	25766245.65	25766245.69	25766245.75	0.0542	0.0528
Earth	65833-06-26 06:15 G	25766245.68	25766245.76	25766245.85	0.0542	0.0501 *
Venus	65834-02-11 13:27 G	25766475.90	25766476.06	25766476.22	0.0537	0.0337
Mercury	65839-03-09 18:43 G	25768328.16	25768328.28	25768328.39	0.0484	0.0340
Mercury	65839-06-07 14:24 G	25768417.99	25768418.10	25768418.21	0.0485	0.0361
Venus	65839-12-11 06:15 G	25768604.56	25768604.76	25768604.96	0.0488	0.0025
Mercury	65845-02-11 21:36 G	25770494.27	25770494.40	25770494.54	0.0544	0.0085
Venus	65845-10-16 23:46 G	25770741.29	25770741.49	25770741.68	0.0539	0.0132
Mercury	65851-03-26 14:24 G	25772727.94	25772728.10	25772728.25	0.0485	0.0177
Venus	65851-08-16 09:51 G	25772870.73	25772870.91	25772871.11	0.0486	0.0176
Venus	65852-04-08 04:05 G	25773106.54	25773106.67	25773106.81	0.0492	0.0360

Mercury	65856-11-30 23:46 G	25774804.37	25774804.49	25774804.61	0.0544	0.0290
Mercury	65857-02-28 12:43 G	25774893.99	25774894.03	25774894.07	0.0543	0.0513
Venus	65857-06-21 10:34 G	25775006.74	25775006.94	25775007.14	0.0541	0.0076
Earth	65862-12-19 22:19 G	25777014.22	25777014.43	25777014.63	0.0484	0.0234
Moon	65862-12-20 02:10 G	25777014.38	25777014.59	25777014.79	0.0484	0.0246 *
Mercury	65863-01-12 15:07 G	25777037.96	25777038.13	25777038.29	0.0484	0.0013
Venus	65863-04-21 15:51 G	25777137.00	25777137.16	25777137.31	0.0485	0.0319
Venus	65863-12-13 08:39 G	25777372.68	25777372.86	25777373.04	0.0490	0.0211
Mercury	65868-09-19 02:10 G	25779114.53	25779114.59	25779114.65	0.0545	0.0488
Mercury	65868-12-17 15:51 G	25779204.05	25779204.16	25779204.26	0.0544	0.0327
Venus	65869-02-23 21:51 G	25779272.24	25779272.41	25779272.58	0.0543	0.0283
Venus	65869-10-20 08:39 G	25779510.75	25779510.86	25779510.96	0.0536	0.0456
Mercury	65874-10-31 15:36 G	25781347.99	25781348.15	25781348.30	0.0484	0.0171
Moon	65874-12-24 00:15 G	25781401.27	25781401.51	25781401.74	0.0485	0.0057
Earth	65874-12-24 03:36 G	25781401.42	25781401.65	25781401.89	0.0485	0.0087 *
Venus	65874-12-25 21:07 G	25781403.32	25781403.38	25781403.44	0.0485	0.0461
Venus	65875-08-18 13:12 G	25781638.84	25781639.05	25781639.25	0.0489	0.0061
Mercury	65880-10-05 18:29 G	25783514.14	25783514.27	25783514.40	0.0544	0.0135
Venus	65880-10-29 08:24 G	25783537.76	25783537.85	25783537.94	0.0543	0.0488
Venus	65881-06-24 20:24 G	25783776.18	25783776.35	25783776.53	0.0538	0.0258
Mercury	65886-08-19 16:34 G	25785658.08	25785658.19	25785658.31	0.0484	0.0338
Mercury	65886-11-17 12:15 G	25785747.90	25785748.01	25785748.12	0.0485	0.0361
Earth	65886-12-28 10:48 G	25785788.82	25785788.95	25785789.07	0.0486	0.0412
Moon	65886-12-28 12:58 G	25785788.93	25785789.04	25785789.16	0.0486	0.0421 *
Venus	65887-04-23 18:58 G	25785905.09	25785905.29	25785905.49	0.0487	0.0086
Venus	65887-12-15 14:24 G	25786141.02	25786141.10	25786141.18	0.0493	0.0451
Moon	65892-06-14 16:05 G	25787784.15	25787784.17	25787784.21	0.0544	0.0539
Earth	65892-06-14 18:00 G	25787784.18	25787784.25	25787784.33	0.0544	0.0509 *
Mercury	65892-07-24 20:10 G	25787824.21	25787824.34	25787824.48	0.0543	0.0079
Venus	65893-02-27 05:03 G	25788041.50	25788041.71	25788041.91	0.0540	0.0048

Mercury	65898-09-05 12:43 G	25790057.87	25790058.03	25790058.18	0.0485	0.0183
Venus	65898-12-28 00:00 G	25790171.33	25790171.50	25790171.68	0.0486	0.0231
Venus	65899-08-20 18:00 G	25790407.10	25790407.25	25790407.42	0.0491	0.0302
Mercury	65904-05-13 22:05 G	25792134.30	25792134.42	25792134.54	0.0544	0.0288
Moon	65904-06-20 21:36 G	25792172.18	25792172.40	25792172.62	0.0543	0.0033
Earth	65904-06-20 22:05 G	25792172.19	25792172.42	25792172.65	0.0543	0.0052 *
Mercury	65904-08-11 11:03 G	25792223.92	25792223.96	25792224.00	0.0543	0.0512
Venus	65904-11-02 14:24 G	25792306.91	25792307.10	25792307.30	0.0541	0.0162
Mercury	65910-06-25 12:58 G	25794367.87	25794368.04	25794368.20	0.0484	0.0009
Venus	65910-09-03 04:34 G	25794437.57	25794437.69	25794437.82	0.0485	0.0376
Venus	65911-04-26 21:07 G	25794673.19	25794673.38	25794673.57	0.0489	0.0149
Mercury	65916-03-01 23:46 G	25796444.44	25796444.49	25796444.55	0.0545	0.0502
Mercury	65916-05-30 13:27 G	25796533.95	25796534.06	25796534.17	0.0544	0.0315
Earth	65916-06-26 02:53 G	25796560.48	25796560.62	25796560.77	0.0543	0.0410
Moon	65916-06-26 06:00 G	25796560.61	25796560.75	25796560.90	0.0543	0.0432 *
Venus	65916-07-07 23:46 G	25796572.34	25796572.49	25796572.64	0.0543	0.0373
Venus	65917-03-03 11:31 G	25796810.83	25796810.98	25796811.13	0.0537	0.0369
Mercury	65922-04-13 13:41 G	25798677.92	25798678.07	25798678.23	0.0484	0.0167
Venus	65922-12-31 02:10 G	25798939.39	25798939.59	25798939.80	0.0488	0.0003
Mercury	65928-03-18 16:19 G	25800844.05	25800844.18	25800844.31	0.0544	0.0125
Venus	65928-11-06 00:00 G	25801076.31	25801076.50	25801076.69	0.0539	0.0170
Mercury	65934-01-30 14:24 G	25802987.99	25802988.10	25802988.22	0.0484	0.0339
Mercury	65934-04-30 10:05 G	25803077.81	25803077.92	25803078.03	0.0485	0.0359
Venus	65934-09-05 07:12 G	25803205.60	25803205.80	25803205.99	0.0487	0.0146
Venus	65935-04-29 01:41 G	25803441.45	25803441.57	25803441.69	0.0492	0.0387
Mars	65937-01-23 18:15 G	25804076.99	25804077.26	25804077.54	0.0517	0.0047
Mercury	65940-01-05 18:58 G	25805154.15	25805154.29	25805154.43	0.0544	0.0069
Venus	65940-07-11 11:17 G	25805341.77	25805341.97	25805342.17	0.0541	0.0035
Moon	65945-12-20 00:15 G	25807329.33	25807329.51	25807329.70	0.0484	0.0303
Earth	65945-12-20 03:51 G	25807329.47	25807329.66	25807329.85	0.0484	0.0285 *

Mercury	65946-02-16 10:34 G	25807387.79	25807387.94	25807388.10	0.0485	0.0186
Venus	65946-05-11 13:12 G	25807471.89	25807472.05	25807472.22	0.0486	0.0289
Venus	65947-01-02 06:29 G	25807707.60	25807707.77	25807707.95	0.0490	0.0241
Mercury	65951-10-24 20:53 G	25809464.25	25809464.37	25809464.48	0.0544	0.0281
Mercury	65952-01-22 09:51 G	25809553.87	25809553.91	25809553.94	0.0543	0.0520
Venus	65952-03-15 19:55 G	25809607.15	25809607.33	25809607.51	0.0542	0.0246
Venus	65952-11-09 05:31 G	25809845.65	25809845.73	25809845.82	0.0535	0.0485
Mercury	65957-12-05 11:17 G	25811697.80	25811697.97	25811698.14	0.0485	0.0010
Earth	65957-12-24 09:36 G	25811716.67	25811716.90	25811717.14	0.0485	0.0037
Moon	65957-12-24 12:00 G	25811716.77	25811717.00	25811717.23	0.0485	0.0012 *
Venus	65958-01-14 18:43 G	25811738.19	25811738.28	25811738.38	0.0485	0.0430
Venus	65958-09-07 11:17 G	25811973.77	25811973.97	25811974.17	0.0489	0.0091
Mercury	65963-08-12 22:34 G	25813774.38	25813774.44	25813774.49	0.0544	0.0494
Mercury	65963-11-10 12:00 G	25813863.89	25813864.00	25813864.11	0.0543	0.0320
Venus	65963-11-19 04:48 G	25813872.59	25813872.70	25813872.81	0.0543	0.0454
Venus	65964-07-14 16:19 G	25814111.01	25814111.18	25814111.35	0.0538	0.0286
Mars	65966-04-28 15:51 G	25814764.03	25814764.16	25814764.31	0.0511	0.0437
Mercury	65969-09-23 11:46 G	25816007.84	25816007.99	25816008.15	0.0484	0.0166
Moon	65969-12-28 13:41 G	25816103.91	25816104.07	25816104.23	0.0485	0.0366
Earth	65969-12-28 14:53 G	25816103.96	25816104.12	25816104.28	0.0485	0.0357 *
Venus	65970-05-13 15:22 G	25816239.94	25816240.14	25816240.34	0.0487	0.0059
Venus	65971-01-04 10:05 G	25816475.88	25816475.92	25816475.98	0.0493	0.0475
Mercury	65975-08-29 14:10 G	25818173.95	25818174.09	25818174.22	0.0544	0.0115
Venus	65976-03-19 02:39 G	25818376.41	25818376.61	25818376.82	0.0540	0.0081
Mercury	65981-07-12 12:43 G	25820317.92	25820318.03	25820318.15	0.0484	0.0333
Mercury	65981-10-10 08:10 G	25820407.74	25820407.84	25820407.96	0.0485	0.0366
Venus	65982-01-16 20:53 G	25820506.19	25820506.37	25820506.56	0.0486	0.0203
Venus	65982-09-09 14:24 G	25820741.95	25820742.10	25820742.25	0.0491	0.0326
Mercury	65987-06-17 16:48 G	25822484.06	25822484.20	25822484.34	0.0544	0.0079
Earth	65987-06-20 22:19 G	25822487.21	25822487.43	25822487.65	0.0544	0.0131

Moon	65987-06-21 00:43 G	25822487.30	25822487.53	25822487.76	0.0544	0.0103	*
Venus	65987-11-22 14:24 G	25822641.90	25822642.10	25822642.30	0.0542	0.0125	
Mercury	65993-07-29 08:39 G	25824717.71	25824717.86	25824718.02	0.0484	0.0186	
Venus	65993-09-22 02:10 G	25824772.46	25824772.59	25824772.74	0.0485	0.0346	
Venus	65994-05-15 18:43 G	25825008.10	25825008.28	25825008.47	0.0489	0.0178	
Mercury	65999-04-05 19:27 G	25826794.19	25826794.31	25826794.43	0.0544	0.0274	
Moon	65999-06-26 03:07 G	25826875.47	25826875.63	25826875.80	0.0543	0.0365	
Earth	65999-06-26 06:58 G	25826875.62	25826875.79	25826875.97	0.0543	0.0345	*
Mercury	65999-07-04 08:24 G	25826883.83	25826883.85	25826883.88	0.0543	0.0530	
Venus	65999-07-28 01:27 G	25826907.40	25826907.56	25826907.72	0.0543	0.0330	
Venus	66000-03-22 12:43 G	25827145.90	25827146.03	25827146.17	0.0537	0.0408	

67TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 67th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	66005-05-17 09:36 G	25829027.73	25829027.90	25829028.06	0.0484	0.0020		
Venus	66006-01-19 00:15 G	25829274.31	25829274.51	25829274.72	0.0488	0.0034		
Mercury	66011-01-22 21:22 G	25831104.32	25831104.39	25831104.45	0.0544	0.0485		
Venus	66011-04-01 10:19 G	25831172.90	25831172.93	25831172.97	0.0543	0.0535		
Mercury	66011-04-22 10:48 G	25831193.84	25831193.95	25831194.06	0.0543	0.0330		
Venus	66011-11-25 22:34 G	25831411.26	25831411.44	25831411.63	0.0539	0.0206		
Mercury	66017-03-05 10:05 G	25833337.77	25833337.92	25833338.08	0.0484	0.0159		
Venus	66017-09-24 05:31 G	25833540.54	25833540.73	25833540.93	0.0487	0.0115		

Venus	66018-05-18 00:29 G	25833776.42	25833776.52	25833776.63	0.0492	0.0417
Mercury	66023-02-08 12:58 G	25835503.91	25835504.04	25835504.17	0.0543	0.0126
Venus	66023-07-31 08:24 G	25835676.65	25835676.85	25835677.05	0.0540	0.0004
Earth	66028-12-19 09:22 G	25837644.72	25837644.89	25837645.06	0.0484	0.0335
Moon	66028-12-19 11:31 G	25837644.83	25837644.98	25837645.14	0.0484	0.0360 *
Mercury	66028-12-22 11:03 G	25837647.84	25837647.96	25837648.08	0.0484	0.0328
Mercury	66029-03-22 06:29 G	25837737.66	25837737.77	25837737.88	0.0485	0.0369
Venus	66029-05-30 10:34 G	25837806.77	25837806.94	25837807.11	0.0486	0.0261
Venus	66030-01-21 03:36 G	25838042.48	25838042.65	25838042.82	0.0490	0.0265
Mercury	66034-11-27 14:39 G	25839813.98	25839814.11	25839814.25	0.0544	0.0086
Venus	66035-04-04 17:17 G	25839942.04	25839942.22	25839942.41	0.0543	0.0214
Venus	66035-11-29 04:05 G	25840180.62	25840180.67	25840180.72	0.0536	0.0516
Moon	66040-12-23 15:22 G	25842031.90	25842032.14	25842032.39	0.0484	0.0034
Earth	66040-12-23 16:34 G	25842031.95	25842032.19	25842032.42	0.0484	0.0013 *
Mercury	66041-01-08 07:12 G	25842047.65	25842047.80	25842047.95	0.0484	0.0196
Venus	66041-02-02 16:34 G	25842073.08	25842073.19	25842073.31	0.0485	0.0400
Venus	66041-09-26 08:39 G	25842308.66	25842308.86	25842309.05	0.0488	0.0119
Mercury	66046-09-15 17:17 G	25844124.10	25844124.22	25844124.34	0.0545	0.0283
Venus	66046-12-08 04:19 G	25844207.55	25844207.68	25844207.81	0.0544	0.0418
Mercury	66046-12-14 06:29 G	25844213.73	25844213.77	25844213.80	0.0544	0.0524
Venus	66047-08-03 16:48 G	25844446.04	25844446.20	25844446.37	0.0538	0.0323
Mercury	66052-10-27 07:41 G	25846357.65	25846357.82	25846357.99	0.0484	0.0019
Moon	66052-12-27 21:36 G	25846419.23	25846419.40	25846419.57	0.0485	0.0326
Earth	66052-12-27 21:51 G	25846419.23	25846419.41	25846419.59	0.0485	0.0311 *
Venus	66053-06-01 13:27 G	25846574.86	25846575.06	25846575.27	0.0487	0.0029
Mercury	66058-07-04 19:41 G	25848434.26	25848434.32	25848434.39	0.0545	0.0479
Mercury	66058-10-02 09:22 G	25848523.79	25848523.89	25848524.00	0.0544	0.0338
Venus	66059-04-08 05:03 G	25848711.51	25848711.71	25848711.91	0.0540	0.0124
Mercury	66064-08-15 08:39 G	25850667.70	25850667.86	25850668.02	0.0484	0.0149
Venus	66065-02-04 19:27 G	25850841.12	25850841.31	25850841.50	0.0486	0.0172

Venus	66065-09-28 13:27 G	25851076.92	25851077.06	25851077.20	0.0491	0.0356
Moon	66070-06-19 21:36 G	25852802.19	25852802.40	25852802.62	0.0544	0.0173
Earth	66070-06-20 01:12 G	25852802.34	25852802.55	25852802.76	0.0544	0.0203 *
Mercury	66070-07-21 11:46 G	25852833.86	25852833.99	25852834.12	0.0544	0.0138
Venus	66070-12-11 14:53 G	25852976.92	25852977.12	25852977.32	0.0541	0.0084
Mercury	66076-06-03 09:22 G	25854977.77	25854977.89	25854978.02	0.0484	0.0320
Mercury	66076-09-01 05:03 G	25855067.61	25855067.71	25855067.81	0.0485	0.0379
Venus	66076-10-11 00:58 G	25855107.39	25855107.54	25855107.70	0.0485	0.0315
Venus	66077-06-03 18:00 G	25855343.07	25855343.25	25855343.44	0.0490	0.0210
Mercury	66082-05-09 13:55 G	25857143.94	25857144.08	25857144.21	0.0544	0.0068
Earth	66082-06-25 05:46 G	25857190.55	25857190.74	25857190.95	0.0543	0.0260
Moon	66082-06-25 10:05 G	25857190.72	25857190.92	25857191.12	0.0543	0.0282 *
Venus	66082-08-16 00:00 G	25857242.33	25857242.50	25857242.67	0.0542	0.0292
Venus	66083-04-11 10:48 G	25857480.84	25857480.95	25857481.07	0.0536	0.0439
Mars	66084-10-17 02:10 G	25858035.56	25858035.59	25858035.64	0.0514	0.0507
Venus	66088-06-16 06:43 G	25859373.72	25859373.78	25859373.85	0.0484	0.0455
Mercury	66088-06-20 05:31 G	25859377.58	25859377.73	25859377.88	0.0484	0.0203
Venus	66089-02-06 22:19 G	25859609.23	25859609.43	25859609.63	0.0488	0.0059
Mars	66091-04-19 10:19 G	25860410.81	25860410.93	25860411.07	0.0516	0.0455
Mercury	66094-02-25 15:22 G	25861454.02	25861454.14	25861454.26	0.0545	0.0286
Venus	66094-04-20 07:27 G	25861507.74	25861507.81	25861507.89	0.0544	0.0504
Mercury	66094-05-26 04:34 G	25861543.65	25861543.69	25861543.73	0.0544	0.0520
Venus	66094-12-14 20:53 G	25861746.19	25861746.37	25861746.55	0.0539	0.0237
Mercury	66100-04-09 06:29 G	25863687.60	25863687.77	25863687.93	0.0484	0.0033
Venus	66100-10-14 04:05 G	25863875.47	25863875.67	25863875.87	0.0486	0.0085
Venus	66101-06-06 22:05 G	25864111.34	25864111.42	25864111.52	0.0492	0.0443
Mercury	66105-12-15 17:31 G	25865764.18	25865764.23	25865764.30	0.0545	0.0487
Mercury	66106-03-15 07:27 G	25865853.70	25865853.81	25865853.92	0.0544	0.0332
Venus	66106-08-20 08:39 G	25866011.66	25866011.86	25866012.06	0.0541	0.0035
Moon	66111-12-20 16:48 G	25867960.07	25867960.20	25867960.34	0.0484	0.0404

Earth	66111-12-20 17:31 G	25867960.09	25867960.23	25867960.39	0.0484	0.0378	*
Mercury	66112-01-27 06:58 G	25867997.64	25867997.79	25867997.95	0.0484	0.0142	
Venus	66112-06-19 09:22 G	25868141.71	25868141.89	25868142.07	0.0485	0.0229	
Venus	66113-02-10 02:10 G	25868377.44	25868377.59	25868377.76	0.0490	0.0296	
Mercury	66118-01-01 10:19 G	25870163.80	25870163.93	25870164.06	0.0544	0.0145	
Venus	66118-04-24 20:24 G	25870277.16	25870277.35	25870277.55	0.0542	0.0168	
Mercury	66123-11-15 08:10 G	25872307.72	25872307.84	25872307.97	0.0484	0.0308	
Moon	66123-12-25 00:00 G	25872347.28	25872347.50	25872347.73	0.0484	0.0075	
Earth	66123-12-25 00:29 G	25872347.29	25872347.52	25872347.76	0.0484	0.0053	*
Mercury	66124-02-13 03:36 G	25872397.55	25872397.65	25872397.75	0.0485	0.0390	
Venus	66124-02-23 15:22 G	25872408.01	25872408.14	25872408.28	0.0485	0.0368	
Venus	66124-10-16 07:41 G	25872643.63	25872643.82	25872644.02	0.0489	0.0151	
Mercury	66129-10-20 12:43 G	25874473.89	25874474.03	25874474.17	0.0544	0.0055	
Venus	66129-12-28 06:15 G	25874542.61	25874542.76	25874542.91	0.0543	0.0373	
Venus	66130-08-23 18:00 G	25874781.10	25874781.25	25874781.40	0.0537	0.0361	
Mercury	66135-09-03 09:07 G	25876617.86	25876617.88	25876617.91	0.0484	0.0475	
Mercury	66135-12-02 04:05 G	25876707.52	25876707.67	25876707.82	0.0485	0.0214	
Earth	66135-12-29 06:43 G	25876734.58	25876734.78	25876734.97	0.0485	0.0271	
Moon	66135-12-29 08:39 G	25876734.66	25876734.86	25876735.05	0.0485	0.0290	*
Venus	66136-06-21 12:58 G	25876909.84	25876910.04	25876910.25	0.0488	0.0011	
Mercury	66141-08-08 14:39 G	25878783.99	25878784.11	25878784.23	0.0544	0.0263	
Mercury	66141-11-06 03:51 G	25878873.65	25878873.66	25878873.67	0.0543	0.0541	
Venus	66142-04-28 04:19 G	25879046.49	25879046.68	25879046.88	0.0539	0.0160	
Mercury	66147-09-20 04:48 G	25881017.54	25881017.70	25881017.87	0.0484	0.0044	
Venus	66148-02-25 18:15 G	25881176.07	25881176.26	25881176.46	0.0486	0.0142	
Venus	66148-10-18 12:00 G	25881411.88	25881412.00	25881412.13	0.0491	0.0384	
Mercury	66153-05-27 15:51 G	25883094.10	25883094.16	25883094.22	0.0545	0.0487	
Earth	66153-06-19 21:51 G	25883117.22	25883117.41	25883117.60	0.0545	0.0295	
Moon	66153-06-20 01:55 G	25883117.38	25883117.58	25883117.78	0.0545	0.0260	*
Mercury	66153-08-25 05:46 G	25883183.63	25883183.74	25883183.84	0.0544	0.0332	

Venus	66153-12-31 12:43 G	25883311.83	25883312.03	25883312.23	0.0542	0.0052
Mercury	66159-07-09 06:00 G	25885327.59	25885327.75	25885327.91	0.0484	0.0125
Venus	66159-11-01 00:43 G	25885442.36	25885442.53	25885442.69	0.0485	0.0282
Venus	66160-06-23 17:03 G	25885678.03	25885678.21	25885678.39	0.0489	0.0238
Mercury	66165-06-13 08:24 G	25887493.72	25887493.85	25887493.98	0.0544	0.0140
Moon	66165-06-25 02:24 G	25887505.39	25887505.60	25887505.82	0.0544	0.0203
Earth	66165-06-25 06:15 G	25887505.55	25887505.76	25887505.98	0.0544	0.0183 *
Venus	66165-09-04 23:31 G	25887577.31	25887577.48	25887577.66	0.0543	0.0257
Venus	66166-05-01 11:31 G	25887815.89	25887815.98	25887816.08	0.0537	0.0474
Mercury	66171-04-27 06:43 G	25889637.65	25889637.78	25889637.91	0.0484	0.0297
Venus	66171-07-07 06:00 G	25889708.65	25889708.75	25889708.85	0.0484	0.0421
Mercury	66171-07-26 01:55 G	25889727.50	25889727.58	25889727.68	0.0484	0.0401
Venus	66172-02-27 21:22 G	25889944.19	25889944.39	25889944.60	0.0488	0.0092
Mercury	66177-04-01 11:17 G	25891803.83	25891803.97	25891804.11	0.0545	0.0049
Venus	66177-05-10 11:17 G	25891842.86	25891842.97	25891843.08	0.0544	0.0456
Venus	66178-01-04 00:29 G	25892081.35	25892081.52	25892081.69	0.0539	0.0281
Mercury	66183-02-13 07:55 G	25893947.79	25893947.83	25893947.88	0.0484	0.0461
Mercury	66183-05-14 02:53 G	25894037.47	25894037.62	25894037.77	0.0484	0.0227
Venus	66183-11-03 03:36 G	25894210.44	25894210.65	25894210.85	0.0487	0.0053
Venus	66184-06-25 22:05 G	25894446.37	25894446.42	25894446.48	0.0492	0.0473
Mercury	66189-01-18 13:41 G	25896113.95	25896114.07	25896114.19	0.0544	0.0249
Venus	66189-09-08 11:03 G	25896346.76	25896346.96	25896347.16	0.0540	0.0079
Earth	66194-12-20 03:07 G	25898275.51	25898275.63	25898275.75	0.0484	0.0416
Moon	66194-12-20 02:24 G	25898275.52	25898275.60	25898275.69	0.0484	0.0447 *
Mercury	66195-03-02 03:36 G	25898347.48	25898347.65	25898347.81	0.0484	0.0053
Venus	66195-07-09 09:07 G	25898476.69	25898476.88	25898477.07	0.0486	0.0195
Venus	66196-03-01 02:39 G	25898712.46	25898712.61	25898712.76	0.0491	0.0328
Mercury	66200-11-07 15:36 G	25900424.08	25900424.15	25900424.22	0.0544	0.0458
Mercury	66201-02-05 05:17 G	25900513.62	25900513.72	25900513.82	0.0544	0.0358
Venus	66201-05-14 20:53 G	25900612.17	25900612.37	25900612.57	0.0542	0.0128

Mercury	66206-12-20 04:34 G	25902657.53	25902657.69	25902657.85	0.0484	0.0114
Earth	66206-12-25 10:19 G	25902662.70	25902662.93	25902663.16	0.0484	0.0088
Moon	66206-12-25 12:29 G	25902662.78	25902663.02	25902663.26	0.0484	0.0101 *
Venus	66207-03-15 15:07 G	25902742.99	25902743.13	25902743.28	0.0485	0.0336
Venus	66207-11-06 07:27 G	25902978.62	25902978.81	25902979.00	0.0489	0.0180
Mars	66209-10-09 14:53 G	25903682.09	25903682.12	25903682.18	0.0514	0.0506
Mercury	66212-11-24 06:43 G	25904823.65	25904823.78	25904823.92	0.0544	0.0144
Venus	66213-01-17 03:51 G	25904877.51	25904877.66	25904877.82	0.0544	0.0341
Venus	66213-09-12 16:19 G	25905116.04	25905116.18	25905116.32	0.0538	0.0392
Mercury	66218-10-08 05:46 G	25906967.61	25906967.74	25906967.88	0.0484	0.0279
Venus	66218-11-18 21:51 G	25907009.37	25907009.41	25907009.45	0.0484	0.0472
Moon	66218-12-29 13:55 G	25907049.89	25907050.08	25907050.28	0.0484	0.0265
Earth	66218-12-29 17:17 G	25907050.02	25907050.22	25907050.43	0.0484	0.0240 *
Mercury	66219-01-06 01:12 G	25907057.47	25907057.55	25907057.63	0.0484	0.0419
Venus	66219-07-12 12:58 G	25907244.83	25907245.04	25907245.24	0.0487	0.0037
Mercury	66224-09-12 09:22 G	25909133.75	25909133.89	25909134.03	0.0545	0.0054
Venus	66224-09-21 14:10 G	25909143.08	25909143.09	25909143.11	0.0545	0.0543
Venus	66225-05-18 04:19 G	25909381.50	25909381.68	25909381.88	0.0540	0.0195
Mercury	66230-07-27 06:43 G	25911277.73	25911277.78	25911277.84	0.0484	0.0448
Mercury	66230-10-25 01:27 G	25911367.42	25911367.56	25911367.71	0.0484	0.0240
Venus	66231-03-17 17:46 G	25911511.04	25911511.24	25911511.44	0.0486	0.0108
Venus	66231-11-08 11:31 G	25911746.88	25911746.98	25911747.09	0.0491	0.0414
Moon	66236-06-20 01:27 G	25913432.38	25913432.56	25913432.75	0.0545	0.0318
Earth	66236-06-20 05:17 G	25913432.55	25913432.72	25913432.90	0.0545	0.0350 *
Mercury	66236-07-01 12:00 G	25913443.88	25913444.00	25913444.13	0.0545	0.0246
Venus	66237-01-20 16:34 G	25913646.99	25913647.19	25913647.40	0.0542	0.0009
Mars	66239-01-13 18:00 G	25914369.98	25914370.25	25914370.53	0.0513	0.0026
Mercury	66242-08-13 02:24 G	25915677.44	25915677.60	25915677.77	0.0484	0.0069
Venus	66242-11-21 00:15 G	25915777.33	25915777.51	25915777.68	0.0485	0.0248
Venus	66243-07-14 16:48 G	25916013.03	25916013.20	25916013.37	0.0490	0.0270

Mercury	66248-04-19 14:24 G	25917754.02	25917754.10	25917754.18	0.0545	0.0445
Earth	66248-06-25 13:41 G	25917820.85	25917821.07	25917821.30	0.0544	0.0129
Moon	66248-06-25 16:05 G	25917820.95	25917821.17	25917821.39	0.0544	0.0141 *
Mercury	66248-07-18 04:05 G	25917843.57	25917843.67	25917843.77	0.0544	0.0372
Venus	66248-09-25 03:07 G	25917912.45	25917912.63	25917912.82	0.0543	0.0209
Venus	66249-05-21 14:10 G	25918151.04	25918151.09	25918151.15	0.0536	0.0513
Mercury	66254-06-01 03:22 G	25919987.47	25919987.64	25919987.80	0.0484	0.0103
Venus	66254-07-27 06:00 G	25920043.63	25920043.75	25920043.87	0.0485	0.0388
Venus	66255-03-19 21:51 G	25920279.22	25920279.41	25920279.61	0.0488	0.0125
Mercury	66260-05-06 06:29 G	25922153.64	25922153.77	25922153.90	0.0544	0.0172
Venus	66260-05-30 12:43 G	25922177.90	25922178.03	25922178.16	0.0544	0.0414
Venus	66261-01-24 01:12 G	25922416.39	25922416.55	25922416.71	0.0538	0.0319
Mercury	66266-03-20 04:34 G	25924297.55	25924297.69	25924297.83	0.0484	0.0266
Mercury	66266-06-17 23:46 G	25924387.42	25924387.49	25924387.57	0.0485	0.0432
Venus	66266-11-23 03:36 G	25924545.45	25924545.65	25924545.86	0.0487	0.0023
Mercury	66272-02-23 07:41 G	25926463.69	25926463.82	25926463.96	0.0544	0.0052
Venus	66272-09-28 09:07 G	25926681.68	25926681.88	25926682.08	0.0541	0.0110
Earth	66277-12-20 14:53 G	25928591.04	25928591.12	25928591.21	0.0484	0.0446
Moon	66277-12-20 17:17 G	25928591.18	25928591.22	25928591.27	0.0484	0.0474 *
Mercury	66278-01-06 05:46 G	25928607.67	25928607.74	25928607.82	0.0484	0.0429
Mercury	66278-04-06 00:43 G	25928697.39	25928697.53	25928697.67	0.0484	0.0260
Venus	66278-07-29 09:36 G	25928811.71	25928811.90	25928812.10	0.0485	0.0162
Venus	66279-03-22 02:39 G	25929047.47	25929047.61	25929047.75	0.0490	0.0358
Mercury	66283-12-12 10:05 G	25930773.80	25930773.92	25930774.04	0.0545	0.0250
Venus	66284-06-02 20:10 G	25930947.14	25930947.34	25930947.54	0.0543	0.0093
Moon	66289-12-24 17:03 G	25932977.98	25932978.21	25932978.43	0.0484	0.0133
Earth	66289-12-24 20:24 G	25932978.12	25932978.35	25932978.58	0.0484	0.0126 *
Mercury	66290-01-23 01:12 G	25933007.39	25933007.55	25933007.71	0.0484	0.0082
Venus	66290-04-03 15:07 G	25933077.97	25933078.13	25933078.29	0.0485	0.0302
Venus	66290-11-25 06:58 G	25933313.61	25933313.79	25933313.97	0.0489	0.0212

Mercury	66295-09-30 12:43 G	25935083.95	25935084.03	25935084.11	0.0545	0.0444
Mercury	66295-12-29 02:39 G	25935173.51	25935173.61	25935173.70	0.0544	0.0376
Venus	66296-02-06 07:41 G	25935212.65	25935212.82	25935213.00	0.0544	0.0293
Venus	66296-10-01 20:10 G	25935451.23	25935451.34	25935451.46	0.0538	0.0435
Mercury	66301-11-12 02:10 G	25937317.43	25937317.59	25937317.76	0.0484	0.0087
Venus	66301-12-08 21:22 G	25937344.31	25937344.39	25937344.48	0.0484	0.0438
Earth	66301-12-30 02:53 G	25937365.41	25937365.62	25937365.84	0.0484	0.0201
Moon	66301-12-30 06:43 G	25937365.58	25937365.78	25937365.99	0.0484	0.0233 *
Venus	66302-08-01 12:29 G	25937579.82	25937580.02	25937580.23	0.0487	0.0070
Venus	66307-10-12 18:29 G	25939478.19	25939478.27	25939478.36	0.0544	0.0494
Mercury	66307-10-18 05:17 G	25939483.59	25939483.72	25939483.85	0.0544	0.0185
Venus	66308-06-07 07:55 G	25939716.65	25939716.83	25939717.02	0.0539	0.0239
Mercury	66313-08-31 03:07 G	25941627.49	25941627.63	25941627.77	0.0484	0.0256
Mercury	66313-11-28 22:19 G	25941717.37	25941717.43	25941717.50	0.0485	0.0444
Venus	66314-04-06 18:15 G	25941846.06	25941846.26	25941846.46	0.0486	0.0074
Venus	66314-11-28 12:29 G	25942081.94	25942082.02	25942082.10	0.0492	0.0446
Earth	66319-06-21 09:51 G	25943747.77	25943747.91	25943748.07	0.0545	0.0415
Moon	66319-06-21 12:58 G	25943747.88	25943748.04	25943748.20	0.0545	0.0381 *
Mercury	66319-08-06 07:41 G	25943793.68	25943793.82	25943793.95	0.0544	0.0025
Venus	66320-02-10 18:00 G	25943982.05	25943982.25	25943982.46	0.0541	0.0037
Mercury	66325-06-19 04:34 G	25945937.61	25945937.69	25945937.77	0.0484	0.0416
Mercury	66325-09-16 23:17 G	25946027.34	25946027.47	25946027.61	0.0484	0.0273
Venus	66325-12-11 00:43 G	25946112.35	25946112.53	25946112.71	0.0485	0.0215
Venus	66326-08-03 17:17 G	25946348.06	25946348.22	25946348.38	0.0490	0.0301
Mercury	66331-05-25 08:39 G	25948103.74	25948103.86	25948103.99	0.0545	0.0243
Moon	66331-06-26 10:05 G	25948135.68	25948135.92	25948136.16	0.0544	0.0042
Earth	66331-06-26 10:48 G	25948135.72	25948135.95	25948136.18	0.0544	0.0038 *
Venus	66331-10-16 00:58 G	25948247.34	25948247.54	25948247.73	0.0543	0.0177
Mercury	66337-07-06 00:29 G	25950337.35	25950337.52	25950337.68	0.0484	0.0103
Venus	66337-08-16 06:58 G	25950378.66	25950378.79	25950378.93	0.0484	0.0353

Venus	66338-04-08 22:34 G	25950614.25	25950614.44	25950614.63	0.0488	0.0157
Mercury	66343-03-13 10:48 G	25952413.87	25952413.95	25952414.03	0.0545	0.0449
Mercury	66343-06-11 00:43 G	25952503.43	25952503.53	25952503.63	0.0544	0.0372
Venus	66343-06-20 10:48 G	25952512.81	25952512.95	25952513.10	0.0544	0.0380
Moon	66343-07-01 16:19 G	25952524.08	25952524.18	25952524.29	0.0544	0.0479
Earth	66343-07-01 17:46 G	25952524.18	25952524.24	25952524.33	0.0544	0.0514 *
Venus	66344-02-14 00:15 G	25952751.36	25952751.51	25952751.66	0.0539	0.0351
Mercury	66349-04-24 00:58 G	25954647.38	25954647.54	25954647.71	0.0484	0.0073
Venus	66349-12-13 03:07 G	25954880.43	25954880.63	25954880.84	0.0487	0.0016
Mercury	66355-03-30 03:36 G	25956813.52	25956813.65	25956813.78	0.0545	0.0185
Venus	66355-10-19 12:43 G	25957016.84	25957017.03	25957017.23	0.0541	0.0157
Mercury	66361-02-10 02:10 G	25958957.45	25958957.59	25958957.73	0.0484	0.0240
Mercury	66361-05-10 21:22 G	25959047.34	25959047.39	25959047.44	0.0484	0.0458
Venus	66361-08-18 09:07 G	25959146.69	25959146.88	25959147.08	0.0486	0.0128
Venus	66362-04-11 02:24 G	25959382.48	25959382.60	25959382.72	0.0491	0.0389
Mars	66364-01-05 03:36 G	25960016.37	25960016.65	25960016.92	0.0515	0.0010
Mercury	66367-01-16 06:15 G	25961123.62	25961123.76	25961123.90	0.0544	0.0011
Venus	66367-06-24 00:00 G	25961282.30	25961282.50	25961282.71	0.0542	0.0047
Mercury	66372-11-29 03:07 G	25963267.55	25963267.63	25963267.72	0.0484	0.0407
Earth	66372-12-25 06:00 G	25963293.53	25963293.75	25963293.98	0.0484	0.0163
Moon	66372-12-25 09:51 G	25963293.70	25963293.91	25963294.14	0.0484	0.0158 *
Mercury	66373-02-26 21:51 G	25963357.28	25963357.41	25963357.55	0.0484	0.0282
Venus	66373-04-23 15:07 G	25963412.96	25963413.13	25963413.30	0.0485	0.0268
Venus	66373-12-15 07:27 G	25963648.64	25963648.81	25963648.99	0.0489	0.0245
Mercury	66378-11-04 08:24 G	25965433.72	25965433.85	25965433.98	0.0544	0.0212
Venus	66379-02-26 09:36 G	25965547.73	25965547.90	25965548.09	0.0543	0.0250
Venus	66379-10-22 21:22 G	25965786.30	25965786.39	25965786.49	0.0537	0.0472
Mercury	66384-12-15 23:03 G	25967667.30	25967667.46	25967667.62	0.0484	0.0114
Venus	66384-12-27 21:51 G	25967679.30	25967679.41	25967679.52	0.0484	0.0405
Moon	66384-12-29 10:05 G	25967680.71	25967680.92	25967681.14	0.0484	0.0200

Earth	66384-12-29 13:41 G	25967680.85	25967681.07	25967681.30	0.0484	0.0169 *
Venus	66385-08-20 13:12 G	25967914.85	25967915.05	25967915.25	0.0487	0.0101
Mercury	66390-08-23 09:22 G	25969743.81	25969743.89	25969743.97	0.0545	0.0442
Venus	66390-10-31 15:51 G	25969813.06	25969813.16	25969813.27	0.0544	0.0461
Mercury	66390-11-20 23:17 G	25969833.37	25969833.47	25969833.56	0.0544	0.0377
Venus	66391-06-27 05:31 G	25970051.55	25970051.73	25970051.90	0.0540	0.0269
Mars	66393-04-09 19:41 G	25970704.25	25970704.32	25970704.42	0.0514	0.0485
Mercury	66396-10-04 00:00 G	25971977.34	25971977.50	25971977.67	0.0484	0.0055
Venus	66397-04-25 18:58 G	25972181.09	25972181.29	25972181.50	0.0486	0.0041
Venus	66397-12-17 12:43 G	25972416.99	25972417.03	25972417.08	0.0491	0.0476
Moon	66402-06-20 05:17 G	25974062.61	25974062.72	25974062.84	0.0545	0.0475
Earth	66402-06-20 06:58 G	25974062.72	25974062.79	25974062.87	0.0545	0.0509 *
Mercury	66402-09-09 01:41 G	25974143.44	25974143.57	25974143.70	0.0544	0.0180
Venus	66403-03-01 16:05 G	25974316.97	25974317.17	25974317.37	0.0542	0.0068
Mercury	66408-07-23 00:43 G	25976287.39	25976287.53	25976287.68	0.0484	0.0228
Mercury	66408-10-20 19:55 G	25976377.30	25976377.33	25976377.37	0.0484	0.0470
Venus	66408-12-30 00:00 G	25976447.31	25976447.50	25976447.69	0.0485	0.0182
Venus	66409-08-22 16:05 G	25976683.03	25976683.17	25976683.33	0.0490	0.0332
Moon	66414-06-25 15:36 G	25978450.93	25978451.15	25978451.37	0.0545	0.0028
Earth	66414-06-25 16:34 G	25978450.96	25978451.19	25978451.42	0.0545	0.0024 *
Mercury	66414-06-28 04:19 G	25978453.54	25978453.68	25978453.82	0.0545	0.0016
Venus	66414-11-04 03:51 G	25978582.47	25978582.66	25978582.86	0.0543	0.0131
Mercury	66420-05-11 01:55 G	25980597.49	25980597.58	25980597.68	0.0483	0.0393
Mercury	66420-08-08 20:39 G	25980687.23	25980687.36	25980687.50	0.0484	0.0296
Venus	66420-09-04 06:15 G	25980713.60	25980713.76	25980713.91	0.0484	0.0320
Venus	66421-04-27 21:36 G	25980949.21	25980949.40	25980949.59	0.0488	0.0189
Mercury	66426-04-16 06:58 G	25982763.66	25982763.79	25982763.92	0.0545	0.0205
Earth	66426-07-01 01:41 G	25982839.45	25982839.57	25982839.69	0.0544	0.0461
Moon	66426-07-01 04:34 G	25982839.55	25982839.69	25982839.84	0.0544	0.0424 *
Venus	66426-07-09 14:53 G	25982847.96	25982848.12	25982848.28	0.0544	0.0332

Venus	66427-03-05 03:36 G	25983086.51	25983086.65	25983086.79	0.0538	0.0393
Venus	66432-05-10 12:00 G	25984979.94	25984980.00	25984980.07	0.0484	0.0456
Mercury	66432-05-27 21:22 G	25984997.23	25984997.39	25984997.55	0.0484	0.0122
Venus	66433-01-01 03:07 G	25985215.43	25985215.63	25985215.83	0.0487	0.0046
Mercury	66438-02-02 09:07 G	25987073.79	25987073.88	25987073.97	0.0545	0.0412
Venus	66438-03-14 00:29 G	25987113.48	25987113.52	25987113.56	0.0544	0.0532
Mercury	66438-05-02 22:48 G	25987163.36	25987163.45	25987163.54	0.0544	0.0406
Venus	66438-11-07 14:10 G	25987351.91	25987352.09	25987352.28	0.0540	0.0196
Mercury	66444-03-15 22:34 G	25989307.28	25989307.44	25989307.61	0.0484	0.0045
Venus	66444-09-06 09:22 G	25989481.70	25989481.89	25989482.10	0.0486	0.0096
Venus	66445-04-30 02:53 G	25989717.52	25989717.62	25989717.72	0.0491	0.0418
Mercury	66450-02-19 00:15 G	25991473.38	25991473.51	25991473.64	0.0544	0.0186
Venus	66450-07-12 20:53 G	25991617.17	25991617.37	25991617.58	0.0542	0.0016
Moon	66455-12-25 13:41 G	25993608.85	25993609.07	25993609.29	0.0484	0.0191
Earth	66455-12-25 17:03 G	25993609.00	25993609.21	25993609.43	0.0484	0.0197 *
Mercury	66456-01-02 23:46 G	25993617.34	25993617.49	25993617.64	0.0484	0.0211
Venus	66456-05-12 15:36 G	25993747.98	25993748.15	25993748.33	0.0485	0.0234
Venus	66457-01-03 07:41 G	25993983.66	25993983.82	25993983.99	0.0489	0.0277
Mercury	66461-12-08 02:24 G	25995783.46	25995783.60	25995783.74	0.0545	0.0017
Venus	66462-03-17 06:43 G	25995882.59	25995882.78	25995882.97	0.0543	0.0218
Venus	66462-11-10 18:43 G	25996121.22	25996121.28	25996121.36	0.0538	0.0500
Mercury	66467-10-22 00:29 G	25997927.43	25997927.52	25997927.62	0.0483	0.0384
Earth	66467-12-29 21:51 G	25997996.18	25997996.41	25997996.64	0.0484	0.0124
Moon	66467-12-30 00:15 G	25997996.30	25997996.51	25997996.73	0.0484	0.0156 *
Venus	66468-01-16 20:39 G	25998014.23	25998014.36	25998014.49	0.0484	0.0372
Mercury	66468-01-19 19:12 G	25998017.18	25998017.30	25998017.43	0.0484	0.0306
Venus	66468-09-08 11:46 G	25998249.79	25998249.99	25998250.18	0.0487	0.0132
Mercury	66473-09-26 05:03 G	26000093.58	26000093.71	26000093.84	0.0545	0.0213
Venus	66473-11-19 17:46 G	26000148.12	26000148.24	26000148.37	0.0545	0.0417
Venus	66474-07-16 07:41 G	26000386.66	26000386.82	26000386.99	0.0540	0.0311

Mercury	66479-11-07 20:10 G	26002327.18	26002327.34	26002327.50	0.0484	0.0133
Moon	66480-01-03 03:07 G	26002383.56	26002383.63	26002383.72	0.0484	0.0456
Earth	66480-01-03 04:05 G	26002383.60	26002383.67	26002383.76	0.0484	0.0452 *
Venus	66480-05-14 17:31 G	26002516.03	26002516.23	26002516.43	0.0486	0.0009
Moon	66485-06-19 13:27 G	26004378.03	26004378.06	26004378.11	0.0545	0.0536
Mercury	66485-07-15 07:27 G	26004403.72	26004403.81	26004403.90	0.0545	0.0409
Mercury	66485-10-12 21:22 G	26004493.30	26004493.39	26004493.48	0.0544	0.0410
Venus	66486-03-20 19:12 G	26004652.11	26004652.30	26004652.51	0.0541	0.0115
Mercury	66491-08-26 20:53 G	26006637.20	26006637.37	26006637.53	0.0484	0.0040
Venus	66492-01-18 23:03 G	26006782.27	26006782.46	26006782.66	0.0485	0.0151
Venus	66492-09-10 15:51 G	26007018.03	26007018.16	26007018.30	0.0490	0.0362
Earth	66497-06-24 20:39 G	26008766.13	26008766.36	26008766.59	0.0545	0.0091
Moon	66497-06-24 23:03 G	26008766.22	26008766.46	26008766.69	0.0545	0.0097 *
Mercury	66497-07-31 23:46 G	26008803.36	26008803.49	26008803.61	0.0544	0.0212
Venus	66497-11-23 05:17 G	26008917.52	26008917.72	26008917.93	0.0542	0.0090
Mercury	66503-06-15 22:05 G	26010947.27	26010947.42	26010947.57	0.0484	0.0204
Venus	66503-09-25 05:46 G	26011048.58	26011048.74	26011048.91	0.0485	0.0288
Venus	66504-05-17 21:36 G	26011284.22	26011284.40	26011284.59	0.0488	0.0220
Mercury	66509-05-21 00:58 G	26013113.40	26013113.54	26013113.68	0.0544	0.0013
Moon	66509-06-30 17:46 G	26013154.07	26013154.24	26013154.43	0.0544	0.0325
Earth	66509-06-30 21:22 G	26013154.22	26013154.39	26013154.56	0.0544	0.0361 *
Venus	66509-07-29 11:17 G	26013182.81	26013182.97	26013183.15	0.0544	0.0300
Venus	66510-03-25 00:00 G	26013421.37	26013421.50	26013421.63	0.0538	0.0419
Mars	66511-09-29 22:19 G	26013975.37	26013975.43	26013975.51	0.0516	0.0495
Mercury	66515-04-03 23:17 G	26015257.37	26015257.47	26015257.58	0.0484	0.0370
Venus	66515-05-31 12:00 G	26015314.91	26015315.00	26015315.10	0.0484	0.0422
Mercury	66515-07-02 18:00 G	26015347.13	26015347.25	26015347.38	0.0484	0.0321
Venus	66516-01-22 03:07 G	26015550.43	26015550.63	26015550.83	0.0487	0.0078
Mars	66518-04-01 06:58 G	26016350.71	26016350.79	26016350.89	0.0514	0.0481
Mercury	66521-03-09 02:53 G	26017423.49	26017423.62	26017423.75	0.0545	0.0220

Venus	66521-04-02 20:24 G	26017448.28	26017448.35	26017448.43	0.0544	0.0501
Venus	66521-11-27 10:34 G	26017686.76	26017686.94	26017687.13	0.0540	0.0224
Mercury	66527-04-20 18:29 G	26019657.11	26019657.27	26019657.43	0.0484	0.0140
Venus	66527-09-27 07:27 G	26019816.61	26019816.81	26019817.01	0.0486	0.0064
Venus	66528-05-20 00:29 G	26020052.44	26020052.52	26020052.61	0.0491	0.0446
Mercury	66532-12-26 05:03 G	26021733.63	26021733.71	26021733.80	0.0545	0.0421
Mercury	66533-03-25 18:58 G	26021823.21	26021823.29	26021823.39	0.0544	0.0402
Venus	66533-08-01 22:19 G	26021952.22	26021952.43	26021952.63	0.0542	0.0029
Earth	66538-12-25 23:46 G	26023924.29	26023924.49	26023924.69	0.0483	0.0247
Moon	66538-12-26 02:10 G	26023924.39	26023924.59	26023924.79	0.0483	0.0237 *
Mercury	66539-02-06 19:27 G	26023967.14	26023967.31	26023967.47	0.0484	0.0031
Venus	66539-06-02 13:27 G	26024082.88	26024083.06	26024083.25	0.0485	0.0203
Venus	66540-01-24 05:17 G	26024318.57	26024318.72	26024318.89	0.0489	0.0305
Mercury	66545-01-11 21:51 G	26026133.29	26026133.41	26026133.54	0.0544	0.0213
Venus	66545-04-06 09:22 G	26026217.70	26026217.89	26026218.09	0.0543	0.0174
Mercury	66550-11-25 20:10 G	26028277.20	26028277.34	26028277.49	0.0484	0.0202
Moon	66550-12-30 04:34 G	26028311.45	26028311.69	26028311.93	0.0484	0.0106
Earth	66550-12-30 05:17 G	26028311.49	26028311.72	26028311.96	0.0484	0.0079 *
Venus	66551-02-05 19:12 G	26028349.15	26028349.30	26028349.44	0.0484	0.0341
Venus	66551-09-29 10:34 G	26028584.75	26028584.94	26028585.13	0.0488	0.0163
Mercury	66556-10-31 00:15 G	26030443.37	26030443.51	26030443.65	0.0544	0.0014
Venus	66556-12-09 19:12 G	26030483.15	26030483.30	26030483.45	0.0544	0.0374
Venus	66557-08-05 08:10 G	26030721.69	26030721.84	26030722.00	0.0539	0.0347
Mercury	66562-09-13 21:36 G	26032587.30	26032587.40	26032587.51	0.0484	0.0364
Venus	66562-10-12 01:55 G	26032615.54	26032615.58	26032615.62	0.0484	0.0474
Mercury	66562-12-12 16:19 G	26032677.06	26032677.18	26032677.30	0.0484	0.0326
Moon	66563-01-03 11:17 G	26032698.86	26032698.97	26032699.10	0.0485	0.0408
Earth	66563-01-03 12:43 G	26032698.91	26032699.03	26032699.15	0.0485	0.0411 *
Venus	66563-06-04 16:48 G	26032851.00	26032851.20	26032851.40	0.0487	0.0022
Mercury	66568-08-19 01:27 G	26034753.43	26034753.56	26034753.69	0.0544	0.0214

Venus	66569-04-09 15:22 G	26034986.94	26034987.14	26034987.34	0.0541	0.0142
Mercury	66574-09-30 17:03 G	26036987.06	26036987.21	26036987.37	0.0484	0.0153
Venus	66575-02-07 22:34 G	26037117.24	26037117.44	26037117.63	0.0486	0.0118
Venus	66575-10-01 15:22 G	26037353.02	26037353.14	26037353.26	0.0490	0.0391
Mercury	66580-06-07 03:07 G	26039063.55	26039063.63	26039063.72	0.0545	0.0427
Moon	66580-06-24 11:31 G	26039080.77	26039080.98	26039081.19	0.0544	0.0207
Earth	66580-06-24 14:24 G	26039080.89	26039081.10	26039081.32	0.0544	0.0200 *
Mercury	66580-09-04 17:03 G	26039153.12	26039153.21	26039153.31	0.0544	0.0393
Venus	66580-12-13 00:43 G	26039252.33	26039252.53	26039252.74	0.0542	0.0061
Mercury	66586-07-19 17:31 G	26041297.07	26041297.23	26041297.40	0.0484	0.0028
Venus	66586-10-14 03:07 G	26041383.46	26041383.63	26041383.81	0.0484	0.0257
Venus	66587-06-06 18:43 G	26041619.11	26041619.28	26041619.46	0.0488	0.0247
Mercury	66592-06-23 19:41 G	26043463.19	26043463.32	26043463.45	0.0545	0.0200
Earth	66592-06-29 22:05 G	26043469.23	26043469.42	26043469.62	0.0545	0.0282
Moon	66592-06-30 01:55 G	26043469.38	26043469.58	26043469.78	0.0545	0.0251 *
Venus	66592-08-17 11:31 G	26043517.80	26043517.98	26043518.15	0.0544	0.0260
Venus	66593-04-13 00:29 G	26043756.42	26043756.52	26043756.63	0.0539	0.0457
Mercury	66598-05-07 18:43 G	26045607.13	26045607.28	26045607.43	0.0484	0.0195
Venus	66598-06-19 09:07 G	26045649.77	26045649.88	26045650.01	0.0484	0.0393
Venus	66599-02-10 00:00 G	26045885.30	26045885.50	26045885.70	0.0487	0.0106
Mercury	66604-04-12 22:19 G	26047773.29	26047773.43	26047773.57	0.0545	0.0009
Venus	66604-04-22 22:19 G	26047783.33	26047783.43	26047783.54	0.0545	0.0458
Venus	66604-12-17 12:29 G	26048021.84	26048022.02	26048022.20	0.0540	0.0265
Mercury	66610-02-24 19:27 G	26049917.21	26049917.31	26049917.42	0.0484	0.0365
Mercury	66610-05-25 14:10 G	26050006.97	26050007.09	26050007.22	0.0484	0.0325
Venus	66610-10-17 05:31 G	26050151.53	26050151.73	26050151.93	0.0486	0.0035
Venus	66611-06-09 23:03 G	26050387.41	26050387.46	26050387.51	0.0491	0.0473
Mercury	66616-01-31 00:29 G	26052083.39	26052083.52	26052083.65	0.0545	0.0196
Venus	66616-08-21 22:48 G	26052287.25	26052287.45	26052287.65	0.0542	0.0066
Moon	66621-12-26 06:00 G	26054239.55	26054239.75	26054239.95	0.0484	0.0280

Earth	66621-12-26 06:43 G	26054239.59	26054239.78	26054239.97	0.0484	0.0294 *
Mercury	66622-03-13 15:07 G	26054316.98	26054317.13	26054317.29	0.0484	0.0155
Venus	66622-06-22 11:46 G	26054417.80	26054417.99	26054418.19	0.0485	0.0174
Venus	66623-02-13 04:19 G	26054653.54	26054653.68	26054653.83	0.0489	0.0333
Mercury	66627-11-19 01:41 G	26056393.48	26056393.57	26056393.65	0.0544	0.0423
Mercury	66628-02-16 15:36 G	26056483.06	26056483.15	26056483.24	0.0544	0.0397
Venus	66628-04-26 05:31 G	26056552.53	26056552.73	26056552.92	0.0543	0.0142
Moon	66633-12-30 11:46 G	26058626.76	26058626.99	26058627.21	0.0484	0.0057
Earth	66633-12-30 12:58 G	26058626.80	26058627.04	26058627.28	0.0484	0.0032 *
Mercury	66633-12-30 16:05 G	26058627.00	26058627.17	26058627.34	0.0484	0.0018 *
Venus	66634-02-25 17:31 G	26058684.08	26058684.23	26058684.39	0.0485	0.0310
Venus	66634-10-19 09:22 G	26058919.70	26058919.89	26058920.08	0.0488	0.0193
Mars	66636-09-20 10:19 G	26059621.87	26059621.93	26059622.01	0.0512	0.0493
Mercury	66639-12-05 17:31 G	26060793.11	26060793.23	26060793.36	0.0544	0.0193
Venus	66639-12-30 14:10 G	26060817.93	26060818.09	26060818.24	0.0544	0.0345
Venus	66640-08-25 03:07 G	26061056.49	26061056.63	26061056.78	0.0539	0.0372
Mercury	66645-10-18 16:34 G	26062937.04	26062937.19	26062937.35	0.0484	0.0194
Venus	66645-10-31 22:34 G	26062950.37	26062950.44	26062950.52	0.0484	0.0445
Earth	66646-01-03 17:03 G	26063014.05	26063014.21	26063014.37	0.0484	0.0354
Moon	66646-01-03 19:55 G	26063014.17	26063014.33	26063014.51	0.0484	0.0342 *
Venus	66646-06-24 13:12 G	26063185.85	26063186.05	26063186.26	0.0486	0.0050
Venus	66651-09-03 23:46 G	26065083.48	26065083.49	26065083.51	0.0545	0.0542
Mercury	66651-09-23 19:55 G	26065103.19	26065103.33	26065103.47	0.0545	0.0008
Venus	66652-04-29 14:39 G	26065321.92	26065322.11	26065322.30	0.0541	0.0178
Mercury	66657-08-06 17:46 G	26067247.14	26067247.24	26067247.35	0.0483	0.0360
Mercury	66657-11-04 12:15 G	26067336.90	26067337.01	26067337.14	0.0484	0.0329
Venus	66658-02-27 18:43 G	26067452.09	26067452.28	26067452.49	0.0485	0.0091
Venus	66658-10-21 11:31 G	26067687.88	26067687.98	26067688.09	0.0490	0.0416
Earth	66663-06-25 17:03 G	26069396.01	26069396.21	26069396.41	0.0545	0.0273
Moon	66663-06-25 20:39 G	26069396.17	26069396.36	26069396.56	0.0545	0.0285 *

Mercury	66663-07-12 22:34 G	26069413.31	26069413.44	26069413.56	0.0545	0.0204
Venus	66664-01-03 01:55 G	26069587.38	26069587.58	26069587.79	0.0543	0.0021
Mars	66665-12-24 23:17 G	26070309.19	26070309.47	26070309.74	0.0516	0.0042
Mercury	66669-08-23 12:58 G	26071646.88	26071647.04	26071647.20	0.0484	0.0152
Venus	66669-11-03 00:29 G	26071718.34	26071718.52	26071718.70	0.0485	0.0229
Venus	66670-06-26 16:19 G	26071954.02	26071954.18	26071954.35	0.0489	0.0275
Mercury	66675-05-01 00:29 G	26073723.43	26073723.52	26073723.61	0.0545	0.0408
Moon	66675-06-30 21:07 G	26073784.16	26073784.38	26073784.61	0.0544	0.0175
Earth	66675-07-01 00:29 G	26073784.31	26073784.52	26073784.74	0.0544	0.0208 *
Mercury	66675-07-29 14:39 G	26073813.02	26073813.11	26073813.19	0.0544	0.0413
Venus	66675-09-07 11:46 G	26073852.81	26073852.99	26073853.18	0.0543	0.0221
Venus	66676-05-03 00:15 G	26074091.44	26074091.51	26074091.60	0.0538	0.0490
Mercury	66681-06-11 14:10 G	26075956.92	26075957.09	26075957.25	0.0484	0.0018
Venus	66681-07-09 06:58 G	26075984.65	26075984.79	26075984.92	0.0484	0.0364
Venus	66682-03-01 22:05 G	26076220.23	26076220.42	26076220.62	0.0487	0.0135
Venus	66687-05-12 18:43 G	26078118.16	26078118.28	26078118.41	0.0544	0.0424
Mercury	66687-05-17 16:05 G	26078123.04	26078123.17	26078123.30	0.0544	0.0196
Venus	66688-01-06 07:55 G	26078356.67	26078356.83	26078357.01	0.0540	0.0292
Mercury	66693-03-30 14:53 G	26080266.98	26080267.12	26080267.28	0.0484	0.0189
Venus	66693-11-05 03:36 G	26080486.45	26080486.65	26080486.85	0.0486	0.0004
Mercury	66699-03-05 18:00 G	26082433.11	26082433.25	26082433.39	0.0544	0.0013
Venus	66699-09-10 17:17 G	26082622.02	26082622.22	26082622.42	0.0541	0.0093
Moon	66704-12-26 09:22 G	26084554.73	26084554.89	26084555.06	0.0484	0.0334
Earth	66704-12-26 10:34 G	26084554.78	26084554.94	26084555.11	0.0484	0.0353 *
Mercury	66705-01-17 15:51 G	26084577.05	26084577.16	26084577.27	0.0484	0.0360
Mercury	66705-04-17 10:19 G	26084666.81	26084666.93	26084667.05	0.0484	0.0329
Venus	66705-07-12 07:55 G	26084752.64	26084752.83	26084753.03	0.0485	0.0146
Venus	66706-03-05 00:00 G	26084988.37	26084988.50	26084988.64	0.0489	0.0358
Mercury	66710-12-23 19:55 G	26086743.21	26086743.33	26086743.46	0.0545	0.0220
Venus	66711-05-17 03:36 G	26086887.45	26086887.65	26086887.85	0.0543	0.0108

Earth	66716-12-30 17:03 G	26088941.97	26088942.21	26088942.44	0.0484	0.0025
Moon	66716-12-30 19:55 G	26088942.09	26088942.33	26088942.58	0.0484	0.0007 *
Mercury	66717-02-03 11:03 G	26088976.81	26088976.96	26088977.12	0.0484	0.0156
Venus	66717-03-17 13:41 G	26089018.91	26089019.07	26089019.24	0.0484	0.0283
Venus	66717-11-08 05:17 G	26089254.54	26089254.72	26089254.90	0.0488	0.0218
Mercury	66722-10-11 22:19 G	26091053.34	26091053.43	26091053.52	0.0545	0.0419
Mercury	66723-01-09 12:29 G	26091142.93	26091143.02	26091143.11	0.0544	0.0404
Venus	66723-01-19 14:24 G	26091152.93	26091153.10	26091153.27	0.0544	0.0306
Venus	66723-09-15 03:51 G	26091391.53	26091391.66	26091391.79	0.0539	0.0408
Venus	66728-11-20 19:27 G	26093285.21	26093285.31	26093285.42	0.0484	0.0417
Mercury	66728-11-22 11:46 G	26093286.83	26093286.99	26093287.16	0.0484	0.0023
Moon	66729-01-03 18:29 G	26093329.09	26093329.27	26093329.46	0.0484	0.0288
Earth	66729-01-03 22:05 G	26093329.24	26093329.42	26093329.61	0.0484	0.0301 *
Venus	66729-07-14 10:19 G	26093520.73	26093520.93	26093521.13	0.0487	0.0077
Venus	66734-09-24 00:29 G	26095418.44	26095418.52	26095418.59	0.0545	0.0502
Mercury	66734-10-28 14:53 G	26095453.00	26095453.12	26095453.25	0.0544	0.0209
Venus	66735-05-20 14:39 G	26095656.93	26095657.11	26095657.30	0.0541	0.0216
Mercury	66740-09-10 12:58 G	26097596.89	26097597.04	26097597.19	0.0484	0.0187
Venus	66741-03-19 16:19 G	26097786.98	26097787.18	26097787.38	0.0486	0.0061
Venus	66741-11-10 09:36 G	26098022.82	26098022.90	26098022.99	0.0490	0.0443
Moon	66746-06-25 09:36 G	26099710.75	26099710.90	26099711.07	0.0544	0.0391
Earth	66746-06-25 13:27 G	26099710.89	26099711.06	26099711.23	0.0544	0.0372 *
Mercury	66746-08-16 16:34 G	26099763.05	26099763.19	26099763.33	0.0544	0.0016
Venus	66747-01-22 22:05 G	26099922.22	26099922.42	26099922.63	0.0542	0.0014
Mercury	66752-06-29 13:55 G	26101906.98	26101907.08	26101907.20	0.0484	0.0356
Mercury	66752-09-27 08:39 G	26101996.74	26101996.86	26101996.98	0.0484	0.0334
Venus	66752-11-22 22:05 G	26102053.23	26102053.42	26102053.60	0.0485	0.0199
Venus	66753-07-16 14:10 G	26102288.94	26102289.09	26102289.25	0.0489	0.0303
Mercury	66758-06-04 18:00 G	26104073.13	26104073.25	26104073.38	0.0544	0.0223
Earth	66758-06-30 17:31 G	26104099.00	26104099.23	26104099.46	0.0544	0.0096

Moon	66758-06-30 19:55 G	26104099.11	26104099.33	26104099.56	0.0544	0.0068 *
Venus	66758-09-27 06:43 G	26104187.59	26104187.78	26104187.97	0.0543	0.0191
Venus	66759-05-23 18:58 G	26104426.23	26104426.29	26104426.35	0.0538	0.0513
Mercury	66764-07-16 08:53 G	26106306.72	26106306.87	26106307.03	0.0484	0.0155
Venus	66764-07-29 02:53 G	26106319.47	26106319.62	26106319.77	0.0484	0.0336
Venus	66765-03-21 17:46 G	26106555.05	26106555.24	26106555.43	0.0487	0.0160
Mercury	66770-03-23 19:55 G	26108383.24	26108383.33	26108383.41	0.0545	0.0435
Venus	66770-06-01 15:51 G	26108453.02	26108453.16	26108453.30	0.0545	0.0392
Mercury	66770-06-21 10:05 G	26108472.82	26108472.92	26108473.01	0.0544	0.0390
Venus	66771-01-26 05:46 G	26108691.59	26108691.74	26108691.91	0.0540	0.0325
Venus	66776-04-03 08:53 G	26110585.83	26110585.87	26110585.93	0.0484	0.0469
Mercury	66776-05-04 09:51 G	26110616.75	26110616.91	26110617.08	0.0484	0.0021
Venus	66776-11-24 23:31 G	26110821.27	26110821.48	26110821.68	0.0486	0.0021
Mercury	66782-04-09 12:43 G	26112782.90	26112783.03	26112783.16	0.0545	0.0198
Venus	66782-09-30 17:31 G	26112957.03	26112957.23	26112957.42	0.0542	0.0130
Earth	66787-12-26 15:22 G	26114870.02	26114870.14	26114870.27	0.0483	0.0408
Moon	66787-12-26 18:29 G	26114870.12	26114870.27	26114870.42	0.0483	0.0379 *
Mercury	66788-02-21 10:48 G	26114926.80	26114926.95	26114927.10	0.0484	0.0189
Venus	66788-07-31 04:48 G	26115087.50	26115087.70	26115087.90	0.0485	0.0118
Venus	66789-03-23 21:07 G	26115323.26	26115323.38	26115323.51	0.0489	0.0383
Mars	66790-12-15 21:07 G	26115955.12	26115955.38	26115955.65	0.0512	0.0130
Mercury	66794-01-26 15:07 G	26117092.99	26117093.13	26117093.27	0.0545	0.0001
Venus	66794-06-05 04:05 G	26117222.47	26117222.67	26117222.87	0.0543	0.0068
Mercury	66799-12-10 12:00 G	26119236.90	26119237.00	26119237.11	0.0484	0.0354
Moon	66799-12-30 18:15 G	26119257.03	26119257.26	26119257.50	0.0484	0.0056
Earth	66799-12-30 22:05 G	26119257.19	26119257.42	26119257.65	0.0484	0.0079 *
Mercury	66800-03-09 06:29 G	26119326.66	26119326.77	26119326.89	0.0484	0.0335
Venus	66800-04-05 11:03 G	26119353.79	26119353.96	26119354.13	0.0485	0.0254
Venus	66800-11-27 02:53 G	26119589.44	26119589.62	26119589.79	0.0488	0.0245
Mercury	66805-11-14 16:34 G	26121403.07	26121403.19	26121403.32	0.0544	0.0216

Venus	66806-02-07 11:31 G	26121487.81	26121487.98	26121488.16	0.0543	0.0272
Venus	66806-10-04 00:15 G	26121726.39	26121726.51	26121726.63	0.0538	0.0436
Venus	66811-12-10 16:34 G	26123620.08	26123620.19	26123620.32	0.0484	0.0389
Mercury	66811-12-27 07:12 G	26123636.65	26123636.80	26123636.96	0.0484	0.0159
Earth	66812-01-04 03:36 G	26123644.45	26123644.65	26123644.85	0.0484	0.0249
Moon	66812-01-04 07:41 G	26123644.61	26123644.82	26123645.02	0.0484	0.0234 *
Venus	66812-08-02 07:55 G	26123855.63	26123855.83	26123856.03	0.0487	0.0106
Mercury	66817-09-02 18:15 G	26125713.18	26125713.26	26125713.34	0.0544	0.0432
Venus	66817-10-12 19:55 G	26125753.24	26125753.33	26125753.43	0.0544	0.0471
Mercury	66817-12-01 08:24 G	26125802.75	26125802.85	26125802.94	0.0544	0.0390
Venus	66818-06-08 09:51 G	26125991.73	26125991.91	26125992.09	0.0540	0.0242
Mars	66820-03-20 03:07 G	26126642.42	26126642.63	26126642.87	0.0516	0.0296
Mercury	66823-10-15 07:55 G	26127946.66	26127946.83	26127946.99	0.0484	0.0018
Venus	66824-04-07 12:15 G	26128121.81	26128122.01	26128122.22	0.0485	0.0037
Venus	66824-11-29 05:17 G	26128357.66	26128357.72	26128357.78	0.0490	0.0464
Earth	66829-06-24 08:24 G	26130025.75	26130025.85	26130025.97	0.0545	0.0474
Moon	66829-06-24 11:31 G	26130025.90	26130025.98	26130026.08	0.0545	0.0497 *
Mercury	66829-09-19 10:19 G	26130112.80	26130112.93	26130113.06	0.0545	0.0185
Venus	66830-02-10 19:27 G	26130257.10	26130257.31	26130257.51	0.0543	0.0044
Mercury	66835-08-03 09:07 G	26132256.73	26132256.88	26132257.03	0.0484	0.0185
Venus	66835-12-12 18:15 G	26132388.08	26132388.26	26132388.46	0.0485	0.0173
Venus	66836-08-04 10:05 G	26132623.77	26132623.92	26132624.07	0.0488	0.0326
Moon	66841-06-29 15:36 G	26134413.91	26134414.15	26134414.38	0.0545	0.0021
Earth	66841-06-29 17:17 G	26134413.99	26134414.22	26134414.45	0.0545	0.0015 *
Mercury	66841-07-08 12:58 G	26134422.90	26134423.04	26134423.17	0.0545	0.0018
Venus	66841-10-16 06:15 G	26134522.57	26134522.76	26134522.96	0.0544	0.0156
Mercury	66847-05-22 09:51 G	26136566.81	26136566.91	26136567.03	0.0484	0.0355
Venus	66847-08-17 23:46 G	26136654.34	26136654.49	26136654.65	0.0484	0.0309
Mercury	66847-08-20 04:19 G	26136656.56	26136656.68	26136656.80	0.0484	0.0333
Venus	66848-04-09 14:53 G	26136889.93	26136890.12	26136890.31	0.0487	0.0186

Mercury	66853-04-26 15:22 G	26138733.01	26138733.14	26138733.26	0.0545	0.0210
Venus	66853-06-20 16:48 G	26138788.05	26138788.20	26138788.36	0.0544	0.0351
Moon	66853-07-05 00:58 G	26138802.48	26138802.54	26138802.60	0.0544	0.0519
Earth	66853-07-05 01:27 G	26138802.48	26138802.56	26138802.66	0.0544	0.0498 *
Venus	66854-02-14 06:29 G	26139026.62	26139026.77	26139026.93	0.0540	0.0360
Venus	66859-04-23 06:15 G	26140920.68	26140920.76	26140920.84	0.0484	0.0441
Mercury	66859-06-08 05:17 G	26140966.57	26140966.72	26140966.88	0.0484	0.0162
Venus	66859-12-14 20:53 G	26141156.17	26141156.37	26141156.58	0.0486	0.0049
Mercury	66865-02-12 16:48 G	26143043.12	26143043.20	26143043.29	0.0544	0.0425
Mercury	66865-05-13 06:58 G	26143132.70	26143132.79	26143132.88	0.0544	0.0398
Venus	66865-10-19 15:07 G	26143291.94	26143292.13	26143292.32	0.0541	0.0162
Moon	66870-12-25 16:48 G	26145185.10	26145185.20	26145185.30	0.0484	0.0435
Earth	66870-12-25 20:39 G	26145185.29	26145185.36	26145185.43	0.0484	0.0462 *
Mercury	66871-03-27 06:00 G	26145276.59	26145276.75	26145276.92	0.0484	0.0018
Venus	66871-08-20 02:24 G	26145422.40	26145422.60	26145422.80	0.0485	0.0089
Venus	66872-04-11 18:58 G	26145658.19	26145658.29	26145658.41	0.0490	0.0411
Mercury	66877-03-01 08:53 G	26147442.74	26147442.87	26147443.00	0.0544	0.0191
Venus	66877-06-24 00:00 G	26147557.30	26147557.50	26147557.71	0.0542	0.0039
Earth	66882-12-30 02:10 G	26149572.36	26149572.59	26149572.82	0.0484	0.0134
Moon	66882-12-30 06:00 G	26149572.53	26149572.75	26149572.99	0.0484	0.0112 *
Mercury	66883-01-13 06:58 G	26149586.64	26149586.79	26149586.94	0.0484	0.0184
Venus	66883-04-25 07:27 G	26149688.64	26149688.81	26149689.00	0.0484	0.0228
Venus	66883-12-16 22:48 G	26149924.29	26149924.45	26149924.63	0.0488	0.0269
Mercury	66888-12-18 10:34 G	26151752.80	26151752.94	26151753.08	0.0545	0.0022
Venus	66889-02-26 08:10 G	26151822.67	26151822.84	26151823.03	0.0544	0.0242
Venus	66889-10-22 21:36 G	26152061.31	26152061.40	26152061.51	0.0539	0.0465
Mercury	66894-11-01 08:24 G	26153896.74	26153896.85	26153896.96	0.0483	0.0348
Venus	66894-12-29 13:55 G	26153954.95	26153955.08	26153955.22	0.0484	0.0360
Moon	66895-01-03 05:17 G	26153959.50	26153959.72	26153959.95	0.0484	0.0179
Earth	66895-01-03 08:53 G	26153959.66	26153959.87	26153960.09	0.0484	0.0197 *

Mercury	66895-01-30 02:39 G	26153986.49	26153986.61	26153986.73	0.0484	0.0339
Venus	66895-08-22 04:19 G	26154190.49	26154190.68	26154190.88	0.0486	0.0131
Mercury	66900-10-07 12:58 G	26156062.91	26156063.04	26156063.17	0.0545	0.0221
Venus	66900-11-01 18:58 G	26156088.17	26156088.29	26156088.41	0.0545	0.0437
Venus	66901-06-28 09:36 G	26156326.73	26156326.90	26156327.08	0.0541	0.0276
Mercury	66906-11-19 03:22 G	26158296.48	26158296.64	26158296.79	0.0484	0.0163
Venus	66907-04-28 09:36 G	26158456.70	26158456.90	26158457.11	0.0486	0.0013
Venus	66907-12-20 02:39 G	26158692.60	26158692.61	26158692.62	0.0490	0.0489
Earth	66912-06-24 12:15 G	26160341.01	26160341.01	26160341.02	0.0545	0.0544
Mercury	66912-07-26 15:07 G	26160373.05	26160373.13	26160373.22	0.0545	0.0421
Mercury	66912-10-24 05:31 G	26160462.64	26160462.73	26160462.82	0.0544	0.0405
Venus	66913-03-02 20:39 G	26160592.16	26160592.36	26160592.56	0.0542	0.0083
Mercury	66918-09-07 04:19 G	26162606.52	26162606.68	26162606.85	0.0484	0.0009
Venus	66919-01-01 16:05 G	26162722.97	26162723.17	26162723.36	0.0485	0.0144
Venus	66919-08-25 07:55 G	26162958.69	26162958.83	26162958.97	0.0489	0.0353
Earth	66924-06-29 17:46 G	26164729.02	26164729.24	26164729.47	0.0544	0.0070
Moon	66924-06-29 18:15 G	26164729.04	26164729.26	26164729.47	0.0544	0.0095 *
Mercury	66924-08-12 07:41 G	26164772.69	26164772.82	26164772.94	0.0544	0.0201
Venus	66924-11-05 05:31 G	26164857.53	26164857.73	26164857.93	0.0543	0.0118
Mercury	66930-06-26 05:17 G	26166916.57	26166916.72	26166916.87	0.0484	0.0178
Venus	66930-09-06 21:36 G	26166989.24	26166989.40	26166989.57	0.0484	0.0280
Venus	66931-04-30 13:12 G	26167224.86	26167225.05	26167225.23	0.0488	0.0215
Mercury	66936-05-31 09:22 G	26169082.76	26169082.89	26169083.03	0.0544	0.0018
Earth	66936-07-04 22:19 G	26169117.28	26169117.43	26169117.58	0.0544	0.0401
Moon	66936-07-05 00:29 G	26169117.38	26169117.52	26169117.67	0.0544	0.0428 *
Venus	66936-07-10 14:10 G	26169122.92	26169123.09	26169123.25	0.0544	0.0318
Venus	66937-03-06 03:22 G	26169361.50	26169361.64	26169361.78	0.0539	0.0389
Mercury	66942-04-14 06:29 G	26171226.66	26171226.77	26171226.88	0.0484	0.0345
Venus	66942-05-13 03:22 G	26171255.54	26171255.64	26171255.75	0.0484	0.0413
Mercury	66942-07-13 00:43 G	26171316.42	26171316.53	26171316.65	0.0484	0.0343

Venus	66943-01-03 17:46 G	26171491.04	26171491.24	26171491.45	0.0486	0.0076
Mars	66945-03-11 08:24 G	26172288.61	26172288.85	26172289.10	0.0512	0.0238
Venus	66948-03-14 21:22 G	26173388.34	26173388.39	26173388.45	0.0545	0.0519
Mercury	66948-03-19 10:48 G	26173392.82	26173392.95	26173393.08	0.0545	0.0229
Venus	66948-11-08 12:29 G	26173626.83	26173627.02	26173627.21	0.0542	0.0191
Moon	66953-12-26 07:27 G	26175500.78	26175500.81	26175500.85	0.0483	0.0476
Mercury	66954-05-01 01:41 G	26175626.42	26175626.57	26175626.73	0.0484	0.0172
Venus	66954-09-09 00:00 G	26175757.29	26175757.50	26175757.70	0.0485	0.0062
Venus	66955-05-02 15:51 G	26175993.08	26175993.16	26175993.26	0.0489	0.0434
Mercury	66960-01-06 12:58 G	26177702.96	26177703.04	26177703.13	0.0545	0.0432
Mercury	66960-04-05 03:22 G	26177792.55	26177792.64	26177792.73	0.0545	0.0396
Venus	66960-07-13 23:31 G	26177892.27	26177892.48	26177892.68	0.0543	0.0009
Moon	66965-12-30 05:31 G	26179887.50	26179887.73	26179887.96	0.0483	0.0165
Earth	66965-12-30 09:07 G	26179887.66	26179887.88	26179888.10	0.0483	0.0182 *
Mercury	66966-02-17 02:39 G	26179936.44	26179936.61	26179936.77	0.0484	0.0008
Venus	66966-05-15 05:31 G	26180023.55	26180023.73	26180023.92	0.0484	0.0198
Venus	66967-01-05 20:39 G	26180259.21	26180259.36	26180259.53	0.0488	0.0296
Mercury	66972-01-23 06:00 G	26182102.63	26182102.75	26182102.88	0.0545	0.0206
Venus	66972-03-18 10:34 G	26182157.75	26182157.94	26182158.13	0.0544	0.0199
Venus	66972-11-11 23:46 G	26182396.42	26182396.49	26182396.56	0.0539	0.0502
Mercury	66977-12-06 03:51 G	26184246.51	26184246.66	26184246.81	0.0484	0.0169
Earth	66978-01-03 15:22 G	26184274.92	26184275.14	26184275.37	0.0484	0.0150
Moon	66978-01-03 17:31 G	26184275.01	26184275.23	26184275.45	0.0484	0.0126 *
Venus	66978-01-18 12:00 G	26184289.85	26184290.00	26184290.15	0.0484	0.0331
Venus	66978-09-11 02:39 G	26184525.42	26184525.61	26184525.80	0.0487	0.0159
Mercury	66983-11-11 08:10 G	26186412.70	26186412.84	26186412.98	0.0544	0.0009
Venus	66983-11-21 19:41 G	26186423.19	26186423.32	26186423.46	0.0544	0.0396
Venus	66984-07-17 09:36 G	26186661.73	26186661.90	26186662.06	0.0540	0.0312
Venus	66989-09-23 17:31 G	26188556.18	26188556.23	26188556.29	0.0484	0.0463
Mercury	66989-09-24 04:48 G	26188556.59	26188556.70	26188556.82	0.0484	0.0338

Mercury	66989-12-22 23:17 G	26188646.35	26188646.47	26188646.58	0.0484	0.0351
Moon	66990-01-07 20:24 G	26188662.28	26188662.35	26188662.44	0.0484	0.0456
Earth	66990-01-07 21:07 G	26188662.35	26188662.38	26188662.42	0.0484	0.0479 *
Venus	66990-05-17 08:24 G	26188791.64	26188791.85	26188792.05	0.0486	0.0023
Mercury	66995-08-30 09:51 G	26190722.79	26190722.91	26190723.04	0.0544	0.0211
Venus	66996-03-21 18:58 G	26190927.09	26190927.29	26190927.48	0.0542	0.0116

68TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 68th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	67001-10-12 00:00 G		26192956.35	26192956.50	26192956.65	0.0484	0.0178	
Venus	67002-01-21 13:55 G		26193057.88	26193058.08	26193058.28	0.0485	0.0117	
Venus	67002-09-14 05:46 G		26193293.61	26193293.74	26193293.86	0.0489	0.0377	
Mercury	67007-06-19 11:03 G		26195032.88	26195032.96	26195033.04	0.0545	0.0436	
Earth	67007-06-30 13:12 G		26195043.83	26195044.05	26195044.27	0.0545	0.0168	
Moon	67007-06-30 14:39 G		26195043.89	26195044.11	26195044.33	0.0545	0.0187 *	
Mercury	67007-09-17 01:27 G		26195122.47	26195122.56	26195122.65	0.0545	0.0392	
Venus	67007-11-26 02:39 G		26195192.41	26195192.61	26195192.81	0.0544	0.0088	
Mercury	67013-07-31 01:12 G		26197266.39	26197266.55	26197266.72	0.0484	0.0010	
Venus	67013-09-26 20:24 G		26197324.18	26197324.35	26197324.52	0.0484	0.0250	
Venus	67014-05-20 11:03 G		26197559.79	26197559.96	26197560.14	0.0487	0.0241	
Moon	67019-07-05 18:00 G		26199432.09	26199432.25	26199432.43	0.0545	0.0350	
Earth	67019-07-05 21:36 G		26199432.22	26199432.40	26199432.59	0.0545	0.0319 *	

Mercury	67019-07-06 03:51 G	26199432.54	26199432.66	26199432.79	0.0545	0.0199 *
Venus	67019-07-31 12:58 G	26199457.87	26199458.04	26199458.22	0.0545	0.0285
Venus	67020-03-26 03:22 G	26199696.51	26199696.64	26199696.76	0.0540	0.0421
Mercury	67025-05-19 02:10 G	26201576.44	26201576.59	26201576.74	0.0483	0.0162
Venus	67025-06-02 01:55 G	26201590.47	26201590.58	26201590.71	0.0483	0.0383
Venus	67026-01-23 16:19 G	26201825.98	26201826.18	26201826.38	0.0486	0.0103
Venus	67031-04-05 00:15 G	26203723.41	26203723.51	26203723.61	0.0545	0.0475
Mercury	67031-04-24 06:43 G	26203742.64	26203742.78	26203742.92	0.0545	0.0016
Venus	67031-11-29 15:07 G	26203961.95	26203962.13	26203962.32	0.0542	0.0234
Mercury	67037-03-07 03:36 G	26205886.53	26205886.65	26205886.77	0.0483	0.0326
Mercury	67037-06-04 21:51 G	26205976.30	26205976.41	26205976.52	0.0484	0.0361
Venus	67037-09-28 22:34 G	26206092.24	26206092.44	26206092.65	0.0485	0.0032
Venus	67038-05-22 15:07 G	26206328.07	26206328.13	26206328.20	0.0490	0.0461
Mercury	67043-02-10 08:53 G	26208052.74	26208052.87	26208053.00	0.0545	0.0198
Venus	67043-08-04 00:58 G	26208227.34	26208227.54	26208227.75	0.0543	0.0037
Earth	67048-12-30 16:48 G	26210202.99	26210203.20	26210203.41	0.0484	0.0226
Moon	67048-12-30 18:43 G	26210203.08	26210203.28	26210203.48	0.0484	0.0219 *
Mercury	67049-03-23 22:34 G	26210286.29	26210286.44	26210286.59	0.0484	0.0187
Venus	67049-06-04 04:34 G	26210358.50	26210358.69	26210358.88	0.0485	0.0168
Venus	67050-01-25 20:10 G	26210594.19	26210594.34	26210594.49	0.0488	0.0325
Mercury	67054-11-29 10:34 G	26212362.84	26212362.94	26212363.03	0.0545	0.0411
Mercury	67055-02-27 00:43 G	26212452.44	26212452.53	26212452.62	0.0544	0.0414
Venus	67055-04-08 10:05 G	26212492.73	26212492.92	26212493.11	0.0544	0.0162
Venus	67055-12-02 22:34 G	26212731.42	26212731.44	26212731.47	0.0538	0.0533
Moon	67061-01-03 23:03 G	26214590.22	26214590.46	26214590.71	0.0484	0.0080
Earth	67061-01-03 23:31 G	26214590.25	26214590.48	26214590.71	0.0484	0.0109 *
Mercury	67061-01-09 23:46 G	26214596.32	26214596.49	26214596.65	0.0484	0.0022
Venus	67061-02-07 10:34 G	26214624.79	26214624.94	26214625.10	0.0484	0.0302
Venus	67061-10-01 01:27 G	26214860.37	26214860.56	26214860.75	0.0487	0.0186
Venus	67066-12-11 16:34 G	26216758.05	26216758.19	26216758.35	0.0545	0.0367

Mercury	67066-12-16 02:10 G	26216762.46	26216762.59	26216762.72	0.0545	0.0198
Venus	67067-08-07 07:12 G	26216996.65	26216996.80	26216996.96	0.0541	0.0340
Venus	67072-10-13 17:17 G	26218891.14	26218891.22	26218891.32	0.0483	0.0432
Mercury	67072-10-29 00:58 G	26218906.39	26218906.54	26218906.70	0.0483	0.0147
Moon	67073-01-08 05:31 G	26218977.63	26218977.73	26218977.85	0.0484	0.0425
Earth	67073-01-08 06:29 G	26218977.68	26218977.77	26218977.87	0.0484	0.0441 *
Venus	67073-06-06 07:27 G	26219126.61	26219126.81	26219127.02	0.0485	0.0052
Mercury	67078-10-04 04:34 G	26221072.55	26221072.69	26221072.83	0.0545	0.0005
Venus	67079-04-11 18:29 G	26221262.07	26221262.27	26221262.46	0.0543	0.0149
Mercury	67084-08-17 02:10 G	26223216.47	26223216.59	26223216.71	0.0483	0.0315
Mercury	67084-11-14 20:24 G	26223306.24	26223306.35	26223306.45	0.0484	0.0371
Venus	67085-02-09 12:58 G	26223392.84	26223393.04	26223393.24	0.0485	0.0085
Venus	67085-10-03 04:34 G	26223628.58	26223628.69	26223628.81	0.0489	0.0405
Moon	67090-06-29 16:48 G	26225359.00	26225359.20	26225359.40	0.0545	0.0243
Earth	67090-06-29 19:41 G	26225359.11	26225359.32	26225359.53	0.0545	0.0228 *
Mercury	67090-07-23 07:12 G	26225382.67	26225382.80	26225382.93	0.0545	0.0195
Venus	67090-12-15 06:00 G	26225527.55	26225527.75	26225527.95	0.0544	0.0044
Mars	67092-12-04 07:12 G	26226247.55	26226247.80	26226248.06	0.0518	0.0218
Mercury	67096-06-05 03:36 G	26227526.63	26227526.65	26227526.68	0.0483	0.0477
Mercury	67096-09-02 21:22 G	26227616.24	26227616.39	26227616.54	0.0484	0.0200
Venus	67096-10-15 19:27 G	26227659.13	26227659.31	26227659.49	0.0484	0.0218
Venus	67097-06-08 10:34 G	26227894.77	26227894.94	26227895.11	0.0487	0.0271
Mercury	67102-05-12 09:22 G	26229692.79	26229692.89	26229692.98	0.0545	0.0398
Earth	67102-07-06 03:36 G	26229747.45	26229747.65	26229747.86	0.0545	0.0260
Moon	67102-07-06 07:55 G	26229747.63	26229747.83	26229748.02	0.0545	0.0297 *
Mercury	67102-08-09 23:31 G	26229782.40	26229782.48	26229782.57	0.0544	0.0428
Venus	67102-08-20 16:05 G	26229792.98	26229793.17	26229793.35	0.0544	0.0240
Venus	67103-04-16 05:17 G	26230031.62	26230031.72	26230031.83	0.0539	0.0459
Venus	67108-06-22 01:12 G	26231925.42	26231925.55	26231925.70	0.0484	0.0352
Mercury	67108-06-22 22:19 G	26231926.26	26231926.43	26231926.59	0.0484	0.0029

Venus	67109-02-12 16:05 G	26232160.97	26232161.17	26232161.37	0.0486	0.0134
Venus	67114-04-25 00:58 G	26234058.42	26234058.54	26234058.66	0.0545	0.0436
Mercury	67114-05-29 01:41 G	26234092.45	26234092.57	26234092.70	0.0544	0.0225
Venus	67114-12-19 15:22 G	26234296.97	26234297.14	26234297.32	0.0541	0.0269
Venus	67120-02-26 07:41 G	26236191.81	26236191.82	26236191.85	0.0483	0.0481
Mercury	67120-04-10 23:31 G	26236236.33	26236236.48	26236236.64	0.0484	0.0136
Venus	67120-10-18 22:05 G	26236427.22	26236427.42	26236427.63	0.0485	0.0006
Venus	67121-06-11 14:24 G	26236663.09	26236663.10	26236663.12	0.0490	0.0487
Mercury	67126-03-17 02:53 G	26238402.48	26238402.62	26238402.76	0.0545	0.0011
Venus	67126-08-23 22:34 G	26238562.24	26238562.44	26238562.64	0.0543	0.0067
Moon	67132-01-01 03:36 G	26240518.44	26240518.65	26240518.86	0.0483	0.0259
Earth	67132-01-01 03:36 G	26240518.46	26240518.65	26240518.86	0.0483	0.0259 *
Mercury	67132-01-29 00:58 G	26240546.42	26240546.54	26240546.68	0.0483	0.0299
Mercury	67132-04-27 19:12 G	26240636.21	26240636.30	26240636.40	0.0484	0.0389
Venus	67132-06-24 04:34 G	26240693.50	26240693.69	26240693.89	0.0484	0.0136
Venus	67133-02-14 19:55 G	26240929.19	26240929.33	26240929.47	0.0488	0.0352
Mercury	67138-01-03 05:03 G	26242712.58	26242712.71	26242712.84	0.0545	0.0201
Venus	67138-04-28 08:53 G	26242827.68	26242827.87	26242828.07	0.0544	0.0129
Mercury	67143-11-17 02:24 G	26244856.56	26244856.60	26244856.64	0.0483	0.0464
Moon	67144-01-05 08:24 G	26244905.62	26244905.85	26244906.07	0.0483	0.0040
Earth	67144-01-05 09:22 G	26244905.66	26244905.89	26244906.12	0.0483	0.0070 *
Mercury	67144-02-14 19:55 G	26244946.19	26244946.33	26244946.48	0.0484	0.0213
Venus	67144-02-28 10:05 G	26244959.76	26244959.92	26244960.10	0.0484	0.0269
Venus	67144-10-21 00:43 G	26245195.35	26245195.53	26245195.72	0.0487	0.0217
Mercury	67149-10-22 07:41 G	26247022.72	26247022.82	26247022.91	0.0545	0.0397
Venus	67149-12-31 20:10 G	26247093.18	26247093.34	26247093.51	0.0545	0.0321
Mercury	67150-01-19 22:05 G	26247112.34	26247112.42	26247112.50	0.0545	0.0432
Venus	67150-08-27 10:48 G	26247331.82	26247331.95	26247332.10	0.0541	0.0383
Venus	67155-11-03 16:48 G	26249226.09	26249226.20	26249226.32	0.0483	0.0399
Mercury	67155-12-03 21:07 G	26249256.22	26249256.38	26249256.55	0.0483	0.0044

Earth	67156-01-09 15:51 G	26249293.03	26249293.16	26249293.29	0.0484	0.0401
Moon	67156-01-09 18:00 G	26249293.11	26249293.25	26249293.40	0.0484	0.0389 *
Venus	67156-06-26 06:58 G	26249461.59	26249461.79	26249461.99	0.0486	0.0082
Venus	67161-09-05 06:43 G	26251358.71	26251358.78	26251358.85	0.0545	0.0511
Mercury	67161-11-08 00:43 G	26251422.40	26251422.53	26251422.65	0.0545	0.0239
Venus	67162-05-01 21:51 G	26251597.22	26251597.41	26251597.60	0.0542	0.0192
Mercury	67167-09-21 22:19 G	26253566.27	26253566.43	26253566.58	0.0484	0.0126
Venus	67168-03-01 12:43 G	26253727.83	26253728.03	26253728.24	0.0485	0.0054
Venus	67168-10-23 04:48 G	26253963.62	26253963.70	26253963.80	0.0489	0.0437
Earth	67173-06-29 23:46 G	26255674.30	26255674.49	26255674.68	0.0545	0.0296
Moon	67173-06-30 03:36 G	26255674.46	26255674.65	26255674.85	0.0545	0.0303 *
Mercury	67173-08-27 02:39 G	26255732.47	26255732.61	26255732.75	0.0545	0.0033
Venus	67174-01-04 07:12 G	26255862.60	26255862.80	26255863.00	0.0543	0.0005
Mercury	67179-07-10 23:46 G	26257876.36	26257876.49	26257876.62	0.0483	0.0287
Mercury	67179-10-08 18:00 G	26257966.16	26257966.25	26257966.34	0.0484	0.0401
Venus	67179-11-05 19:27 G	26257994.12	26257994.31	26257994.50	0.0484	0.0188
Venus	67180-06-28 10:34 G	26258229.78	26258229.94	26258230.10	0.0487	0.0299
Mercury	67185-06-15 03:36 G	26260042.52	26260042.65	26260042.78	0.0545	0.0195
Moon	67185-07-04 20:39 G	26260062.15	26260062.36	26260062.58	0.0545	0.0198
Earth	67185-07-05 00:43 G	26260062.31	26260062.53	26260062.75	0.0545	0.0166 *
Venus	67185-09-08 13:27 G	26260127.87	26260128.06	26260128.25	0.0544	0.0209
Venus	67186-05-05 03:22 G	26260366.56	26260366.64	26260366.73	0.0540	0.0487
Mercury	67191-04-29 01:27 G	26262186.50	26262186.56	26262186.62	0.0483	0.0446
Venus	67191-07-12 02:10 G	26262260.44	26262260.59	26262260.75	0.0484	0.0318
Mercury	67191-07-27 18:58 G	26262276.15	26262276.29	26262276.44	0.0484	0.0233
Venus	67192-03-03 16:19 G	26262495.99	26262496.18	26262496.38	0.0486	0.0166
Mercury	67197-04-03 05:31 G	26264352.64	26264352.73	26264352.83	0.0545	0.0402
Venus	67197-05-13 23:17 G	26264393.34	26264393.47	26264393.61	0.0545	0.0403
Mercury	67197-07-01 20:10 G	26264442.26	26264442.34	26264442.42	0.0545	0.0428
Venus	67198-01-07 14:24 G	26264631.94	26264632.10	26264632.28	0.0542	0.0301

Venus	67203-03-17 07:41 G	26266526.75	26266526.82	26266526.90	0.0483	0.0447
Mercury	67203-05-15 19:55 G	26266586.17	26266586.33	26266586.49	0.0483	0.0058
Venus	67203-11-07 21:51 G	26266762.20	26266762.41	26266762.61	0.0485	0.0030
Mercury	67209-04-19 23:03 G	26268752.33	26268752.46	26268752.58	0.0545	0.0240
Venus	67209-09-12 02:24 G	26268897.40	26268897.60	26268897.80	0.0543	0.0112
Moon	67214-12-31 12:00 G	26270833.83	26270834.00	26270834.18	0.0483	0.0305
Earth	67214-12-31 13:27 G	26270833.88	26270834.06	26270834.25	0.0483	0.0298 *
Mercury	67215-03-03 21:07 G	26270896.23	26270896.38	26270896.54	0.0483	0.0109
Venus	67215-07-14 04:05 G	26271028.47	26271028.67	26271028.87	0.0484	0.0104
Venus	67216-03-05 19:27 G	26271264.19	26271264.31	26271264.44	0.0488	0.0382
Mars	67217-11-26 07:27 G	26271894.57	26271894.81	26271895.06	0.0510	0.0198
Mercury	67221-02-06 01:27 G	26273062.42	26273062.56	26273062.70	0.0545	0.0046
Venus	67221-05-17 13:12 G	26273162.85	26273163.05	26273163.25	0.0544	0.0082
Mercury	67226-12-20 22:19 G	26275206.30	26275206.43	26275206.57	0.0483	0.0276
Earth	67227-01-04 19:12 G	26275221.06	26275221.30	26275221.54	0.0484	0.0033
Moon	67227-01-04 21:51 G	26275221.16	26275221.41	26275221.65	0.0484	0.0009 *
Venus	67227-03-19 10:05 G	26275294.74	26275294.92	26275295.10	0.0484	0.0237
Mercury	67227-03-20 16:34 G	26275296.11	26275296.19	26275296.28	0.0484	0.0412
Venus	67227-11-10 01:12 G	26275530.37	26275530.55	26275530.72	0.0487	0.0248
Mercury	67232-11-25 03:22 G	26277372.51	26277372.64	26277372.78	0.0545	0.0162
Venus	67233-01-19 22:19 G	26277428.26	26277428.43	26277428.61	0.0544	0.0278
Venus	67233-09-15 12:15 G	26277666.89	26277667.01	26277667.14	0.0540	0.0419
Mercury	67238-10-09 00:00 G	26279516.44	26279516.50	26279516.57	0.0483	0.0435
Venus	67238-11-22 17:03 G	26279561.08	26279561.21	26279561.34	0.0484	0.0367
Mercury	67239-01-06 17:46 G	26279606.10	26279606.24	26279606.38	0.0484	0.0245
Moon	67239-01-08 23:03 G	26279608.32	26279608.46	26279608.62	0.0484	0.0365
Earth	67239-01-09 02:24 G	26279608.46	26279608.60	26279608.76	0.0484	0.0370 *
Venus	67239-07-16 07:27 G	26279796.61	26279796.81	26279797.01	0.0486	0.0113
Mercury	67244-09-13 04:05 G	26281682.58	26281682.67	26281682.77	0.0545	0.0395
Venus	67244-09-24 04:05 G	26281693.58	26281693.67	26281693.77	0.0545	0.0479

Mercury	67244-12-11 18:43 G	26281772.20	26281772.28	26281772.36	0.0545	0.0434
Venus	67245-05-20 19:27 G	26281932.13	26281932.31	26281932.50	0.0542	0.0221
Mars	67247-03-01 09:36 G	26282581.66	26282581.90	26282582.14	0.0518	0.0261
Mercury	67250-10-25 18:58 G	26283916.13	26283916.29	26283916.46	0.0484	0.0079
Venus	67251-03-21 13:41 G	26284062.87	26284063.07	26284063.28	0.0485	0.0020
Venus	67251-11-12 05:31 G	26284298.67	26284298.73	26284298.80	0.0489	0.0464
Moon	67256-06-28 17:31 G	26285989.07	26285989.23	26285989.38	0.0545	0.0402
Earth	67256-06-28 21:22 G	26285989.24	26285989.39	26285989.56	0.0545	0.0389 *
Mercury	67256-09-29 20:53 G	26286082.25	26286082.37	26286082.50	0.0545	0.0237
Venus	67257-01-23 05:31 G	26286197.53	26286197.73	26286197.94	0.0544	0.0029
Mercury	67262-08-13 19:55 G	26288226.17	26288226.33	26288226.49	0.0483	0.0096
Venus	67262-11-24 19:12 G	26288329.11	26288329.30	26288329.50	0.0484	0.0154
Venus	67263-07-18 10:05 G	26288564.77	26288564.92	26288565.07	0.0487	0.0329
Earth	67268-07-04 07:12 G	26290377.58	26290377.80	26290378.03	0.0545	0.0106
Moon	67268-07-04 10:19 G	26290377.71	26290377.93	26290378.15	0.0545	0.0141 *
Mercury	67268-07-18 23:46 G	26290392.35	26290392.49	26290392.63	0.0545	0.0046
Venus	67268-09-27 16:48 G	26290463.01	26290463.20	26290463.40	0.0545	0.0164
Venus	67269-05-24 06:58 G	26290701.76	26290701.79	26290701.84	0.0540	0.0528
Mercury	67274-06-01 21:22 G	26292536.26	26292536.39	26292536.53	0.0483	0.0259
Venus	67274-07-31 01:41 G	26292595.41	26292595.57	26292595.74	0.0483	0.0285
Mercury	67274-08-30 15:22 G	26292626.07	26292626.14	26292626.22	0.0484	0.0429
Venus	67275-03-23 15:51 G	26292830.98	26292831.16	26292831.35	0.0486	0.0196
Mercury	67280-05-07 02:10 G	26294702.45	26294702.59	26294702.72	0.0545	0.0152
Venus	67280-06-02 03:51 G	26294728.51	26294728.66	26294728.81	0.0545	0.0355
Venus	67281-01-26 18:43 G	26294967.12	26294967.28	26294967.43	0.0541	0.0344
Mercury	67286-03-20 22:34 G	26296846.37	26296846.44	26296846.52	0.0483	0.0425
Venus	67286-04-05 07:41 G	26296861.72	26296861.82	26296861.92	0.0483	0.0415
Mercury	67286-06-18 16:19 G	26296936.04	26296936.18	26296936.32	0.0484	0.0255
Venus	67286-11-26 21:51 G	26297097.21	26297097.41	26297097.62	0.0485	0.0062
Venus	67292-02-05 13:12 G	26298994.05	26298994.05	26298994.05	0.0545	0.0545

Mercury	67292-02-24 04:05 G	26299012.56	26299012.67	26299012.77	0.0545	0.0361
Mercury	67292-05-23 18:29 G	26299102.20	26299102.27	26299102.34	0.0544	0.0466
Venus	67292-10-01 04:19 G	26299232.49	26299232.68	26299232.88	0.0543	0.0152
Earth	67297-12-30 23:46 G	26301149.32	26301149.49	26301149.67	0.0483	0.0333
Moon	67297-12-31 02:24 G	26301149.44	26301149.60	26301149.78	0.0483	0.0343 *
Mercury	67298-04-06 17:46 G	26301246.08	26301246.24	26301246.40	0.0484	0.0090
Venus	67298-08-02 04:34 G	26301363.49	26301363.69	26301363.89	0.0484	0.0072
Venus	67299-03-25 20:10 G	26301599.23	26301599.34	26301599.45	0.0488	0.0411
Mercury	67304-03-12 19:41 G	26303412.19	26303412.32	26303412.44	0.0545	0.0244
Venus	67304-06-06 10:34 G	26303497.74	26303497.94	26303498.14	0.0544	0.0051
Moon	67310-01-05 03:36 G	26305536.42	26305536.65	26305536.89	0.0483	0.0029
Earth	67310-01-05 07:12 G	26305536.56	26305536.80	26305537.04	0.0483	0.0002 *
Mercury	67310-01-24 19:12 G	26305556.13	26305556.30	26305556.46	0.0484	0.0077
Venus	67310-04-08 11:03 G	26305629.78	26305629.96	26305630.15	0.0484	0.0203
Venus	67310-11-30 01:55 G	26305865.42	26305865.58	26305865.75	0.0487	0.0279
Mercury	67315-12-30 21:51 G	26307722.27	26307722.41	26307722.54	0.0545	0.0043
Venus	67316-02-09 19:55 G	26307763.15	26307763.33	26307763.51	0.0545	0.0246
Venus	67316-10-05 10:34 G	26308001.83	26308001.94	26308002.05	0.0541	0.0448
Mercury	67321-11-12 20:10 G	26309866.20	26309866.34	26309866.48	0.0483	0.0246
Venus	67321-12-12 16:48 G	26309896.05	26309896.20	26309896.35	0.0483	0.0333
Earth	67322-01-09 12:15 G	26309923.83	26309924.01	26309924.18	0.0483	0.0329
Moon	67322-01-09 15:51 G	26309924.00	26309924.16	26309924.33	0.0483	0.0337 *
Mercury	67322-02-10 14:10 G	26309956.03	26309956.09	26309956.16	0.0484	0.0441
Venus	67322-08-05 06:43 G	26310131.58	26310131.78	26310131.97	0.0486	0.0144
Venus	67327-10-15 06:58 G	26312028.67	26312028.79	26312028.91	0.0545	0.0435
Mercury	67327-10-19 00:15 G	26312032.37	26312032.51	26312032.64	0.0545	0.0156
Venus	67328-06-09 22:34 G	26312267.27	26312267.44	26312267.62	0.0542	0.0265
Venus	67333-08-17 23:17 G	26314162.41	26314162.47	26314162.53	0.0483	0.0461
Mercury	67333-08-31 21:36 G	26314176.32	26314176.40	26314176.49	0.0483	0.0409
Mercury	67333-11-29 15:22 G	26314266.00	26314266.14	26314266.27	0.0483	0.0270

Venus	67334-04-10 12:58 G	26314397.83	26314398.04	26314398.24	0.0485	0.0012
Earth	67339-06-30 05:31 G	26316304.60	26316304.73	26316304.87	0.0545	0.0443
Moon	67339-06-30 09:07 G	26316304.76	26316304.88	26316305.01	0.0545	0.0448 *
Mercury	67339-08-07 02:39 G	26316342.50	26316342.61	26316342.71	0.0545	0.0354
Mercury	67339-11-04 17:03 G	26316432.15	26316432.21	26316432.28	0.0545	0.0474
Venus	67340-02-13 09:36 G	26316532.70	26316532.90	26316533.11	0.0543	0.0074
Mercury	67345-09-17 16:05 G	26318576.01	26318576.17	26318576.34	0.0484	0.0099
Venus	67345-12-14 18:58 G	26318664.09	26318664.29	26318664.49	0.0484	0.0122
Venus	67346-08-07 10:05 G	26318899.79	26318899.92	26318900.06	0.0488	0.0360
Moon	67351-07-05 11:03 G	26320692.73	26320692.96	26320693.20	0.0545	0.0074
Earth	67351-07-05 12:43 G	26320692.80	26320693.03	26320693.26	0.0545	0.0043 *
Mercury	67351-08-23 19:27 G	26320742.19	26320742.31	26320742.43	0.0545	0.0275
Venus	67351-10-18 19:12 G	26320798.10	26320798.30	26320798.50	0.0544	0.0121
Mercury	67357-07-06 17:46 G	26322886.07	26322886.24	26322886.40	0.0484	0.0066
Venus	67357-08-20 01:55 G	26322930.40	26322930.58	26322930.75	0.0484	0.0253
Venus	67358-04-12 16:19 G	26323166.00	26323166.18	26323166.36	0.0486	0.0226
Mercury	67363-06-11 20:24 G	26325052.21	26325052.35	26325052.49	0.0545	0.0048
Venus	67363-06-23 00:58 G	26325063.38	26325063.54	26325063.71	0.0545	0.0322
Moon	67363-07-10 12:00 G	26325080.92	26325081.00	26325081.09	0.0545	0.0501
Earth	67363-07-10 12:58 G	26325080.96	26325081.04	26325081.13	0.0545	0.0504 *
Venus	67364-02-16 15:36 G	26325302.01	26325302.15	26325302.30	0.0541	0.0371
Mercury	67369-04-24 19:12 G	26327196.16	26327196.30	26327196.44	0.0484	0.0230
Venus	67369-04-25 08:24 G	26327196.73	26327196.85	26327196.98	0.0484	0.0381
Mercury	67369-07-23 13:12 G	26327286.00	26327286.05	26327286.10	0.0484	0.0460
Venus	67369-12-16 22:34 G	26327432.24	26327432.44	26327432.64	0.0485	0.0094
Mars	67372-02-21 14:39 G	26328228.89	26328229.11	26328229.34	0.0510	0.0280
Venus	67375-02-25 09:51 G	26329328.86	26329328.91	26329328.99	0.0545	0.0513
Mercury	67375-03-30 22:19 G	26329362.29	26329362.43	26329362.56	0.0545	0.0161
Venus	67375-10-22 01:27 G	26329567.37	26329567.56	26329567.75	0.0543	0.0182
Moon	67380-12-31 05:17 G	26331464.59	26331464.72	26331464.86	0.0483	0.0394

Earth	67380-12-31 08:53 G	26331464.73	26331464.87	26331465.02	0.0483	0.0377 *
Mercury	67381-02-10 20:10 G	26331506.26	26331506.34	26331506.44	0.0483	0.0399
Mercury	67381-05-11 13:55 G	26331595.94	26331596.08	26331596.21	0.0483	0.0281
Venus	67381-08-22 03:36 G	26331698.45	26331698.65	26331698.85	0.0484	0.0040
Venus	67382-04-14 18:43 G	26331934.20	26331934.28	26331934.37	0.0488	0.0439
Mercury	67387-01-17 00:29 G	26333672.42	26333672.52	26333672.62	0.0545	0.0362
Mercury	67387-04-16 15:07 G	26333762.06	26333762.13	26333762.20	0.0545	0.0468
Venus	67387-06-26 12:43 G	26333832.83	26333833.03	26333833.24	0.0544	0.0013
Earth	67393-01-04 15:22 G	26335851.91	26335852.14	26335852.38	0.0483	0.0043
Moon	67393-01-04 18:58 G	26335852.06	26335852.29	26335852.53	0.0483	0.0069 *
Mercury	67393-02-27 14:53 G	26335905.96	26335906.12	26335906.28	0.0483	0.0111
Venus	67393-04-27 09:51 G	26335964.73	26335964.91	26335965.11	0.0484	0.0172
Venus	67393-12-19 00:29 G	26336200.37	26336200.52	26336200.68	0.0487	0.0308
Mercury	67399-02-02 17:46 G	26338072.12	26338072.24	26338072.36	0.0545	0.0278
Venus	67399-02-28 23:31 G	26338098.30	26338098.48	26338098.68	0.0545	0.0201
Venus	67399-10-25 13:55 G	26338337.00	26338337.08	26338337.17	0.0540	0.0488
Mercury	67404-12-17 16:05 G	26340216.01	26340216.17	26340216.33	0.0483	0.0060
Venus	67405-01-01 15:51 G	26340231.01	26340231.16	26340231.32	0.0484	0.0303
Moon	67405-01-09 17:31 G	26340239.05	26340239.23	26340239.43	0.0484	0.0297
Earth	67405-01-09 20:53 G	26340239.19	26340239.37	26340239.56	0.0484	0.0288 *
Venus	67405-08-25 06:15 G	26340466.57	26340466.76	26340466.95	0.0486	0.0174
Venus	67410-11-04 09:07 G	26342363.75	26342363.88	26342364.03	0.0545	0.0392
Mercury	67410-11-22 19:55 G	26342382.19	26342382.33	26342382.47	0.0545	0.0076
Venus	67411-07-01 00:15 G	26342602.35	26342602.51	26342602.68	0.0542	0.0303
Venus	67416-09-06 22:48 G	26344497.36	26344497.45	26344497.54	0.0483	0.0430
Mercury	67416-10-05 17:31 G	26344526.09	26344526.23	26344526.38	0.0484	0.0222
Mercury	67417-01-03 11:46 G	26344615.95	26344615.99	26344616.03	0.0484	0.0468
Venus	67417-04-30 12:43 G	26344732.83	26344733.03	26344733.24	0.0485	0.0043
Earth	67422-06-30 02:24 G	26346619.59	26346619.60	26346619.62	0.0545	0.0542
Mercury	67422-09-10 20:53 G	26346692.23	26346692.37	26346692.50	0.0545	0.0153

Venus	67423-03-05 06:29 G	26346867.57	26346867.77	26346867.97	0.0543	0.0104
Mercury	67428-07-24 19:12 G	26348836.20	26348836.30	26348836.39	0.0484	0.0385
Mercury	67428-10-22 12:43 G	26348925.90	26348926.03	26348926.16	0.0484	0.0296
Venus	67429-01-03 19:12 G	26348999.10	26348999.30	26348999.50	0.0484	0.0089
Venus	67429-08-27 10:05 G	26349234.81	26349234.92	26349235.05	0.0488	0.0390
Mercury	67434-06-29 22:34 G	26351002.33	26351002.44	26351002.54	0.0545	0.0366
Earth	67434-07-05 07:41 G	26351007.59	26351007.82	26351008.05	0.0545	0.0063
Moon	67434-07-05 07:41 G	26351007.59	26351007.82	26351008.04	0.0545	0.0031 *
Mercury	67434-09-27 12:58 G	26351091.97	26351092.04	26351092.12	0.0545	0.0463
Venus	67434-11-07 15:36 G	26351132.95	26351133.15	26351133.35	0.0544	0.0091
Mercury	67440-08-10 13:27 G	26353235.90	26353236.06	26353236.22	0.0483	0.0119
Venus	67440-09-09 00:15 G	26353265.33	26353265.51	26353265.70	0.0484	0.0222
Venus	67441-05-02 14:24 G	26353500.94	26353501.10	26353501.28	0.0486	0.0256
Earth	67446-07-10 15:51 G	26355396.03	26355396.16	26355396.31	0.0545	0.0431
Moon	67446-07-10 18:15 G	26355396.12	26355396.26	26355396.42	0.0545	0.0422 *
Venus	67446-07-13 01:55 G	26355398.41	26355398.58	26355398.76	0.0545	0.0282
Mercury	67446-07-16 15:36 G	26355402.03	26355402.15	26355402.27	0.0545	0.0270
Venus	67447-03-08 17:03 G	26355637.08	26355637.21	26355637.35	0.0541	0.0410
Venus	67452-05-15 06:43 G	26357531.64	26357531.78	26357531.92	0.0483	0.0350
Mercury	67452-05-29 14:39 G	26357545.95	26357546.11	26357546.27	0.0483	0.0049
Venus	67453-01-05 20:39 G	26357767.16	26357767.36	26357767.56	0.0485	0.0123
Venus	67458-03-17 12:58 G	26359663.94	26359664.04	26359664.14	0.0545	0.0469
Mercury	67458-05-04 18:15 G	26359712.12	26359712.26	26359712.40	0.0545	0.0077
Venus	67458-11-11 04:34 G	26359902.51	26359902.69	26359902.88	0.0543	0.0223
Earth	67464-01-01 16:05 G	26361780.07	26361780.17	26361780.29	0.0483	0.0423
Moon	67464-01-01 19:41 G	26361780.24	26361780.32	26361780.42	0.0483	0.0448 *
Venus	67464-01-19 12:15 G	26361798.00	26361798.01	26361798.05	0.0483	0.0479
Mercury	67464-03-17 15:51 G	26361856.02	26361856.16	26361856.30	0.0483	0.0218
Mercury	67464-06-15 09:51 G	26361945.88	26361945.91	26361945.95	0.0484	0.0471
Venus	67464-09-11 02:24 G	26362033.39	26362033.60	26362033.80	0.0485	0.0012

Venus	67465-05-04 18:00 G	26362269.19	26362269.25	26362269.31	0.0489	0.0467
Mercury	67470-02-20 20:10 G	26364022.21	26364022.34	26364022.48	0.0545	0.0129
Venus	67470-07-16 14:24 G	26364167.90	26364168.10	26364168.30	0.0544	0.0032
Mercury	67476-01-04 17:31 G	26366166.13	26366166.23	26366166.33	0.0484	0.0378
Moon	67476-01-05 20:39 G	26366167.12	26366167.36	26366167.59	0.0484	0.0112
Earth	67476-01-05 23:31 G	26366167.25	26366167.48	26366167.72	0.0484	0.0087 *
Mercury	67476-04-03 11:03 G	26366255.83	26366255.96	26366256.09	0.0484	0.0302
Venus	67476-05-17 09:07 G	26366299.69	26366299.88	26366300.08	0.0484	0.0141
Venus	67477-01-08 00:15 G	26366535.36	26366535.51	26366535.65	0.0487	0.0337
Mercury	67481-12-09 21:07 G	26368332.27	26368332.38	26368332.48	0.0545	0.0359
Mercury	67482-03-09 11:31 G	26368421.92	26368421.98	26368422.05	0.0544	0.0470
Venus	67482-03-20 20:24 G	26368433.16	26368433.35	26368433.55	0.0544	0.0168
Venus	67482-11-14 10:19 G	26368671.87	26368671.93	26368671.99	0.0540	0.0513
Earth	67488-01-10 06:00 G	26370554.55	26370554.75	26370554.95	0.0484	0.0246
Moon	67488-01-10 08:10 G	26370554.65	26370554.84	26370555.03	0.0484	0.0261 *
Mercury	67488-01-21 12:15 G	26370565.85	26370566.01	26370566.16	0.0484	0.0132
Venus	67488-01-21 15:22 G	26370565.97	26370566.14	26370566.31	0.0484	0.0270 *
Venus	67488-09-13 05:46 G	26370801.56	26370801.74	26370801.93	0.0486	0.0205
Venus	67493-11-23 05:03 G	26372698.56	26372698.71	26372698.87	0.0545	0.0361
Mercury	67493-12-26 13:41 G	26372731.95	26372732.07	26372732.19	0.0545	0.0264
Venus	67494-07-19 19:55 G	26372937.17	26372937.33	26372937.49	0.0542	0.0329
Venus	67499-09-26 20:39 G	26374832.25	26374832.36	26374832.48	0.0483	0.0399
Mercury	67499-11-09 12:58 G	26374875.88	26374876.04	26374876.20	0.0483	0.0044
Venus	67500-05-20 10:34 G	26375067.74	26375067.94	26375068.14	0.0485	0.0071
Mercury	67505-10-15 15:51 G	26377042.02	26377042.16	26377042.30	0.0545	0.0065
Venus	67506-03-25 06:43 G	26377202.59	26377202.78	26377202.98	0.0543	0.0141
Mercury	67511-08-29 14:24 G	26379185.95	26379186.10	26379186.24	0.0483	0.0210
Mercury	67511-11-27 08:10 G	26379275.83	26379275.84	26379275.86	0.0484	0.0479
Venus	67512-01-24 16:34 G	26379333.99	26379334.19	26379334.40	0.0484	0.0061
Venus	67512-09-16 07:27 G	26379569.71	26379569.81	26379569.92	0.0488	0.0415

Earth	67517-07-05 12:00 G	26381322.78	26381323.00	26381323.23	0.0545	0.0131
Moon	67517-07-05 13:41 G	26381322.84	26381323.07	26381323.31	0.0545	0.0096 *
Mercury	67517-08-03 18:15 G	26381352.13	26381352.26	26381352.40	0.0545	0.0133
Venus	67517-11-27 17:46 G	26381468.04	26381468.24	26381468.45	0.0544	0.0050
Mars	67519-11-16 10:19 G	26382186.70	26382186.93	26382187.18	0.0520	0.0265
Mercury	67523-06-17 15:36 G	26383496.05	26383496.15	26383496.25	0.0483	0.0376
Mercury	67523-09-15 08:53 G	26383585.75	26383585.87	26383586.00	0.0484	0.0304
Venus	67523-09-29 22:19 G	26383600.25	26383600.43	26383600.62	0.0484	0.0193
Venus	67524-05-22 12:58 G	26383835.87	26383836.04	26383836.20	0.0487	0.0282
Mercury	67529-05-22 20:10 G	26385662.23	26385662.34	26385662.45	0.0545	0.0339
Moon	67529-07-10 16:19 G	26385711.01	26385711.18	26385711.35	0.0545	0.0350
Earth	67529-07-10 19:27 G	26385711.14	26385711.31	26385711.49	0.0545	0.0360 *
Venus	67529-08-02 03:22 G	26385733.46	26385733.64	26385733.83	0.0545	0.0242
Mercury	67529-08-20 10:48 G	26385751.89	26385751.95	26385752.01	0.0545	0.0490
Venus	67530-03-28 17:46 G	26385972.14	26385972.24	26385972.36	0.0541	0.0445
Venus	67535-06-05 05:03 G	26387866.56	26387866.71	26387866.87	0.0484	0.0321
Mercury	67535-07-04 10:19 G	26387895.77	26387895.93	26387896.09	0.0484	0.0135
Venus	67536-01-26 19:27 G	26388102.11	26388102.31	26388102.50	0.0486	0.0152
Venus	67541-04-06 10:05 G	26389998.80	26389998.92	26389999.04	0.0545	0.0435
Mercury	67541-06-08 12:15 G	26390061.89	26390062.01	26390062.13	0.0544	0.0270
Venus	67541-12-01 00:43 G	26390237.35	26390237.53	26390237.71	0.0542	0.0252
Earth	67547-01-01 23:46 G	26392095.44	26392095.49	26392095.54	0.0484	0.0472
Venus	67547-02-08 10:48 G	26392132.88	26392132.95	26392133.03	0.0484	0.0448
Mercury	67547-04-22 11:31 G	26392205.81	26392205.98	26392206.14	0.0484	0.0035
Venus	67547-10-02 01:12 G	26392368.35	26392368.55	26392368.76	0.0485	0.0021
Mercury	67553-03-27 13:55 G	26394371.94	26394372.08	26394372.22	0.0545	0.0060
Venus	67553-08-05 09:36 G	26394502.69	26394502.90	26394503.10	0.0543	0.0060
Earth	67559-01-06 04:48 G	26396482.47	26396482.70	26396482.93	0.0483	0.0142
Moon	67559-01-06 06:43 G	26396482.57	26396482.78	26396483.00	0.0483	0.0164 *
Mercury	67559-02-08 12:29 G	26396515.87	26396516.02	26396516.16	0.0483	0.0207

Mercury	67559-05-09 06:15 G	26396605.76	26396605.76	26396605.78	0.0484	0.0482
Venus	67559-06-07 06:15 G	26396634.56	26396634.76	26396634.96	0.0484	0.0113
Venus	67560-01-28 20:53 G	26396870.24	26396870.37	26396870.51	0.0487	0.0361
Mercury	67565-01-13 15:51 G	26398682.03	26398682.16	26398682.30	0.0545	0.0147
Venus	67565-04-09 19:27 G	26398768.11	26398768.31	26398768.51	0.0545	0.0132
Mercury	67570-11-27 13:55 G	26400825.98	26400826.08	26400826.18	0.0483	0.0370
Moon	67571-01-10 10:34 G	26400869.72	26400869.94	26400870.17	0.0483	0.0207
Earth	67571-01-10 11:17 G	26400869.75	26400869.97	26400870.19	0.0483	0.0192 *
Venus	67571-02-10 12:15 G	26400900.84	26400901.01	26400901.19	0.0483	0.0243
Mercury	67571-02-25 07:27 G	26400915.68	26400915.81	26400915.93	0.0484	0.0309
Venus	67571-10-04 02:24 G	26401136.43	26401136.60	26401136.78	0.0486	0.0230
Mercury	67576-11-01 18:00 G	26402992.15	26402992.25	26402992.36	0.0545	0.0348
Venus	67576-12-13 06:15 G	26403033.60	26403033.76	26403033.92	0.0545	0.0322
Mercury	67577-01-30 08:53 G	26403081.81	26403081.87	26403081.93	0.0545	0.0484
Venus	67577-08-08 21:22 G	26403272.24	26403272.39	26403272.54	0.0542	0.0366
Venus	67582-10-16 18:00 G	26405167.13	26405167.25	26405167.39	0.0483	0.0371
Mercury	67582-12-14 08:10 G	26405225.68	26405225.84	26405226.00	0.0484	0.0135
Venus	67583-06-09 08:10 G	26405402.64	26405402.84	26405403.04	0.0485	0.0098
Venus	67588-08-17 16:05 G	26407299.10	26407299.17	26407299.24	0.0545	0.0507
Mercury	67588-11-18 11:03 G	26407391.85	26407391.96	26407392.08	0.0545	0.0287
Venus	67589-04-13 07:27 G	26407537.62	26407537.81	26407538.01	0.0543	0.0179
Mercury	67594-10-02 09:36 G	26409535.74	26409535.90	26409536.06	0.0484	0.0032
Venus	67595-02-12 14:39 G	26409668.90	26409669.11	26409669.31	0.0484	0.0034
Venus	67595-10-06 05:46 G	26409904.67	26409904.74	26409904.84	0.0488	0.0441
Moon	67600-07-04 06:00 G	26411637.54	26411637.75	26411637.96	0.0544	0.0198
Earth	67600-07-04 08:24 G	26411637.65	26411637.85	26411638.06	0.0544	0.0232 *
Mercury	67600-09-06 12:29 G	26411701.88	26411702.02	26411702.16	0.0544	0.0066
Venus	67600-12-16 14:24 G	26411802.89	26411803.10	26411803.30	0.0544	0.0020
Mercury	67606-07-21 10:48 G	26413845.80	26413845.95	26413846.10	0.0484	0.0201
Venus	67606-10-18 20:24 G	26413935.16	26413935.35	26413935.55	0.0484	0.0163

Venus	67607-06-11 11:17 G	26414170.82	26414170.97	26414171.13	0.0487	0.0311
Mercury	67612-06-25 13:55 G	26416011.95	26416012.08	26416012.22	0.0545	0.0150
Earth	67612-07-09 12:29 G	26416025.82	26416026.02	26416026.23	0.0544	0.0247
Moon	67612-07-09 16:19 G	26416025.97	26416026.18	26416026.39	0.0544	0.0235 *
Venus	67612-08-20 22:34 G	26416068.25	26416068.44	26416068.63	0.0544	0.0212
Venus	67613-04-16 12:43 G	26416306.93	26416307.03	26416307.13	0.0541	0.0468
Mercury	67618-05-09 11:46 G	26418155.89	26418155.99	26418156.10	0.0483	0.0370
Venus	67618-06-24 01:41 G	26418201.41	26418201.57	26418201.73	0.0483	0.0294
Mercury	67618-08-07 05:17 G	26418245.60	26418245.72	26418245.85	0.0484	0.0309
Venus	67619-02-14 15:36 G	26418436.96	26418437.15	26418437.34	0.0485	0.0177
Mercury	67624-04-13 15:36 G	26420322.05	26420322.15	26420322.26	0.0545	0.0363
Venus	67624-04-25 07:41 G	26420333.68	26420333.82	26420333.95	0.0545	0.0403
Mercury	67624-07-12 06:15 G	26420411.70	26420411.76	26420411.83	0.0545	0.0470
Venus	67624-12-19 23:03 G	26420572.29	26420572.46	26420572.64	0.0543	0.0284
Venus	67630-02-27 07:55 G	26422467.73	26422467.83	26422467.92	0.0483	0.0420
Mercury	67630-05-26 06:29 G	26422555.61	26422555.77	26422555.92	0.0483	0.0139
Venus	67630-10-20 21:36 G	26422703.20	26422703.40	26422703.61	0.0485	0.0047
Mercury	67636-04-30 08:53 G	26424721.75	26424721.87	26424721.99	0.0545	0.0277
Venus	67636-08-24 10:05 G	26424837.72	26424837.92	26424838.12	0.0544	0.0096
Moon	67642-01-05 09:22 G	26426797.67	26426797.89	26426798.11	0.0483	0.0214
Earth	67642-01-05 09:51 G	26426797.70	26426797.91	26426798.13	0.0483	0.0196 *
Mercury	67642-03-14 07:27 G	26426865.65	26426865.81	26426865.97	0.0483	0.0034
Venus	67642-06-26 03:22 G	26426969.44	26426969.64	26426969.84	0.0484	0.0086
Venus	67643-02-16 18:00 G	26427205.13	26427205.25	26427205.38	0.0487	0.0386
Mars	67644-11-07 02:24 G	26427834.37	26427834.60	26427834.85	0.0508	0.0240
Mercury	67648-02-17 11:17 G	26429031.83	26429031.97	26429032.11	0.0545	0.0078
Venus	67648-04-28 20:10 G	26429103.14	26429103.34	26429103.54	0.0544	0.0094
Mercury	67653-12-31 08:53 G	26431175.72	26431175.87	26431176.02	0.0484	0.0199
Moon	67654-01-09 15:07 G	26431184.92	26431185.13	26431185.35	0.0484	0.0161
Earth	67654-01-09 16:34 G	26431184.97	26431185.19	26431185.42	0.0484	0.0139 *

Venus	67654-03-01 09:36 G	26431235.72	26431235.90	26431236.09	0.0484	0.0215
Venus	67654-10-23 00:15 G	26431471.34	26431471.51	26431471.68	0.0486	0.0257
Mercury	67659-12-06 12:29 G	26433341.89	26433342.02	26433342.16	0.0544	0.0144
Venus	67660-01-02 03:22 G	26433368.47	26433368.64	26433368.81	0.0544	0.0288
Venus	67660-08-27 17:31 G	26433607.09	26433607.23	26433607.37	0.0541	0.0393
Mercury	67665-10-19 10:05 G	26435485.82	26435485.92	26435486.03	0.0484	0.0366
Venus	67665-11-04 15:22 G	26435502.00	26435502.14	26435502.29	0.0484	0.0343
Earth	67666-01-13 22:05 G	26435572.37	26435572.42	26435572.47	0.0484	0.0471
Mercury	67666-01-17 03:36 G	26435575.52	26435575.65	26435575.77	0.0484	0.0314
Venus	67666-06-28 05:46 G	26435737.55	26435737.74	26435737.94	0.0485	0.0126
Venus	67671-09-06 11:31 G	26437633.89	26437633.98	26437634.08	0.0544	0.0477
Mercury	67671-09-24 13:55 G	26437651.97	26437652.08	26437652.18	0.0544	0.0362
Mercury	67671-12-23 04:34 G	26437741.62	26437741.69	26437741.76	0.0544	0.0467
Venus	67672-05-02 02:24 G	26437872.41	26437872.60	26437872.79	0.0543	0.0205
Mars	67674-02-08 15:07 G	26438519.85	26438520.13	26438520.41	0.0520	0.0087
Venus	67677-07-10 20:39 G	26439768.32	26439768.36	26439768.41	0.0484	0.0470
Mercury	67677-11-05 04:19 G	26439885.52	26439885.68	26439885.84	0.0484	0.0138
Venus	67678-03-03 10:34 G	26440003.74	26440003.94	26440004.15	0.0484	0.0009
Venus	67678-10-25 01:55 G	26440239.52	26440239.58	26440239.64	0.0488	0.0462
Earth	67683-07-04 04:19 G	26441952.50	26441952.68	26441952.86	0.0545	0.0334
Moon	67683-07-04 07:27 G	26441952.62	26441952.81	26441953.01	0.0545	0.0299 *
Mercury	67683-10-11 06:29 G	26442051.65	26442051.77	26442051.89	0.0545	0.0262
Venus	67684-01-05 11:31 G	26442137.78	26442137.98	26442138.19	0.0544	0.0013
Mercury	67689-08-24 05:31 G	26444195.57	26444195.73	26444195.90	0.0483	0.0031
Venus	67689-11-06 16:48 G	26444270.01	26444270.20	26444270.40	0.0484	0.0137
Venus	67690-06-30 07:12 G	26444505.66	26444505.80	26444505.95	0.0487	0.0333
Moon	67695-07-09 09:07 G	26446340.65	26446340.88	26446341.10	0.0545	0.0146
Earth	67695-07-09 12:43 G	26446340.81	26446341.03	26446341.25	0.0545	0.0164 *
Mercury	67695-07-30 08:53 G	26446361.73	26446361.87	26446362.01	0.0545	0.0066
Venus	67695-09-09 22:05 G	26446403.23	26446403.42	26446403.61	0.0545	0.0177

Venus	67696-05-05 12:58 G	26446641.97	26446642.04	26446642.12	0.0541	0.0501
Mercury	67701-06-13 06:43 G	26448505.63	26448505.78	26448505.93	0.0483	0.0200
Venus	67701-07-13 22:19 G	26448536.27	26448536.43	26448536.61	0.0483	0.0267
Venus	67702-03-06 12:29 G	26448771.84	26448772.02	26448772.21	0.0486	0.0202
Venus	67707-05-16 08:24 G	26450668.70	26450668.85	26450669.00	0.0545	0.0364
Mercury	67707-05-19 11:03 G	26450671.83	26450671.96	26450672.10	0.0545	0.0136
Venus	67708-01-09 23:31 G	26450907.32	26450907.48	26450907.65	0.0542	0.0320
Venus	67713-03-19 04:34 G	26452802.58	26452802.69	26452802.81	0.0483	0.0393
Mercury	67713-04-01 08:10 G	26452815.74	26452815.84	26452815.95	0.0483	0.0363
Mercury	67713-06-30 01:41 G	26452905.44	26452905.57	26452905.69	0.0484	0.0316
Venus	67713-11-09 18:58 G	26453038.09	26453038.29	26453038.49	0.0485	0.0073
Mercury	67719-03-07 12:29 G	26454981.91	26454982.02	26454982.12	0.0544	0.0356
Mercury	67719-06-05 03:07 G	26455071.57	26455071.63	26455071.70	0.0544	0.0474
Venus	67719-09-14 07:12 G	26455172.60	26455172.80	26455173.00	0.0543	0.0128
Moon	67725-01-05 13:12 G	26457112.87	26457113.05	26457113.25	0.0484	0.0264
Earth	67725-01-05 14:39 G	26457112.91	26457113.11	26457113.32	0.0484	0.0253 *
Mercury	67725-04-18 02:24 G	26457215.45	26457215.60	26457215.76	0.0484	0.0142
Venus	67725-07-16 00:29 G	26457304.32	26457304.52	26457304.72	0.0484	0.0058
Venus	67726-03-08 15:51 G	26457540.05	26457540.16	26457540.27	0.0488	0.0412
Mercury	67731-03-24 04:48 G	26459381.58	26459381.70	26459381.83	0.0544	0.0265
Venus	67731-05-19 15:36 G	26459437.95	26459438.15	26459438.35	0.0544	0.0065
Earth	67737-01-09 20:10 G	26461500.11	26461500.34	26461500.58	0.0483	0.0081
Moon	67737-01-09 23:17 G	26461500.24	26461500.47	26461500.71	0.0483	0.0110 *
Mercury	67737-02-04 03:22 G	26461525.48	26461525.64	26461525.81	0.0484	0.0033
Venus	67737-03-21 05:46 G	26461570.55	26461570.74	26461570.93	0.0484	0.0190
Venus	67737-11-11 20:10 G	26461806.18	26461806.34	26461806.51	0.0486	0.0279
Mercury	67743-01-10 06:29 G	26463691.63	26463691.77	26463691.91	0.0545	0.0052
Venus	67743-01-21 23:31 G	26463703.31	26463703.48	26463703.67	0.0545	0.0260
Venus	67743-09-17 14:39 G	26463941.99	26463942.11	26463942.24	0.0542	0.0421
Mercury	67748-11-23 04:48 G	26465835.56	26465835.70	26465835.85	0.0483	0.0196

Venus	67748-11-24 12:15 G	26465836.86	26465837.01	26465837.16	0.0483	0.0316
Moon	67749-01-13 22:34 G	26465887.35	26465887.44	26465887.55	0.0483	0.0438
Earth	67749-01-14 02:39 G	26465887.50	26465887.61	26465887.73	0.0483	0.0416 *
Venus	67749-07-18 01:55 G	26466072.39	26466072.58	26466072.78	0.0485	0.0150
Venus	67754-09-26 10:05 G	26467968.80	26467968.92	26467969.03	0.0545	0.0445
Mercury	67754-10-29 08:39 G	26468001.73	26468001.86	26468002.00	0.0545	0.0150
Venus	67755-05-23 01:55 G	26468207.40	26468207.58	26468207.76	0.0543	0.0238
Venus	67760-07-30 17:31 G	26470103.16	26470103.23	26470103.32	0.0483	0.0443
Mercury	67760-09-11 06:15 G	26470145.65	26470145.76	26470145.86	0.0483	0.0364
Mercury	67760-12-09 23:17 G	26470235.35	26470235.47	26470235.60	0.0484	0.0315
Venus	67761-03-23 07:27 G	26470338.61	26470338.81	26470339.02	0.0484	0.0019
Venus	67761-11-13 22:48 G	26470574.44	26470574.45	26470574.47	0.0488	0.0485
Moon	67766-07-04 03:07 G	26472267.47	26472267.63	26472267.80	0.0545	0.0380
Earth	67766-07-04 06:58 G	26472267.64	26472267.79	26472267.94	0.0545	0.0408 *
Mercury	67766-08-17 10:48 G	26472311.84	26472311.95	26472312.06	0.0545	0.0352
Mercury	67766-11-15 01:41 G	26472401.51	26472401.57	26472401.63	0.0545	0.0481
Venus	67767-01-25 12:29 G	26472472.81	26472473.02	26472473.22	0.0544	0.0051
Mercury	67772-09-28 00:29 G	26474545.37	26474545.52	26474545.68	0.0484	0.0146
Venus	67772-11-26 13:55 G	26474604.88	26474605.08	26474605.28	0.0484	0.0110
Venus	67773-07-20 04:48 G	26474840.56	26474840.70	26474840.83	0.0487	0.0358
Earth	67778-07-09 11:46 G	26476655.77	26476655.99	26476656.22	0.0545	0.0074
Moon	67778-07-09 14:53 G	26476655.89	26476656.12	26476656.34	0.0545	0.0051 *
Mercury	67778-09-03 03:22 G	26476711.52	26476711.64	26476711.76	0.0544	0.0272
Venus	67778-09-29 20:24 G	26476738.16	26476738.35	26476738.55	0.0544	0.0143
Venus	67779-05-26 10:19 G	26476976.90	26476976.93	26476976.98	0.0540	0.0528
Mercury	67784-07-17 01:41 G	26478855.41	26478855.57	26478855.73	0.0484	0.0028
Venus	67784-08-01 19:27 G	26478871.14	26478871.31	26478871.49	0.0484	0.0239
Venus	67785-03-25 10:05 G	26479106.74	26479106.92	26479107.10	0.0486	0.0229
Venus	67790-06-04 04:48 G	26481003.54	26481003.70	26481003.86	0.0544	0.0333
Mercury	67790-06-22 05:03 G	26481021.57	26481021.71	26481021.85	0.0544	0.0060

Moon	67790-07-14 14:24 G	26481044.03	26481044.10	26481044.16	0.0544	0.0522
Venus	67791-01-28 19:27 G	26481242.15	26481242.31	26481242.46	0.0542	0.0346
Venus	67796-04-07 01:12 G	26483137.42	26483137.55	26483137.68	0.0483	0.0368
Mercury	67796-05-05 02:53 G	26483165.47	26483165.62	26483165.77	0.0483	0.0196
Venus	67796-11-28 15:07 G	26483372.93	26483373.13	26483373.33	0.0485	0.0096
Mars	67799-02-01 12:58 G	26484167.77	26484168.04	26484168.30	0.0508	0.0106
Venus	67802-02-07 12:15 G	26485268.95	26485269.01	26485269.06	0.0545	0.0523
Mercury	67802-04-11 06:29 G	26485331.63	26485331.77	26485331.90	0.0545	0.0162
Venus	67802-10-04 03:51 G	26485507.46	26485507.66	26485507.85	0.0544	0.0155
Earth	67808-01-06 20:10 G	26487428.17	26487428.34	26487428.53	0.0483	0.0304
Moon	67808-01-06 23:31 G	26487428.30	26487428.48	26487428.67	0.0483	0.0303 *
Mercury	67808-02-23 04:34 G	26487475.58	26487475.69	26487475.79	0.0483	0.0357
Mercury	67808-05-22 21:36 G	26487565.28	26487565.40	26487565.53	0.0483	0.0320
Venus	67808-08-04 21:22 G	26487639.19	26487639.39	26487639.60	0.0484	0.0033
Venus	67809-03-28 12:00 G	26487874.91	26487875.00	26487875.10	0.0487	0.0433
Mercury	67814-01-28 08:24 G	26489641.75	26489641.85	26489641.95	0.0545	0.0366
Mercury	67814-04-27 23:17 G	26489731.41	26489731.47	26489731.54	0.0545	0.0470
Venus	67814-06-08 14:24 G	26489772.90	26489773.10	26489773.30	0.0545	0.0033
Moon	67820-01-10 21:51 G	26491815.18	26491815.41	26491815.65	0.0483	0.0059
Earth	67820-01-11 01:55 G	26491815.34	26491815.58	26491815.81	0.0483	0.0029 *
Mercury	67820-03-10 22:34 G	26491875.29	26491875.44	26491875.60	0.0483	0.0146
Venus	67820-04-10 02:53 G	26491905.43	26491905.62	26491905.82	0.0484	0.0163
Venus	67820-12-01 17:17 G	26492141.07	26492141.22	26492141.38	0.0486	0.0304
Venus	67826-02-11 00:58 G	26494038.35	26494038.54	26494038.72	0.0545	0.0220
Mercury	67826-02-14 01:55 G	26494041.46	26494041.58	26494041.70	0.0545	0.0276
Venus	67826-10-07 15:51 G	26494277.06	26494277.16	26494277.27	0.0541	0.0456
Venus	67831-12-15 09:22 G	26496171.73	26496171.89	26496172.06	0.0483	0.0289
Mercury	67831-12-29 00:00 G	26496185.34	26496185.50	26496185.66	0.0483	0.0022
Earth	67832-01-15 08:10 G	26496202.69	26496202.84	26496202.99	0.0484	0.0365
Moon	67832-01-15 12:00 G	26496202.87	26496203.00	26496203.15	0.0484	0.0385 *

Venus	67832-08-06 23:31 G	26496407.29	26496407.48	26496407.67	0.0485	0.0176
Venus	67837-10-16 09:51 G	26498303.78	26498303.91	26498304.05	0.0545	0.0408
Mercury	67837-12-03 03:51 G	26498351.52	26498351.66	26498351.80	0.0545	0.0070
Venus	67838-06-12 00:58 G	26498542.36	26498542.54	26498542.71	0.0542	0.0271
Venus	67843-08-20 14:53 G	26500438.02	26500438.12	26500438.22	0.0484	0.0416
Mercury	67843-10-17 01:12 G	26500495.40	26500495.55	26500495.69	0.0484	0.0192
Venus	67844-04-12 05:03 G	26500673.51	26500673.71	26500673.92	0.0485	0.0046
Earth	67849-07-04 04:19 G	26502582.60	26502582.68	26502582.77	0.0544	0.0504
Moon	67849-07-04 07:41 G	26502582.72	26502582.82	26502582.93	0.0544	0.0478 *
Mercury	67849-09-21 05:17 G	26502661.58	26502661.72	26502661.86	0.0545	0.0147
Venus	67850-02-14 09:22 G	26502807.69	26502807.89	26502808.09	0.0543	0.0081
Mercury	67855-08-05 02:39 G	26504805.50	26504805.61	26504805.71	0.0483	0.0356
Mercury	67855-11-02 19:41 G	26504895.20	26504895.32	26504895.44	0.0484	0.0322
Venus	67855-12-17 10:48 G	26504939.75	26504939.95	26504940.15	0.0484	0.0085
Venus	67856-08-09 01:27 G	26505175.43	26505175.56	26505175.68	0.0487	0.0380
Moon	67861-07-09 03:51 G	26506970.43	26506970.66	26506970.90	0.0545	0.0056
Earth	67861-07-09 06:15 G	26506970.53	26506970.76	26506970.99	0.0545	0.0031 *
Mercury	67861-07-10 06:15 G	26506971.66	26506971.76	26506971.86	0.0545	0.0374
Mercury	67861-10-07 21:07 G	26507061.31	26507061.38	26507061.45	0.0545	0.0462
Venus	67861-10-19 16:34 G	26507073.00	26507073.19	26507073.39	0.0545	0.0116
Mercury	67867-08-21 21:07 G	26509205.22	26509205.38	26509205.53	0.0483	0.0154
Venus	67867-08-22 17:17 G	26509206.04	26509206.22	26509206.41	0.0483	0.0212
Venus	67868-04-14 07:12 G	26509441.63	26509441.80	26509441.98	0.0485	0.0252
Venus	67873-06-24 02:53 G	26511338.45	26511338.62	26511338.79	0.0545	0.0302
Earth	67873-07-14 13:55 G	26511358.97	26511359.08	26511359.21	0.0545	0.0466
Moon	67873-07-14 14:24 G	26511358.97	26511359.10	26511359.23	0.0545	0.0441 *
Mercury	67873-07-26 23:31 G	26511371.36	26511371.48	26511371.60	0.0545	0.0266
Venus	67874-02-17 18:29 G	26511577.13	26511577.27	26511577.42	0.0542	0.0377
Venus	67879-04-27 23:03 G	26513472.32	26513472.46	26513472.61	0.0483	0.0339
Mercury	67879-06-09 22:05 G	26513515.26	26513515.42	26513515.58	0.0483	0.0018

Venus	67879-12-19 12:43 G	26513707.84	26513708.03	26513708.23	0.0485	0.0123
Venus	67885-02-26 13:41 G	26515603.99	26515604.07	26515604.17	0.0545	0.0483
Mercury	67885-05-15 02:10 G	26515681.45	26515681.59	26515681.72	0.0545	0.0073
Venus	67885-10-23 05:31 G	26515842.54	26515842.73	26515842.92	0.0544	0.0194
Venus	67891-01-01 05:17 G	26517738.67	26517738.72	26517738.78	0.0483	0.0462
Moon	67891-01-05 22:34 G	26517743.28	26517743.44	26517743.60	0.0483	0.0355
Earth	67891-01-06 02:24 G	26517743.45	26517743.60	26517743.77	0.0483	0.0355 *
Mercury	67891-03-28 23:31 G	26517825.33	26517825.48	26517825.63	0.0483	0.0183
Venus	67891-08-24 19:12 G	26517974.09	26517974.30	26517974.50	0.0484	0.0008
Venus	67892-04-16 10:05 G	26518209.86	26518209.92	26518209.99	0.0488	0.0458
Mercury	67897-03-03 03:51 G	26519991.53	26519991.66	26519991.80	0.0545	0.0138
Venus	67897-06-27 14:53 G	26520107.92	26520108.12	26520108.32	0.0544	0.0005
Earth	67903-01-11 07:55 G	26522130.59	26522130.83	26522131.06	0.0484	0.0023
Moon	67903-01-11 12:00 G	26522130.76	26522131.00	26522131.23	0.0484	0.0014 *
Mercury	67903-01-16 00:58 G	26522135.43	26522135.54	26522135.65	0.0484	0.0350
Mercury	67903-04-15 18:00 G	26522225.13	26522225.25	26522225.37	0.0484	0.0329
Venus	67903-05-01 00:58 G	26522240.34	26522240.54	26522240.73	0.0484	0.0135
Venus	67903-12-22 15:36 G	26522476.01	26522476.15	26522476.30	0.0487	0.0331
Mercury	67908-12-21 05:17 G	26524301.62	26524301.72	26524301.83	0.0545	0.0354
Venus	67909-03-02 23:17 G	26524373.28	26524373.47	26524373.66	0.0544	0.0186
Mercury	67909-03-20 20:10 G	26524391.28	26524391.34	26524391.41	0.0544	0.0479
Venus	67909-10-27 13:27 G	26524611.98	26524612.06	26524612.16	0.0541	0.0484
Venus	67915-01-04 06:58 G	26526506.62	26526506.79	26526506.97	0.0483	0.0263
Moon	67915-01-15 10:48 G	26526517.78	26526517.95	26526518.13	0.0483	0.0332
Earth	67915-01-15 14:10 G	26526517.92	26526518.09	26526518.28	0.0483	0.0318 *
Mercury	67915-02-01 19:12 G	26526535.15	26526535.30	26526535.45	0.0484	0.0159
Venus	67915-08-27 20:53 G	26526742.19	26526742.37	26526742.56	0.0485	0.0200
Venus	67920-11-05 06:00 G	26528638.61	26528638.75	26528638.89	0.0545	0.0380
Mercury	67921-01-06 21:36 G	26528701.28	26528701.40	26528701.52	0.0545	0.0261
Venus	67921-07-01 21:36 G	26528877.23	26528877.40	26528877.57	0.0543	0.0297

Venus	67926-09-09 13:41 G	26530772.95	26530773.07	26530773.19	0.0483	0.0387
Mercury	67926-11-20 20:39 G	26530845.20	26530845.36	26530845.53	0.0483	0.0011
Venus	67927-05-03 03:22 G	26531008.44	26531008.64	26531008.84	0.0484	0.0072
Mercury	67932-10-25 23:46 G	26533011.35	26533011.49	26533011.63	0.0545	0.0062
Venus	67933-03-06 07:55 G	26533142.64	26533142.83	26533143.03	0.0544	0.0113
Mercury	67938-09-08 21:51 G	26535155.26	26535155.41	26535155.57	0.0483	0.0176
Venus	67939-01-06 09:07 G	26535274.68	26535274.88	26535275.08	0.0484	0.0056
Venus	67939-08-29 23:31 G	26535510.37	26535510.48	26535510.59	0.0487	0.0406
Earth	67944-07-09 11:03 G	26537285.73	26537285.96	26537286.19	0.0545	0.0098
Moon	67944-07-09 12:00 G	26537285.79	26537286.00	26537286.22	0.0545	0.0124 *
Mercury	67944-08-14 02:10 G	26537321.46	26537321.59	26537321.73	0.0545	0.0136
Venus	67944-11-08 19:12 G	26537408.10	26537408.30	26537408.50	0.0545	0.0074
Mercury	67950-06-27 23:31 G	26539465.37	26539465.48	26539465.60	0.0483	0.0338
Venus	67950-09-11 15:36 G	26539540.96	26539541.15	26539541.34	0.0483	0.0183
Mercury	67950-09-25 16:34 G	26539555.08	26539555.19	26539555.31	0.0483	0.0340
Venus	67951-05-05 05:31 G	26539776.57	26539776.73	26539776.90	0.0486	0.0280
Mercury	67956-06-02 04:05 G	26541631.56	26541631.67	26541631.78	0.0545	0.0343
Venus	67956-07-14 04:48 G	26541673.53	26541673.70	26541673.88	0.0545	0.0261
Earth	67956-07-14 18:29 G	26541674.12	26541674.27	26541674.43	0.0545	0.0398
Moon	67956-07-14 19:55 G	26541674.16	26541674.33	26541674.51	0.0545	0.0378 *
Mercury	67956-08-30 19:12 G	26541721.24	26541721.30	26541721.35	0.0545	0.0491
Venus	67957-03-09 19:41 G	26541912.19	26541912.32	26541912.45	0.0542	0.0411
Venus	67962-05-17 21:22 G	26543807.24	26543807.39	26543807.55	0.0484	0.0311
Mercury	67962-07-14 17:46 G	26543865.08	26543865.24	26543865.39	0.0484	0.0167
Venus	67963-01-08 11:31 G	26544042.78	26544042.98	26544043.17	0.0485	0.0151
Venus	67968-03-18 13:41 G	26545938.96	26545939.07	26545939.19	0.0545	0.0447
Mercury	67968-06-18 20:53 G	26546031.26	26546031.37	26546031.49	0.0545	0.0285
Venus	67968-11-12 04:48 G	26546177.52	26546177.70	26546177.88	0.0543	0.0227
Earth	67974-01-06 09:36 G	26548058.77	26548058.90	26548059.03	0.0484	0.0400
Moon	67974-01-06 13:27 G	26548058.94	26548059.06	26548059.20	0.0484	0.0396 *

Venus	67974-01-21 03:36 G	26548073.57	26548073.65	26548073.74	0.0484	0.0435
Mercury	67974-05-02 18:58 G	26548175.13	26548175.29	26548175.46	0.0483	0.0014
Venus	67974-09-13 17:31 G	26548309.03	26548309.23	26548309.44	0.0484	0.0022
Venus	67975-05-07 08:24 G	26548544.82	26548544.85	26548544.88	0.0487	0.0481
Mercury	67980-04-06 22:05 G	26550341.28	26550341.42	26550341.56	0.0545	0.0061
Venus	67980-07-17 11:31 G	26550442.78	26550442.98	26550443.19	0.0544	0.0033
Moon	67986-01-10 13:55 G	26552445.84	26552446.08	26552446.32	0.0483	0.0030
Earth	67986-01-10 17:17 G	26552445.99	26552446.22	26552446.46	0.0483	0.0059 *
Mercury	67986-02-18 20:39 G	26552485.21	26552485.36	26552485.52	0.0483	0.0162
Venus	67986-05-20 00:29 G	26552575.32	26552575.52	26552575.72	0.0483	0.0105
Venus	67987-01-10 14:24 G	26552810.97	26552811.10	26552811.24	0.0486	0.0356
Mercury	67992-01-25 00:00 G	26554651.37	26554651.50	26554651.64	0.0545	0.0144
Venus	67992-03-21 21:36 G	26554708.20	26554708.40	26554708.59	0.0545	0.0155
Venus	67992-11-15 12:58 G	26554946.98	26554947.04	26554947.10	0.0542	0.0513
Mercury	67997-12-07 22:05 G	26556795.31	26556795.42	26556795.54	0.0483	0.0328
Earth	67998-01-14 22:48 G	26556833.26	26556833.45	26556833.65	0.0483	0.0274
Moon	67998-01-15 00:29 G	26556833.34	26556833.52	26556833.71	0.0483	0.0281 *
Venus	67998-01-23 06:00 G	26556841.58	26556841.75	26556841.94	0.0483	0.0233
Mercury	67998-03-07 15:07 G	26556885.02	26556885.13	26556885.24	0.0483	0.0349
Venus	67998-09-15 19:41 G	26557077.15	26557077.32	26557077.50	0.0485	0.0228

69TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 69th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury	68003-11-13 02:10 G	26558961.49	26558961.59	26558961.71	0.0545	0.0344
Venus	68003-11-25 08:53 G	26558973.71	26558973.87	26558974.03	0.0545	0.0337
Mercury	68004-02-10 17:17 G	26559051.17	26559051.22	26559051.28	0.0545	0.0494
Venus	68004-07-21 00:43 G	26559212.37	26559212.53	26559212.69	0.0543	0.0337
Venus	68009-09-28 12:29 G	26561107.89	26561108.02	26561108.16	0.0483	0.0356
Mercury	68009-12-24 16:34 G	26561195.03	26561195.19	26561195.34	0.0483	0.0181
Venus	68010-05-22 02:24 G	26561343.40	26561343.60	26561343.80	0.0484	0.0102
Venus	68015-07-30 19:12 G	26563239.25	26563239.30	26563239.36	0.0545	0.0518
Mercury	68015-11-29 19:41 G	26563361.21	26563361.32	26563361.44	0.0545	0.0297
Venus	68016-03-25 10:34 G	26563477.75	26563477.94	26563478.14	0.0544	0.0153
Venus	68021-06-03 18:00 G	26565374.24	26565374.25	26565374.28	0.0484	0.0481
Mercury	68021-10-12 17:31 G	26565505.07	26565505.23	26565505.40	0.0484	0.0014
Venus	68022-01-25 08:10 G	26565609.64	26565609.84	26565610.05	0.0484	0.0028
Venus	68022-09-17 22:48 G	26565845.37	26565845.45	26565845.55	0.0487	0.0434
Earth	68027-07-09 13:41 G	26567600.85	26567601.07	26567601.29	0.0545	0.0172
Moon	68027-07-09 14:10 G	26567600.87	26567601.09	26567601.32	0.0545	0.0199 *
Mercury	68027-09-17 21:36 G	26567671.26	26567671.40	26567671.54	0.0545	0.0089
Venus	68027-11-28 19:41 G	26567743.12	26567743.32	26567743.52	0.0544	0.0036
Mercury	68033-07-31 19:12 G	26569815.15	26569815.30	26569815.45	0.0483	0.0153
Venus	68033-09-30 14:53 G	26569875.93	26569876.12	26569876.31	0.0483	0.0155
Venus	68034-05-24 05:03 G	26570111.55	26570111.71	26570111.86	0.0486	0.0305
Mercury	68039-07-06 22:19 G	26571981.30	26571981.43	26571981.57	0.0545	0.0141
Moon	68039-07-14 11:46 G	26571988.80	26571988.99	26571989.18	0.0545	0.0283
Earth	68039-07-14 14:24 G	26571988.91	26571989.10	26571989.30	0.0545	0.0298 *
Venus	68039-08-03 01:41 G	26572008.39	26572008.57	26572008.76	0.0545	0.0232
Venus	68040-03-28 17:03 G	26572247.10	26572247.21	26572247.33	0.0542	0.0438
Mercury	68045-05-19 20:53 G	26574125.26	26574125.37	26574125.50	0.0483	0.0313
Venus	68045-06-05 21:51 G	26574142.24	26574142.41	26574142.57	0.0483	0.0279
Mercury	68045-08-17 13:55 G	26574214.98	26574215.08	26574215.19	0.0483	0.0367

Venus	68046-01-27 11:17 G	26574377.79	26574377.97	26574378.16	0.0485	0.0180
Venus	68051-04-07 11:31 G	26576273.86	26576273.98	26576274.11	0.0545	0.0415
Mercury	68051-04-25 00:15 G	26576291.40	26576291.51	26576291.62	0.0545	0.0350
Mercury	68051-07-23 15:22 G	26576381.08	26576381.14	26576381.20	0.0545	0.0488
Venus	68051-12-02 03:36 G	26576512.47	26576512.65	26576512.83	0.0544	0.0258
Moon	68057-01-05 16:05 G	26578374.07	26578374.17	26578374.28	0.0483	0.0435
Earth	68057-01-05 19:27 G	26578374.22	26578374.31	26578374.41	0.0483	0.0440 *
Venus	68057-02-09 03:36 G	26578408.53	26578408.65	26578408.76	0.0483	0.0403
Mercury	68057-03-07 22:34 G	26578435.42	26578435.44	26578435.47	0.0483	0.0476
Mercury	68057-06-05 15:07 G	26578524.98	26578525.13	26578525.28	0.0483	0.0192
Venus	68057-10-02 17:03 G	26578644.01	26578644.21	26578644.41	0.0484	0.0052
Mercury	68063-05-11 18:00 G	26580691.14	26580691.25	26580691.37	0.0545	0.0298
Venus	68063-08-06 14:53 G	26580777.92	26580778.12	26580778.32	0.0545	0.0075
Earth	68069-01-10 02:10 G	26582761.36	26582761.59	26582761.82	0.0483	0.0102
Moon	68069-01-10 03:51 G	26582761.44	26582761.66	26582761.89	0.0483	0.0074 *
Mercury	68069-03-24 16:34 G	26582835.03	26582835.19	26582835.35	0.0483	0.0026
Venus	68069-06-07 23:46 G	26582910.29	26582910.49	26582910.69	0.0483	0.0075
Venus	68070-01-29 13:41 G	26583145.95	26583146.07	26583146.20	0.0486	0.0384
Mars	68071-10-19 15:36 G	26583773.96	26583774.15	26583774.35	0.0506	0.0338
Mercury	68075-02-27 20:24 G	26585001.21	26585001.35	26585001.49	0.0545	0.0101
Venus	68075-04-11 01:27 G	26585043.36	26585043.56	26585043.76	0.0545	0.0111
Mercury	68081-01-10 17:46 G	26587145.09	26587145.24	26587145.40	0.0483	0.0143
Moon	68081-01-14 07:41 G	26587148.61	26587148.82	26587149.05	0.0483	0.0231
Earth	68081-01-14 07:41 G	26587148.62	26587148.82	26587149.03	0.0483	0.0235 *
Venus	68081-02-11 05:31 G	26587176.55	26587176.73	26587176.92	0.0483	0.0202
Venus	68081-10-04 19:27 G	26587412.14	26587412.31	26587412.49	0.0485	0.0257
Venus	68086-12-14 10:19 G	26589308.77	26589308.93	26589309.11	0.0545	0.0298
Mercury	68086-12-16 22:05 G	26589311.28	26589311.42	26589311.56	0.0545	0.0109
Venus	68087-08-10 01:41 G	26589547.42	26589547.57	26589547.72	0.0542	0.0372
Venus	68092-10-17 12:15 G	26591442.87	26591443.01	26591443.17	0.0483	0.0327

Mercury	68092-10-29 19:41 G	26591455.20	26591455.32	26591455.44	0.0483	0.0302
Mercury	68093-01-27 12:43 G	26591544.93	26591545.03	26591545.13	0.0483	0.0377
Venus	68093-06-10 02:10 G	26591678.40	26591678.59	26591678.79	0.0484	0.0130
Venus	68098-08-18 16:19 G	26593574.10	26593574.18	26593574.27	0.0545	0.0487
Mercury	68098-10-04 22:48 G	26593621.34	26593621.45	26593621.56	0.0545	0.0343
Mercury	68099-01-02 13:55 G	26593711.02	26593711.08	26593711.13	0.0545	0.0494
Venus	68099-04-14 08:10 G	26593812.65	26593812.84	26593813.03	0.0544	0.0181
Mars	68101-01-19 20:39 G	26594458.08	26594458.36	26594458.64	0.0523	0.0061
Venus	68104-06-23 18:58 G	26595709.22	26595709.29	26595709.37	0.0484	0.0448
Mercury	68104-08-18 21:36 G	26595765.35	26595765.40	26595765.45	0.0483	0.0459
Mercury	68104-11-16 14:10 G	26595854.94	26595855.09	26595855.24	0.0483	0.0211
Venus	68105-02-14 08:53 G	26595944.67	26595944.87	26595945.08	0.0484	0.0006
Venus	68105-10-07 23:03 G	26596180.41	26596180.46	26596180.54	0.0487	0.0460
Moon	68110-07-09 09:07 G	26597915.70	26597915.88	26597916.07	0.0545	0.0299
Earth	68110-07-09 11:17 G	26597915.78	26597915.97	26597916.18	0.0545	0.0267 *
Mercury	68110-10-22 16:05 G	26598021.05	26598021.17	26598021.29	0.0545	0.0294
Venus	68110-12-18 18:00 G	26598078.05	26598078.25	26598078.45	0.0545	0.0006
Mercury	68116-09-04 15:22 G	26600164.98	26600165.14	26600165.30	0.0483	0.0040
Venus	68116-10-20 14:53 G	26600210.92	26600211.12	26600211.31	0.0483	0.0123
Venus	68117-06-13 04:19 G	26600446.54	26600446.68	26600446.84	0.0486	0.0335
Earth	68122-07-14 20:53 G	26602304.17	26602304.37	26602304.58	0.0546	0.0238
Moon	68122-07-15 00:43 G	26602304.33	26602304.53	26602304.75	0.0546	0.0233 *
Mercury	68122-08-10 18:29 G	26602331.14	26602331.27	26602331.41	0.0545	0.0102
Venus	68122-08-23 05:03 G	26602343.52	26602343.71	26602343.90	0.0545	0.0188
Venus	68123-04-18 20:39 G	26602582.27	26602582.36	26602582.46	0.0542	0.0478
Mercury	68128-06-23 16:48 G	26604475.05	26604475.20	26604475.36	0.0483	0.0125
Venus	68128-06-25 21:22 G	26604477.21	26604477.39	26604477.57	0.0483	0.0247
Venus	68129-02-16 10:48 G	26604712.77	26604712.95	26604713.14	0.0485	0.0209
Venus	68134-04-27 15:51 G	26606609.02	26606609.16	26606609.32	0.0545	0.0371
Mercury	68134-05-29 20:53 G	26606641.23	26606641.37	26606641.51	0.0545	0.0098

Venus	68134-12-22 07:41 G	26606847.65	26606847.82	26606847.99	0.0543	0.0299
Earth	68140-01-07 04:34 G	26608689.68	26608689.69	26608689.72	0.0484	0.0481
Moon	68140-01-07 06:15 G	26608689.70	26608689.76	26608689.82	0.0484	0.0467 *
Venus	68140-03-01 02:53 G	26608743.50	26608743.62	26608743.75	0.0483	0.0372
Mercury	68140-04-11 18:15 G	26608785.13	26608785.26	26608785.39	0.0483	0.0291
Mercury	68140-07-10 11:17 G	26608874.88	26608874.97	26608875.07	0.0484	0.0388
Venus	68140-10-22 17:03 G	26608979.01	26608979.21	26608979.41	0.0484	0.0082
Mercury	68146-03-17 22:34 G	26610951.32	26610951.44	26610951.56	0.0545	0.0309
Mercury	68146-06-15 13:41 G	26611041.04	26611041.07	26611041.10	0.0545	0.0526
Venus	68146-08-26 17:03 G	26611113.01	26611113.21	26611113.40	0.0544	0.0114
Earth	68152-01-11 12:15 G	26613076.79	26613077.01	26613077.24	0.0483	0.0138
Moon	68152-01-11 12:43 G	26613076.79	26613077.03	26613077.27	0.0483	0.0112 *
Mercury	68152-01-29 20:10 G	26613095.29	26613095.34	26613095.40	0.0483	0.0448
Mercury	68152-04-28 12:43 G	26613184.89	26613185.03	26613185.18	0.0483	0.0223
Venus	68152-06-27 23:46 G	26613245.29	26613245.49	26613245.70	0.0484	0.0046
Venus	68153-02-18 14:10 G	26613480.98	26613481.09	26613481.20	0.0486	0.0410
Mercury	68158-04-03 14:39 G	26615351.00	26615351.11	26615351.23	0.0545	0.0302
Venus	68158-04-30 22:48 G	26615378.25	26615378.45	26615378.65	0.0545	0.0080
Moon	68164-01-15 18:15 G	26617464.05	26617464.26	26617464.47	0.0483	0.0195
Earth	68164-01-15 19:55 G	26617464.12	26617464.33	26617464.55	0.0483	0.0204 *
Mercury	68164-02-15 14:24 G	26617494.94	26617495.10	26617495.26	0.0483	0.0058
Venus	68164-03-03 06:43 G	26617511.59	26617511.78	26617511.97	0.0483	0.0169
Venus	68164-10-24 20:24 G	26617747.19	26617747.35	26617747.52	0.0485	0.0287
Venus	68170-01-03 08:24 G	26619643.67	26619643.85	26619644.02	0.0545	0.0266
Mercury	68170-01-20 16:34 G	26619661.06	26619661.19	26619661.33	0.0545	0.0098
Venus	68170-08-30 00:00 G	26619882.37	26619882.50	26619882.64	0.0543	0.0401
Venus	68175-11-07 12:29 G	26621777.86	26621778.02	26621778.18	0.0483	0.0293
Mercury	68175-12-04 15:36 G	26621805.00	26621805.15	26621805.31	0.0483	0.0111
Venus	68176-06-30 01:55 G	26622013.39	26622013.58	26622013.78	0.0484	0.0161
Venus	68181-09-07 19:12 G	26623909.19	26623909.30	26623909.42	0.0545	0.0444

Mercury	68181-11-08 18:58 G	26623971.15	26623971.29	26623971.43	0.0546	0.0100
Venus	68182-05-04 11:31 G	26624147.80	26624147.98	26624148.17	0.0544	0.0224
Venus	68187-07-13 18:43 G	26626044.18	26626044.28	26626044.39	0.0483	0.0415
Mercury	68187-09-22 17:17 G	26626115.09	26626115.22	26626115.36	0.0483	0.0273
Mercury	68187-12-21 10:19 G	26626204.84	26626204.93	26626205.02	0.0483	0.0405
Venus	68188-03-05 08:24 G	26626279.65	26626279.85	26626280.06	0.0484	0.0035
Earth	68193-07-08 20:10 G	26628231.15	26628231.34	26628231.52	0.0545	0.0319
Moon	68193-07-08 23:46 G	26628231.31	26628231.49	26628231.67	0.0545	0.0353 *
Mercury	68193-08-27 21:07 G	26628281.27	26628281.38	26628281.50	0.0545	0.0300
Mercury	68193-11-25 12:15 G	26628371.00	26628371.01	26628371.04	0.0545	0.0537
Venus	68194-01-06 22:34 G	26628413.23	26628413.44	26628413.64	0.0545	0.0041
Mercury	68199-07-11 18:58 G	26630425.22	26630425.29	26630425.35	0.0483	0.0437
Mercury	68199-10-09 11:31 G	26630514.83	26630514.98	26630515.12	0.0483	0.0234
Venus	68199-11-09 14:39 G	26630545.91	26630546.11	26630546.31	0.0484	0.0092
Venus	68200-07-03 04:34 G	26630781.56	26630781.69	26630781.83	0.0486	0.0363
Mercury	68205-06-16 22:48 G	26632591.41	26632591.45	26632591.50	0.0545	0.0513
Moon	68205-07-14 22:48 G	26632619.23	26632619.45	26632619.67	0.0545	0.0166
Earth	68205-07-15 02:53 G	26632619.40	26632619.62	26632619.84	0.0545	0.0175 *
Venus	68205-09-12 07:41 G	26632678.63	26632678.82	26632679.02	0.0545	0.0146
Mercury	68205-09-14 14:24 G	26632680.99	26632681.10	26632681.21	0.0545	0.0335
Venus	68206-05-08 23:03 G	26632917.39	26632917.46	26632917.52	0.0542	0.0513
Venus	68211-07-16 21:22 G	26634812.21	26634812.39	26634812.58	0.0483	0.0216
Mercury	68211-07-29 12:58 G	26634824.88	26634825.04	26634825.21	0.0483	0.0072
Venus	68212-03-08 11:17 G	26635047.80	26635047.97	26635048.15	0.0485	0.0238
Venus	68217-05-17 13:41 G	26636943.91	26636944.07	26636944.23	0.0545	0.0337
Mercury	68217-07-03 15:22 G	26636991.00	26636991.14	26636991.28	0.0545	0.0107
Venus	68218-01-11 05:03 G	26637182.55	26637182.71	26637182.88	0.0543	0.0328
Venus	68223-03-22 04:05 G	26639078.53	26639078.67	26639078.82	0.0483	0.0338
Mercury	68223-05-17 14:53 G	26639134.96	26639135.12	26639135.27	0.0483	0.0094
Venus	68223-11-12 18:00 G	26639314.05	26639314.25	26639314.45	0.0484	0.0114

Mars	68226-01-14 22:48 G	26640108.19	26640108.45	26640108.71	0.0506	0.0128
Venus	68229-01-19 23:03 G	26641209.40	26641209.46	26641209.52	0.0545	0.0516
Mercury	68229-04-21 17:03 G	26641301.07	26641301.21	26641301.35	0.0545	0.0103
Venus	68229-09-15 14:39 G	26641447.91	26641448.11	26641448.31	0.0544	0.0145
Venus	68234-11-25 09:51 G	26643344.85	26643344.91	26643344.97	0.0484	0.0459
Moon	68235-01-11 20:39 G	26643392.14	26643392.36	26643392.58	0.0483	0.0154
Earth	68235-01-11 22:34 G	26643392.22	26643392.44	26643392.66	0.0483	0.0178 *
Mercury	68235-03-05 16:05 G	26643445.04	26643445.17	26643445.31	0.0483	0.0260
Mercury	68235-06-03 09:07 G	26643534.80	26643534.88	26643534.96	0.0483	0.0419
Venus	68235-07-18 23:31 G	26643580.28	26643580.48	26643580.69	0.0483	0.0015
Venus	68236-03-10 13:41 G	26643815.98	26643816.07	26643816.15	0.0486	0.0438
Mercury	68241-02-07 19:12 G	26645611.18	26645611.30	26645611.42	0.0545	0.0305
Mercury	68241-05-08 10:19 G	26645700.91	26645700.93	26645700.96	0.0545	0.0534
Venus	68241-05-21 01:41 G	26645713.37	26645713.57	26645713.77	0.0545	0.0038
Mercury	68246-12-22 17:46 G	26647755.17	26647755.24	26647755.32	0.0483	0.0421
Earth	68247-01-16 05:17 G	26647779.50	26647779.72	26647779.95	0.0483	0.0163
Moon	68247-01-16 08:24 G	26647779.62	26647779.85	26647780.08	0.0483	0.0149 *
Mercury	68247-03-22 10:19 G	26647844.80	26647844.93	26647845.07	0.0483	0.0250
Venus	68247-03-24 06:00 G	26647846.56	26647846.75	26647846.95	0.0483	0.0137
Venus	68247-11-14 19:41 G	26648082.17	26648082.32	26648082.48	0.0485	0.0316
Mercury	68252-11-26 21:22 G	26649921.34	26649921.39	26649921.44	0.0545	0.0507
Venus	68253-01-23 12:43 G	26649978.84	26649979.03	26649979.21	0.0545	0.0220
Mercury	68253-02-24 12:58 G	26650010.94	26650011.04	26650011.15	0.0545	0.0343
Venus	68253-09-19 04:19 G	26650217.56	26650217.68	26650217.80	0.0543	0.0442
Mars	68255-04-17 15:07 G	26650793.13	26650793.13	26650793.15	0.0522	0.0521
Venus	68258-11-27 12:00 G	26652112.83	26652113.00	26652113.17	0.0483	0.0262
Mercury	68259-01-08 11:31 G	26652154.82	26652154.98	26652155.14	0.0483	0.0080
Moon	68259-01-20 07:27 G	26652166.76	26652166.81	26652166.86	0.0483	0.0470
Venus	68259-07-21 01:41 G	26652348.39	26652348.57	26652348.76	0.0485	0.0190
Venus	68264-09-27 22:19 G	26654244.30	26654244.43	26654244.57	0.0545	0.0402

Mercury	68264-12-13 15:07 G	26654320.99	26654321.13	26654321.26	0.0545	0.0139
Venus	68265-05-24 14:10 G	26654482.91	26654483.09	26654483.27	0.0544	0.0262
Venus	68270-08-02 18:29 G	26656379.16	26656379.27	26656379.40	0.0484	0.0385
Mercury	68270-10-27 13:27 G	26656464.90	26656465.06	26656465.22	0.0483	0.0083
Venus	68271-03-26 08:39 G	26656614.66	26656614.86	26656615.06	0.0484	0.0065
Moon	68276-07-08 13:41 G	26658545.95	26658546.07	26658546.20	0.0545	0.0456
Earth	68276-07-08 17:46 G	26658546.10	26658546.24	26658546.39	0.0545	0.0417 *
Mercury	68276-10-01 15:51 G	26658631.02	26658631.16	26658631.30	0.0545	0.0093
Venus	68277-01-26 19:55 G	26658748.13	26658748.33	26658748.53	0.0544	0.0071
Mercury	68282-08-15 15:07 G	26660774.99	26660775.13	26660775.27	0.0483	0.0244
Mercury	68282-11-13 08:10 G	26660864.77	26660864.84	26660864.91	0.0484	0.0437
Venus	68282-11-29 15:22 G	26660880.94	26660881.14	26660881.35	0.0484	0.0059
Venus	68283-07-23 05:31 G	26661116.61	26661116.73	26661116.85	0.0486	0.0392
Earth	68288-07-13 23:17 G	26662934.24	26662934.47	26662934.70	0.0545	0.0073
Moon	68288-07-14 02:53 G	26662934.40	26662934.62	26662934.84	0.0545	0.0068 *
Mercury	68288-07-20 17:17 G	26662941.11	26662941.22	26662941.34	0.0545	0.0307
Venus	68288-10-01 04:48 G	26663013.50	26663013.70	26663013.90	0.0545	0.0115
Mercury	68288-10-18 08:24 G	26663030.83	26663030.85	26663030.88	0.0545	0.0531
Venus	68289-05-27 20:10 G	26663252.33	26663252.34	26663252.36	0.0542	0.0540
Mercury	68294-06-03 16:34 G	26665085.11	26665085.19	26665085.27	0.0483	0.0409
Venus	68294-08-04 20:53 G	26665147.19	26665147.37	26665147.56	0.0483	0.0184
Mercury	68294-09-01 09:07 G	26665174.74	26665174.88	26665175.01	0.0483	0.0261
Venus	68295-03-28 10:19 G	26665382.77	26665382.93	26665383.11	0.0485	0.0268
Mercury	68300-05-09 19:12 G	26667251.26	26667251.30	26667251.35	0.0545	0.0514
Venus	68300-06-06 15:22 G	26667278.98	26667279.14	26667279.32	0.0545	0.0297
Mercury	68300-08-07 11:03 G	26667340.85	26667340.96	26667341.07	0.0545	0.0337
Venus	68301-01-31 07:41 G	26667517.67	26667517.82	26667517.97	0.0543	0.0367
Venus	68306-04-11 03:22 G	26669413.48	26669413.64	26669413.80	0.0483	0.0306
Mercury	68306-06-21 10:34 G	26669484.78	26669484.94	26669485.10	0.0483	0.0094
Venus	68306-12-02 17:03 G	26669649.01	26669649.21	26669649.40	0.0484	0.0143

Venus	68312-02-10 02:39 G	26671544.52	26671544.61	26671544.71	0.0545	0.0473
Mercury	68312-05-26 13:27 G	26671650.93	26671651.06	26671651.20	0.0545	0.0143
Venus	68312-10-05 18:29 G	26671783.08	26671783.27	26671783.47	0.0544	0.0188
Venus	68317-12-15 08:53 G	26673679.79	26673679.87	26673679.97	0.0484	0.0429
Earth	68318-01-12 07:12 G	26673707.59	26673707.80	26673708.01	0.0483	0.0220
Moon	68318-01-12 10:19 G	26673707.72	26673707.93	26673708.16	0.0483	0.0198 *
Mercury	68318-04-09 11:46 G	26673794.83	26673794.99	26673795.15	0.0483	0.0075
Venus	68318-08-07 22:48 G	26673915.25	26673915.45	26673915.66	0.0484	0.0020
Venus	68319-03-31 13:12 G	26674151.00	26674151.05	26674151.11	0.0487	0.0466
Mercury	68324-03-14 15:22 G	26675961.00	26675961.14	26675961.28	0.0545	0.0064
Venus	68324-06-10 04:19 G	26676048.48	26676048.68	26676048.88	0.0545	0.0004
Moon	68330-01-16 11:17 G	26678094.74	26678094.97	26678095.20	0.0483	0.0105
Earth	68330-01-16 14:53 G	26678094.89	26678095.12	26678095.35	0.0483	0.0124 *
Mercury	68330-01-26 13:41 G	26678104.93	26678105.07	26678105.21	0.0483	0.0235
Venus	68330-04-13 05:46 G	26678181.54	26678181.74	26678181.94	0.0483	0.0107
Mercury	68330-04-26 06:29 G	26678194.72	26678194.77	26678194.84	0.0484	0.0447
Venus	68330-12-04 19:55 G	26678417.19	26678417.33	26678417.48	0.0486	0.0344
Mercury	68336-01-01 16:05 G	26680271.05	26680271.17	26680271.29	0.0545	0.0297
Venus	68336-02-13 10:05 G	26680313.73	26680313.92	26680314.11	0.0545	0.0187
Mercury	68336-03-31 07:12 G	26680360.79	26680360.80	26680360.82	0.0545	0.0540
Venus	68336-10-09 01:12 G	26680552.46	26680552.55	26680552.66	0.0542	0.0469
Mercury	68341-11-14 15:22 G	26682415.05	26682415.14	26682415.23	0.0484	0.0396
Venus	68341-12-17 12:15 G	26682447.83	26682448.01	26682448.19	0.0484	0.0229
Earth	68342-01-20 21:36 G	26682482.34	26682482.40	26682482.47	0.0484	0.0464
Moon	68342-01-21 01:12 G	26682482.46	26682482.55	26682482.64	0.0484	0.0440 *
Mercury	68342-02-12 07:55 G	26682504.70	26682504.83	26682504.97	0.0484	0.0277
Venus	68342-08-10 02:10 G	26682683.41	26682683.59	26682683.77	0.0485	0.0221
Venus	68347-10-18 18:58 G	26684579.14	26684579.29	26684579.44	0.0545	0.0370
Mercury	68347-10-20 17:17 G	26684581.18	26684581.22	26684581.27	0.0545	0.0516
Mercury	68348-01-18 09:07 G	26684670.77	26684670.88	26684670.99	0.0545	0.0334

Venus	68348-06-13 10:34 G	26684817.77	26684817.94	26684818.11	0.0544	0.0290
Venus	68353-08-22 17:46 G	26686714.10	26686714.24	26686714.38	0.0483	0.0353
Mercury	68353-12-01 09:07 G	26686814.72	26686814.88	26686815.04	0.0483	0.0104
Venus	68354-04-15 07:27 G	26686949.61	26686949.81	26686950.01	0.0484	0.0095
Earth	68359-07-09 20:24 G	26688861.26	26688861.35	26688861.44	0.0545	0.0494
Moon	68359-07-10 00:15 G	26688861.47	26688861.51	26688861.56	0.0545	0.0531
Mercury	68359-11-06 11:17 G	26688980.84	26688980.97	26688981.11	0.0545	0.0135
Venus	68360-02-16 21:07 G	26689083.18	26689083.38	26689083.58	0.0545	0.0110
Venus	68365-04-27 23:46 G	26690980.46	26690980.49	26690980.54	0.0484	0.0473
Mercury	68365-09-19 10:34 G	26691124.78	26691124.94	26691125.10	0.0483	0.0062
Venus	68365-12-19 13:55 G	26691215.88	26691216.08	26691216.28	0.0483	0.0029
Venus	68366-08-12 03:36 G	26691451.56	26691451.65	26691451.76	0.0486	0.0419
Moon	68371-07-15 03:07 G	26693249.39	26693249.63	26693249.87	0.0545	0.0009
Earth	68371-07-15 05:31 G	26693249.50	26693249.73	26693249.96	0.0545	0.0016 *
Mercury	68371-08-25 13:41 G	26693290.93	26693291.07	26693291.21	0.0545	0.0063
Venus	68371-10-22 07:55 G	26693348.63	26693348.83	26693349.04	0.0545	0.0074
Mercury	68377-07-08 12:00 G	26695434.86	26695435.00	26695435.14	0.0483	0.0229
Venus	68377-08-24 19:41 G	26695482.13	26695482.32	26695482.52	0.0483	0.0154
Mercury	68377-10-06 04:48 G	26695524.65	26695524.70	26695524.76	0.0483	0.0451
Venus	68378-04-17 09:22 G	26695717.73	26695717.89	26695718.06	0.0485	0.0295
Mercury	68383-06-13 15:22 G	26697601.02	26697601.14	26697601.27	0.0545	0.0272
Venus	68383-06-26 18:00 G	26697614.07	26697614.25	26697614.43	0.0545	0.0255
Earth	68383-07-20 12:43 G	26697637.96	26697638.03	26697638.12	0.0545	0.0510
Moon	68383-07-20 12:29 G	26697638.01	26697638.02	26697638.04	0.0545	0.0543 *
Venus	68384-02-20 09:22 G	26697852.76	26697852.89	26697853.03	0.0543	0.0404
Mercury	68389-04-26 13:55 G	26699744.98	26699745.08	26699745.17	0.0483	0.0388
Venus	68389-04-30 02:24 G	26699748.43	26699748.60	26699748.77	0.0483	0.0277
Mercury	68389-07-25 06:15 G	26699834.63	26699834.76	26699834.90	0.0483	0.0285
Venus	68389-12-21 16:19 G	26699983.99	26699984.18	26699984.37	0.0484	0.0172
Venus	68395-03-01 00:29 G	26701879.40	26701879.52	26701879.64	0.0544	0.0439

Mercury	68395-04-01 16:05 G	26701911.12	26701911.17	26701911.22	0.0545	0.0506
Mercury	68395-06-30 07:41 G	26702000.72	26702000.82	26702000.93	0.0545	0.0343
Venus	68395-10-25 15:36 G	26702117.96	26702118.15	26702118.33	0.0544	0.0217
Venus	68401-01-03 08:10 G	26704014.74	26704014.84	26704014.97	0.0484	0.0398
Moon	68401-01-11 12:43 G	26704022.83	26704023.03	26704023.23	0.0484	0.0248
Earth	68401-01-11 16:19 G	26704022.99	26704023.18	26704023.38	0.0484	0.0265 *
Mercury	68401-05-13 07:41 G	26704144.66	26704144.82	26704144.98	0.0484	0.0116
Venus	68401-08-26 22:34 G	26704250.24	26704250.44	26704250.65	0.0484	0.0049
Mercury	68407-04-18 09:22 G	26706310.76	26706310.89	26706311.03	0.0545	0.0132
Venus	68407-06-30 00:15 G	26706383.31	26706383.51	26706383.71	0.0545	0.0033
Earth	68413-01-15 21:51 G	26708410.18	26708410.41	26708410.65	0.0483	0.0074
Moon	68413-01-16 01:27 G	26708410.33	26708410.56	26708410.79	0.0483	0.0050 *
Mercury	68413-03-01 08:53 G	26708454.71	26708454.87	26708455.03	0.0483	0.0056
Venus	68413-05-02 04:05 G	26708516.47	26708516.67	26708516.87	0.0483	0.0078
Venus	68413-12-23 17:46 G	26708752.11	26708752.24	26708752.38	0.0485	0.0370
Mercury	68419-02-04 11:17 G	26710620.83	26710620.97	26710621.11	0.0545	0.0075
Venus	68419-03-04 10:05 G	26710648.72	26710648.92	26710649.11	0.0545	0.0151
Venus	68419-10-29 01:41 G	26710887.51	26710887.57	26710887.65	0.0543	0.0503
Mercury	68424-12-18 10:34 G	26712764.80	26712764.94	26712765.08	0.0483	0.0219
Venus	68425-01-05 10:19 G	26712782.75	26712782.93	26712783.12	0.0483	0.0200
Moon	68425-01-20 01:41 G	26712797.43	26712797.57	26712797.71	0.0483	0.0390
Earth	68425-01-20 04:19 G	26712797.57	26712797.68	26712797.81	0.0483	0.0415 *
Mercury	68425-03-18 03:22 G	26712854.60	26712854.64	26712854.69	0.0483	0.0461
Venus	68425-08-28 23:46 G	26713018.32	26713018.49	26713018.67	0.0484	0.0248
Venus	68430-11-06 21:07 G	26714914.22	26714914.38	26714914.54	0.0545	0.0330
Mercury	68430-11-23 13:27 G	26714930.94	26714931.06	26714931.18	0.0545	0.0276
Venus	68431-07-03 12:58 G	26715152.89	26715153.04	26715153.21	0.0544	0.0329
Venus	68436-09-10 15:51 G	26717049.01	26717049.16	26717049.32	0.0483	0.0324
Mercury	68436-10-06 12:00 G	26717074.91	26717075.00	26717075.10	0.0483	0.0384
Mercury	68437-01-04 04:19 G	26717164.56	26717164.68	26717164.82	0.0483	0.0287

Venus	68437-05-04 05:46 G	26717284.54	26717284.74	26717284.94	0.0484	0.0122
Venus	68442-07-12 07:27 G	26719179.74	26719179.81	26719179.89	0.0545	0.0505
Mercury	68442-09-11 15:07 G	26719241.07	26719241.13	26719241.20	0.0545	0.0486
Mercury	68442-12-10 06:58 G	26719330.69	26719330.79	26719330.89	0.0545	0.0364
Venus	68443-03-07 22:48 G	26719418.26	26719418.45	26719418.65	0.0544	0.0148
Venus	68448-05-16 22:05 G	26721315.35	26721315.42	26721315.51	0.0484	0.0444
Mercury	68448-10-23 06:00 G	26721474.59	26721474.75	26721474.91	0.0483	0.0121
Venus	68449-01-07 12:29 G	26721550.82	26721551.02	26721551.23	0.0484	0.0003
Venus	68449-08-31 02:39 G	26721786.54	26721786.61	26721786.70	0.0486	0.0445
Earth	68454-07-14 02:53 G	26723564.39	26723564.62	26723564.85	0.0544	0.0089
Moon	68454-07-14 03:36 G	26723564.43	26723564.65	26723564.87	0.0544	0.0082 *
Mercury	68454-09-28 08:10 G	26723640.70	26723640.84	26723640.97	0.0545	0.0141
Venus	68454-11-10 05:17 G	26723683.52	26723683.72	26723683.92	0.0544	0.0041
Mercury	68460-08-11 07:27 G	26725784.65	26725784.81	26725784.97	0.0484	0.0047
Venus	68460-09-12 18:29 G	26725817.08	26725817.27	26725817.47	0.0484	0.0124
Venus	68461-05-06 08:39 G	26726052.71	26726052.86	26726053.01	0.0485	0.0323
Venus	68466-07-15 13:41 G	26727948.88	26727949.07	26727949.25	0.0545	0.0225
Mercury	68466-07-17 09:36 G	26727950.76	26727950.90	26727951.04	0.0545	0.0078
Earth	68466-07-19 06:58 G	26727952.64	26727952.79	26727952.95	0.0545	0.0398
Moon	68466-07-19 08:39 G	26727952.72	26727952.86	26727953.01	0.0545	0.0431 *
Venus	68467-03-11 04:48 G	26728187.58	26728187.70	26728187.82	0.0543	0.0428
Venus	68472-05-19 00:00 G	26730083.33	26730083.50	26730083.68	0.0483	0.0248
Mercury	68472-05-30 08:39 G	26730094.72	26730094.86	26730095.01	0.0483	0.0216
Mercury	68472-08-28 01:41 G	26730184.53	26730184.57	26730184.61	0.0483	0.0464
Venus	68473-01-09 13:41 G	26730318.88	26730319.07	26730319.26	0.0484	0.0198
Venus	68478-03-19 22:48 G	26732214.33	26732214.45	26732214.59	0.0545	0.0406
Mercury	68478-05-05 11:03 G	26732260.84	26732260.96	26732261.08	0.0545	0.0289
Venus	68478-11-13 14:53 G	26732452.94	26732453.12	26732453.30	0.0544	0.0250
Earth	68484-01-11 22:19 G	26734338.25	26734338.43	26734338.61	0.0484	0.0317
Moon	68484-01-12 01:41 G	26734338.40	26734338.57	26734338.76	0.0484	0.0309 *

Venus	68484-01-23 06:00 G	26734349.63	26734349.75	26734349.89	0.0484	0.0370
Mercury	68484-03-18 10:34 G	26734404.84	26734404.94	26734405.04	0.0483	0.0377
Mercury	68484-06-16 02:53 G	26734494.49	26734494.62	26734494.75	0.0483	0.0294
Venus	68484-09-14 19:55 G	26734585.13	26734585.33	26734585.53	0.0484	0.0075
Mercury	68490-02-21 12:58 G	26736570.98	26736571.04	26736571.10	0.0545	0.0494
Mercury	68490-05-22 04:48 G	26736660.60	26736660.70	26736660.81	0.0545	0.0358
Venus	68490-07-19 01:41 G	26736718.37	26736718.57	26736718.77	0.0545	0.0071
Moon	68496-01-16 01:12 G	26738725.31	26738725.55	26738725.79	0.0483	0.0007
Earth	68496-01-16 03:51 G	26738725.43	26738725.66	26738725.90	0.0483	0.0024 *
Mercury	68496-04-04 04:05 G	26738804.51	26738804.67	26738804.82	0.0483	0.0122
Venus	68496-05-21 01:41 G	26738851.37	26738851.57	26738851.77	0.0483	0.0050
Venus	68497-01-11 15:36 G	26739087.03	26739087.15	26739087.27	0.0486	0.0395
Mars	68498-10-01 05:17 G	26739714.51	26739714.72	26739714.94	0.0504	0.0306
Mercury	68502-03-11 06:58 G	26740970.66	26740970.79	26740970.93	0.0545	0.0156
Venus	68502-03-24 11:31 G	26740983.78	26740983.98	26740984.18	0.0545	0.0111
Venus	68502-11-18 02:53 G	26741222.59	26741222.62	26741222.65	0.0542	0.0536
Earth	68508-01-21 10:34 G	26743112.79	26743112.94	26743113.10	0.0483	0.0364
Moon	68508-01-21 12:15 G	26743112.86	26743113.01	26743113.17	0.0483	0.0347 *
Mercury	68508-01-23 05:31 G	26743114.57	26743114.73	26743114.90	0.0483	0.0045
Venus	68508-01-26 08:10 G	26743117.65	26743117.84	26743118.03	0.0483	0.0173
Venus	68508-09-17 22:05 G	26743353.25	26743353.42	26743353.59	0.0485	0.0274
Venus	68513-11-26 18:43 G	26745249.11	26745249.28	26745249.45	0.0544	0.0296
Mercury	68513-12-28 08:10 G	26745280.70	26745280.84	26745280.98	0.0545	0.0071
Venus	68514-07-23 09:36 G	26745487.75	26745487.90	26745488.06	0.0543	0.0356
Venus	68519-10-01 13:55 G	26747383.92	26747384.08	26747384.24	0.0484	0.0295
Mercury	68519-11-11 06:58 G	26747424.65	26747424.79	26747424.94	0.0484	0.0210
Mercury	68520-02-09 00:00 G	26747514.47	26747514.50	26747514.53	0.0484	0.0472
Venus	68520-05-24 04:05 G	26747619.48	26747619.67	26747619.86	0.0484	0.0151
Venus	68525-08-01 03:07 G	26749514.54	26749514.63	26749514.73	0.0544	0.0475
Mercury	68525-10-16 09:22 G	26749590.77	26749590.89	26749591.01	0.0545	0.0289

Venus	68526-03-27 18:00 G	26749753.06	26749753.25	26749753.44	0.0544	0.0175
Mars	68527-12-30 21:51 G	26750396.16	26750396.41	26750396.68	0.0525	0.0219
Venus	68531-06-06 19:12 G	26751650.20	26751650.30	26751650.40	0.0484	0.0417
Mercury	68531-08-30 08:24 G	26751734.76	26751734.85	26751734.95	0.0483	0.0376
Mercury	68531-11-28 00:43 G	26751824.41	26751824.53	26751824.66	0.0483	0.0296
Venus	68532-01-28 09:22 G	26751885.68	26751885.89	26751886.09	0.0484	0.0025
Venus	68532-09-19 23:03 G	26752121.42	26752121.46	26752121.53	0.0486	0.0467
Earth	68537-07-14 00:00 G	26753879.28	26753879.50	26753879.71	0.0545	0.0186
Moon	68537-07-14 00:43 G	26753879.31	26753879.53	26753879.76	0.0545	0.0172 *
Mercury	68537-08-04 10:34 G	26753900.89	26753900.94	26753900.99	0.0545	0.0509
Mercury	68537-11-02 02:24 G	26753990.50	26753990.60	26753990.71	0.0545	0.0344
Venus	68537-11-30 03:07 G	26754018.43	26754018.63	26754018.84	0.0545	0.0011
Mercury	68543-09-16 02:24 G	26756134.44	26756134.60	26756134.75	0.0483	0.0128
Venus	68543-10-03 15:36 G	26756151.95	26756152.15	26756152.35	0.0483	0.0098
Venus	68544-05-26 05:17 G	26756387.58	26756387.72	26756387.86	0.0485	0.0346
Moon	68549-07-19 05:31 G	26758267.57	26758267.73	26758267.91	0.0545	0.0353
Earth	68549-07-19 08:24 G	26758267.66	26758267.85	26758268.04	0.0545	0.0319 *
Venus	68549-08-04 13:41 G	26758283.88	26758284.07	26758284.26	0.0545	0.0190
Mercury	68549-08-21 04:48 G	26758300.56	26758300.70	26758300.83	0.0545	0.0146
Venus	68550-03-31 05:31 G	26758522.63	26758522.73	26758522.84	0.0543	0.0461
Venus	68555-06-08 21:07 G	26760418.20	26760418.38	26760418.57	0.0483	0.0222
Mercury	68555-07-05 03:36 G	26760444.49	26760444.65	26760444.81	0.0483	0.0044
Venus	68556-01-30 10:48 G	26760653.77	26760653.95	26760654.13	0.0484	0.0223
Venus	68561-04-09 00:00 G	26762549.36	26762549.50	26762549.66	0.0545	0.0367
Mercury	68561-06-09 06:43 G	26762610.64	26762610.78	26762610.92	0.0545	0.0058
Venus	68561-12-03 15:51 G	26762787.99	26762788.16	26762788.33	0.0544	0.0286
Moon	68567-01-12 00:43 G	26764653.38	26764653.53	26764653.69	0.0484	0.0370
Earth	68567-01-12 03:22 G	26764653.50	26764653.64	26764653.80	0.0484	0.0373 *
Venus	68567-02-12 03:22 G	26764684.50	26764684.64	26764684.78	0.0484	0.0343
Mercury	68567-04-23 05:17 G	26764754.57	26764754.72	26764754.86	0.0483	0.0207

Mercury	68567-07-21 22:05 G	26764844.39	26764844.42	26764844.45	0.0484	0.0474
Venus	68567-10-05 17:17 G	26764920.02	26764920.22	26764920.42	0.0484	0.0101
Venus	68572-12-12 08:24 G	26766814.85	26766814.85	26766814.87	0.0544	0.0542
Mercury	68573-03-28 07:41 G	26766920.70	26766920.82	26766920.95	0.0544	0.0283
Venus	68573-08-07 22:48 G	26767053.25	26767053.45	26767053.65	0.0544	0.0101
Venus	68578-10-18 08:24 G	26768950.79	26768950.85	26768950.91	0.0485	0.0463
Earth	68579-01-16 09:07 G	26769040.64	26769040.88	26769041.12	0.0484	0.0033
Moon	68579-01-16 10:34 G	26769040.71	26769040.94	26769041.17	0.0484	0.0063 *
Mercury	68579-02-09 06:43 G	26769064.68	26769064.78	26769064.88	0.0484	0.0373
Mercury	68579-05-09 23:03 G	26769154.34	26769154.46	26769154.59	0.0484	0.0300
Venus	68579-06-10 23:17 G	26769186.26	26769186.47	26769186.67	0.0484	0.0023
Venus	68580-02-01 13:27 G	26769421.97	26769422.06	26769422.17	0.0486	0.0421
Mercury	68585-01-14 08:53 G	26771230.82	26771230.87	26771230.92	0.0544	0.0506
Venus	68585-04-12 06:58 G	26771318.59	26771318.79	26771318.99	0.0544	0.0083
Mercury	68585-04-14 00:43 G	26771320.42	26771320.53	26771320.64	0.0544	0.0344
Moon	68591-01-20 14:24 G	26773427.91	26773428.10	26773428.30	0.0483	0.0289
Earth	68591-01-20 14:39 G	26773427.93	26773428.11	26773428.30	0.0483	0.0306 *
Venus	68591-02-14 04:34 G	26773452.50	26773452.69	26773452.89	0.0483	0.0148
Mercury	68591-02-26 00:15 G	26773464.35	26773464.51	26773464.67	0.0483	0.0127
Venus	68591-10-07 18:15 G	26773688.10	26773688.26	26773688.43	0.0485	0.0296
Venus	68596-12-15 15:22 G	26775583.96	26775584.14	26775584.32	0.0545	0.0268
Mercury	68597-01-31 02:24 G	26775630.46	26775630.60	26775630.73	0.0545	0.0133
Venus	68597-08-11 06:58 G	26775822.65	26775822.79	26775822.94	0.0544	0.0384
Venus	68602-10-21 10:48 G	26777718.78	26777718.95	26777719.12	0.0483	0.0269
Mercury	68602-12-16 01:41 G	26777774.41	26777774.57	26777774.73	0.0483	0.0041
Venus	68603-06-14 00:29 G	26777954.33	26777954.52	26777954.71	0.0484	0.0174
Venus	68608-08-21 01:55 G	26779849.47	26779849.58	26779849.70	0.0545	0.0443
Mercury	68608-11-20 04:19 G	26779940.54	26779940.68	26779940.82	0.0545	0.0071
Venus	68609-04-16 17:46 G	26780088.05	26780088.24	26780088.43	0.0545	0.0207
Venus	68614-06-26 16:05 G	26781985.06	26781985.17	26781985.29	0.0484	0.0391

Mercury	68614-10-04 03:07 G	26782084.49	26782084.63	26782084.78	0.0483	0.0207
Mercury	68615-01-01 19:55 G	26782174.30	26782174.33	26782174.36	0.0483	0.0472
Venus	68615-02-17 06:15 G	26782220.55	26782220.76	26782220.96	0.0484	0.0050
Moon	68620-07-14 00:43 G	26784194.33	26784194.53	26784194.72	0.0545	0.0248
Earth	68620-07-14 02:39 G	26784194.41	26784194.61	26784194.82	0.0545	0.0263 *
Mercury	68620-09-08 06:15 G	26784250.64	26784250.76	26784250.89	0.0545	0.0276
Venus	68620-12-20 04:05 G	26784353.46	26784353.67	26784353.87	0.0545	0.0029
Mercury	68626-07-23 05:03 G	26786394.61	26786394.71	26786394.81	0.0484	0.0369
Mercury	68626-10-20 21:07 G	26786484.26	26786484.38	26786484.51	0.0483	0.0303
Venus	68626-10-23 12:43 G	26786486.82	26786487.03	26786487.23	0.0483	0.0072
Venus	68627-06-16 02:39 G	26786722.48	26786722.61	26786722.74	0.0485	0.0370
Mercury	68632-06-27 07:12 G	26788560.75	26788560.80	26788560.86	0.0544	0.0500
Earth	68632-07-19 06:43 G	26788582.57	26788582.78	26788582.99	0.0544	0.0224
Moon	68632-07-19 10:05 G	26788582.72	26788582.92	26788583.13	0.0544	0.0259 *
Venus	68632-08-24 11:46 G	26788618.80	26788618.99	26788619.19	0.0545	0.0157
Mercury	68632-09-24 23:17 G	26788650.36	26788650.47	26788650.58	0.0544	0.0351
Venus	68633-04-20 02:39 G	26788857.53	26788857.61	26788857.70	0.0542	0.0488
Venus	68638-06-28 18:00 G	26790753.07	26790753.25	26790753.44	0.0484	0.0196
Mercury	68638-08-08 22:19 G	26790794.28	26790794.43	26790794.59	0.0484	0.0130
Venus	68639-02-19 08:10 G	26790988.67	26790988.84	26790989.02	0.0485	0.0249
Venus	68644-04-28 20:10 G	26792884.19	26792884.34	26792884.50	0.0544	0.0337
Mercury	68644-07-14 00:43 G	26792960.39	26792960.53	26792960.67	0.0544	0.0136
Venus	68644-12-23 11:03 G	26793122.80	26793122.96	26793123.13	0.0543	0.0311
Earth	68650-01-12 06:43 G	26794968.68	26794968.78	26794968.89	0.0484	0.0432
Moon	68650-01-12 08:10 G	26794968.75	26794968.84	26794968.94	0.0484	0.0434 *
Venus	68650-03-03 23:31 G	26795019.33	26795019.48	26795019.63	0.0484	0.0319
Mercury	68650-05-27 23:31 G	26795104.32	26795104.48	26795104.65	0.0483	0.0043
Venus	68650-10-25 13:27 G	26795254.87	26795255.06	26795255.26	0.0484	0.0124
Mars	68652-12-26 16:05 G	26796047.91	26796048.17	26796048.44	0.0504	0.0034
Venus	68656-01-02 04:05 G	26797149.61	26797149.67	26797149.73	0.0544	0.0517

Mercury	68656-05-02 01:55 G	26797270.44	26797270.58	26797270.72	0.0545	0.0084
Venus	68656-08-27 19:12 G	26797388.10	26797388.30	26797388.50	0.0545	0.0128
Venus	68661-11-07 05:46 G	26799285.65	26799285.74	26799285.82	0.0484	0.0437
Moon	68662-01-16 13:55 G	26799355.85	26799356.08	26799356.32	0.0484	0.0117
Earth	68662-01-16 14:10 G	26799355.86	26799356.09	26799356.32	0.0484	0.0087 *
Mercury	68662-03-16 01:27 G	26799414.41	26799414.56	26799414.70	0.0483	0.0203
Mercury	68662-06-13 18:00 G	26799504.23	26799504.25	26799504.28	0.0483	0.0476
Venus	68662-06-30 19:55 G	26799521.13	26799521.33	26799521.54	0.0483	0.0003
Venus	68663-02-21 09:36 G	26799756.82	26799756.90	26799756.99	0.0486	0.0440
Mercury	68668-02-19 03:51 G	26801580.54	26801580.66	26801580.78	0.0545	0.0291
Venus	68668-05-02 05:31 G	26801653.53	26801653.73	26801653.94	0.0545	0.0053
Mercury	68674-01-02 02:53 G	26803724.52	26803724.62	26803724.72	0.0483	0.0369
Moon	68674-01-20 18:00 G	26803743.06	26803743.25	26803743.45	0.0483	0.0242
Earth	68674-01-20 19:41 G	26803743.12	26803743.32	26803743.52	0.0483	0.0251 *
Venus	68674-03-06 01:27 G	26803787.36	26803787.56	26803787.76	0.0483	0.0122
Mercury	68674-04-01 18:58 G	26803814.17	26803814.29	26803814.42	0.0483	0.0301
Venus	68674-10-27 15:07 G	26804022.98	26804023.13	26804023.29	0.0485	0.0320
Mercury	68679-12-08 05:31 G	26805890.68	26805890.73	26805890.79	0.0545	0.0498
Venus	68680-01-05 16:05 G	26805918.99	26805919.17	26805919.36	0.0545	0.0230
Mercury	68680-03-06 21:36 G	26805980.30	26805980.40	26805980.51	0.0545	0.0356
Venus	68680-08-31 07:55 G	26806157.70	26806157.83	26806157.96	0.0543	0.0418
Mars	68682-03-26 21:51 G	26806730.17	26806730.41	26806730.66	0.0524	0.0267
Venus	68685-11-09 07:41 G	26808053.65	26808053.82	26808054.00	0.0483	0.0243
Mercury	68686-01-18 20:24 G	26808124.20	26808124.35	26808124.51	0.0483	0.0135
Venus	68686-07-02 21:36 G	26808289.22	26808289.40	26808289.59	0.0484	0.0199
Venus	68691-09-10 01:12 G	26810184.42	26810184.55	26810184.68	0.0544	0.0408
Mercury	68691-12-24 23:17 G	26810290.33	26810290.47	26810290.61	0.0545	0.0143
Venus	68692-05-05 16:05 G	26810422.99	26810423.17	26810423.35	0.0544	0.0238
Venus	68697-07-15 12:43 G	26812319.90	26812320.03	26812320.16	0.0484	0.0366
Mercury	68697-11-06 21:51 G	26812434.25	26812434.41	26812434.57	0.0484	0.0038

Venus	68698-03-08 03:07 G	26812555.43	26812555.63	26812555.84	0.0484	0.0076
Earth	68703-07-14 22:34 G	26814509.28	26814509.44	26814509.62	0.0544	0.0366
Moon	68703-07-15 01:41 G	26814509.40	26814509.57	26814509.76	0.0544	0.0346 *
Mercury	68703-10-14 00:29 G	26814600.38	26814600.52	26814600.67	0.0545	0.0077
Venus	68704-01-10 00:15 G	26814688.31	26814688.51	26814688.71	0.0544	0.0056
Mercury	68709-08-26 23:17 G	26816744.33	26816744.47	26816744.62	0.0484	0.0203
Venus	68709-11-12 08:53 G	26816821.67	26816821.87	26816822.08	0.0483	0.0050
Mercury	68709-11-24 15:51 G	26816834.14	26816834.16	26816834.19	0.0483	0.0476
Venus	68710-07-05 22:48 G	26817057.33	26817057.45	26817057.57	0.0485	0.0390
Moon	68715-07-19 20:53 G	26818897.16	26818897.37	26818897.60	0.0545	0.0147
Earth	68715-07-20 00:43 G	26818897.31	26818897.53	26818897.76	0.0545	0.0116 *
Mercury	68715-08-02 01:27 G	26818910.44	26818910.56	26818910.68	0.0545	0.0302
Venus	68715-09-14 07:27 G	26818953.61	26818953.81	26818954.01	0.0545	0.0131
Mercury	68715-10-30 17:03 G	26819000.20	26819000.21	26819000.22	0.0545	0.0541
Venus	68716-05-09 23:17 G	26819192.41	26819192.47	26819192.53	0.0543	0.0512
Mercury	68721-06-15 01:12 G	26821054.45	26821054.55	26821054.65	0.0483	0.0363
Venus	68721-07-18 15:22 G	26821087.95	26821088.14	26821088.33	0.0483	0.0170
Mercury	68721-09-12 17:17 G	26821144.10	26821144.22	26821144.35	0.0483	0.0307
Venus	68722-03-11 04:48 G	26821323.54	26821323.70	26821323.88	0.0484	0.0271
Venus	68727-05-19 17:46 G	26823219.08	26823219.24	26823219.41	0.0545	0.0308
Mercury	68727-05-21 03:07 G	26823220.58	26823220.63	26823220.68	0.0545	0.0513
Mercury	68727-08-18 19:12 G	26823310.20	26823310.30	26823310.41	0.0545	0.0343
Venus	68728-01-13 09:51 G	26823457.75	26823457.91	26823458.07	0.0544	0.0340
Venus	68733-03-23 20:39 G	26825354.20	26825354.36	26825354.53	0.0483	0.0292
Mercury	68733-07-01 18:29 G	26825454.12	26825454.27	26825454.43	0.0483	0.0135
Venus	68733-11-14 10:34 G	26825589.75	26825589.94	26825590.14	0.0484	0.0149
Venus	68739-01-22 04:48 G	26827484.61	26827484.70	26827484.80	0.0545	0.0479
Mercury	68739-06-06 21:36 G	26827620.26	26827620.40	26827620.53	0.0545	0.0145
Venus	68739-09-17 20:24 G	26827723.15	26827723.35	26827723.54	0.0545	0.0165
Venus	68744-11-27 02:39 G	26829620.51	26829620.61	26829620.72	0.0484	0.0411

Moon	68745-01-16 17:31 G	26829671.02	26829671.23	26829671.45	0.0484	0.0172
Earth	68745-01-16 19:12 G	26829671.07	26829671.30	26829671.53	0.0484	0.0143 *
Mercury	68745-04-19 20:10 G	26829764.18	26829764.34	26829764.50	0.0483	0.0032
Venus	68745-07-20 17:03 G	26829856.01	26829856.21	26829856.41	0.0484	0.0027
Venus	68746-03-13 06:58 G	26830091.74	26830091.79	26830091.85	0.0486	0.0464
Mercury	68751-03-25 23:17 G	26831930.32	26831930.47	26831930.61	0.0545	0.0069
Venus	68751-05-23 05:17 G	26831988.52	26831988.72	26831988.92	0.0545	0.0018
Earth	68757-01-21 00:29 G	26834058.30	26834058.52	26834058.73	0.0484	0.0196
Moon	68757-01-21 03:36 G	26834058.43	26834058.65	26834058.87	0.0484	0.0197 *
Mercury	68757-02-05 21:22 G	26834074.25	26834074.39	26834074.54	0.0484	0.0201
Venus	68757-03-25 22:34 G	26834122.24	26834122.44	26834122.64	0.0484	0.0097
Mercury	68757-05-06 13:55 G	26834164.07	26834164.08	26834164.11	0.0484	0.0480
Venus	68757-11-16 12:43 G	26834357.89	26834358.03	26834358.17	0.0485	0.0344
Mercury	68763-01-12 00:15 G	26836240.39	26836240.51	26836240.64	0.0545	0.0287
Venus	68763-01-25 13:27 G	26836253.88	26836254.06	26836254.25	0.0545	0.0200
Venus	68763-09-21 04:34 G	26836492.57	26836492.69	26836492.81	0.0543	0.0443
Mercury	68768-11-24 23:03 G	26838384.36	26838384.46	26838384.57	0.0484	0.0363
Venus	68768-11-29 04:19 G	26838388.50	26838388.68	26838388.87	0.0484	0.0220
Mercury	68769-02-22 15:22 G	26838474.01	26838474.14	26838474.26	0.0483	0.0308
Venus	68769-07-22 18:15 G	26838624.08	26838624.26	26838624.45	0.0484	0.0221
Venus	68774-09-29 20:24 G	26840519.21	26840519.35	26840519.49	0.0545	0.0383
Mercury	68774-10-31 00:43 G	26840550.50	26840550.53	26840550.58	0.0545	0.0521
Mercury	68775-01-28 17:03 G	26840640.10	26840640.21	26840640.32	0.0545	0.0335
Venus	68775-05-26 12:00 G	26840757.83	26840758.00	26840758.18	0.0544	0.0263
Venus	68780-08-04 10:34 G	26842654.80	26842654.94	26842655.09	0.0484	0.0339
Mercury	68780-12-11 16:48 G	26842784.05	26842784.20	26842784.36	0.0483	0.0143
Venus	68781-03-28 00:43 G	26842890.33	26842890.53	26842890.73	0.0484	0.0100
Moon	68786-07-13 16:05 G	26844824.04	26844824.17	26844824.30	0.0545	0.0449
Earth	68786-07-13 19:27 G	26844824.20	26844824.31	26844824.43	0.0545	0.0465 *
Mercury	68786-11-16 19:12 G	26844950.16	26844950.30	26844950.43	0.0545	0.0133

Venus	68787-01-28 22:05 G	26845023.22	26845023.42	26845023.62	0.0545	0.0086
Venus	68792-04-09 15:51 G	26846921.10	26846921.16	26846921.23	0.0484	0.0457
Mercury	68792-09-29 18:15 G	26847094.10	26847094.26	26847094.42	0.0483	0.0028
Venus	68792-12-01 06:29 G	26847156.57	26847156.77	26847156.98	0.0483	0.0023
Venus	68793-07-24 20:10 G	26847392.24	26847392.34	26847392.45	0.0485	0.0414
Earth	68798-07-19 04:05 G	26849212.44	26849212.67	26849212.90	0.0545	0.0043
Moon	68798-07-19 07:41 G	26849212.59	26849212.82	26849213.04	0.0545	0.0069 *
Mercury	68798-09-04 21:22 G	26849260.25	26849260.39	26849260.53	0.0545	0.0069
Venus	68798-10-03 08:53 G	26849288.67	26849288.87	26849289.07	0.0545	0.0092
Mercury	68804-07-18 19:55 G	26851404.19	26851404.33	26851404.48	0.0483	0.0191
Venus	68804-08-06 12:43 G	26851422.84	26851423.03	26851423.23	0.0483	0.0143
Venus	68805-03-30 02:24 G	26851658.44	26851658.60	26851658.76	0.0484	0.0296
Mars	68807-03-23 12:00 G	26852381.87	26852382.00	26852382.15	0.0504	0.0425
Venus	68810-06-07 18:43 G	26853554.11	26853554.28	26853554.46	0.0545	0.0270
Mercury	68810-06-23 22:48 G	26853570.33	26853570.45	26853570.58	0.0545	0.0279
Moon	68810-07-24 08:53 G	26853600.80	26853600.87	26853600.95	0.0545	0.0515
Earth	68810-07-24 10:48 G	26853600.95	26853600.95	26853600.96	0.0545	0.0544 *
Venus	68811-02-01 09:51 G	26853792.77	26853792.91	26853793.06	0.0543	0.0373
Venus	68816-04-11 18:00 G	26855689.08	26855689.25	26855689.42	0.0484	0.0266
Mercury	68816-05-06 21:22 G	26855714.29	26855714.39	26855714.50	0.0484	0.0358
Mercury	68816-08-04 13:41 G	26855803.94	26855804.07	26855804.19	0.0484	0.0313
Venus	68816-12-03 08:10 G	26855924.66	26855924.84	26855925.04	0.0484	0.0174
Venus	68822-02-10 03:36 G	26857819.54	26857819.65	26857819.77	0.0544	0.0446
Mercury	68822-04-12 00:00 G	26857880.45	26857880.50	26857880.56	0.0544	0.0500
Mercury	68822-07-10 16:05 G	26857970.07	26857970.17	26857970.28	0.0545	0.0354
Venus	68822-10-06 18:15 G	26858058.08	26858058.26	26858058.45	0.0544	0.0195
Venus	68827-12-16 23:46 G	26859955.38	26859955.49	26859955.62	0.0484	0.0386
Earth	68828-01-17 00:29 G	26859986.30	26859986.52	26859986.74	0.0484	0.0194
Moon	68828-01-17 03:51 G	26859986.44	26859986.66	26859986.87	0.0484	0.0221 *
Mercury	68828-05-23 15:07 G	26860113.97	26860114.13	26860114.28	0.0483	0.0145

Venus	68828-08-08 14:24 G	26860190.89	26860191.10	26860191.30	0.0484	0.0051
Venus	68829-04-01 04:19 G	26860426.67	26860426.68	26860426.70	0.0486	0.0483
Mercury	68834-04-28 17:03 G	26862280.08	26862280.21	26862280.35	0.0545	0.0129
Venus	68834-06-11 00:58 G	26862323.34	26862323.54	26862323.75	0.0545	0.0013
Moon	68840-01-21 04:19 G	26864373.46	26864373.68	26864373.90	0.0483	0.0155
Earth	68840-01-21 08:10 G	26864373.62	26864373.84	26864374.07	0.0483	0.0153 *
Mercury	68840-03-11 16:48 G	26864424.04	26864424.20	26864424.36	0.0483	0.0018
Venus	68840-04-13 20:53 G	26864457.17	26864457.37	26864457.58	0.0483	0.0070
Venus	68840-12-05 10:34 G	26864692.81	26864692.94	26864693.08	0.0485	0.0367
Venus	68846-02-13 11:03 G	26866588.76	26866588.96	26866589.15	0.0545	0.0170
Mercury	68846-02-14 18:58 G	26866590.15	26866590.29	26866590.43	0.0545	0.0078
Venus	68846-10-10 03:07 G	26866827.53	26866827.63	26866827.73	0.0544	0.0471
Venus	68851-12-19 02:39 G	26868723.43	26868723.61	26868723.80	0.0483	0.0191
Mercury	68851-12-29 18:15 G	26868734.12	26868734.26	26868734.41	0.0483	0.0185
Venus	68852-08-10 16:05 G	26868959.00	26868959.17	26868959.35	0.0484	0.0247
Venus	68857-10-18 22:05 G	26870854.27	26870854.42	26870854.58	0.0545	0.0344
Mercury	68857-12-03 21:07 G	26870900.26	26870900.38	26870900.50	0.0545	0.0281
Venus	68858-06-14 14:10 G	26871092.92	26871093.09	26871093.26	0.0544	0.0300
Venus	68863-08-24 08:53 G	26872989.71	26872989.87	26872990.02	0.0484	0.0310
Mercury	68863-10-17 20:10 G	26873044.23	26873044.34	26873044.45	0.0483	0.0346
Mercury	68864-01-15 12:15 G	26873133.89	26873134.01	26873134.13	0.0483	0.0324
Venus	68864-04-15 22:48 G	26873225.25	26873225.45	26873225.64	0.0484	0.0127
Venus	68869-06-23 09:07 G	26875119.82	26875119.88	26875119.95	0.0544	0.0513
Earth	68869-07-13 00:29 G	26875139.47	26875139.52	26875139.56	0.0544	0.0531
Moon	68869-07-13 04:05 G	26875139.59	26875139.67	26875139.76	0.0544	0.0504
Mercury	68869-09-21 22:34 G	26875210.39	26875210.44	26875210.51	0.0545	0.0491
Mercury	68869-12-20 14:53 G	26875300.02	26875300.12	26875300.22	0.0545	0.0364
Venus	68870-02-16 23:46 G	26875358.29	26875358.49	26875358.69	0.0545	0.0123
Venus	68875-04-29 13:41 G	26877255.98	26877256.07	26877256.16	0.0484	0.0431
Mercury	68875-11-03 13:27 G	26877443.91	26877444.06	26877444.21	0.0484	0.0152

Venus	68875-12-21 04:34 G	26877491.48	26877491.69	26877491.89	0.0484	0.0005
Venus	68876-08-12 18:29 G	26877727.19	26877727.27	26877727.36	0.0486	0.0439
Moon	68881-07-18 02:24 G	26879527.37	26879527.60	26879527.84	0.0545	0.0021
Earth	68881-07-18 05:17 G	26879527.49	26879527.72	26879527.94	0.0545	0.0042 *
Mercury	68881-10-08 16:34 G	26879610.05	26879610.19	26879610.32	0.0545	0.0153
Venus	68881-10-22 08:24 G	26879623.65	26879623.85	26879624.05	0.0545	0.0058
Mercury	68887-08-22 15:07 G	26881753.97	26881754.13	26881754.29	0.0483	0.0013
Venus	68887-08-26 10:48 G	26881757.75	26881757.95	26881758.15	0.0483	0.0118
Venus	68888-04-18 00:29 G	26881993.37	26881993.52	26881993.68	0.0484	0.0318
Venus	68893-06-26 14:39 G	26883888.93	26883889.11	26883889.29	0.0545	0.0244
Earth	68893-07-23 05:31 G	26883915.60	26883915.73	26883915.87	0.0545	0.0439
Moon	68893-07-23 06:29 G	26883915.63	26883915.77	26883915.92	0.0545	0.0414 *
Mercury	68893-07-27 17:03 G	26883920.07	26883920.21	26883920.35	0.0545	0.0080
Venus	68894-02-20 06:29 G	26884127.63	26884127.77	26884127.91	0.0544	0.0397
Venus	68899-05-01 17:31 G	26886024.05	26886024.23	26886024.41	0.0483	0.0236
Mercury	68899-06-10 17:03 G	26886064.06	26886064.21	26886064.36	0.0483	0.0172
Venus	68899-12-23 07:27 G	26886259.62	26886259.81	26886259.99	0.0484	0.0200
Venus	68905-03-02 00:43 G	26888154.40	26888154.53	26888154.66	0.0545	0.0417
Mercury	68905-05-16 18:43 G	26888230.16	26888230.28	26888230.40	0.0545	0.0290
Venus	68905-10-26 16:19 G	26888393.00	26888393.18	26888393.37	0.0545	0.0223
Venus	68911-01-05 23:03 G	26890290.33	26890290.46	26890290.60	0.0484	0.0355
Moon	68911-01-17 05:03 G	26890301.52	26890301.71	26890301.91	0.0484	0.0269
Earth	68911-01-17 09:07 G	26890301.68	26890301.88	26890302.09	0.0484	0.0239 *
Mercury	68911-03-30 18:43 G	26890374.17	26890374.28	26890374.39	0.0483	0.0337
Mercury	68911-06-28 10:34 G	26890463.83	26890463.94	26890464.06	0.0483	0.0333
Venus	68911-08-29 12:58 G	26890525.84	26890526.04	26890526.25	0.0483	0.0080
Mercury	68917-03-04 20:39 G	26892540.31	26892540.36	26892540.42	0.0545	0.0495
Mercury	68917-06-02 12:58 G	26892629.94	26892630.04	26892630.15	0.0545	0.0363
Venus	68917-07-01 03:36 G	26892658.44	26892658.65	26892658.85	0.0545	0.0049
Venus	68922-09-11 04:48 G	26894556.67	26894556.70	26894556.75	0.0484	0.0472

Earth	68923-01-21 16:05 G	26894688.94	26894689.17	26894689.40	0.0483	0.0105
Moon	68923-01-21 19:55 G	26894689.10	26894689.33	26894689.56	0.0483	0.0115 *
Mercury	68923-04-16 12:15 G	26894773.86	26894774.01	26894774.16	0.0483	0.0166
Venus	68923-05-04 19:41 G	26894792.11	26894792.32	26894792.52	0.0483	0.0041
Venus	68923-12-26 09:22 G	26895027.77	26895027.89	26895028.01	0.0485	0.0392
Mars	68925-09-12 19:55 G	26895654.20	26895654.33	26895654.47	0.0502	0.0424
Venus	68929-03-05 13:41 G	26896923.88	26896924.07	26896924.27	0.0545	0.0130
Mercury	68929-03-21 15:07 G	26896940.00	26896940.13	26896940.27	0.0545	0.0163
Venus	68929-10-30 05:17 G	26897162.65	26897162.72	26897162.79	0.0543	0.0505
Venus	68935-01-08 01:12 G	26899058.36	26899058.55	26899058.74	0.0484	0.0163
Moon	68935-01-25 18:00 G	26899076.21	26899076.25	26899076.29	0.0483	0.0475
Earth	68935-01-25 21:07 G	26899076.31	26899076.38	26899076.48	0.0483	0.0447
Mercury	68935-02-02 13:41 G	26899083.91	26899084.07	26899084.23	0.0483	0.0013
Venus	68935-08-31 15:07 G	26899293.96	26899294.13	26899294.30	0.0484	0.0273
Venus	68940-11-07 23:03 G	26901189.30	26901189.46	26901189.63	0.0545	0.0307
Mercury	68941-01-07 16:48 G	26901250.05	26901250.20	26901250.34	0.0545	0.0052
Venus	68941-07-04 14:24 G	26901427.94	26901428.10	26901428.26	0.0544	0.0333
Venus	68946-09-13 07:41 G	26903324.65	26903324.82	26903324.98	0.0484	0.0283
Mercury	68946-11-21 15:22 G	26903393.99	26903394.14	26903394.29	0.0483	0.0165
Venus	68947-05-06 21:36 G	26903560.21	26903560.40	26903560.60	0.0484	0.0152
Venus	68952-07-13 05:17 G	26905454.64	26905454.72	26905454.82	0.0544	0.0485
Mercury	68952-10-26 17:03 G	26905560.09	26905560.21	26905560.34	0.0545	0.0287
Venus	68953-03-08 20:24 G	26905693.15	26905693.35	26905693.55	0.0545	0.0149
Mars	68954-12-08 22:05 G	26906333.34	26906333.42	26906333.53	0.0527	0.0496
Venus	68958-05-19 14:10 G	26907590.98	26907591.09	26907591.21	0.0484	0.0399
Mercury	68958-09-09 17:31 G	26907704.12	26907704.23	26907704.35	0.0483	0.0322
Mercury	68958-12-08 09:36 G	26907793.79	26907793.90	26907794.01	0.0483	0.0348
Venus	68959-01-10 04:34 G	26907826.49	26907826.69	26907826.89	0.0483	0.0034
Venus	68959-09-02 18:00 G	26908062.20	26908062.25	26908062.32	0.0485	0.0463
Earth	68964-07-18 02:10 G	26909842.37	26909842.59	26909842.81	0.0545	0.0139

Moon	68964-07-18 03:36 G	26909842.44	26909842.65	26909842.87	0.0545	0.0119 *
Mercury	68964-08-14 18:29 G	26909870.22	26909870.27	26909870.33	0.0545	0.0501
Venus	68964-11-11 06:15 G	26909958.55	26909958.76	26909958.96	0.0545	0.0030
Mercury	68964-11-12 11:03 G	26909959.85	26909959.96	26909960.06	0.0545	0.0358
Venus	68970-09-15 10:19 G	26912092.73	26912092.93	26912093.13	0.0483	0.0087
Mercury	68970-09-26 10:48 G	26912103.80	26912103.95	26912104.10	0.0483	0.0177
Venus	68971-05-08 23:46 G	26912328.35	26912328.49	26912328.63	0.0484	0.0345
Venus	68976-07-16 17:17 G	26914224.04	26914224.22	26914224.41	0.0545	0.0203
Earth	68976-07-23 11:17 G	26914230.81	26914230.97	26914231.14	0.0545	0.0374
Moon	68976-07-23 11:46 G	26914230.81	26914230.99	26914231.18	0.0545	0.0345 *
Mercury	68976-08-31 13:12 G	26914269.92	26914270.05	26914270.19	0.0546	0.0163
Venus	68977-03-12 09:22 G	26914462.78	26914462.89	26914463.02	0.0544	0.0436
Venus	68982-05-21 16:48 G	26916359.02	26916359.20	26916359.39	0.0483	0.0206
Mercury	68982-07-15 12:29 G	26916413.86	26916414.02	26916414.18	0.0483	0.0017
Venus	68983-01-12 06:29 G	26916594.59	26916594.77	26916594.95	0.0484	0.0228
Venus	68988-03-21 04:34 G	26918489.54	26918489.69	26918489.84	0.0545	0.0375
Mercury	68988-06-19 15:22 G	26918580.00	26918580.14	26918580.28	0.0545	0.0040
Venus	68988-11-14 19:55 G	26918728.15	26918728.33	26918728.51	0.0545	0.0263
Earth	68994-01-16 17:03 G	26920617.02	26920617.21	26920617.40	0.0484	0.0284
Moon	68994-01-16 20:53 G	26920617.19	26920617.37	26920617.55	0.0484	0.0310 *
Venus	68994-01-24 22:05 G	26920625.27	26920625.42	26920625.57	0.0484	0.0327
Mercury	68994-05-03 14:10 G	26920723.94	26920724.09	26920724.24	0.0483	0.0155
Venus	68994-09-17 12:15 G	26920860.81	26920861.01	26920861.21	0.0484	0.0107
Venus	68999-11-24 14:39 G	26922755.11	26922755.11	26922755.12	0.0544	0.0543
Mercury	69000-04-08 16:48 G	26922890.08	26922890.20	26922890.33	0.0545	0.0254
Venus	69000-07-21 05:03 G	26922993.51	26922993.71	26922993.91	0.0545	0.0085

70TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 70th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	69005-10-01 04:19	G	26924891.60	26924891.68	26924891.76	0.0485	0.0444	
Moon	69006-01-21 21:36	G	26925004.16	26925004.40	26925004.64	0.0484	0.0074	
Earth	69006-01-22 00:58	G	26925004.31	26925004.54	26925004.77	0.0484	0.0066	*
Mercury	69006-02-20 16:05	G	26925034.05	26925034.17	26925034.29	0.0484	0.0312	
Mercury	69006-05-21 08:10	G	26925123.73	26925123.84	26925123.95	0.0483	0.0358	
Venus	69006-05-24 19:12	G	26925127.09	26925127.30	26925127.50	0.0483	0.0014	
Venus	69007-01-15 08:53	G	26925362.77	26925362.87	26925362.97	0.0485	0.0417	
Mercury	69012-01-26 17:03	G	26927200.16	26927200.21	26927200.27	0.0545	0.0494	
Venus	69012-03-25 10:48	G	26927258.75	26927258.95	26927259.15	0.0545	0.0100	
Mercury	69012-04-25 09:22	G	26927289.79	26927289.89	26927290.00	0.0545	0.0364	
Venus	69012-11-19 02:24	G	26927497.57	26927497.60	26927497.65	0.0543	0.0531	
Mercury	69017-12-09 18:15	G	26929344.23	26929344.26	26929344.30	0.0484	0.0468	
Earth	69018-01-26 08:39	G	26929391.74	26929391.86	26929391.99	0.0483	0.0413	
Moon	69018-01-26 10:05	G	26929391.84	26929391.92	26929392.02	0.0483	0.0442	*
Venus	69018-01-28 01:55	G	26929393.39	26929393.58	26929393.78	0.0483	0.0132	
Mercury	69018-03-09 09:51	G	26929433.76	26929433.91	26929434.06	0.0483	0.0194	
Venus	69018-09-20 15:22	G	26929628.99	26929629.14	26929629.31	0.0484	0.0301	
Venus	69023-11-28 20:39	G	26931524.19	26931524.36	26931524.54	0.0545	0.0276	
Mercury	69024-02-12 11:17	G	26931599.84	26931599.97	26931600.11	0.0545	0.0158	
Venus	69024-07-24 12:29	G	26931762.87	26931763.02	26931763.17	0.0544	0.0362	
Venus	69029-10-03 07:41	G	26933659.65	26933659.82	26933660.00	0.0483	0.0250	
Mercury	69029-12-26 11:17	G	26933743.81	26933743.97	26933744.13	0.0483	0.0026	

Venus	69030-05-26 21:22 G	26933895.20	26933895.39	26933895.58	0.0483	0.0182
Venus	69035-08-03 07:55 G	26935789.72	26935789.83	26935789.95	0.0545	0.0445
Mercury	69035-12-01 13:27 G	26935909.92	26935910.06	26935910.20	0.0546	0.0042
Venus	69036-03-28 23:31 G	26936028.29	26936028.48	26936028.67	0.0545	0.0190
Venus	69041-06-08 13:55 G	26937925.95	26937926.08	26937926.22	0.0484	0.0368
Mercury	69041-10-14 13:12 G	26938053.89	26938054.05	26938054.20	0.0483	0.0137
Venus	69042-01-30 04:05 G	26938161.47	26938161.67	26938161.87	0.0483	0.0063
Moon	69047-07-19 10:19 G	26940157.71	26940157.93	26940158.16	0.0545	0.0176
Earth	69047-07-19 10:34 G	26940157.72	26940157.94	26940158.15	0.0545	0.0193 *
Mercury	69047-09-19 15:36 G	26940220.02	26940220.15	26940220.28	0.0545	0.0244
Venus	69047-12-02 10:34 G	26940293.73	26940293.94	26940294.14	0.0545	0.0016
Mercury	69053-08-02 14:39 G	26942363.99	26942364.11	26942364.24	0.0483	0.0302
Venus	69053-10-05 09:51 G	26942427.71	26942427.91	26942428.12	0.0483	0.0058
Mercury	69053-10-31 06:43 G	26942453.68	26942453.78	26942453.88	0.0483	0.0369
Venus	69054-05-28 23:31 G	26942663.36	26942663.48	26942663.61	0.0485	0.0372
Mercury	69059-07-08 17:03 G	26944530.13	26944530.21	26944530.28	0.0545	0.0459
Moon	69059-07-24 14:24 G	26944545.92	26944546.10	26944546.30	0.0545	0.0278
Earth	69059-07-24 16:48 G	26944546.01	26944546.20	26944546.39	0.0545	0.0309 *
Venus	69059-08-06 19:55 G	26944559.13	26944559.33	26944559.52	0.0545	0.0163
Mercury	69059-10-06 09:07 G	26944619.79	26944619.88	26944619.98	0.0545	0.0397
Venus	69060-04-01 11:17 G	26944797.88	26944797.97	26944798.08	0.0544	0.0470
Mercury	69065-05-21 17:03 G	26946674.16	26946674.21	26946674.26	0.0484	0.0457
Venus	69065-06-10 16:48 G	26946694.01	26946694.20	26946694.39	0.0484	0.0177
Mercury	69065-08-19 08:24 G	26946763.71	26946763.85	26946764.00	0.0483	0.0206
Venus	69066-02-01 06:29 G	26946929.60	26946929.77	26946929.94	0.0484	0.0255
Venus	69071-04-11 01:55 G	26948824.43	26948824.58	26948824.74	0.0544	0.0343
Mercury	69071-07-25 09:51 G	26948929.78	26948929.91	26948930.05	0.0545	0.0167
Venus	69071-12-05 17:17 G	26949063.05	26949063.22	26949063.40	0.0545	0.0291
Moon	69077-01-17 01:55 G	26950932.41	26950932.58	26950932.75	0.0484	0.0342
Earth	69077-01-17 04:48 G	26950932.53	26950932.70	26950932.89	0.0484	0.0319 *

Venus	69077-02-13 23:17 G	26950960.31	26950960.47	26950960.63	0.0484	0.0294
Mercury	69077-06-07 10:19 G	26951073.77	26951073.93	26951074.09	0.0483	0.0044
Venus	69077-10-07 13:27 G	26951195.86	26951196.06	26951196.25	0.0483	0.0138
Mars	69079-12-09 00:43 G	26951988.27	26951988.53	26951988.80	0.0502	0.0018
Venus	69082-12-14 12:00 G	26953089.94	26953090.00	26953090.07	0.0544	0.0512
Mercury	69083-05-13 11:31 G	26953239.84	26953239.98	26953240.13	0.0545	0.0045
Venus	69083-08-10 02:53 G	26953328.42	26953328.62	26953328.81	0.0545	0.0116
Venus	69088-10-20 04:48 G	26955226.60	26955226.70	26955226.81	0.0484	0.0410
Earth	69089-01-21 11:17 G	26955319.74	26955319.97	26955320.21	0.0484	0.0029
Moon	69089-01-21 12:43 G	26955319.81	26955320.03	26955320.26	0.0484	0.0044 *
Mercury	69089-03-26 12:00 G	26955383.84	26955384.00	26955384.15	0.0483	0.0123
Venus	69089-06-12 19:12 G	26955462.10	26955462.30	26955462.51	0.0483	0.0021
Venus	69090-02-03 08:39 G	26955697.78	26955697.86	26955697.94	0.0485	0.0444
Mercury	69095-03-01 13:41 G	26957549.94	26957550.07	26957550.20	0.0545	0.0247
Venus	69095-04-14 13:41 G	26957593.87	26957594.07	26957594.28	0.0546	0.0060
Mercury	69101-01-13 13:55 G	26959693.95	26959694.08	26959694.21	0.0483	0.0283
Earth	69101-01-26 18:29 G	26959707.12	26959707.27	26959707.42	0.0483	0.0372
Moon	69101-01-26 19:12 G	26959707.16	26959707.30	26959707.44	0.0483	0.0395 *
Venus	69101-02-17 01:41 G	26959728.38	26959728.57	26959728.78	0.0483	0.0101
Mercury	69101-04-13 05:46 G	26959783.65	26959783.74	26959783.84	0.0483	0.0388
Venus	69101-10-10 15:07 G	26959963.98	26959964.13	26959964.28	0.0484	0.0329
Venus	69106-12-19 01:12 G	26961859.36	26961859.55	26961859.73	0.0545	0.0232
Mercury	69106-12-19 15:36 G	26961860.07	26961860.15	26961860.23	0.0545	0.0450
Mercury	69107-03-19 07:55 G	26961949.74	26961949.83	26961949.92	0.0545	0.0407
Venus	69107-08-14 17:03 G	26962098.07	26962098.21	26962098.34	0.0544	0.0401
Mars	69109-03-06 18:58 G	26962668.01	26962668.29	26962668.57	0.0526	0.0119
Venus	69112-10-23 07:27 G	26963994.63	26963994.81	26963994.99	0.0484	0.0220
Mercury	69112-11-01 15:36 G	26964004.09	26964004.15	26964004.21	0.0484	0.0446
Mercury	69113-01-30 07:12 G	26964093.65	26964093.80	26964093.94	0.0483	0.0217
Venus	69113-06-15 21:07 G	26964230.20	26964230.38	26964230.57	0.0484	0.0211

Venus	69118-08-23 11:03 G	26966124.83	26966124.96	26966125.10	0.0544	0.0404
Mercury	69119-01-05 09:51 G	26966259.78	26966259.91	26966260.04	0.0545	0.0201
Venus	69119-04-19 02:24 G	26966363.42	26966363.60	26966363.78	0.0545	0.0228
Venus	69124-06-28 13:41 G	26968260.93	26968261.07	26968261.22	0.0484	0.0338
Mercury	69124-11-18 09:07 G	26968403.72	26968403.88	26968404.04	0.0483	0.0057
Venus	69125-02-19 04:19 G	26968496.48	26968496.68	26968496.88	0.0483	0.0092
Moon	69130-07-19 06:58 G	26970472.61	26970472.79	26970472.99	0.0544	0.0282
Earth	69130-07-19 08:24 G	26970472.66	26970472.85	26970473.05	0.0544	0.0291 *
Mercury	69130-10-24 10:19 G	26970569.79	26970569.93	26970570.07	0.0545	0.0033
Venus	69130-12-22 08:10 G	26970628.64	26970628.84	26970629.04	0.0545	0.0045
Venus	69136-03-03 19:55 G	26972527.26	26972527.33	26972527.40	0.0485	0.0452
Mercury	69136-09-06 11:03 G	26972713.80	26972713.96	26972714.11	0.0483	0.0106
Venus	69136-10-25 11:03 G	26972762.76	26972762.96	26972763.17	0.0483	0.0027
Venus	69137-06-18 00:43 G	26972998.42	26972998.53	26972998.64	0.0485	0.0401
Earth	69142-07-24 13:55 G	26974860.87	26974861.08	26974861.29	0.0545	0.0208
Moon	69142-07-24 17:17 G	26974861.00	26974861.22	26974861.45	0.0545	0.0175 *
Mercury	69142-08-12 11:46 G	26974879.86	26974879.99	26974880.12	0.0545	0.0248
Venus	69142-08-26 17:17 G	26974894.03	26974894.22	26974894.42	0.0545	0.0132
Venus	69143-04-22 09:07 G	26975132.81	26975132.88	26975132.97	0.0544	0.0497
Mercury	69148-06-25 12:43 G	26977023.90	26977024.03	26977024.16	0.0483	0.0270
Venus	69148-06-30 17:03 G	26977029.01	26977029.21	26977029.40	0.0483	0.0145
Mercury	69148-09-23 04:34 G	26977113.60	26977113.69	26977113.78	0.0483	0.0401
Venus	69149-02-21 06:15 G	26977264.60	26977264.76	26977264.93	0.0484	0.0284
Venus	69154-05-01 04:19 G	26979159.52	26979159.68	26979159.85	0.0545	0.0303
Mercury	69154-05-31 13:27 G	26979189.99	26979190.06	26979190.14	0.0545	0.0456
Mercury	69154-08-29 06:00 G	26979279.66	26979279.75	26979279.84	0.0546	0.0403
Venus	69154-12-25 20:24 G	26979398.19	26979398.35	26979398.51	0.0545	0.0330
Earth	69160-01-18 14:39 G	26981247.96	26981248.11	26981248.28	0.0484	0.0359
Moon	69160-01-18 15:51 G	26981248.02	26981248.16	26981248.31	0.0484	0.0375 *
Venus	69160-03-05 23:03 G	26981295.29	26981295.46	26981295.64	0.0484	0.0262

Mercury	69160-04-13 14:39 G	26981334.04	26981334.11	26981334.18	0.0483	0.0428
Mercury	69160-07-12 06:15 G	26981423.62	26981423.76	26981423.90	0.0483	0.0235
Venus	69160-10-27 12:58 G	26981530.85	26981531.04	26981531.23	0.0483	0.0167
Venus	69166-01-03 16:19 G	26983425.08	26983425.18	26983425.28	0.0544	0.0469
Mercury	69166-06-17 08:24 G	26983589.72	26983589.85	26983589.98	0.0545	0.0209
Venus	69166-08-30 07:12 G	26983663.61	26983663.80	26983664.00	0.0545	0.0158
Venus	69171-11-10 04:19 G	26985561.56	26985561.68	26985561.81	0.0484	0.0381
Earth	69172-01-22 20:39 G	26985635.13	26985635.36	26985635.60	0.0484	0.0015
Moon	69172-01-22 21:36 G	26985635.15	26985635.40	26985635.64	0.0484	0.0011 *
Mercury	69172-04-30 07:41 G	26985733.66	26985733.82	26985733.98	0.0483	0.0066
Venus	69172-07-02 18:58 G	26985797.09	26985797.29	26985797.50	0.0483	0.0048
Venus	69173-02-23 08:39 G	26986032.81	26986032.86	26986032.91	0.0485	0.0470
Mercury	69178-04-05 10:05 G	26987899.78	26987899.92	26987900.06	0.0545	0.0001
Venus	69178-05-04 17:03 G	26987929.01	26987929.21	26987929.41	0.0545	0.0018
Moon	69184-01-27 02:10 G	26990022.44	26990022.59	26990022.75	0.0484	0.0357
Earth	69184-01-27 04:34 G	26990022.52	26990022.69	26990022.86	0.0484	0.0336 *
Mercury	69184-02-17 09:36 G	26990043.74	26990043.90	26990044.06	0.0483	0.0094
Venus	69184-03-08 01:41 G	26990063.37	26990063.57	26990063.78	0.0483	0.0072
Venus	69184-10-29 15:36 G	26990299.01	26990299.15	26990299.29	0.0484	0.0356
Venus	69190-01-06 23:03 G	26992194.28	26992194.46	26992194.65	0.0545	0.0199
Mercury	69190-01-22 10:34 G	26992209.81	26992209.94	26992210.07	0.0545	0.0236
Venus	69190-09-02 14:24 G	26992432.98	26992433.10	26992433.23	0.0544	0.0429
Venus	69195-11-12 08:24 G	26994329.66	26994329.85	26994330.04	0.0484	0.0187
Mercury	69195-12-06 11:31 G	26994353.85	26994353.98	26994354.12	0.0484	0.0254
Mercury	69196-03-05 03:36 G	26994443.57	26994443.65	26994443.73	0.0483	0.0419
Venus	69196-07-04 22:19 G	26994565.26	26994565.43	26994565.61	0.0484	0.0241
Venus	69201-09-11 08:24 G	26996459.71	26996459.85	26996460.00	0.0544	0.0371
Mercury	69201-11-10 11:46 G	26996519.91	26996519.99	26996520.07	0.0545	0.0455
Mercury	69202-02-08 04:05 G	26996609.58	26996609.67	26996609.77	0.0545	0.0403
Venus	69202-05-07 23:46 G	26996698.31	26996698.49	26996698.67	0.0545	0.0258

Venus	69207-07-18 13:55 G	26998595.92	26998596.08	26998596.24	0.0484	0.0305
Mercury	69207-09-24 13:27 G	26998663.98	26998664.06	26998664.14	0.0483	0.0416
Mercury	69207-12-23 04:48 G	26998753.57	26998753.70	26998753.84	0.0483	0.0247
Venus	69208-03-10 04:05 G	26998831.47	26998831.67	26998831.86	0.0483	0.0123
Venus	69213-05-16 19:41 G	27000725.29	27000725.32	27000725.35	0.0544	0.0536
Earth	69213-07-18 12:43 G	27000787.86	27000788.03	27000788.20	0.0545	0.0364
Moon	69213-07-18 15:36 G	27000787.98	27000788.15	27000788.33	0.0545	0.0362 *
Mercury	69213-11-27 06:15 G	27000919.63	27000919.76	27000919.89	0.0545	0.0203
Venus	69214-01-10 10:19 G	27000963.73	27000963.93	27000964.13	0.0545	0.0085
Venus	69219-03-23 19:41 G	27002862.22	27002862.32	27002862.42	0.0485	0.0421
Mercury	69219-10-11 06:43 G	27003063.62	27003063.78	27003063.93	0.0483	0.0083
Venus	69219-11-14 10:34 G	27003097.74	27003097.94	27003098.15	0.0483	0.0007
Venus	69220-07-06 23:46 G	27003333.40	27003333.49	27003333.59	0.0484	0.0428
Moon	69225-07-23 17:46 G	27005176.02	27005176.24	27005176.47	0.0545	0.0113
Earth	69225-07-23 21:51 G	27005176.19	27005176.41	27005176.63	0.0545	0.0152 *
Venus	69225-09-14 21:22 G	27005229.19	27005229.39	27005229.59	0.0545	0.0089
Mercury	69225-09-15 08:24 G	27005229.71	27005229.85	27005230.00	0.0545	0.0015
Venus	69226-05-11 13:27 G	27005468.03	27005468.06	27005468.10	0.0544	0.0535
Venus	69231-07-20 16:19 G	27007363.98	27007364.18	27007364.38	0.0483	0.0115
Mercury	69231-07-30 08:10 G	27007373.68	27007373.84	27007374.00	0.0483	0.0085
Venus	69232-03-12 06:00 G	27007599.59	27007599.75	27007599.90	0.0484	0.0311
Mars	69234-03-05 08:53 G	27008322.79	27008322.87	27008322.97	0.0502	0.0471
Venus	69237-05-20 07:41 G	27009494.64	27009494.82	27009495.00	0.0545	0.0261
Mercury	69237-07-04 10:05 G	27009539.79	27009539.92	27009540.06	0.0545	0.0206
Venus	69238-01-13 23:03 G	27009733.32	27009733.46	27009733.62	0.0544	0.0368
Earth	69243-01-17 23:46 G	27011563.37	27011563.49	27011563.62	0.0484	0.0402
Moon	69243-01-18 00:58 G	27011563.41	27011563.54	27011563.67	0.0484	0.0406 *
Venus	69243-03-25 22:48 G	27011630.27	27011630.45	27011630.63	0.0484	0.0232
Mercury	69243-05-18 10:19 G	27011683.79	27011683.93	27011684.06	0.0484	0.0244
Mercury	69243-08-16 02:10 G	27011773.52	27011773.59	27011773.66	0.0483	0.0429

Venus	69243-11-16 12:58 G	27011865.86	27011866.04	27011866.23	0.0484	0.0196
Venus	69249-01-22 14:39 G	27013759.99	27013760.11	27013760.23	0.0543	0.0434
Mercury	69249-04-22 10:34 G	27013849.86	27013849.94	27013850.02	0.0544	0.0443
Mercury	69249-07-21 02:53 G	27013939.53	27013939.62	27013939.71	0.0545	0.0414
Venus	69249-09-18 05:03 G	27013998.52	27013998.71	27013998.90	0.0545	0.0188
Venus	69254-11-29 04:34 G	27015896.55	27015896.69	27015896.84	0.0485	0.0348
Moon	69255-01-22 04:48 G	27015950.47	27015950.70	27015950.93	0.0484	0.0025
Earth	69255-01-22 07:12 G	27015950.57	27015950.80	27015951.04	0.0484	0.0055 *
Mercury	69255-03-06 12:15 G	27015993.93	27015994.01	27015994.10	0.0484	0.0403
Mercury	69255-06-04 03:51 G	27016083.52	27016083.66	27016083.79	0.0484	0.0262
Venus	69255-07-22 19:27 G	27016132.11	27016132.31	27016132.52	0.0484	0.0080
Mercury	69261-05-09 04:34 G	27018249.55	27018249.69	27018249.82	0.0545	0.0203
Venus	69261-05-23 13:55 G	27018263.88	27018264.08	27018264.28	0.0545	0.0013
Venus	69266-08-04 09:36 G	27020162.85	27020162.90	27020162.96	0.0485	0.0464
Earth	69267-01-26 13:27 G	27020337.87	27020338.06	27020338.25	0.0484	0.0292
Moon	69267-01-26 16:48 G	27020338.02	27020338.20	27020338.39	0.0484	0.0311 *
Mercury	69267-03-23 05:17 G	27020393.56	27020393.72	27020393.87	0.0483	0.0093
Venus	69267-03-28 00:58 G	27020398.34	27020398.54	27020398.75	0.0483	0.0042
Venus	69267-11-18 14:39 G	27020633.99	27020634.11	27020634.23	0.0484	0.0383
Venus	69273-01-26 00:00 G	27022529.31	27022529.50	27022529.70	0.0545	0.0162
Mercury	69273-02-25 06:15 G	27022559.62	27022559.76	27022559.91	0.0545	0.0013
Venus	69273-09-21 16:05 G	27022768.07	27022768.17	27022768.28	0.0544	0.0464
Venus	69278-12-01 07:27 G	27024664.62	27024664.81	27024665.01	0.0483	0.0158
Mercury	69279-01-09 06:58 G	27024703.63	27024703.79	27024703.95	0.0483	0.0071
Venus	69279-07-24 21:07 G	27024900.21	27024900.38	27024900.55	0.0484	0.0268
Venus	69284-09-30 11:31 G	27026794.82	27026794.98	27026795.14	0.0545	0.0331
Mercury	69284-12-14 08:24 G	27026869.72	27026869.85	27026869.98	0.0545	0.0205
Venus	69285-05-27 03:07 G	27027033.47	27027033.63	27027033.81	0.0545	0.0297
Venus	69290-08-06 12:43 G	27028930.86	27028931.03	27028931.20	0.0484	0.0276
Mercury	69290-10-28 08:39 G	27029013.72	27029013.86	27029014.00	0.0483	0.0237

Mercury	69291-01-26 00:29 G	27029103.46	27029103.52	27029103.59	0.0483	0.0436
Venus	69291-03-30 02:53 G	27029166.43	27029166.62	27029166.82	0.0483	0.0150
Venus	69296-06-04 22:34 G	27031060.36	27031060.44	27031060.53	0.0543	0.0495
Moon	69296-07-17 15:07 G	27031103.00	27031103.13	27031103.27	0.0544	0.0433
Earth	69296-07-17 19:12 G	27031103.16	27031103.30	27031103.44	0.0544	0.0426 *
Mercury	69296-10-02 09:51 G	27031179.82	27031179.91	27031180.01	0.0545	0.0417
Mercury	69296-12-31 02:24 G	27031269.52	27031269.60	27031269.68	0.0545	0.0440
Venus	69297-01-29 12:58 G	27031298.84	27031299.04	27031299.24	0.0545	0.0124
Venus	69302-04-12 18:43 G	27033197.16	27033197.28	27033197.40	0.0485	0.0392
Mercury	69302-08-17 10:48 G	27033323.86	27033323.95	27033324.04	0.0484	0.0394
Mercury	69302-11-15 02:10 G	27033413.46	27033413.59	27033413.73	0.0483	0.0271
Venus	69302-12-04 09:51 G	27033432.71	27033432.91	27033433.12	0.0483	0.0034
Venus	69303-07-27 23:31 G	27033668.42	27033668.48	27033668.56	0.0485	0.0454
Earth	69308-07-23 20:10 G	27035491.11	27035491.34	27035491.57	0.0544	0.0055
Moon	69308-07-24 00:00 G	27035491.27	27035491.50	27035491.73	0.0544	0.0019 *
Venus	69308-10-04 19:12 G	27035564.10	27035564.30	27035564.51	0.0545	0.0057
Mercury	69308-10-20 03:07 G	27035579.50	27035579.63	27035579.76	0.0545	0.0213
Venus	69314-08-09 15:51 G	27037698.96	27037699.16	27037699.37	0.0484	0.0085
Mercury	69314-09-03 03:51 G	27037723.51	27037723.66	27037723.82	0.0484	0.0105
Venus	69315-04-02 06:00 G	27037934.60	27037934.75	27037934.89	0.0484	0.0340
Venus	69320-06-09 04:19 G	27039829.50	27039829.68	27039829.86	0.0544	0.0230
Mercury	69320-08-08 04:34 G	27039889.55	27039889.69	27039889.83	0.0545	0.0003
Venus	69321-02-02 19:27 G	27040068.17	27040068.31	27040068.45	0.0544	0.0394
Moon	69326-01-18 04:48 G	27041878.62	27041878.70	27041878.78	0.0485	0.0454
Earth	69326-01-18 07:12 G	27041878.73	27041878.80	27041878.89	0.0485	0.0452 *
Venus	69326-04-14 21:22 G	27041965.20	27041965.39	27041965.58	0.0484	0.0203
Mercury	69326-06-22 05:31 G	27042033.57	27042033.73	27042033.88	0.0483	0.0065
Venus	69326-12-06 11:31 G	27042200.80	27042200.98	27042201.16	0.0484	0.0223
Venus	69332-02-12 14:10 G	27044094.96	27044095.09	27044095.23	0.0544	0.0400
Mercury	69332-05-27 06:00 G	27044199.62	27044199.75	27044199.89	0.0545	0.0215

Venus	69332-10-08 05:17 G	27044333.54	27044333.72	27044333.91	0.0545	0.0223
Venus	69337-12-19 03:22 G	27046231.49	27046231.64	27046231.80	0.0484	0.0319
Earth	69338-01-22 14:53 G	27046265.89	27046266.12	27046266.35	0.0484	0.0101
Moon	69338-01-22 18:29 G	27046266.03	27046266.27	27046266.51	0.0484	0.0068 *
Mercury	69338-04-10 07:27 G	27046343.67	27046343.81	27046343.95	0.0483	0.0225
Mercury	69338-07-08 23:03 G	27046433.41	27046433.46	27046433.53	0.0483	0.0448
Venus	69338-08-11 17:46 G	27046467.04	27046467.24	27046467.44	0.0483	0.0106
Mercury	69344-03-15 07:55 G	27048509.74	27048509.83	27048509.92	0.0545	0.0421
Venus	69344-06-12 16:19 G	27048598.98	27048599.18	27048599.38	0.0545	0.0051
Mercury	69344-06-13 00:29 G	27048599.44	27048599.52	27048599.60	0.0545	0.0438
Venus	69349-08-24 08:10 G	27050497.75	27050497.84	27050497.93	0.0485	0.0435
Moon	69350-01-26 17:03 G	27050653.01	27050653.21	27050653.41	0.0484	0.0260
Earth	69350-01-26 20:53 G	27050653.17	27050653.37	27050653.58	0.0484	0.0244 *
Mercury	69350-01-27 09:07 G	27050653.79	27050653.88	27050653.97	0.0484	0.0389
Venus	69350-04-16 23:31 G	27050733.27	27050733.48	27050733.68	0.0483	0.0014
Mercury	69350-04-27 00:29 G	27050743.39	27050743.52	27050743.65	0.0483	0.0275
Venus	69350-12-08 12:58 G	27050968.94	27050969.04	27050969.16	0.0484	0.0409
Mars	69352-08-26 00:29 G	27051595.34	27051595.52	27051595.72	0.0500	0.0347
Venus	69356-02-16 02:24 G	27052864.40	27052864.60	27052864.80	0.0545	0.0121
Mercury	69356-04-01 02:24 G	27052909.47	27052909.60	27052909.73	0.0545	0.0236
Venus	69356-10-11 18:00 G	27053103.18	27053103.25	27053103.34	0.0544	0.0499
Venus	69361-12-21 06:00 G	27054999.55	27054999.75	27054999.95	0.0484	0.0129
Mercury	69362-02-13 02:24 G	27055053.44	27055053.60	27055053.75	0.0483	0.0112
Venus	69362-08-13 19:55 G	27055235.17	27055235.33	27055235.49	0.0484	0.0295
Venus	69367-10-21 09:51 G	27057129.74	27057129.91	27057130.08	0.0544	0.0296
Mercury	69368-01-19 03:07 G	27057219.49	27057219.63	27057219.78	0.0545	0.0020
Venus	69368-06-16 00:29 G	27057368.36	27057368.52	27057368.69	0.0544	0.0326
Venus	69373-08-26 11:17 G	27059265.80	27059265.97	27059266.15	0.0484	0.0247
Mercury	69373-12-02 03:51 G	27059363.51	27059363.66	27059363.82	0.0484	0.0057
Venus	69374-04-19 02:10 G	27059501.40	27059501.59	27059501.78	0.0484	0.0179

Venus	69379-06-25 19:12 G	27061395.20	27061395.30	27061395.41	0.0543	0.0464
Earth	69379-07-18 14:53 G	27061418.08	27061418.12	27061418.16	0.0543	0.0533
Moon	69379-07-18 18:58 G	27061418.26	27061418.29	27061418.32	0.0543	0.0538
Mercury	69379-11-07 04:19 G	27061529.55	27061529.68	27061529.81	0.0544	0.0214
Venus	69380-02-19 08:53 G	27061633.68	27061633.87	27061634.07	0.0545	0.0152
Venus	69385-05-01 16:34 G	27063532.06	27063532.19	27063532.32	0.0485	0.0364
Mercury	69385-09-20 05:31 G	27063673.59	27063673.73	27063673.87	0.0484	0.0221
Mercury	69385-12-18 21:22 G	27063763.34	27063763.39	27063763.45	0.0483	0.0452
Venus	69385-12-23 07:41 G	27063767.62	27063767.82	27063768.02	0.0483	0.0060
Venus	69386-08-15 21:07 G	27064003.35	27064003.38	27064003.42	0.0485	0.0477
Moon	69391-07-23 16:05 G	27065805.94	27065806.17	27065806.41	0.0545	0.0074
Earth	69391-07-23 19:27 G	27065806.08	27065806.31	27065806.54	0.0545	0.0036 *
Mercury	69391-08-26 05:31 G	27065839.65	27065839.73	27065839.82	0.0545	0.0433
Venus	69391-10-24 18:15 G	27065899.05	27065899.26	27065899.46	0.0545	0.0025
Mercury	69391-11-23 22:05 G	27065929.34	27065929.42	27065929.51	0.0545	0.0427
Venus	69397-01-04 21:51 G	27067798.39	27067798.41	27067798.45	0.0486	0.0479
Mercury	69397-07-09 07:27 G	27067983.72	27067983.81	27067983.91	0.0484	0.0381
Venus	69397-08-28 13:55 G	27068033.87	27068034.08	27068034.28	0.0483	0.0057
Mercury	69397-10-06 22:48 G	27068073.33	27068073.45	27068073.59	0.0483	0.0285
Venus	69398-04-21 03:22 G	27068269.51	27068269.64	27068269.77	0.0484	0.0364
Venus	69403-06-30 05:17 G	27070164.53	27070164.72	27070164.91	0.0545	0.0194
Earth	69403-07-30 03:36 G	27070194.54	27070194.65	27070194.76	0.0545	0.0477
Moon	69403-07-30 04:19 G	27070194.59	27070194.68	27070194.78	0.0545	0.0487 *
Mercury	69403-09-13 00:15 G	27070239.38	27070239.51	27070239.64	0.0545	0.0229
Venus	69404-02-23 21:07 G	27070403.26	27070403.38	27070403.50	0.0545	0.0428
Venus	69409-05-04 19:12 G	27072300.11	27072300.30	27072300.49	0.0484	0.0176
Mercury	69409-07-27 00:15 G	27072383.36	27072383.51	27072383.67	0.0483	0.0115
Venus	69409-12-26 09:07 G	27072535.71	27072535.88	27072536.06	0.0484	0.0249
Venus	69415-03-04 16:05 G	27074430.02	27074430.17	27074430.32	0.0544	0.0362
Mercury	69415-07-02 02:10 G	27074549.45	27074549.59	27074549.73	0.0545	0.0023

Venus	69415-10-29 06:58 G	27074668.61	27074668.79	27074668.97	0.0545	0.0259
Venus	69421-01-08 01:12 G	27076566.39	27076566.55	27076566.71	0.0484	0.0291
Moon	69421-01-22 17:17 G	27076580.99	27076581.22	27076581.45	0.0484	0.0124
Earth	69421-01-22 21:07 G	27076581.16	27076581.38	27076581.61	0.0484	0.0154 *
Mercury	69421-05-15 02:10 G	27076693.43	27076693.59	27076693.75	0.0484	0.0051
Venus	69421-08-31 15:51 G	27076801.96	27076802.16	27076802.36	0.0483	0.0133
Venus	69426-11-07 00:58 G	27078695.50	27078695.54	27078695.59	0.0542	0.0526
Mercury	69427-04-20 02:53 G	27078859.49	27078859.62	27078859.76	0.0544	0.0205
Venus	69427-07-03 13:55 G	27078933.89	27078934.08	27078934.29	0.0545	0.0084
Venus	69432-09-13 05:46 G	27080832.63	27080832.74	27080832.85	0.0486	0.0409
Earth	69433-01-27 03:07 G	27080968.42	27080968.63	27080968.85	0.0484	0.0192
Moon	69433-01-27 06:43 G	27080968.57	27080968.78	27080968.99	0.0484	0.0200 *
Mercury	69433-03-03 03:51 G	27081003.52	27081003.66	27081003.80	0.0484	0.0216
Venus	69433-05-06 21:36 G	27081068.20	27081068.40	27081068.61	0.0484	0.0016
Mercury	69433-05-31 19:41 G	27081093.28	27081093.32	27081093.37	0.0484	0.0459
Venus	69433-12-28 11:46 G	27081303.90	27081303.99	27081304.08	0.0485	0.0434
Mercury	69439-02-06 03:51 G	27083169.57	27083169.66	27083169.75	0.0544	0.0429
Venus	69439-03-07 22:19 G	27083199.23	27083199.43	27083199.63	0.0544	0.0093
Mercury	69439-05-06 20:24 G	27083259.26	27083259.35	27083259.43	0.0545	0.0427
Venus	69439-11-01 13:27 G	27083438.01	27083438.06	27083438.12	0.0543	0.0522
Mercury	69444-12-20 05:46 G	27085313.64	27085313.74	27085313.83	0.0484	0.0379
Venus	69445-01-10 03:07 G	27085334.43	27085334.63	27085334.83	0.0484	0.0104
Mercury	69445-03-19 21:07 G	27085403.25	27085403.38	27085403.51	0.0483	0.0286
Venus	69445-09-02 16:48 G	27085570.05	27085570.20	27085570.36	0.0484	0.0318
Venus	69450-11-10 07:12 G	27087464.63	27087464.80	27087464.98	0.0544	0.0268
Mercury	69451-02-22 21:51 G	27087569.28	27087569.41	27087569.54	0.0545	0.0216
Venus	69451-07-06 22:34 G	27087703.30	27087703.44	27087703.60	0.0545	0.0355
Venus	69456-09-15 09:07 G	27089600.70	27089600.88	27089601.06	0.0484	0.0220
Mercury	69457-01-05 22:48 G	27089713.29	27089713.45	27089713.60	0.0483	0.0120
Venus	69457-05-08 23:17 G	27089836.28	27089836.47	27089836.65	0.0483	0.0202

Venus	69462-07-15 18:43 G	27091730.16	27091730.28	27091730.40	0.0544	0.0432
Mercury	69462-12-11 23:46 G	27091879.35	27091879.49	27091879.64	0.0545	0.0021
Venus	69463-03-11 09:07 G	27091968.69	27091968.88	27091969.08	0.0545	0.0185
Venus	69468-05-21 13:55 G	27093866.95	27093867.08	27093867.24	0.0485	0.0338
Mercury	69468-10-25 00:15 G	27094023.35	27094023.51	27094023.67	0.0483	0.0049
Venus	69469-01-12 05:03 G	27094102.51	27094102.71	27094102.91	0.0483	0.0086
Earth	69474-07-23 23:03 G	27096121.23	27096121.46	27096121.68	0.0544	0.0111
Moon	69474-07-24 00:43 G	27096121.31	27096121.53	27096121.74	0.0544	0.0142 *
Mercury	69474-09-30 01:41 G	27096189.43	27096189.57	27096189.70	0.0545	0.0194
Venus	69474-11-13 19:27 G	27096234.11	27096234.31	27096234.52	0.0545	0.0017
Venus	69480-01-25 19:27 G	27098133.24	27098133.31	27098133.38	0.0486	0.0452
Mercury	69480-08-13 02:10 G	27098333.45	27098333.59	27098333.73	0.0484	0.0211
Venus	69480-09-17 11:17 G	27098368.76	27098368.97	27098369.17	0.0484	0.0031
Mercury	69480-11-10 18:00 G	27098423.21	27098423.25	27098423.29	0.0483	0.0462
Venus	69481-05-11 00:58 G	27098604.42	27098604.54	27098604.67	0.0484	0.0388
Venus	69486-07-19 03:36 G	27100499.46	27100499.65	27100499.84	0.0544	0.0161
Mercury	69486-07-19 02:24 G	27100499.51	27100499.60	27100499.69	0.0544	0.0421 *
Earth	69486-07-29 02:10 G	27100509.43	27100509.59	27100509.75	0.0544	0.0381
Moon	69486-07-29 02:53 G	27100509.47	27100509.62	27100509.79	0.0544	0.0397 *
Mercury	69486-10-16 18:58 G	27100589.21	27100589.29	27100589.37	0.0544	0.0435
Venus	69487-03-14 18:15 G	27100738.16	27100738.26	27100738.37	0.0544	0.0455
Venus	69492-05-23 16:34 G	27102634.99	27102635.19	27102635.38	0.0484	0.0149
Mercury	69492-06-01 03:51 G	27102643.57	27102643.66	27102643.76	0.0484	0.0376
Mercury	69492-08-29 19:12 G	27102733.18	27102733.30	27102733.43	0.0484	0.0290
Venus	69493-01-14 06:58 G	27102870.62	27102870.79	27102870.96	0.0484	0.0274
Venus	69498-03-23 12:15 G	27104764.86	27104765.01	27104765.18	0.0543	0.0333
Mercury	69498-08-04 20:10 G	27104899.21	27104899.34	27104899.47	0.0544	0.0220
Venus	69498-11-17 02:24 G	27105003.43	27105003.60	27105003.78	0.0544	0.0284
Earth	69504-01-24 00:43 G	27106896.32	27106896.53	27106896.75	0.0485	0.0213
Moon	69504-01-24 04:19 G	27106896.46	27106896.68	27106896.89	0.0485	0.0183 *

Venus	69504-01-28 21:51 G	27106901.24	27106901.41	27106901.58	0.0485	0.0268
Mercury	69504-06-18 20:39 G	27107043.21	27107043.36	27107043.52	0.0484	0.0120
Venus	69504-09-20 12:15 G	27107136.82	27107137.01	27107137.21	0.0483	0.0155
Mars	69506-11-21 16:05 G	27107928.91	27107929.17	27107929.43	0.0500	0.0005
Venus	69509-11-26 21:07 G	27109030.31	27109030.38	27109030.46	0.0543	0.0500
Mercury	69510-05-24 21:22 G	27109209.25	27109209.39	27109209.54	0.0545	0.0009
Venus	69510-07-23 10:48 G	27109268.75	27109268.95	27109269.15	0.0545	0.0110
Venus	69515-10-04 03:22 G	27111167.52	27111167.64	27111167.77	0.0485	0.0382
Moon	69516-01-28 06:00 G	27111283.51	27111283.75	27111283.98	0.0484	0.0138
Earth	69516-01-28 08:24 G	27111283.62	27111283.85	27111284.08	0.0484	0.0139 *
Mercury	69516-04-06 22:34 G	27111353.28	27111353.44	27111353.60	0.0483	0.0045
Venus	69516-05-26 18:43 G	27111403.08	27111403.28	27111403.48	0.0483	0.0039
Venus	69517-01-17 08:10 G	27111638.78	27111638.84	27111638.91	0.0484	0.0454
Mercury	69522-03-12 23:03 G	27113519.33	27113519.46	27113519.60	0.0545	0.0208
Venus	69522-03-27 21:22 G	27113534.19	27113534.39	27113534.59	0.0545	0.0062
Mercury	69528-01-25 00:15 G	27115663.36	27115663.51	27115663.65	0.0484	0.0211
Venus	69528-01-31 00:15 G	27115669.31	27115669.51	27115669.71	0.0483	0.0078
Moon	69528-02-01 15:07 G	27115671.05	27115671.13	27115671.21	0.0483	0.0454
Earth	69528-02-01 13:55 G	27115671.08	27115671.08	27115671.09	0.0483	0.0483 *
Mercury	69528-04-23 15:51 G	27115753.12	27115753.16	27115753.21	0.0483	0.0461
Venus	69528-09-22 13:41 G	27115904.93	27115905.07	27115905.22	0.0484	0.0341
Venus	69533-11-30 08:10 G	27117799.66	27117799.84	27117800.03	0.0544	0.0231
Mercury	69533-12-30 00:43 G	27117829.44	27117829.53	27117829.63	0.0545	0.0417
Mercury	69534-03-29 17:17 G	27117919.15	27117919.22	27117919.31	0.0545	0.0443
Venus	69534-07-26 23:31 G	27118038.34	27118038.48	27118038.63	0.0545	0.0388
Mars	69536-02-14 00:15 G	27118605.23	27118605.51	27118605.79	0.0528	0.0127
Venus	69539-10-06 06:00 G	27119935.57	27119935.75	27119935.94	0.0484	0.0195
Mercury	69539-11-13 02:10 G	27119973.49	27119973.59	27119973.69	0.0484	0.0371
Mercury	69540-02-10 17:31 G	27120063.10	27120063.23	27120063.35	0.0483	0.0294
Venus	69540-05-28 20:24 G	27120171.17	27120171.35	27120171.53	0.0484	0.0227

Venus	69545-08-04 17:46 G	27122065.10	27122065.24	27122065.37	0.0543	0.0398
Mercury	69546-01-15 18:43 G	27122229.15	27122229.28	27122229.41	0.0544	0.0226
Venus	69546-03-31 07:12 G	27122303.62	27122303.80	27122303.99	0.0544	0.0215
Venus	69551-06-11 10:34 G	27124201.79	27124201.94	27124202.10	0.0485	0.0313
Mercury	69551-11-29 18:43 G	27124373.13	27124373.28	27124373.44	0.0484	0.0122
Venus	69552-02-02 01:55 G	27124437.38	27124437.58	27124437.78	0.0484	0.0110
Earth	69557-07-23 18:29 G	27126436.06	27126436.27	27126436.49	0.0543	0.0217
Moon	69557-07-23 18:29 G	27126436.06	27126436.27	27126436.49	0.0543	0.0245 *
Mercury	69557-11-03 19:55 G	27126539.19	27126539.33	27126539.47	0.0544	0.0007
Venus	69557-12-03 15:36 G	27126568.95	27126569.15	27126569.35	0.0544	0.0041
Venus	69563-02-14 15:22 G	27128468.05	27128468.14	27128468.24	0.0486	0.0430
Mercury	69563-09-17 20:24 G	27128683.19	27128683.35	27128683.51	0.0484	0.0045
Venus	69563-10-08 07:27 G	27128703.61	27128703.81	27128704.02	0.0484	0.0010
Venus	69564-05-30 21:07 G	27128939.28	27128939.38	27128939.50	0.0484	0.0407
Moon	69569-07-28 18:15 G	27130824.08	27130824.26	27130824.46	0.0545	0.0291
Earth	69569-07-28 20:39 G	27130824.16	27130824.36	27130824.56	0.0545	0.0273 *
Venus	69569-08-07 23:17 G	27130834.27	27130834.47	27130834.67	0.0545	0.0136
Mercury	69569-08-22 20:39 G	27130849.23	27130849.36	27130849.49	0.0545	0.0220
Venus	69570-04-03 14:39 G	27131073.02	27131073.11	27131073.21	0.0544	0.0479
Venus	69575-06-13 13:41 G	27132969.88	27132970.07	27132970.27	0.0484	0.0125
Mercury	69575-07-06 22:19 G	27132993.29	27132993.43	27132993.58	0.0484	0.0206
Mercury	69575-10-04 14:10 G	27133083.05	27133083.09	27133083.13	0.0483	0.0466
Venus	69576-02-04 03:36 G	27133205.49	27133205.65	27133205.81	0.0484	0.0294
Venus	69581-04-12 09:51 G	27135099.75	27135099.91	27135100.09	0.0544	0.0304
Mercury	69581-06-10 22:05 G	27135159.34	27135159.42	27135159.51	0.0545	0.0433
Mercury	69581-09-08 14:53 G	27135249.04	27135249.12	27135249.21	0.0545	0.0430
Venus	69581-12-07 01:12 G	27135338.39	27135338.55	27135338.72	0.0545	0.0313
Moon	69587-01-23 03:22 G	27137211.43	27137211.64	27137211.85	0.0484	0.0242
Earth	69587-01-23 05:46 G	27137211.55	27137211.74	27137211.94	0.0484	0.0271 *
Venus	69587-02-16 18:58 G	27137236.11	27137236.29	27137236.46	0.0484	0.0242

Mercury	69587-04-25 00:00 G	27137303.41	27137303.50	27137303.61	0.0484	0.0371
Mercury	69587-07-23 15:22 G	27137393.01	27137393.14	27137393.27	0.0483	0.0293
Venus	69587-10-10 09:07 G	27137471.69	27137471.88	27137472.07	0.0483	0.0179
Venus	69592-12-15 21:36 G	27139365.30	27139365.40	27139365.51	0.0543	0.0465
Mercury	69593-06-27 17:03 G	27139559.08	27139559.21	27139559.34	0.0545	0.0229
Venus	69593-08-11 11:31 G	27139603.79	27139603.98	27139604.18	0.0545	0.0145
Venus	69598-10-23 00:15 G	27141502.38	27141502.51	27141502.65	0.0485	0.0356
Earth	69599-01-27 12:43 G	27141598.80	27141599.03	27141599.27	0.0484	0.0081
Moon	69599-01-27 13:41 G	27141598.85	27141599.07	27141599.30	0.0484	0.0076 *
Mercury	69599-05-11 17:03 G	27141703.06	27141703.21	27141703.37	0.0483	0.0127
Venus	69599-06-15 15:36 G	27141737.95	27141738.15	27141738.35	0.0483	0.0064
Venus	69600-02-06 05:17 G	27141973.69	27141973.72	27141973.76	0.0485	0.0476
Mercury	69605-04-15 18:29 G	27143869.12	27143869.27	27143869.41	0.0544	0.0017
Venus	69605-04-15 20:24 G	27143869.15	27143869.35	27143869.55	0.0544	0.0029 *
Venus	69610-06-28 04:05 G	27145768.62	27145768.67	27145768.71	0.0486	0.0474
Moon	69611-01-31 18:15 G	27145986.12	27145986.26	27145986.40	0.0484	0.0393
Earth	69611-01-31 18:00 G	27145986.14	27145986.25	27145986.36	0.0484	0.0425 *
Venus	69611-02-18 20:39 G	27146004.16	27146004.36	27146004.57	0.0484	0.0055
Mercury	69611-02-27 18:29 G	27146013.11	27146013.27	27146013.43	0.0484	0.0044
Venus	69611-10-12 10:48 G	27146239.82	27146239.95	27146240.09	0.0484	0.0363
Venus	69616-12-19 05:03 G	27148134.53	27148134.71	27148134.90	0.0544	0.0202
Mercury	69617-02-01 19:27 G	27148179.18	27148179.31	27148179.44	0.0544	0.0209
Venus	69617-08-14 19:27 G	27148373.19	27148373.31	27148373.45	0.0544	0.0412
Venus	69622-10-25 02:10 G	27150270.40	27150270.59	27150270.79	0.0484	0.0173
Mercury	69622-12-16 20:10 G	27150323.20	27150323.34	27150323.49	0.0484	0.0208
Mercury	69623-03-16 12:00 G	27150412.96	27150413.00	27150413.04	0.0483	0.0465
Venus	69623-06-17 16:34 G	27150506.02	27150506.19	27150506.37	0.0484	0.0247
Venus	69628-08-23 12:29 G	27152399.88	27152400.02	27152400.17	0.0543	0.0375
Mercury	69628-11-20 19:55 G	27152489.25	27152489.33	27152489.41	0.0545	0.0443
Mercury	69629-02-18 12:43 G	27152578.94	27152579.03	27152579.12	0.0545	0.0419

Venus	69629-04-19 02:53 G	27152638.44	27152638.62	27152638.81	0.0545	0.0239
Venus	69634-06-30 08:10 G	27154536.68	27154536.84	27154537.01	0.0485	0.0287
Mercury	69634-10-04 22:19 G	27154633.33	27154633.43	27154633.54	0.0484	0.0366
Mercury	69635-01-02 13:27 G	27154722.94	27154723.06	27154723.19	0.0483	0.0298
Venus	69635-02-20 23:03 G	27154772.26	27154772.46	27154772.66	0.0483	0.0133
Venus	69640-04-27 23:46 G	27156665.46	27156665.49	27156665.53	0.0542	0.0534
Moon	69640-07-22 13:41 G	27156750.91	27156751.07	27156751.24	0.0544	0.0348
Earth	69640-07-22 15:07 G	27156750.95	27156751.13	27156751.32	0.0544	0.0317 *
Mercury	69640-12-07 14:39 G	27156888.97	27156889.11	27156889.24	0.0545	0.0216
Venus	69640-12-22 13:12 G	27156903.85	27156904.05	27156904.25	0.0545	0.0069
Venus	69646-03-05 12:43 G	27158802.93	27158803.03	27158803.15	0.0485	0.0403
Mercury	69646-10-21 15:07 G	27159032.97	27159033.13	27159033.28	0.0483	0.0127
Venus	69646-10-27 04:34 G	27159038.49	27159038.69	27159038.90	0.0483	0.0020
Venus	69647-06-19 18:00 G	27159274.17	27159274.25	27159274.35	0.0484	0.0429
Earth	69652-07-27 23:03 G	27161139.25	27161139.46	27161139.68	0.0545	0.0195
Moon	69652-07-28 02:24 G	27161139.38	27161139.60	27161139.81	0.0545	0.0216 *
Venus	69652-08-27 00:00 G	27161169.30	27161169.50	27161169.70	0.0545	0.0100
Mercury	69652-09-25 16:34 G	27161199.04	27161199.19	27161199.33	0.0545	0.0015
Venus	69653-04-22 15:51 G	27161408.09	27161408.16	27161408.23	0.0544	0.0511
Venus	69658-07-02 10:48 G	27163304.75	27163304.95	27163305.15	0.0484	0.0099
Mercury	69658-08-09 16:48 G	27163343.04	27163343.20	27163343.36	0.0484	0.0038
Venus	69659-02-23 00:29 G	27163540.37	27163540.52	27163540.68	0.0484	0.0318
Mars	69661-02-14 10:34 G	27164262.77	27164262.94	27164263.12	0.0501	0.0371
Venus	69664-05-01 10:05 G	27165434.75	27165434.92	27165435.10	0.0544	0.0269
Mercury	69664-07-14 17:46 G	27165509.11	27165509.24	27165509.38	0.0544	0.0203
Venus	69664-12-26 00:29 G	27165673.37	27165673.52	27165673.68	0.0544	0.0344
Earth	69670-01-22 09:22 G	27167526.71	27167526.89	27167527.06	0.0485	0.0331
Moon	69670-01-22 10:05 G	27167526.75	27167526.92	27167527.10	0.0485	0.0305 *
Venus	69670-03-07 15:22 G	27167570.95	27167571.14	27167571.32	0.0485	0.0218
Mercury	69670-05-28 18:15 G	27167653.12	27167653.26	27167653.41	0.0484	0.0206

Mercury	69670-08-26 09:51 G	27167742.88	27167742.91	27167742.96	0.0484	0.0468
Venus	69670-10-29 06:00 G	27167806.57	27167806.75	27167806.94	0.0484	0.0203
Venus	69676-01-04 19:27 G	27169700.20	27169700.31	27169700.44	0.0543	0.0435
Mercury	69676-05-02 18:43 G	27169819.19	27169819.28	27169819.37	0.0544	0.0427
Mercury	69676-07-31 11:31 G	27169908.89	27169908.98	27169909.06	0.0545	0.0432
Venus	69676-08-30 08:39 G	27169938.67	27169938.86	27169939.06	0.0545	0.0172
Venus	69681-11-10 20:39 G	27171837.21	27171837.36	27171837.51	0.0485	0.0334
Earth	69682-01-26 16:19 G	27171913.95	27171914.18	27171914.42	0.0484	0.0024
Moon	69682-01-26 16:48 G	27171913.95	27171914.20	27171914.44	0.0484	0.0017 *
Mercury	69682-03-16 20:24 G	27171963.25	27171963.35	27171963.45	0.0484	0.0366
Mercury	69682-06-14 11:31 G	27172052.86	27172052.98	27172053.11	0.0484	0.0298
Venus	69682-07-04 12:15 G	27172072.80	27172073.01	27172073.21	0.0483	0.0086
Venus	69688-05-04 15:36 G	27174203.95	27174204.15	27174204.36	0.0545	0.0008
Mercury	69688-05-19 12:15 G	27174218.88	27174219.01	27174219.14	0.0545	0.0207
Mars	69690-05-09 04:34 G	27174938.45	27174938.69	27174938.94	0.0529	0.0266
Venus	69693-07-17 02:10 G	27176103.52	27176103.59	27176103.67	0.0486	0.0447
Moon	69694-01-30 22:34 G	27176301.28	27176301.44	27176301.60	0.0484	0.0347
Earth	69694-01-31 00:15 G	27176301.36	27176301.51	27176301.66	0.0484	0.0376 *
Venus	69694-03-09 18:29 G	27176339.07	27176339.27	27176339.48	0.0484	0.0030
Mercury	69694-04-02 13:27 G	27176362.90	27176363.06	27176363.21	0.0483	0.0134
Venus	69694-10-31 08:10 G	27176574.72	27176574.84	27176574.97	0.0484	0.0384
Venus	69700-01-08 01:55 G	27178469.39	27178469.58	27178469.77	0.0545	0.0175
Mercury	69700-03-08 13:55 G	27178528.94	27178529.08	27178529.23	0.0545	0.0015
Venus	69700-09-03 17:17 G	27178708.11	27178708.22	27178708.35	0.0545	0.0438
Venus	69705-11-14 00:00 G	27180605.31	27180605.50	27180605.70	0.0484	0.0145
Mercury	69706-01-20 14:53 G	27180672.97	27180673.12	27180673.28	0.0483	0.0037
Venus	69706-07-07 13:55 G	27180840.91	27180841.08	27180841.25	0.0483	0.0271
Venus	69711-09-13 13:27 G	27182734.90	27182735.06	27182735.22	0.0544	0.0338
Mercury	69711-12-26 15:51 G	27182839.03	27182839.16	27182839.29	0.0545	0.0207
Venus	69712-05-09 04:05 G	27182973.50	27182973.67	27182973.85	0.0545	0.0275

Venus	69717-07-20 05:31 G	27184871.56	27184871.73	27184871.91	0.0484	0.0261
Mercury	69717-11-08 17:03 G	27184983.06	27184983.21	27184983.35	0.0484	0.0196
Mercury	69718-02-06 08:24 G	27185072.83	27185072.85	27185072.88	0.0483	0.0475
Venus	69718-03-12 20:24 G	27185107.15	27185107.35	27185107.54	0.0483	0.0158
Venus	69723-05-19 00:58 G	27187000.46	27187000.54	27187000.62	0.0542	0.0498
Earth	69723-07-23 18:15 G	27187066.11	27187066.26	27187066.42	0.0543	0.0392
Moon	69723-07-23 21:07 G	27187066.23	27187066.38	27187066.53	0.0543	0.0418 *
Mercury	69723-10-14 17:17 G	27187149.13	27187149.22	27187149.31	0.0544	0.0420
Mercury	69724-01-12 10:05 G	27187238.84	27187238.92	27187239.00	0.0545	0.0440
Venus	69724-01-12 13:41 G	27187238.88	27187239.07	27187239.27	0.0545	0.0103 *
Venus	69729-03-25 09:36 G	27189137.77	27189137.90	27189138.03	0.0486	0.0378
Mercury	69729-08-27 18:29 G	27189293.17	27189293.27	27189293.38	0.0484	0.0363
Venus	69729-11-16 01:41 G	27189373.37	27189373.57	27189373.78	0.0484	0.0041
Mercury	69729-11-25 09:51 G	27189382.78	27189382.91	27189383.03	0.0484	0.0302
Venus	69730-07-09 15:36 G	27189609.09	27189609.15	27189609.23	0.0485	0.0451
Moon	69735-07-28 18:29 G	27191454.05	27191454.27	27191454.50	0.0544	0.0122
Earth	69735-07-28 22:19 G	27191454.20	27191454.43	27191454.65	0.0544	0.0104 *
Venus	69735-09-16 22:19 G	27191504.23	27191504.43	27191504.64	0.0544	0.0071
Mercury	69735-10-31 11:31 G	27191548.85	27191548.98	27191549.11	0.0545	0.0226
Venus	69736-05-12 13:27 G	27191743.03	27191743.06	27191743.10	0.0544	0.0536
Venus	69741-07-22 07:41 G	27193639.62	27193639.82	27193640.02	0.0484	0.0076
Mercury	69741-09-13 11:31 G	27193692.82	27193692.98	27193693.13	0.0484	0.0136
Venus	69742-03-14 21:36 G	27193875.26	27193875.40	27193875.55	0.0484	0.0338
Venus	69747-05-22 05:17 G	27195769.54	27195769.72	27195769.90	0.0544	0.0244
Mercury	69747-08-19 12:00 G	27195858.85	27195859.00	27195859.14	0.0545	0.0010
Venus	69748-01-15 20:10 G	27196008.19	27196008.34	27196008.49	0.0545	0.0366
Earth	69753-01-22 16:48 G	27197842.05	27197842.20	27197842.35	0.0485	0.0378
Moon	69753-01-22 17:03 G	27197842.05	27197842.21	27197842.39	0.0485	0.0351 *
Venus	69753-03-27 13:55 G	27197905.89	27197906.08	27197906.27	0.0484	0.0190
Mercury	69753-07-02 13:27 G	27198002.90	27198003.06	27198003.22	0.0484	0.0026

Venus	69753-11-18 04:19 G	27198141.50	27198141.68	27198141.87	0.0483	0.0226
Venus	69759-01-24 15:51 G	27200035.03	27200035.16	27200035.29	0.0543	0.0408
Mercury	69759-06-07 13:27 G	27200168.93	27200169.06	27200169.19	0.0545	0.0219
Venus	69759-09-20 06:00 G	27200273.56	27200273.75	27200273.94	0.0545	0.0199
Venus	69764-11-30 19:12 G	27202172.14	27202172.30	27202172.46	0.0485	0.0305
Moon	69765-01-26 21:51 G	27202229.18	27202229.41	27202229.64	0.0484	0.0040
Earth	69765-01-26 23:31 G	27202229.25	27202229.48	27202229.72	0.0484	0.0028 *
Mercury	69765-04-20 15:07 G	27202312.99	27202313.13	27202313.28	0.0483	0.0191
Mercury	69765-07-19 06:43 G	27202402.77	27202402.78	27202402.80	0.0483	0.0480
Venus	69765-07-24 10:05 G	27202407.72	27202407.92	27202408.12	0.0483	0.0112
Mercury	69771-03-26 15:07 G	27204479.04	27204479.13	27204479.22	0.0545	0.0426
Venus	69771-05-25 17:03 G	27204539.01	27204539.21	27204539.42	0.0545	0.0033
Mercury	69771-06-24 08:10 G	27204568.76	27204568.84	27204568.92	0.0545	0.0438
Venus	69776-08-06 00:15 G	27206438.41	27206438.51	27206438.61	0.0486	0.0419
Earth	69777-01-31 06:43 G	27206616.60	27206616.78	27206616.95	0.0484	0.0324
Moon	69777-01-31 09:51 G	27206616.73	27206616.91	27206617.10	0.0484	0.0298 *
Mercury	69777-02-06 17:17 G	27206623.11	27206623.22	27206623.33	0.0484	0.0350
Venus	69777-03-29 16:19 G	27206673.97	27206674.18	27206674.38	0.0483	0.0003
Mercury	69777-05-07 08:24 G	27206712.73	27206712.85	27206712.97	0.0483	0.0312
Venus	69777-11-20 06:00 G	27206909.64	27206909.75	27206909.86	0.0484	0.0408
Mars	69779-08-07 23:46 G	27207535.40	27207535.49	27207535.60	0.0498	0.0461
Venus	69783-01-28 03:36 G	27208804.46	27208804.65	27208804.85	0.0544	0.0137
Mercury	69783-04-12 10:05 G	27208878.79	27208878.92	27208879.04	0.0545	0.0235
Venus	69783-09-23 18:43 G	27209043.18	27209043.28	27209043.38	0.0544	0.0469
Venus	69788-12-02 21:22 G	27210940.19	27210940.39	27210940.59	0.0484	0.0121
Mercury	69789-02-23 09:51 G	27211022.75	27211022.91	27211023.06	0.0484	0.0142
Venus	69789-07-26 11:46 G	27211175.83	27211175.99	27211176.15	0.0484	0.0294
Venus	69794-10-02 13:12 G	27213069.88	27213070.05	27213070.21	0.0543	0.0304
Mercury	69795-01-29 11:17 G	27213188.83	27213188.97	27213189.11	0.0545	0.0018
Venus	69795-05-29 03:22 G	27213308.47	27213308.64	27213308.81	0.0545	0.0303

Venus	69800-08-09 03:07 G	27215206.45	27215206.63	27215206.81	0.0485	0.0236
Mercury	69800-12-13 11:46 G	27215332.83	27215332.99	27215333.14	0.0484	0.0024
Venus	69801-04-01 18:00 G	27215442.06	27215442.25	27215442.44	0.0483	0.0180
Venus	69806-06-07 20:24 G	27217335.25	27217335.35	27217335.45	0.0542	0.0471
Moon	69806-07-23 09:36 G	27217380.87	27217380.90	27217380.93	0.0543	0.0535
Earth	69806-07-23 12:43 G	27217380.95	27217381.03	27217381.12	0.0543	0.0503
Mercury	69806-11-18 11:31 G	27217498.85	27217498.98	27217499.11	0.0545	0.0220
Venus	69807-02-01 09:22 G	27217573.70	27217573.89	27217574.09	0.0545	0.0128
Venus	69812-04-14 09:07 G	27219472.74	27219472.88	27219473.02	0.0485	0.0349
Mercury	69812-10-01 13:55 G	27219642.93	27219643.08	27219643.22	0.0484	0.0180
Venus	69812-12-06 00:58 G	27219708.34	27219708.54	27219708.74	0.0483	0.0068
Venus	69813-07-29 14:24 G	27219944.06	27219944.10	27219944.14	0.0484	0.0473
Earth	69818-07-28 18:15 G	27221769.03	27221769.26	27221769.49	0.0544	0.0001
Moon	69818-07-28 22:05 G	27221769.19	27221769.42	27221769.64	0.0544	0.0027 *
Mercury	69818-09-06 12:43 G	27221808.95	27221809.03	27221809.12	0.0545	0.0436
Venus	69818-10-06 19:12 G	27221839.10	27221839.30	27221839.51	0.0545	0.0043
Mercury	69818-12-05 05:46 G	27221898.66	27221898.74	27221898.83	0.0545	0.0429
Venus	69823-12-19 13:55 G	27223739.02	27223739.08	27223739.14	0.0486	0.0461
Mercury	69824-07-20 15:51 G	27223953.05	27223953.16	27223953.27	0.0484	0.0342
Venus	69824-08-11 06:29 G	27223974.57	27223974.77	27223974.97	0.0483	0.0047
Mercury	69824-10-18 06:43 G	27224042.67	27224042.78	27224042.90	0.0483	0.0321
Venus	69825-04-03 20:10 G	27224210.20	27224210.34	27224210.47	0.0484	0.0363
Venus	69830-06-11 06:58 G	27226104.60	27226104.79	27226104.97	0.0545	0.0207
Moon	69830-08-03 00:00 G	27226157.47	27226157.50	27226157.55	0.0545	0.0537
Earth	69830-08-03 02:53 G	27226157.55	27226157.62	27226157.69	0.0545	0.0517 *
Mercury	69830-09-23 07:55 G	27226208.70	27226208.83	27226208.96	0.0545	0.0232
Venus	69831-02-04 22:19 G	27226343.30	27226343.43	27226343.57	0.0545	0.0402
Moon	69836-01-23 22:19 G	27228157.31	27228157.43	27228157.55	0.0485	0.0407
Earth	69836-01-24 00:00 G	27228157.40	27228157.50	27228157.62	0.0485	0.0428 *
Venus	69836-04-16 12:29 G	27228240.82	27228241.02	27228241.21	0.0484	0.0162

Mercury	69836-08-06 08:39 G	27228352.71	27228352.86	27228353.01	0.0483	0.0155
Venus	69836-12-08 02:39 G	27228476.44	27228476.61	27228476.79	0.0483	0.0252
Venus	69842-02-13 18:29 G	27230370.13	27230370.27	27230370.42	0.0543	0.0369
Mercury	69842-07-12 09:51 G	27230518.77	27230518.91	27230519.06	0.0545	0.0029
Venus	69842-10-10 08:24 G	27230608.67	27230608.85	27230609.04	0.0545	0.0236
Venus	69847-12-21 17:03 G	27232507.05	27232507.21	27232507.38	0.0485	0.0279
Earth	69848-01-28 06:00 G	27232544.51	27232544.75	27232544.98	0.0485	0.0078
Moon	69848-01-28 09:07 G	27232544.65	27232544.88	27232545.12	0.0485	0.0097 *
Mercury	69848-05-25 10:05 G	27232662.76	27232662.92	27232663.08	0.0484	0.0016
Venus	69848-08-13 08:10 G	27232742.65	27232742.84	27232743.04	0.0483	0.0138
Venus	69853-10-19 05:17 G	27234635.68	27234635.72	27234635.76	0.0542	0.0527
Mercury	69854-04-30 11:03 G	27234828.83	27234828.96	27234829.10	0.0545	0.0191
Venus	69854-06-14 17:31 G	27234874.03	27234874.23	27234874.44	0.0545	0.0067
Venus	69859-08-26 22:19 G	27236773.32	27236773.43	27236773.55	0.0486	0.0393
Moon	69860-02-01 09:51 G	27236931.71	27236931.91	27236932.11	0.0484	0.0251
Earth	69860-02-01 13:55 G	27236931.88	27236932.08	27236932.27	0.0484	0.0278 *
Mercury	69860-03-13 12:15 G	27236972.86	27236973.01	27236973.16	0.0484	0.0173
Venus	69860-04-18 14:39 G	27237008.91	27237009.11	27237009.32	0.0484	0.0023
Venus	69860-12-10 04:34 G	27237244.60	27237244.69	27237244.79	0.0484	0.0429
Mercury	69866-02-16 11:03 G	27239138.88	27239138.96	27239139.05	0.0544	0.0433
Venus	69866-02-16 23:46 G	27239139.29	27239139.49	27239139.69	0.0544	0.0110
Mercury	69866-05-17 04:05 G	27239228.59	27239228.67	27239228.76	0.0545	0.0432
Venus	69866-10-13 15:07 G	27239378.05	27239378.13	27239378.22	0.0545	0.0493
Venus	69871-12-23 21:22 G	27241275.19	27241275.39	27241275.59	0.0484	0.0091
Mercury	69871-12-31 14:39 G	27241282.99	27241283.11	27241283.22	0.0484	0.0329
Mercury	69872-03-30 05:31 G	27241372.62	27241372.73	27241372.85	0.0483	0.0335
Venus	69872-08-15 11:17 G	27241510.83	27241510.97	27241511.13	0.0483	0.0321
Venus	69877-10-22 09:51 G	27243404.74	27243404.91	27243405.09	0.0544	0.0276
Mercury	69878-03-05 05:46 G	27243538.61	27243538.74	27243538.87	0.0545	0.0225
Venus	69878-06-18 00:58 G	27243643.38	27243643.54	27243643.70	0.0545	0.0330

Venus	69883-08-29 02:53 G	27245541.43	27245541.62	27245541.80	0.0484	0.0205
Mercury	69884-01-17 07:12 G	27245682.65	27245682.80	27245682.95	0.0483	0.0166
Venus	69884-04-20 17:17 G	27245777.03	27245777.22	27245777.40	0.0483	0.0208
Venus	69889-06-26 22:05 G	27247670.30	27247670.42	27247670.54	0.0543	0.0434
Mercury	69889-12-22 07:55 G	27247848.69	27247848.83	27247848.97	0.0545	0.0024
Venus	69890-02-20 11:46 G	27247908.80	27247908.99	27247909.19	0.0545	0.0167
Venus	69895-05-04 08:24 G	27249807.70	27249807.85	27249808.01	0.0485	0.0319
Mercury	69895-11-05 09:07 G	27249992.72	27249992.88	27249993.04	0.0483	0.0003
Venus	69895-12-25 23:46 G	27250043.29	27250043.49	27250043.70	0.0483	0.0096
Moon	69901-07-28 22:34 G	27252084.21	27252084.44	27252084.68	0.0544	0.0031
Earth	69901-07-29 01:41 G	27252084.34	27252084.57	27252084.80	0.0544	0.0059 *
Mercury	69901-10-11 09:36 G	27252158.77	27252158.90	27252159.04	0.0545	0.0182
Venus	69901-10-26 22:48 G	27252174.25	27252174.45	27252174.65	0.0545	0.0003
Venus	69907-01-08 12:29 G	27254073.93	27254074.02	27254074.11	0.0486	0.0434
Mercury	69907-08-25 10:48 G	27254302.80	27254302.95	27254303.10	0.0484	0.0163
Venus	69907-09-01 05:17 G	27254309.51	27254309.72	27254309.92	0.0484	0.0023
Venus	69908-04-23 18:58 G	27254545.18	27254545.29	27254545.42	0.0484	0.0388
Venus	69913-07-01 08:39 G	27256439.67	27256439.86	27256440.06	0.0544	0.0169
Mercury	69913-07-30 10:48 G	27256468.86	27256468.95	27256469.05	0.0544	0.0400
Earth	69913-08-03 06:58 G	27256472.66	27256472.79	27256472.92	0.0544	0.0447
Moon	69913-08-03 08:10 G	27256472.73	27256472.84	27256472.96	0.0544	0.0466 *
Mercury	69913-10-28 03:51 G	27256558.59	27256558.66	27256558.73	0.0545	0.0463
Venus	69914-02-24 23:31 G	27256678.36	27256678.48	27256678.61	0.0545	0.0434
Earth	69919-01-24 07:41 G	27258472.78	27258472.82	27258472.88	0.0485	0.0474
Moon	69919-01-24 11:03 G	27258472.90	27258472.96	27258473.05	0.0485	0.0460
Venus	69919-05-07 11:31 G	27258575.78	27258575.98	27258576.17	0.0484	0.0135
Mercury	69919-06-13 12:58 G	27258612.93	27258613.04	27258613.16	0.0484	0.0321
Mercury	69919-09-11 04:05 G	27258702.56	27258702.67	27258702.78	0.0483	0.0344
Venus	69919-12-29 01:55 G	27258811.42	27258811.58	27258811.75	0.0483	0.0277
Venus	69925-03-05 15:22 G	27260704.98	27260705.14	27260705.30	0.0543	0.0339

Mercury	69925-08-16 04:19 G	27260868.55	27260868.68	27260868.81	0.0545	0.0231
Venus	69925-10-30 05:17 G	27260943.54	27260943.72	27260943.90	0.0545	0.0262
Venus	69931-01-10 17:46 G	27262842.07	27262842.24	27262842.42	0.0485	0.0247
Moon	69931-01-28 12:58 G	27262859.82	27262860.04	27262860.27	0.0485	0.0142
Earth	69931-01-28 16:48 G	27262859.98	27262860.20	27262860.44	0.0485	0.0115 *
Mercury	69931-04-01 15:36 G	27262923.12	27262923.15	27262923.17	0.0484	0.0474
Mercury	69931-06-30 06:00 G	27263012.61	27263012.75	27263012.90	0.0483	0.0182
Venus	69931-09-03 08:53 G	27263077.68	27263077.87	27263078.06	0.0483	0.0166
Mars	69933-11-03 00:43 G	27263869.27	27263869.53	27263869.79	0.0498	0.0053
Venus	69936-11-08 02:10 G	27264970.52	27264970.59	27264970.68	0.0542	0.0497
Mercury	69937-06-04 05:46 G	27265178.60	27265178.74	27265178.89	0.0545	0.0024
Venus	69937-07-04 14:53 G	27265208.93	27265209.12	27265209.33	0.0545	0.0096
Venus	69942-09-15 22:48 G	27267108.32	27267108.45	27267108.59	0.0486	0.0361
Earth	69943-02-01 23:46 G	27267247.29	27267247.49	27267247.70	0.0484	0.0238
Moon	69943-02-02 03:22 G	27267247.44	27267247.64	27267247.85	0.0484	0.0216 *
Mercury	69943-04-18 07:55 G	27267322.67	27267322.83	27267322.99	0.0483	0.0017
Venus	69943-05-09 14:39 G	27267343.91	27267344.11	27267344.32	0.0483	0.0052
Venus	69943-12-31 04:05 G	27267579.61	27267579.67	27267579.74	0.0484	0.0455
Venus	69949-03-09 02:10 G	27269474.39	27269474.59	27269474.79	0.0545	0.0071
Mercury	69949-03-23 07:41 G	27269488.69	27269488.82	27269488.96	0.0545	0.0185
Venus	69949-11-02 18:15 G	27269713.21	27269713.26	27269713.30	0.0545	0.0529
Venus	69954-05-22 04:05 G	27271374.62	27271374.67	27271374.72	0.0487	0.0472
Venus	69955-01-12 21:07 G	27271610.17	27271610.38	27271610.58	0.0484	0.0061
Mercury	69955-02-04 09:51 G	27271632.76	27271632.91	27271633.06	0.0483	0.0146
Venus	69955-09-05 10:34 G	27271845.81	27271845.94	27271846.09	0.0483	0.0348
Venus	69960-11-11 13:55 G	27273739.90	27273740.08	27273740.27	0.0544	0.0235
Mercury	69961-01-09 09:36 G	27273798.80	27273798.90	27273799.00	0.0545	0.0391
Mercury	69961-04-09 02:24 G	27273888.54	27273888.60	27273888.67	0.0545	0.0474
Venus	69961-07-08 05:03 G	27273978.56	27273978.71	27273978.86	0.0545	0.0369
Mars	69963-01-22 17:46 G	27274542.06	27274542.24	27274542.42	0.0531	0.0415

Venus	69966-09-18 01:55 G	27275876.39	27275876.58	27275876.78	0.0484	0.0177
Mercury	69966-11-23 11:46 G	27275942.87	27275942.99	27275943.11	0.0484	0.0309
Mercury	69967-02-21 02:39 G	27276032.51	27276032.61	27276032.72	0.0483	0.0355
Venus	69967-05-11 16:34 G	27276112.01	27276112.19	27276112.37	0.0483	0.0234
Venus	69972-07-17 00:43 G	27278005.40	27278005.53	27278005.67	0.0543	0.0396
Mercury	69973-01-26 04:05 G	27278198.55	27278198.67	27278198.80	0.0545	0.0266
Venus	69973-03-12 14:10 G	27278243.91	27278244.09	27278244.28	0.0545	0.0203
Venus	69978-05-24 07:55 G	27280142.67	27280142.83	27280143.00	0.0485	0.0290
Mercury	69978-09-11 14:10 G	27280253.05	27280253.09	27280253.13	0.0484	0.0464
Mercury	69978-12-10 04:48 G	27280342.55	27280342.70	27280342.84	0.0484	0.0193
Venus	69979-01-14 23:31 G	27280378.28	27280378.48	27280378.68	0.0483	0.0123
Earth	69984-07-27 23:03 G	27282399.24	27282399.46	27282399.68	0.0544	0.0161
Moon	69984-07-28 00:58 G	27282399.33	27282399.54	27282399.76	0.0544	0.0128 *
Mercury	69984-11-14 04:34 G	27282508.54	27282508.69	27282508.83	0.0545	0.0030
Venus	69984-11-14 20:10 G	27282509.14	27282509.34	27282509.54	0.0545	0.0029
Venus	69990-01-27 13:27 G	27284408.95	27284409.06	27284409.18	0.0486	0.0402
Venus	69990-09-20 06:15 G	27284644.55	27284644.76	27284644.96	0.0484	0.0011
Mercury	69990-09-28 06:58 G	27284652.63	27284652.79	27284652.94	0.0484	0.0035
Venus	69991-05-13 19:55 G	27284880.23	27284880.33	27284880.44	0.0484	0.0415
Venus	69996-07-20 06:00 G	27286774.56	27286774.75	27286774.95	0.0544	0.0139
Moon	69996-08-02 03:51 G	27286787.49	27286787.66	27286787.84	0.0544	0.0361
Earth	69996-08-02 04:05 G	27286787.50	27286787.67	27286787.85	0.0544	0.0345 *
Mercury	69996-09-02 05:46 G	27286818.61	27286818.74	27286818.88	0.0545	0.0187
Venus	69997-03-15 21:22 G	27287013.28	27287013.39	27287013.49	0.0545	0.0461

71ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 71st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	70002-05-26 12:00	G	27288910.80	27288911.00	27288911.20	0.0484	0.0103	
Mercury	70002-07-17 08:39	G	27288962.71	27288962.86	27288963.01	0.0484	0.0132	
Venus	70003-01-17 01:55	G	27289146.43	27289146.58	27289146.74	0.0483	0.0305	
Venus	70008-03-24 17:31	G	27291040.06	27291040.23	27291040.40	0.0544	0.0301	
Mercury	70008-06-21 07:27	G	27291128.71	27291128.81	27291128.91	0.0545	0.0396	
Mercury	70008-09-19 00:29	G	27291218.45	27291218.52	27291218.59	0.0545	0.0471	
Venus	70008-11-18 08:10	G	27291278.67	27291278.84	27291279.01	0.0545	0.0300	
Earth	70014-01-28 02:39	G	27293175.39	27293175.61	27293175.84	0.0485	0.0156	
Moon	70014-01-28 06:15	G	27293175.55	27293175.76	27293175.98	0.0485	0.0185	*
Venus	70014-01-29 17:46	G	27293177.06	27293177.24	27293177.43	0.0485	0.0217	
Mercury	70014-05-05 10:48	G	27293272.83	27293272.95	27293273.08	0.0484	0.0291	
Mercury	70014-08-03 01:55	G	27293362.48	27293362.58	27293362.68	0.0483	0.0373	
Venus	70014-09-22 08:24	G	27293412.67	27293412.85	27293413.04	0.0483	0.0195	
Venus	70019-11-28 06:29	G	27295305.66	27295305.77	27295305.87	0.0542	0.0457	
Mercury	70020-07-08 02:39	G	27295528.49	27295528.61	27295528.74	0.0545	0.0275	
Venus	70020-07-23 19:27	G	27295544.11	27295544.31	27295544.51	0.0545	0.0136	
Venus	70025-10-04 22:19	G	27297443.29	27297443.43	27297443.59	0.0486	0.0331	
Moon	70026-02-01 05:46	G	27297562.52	27297562.74	27297562.98	0.0484	0.0174	
Earth	70026-02-01 08:53	G	27297562.65	27297562.87	27297563.09	0.0484	0.0196	*
Mercury	70026-02-21 12:58	G	27297582.98	27297583.04	27297583.09	0.0484	0.0452	
Mercury	70026-05-22 03:22	G	27297672.50	27297672.64	27297672.79	0.0483	0.0204	
Venus	70026-05-28 14:24	G	27297678.89	27297679.10	27297679.30	0.0483	0.0081	
Venus	70027-01-19 03:51	G	27297914.65	27297914.66	27297914.69	0.0484	0.0481	
Venus	70032-03-28 05:17	G	27299809.52	27299809.72	27299809.93	0.0545	0.0032	
Mercury	70032-04-26 04:19	G	27299838.54	27299838.68	27299838.82	0.0545	0.0064	

Venus	70037-06-10 03:36 G	27301709.57	27301709.65	27301709.74	0.0487	0.0443
Venus	70038-01-31 20:53 G	27301945.17	27301945.37	27301945.58	0.0484	0.0032
Mercury	70038-03-10 05:31 G	27301982.57	27301982.73	27301982.89	0.0484	0.0044
Venus	70038-09-24 10:48 G	27302180.83	27302180.95	27302181.08	0.0484	0.0373
Venus	70043-12-01 12:00 G	27304074.82	27304075.00	27304075.19	0.0544	0.0202
Mercury	70044-02-13 04:34 G	27304148.55	27304148.69	27304148.83	0.0544	0.0174
Venus	70044-07-27 02:39 G	27304313.47	27304313.61	27304313.75	0.0545	0.0396
Venus	70049-10-07 03:07 G	27306211.44	27306211.63	27306211.83	0.0485	0.0144
Mercury	70049-12-27 07:41 G	27306292.67	27306292.82	27306292.97	0.0484	0.0115
Venus	70050-05-30 17:46 G	27306447.07	27306447.24	27306447.42	0.0483	0.0265
Venus	70055-08-05 22:19 G	27308340.28	27308340.43	27308340.58	0.0543	0.0364
Mercury	70055-12-02 05:31 G	27308458.64	27308458.73	27308458.83	0.0544	0.0395
Mercury	70056-02-29 22:48 G	27308548.38	27308548.45	27308548.52	0.0545	0.0470
Venus	70056-03-31 11:46 G	27308578.81	27308578.99	27308579.17	0.0545	0.0232
Venus	70061-06-12 08:24 G	27310477.69	27310477.85	27310478.03	0.0485	0.0258
Mercury	70061-10-15 09:36 G	27310602.78	27310602.90	27310603.03	0.0484	0.0278
Mercury	70062-01-13 00:43 G	27310692.43	27310692.53	27310692.62	0.0483	0.0387
Venus	70062-02-02 23:46 G	27310713.30	27310713.49	27310713.68	0.0483	0.0153
Venus	70067-04-10 10:19 G	27312605.88	27312605.93	27312605.99	0.0542	0.0518
Moon	70067-07-28 03:07 G	27312714.41	27312714.63	27312714.86	0.0544	0.0197
Earth	70067-07-28 04:05 G	27312714.46	27312714.67	27312714.88	0.0544	0.0231 *
Venus	70067-12-04 22:34 G	27312844.24	27312844.44	27312844.64	0.0545	0.0068
Mercury	70067-12-19 00:43 G	27312858.41	27312858.53	27312858.65	0.0545	0.0270
Venus	70073-02-15 13:55 G	27314743.95	27314744.08	27314744.21	0.0486	0.0370
Mercury	70073-08-03 12:00 G	27314912.93	27314913.00	27314913.07	0.0484	0.0434
Venus	70073-10-09 06:15 G	27314979.55	27314979.76	27314979.96	0.0483	0.0041
Mercury	70073-11-01 02:24 G	27315002.46	27315002.60	27315002.75	0.0483	0.0223
Venus	70074-06-01 19:41 G	27315215.24	27315215.32	27315215.40	0.0484	0.0441
Moon	70079-08-02 11:17 G	27317102.79	27317102.97	27317103.16	0.0545	0.0302
Earth	70079-08-02 12:43 G	27317102.84	27317103.03	27317103.23	0.0545	0.0291 *

Venus	70079-08-09 10:19 G	27317109.73	27317109.93	27317110.13	0.0545	0.0097
Mercury	70079-10-07 02:53 G	27317168.48	27317168.62	27317168.76	0.0545	0.0071
Venus	70080-04-04 01:41 G	27317348.50	27317348.57	27317348.66	0.0545	0.0499
Venus	70084-10-21 18:00 G	27319010.23	27319010.25	27319010.27	0.0487	0.0482
Venus	70085-06-14 11:31 G	27319245.78	27319245.98	27319246.19	0.0484	0.0075
Mercury	70085-08-20 04:05 G	27319312.52	27319312.67	27319312.83	0.0484	0.0057
Venus	70086-02-05 01:41 G	27319481.42	27319481.57	27319481.72	0.0483	0.0332
Mars	70088-01-28 08:53 G	27320203.71	27320203.87	27320204.03	0.0499	0.0389
Venus	70091-04-13 21:07 G	27321375.21	27321375.38	27321375.56	0.0544	0.0260
Mercury	70091-07-26 04:19 G	27321478.54	27321478.68	27321478.82	0.0545	0.0141
Venus	70091-12-08 11:31 G	27321613.82	27321613.98	27321614.14	0.0545	0.0338
Moon	70097-01-27 09:22 G	27323490.67	27323490.89	27323491.11	0.0485	0.0227
Earth	70097-01-27 12:00 G	27323490.79	27323491.00	27323491.22	0.0485	0.0198 *
Venus	70097-02-17 17:46 G	27323512.05	27323512.24	27323512.43	0.0485	0.0187
Mercury	70097-06-08 06:29 G	27323622.61	27323622.77	27323622.92	0.0484	0.0104
Venus	70097-10-11 08:39 G	27323747.68	27323747.86	27323748.04	0.0483	0.0222
Venus	70102-12-18 05:03 G	27325640.59	27325640.71	27325640.84	0.0542	0.0422
Mercury	70103-05-15 04:34 G	27325788.59	27325788.69	27325788.79	0.0544	0.0381
Mercury	70103-08-12 21:36 G	27325878.33	27325878.40	27325878.46	0.0545	0.0483
Venus	70103-08-13 17:31 G	27325879.04	27325879.23	27325879.42	0.0545	0.0167
Venus	70108-10-24 23:17 G	27327778.31	27327778.47	27327778.63	0.0486	0.0299
Earth	70109-02-01 20:10 G	27327878.12	27327878.34	27327878.57	0.0485	0.0160
Moon	70109-02-01 21:07 G	27327878.17	27327878.38	27327878.60	0.0485	0.0147 *
Mercury	70109-03-28 08:39 G	27327932.73	27327932.86	27327932.99	0.0484	0.0262
Venus	70109-06-17 15:22 G	27328013.94	27328014.14	27328014.34	0.0484	0.0112
Mercury	70109-06-25 23:31 G	27328022.40	27328022.48	27328022.57	0.0484	0.0405
Venus	70115-04-18 02:53 G	27330144.41	27330144.62	27330144.82	0.0545	0.0011
Mercury	70115-05-31 23:03 G	27330188.34	27330188.46	27330188.58	0.0545	0.0271
Mars	70117-04-18 19:12 G	27330876.02	27330876.30	27330876.58	0.0531	0.0106
Venus	70120-06-30 03:51 G	27332044.56	27332044.66	27332044.78	0.0487	0.0412

Mercury	70121-01-14 10:48 G	27332242.87	27332242.95	27332243.02	0.0484	0.0422
Venus	70121-02-20 21:07 G	27332280.17	27332280.38	27332280.58	0.0484	0.0006
Mercury	70121-04-14 01:12 G	27332332.41	27332332.55	27332332.69	0.0483	0.0236
Venus	70121-10-14 10:48 G	27332515.84	27332515.95	27332516.06	0.0483	0.0400
Venus	70126-12-21 13:41 G	27334409.88	27334410.07	27334410.26	0.0544	0.0165
Mercury	70127-03-20 00:43 G	27334498.39	27334498.53	27334498.68	0.0545	0.0067
Venus	70127-08-17 04:48 G	27334648.58	27334648.70	27334648.83	0.0545	0.0432
Venus	70132-10-27 03:07 G	27336546.43	27336546.63	27336546.83	0.0484	0.0114
Mercury	70133-01-31 03:07 G	27336642.48	27336642.63	27336642.79	0.0483	0.0074
Venus	70133-06-19 17:17 G	27336782.07	27336782.22	27336782.39	0.0483	0.0292
Venus	70138-08-26 01:55 G	27338675.42	27338675.58	27338675.74	0.0543	0.0324
Mercury	70139-01-06 02:39 G	27338808.47	27338808.61	27338808.75	0.0545	0.0137
Venus	70139-04-21 15:51 G	27338913.99	27338914.16	27338914.34	0.0545	0.0272
Venus	70144-07-02 08:10 G	27340812.66	27340812.84	27340813.02	0.0485	0.0228
Mercury	70144-11-19 05:03 G	27340952.55	27340952.71	27340952.86	0.0484	0.0093
Venus	70145-02-22 23:17 G	27341048.28	27341048.47	27341048.66	0.0483	0.0180
Venus	70150-04-30 13:55 G	27342940.99	27342941.08	27342941.18	0.0542	0.0478
Moon	70150-07-28 10:48 G	27343029.76	27343029.95	27343030.15	0.0543	0.0258
Earth	70150-07-28 11:31 G	27343029.79	27343029.98	27343030.18	0.0543	0.0290 *
Mercury	70150-10-25 04:05 G	27343118.56	27343118.67	27343118.78	0.0545	0.0350
Venus	70150-12-25 02:10 G	27343179.39	27343179.59	27343179.79	0.0545	0.0107
Mercury	70151-01-22 21:07 G	27343208.34	27343208.38	27343208.43	0.0545	0.0514
Venus	70156-03-07 13:27 G	27345078.92	27345079.06	27345079.21	0.0486	0.0341
Mercury	70156-09-07 07:12 G	27345262.67	27345262.80	27345262.94	0.0484	0.0251
Venus	70156-10-29 06:00 G	27345314.55	27345314.75	27345314.95	0.0484	0.0069
Mercury	70156-12-05 22:19 G	27345352.35	27345352.43	27345352.51	0.0483	0.0416
Venus	70157-06-21 19:41 G	27345550.28	27345550.32	27345550.38	0.0484	0.0467
Earth	70162-08-02 12:00 G	27347417.79	27347418.00	27347418.22	0.0544	0.0196
Moon	70162-08-02 15:07 G	27347417.91	27347418.13	27347418.35	0.0544	0.0197 *
Venus	70162-08-29 08:53 G	27347444.67	27347444.87	27347445.07	0.0544	0.0064

Mercury	70162-11-10 21:51 G	27347518.29	27347518.41	27347518.53	0.0545	0.0285
Venus	70163-04-24 23:46 G	27347683.44	27347683.49	27347683.54	0.0544	0.0525
Venus	70167-11-11 18:00 G	27349345.18	27349345.25	27349345.33	0.0488	0.0452
Mercury	70168-06-26 09:36 G	27349572.82	27349572.90	27349572.98	0.0484	0.0409
Venus	70168-07-04 12:15 G	27349580.80	27349581.01	27349581.21	0.0484	0.0043
Mercury	70168-09-24 00:00 G	27349662.37	27349662.50	27349662.64	0.0484	0.0251
Venus	70169-02-25 02:24 G	27349816.47	27349816.60	27349816.74	0.0484	0.0361
Venus	70174-05-03 18:43 G	27351710.09	27351710.28	27351710.46	0.0543	0.0228
Mercury	70174-08-29 23:03 G	27351828.32	27351828.46	27351828.60	0.0545	0.0069
Venus	70174-12-28 08:24 G	27351948.71	27351948.85	27351949.01	0.0545	0.0366
Earth	70180-01-28 21:07 G	27353806.18	27353806.38	27353806.59	0.0485	0.0242
Moon	70180-01-28 22:05 G	27353806.23	27353806.42	27353806.61	0.0485	0.0271 *
Venus	70180-03-09 17:31 G	27353847.03	27353847.23	27353847.42	0.0485	0.0157
Mercury	70180-07-13 01:55 G	27353972.42	27353972.58	27353972.73	0.0484	0.0084
Venus	70180-10-31 08:10 G	27354082.67	27354082.84	27354083.02	0.0483	0.0250
Venus	70186-01-06 05:31 G	27355975.59	27355975.73	27355975.87	0.0542	0.0388
Mercury	70186-06-18 00:29 G	27356138.38	27356138.52	27356138.66	0.0545	0.0144
Venus	70186-09-01 18:43 G	27356214.09	27356214.28	27356214.47	0.0545	0.0202
Venus	70191-11-13 23:03 G	27358113.29	27358113.46	27358113.63	0.0485	0.0269
Earth	70192-02-02 05:17 G	27358193.49	27358193.72	27358193.95	0.0484	0.0117
Moon	70192-02-02 06:29 G	27358193.53	27358193.77	27358194.01	0.0484	0.0114 *
Mercury	70192-05-01 03:51 G	27358282.51	27358282.66	27358282.82	0.0484	0.0079
Venus	70192-07-06 14:39 G	27358348.92	27358349.11	27358349.31	0.0483	0.0140
Venus	70197-09-10 18:29 G	27360241.26	27360241.27	27360241.29	0.0541	0.0538
Mercury	70198-04-06 02:10 G	27360448.49	27360448.59	27360448.71	0.0545	0.0350
Venus	70198-05-07 06:15 G	27360479.55	27360479.76	27360479.96	0.0545	0.0040
Mercury	70198-07-04 19:27 G	27360538.27	27360538.31	27360538.35	0.0545	0.0516
Venus	70203-07-21 03:22 G	27362379.52	27362379.64	27362379.77	0.0487	0.0382
Earth	70204-02-07 11:31 G	27362580.92	27362580.98	27362581.04	0.0484	0.0467
Mercury	70204-02-19 05:46 G	27362592.61	27362592.74	27362592.88	0.0484	0.0242

Venus	70204-03-12 20:10 G	27362615.14	27362615.34	27362615.55	0.0484	0.0027
Mercury	70204-05-18 20:39 G	27362682.29	27362682.36	27362682.44	0.0483	0.0424
Venus	70204-11-03 10:05 G	27362850.82	27362850.92	27362851.01	0.0484	0.0425
Mars	70206-07-22 11:31 G	27363476.81	27363476.98	27363477.15	0.0497	0.0373
Venus	70210-01-10 17:03 G	27364745.01	27364745.21	27364745.40	0.0544	0.0125
Mercury	70210-04-23 21:22 G	27364848.27	27364848.39	27364848.50	0.0545	0.0312
Venus	70210-09-06 07:55 G	27364983.73	27364983.83	27364983.93	0.0545	0.0467
Venus	70215-11-17 02:24 G	27366881.40	27366881.60	27366881.81	0.0484	0.0086
Mercury	70215-12-08 08:10 G	27366902.76	27366902.84	27366902.93	0.0484	0.0399
Mercury	70216-03-06 22:34 G	27366992.31	27366992.44	27366992.58	0.0484	0.0261
Venus	70216-07-09 17:03 G	27367117.06	27367117.21	27367117.36	0.0483	0.0319
Venus	70221-09-15 00:58 G	27369010.37	27369010.54	27369010.71	0.0542	0.0289
Mercury	70222-02-09 21:51 G	27369158.27	27369158.41	27369158.55	0.0544	0.0082
Venus	70222-05-11 14:10 G	27369248.92	27369249.09	27369249.26	0.0545	0.0301
Venus	70227-07-23 07:41 G	27371147.63	27371147.82	27371148.01	0.0485	0.0198
Mercury	70227-12-25 00:29 G	27371302.37	27371302.52	27371302.68	0.0484	0.0096
Venus	70228-03-14 23:17 G	27371383.29	27371383.47	27371383.66	0.0484	0.0209
Venus	70233-05-20 11:31 G	27373275.87	27373275.98	27373276.09	0.0541	0.0446
Earth	70233-07-28 08:53 G	27373344.71	27373344.87	27373345.03	0.0542	0.0393
Moon	70233-07-28 11:03 G	27373344.79	27373344.96	27373345.14	0.0542	0.0358 *
Mercury	70233-11-28 23:03 G	27373468.32	27373468.46	27373468.60	0.0544	0.0140
Venus	70234-01-13 23:03 G	27373514.26	27373514.46	27373514.65	0.0545	0.0135
Venus	70239-03-28 12:15 G	27375413.86	27375414.01	27375414.17	0.0486	0.0312
Mercury	70239-10-13 02:24 G	27375612.44	27375612.60	27375612.76	0.0484	0.0070
Venus	70239-11-19 05:03 G	27375649.51	27375649.71	27375649.91	0.0484	0.0097
Moon	70245-08-02 09:51 G	27377732.68	27377732.91	27377733.13	0.0544	0.0107
Earth	70245-08-02 13:27 G	27377732.84	27377733.06	27377733.29	0.0544	0.0113 *
Mercury	70245-09-17 00:00 G	27377778.40	27377778.50	27377778.61	0.0545	0.0358
Venus	70245-09-18 08:53 G	27377779.66	27377779.87	27377780.07	0.0545	0.0032
Mercury	70245-12-15 17:17 G	27377868.17	27377868.22	27377868.27	0.0545	0.0508

Venus	70250-12-01 17:31 G	27379680.13	27379680.23	27379680.33	0.0487	0.0423
Venus	70251-07-25 11:03 G	27379915.76	27379915.96	27379916.17	0.0484	0.0017
Mercury	70251-08-01 04:34 G	27379922.55	27379922.69	27379922.83	0.0484	0.0230
Mercury	70251-10-29 19:27 G	27380012.25	27380012.31	27380012.38	0.0483	0.0436
Venus	70252-03-17 00:58 G	27380151.42	27380151.54	27380151.67	0.0483	0.0385
Venus	70257-05-23 20:39 G	27382045.17	27382045.36	27382045.55	0.0544	0.0192
Mercury	70257-10-03 19:27 G	27382178.19	27382178.31	27382178.42	0.0545	0.0310
Venus	70258-01-17 11:17 G	27382283.84	27382283.97	27382284.11	0.0545	0.0401
Earth	70263-01-29 04:34 G	27384121.51	27384121.69	27384121.89	0.0485	0.0292
Moon	70263-01-29 06:00 G	27384121.57	27384121.75	27384121.94	0.0485	0.0317 *
Venus	70263-03-30 16:05 G	27384181.97	27384182.17	27384182.37	0.0485	0.0128
Mercury	70263-05-20 06:29 G	27384232.68	27384232.77	27384232.86	0.0484	0.0392
Mercury	70263-08-17 20:53 G	27384322.24	27384322.37	27384322.51	0.0483	0.0267
Venus	70263-11-21 06:58 G	27384417.62	27384417.79	27384417.96	0.0483	0.0276
Venus	70269-01-26 08:10 G	27386310.69	27386310.84	27386311.00	0.0542	0.0350
Mercury	70269-07-22 21:07 G	27386488.24	27386488.38	27386488.52	0.0545	0.0104
Venus	70269-09-21 21:22 G	27386549.21	27386549.39	27386549.58	0.0545	0.0240
Venus	70274-12-03 21:36 G	27388448.23	27388448.40	27388448.58	0.0486	0.0241
Moon	70275-02-02 09:51 G	27388508.69	27388508.91	27388509.14	0.0485	0.0071
Earth	70275-02-02 12:43 G	27388508.80	27388509.03	27388509.27	0.0485	0.0068 *
Mercury	70275-06-05 23:03 G	27388632.31	27388632.46	27388632.61	0.0484	0.0104
Venus	70275-07-27 13:41 G	27388683.87	27388684.07	27388684.26	0.0484	0.0167
Venus	70280-09-30 18:00 G	27390576.19	27390576.25	27390576.33	0.0540	0.0503
Mercury	70281-05-10 21:36 G	27390798.26	27390798.40	27390798.54	0.0544	0.0128
Venus	70281-05-27 04:48 G	27390814.50	27390814.70	27390814.90	0.0544	0.0071
Venus	70286-08-09 01:41 G	27392714.43	27392714.57	27392714.71	0.0487	0.0354
Earth	70287-02-06 19:27 G	27392896.20	27392896.31	27392896.43	0.0485	0.0421
Moon	70287-02-06 23:17 G	27392896.39	27392896.47	27392896.55	0.0485	0.0454 *
Mercury	70287-03-25 00:58 G	27392942.38	27392942.54	27392942.70	0.0484	0.0061
Venus	70287-04-01 19:12 G	27392950.10	27392950.30	27392950.50	0.0484	0.0055

Venus	70287-11-23 09:36 G	27393185.83	27393185.90	27393185.97	0.0484	0.0451
Venus	70293-01-29 13:41 G	27395079.87	27395080.07	27395080.27	0.0543	0.0095
Mercury	70293-02-26 22:34 G	27395108.33	27395108.44	27395108.55	0.0544	0.0353
Mercury	70293-05-27 15:36 G	27395198.10	27395198.15	27395198.20	0.0545	0.0510
Venus	70293-09-25 04:05 G	27395318.59	27395318.67	27395318.75	0.0544	0.0492
Venus	70298-04-14 05:46 G	27396980.69	27396980.74	27396980.80	0.0488	0.0466
Venus	70298-12-06 00:43 G	27397216.32	27397216.53	27397216.73	0.0484	0.0059
Mercury	70299-01-11 02:53 G	27397252.48	27397252.62	27397252.76	0.0484	0.0225
Mercury	70299-04-10 17:46 G	27397342.18	27397342.24	27397342.30	0.0484	0.0442
Venus	70299-07-29 15:07 G	27397451.99	27397452.13	27397452.28	0.0483	0.0342
Venus	70304-10-04 23:31 G	27399345.30	27399345.48	27399345.66	0.0543	0.0259
Mercury	70305-03-16 17:03 G	27399508.09	27399508.21	27399508.33	0.0545	0.0301
Venus	70305-05-31 13:27 G	27399583.90	27399584.06	27399584.22	0.0545	0.0331
Venus	70310-08-12 06:15 G	27401482.57	27401482.76	27401482.95	0.0485	0.0171
Mercury	70310-10-31 05:03 G	27401562.62	27401562.71	27401562.81	0.0484	0.0383
Mercury	70311-01-28 19:27 G	27401652.19	27401652.31	27401652.45	0.0483	0.0277
Venus	70311-04-04 21:22 G	27401718.21	27401718.39	27401718.57	0.0483	0.0234
Venus	70316-06-09 11:46 G	27403610.87	27403610.99	27403611.12	0.0542	0.0414
Moon	70316-07-28 08:24 G	27403659.72	27403659.85	27403659.99	0.0543	0.0438
Earth	70316-07-28 11:46 G	27403659.89	27403659.99	27403660.11	0.0543	0.0470 *
Mercury	70317-01-02 18:58 G	27403818.15	27403818.29	27403818.43	0.0545	0.0098
Venus	70317-02-03 00:15 G	27403849.32	27403849.51	27403849.71	0.0545	0.0170
Venus	70322-04-17 10:48 G	27405748.78	27405748.95	27405749.11	0.0486	0.0284
Mercury	70322-11-16 21:22 G	27405962.23	27405962.39	27405962.54	0.0484	0.0108
Venus	70322-12-09 03:07 G	27405984.43	27405984.63	27405984.83	0.0484	0.0123
Earth	70328-08-02 18:43 G	27408048.05	27408048.28	27408048.51	0.0544	0.0044
Moon	70328-08-02 22:34 G	27408048.22	27408048.44	27408048.67	0.0544	0.0036 *
Venus	70328-10-08 11:03 G	27408114.75	27408114.96	27408115.16	0.0544	0.0010
Mercury	70328-10-21 20:39 G	27408128.22	27408128.36	27408128.50	0.0545	0.0111
Venus	70333-12-21 15:22 G	27410015.03	27410015.14	27410015.26	0.0487	0.0396

Venus	70334-08-14 09:07 G	27410250.68	27410250.88	27410251.09	0.0484	0.0012
Mercury	70334-09-04 23:17 G	27410272.32	27410272.47	27410272.63	0.0484	0.0055
Venus	70335-04-06 23:31 G	27410486.37	27410486.48	27410486.58	0.0484	0.0409
Venus	70340-06-12 19:41 G	27412380.12	27412380.32	27412380.51	0.0543	0.0159
Moon	70340-08-07 17:46 G	27412436.16	27412436.24	27412436.33	0.0544	0.0502
Earth	70340-08-07 20:53 G	27412436.36	27412436.37	27412436.40	0.0544	0.0541
Mercury	70340-08-09 21:07 G	27412438.27	27412438.38	27412438.49	0.0544	0.0342
Mercury	70340-11-07 14:10 G	27412528.06	27412528.09	27412528.13	0.0544	0.0521
Venus	70341-02-06 09:07 G	27412618.76	27412618.88	27412619.01	0.0544	0.0428
Moon	70346-01-29 07:41 G	27414436.68	27414436.82	27414436.97	0.0486	0.0376
Earth	70346-01-29 10:34 G	27414436.78	27414436.94	27414437.11	0.0486	0.0347 *
Venus	70346-04-19 13:55 G	27414516.88	27414517.08	27414517.28	0.0485	0.0102
Mercury	70346-06-24 01:12 G	27414582.41	27414582.55	27414582.69	0.0484	0.0219
Mercury	70346-09-21 16:05 G	27414672.12	27414672.17	27414672.23	0.0484	0.0449
Venus	70346-12-11 05:17 G	27414752.57	27414752.72	27414752.89	0.0484	0.0302
Venus	70352-02-16 05:17 G	27416645.56	27416645.72	27416645.88	0.0542	0.0319
Mercury	70352-08-26 15:36 G	27416838.03	27416838.15	27416838.26	0.0544	0.0305
Venus	70352-10-11 17:31 G	27416884.05	27416884.23	27416884.41	0.0544	0.0265
Venus	70357-12-23 18:58 G	27418783.11	27418783.29	27418783.47	0.0486	0.0216
Earth	70358-02-02 18:00 G	27418824.01	27418824.25	27418824.48	0.0485	0.0014
Moon	70358-02-02 21:51 G	27418824.17	27418824.41	27418824.65	0.0485	0.0022 *
Mercury	70358-04-12 03:22 G	27418892.54	27418892.64	27418892.73	0.0484	0.0380
Mercury	70358-07-10 17:46 G	27418982.11	27418982.24	27418982.37	0.0484	0.0279
Venus	70358-08-16 10:48 G	27419018.77	27419018.95	27419019.14	0.0484	0.0190
Mars	70360-10-16 07:41 G	27419810.56	27419810.82	27419811.08	0.0497	0.0007
Venus	70363-10-21 15:07 G	27420911.04	27420911.13	27420911.23	0.0541	0.0477
Mercury	70364-06-14 16:34 G	27421148.05	27421148.19	27421148.33	0.0545	0.0087
Venus	70364-06-16 02:24 G	27421149.40	27421149.60	27421149.80	0.0545	0.0099
Venus	70369-08-29 00:00 G	27423049.35	27423049.50	27423049.65	0.0487	0.0327
Moon	70370-02-06 21:51 G	27423211.29	27423211.41	27423211.55	0.0484	0.0402

Earth	70370-02-07 01:55 G	27423211.43	27423211.58	27423211.73	0.0484	0.0370	*
Venus	70370-04-21 17:03 G	27423285.01	27423285.21	27423285.41	0.0484	0.0080	
Mercury	70370-04-28 19:41 G	27423292.17	27423292.32	27423292.47	0.0484	0.0115	
Venus	70370-12-13 06:58 G	27423520.75	27423520.79	27423520.83	0.0484	0.0472	
Venus	70376-02-19 13:27 G	27425414.86	27425415.06	27425415.26	0.0544	0.0063	
Mercury	70376-04-02 18:15 G	27425458.12	27425458.26	27425458.40	0.0545	0.0121	
Venus	70376-10-15 04:34 G	27425653.64	27425653.69	27425653.75	0.0545	0.0522	
Venus	70381-05-04 03:51 G	27427315.58	27427315.66	27427315.75	0.0488	0.0439	
Venus	70381-12-25 22:19 G	27427551.22	27427551.43	27427551.63	0.0484	0.0033	
Mercury	70382-02-14 21:22 G	27427602.24	27427602.39	27427602.55	0.0484	0.0053	
Venus	70382-08-18 12:29 G	27427786.89	27427787.02	27427787.16	0.0483	0.0366	
Venus	70387-10-25 00:58 G	27429680.36	27429680.54	27429680.73	0.0543	0.0222	
Mercury	70388-01-20 19:41 G	27429768.21	27429768.32	27429768.44	0.0544	0.0333	
Mercury	70388-04-19 12:58 G	27429858.02	27429858.04	27429858.07	0.0545	0.0533	
Venus	70388-06-19 15:07 G	27429918.98	27429919.13	27429919.28	0.0545	0.0365	
Venus	70393-08-31 03:36 G	27431817.46	27431817.65	27431817.85	0.0485	0.0145	
Mercury	70393-12-03 23:31 G	27431912.34	27431912.48	27431912.62	0.0484	0.0213	
Mercury	70394-03-03 14:24 G	27432002.05	27432002.10	27432002.15	0.0484	0.0454	
Venus	70394-04-23 18:58 G	27432053.12	27432053.29	27432053.47	0.0484	0.0258	
Venus	70399-06-29 11:17 G	27433945.83	27433945.97	27433946.11	0.0541	0.0380	
Moon	70399-07-28 16:34 G	27433975.14	27433975.19	27433975.26	0.0542	0.0520	
Mercury	70400-02-06 13:55 G	27434167.97	27434168.08	27434168.20	0.0544	0.0314	
Venus	70400-02-22 22:48 G	27434184.26	27434184.45	27434184.64	0.0544	0.0200	
Venus	70405-05-06 07:41 G	27436083.65	27436083.82	27436083.99	0.0486	0.0260	
Mercury	70405-09-22 01:27 G	27436222.47	27436222.56	27436222.66	0.0485	0.0377	
Mercury	70405-12-20 15:51 G	27436312.04	27436312.16	27436312.29	0.0484	0.0283	
Venus	70405-12-28 00:29 G	27436319.33	27436319.52	27436319.72	0.0484	0.0147	
Venus	70411-03-03 21:51 G	27438211.38	27438211.41	27438211.44	0.0539	0.0531	
Moon	70411-08-02 11:17 G	27438362.74	27438362.97	27438363.21	0.0543	0.0070	
Earth	70411-08-02 15:07 G	27438362.90	27438363.13	27438363.36	0.0543	0.0062	*

Venus	70411-10-28 07:27 G	27438449.60	27438449.81	27438450.01	0.0544	0.0036
Mercury	70411-11-25 15:07 G	27438477.98	27438478.13	27438478.27	0.0544	0.0093
Venus	70417-01-09 12:00 G	27440349.87	27440350.00	27440350.13	0.0487	0.0372
Venus	70417-09-02 05:46 G	27440585.54	27440585.74	27440585.95	0.0484	0.0034
Mercury	70417-10-08 17:31 G	27440622.08	27440622.23	27440622.39	0.0484	0.0116
Venus	70418-04-25 19:55 G	27440821.25	27440821.33	27440821.43	0.0484	0.0429
Venus	70423-07-02 16:05 G	27442714.97	27442715.17	27442715.36	0.0543	0.0132
Earth	70423-08-07 16:48 G	27442751.07	27442751.20	27442751.34	0.0544	0.0437
Moon	70423-08-07 18:43 G	27442751.14	27442751.28	27442751.43	0.0544	0.0406 *
Mercury	70423-09-13 15:51 G	27442788.02	27442788.16	27442788.30	0.0544	0.0133
Venus	70424-02-26 06:15 G	27442953.66	27442953.76	27442953.88	0.0545	0.0453
Venus	70428-09-14 16:34 G	27444616.16	27444616.19	27444616.22	0.0489	0.0482
Earth	70429-01-28 16:05 G	27444752.04	27444752.17	27444752.31	0.0486	0.0401
Moon	70429-01-28 19:55 G	27444752.23	27444752.33	27444752.45	0.0486	0.0427 *
Venus	70429-05-08 11:46 G	27444851.78	27444851.99	27444852.19	0.0485	0.0078
Mercury	70429-07-27 19:41 G	27444932.17	27444932.32	27444932.48	0.0484	0.0047
Venus	70429-12-30 02:39 G	27445087.46	27445087.61	27445087.76	0.0483	0.0323
Venus	70435-03-07 03:22 G	27446980.47	27446980.64	27446980.81	0.0542	0.0291
Mercury	70435-07-02 17:17 G	27447098.11	27447098.22	27447098.33	0.0544	0.0346
Mercury	70435-09-30 10:34 G	27447187.90	27447187.94	27447187.98	0.0545	0.0522
Venus	70435-10-31 16:48 G	27447219.03	27447219.20	27447219.37	0.0545	0.0295
Venus	70441-01-11 16:19 G	27449118.00	27449118.18	27449118.37	0.0485	0.0190
Moon	70441-02-01 19:12 G	27449139.07	27449139.30	27449139.54	0.0485	0.0039
Earth	70441-02-01 23:17 G	27449139.23	27449139.47	27449139.71	0.0485	0.0044 *
Mercury	70441-05-15 21:36 G	27449242.26	27449242.40	27449242.54	0.0484	0.0212
Mercury	70441-08-13 12:29 G	27449331.97	27449332.02	27449332.07	0.0483	0.0454
Venus	70441-09-04 07:55 G	27449353.65	27449353.83	27449354.02	0.0483	0.0214
Venus	70446-11-09 15:51 G	27451246.05	27451246.16	27451246.28	0.0541	0.0442
Venus	70447-07-06 03:36 G	27451484.45	27451484.65	27451484.84	0.0545	0.0134
Mercury	70447-07-19 12:29 G	27451497.90	27451498.02	27451498.13	0.0545	0.0319

Venus	70452-09-16 21:07 G	27453384.22	27453384.38	27453384.54	0.0487	0.0302
Earth	70453-02-06 06:29 G	27453526.60	27453526.77	27453526.96	0.0485	0.0313
Moon	70453-02-06 10:05 G	27453526.76	27453526.92	27453527.08	0.0485	0.0343 *
Mercury	70453-03-03 23:46 G	27453552.40	27453552.49	27453552.59	0.0484	0.0371
Venus	70453-05-10 14:10 G	27453619.89	27453620.09	27453620.29	0.0484	0.0104
Mercury	70453-06-01 14:10 G	27453641.97	27453642.09	27453642.22	0.0484	0.0288
Venus	70459-03-10 12:29 G	27455749.82	27455750.02	27455750.23	0.0544	0.0033
Mercury	70459-05-07 13:41 G	27455807.92	27455808.07	27455808.21	0.0544	0.0101
Venus	70464-05-23 00:00 G	27457650.40	27457650.50	27457650.61	0.0488	0.0416
Venus	70465-01-13 18:58 G	27457886.08	27457886.29	27457886.49	0.0485	0.0013
Mercury	70465-03-20 15:51 G	27457952.00	27457952.16	27457952.31	0.0484	0.0117
Venus	70465-09-06 09:36 G	27458121.79	27458121.90	27458122.03	0.0484	0.0388
Venus	70470-11-12 21:51 G	27460015.22	27460015.41	27460015.60	0.0542	0.0194
Mercury	70471-02-23 14:24 G	27460117.96	27460118.10	27460118.24	0.0544	0.0124
Venus	70471-07-09 10:48 G	27460253.82	27460253.95	27460254.10	0.0544	0.0390
Venus	70476-09-18 23:46 G	27462152.30	27462152.49	27462152.69	0.0485	0.0124
Mercury	70477-01-06 17:46 G	27462262.08	27462262.24	27462262.39	0.0484	0.0050
Venus	70477-05-12 15:22 G	27462387.97	27462388.14	27462388.30	0.0484	0.0278
Venus	70482-07-18 06:29 G	27464280.62	27464280.77	27464280.93	0.0541	0.0356
Mercury	70482-12-12 14:53 G	27464428.01	27464428.12	27464428.23	0.0544	0.0358
Mercury	70483-03-12 08:10 G	27464517.79	27464517.84	27464517.89	0.0545	0.0510
Venus	70483-03-13 18:29 G	27464519.09	27464519.27	27464519.46	0.0545	0.0224
Venus	70488-05-25 05:17 G	27466418.55	27466418.72	27466418.90	0.0486	0.0234
Mercury	70488-10-25 19:55 G	27466572.19	27466572.33	27466572.47	0.0484	0.0208
Venus	70489-01-15 21:36 G	27466654.21	27466654.40	27466654.59	0.0484	0.0170
Mercury	70489-01-23 10:34 G	27466661.90	27466661.94	27466661.99	0.0484	0.0459
Venus	70494-03-22 18:43 G	27468546.21	27468546.28	27468546.35	0.0540	0.0505
Earth	70494-08-01 12:29 G	27468677.80	27468678.02	27468678.24	0.0543	0.0160
Moon	70494-08-01 15:07 G	27468677.92	27468678.13	27468678.34	0.0543	0.0169 *
Venus	70494-11-16 05:03 G	27468784.51	27468784.71	27468784.91	0.0545	0.0063

Mercury	70494-12-29 09:51 G	27468827.80	27468827.91	27468828.03	0.0545	0.0306
Venus	70500-01-29 09:22 G	27470684.76	27470684.89	27470685.04	0.0487	0.0346
Mercury	70500-08-14 21:51 G	27470882.31	27470882.41	27470882.51	0.0484	0.0371
Venus	70500-09-22 02:53 G	27470920.42	27470920.62	27470920.82	0.0484	0.0059
Mercury	70500-11-12 12:00 G	27470971.88	27470972.00	27470972.13	0.0484	0.0288
Venus	70501-05-15 16:48 G	27471156.13	27471156.20	27471156.28	0.0484	0.0450
Venus	70506-07-22 16:34 G	27473049.99	27473050.19	27473050.39	0.0544	0.0098
Moon	70506-08-07 19:27 G	27473066.12	27473066.31	27473066.50	0.0544	0.0328
Earth	70506-08-07 19:27 G	27473066.15	27473066.31	27473066.49	0.0544	0.0358 *
Mercury	70506-10-18 11:46 G	27473137.85	27473137.99	27473138.13	0.0545	0.0101
Venus	70507-03-18 07:12 G	27473288.71	27473288.80	27473288.89	0.0545	0.0484
Venus	70511-10-05 13:27 G	27474951.00	27474951.06	27474951.14	0.0488	0.0457
Earth	70512-01-29 20:24 G	27475067.28	27475067.35	27475067.42	0.0486	0.0462
Venus	70512-05-28 08:39 G	27475186.65	27475186.86	27475187.06	0.0485	0.0053
Mercury	70512-08-31 14:10 G	27475281.93	27475282.09	27475282.24	0.0484	0.0123
Venus	70513-01-18 23:17 G	27475422.33	27475422.47	27475422.62	0.0483	0.0345
Mars	70515-01-11 01:41 G	27476144.40	27476144.57	27476144.76	0.0497	0.0356
Venus	70518-03-27 03:07 G	27477315.45	27477315.63	27477315.81	0.0542	0.0258
Mercury	70518-08-06 12:43 G	27477447.89	27477448.03	27477448.18	0.0544	0.0119
Venus	70518-11-20 15:36 G	27477553.99	27477554.15	27477554.32	0.0544	0.0324
Venus	70524-02-01 12:29 G	27479452.83	27479453.02	27479453.21	0.0486	0.0167
Earth	70524-02-03 02:10 G	27479454.35	27479454.59	27479454.82	0.0486	0.0108
Moon	70524-02-03 05:31 G	27479454.50	27479454.73	27479454.96	0.0486	0.0095 *
Mercury	70524-06-19 15:36 G	27479592.00	27479592.15	27479592.31	0.0484	0.0049
Venus	70524-09-24 04:34 G	27479688.51	27479688.69	27479688.87	0.0484	0.0235
Venus	70529-11-29 13:27 G	27481580.94	27481581.06	27481581.20	0.0540	0.0413
Mercury	70530-05-25 13:27 G	27481757.95	27481758.06	27481758.18	0.0544	0.0345
Venus	70530-07-26 00:15 G	27481819.32	27481819.51	27481819.70	0.0544	0.0160
Mercury	70530-08-23 06:43 G	27481847.75	27481847.78	27481847.82	0.0544	0.0520
Venus	70535-10-07 17:03 G	27483719.04	27483719.21	27483719.38	0.0487	0.0280

Moon	70536-02-07 07:12 G	27483841.60	27483841.80	27483842.00	0.0485	0.0279
Earth	70536-02-07 09:36 G	27483841.70	27483841.90	27483842.10	0.0485	0.0252 *
Mercury	70536-04-07 17:46 G	27483902.10	27483902.24	27483902.38	0.0484	0.0210
Venus	70536-05-30 10:19 G	27483954.73	27483954.93	27483955.12	0.0484	0.0124
Mercury	70536-07-06 08:24 G	27483991.80	27483991.85	27483991.90	0.0484	0.0457
Venus	70542-03-30 07:41 G	27486084.61	27486084.82	27486085.02	0.0544	0.0013
Mercury	70542-06-11 07:41 G	27486157.70	27486157.82	27486157.94	0.0545	0.0296
Mars	70544-03-26 21:07 G	27486812.13	27486812.38	27486812.64	0.0533	0.0257
Venus	70547-06-12 22:05 G	27487985.30	27487985.42	27487985.54	0.0488	0.0390
Mercury	70548-01-25 20:10 G	27488212.24	27488212.34	27488212.44	0.0484	0.0366
Venus	70548-02-03 16:19 G	27488220.97	27488221.18	27488221.38	0.0484	0.0014
Mercury	70548-04-24 10:19 G	27488301.81	27488301.93	27488302.06	0.0484	0.0292
Venus	70548-09-26 06:29 G	27488456.67	27488456.77	27488456.89	0.0483	0.0407
Venus	70553-12-02 18:29 G	27490350.08	27490350.27	27490350.46	0.0543	0.0168
Mercury	70554-03-30 09:07 G	27490467.74	27490467.88	27490468.02	0.0545	0.0086
Venus	70554-07-29 08:39 G	27490588.73	27490588.86	27490588.99	0.0545	0.0414
Venus	70559-10-09 21:22 G	27492487.19	27492487.39	27492487.59	0.0485	0.0097
Mercury	70560-02-11 12:00 G	27492611.85	27492612.00	27492612.16	0.0484	0.0124
Venus	70560-06-01 12:15 G	27492722.85	27492723.01	27492723.17	0.0483	0.0301
Venus	70565-08-07 06:43 G	27494615.62	27494615.78	27494615.94	0.0542	0.0322
Mercury	70566-01-16 10:48 G	27494777.81	27494777.95	27494778.09	0.0545	0.0122
Venus	70566-04-02 19:12 G	27494854.12	27494854.30	27494854.48	0.0545	0.0257
Venus	70571-06-15 02:24 G	27496753.42	27496753.60	27496753.79	0.0486	0.0209
Mercury	70571-11-30 14:10 G	27496921.93	27496922.09	27496922.24	0.0484	0.0040
Venus	70572-02-05 18:29 G	27496989.08	27496989.27	27496989.46	0.0484	0.0193
Venus	70577-04-11 18:58 G	27498881.20	27498881.29	27498881.39	0.0540	0.0473
Moon	70577-08-01 13:27 G	27498992.85	27498993.06	27498993.27	0.0542	0.0254
Earth	70577-08-01 14:39 G	27498992.90	27498993.11	27498993.32	0.0542	0.0240 *
Mercury	70577-11-04 12:00 G	27499087.88	27499088.00	27499088.11	0.0544	0.0339
Venus	70577-12-06 05:03 G	27499119.51	27499119.71	27499119.91	0.0544	0.0094

Mercury	70578-02-02 05:17 G	27499177.69	27499177.72	27499177.75	0.0544	0.0527
Venus	70583-02-18 05:17 G	27501019.58	27501019.72	27501019.88	0.0487	0.0325
Mercury	70583-09-18 15:51 G	27501232.02	27501232.16	27501232.30	0.0484	0.0208
Venus	70583-10-11 23:17 G	27501255.27	27501255.47	27501255.67	0.0484	0.0081
Mercury	70583-12-17 06:29 G	27501321.73	27501321.77	27501321.82	0.0484	0.0459
Venus	70584-06-03 13:41 G	27501491.03	27501491.07	27501491.12	0.0484	0.0470
Moon	70589-08-06 15:51 G	27503380.96	27503381.16	27503381.36	0.0543	0.0234
Earth	70589-08-06 17:31 G	27503381.03	27503381.23	27503381.43	0.0543	0.0260 *
Venus	70589-08-10 14:10 G	27503384.89	27503385.09	27503385.29	0.0543	0.0070
Mercury	70589-11-21 06:29 G	27503487.65	27503487.77	27503487.89	0.0544	0.0310
Venus	70590-04-06 03:51 G	27503623.60	27503623.66	27503623.74	0.0544	0.0508
Venus	70594-10-24 09:22 G	27505285.80	27505285.89	27505285.99	0.0489	0.0435
Venus	70595-06-17 04:48 G	27505521.49	27505521.70	27505521.90	0.0485	0.0032
Mercury	70595-07-07 18:00 G	27505542.15	27505542.25	27505542.35	0.0485	0.0368
Mercury	70595-10-05 08:24 G	27505631.72	27505631.85	27505631.97	0.0484	0.0291
Venus	70596-02-07 19:41 G	27505757.19	27505757.32	27505757.45	0.0484	0.0363
Venus	70601-04-15 21:51 G	27507650.23	27507650.41	27507650.59	0.0542	0.0234
Mercury	70601-09-10 06:58 G	27507797.64	27507797.79	27507797.93	0.0544	0.0078
Venus	70601-12-10 10:48 G	27507888.80	27507888.95	27507889.11	0.0545	0.0345
Moon	70607-02-03 05:46 G	27509769.51	27509769.74	27509769.98	0.0486	0.0143
Earth	70607-02-03 08:10 G	27509769.62	27509769.84	27509770.07	0.0486	0.0160 *
Venus	70607-02-21 10:34 G	27509787.74	27509787.94	27509788.13	0.0485	0.0142
Mercury	70607-07-25 10:19 G	27509941.78	27509941.93	27509942.09	0.0484	0.0129
Venus	70607-10-15 02:10 G	27510023.42	27510023.59	27510023.76	0.0483	0.0257
Venus	70612-12-19 09:22 G	27511915.75	27511915.89	27511916.03	0.0541	0.0388
Mercury	70613-06-29 08:10 G	27512107.70	27512107.84	27512107.98	0.0544	0.0137
Venus	70613-08-14 20:53 G	27512154.18	27512154.37	27512154.56	0.0545	0.0186
Venus	70618-10-27 15:07 G	27514053.96	27514054.13	27514054.31	0.0486	0.0253
Earth	70619-02-07 15:07 G	27514156.92	27514157.13	27514157.35	0.0485	0.0198
Moon	70619-02-07 15:51 G	27514156.96	27514157.16	27514157.36	0.0485	0.0223 *

Mercury	70619-05-13 12:15 G	27514251.85	27514252.01	27514252.17	0.0484	0.0038
Venus	70619-06-20 07:41 G	27514289.63	27514289.82	27514290.02	0.0484	0.0149
Venus	70624-08-23 22:34 G	27516181.41	27516181.44	27516181.47	0.0539	0.0533
Mercury	70625-04-17 09:51 G	27516417.80	27516417.91	27516418.02	0.0544	0.0346
Venus	70625-04-19 08:10 G	27516419.64	27516419.84	27516420.05	0.0544	0.0028
Mercury	70625-07-16 03:07 G	27516507.60	27516507.63	27516507.67	0.0545	0.0525
Venus	70630-07-02 19:27 G	27518320.18	27518320.31	27518320.45	0.0488	0.0364
Venus	70631-02-23 13:27 G	27518555.86	27518556.06	27518556.27	0.0484	0.0040
Mercury	70631-03-01 14:24 G	27518561.96	27518562.10	27518562.24	0.0484	0.0199
Mercury	70631-05-30 05:03 G	27518651.67	27518651.71	27518651.75	0.0484	0.0466
Venus	70631-10-17 03:51 G	27518791.57	27518791.66	27518791.75	0.0484	0.0429
Mars	70633-07-03 19:41 G	27519417.23	27519417.32	27519417.42	0.0495	0.0458
Venus	70636-12-22 19:27 G	27520685.11	27520685.31	27520685.50	0.0543	0.0134
Mercury	70637-05-04 04:48 G	27520817.59	27520817.70	27520817.82	0.0544	0.0318
Venus	70637-08-18 08:53 G	27520923.76	27520923.87	27520923.99	0.0545	0.0444
Venus	70642-03-07 21:36 G	27522586.36	27522586.40	27522586.45	0.0489	0.0477
Venus	70642-10-29 17:46 G	27522822.04	27522822.24	27522822.45	0.0485	0.0075
Mercury	70642-12-18 16:19 G	27522872.08	27522872.18	27522872.28	0.0485	0.0365
Mercury	70643-03-18 06:29 G	27522961.64	27522961.77	27522961.89	0.0484	0.0294
Venus	70643-06-22 09:07 G	27523057.73	27523057.88	27523058.04	0.0484	0.0322
Venus	70648-08-27 05:31 G	27524950.56	27524950.73	27524950.90	0.0541	0.0292
Mercury	70649-02-20 06:00 G	27525127.61	27525127.75	27525127.89	0.0544	0.0097
Venus	70649-04-22 17:17 G	27525189.06	27525189.22	27525189.40	0.0544	0.0285
Venus	70654-07-04 22:48 G	27527088.27	27527088.45	27527088.64	0.0486	0.0187
Mercury	70655-01-04 08:24 G	27527271.70	27527271.85	27527272.00	0.0484	0.0129
Venus	70655-02-25 15:07 G	27527323.95	27527324.13	27527324.32	0.0484	0.0213
Venus	70660-05-01 13:55 G	27529215.97	27529216.08	27529216.19	0.0540	0.0448
Moon	70660-08-01 07:27 G	27529307.65	27529307.81	27529307.97	0.0542	0.0378
Earth	70660-08-01 07:55 G	27529307.66	27529307.83	27529308.00	0.0542	0.0357 *
Mercury	70660-12-09 06:00 G	27529437.61	27529437.75	27529437.90	0.0544	0.0142

Venus	70660-12-26 00:00 G	27529454.31	27529454.50	27529454.70	0.0544	0.0118
Venus	70666-03-10 04:05 G	27531354.51	27531354.67	27531354.84	0.0487	0.0296
Mercury	70666-10-23 10:34 G	27531581.79	27531581.94	27531582.10	0.0484	0.0032
Venus	70666-10-31 21:36 G	27531590.20	27531590.40	27531590.60	0.0484	0.0106
Earth	70672-08-06 12:43 G	27533695.81	27533696.03	27533696.25	0.0543	0.0151
Moon	70672-08-06 15:36 G	27533695.92	27533696.15	27533696.38	0.0543	0.0125 *
Venus	70672-08-30 10:19 G	27533719.73	27533719.93	27533720.13	0.0544	0.0044
Mercury	70672-09-27 07:12 G	27533747.69	27533747.80	27533747.91	0.0544	0.0359
Mercury	70672-12-26 00:43 G	27533837.49	27533837.53	27533837.58	0.0545	0.0512
Venus	70673-04-26 00:58 G	27533958.51	27533958.54	27533958.59	0.0545	0.0531
Venus	70677-11-13 08:10 G	27535620.74	27535620.84	27535620.96	0.0488	0.0406
Venus	70678-07-07 03:07 G	27535856.42	27535856.63	27535856.83	0.0484	0.0009
Mercury	70678-08-11 12:43 G	27535891.88	27535892.03	27535892.17	0.0484	0.0194
Mercury	70678-11-09 03:07 G	27535981.60	27535981.63	27535981.67	0.0483	0.0471
Venus	70679-02-27 17:17 G	27536092.11	27536092.22	27536092.35	0.0483	0.0387
Venus	70684-05-04 22:34 G	27537985.25	27537985.44	27537985.62	0.0543	0.0200
Mercury	70684-10-14 02:53 G	27538147.50	27538147.62	27538147.73	0.0545	0.0312
Venus	70684-12-29 12:00 G	27538223.86	27538224.00	27538224.15	0.0545	0.0379
Earth	70690-02-02 13:55 G	27540084.87	27540085.08	27540085.30	0.0486	0.0216
Moon	70690-02-02 14:24 G	27540084.90	27540085.10	27540085.32	0.0486	0.0192 *
Venus	70690-03-12 08:24 G	27540122.65	27540122.85	27540123.05	0.0485	0.0115
Mercury	70690-05-30 14:53 G	27540202.02	27540202.12	27540202.23	0.0484	0.0353
Mercury	70690-08-28 05:03 G	27540291.59	27540291.71	27540291.83	0.0484	0.0305
Venus	70690-11-02 23:46 G	27540358.33	27540358.49	27540358.66	0.0483	0.0281
Venus	70696-01-08 10:48 G	27542250.81	27542250.95	27542251.11	0.0541	0.0353
Mercury	70696-08-02 04:34 G	27542457.54	27542457.69	27542457.83	0.0544	0.0106
Venus	70696-09-02 22:19 G	27542489.25	27542489.43	27542489.62	0.0545	0.0219
Mars	70698-06-21 21:07 G	27543146.13	27543146.38	27543146.64	0.0532	0.0266
Venus	70701-11-16 12:00 G	27544388.82	27544389.00	27544389.18	0.0486	0.0229
Earth	70702-02-07 19:41 G	27544472.10	27544472.32	27544472.55	0.0485	0.0141

Moon	70702-02-07 20:39 G	27544472.13	27544472.36	27544472.59	0.0485	0.0164 *
Mercury	70702-06-17 06:43 G	27544601.63	27544601.78	27544601.93	0.0484	0.0134
Venus	70702-07-10 04:48 G	27544624.52	27544624.70	27544624.90	0.0484	0.0172
Venus	70707-09-13 22:34 G	27546516.37	27546516.44	27546516.51	0.0539	0.0501
Venus	70708-05-09 07:41 G	27546754.62	27546754.82	27546755.03	0.0544	0.0058
Mercury	70708-05-22 05:31 G	27546767.59	27546767.73	27546767.87	0.0544	0.0116
Venus	70713-07-22 16:19 G	27548655.04	27548655.18	27548655.33	0.0488	0.0341
Venus	70714-03-15 10:48 G	27548890.75	27548890.95	27548891.15	0.0484	0.0061
Mercury	70714-04-05 08:53 G	27548911.71	27548911.87	27548912.02	0.0484	0.0029
Venus	70714-11-06 01:12 G	27549126.48	27549126.55	27549126.63	0.0484	0.0448
Venus	70720-01-12 14:39 G	27551019.91	27551020.11	27551020.31	0.0543	0.0109
Mercury	70720-03-10 05:17 G	27551077.61	27551077.72	27551077.83	0.0544	0.0360
Mercury	70720-06-07 23:03 G	27551167.41	27551167.46	27551167.50	0.0545	0.0511
Venus	70720-09-07 04:19 G	27551258.58	27551258.68	27551258.79	0.0545	0.0465
Venus	70725-03-27 20:53 G	27552921.30	27552921.37	27552921.46	0.0489	0.0449
Venus	70725-11-18 17:03 G	27553157.01	27553157.21	27553157.41	0.0485	0.0047
Mercury	70726-01-22 11:17 G	27553221.82	27553221.97	27553222.11	0.0484	0.0185
Mercury	70726-04-22 01:41 G	27553311.56	27553311.57	27553311.59	0.0484	0.0481
Venus	70726-07-12 08:10 G	27553392.70	27553392.84	27553392.98	0.0483	0.0345
Venus	70731-09-17 01:27 G	27555285.39	27555285.56	27555285.74	0.0542	0.0265
Mercury	70732-03-27 00:29 G	27555477.40	27555477.52	27555477.64	0.0545	0.0302
Venus	70732-05-12 14:10 G	27555523.93	27555524.09	27555524.26	0.0545	0.0310
Venus	70737-07-24 22:05 G	27557423.22	27557423.42	27557423.61	0.0486	0.0158
Mercury	70737-11-10 13:27 G	27557531.95	27557532.06	27557532.17	0.0484	0.0345
Mercury	70738-02-08 03:22 G	27557621.53	27557621.64	27557621.77	0.0484	0.0312
Venus	70738-03-17 13:41 G	27557658.90	27557659.07	27557659.25	0.0483	0.0239
Venus	70743-05-22 14:24 G	27559550.98	27559551.10	27559551.23	0.0541	0.0414
Earth	70743-08-02 11:31 G	27559622.84	27559622.98	27559623.11	0.0542	0.0434
Moon	70743-08-02 13:41 G	27559622.95	27559623.07	27559623.19	0.0542	0.0459 *
Mercury	70744-01-14 02:24 G	27559787.45	27559787.60	27559787.74	0.0545	0.0099

Venus	70744-01-16 01:27 G	27559789.37	27559789.56	27559789.76	0.0545	0.0152
Venus	70749-03-30 02:53 G	27561689.45	27561689.62	27561689.79	0.0487	0.0268
Venus	70749-11-20 19:55 G	27561925.14	27561925.33	27561925.53	0.0484	0.0132
Mercury	70749-11-27 05:31 G	27561931.58	27561931.73	27561931.88	0.0484	0.0148
Moon	70755-08-07 15:07 G	27564010.91	27564011.13	27564011.36	0.0543	0.0058
Earth	70755-08-07 18:43 G	27564011.05	27564011.28	27564011.50	0.0543	0.0086 *
Venus	70755-09-20 12:43 G	27564054.83	27564055.03	27564055.24	0.0544	0.0013
Mercury	70755-11-02 03:51 G	27564097.52	27564097.66	27564097.81	0.0544	0.0111
Venus	70760-12-03 05:46 G	27565955.62	27565955.74	27565955.87	0.0488	0.0381
Venus	70761-07-27 00:43 G	27566191.32	27566191.53	27566191.73	0.0485	0.0020
Mercury	70761-09-15 07:12 G	27566241.64	27566241.80	27566241.96	0.0484	0.0021
Venus	70762-03-19 15:22 G	27566427.04	27566427.14	27566427.25	0.0484	0.0408
Venus	70767-05-25 23:17 G	27568320.28	27568320.47	27568320.66	0.0543	0.0166
Mercury	70767-08-21 04:48 G	27568407.59	27568407.70	27568407.82	0.0544	0.0331
Mercury	70767-11-18 22:19 G	27568497.42	27568497.43	27568497.45	0.0545	0.0538
Venus	70768-01-19 12:29 G	27568558.88	27568559.02	27568559.15	0.0545	0.0408
Earth	70773-02-02 19:55 G	27570400.13	27570400.33	27570400.53	0.0486	0.0269
Moon	70773-02-02 20:53 G	27570400.16	27570400.37	27570400.59	0.0486	0.0240 *
Venus	70773-04-01 06:15 G	27570457.56	27570457.76	27570457.96	0.0485	0.0091
Mercury	70773-07-04 09:22 G	27570551.75	27570551.89	27570552.04	0.0484	0.0181
Venus	70773-11-22 21:51 G	27570693.26	27570693.41	27570693.57	0.0484	0.0304
Venus	70779-01-28 06:58 G	27572585.63	27572585.79	27572585.95	0.0541	0.0325
Mercury	70779-09-06 22:48 G	27572807.33	27572807.45	27572807.57	0.0545	0.0305
Venus	70779-09-23 18:15 G	27572824.08	27572824.26	27572824.44	0.0545	0.0244
Venus	70784-12-05 12:00 G	27574723.81	27574724.00	27574724.19	0.0486	0.0199
Moon	70785-02-07 03:07 G	27574787.41	27574787.63	27574787.85	0.0485	0.0119
Earth	70785-02-07 05:17 G	27574787.49	27574787.72	27574787.95	0.0485	0.0098 *
Mercury	70785-04-22 12:00 G	27574861.89	27574862.00	27574862.11	0.0484	0.0334
Mercury	70785-07-21 02:10 G	27574951.48	27574951.59	27574951.71	0.0484	0.0324
Venus	70785-07-29 04:34 G	27574959.51	27574959.69	27574959.88	0.0484	0.0199

Mars	70787-09-28 15:07 G	27575750.88	27575751.13	27575751.38	0.0495	0.0089
Venus	70790-10-02 18:29 G	27576851.19	27576851.27	27576851.38	0.0539	0.0474
Venus	70791-05-29 04:19 G	27577089.48	27577089.68	27577089.88	0.0544	0.0085
Mercury	70791-06-26 00:00 G	27577117.36	27577117.50	27577117.65	0.0545	0.0093
Venus	70796-08-10 16:19 G	27578990.03	27578990.18	27578990.34	0.0487	0.0309
Earth	70797-02-11 12:29 G	27579174.95	27579175.02	27579175.10	0.0484	0.0457
Moon	70797-02-11 15:51 G	27579175.07	27579175.16	27579175.27	0.0484	0.0437 *
Venus	70797-04-03 10:19 G	27579225.72	27579225.93	27579226.13	0.0484	0.0090
Mercury	70797-05-09 04:05 G	27579261.52	27579261.67	27579261.82	0.0484	0.0158
Venus	70797-11-25 00:15 G	27579461.47	27579461.51	27579461.55	0.0483	0.0472
Venus	70803-01-31 16:05 G	27581354.97	27581355.17	27581355.37	0.0544	0.0073
Mercury	70803-04-14 01:41 G	27581427.43	27581427.57	27581427.72	0.0545	0.0117
Venus	70803-09-27 06:29 G	27581593.70	27581593.77	27581593.86	0.0545	0.0499
Venus	70808-04-15 20:24 G	27583256.26	27583256.35	27583256.46	0.0489	0.0419
Venus	70808-12-07 16:05 G	27583491.97	27583492.17	27583492.38	0.0485	0.0019
Mercury	70809-02-25 06:15 G	27583571.60	27583571.76	27583571.92	0.0484	0.0005
Venus	70809-07-31 06:43 G	27583727.66	27583727.78	27583727.92	0.0483	0.0371
Venus	70814-10-06 04:34 G	27585620.51	27585620.69	27585620.87	0.0542	0.0227
Mercury	70815-01-31 03:22 G	27585737.52	27585737.64	27585737.76	0.0544	0.0323
Venus	70815-06-01 17:31 G	27585859.07	27585859.23	27585859.39	0.0545	0.0345
Venus	70820-08-12 20:10 G	27587758.15	27587758.34	27587758.54	0.0486	0.0132
Mercury	70820-12-14 08:10 G	27587881.69	27587881.84	27587881.98	0.0484	0.0170
Venus	70821-04-05 12:15 G	27587993.84	27587994.01	27587994.18	0.0484	0.0263
Venus	70826-06-10 16:19 G	27589886.04	27589886.18	27589886.32	0.0540	0.0378
Moon	70826-08-01 13:27 G	27589938.03	27589938.06	27589938.10	0.0542	0.0533
Earth	70826-08-01 16:34 G	27589938.11	27589938.19	27589938.28	0.0542	0.0502
Venus	70827-02-04 03:07 G	27590124.44	27590124.63	27590124.82	0.0544	0.0187
Mercury	70827-02-16 22:19 G	27590137.32	27590137.43	27590137.55	0.0545	0.0337
Venus	70832-04-18 01:12 G	27592024.38	27592024.55	27592024.73	0.0487	0.0242
Mercury	70832-10-02 10:34 G	27592191.83	27592191.94	27592192.05	0.0485	0.0327

Venus	70832-12-09 18:43 G	27592260.09	27592260.28	27592260.48	0.0484	0.0157
Mercury	70832-12-31 00:29 G	27592281.41	27592281.52	27592281.64	0.0484	0.0333
Venus	70838-02-13 01:12 G	27594151.52	27594151.55	27594151.59	0.0538	0.0527
Earth	70838-08-06 15:07 G	27594325.90	27594326.13	27594326.36	0.0543	0.0023
Moon	70838-08-06 18:43 G	27594326.05	27594326.28	27594326.51	0.0543	0.0045 *
Venus	70838-10-09 09:22 G	27594389.69	27594389.89	27594390.10	0.0544	0.0023
Mercury	70838-12-05 22:34 G	27594447.30	27594447.44	27594447.59	0.0544	0.0099
Venus	70843-12-23 06:15 G	27596290.62	27596290.76	27596290.90	0.0488	0.0350
Mercury	70844-07-21 13:12 G	27596502.03	27596502.05	27596502.07	0.0485	0.0479
Venus	70844-08-15 01:12 G	27596526.34	27596526.55	27596526.75	0.0485	0.0050
Mercury	70844-10-19 02:53 G	27596591.47	27596591.62	27596591.77	0.0484	0.0172
Venus	70845-04-07 15:51 G	27596762.07	27596762.16	27596762.25	0.0483	0.0434
Venus	70850-06-13 20:10 G	27598655.14	27598655.34	27598655.53	0.0543	0.0137
Moon	70850-08-11 16:19 G	27598714.11	27598714.18	27598714.26	0.0544	0.0514
Earth	70850-08-11 19:27 G	27598714.22	27598714.31	27598714.42	0.0544	0.0489 *
Mercury	70850-09-23 23:46 G	27598757.35	27598757.49	27598757.63	0.0544	0.0119
Venus	70851-02-07 09:22 G	27598893.78	27598893.89	27598894.02	0.0545	0.0434
Venus	70855-08-28 09:51 G	27600556.85	27600556.91	27600556.99	0.0490	0.0459
Moon	70856-02-03 03:36 G	27600715.47	27600715.65	27600715.84	0.0486	0.0284
Earth	70856-02-03 05:46 G	27600715.57	27600715.74	27600715.93	0.0486	0.0312 *
Venus	70856-04-20 06:29 G	27600792.56	27600792.77	27600792.97	0.0485	0.0060
Mercury	70856-08-07 05:03 G	27600901.55	27600901.71	27600901.86	0.0484	0.0015
Venus	70856-12-11 21:51 G	27601028.26	27601028.41	27601028.56	0.0483	0.0330
Venus	70862-02-16 08:10 G	27602920.68	27602920.84	27602921.02	0.0542	0.0290
Mercury	70862-07-13 01:12 G	27603067.44	27603067.55	27603067.67	0.0544	0.0329
Mercury	70862-10-10 18:58 G	27603157.28	27603157.29	27603157.30	0.0545	0.0543
Venus	70862-10-12 20:39 G	27603159.18	27603159.36	27603159.53	0.0545	0.0280
Venus	70867-12-25 11:46 G	27605058.80	27605058.99	27605059.19	0.0486	0.0169
Earth	70868-02-07 14:24 G	27605102.87	27605103.10	27605103.34	0.0485	0.0055
Moon	70868-02-07 18:00 G	27605103.01	27605103.25	27605103.49	0.0485	0.0068 *

Mercury	70868-05-26 07:12 G	27605211.65	27605211.80	27605211.95	0.0484	0.0152
Venus	70868-08-17 04:05 G	27605294.49	27605294.67	27605294.85	0.0483	0.0225
Venus	70873-10-21 22:05 G	27607186.30	27607186.42	27607186.54	0.0540	0.0436
Mercury	70874-05-01 02:39 G	27607377.60	27607377.61	27607377.63	0.0544	0.0539
Venus	70874-06-17 08:10 G	27607424.65	27607424.84	27607425.04	0.0544	0.0124
Mercury	70874-07-29 20:53 G	27607467.27	27607467.37	27607467.49	0.0545	0.0346
Venus	70879-08-30 15:22 G	27609324.98	27609325.14	27609325.31	0.0487	0.0281
Moon	70880-02-11 16:48 G	27609490.07	27609490.20	27609490.35	0.0485	0.0385
Earth	70880-02-11 20:53 G	27609490.25	27609490.37	27609490.49	0.0485	0.0412 *
Mercury	70880-03-14 09:07 G	27609521.77	27609521.88	27609522.00	0.0484	0.0316
Venus	70880-04-22 09:07 G	27609560.69	27609560.88	27609561.08	0.0484	0.0117
Mercury	70880-06-11 23:17 G	27609611.36	27609611.47	27609611.58	0.0484	0.0343
Venus	70886-02-19 18:43 G	27611690.08	27611690.28	27611690.48	0.0543	0.0035
Mercury	70886-05-17 22:19 G	27611777.29	27611777.43	27611777.57	0.0544	0.0133
Venus	70886-10-16 08:53 G	27611928.83	27611928.87	27611928.91	0.0545	0.0531
Venus	70891-05-05 19:41 G	27613591.20	27613591.32	27613591.44	0.0489	0.0391
Venus	70891-12-27 15:22 G	27613826.94	27613827.14	27613827.35	0.0485	0.0008
Mercury	70892-01-01 11:46 G	27613831.96	27613831.99	27613832.03	0.0485	0.0470
Mercury	70892-03-31 01:27 G	27613921.42	27613921.56	27613921.71	0.0484	0.0182
Venus	70892-08-19 06:15 G	27614062.65	27614062.76	27614062.89	0.0483	0.0395
Venus	70897-10-25 02:10 G	27615955.40	27615955.59	27615955.78	0.0542	0.0196
Mercury	70898-03-05 22:19 G	27616087.29	27616087.43	27616087.58	0.0544	0.0109
Venus	70898-06-20 14:39 G	27616193.97	27616194.11	27616194.26	0.0545	0.0372
Venus	70903-09-02 21:07 G	27618093.18	27618093.38	27618093.58	0.0486	0.0100
Mercury	70904-01-19 03:51 G	27618231.50	27618231.66	27618231.82	0.0484	0.0023
Venus	70904-04-25 12:58 G	27618328.89	27618329.04	27618329.21	0.0484	0.0293
Venus	70909-06-30 13:27 G	27620220.91	27620221.06	27620221.22	0.0540	0.0348
Mercury	70909-12-23 23:17 G	27620397.36	27620397.47	27620397.59	0.0544	0.0330
Venus	70910-02-24 00:15 G	27620459.33	27620459.51	27620459.70	0.0545	0.0215
Mercury	70910-03-23 17:03 G	27620487.20	27620487.21	27620487.22	0.0545	0.0542

Venus	70915-05-09 01:55 G	27622359.40	27622359.58	27622359.77	0.0487	0.0210
Mercury	70915-11-07 06:00 G	27622541.60	27622541.75	27622541.90	0.0484	0.0139
Venus	70915-12-30 18:58 G	27622595.11	27622595.29	27622595.49	0.0484	0.0186
Venus	70921-03-05 02:24 G	27624486.53	27624486.60	27624486.69	0.0539	0.0493
Moon	70921-08-06 16:34 G	27624640.96	27624641.19	27624641.42	0.0543	0.0111
Earth	70921-08-06 19:55 G	27624641.11	27624641.33	27624641.56	0.0543	0.0093 *
Venus	70921-10-29 11:31 G	27624724.78	27624724.98	27624725.18	0.0544	0.0058
Mercury	70922-01-09 18:58 G	27624797.18	27624797.29	27624797.40	0.0545	0.0341
Venus	70927-01-12 06:43 G	27626625.63	27626625.78	27626625.94	0.0488	0.0319
Mercury	70927-08-26 08:24 G	27626851.73	27626851.85	27626851.97	0.0484	0.0296
Venus	70927-09-05 01:12 G	27626861.34	27626861.55	27626861.75	0.0484	0.0079
Mercury	70927-11-23 22:19 G	27626941.33	27626941.43	27626941.54	0.0484	0.0363
Venus	70928-04-27 15:07 G	27627097.08	27627097.13	27627097.20	0.0483	0.0459
Venus	70933-07-04 00:00 G	27628990.30	27628990.50	27628990.70	0.0543	0.0097
Earth	70933-08-12 03:51 G	27629029.53	27629029.66	27629029.81	0.0544	0.0435
Moon	70933-08-12 05:46 G	27629029.63	27629029.74	27629029.85	0.0544	0.0470 *
Mercury	70933-10-28 20:53 G	27629107.23	27629107.37	27629107.51	0.0545	0.0141
Venus	70934-02-27 13:55 G	27629228.98	27629229.08	27629229.18	0.0545	0.0470
Venus	70938-09-17 09:36 G	27630891.81	27630891.90	27630892.00	0.0489	0.0430
Earth	70939-02-03 14:10 G	27631030.94	27631031.09	27631031.26	0.0487	0.0358
Moon	70939-02-03 17:46 G	27631031.07	27631031.24	27631031.42	0.0487	0.0326 *
Venus	70939-05-11 05:46 G	27631127.54	27631127.74	27631127.95	0.0485	0.0034
Mercury	70939-06-14 10:34 G	27631161.89	27631161.94	27631161.99	0.0485	0.0457
Mercury	70939-09-12 00:15 G	27631251.36	27631251.51	27631251.65	0.0484	0.0194
Venus	70940-01-01 21:22 G	27631363.25	27631363.39	27631363.52	0.0483	0.0356
Mars	70941-12-23 20:39 G	27632085.17	27632085.36	27632085.56	0.0496	0.0331
Venus	70945-03-08 11:46 G	27633255.81	27633255.99	27633256.17	0.0542	0.0250
Mercury	70945-08-16 22:19 G	27633417.28	27633417.43	27633417.57	0.0544	0.0074
Venus	70945-11-01 23:46 G	27633494.32	27633494.49	27633494.65	0.0545	0.0316
Venus	70951-01-14 11:17 G	27635393.78	27635393.97	27635394.17	0.0486	0.0141

Moon	70951-02-07 19:41 G	27635418.08	27635418.32	27635418.55	0.0486	0.0018
Earth	70951-02-07 23:17 G	27635418.24	27635418.47	27635418.71	0.0486	0.0015 *
Mercury	70951-07-01 02:24 G	27635561.45	27635561.60	27635561.76	0.0484	0.0037
Venus	70951-09-07 03:51 G	27635629.49	27635629.66	27635629.84	0.0484	0.0252
Venus	70956-11-10 20:53 G	27637521.23	27637521.37	27637521.50	0.0539	0.0403
Mercury	70957-06-04 22:05 G	27637727.31	27637727.42	27637727.54	0.0544	0.0316
Venus	70957-07-07 06:15 G	27637759.57	27637759.76	27637759.96	0.0544	0.0153
Venus	70962-09-19 16:19 G	27639660.00	27639660.18	27639660.36	0.0488	0.0250
Earth	70963-02-12 08:10 G	27639805.70	27639805.84	27639805.99	0.0485	0.0376
Moon	70963-02-12 11:17 G	27639805.82	27639805.97	27639806.14	0.0485	0.0348 *
Mercury	70963-04-19 05:03 G	27639871.56	27639871.71	27639871.86	0.0484	0.0124
Venus	70963-05-13 10:19 G	27639895.74	27639895.93	27639896.13	0.0484	0.0147
Venus	70969-03-11 16:05 G	27642024.97	27642025.17	27642025.38	0.0543	0.0010
Mercury	70969-03-23 22:48 G	27642037.45	27642037.45	27642037.46	0.0543	0.0541
Mercury	70969-06-21 17:17 G	27642127.11	27642127.22	27642127.33	0.0545	0.0342
Venus	70974-05-25 20:39 G	27643926.22	27643926.36	27643926.50	0.0489	0.0359
Venus	70975-01-16 15:51 G	27644161.96	27644162.16	27644162.37	0.0485	0.0039
Mercury	70975-02-05 07:12 G	27644181.68	27644181.80	27644181.93	0.0484	0.0283
Mercury	70975-05-05 21:07 G	27644271.29	27644271.38	27644271.48	0.0484	0.0377
Venus	70975-09-09 06:29 G	27644397.68	27644397.77	27644397.87	0.0483	0.0421
Venus	70980-11-14 03:51 G	27646290.47	27646290.66	27646290.85	0.0542	0.0160
Mercury	70981-04-09 18:58 G	27646437.15	27646437.29	27646437.43	0.0545	0.0137
Venus	70981-07-10 17:03 G	27646529.08	27646529.21	27646529.35	0.0545	0.0407
Venus	70986-01-29 00:29 G	27648192.47	27648192.52	27648192.58	0.0490	0.0467
Venus	70986-09-21 21:36 G	27648428.19	27648428.40	27648428.60	0.0485	0.0070
Mercury	70986-11-24 09:36 G	27648491.84	27648491.90	27648491.97	0.0485	0.0439
Mercury	70987-02-21 23:17 G	27648581.33	27648581.47	27648581.61	0.0484	0.0214
Venus	70987-05-15 13:12 G	27648663.89	27648664.05	27648664.20	0.0483	0.0319
Venus	70992-07-19 17:03 G	27650556.05	27650556.21	27650556.38	0.0541	0.0310
Mercury	70993-01-26 20:39 G	27650747.22	27650747.36	27650747.51	0.0544	0.0068

Venus	70993-03-15 04:34 G	27650794.51	27650794.69	27650794.87	0.0545	0.0254
Venus	70998-05-28 01:55 G	27652694.39	27652694.58	27652694.77	0.0487	0.0181
Mercury	70998-12-11 01:12 G	27652891.40	27652891.55	27652891.71	0.0484	0.0047
Venus	70999-01-18 18:43 G	27652930.10	27652930.28	27652930.46	0.0484	0.0213

72ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 72nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	71004-03-25 06:15 G		27654821.66	27654821.76	27654821.87	0.0539	0.0454	
Earth	71004-08-07 04:05 G		27654956.45	27654956.67	27654956.89	0.0542	0.0150	
Moon	71004-08-07 06:15 G		27654956.55	27654956.76	27654956.98	0.0542	0.0157	*
Mercury	71004-11-15 21:51 G		27655057.29	27655057.41	27655057.54	0.0544	0.0283	
Venus	71004-11-18 15:07 G		27655059.94	27655060.13	27655060.33	0.0544	0.0098	
Venus	71010-02-01 06:29 G		27656960.61	27656960.77	27656960.93	0.0488	0.0290	
Venus	71010-09-25 00:58 G		27657196.34	27657196.54	27657196.74	0.0484	0.0107	
Mercury	71010-09-30 03:36 G		27657201.50	27657201.65	27657201.80	0.0484	0.0111	
Venus	71016-07-23 22:48 G		27659325.25	27659325.45	27659325.65	0.0543	0.0064	
Moon	71016-08-12 03:07 G		27659344.46	27659344.63	27659344.81	0.0543	0.0373	
Earth	71016-08-12 03:36 G		27659344.48	27659344.65	27659344.84	0.0543	0.0340	*
Mercury	71016-09-03 21:51 G		27659367.37	27659367.41	27659367.44	0.0543	0.0525	
Mercury	71016-12-02 16:05 G		27659457.06	27659457.17	27659457.28	0.0544	0.0357	
Venus	71017-03-19 12:00 G		27659563.92	27659564.00	27659564.08	0.0545	0.0497	
Venus	71021-10-07 10:05 G		27661226.81	27661226.92	27661227.05	0.0490	0.0399	

Moon	71022-02-03 21:07 G	27661346.23	27661346.38	27661346.54	0.0487	0.0369
Earth	71022-02-04 00:58 G	27661346.41	27661346.54	27661346.67	0.0487	0.0399 *
Venus	71022-05-31 06:43 G	27661462.58	27661462.78	27661462.99	0.0485	0.0009
Mercury	71022-07-19 06:00 G	27661511.63	27661511.75	27661511.88	0.0485	0.0269
Mercury	71022-10-16 20:10 G	27661601.25	27661601.34	27661601.43	0.0484	0.0393
Venus	71023-01-21 22:19 G	27661698.31	27661698.43	27661698.56	0.0484	0.0384
Venus	71028-03-28 09:22 G	27663590.71	27663590.89	27663591.08	0.0541	0.0220
Mercury	71028-09-20 17:17 G	27663767.08	27663767.22	27663767.36	0.0544	0.0140
Venus	71028-11-21 21:07 G	27663829.23	27663829.38	27663829.54	0.0545	0.0344
Venus	71034-02-03 11:46 G	27665728.79	27665728.99	27665729.19	0.0486	0.0111
Earth	71034-02-08 09:36 G	27665733.66	27665733.90	27665734.14	0.0486	0.0030
Moon	71034-02-08 12:43 G	27665733.80	27665734.03	27665734.26	0.0486	0.0031 *
Mercury	71034-05-07 08:24 G	27665821.78	27665821.85	27665821.92	0.0485	0.0426
Mercury	71034-08-04 22:05 G	27665911.28	27665911.42	27665911.56	0.0484	0.0227
Venus	71034-09-27 04:05 G	27665964.51	27665964.67	27665964.84	0.0484	0.0280
Venus	71039-12-01 21:36 G	27667856.26	27667856.40	27667856.55	0.0540	0.0369
Mercury	71040-07-09 18:43 G	27668077.13	27668077.28	27668077.42	0.0544	0.0073
Venus	71040-07-27 07:55 G	27668094.64	27668094.83	27668095.02	0.0545	0.0189
Venus	71045-10-09 16:48 G	27669995.02	27669995.20	27669995.39	0.0487	0.0219
Moon	71046-02-12 15:51 G	27670120.97	27670121.16	27670121.35	0.0485	0.0304
Earth	71046-02-12 18:15 G	27670121.09	27670121.26	27670121.43	0.0485	0.0337 *
Mercury	71046-05-24 00:15 G	27670221.36	27670221.51	27670221.67	0.0484	0.0066
Venus	71046-06-02 10:19 G	27670230.74	27670230.93	27670231.12	0.0484	0.0175
Venus	71051-08-06 12:00 G	27672121.94	27672122.00	27672122.06	0.0538	0.0509
Venus	71052-03-31 19:55 G	27672360.13	27672360.33	27672360.53	0.0544	0.0034
Mercury	71052-04-27 20:10 G	27672387.22	27672387.34	27672387.47	0.0544	0.0279
Venus	71057-06-14 20:24 G	27674261.21	27674261.35	27674261.51	0.0489	0.0329
Venus	71058-02-05 15:36 G	27674496.95	27674497.15	27674497.35	0.0485	0.0067
Mercury	71058-03-12 02:24 G	27674531.44	27674531.60	27674531.75	0.0484	0.0100
Venus	71058-09-29 06:15 G	27674732.68	27674732.76	27674732.84	0.0483	0.0446

Mars	71060-06-16 07:55 G	27675358.68	27675358.83	27675358.99	0.0494	0.0393
Venus	71063-12-05 07:41 G	27676625.62	27676625.82	27676626.02	0.0542	0.0120
Mercury	71064-02-14 21:22 G	27676697.33	27676697.39	27676697.45	0.0544	0.0495
Mercury	71064-05-14 15:51 G	27676787.06	27676787.16	27676787.26	0.0545	0.0389
Venus	71064-07-30 20:53 G	27676864.25	27676864.37	27676864.48	0.0545	0.0443
Venus	71069-02-18 00:00 G	27678527.42	27678527.50	27678527.60	0.0490	0.0438
Venus	71069-10-11 21:22 G	27678763.18	27678763.39	27678763.59	0.0486	0.0042
Mercury	71069-12-29 04:48 G	27678841.57	27678841.70	27678841.83	0.0485	0.0256
Mercury	71070-03-28 18:58 G	27678931.20	27678931.29	27678931.37	0.0484	0.0405
Venus	71070-06-04 12:58 G	27678998.90	27678999.04	27678999.19	0.0484	0.0345
Venus	71075-08-09 16:48 G	27680891.03	27680891.20	27680891.37	0.0540	0.0275
Mercury	71076-03-02 16:05 G	27681097.03	27681097.17	27681097.31	0.0544	0.0155
Venus	71076-04-04 03:22 G	27681129.47	27681129.64	27681129.81	0.0544	0.0284
Venus	71081-06-17 02:10 G	27683029.39	27683029.59	27683029.78	0.0487	0.0150
Mercury	71081-10-17 07:12 G	27683151.73	27683151.80	27683151.88	0.0485	0.0414
Mercury	71082-01-14 20:53 G	27683241.24	27683241.37	27683241.51	0.0484	0.0242
Venus	71082-02-07 19:27 G	27683265.13	27683265.31	27683265.49	0.0484	0.0242
Venus	71087-04-14 04:19 G	27685156.56	27685156.68	27685156.81	0.0538	0.0422
Moon	71087-08-07 01:12 G	27685271.35	27685271.55	27685271.76	0.0541	0.0255
Earth	71087-08-07 02:24 G	27685271.40	27685271.60	27685271.81	0.0541	0.0250 *
Venus	71087-12-08 12:43 G	27685394.84	27685395.03	27685395.23	0.0544	0.0127
Mercury	71087-12-20 17:03 G	27685407.07	27685407.21	27685407.36	0.0544	0.0066
Venus	71093-02-20 06:29 G	27687295.60	27687295.77	27687295.94	0.0488	0.0260
Venus	71093-10-14 00:58 G	27687531.34	27687531.54	27687531.73	0.0484	0.0135
Mercury	71093-11-02 23:03 G	27687551.30	27687551.46	27687551.61	0.0484	0.0077
Moon	71099-08-12 06:00 G	27689659.57	27689659.75	27689659.94	0.0543	0.0297
Earth	71099-08-12 06:43 G	27689659.59	27689659.78	27689659.99	0.0543	0.0262 *
Venus	71099-08-12 23:31 G	27689660.28	27689660.48	27689660.68	0.0543	0.0031
Mercury	71099-10-08 18:15 G	27689717.13	27689717.26	27689717.38	0.0544	0.0283
Venus	71100-04-08 13:27 G	27689899.02	27689899.06	27689899.11	0.0545	0.0529

Venus	71104-10-27 10:48 G	27691561.82	27691561.95	27691562.09	0.0489	0.0368
Earth	71105-02-04 10:19 G	27691661.84	27691661.93	27691662.03	0.0487	0.0440
Moon	71105-02-04 13:27 G	27691661.94	27691662.06	27691662.18	0.0487	0.0411 *
Venus	71105-06-20 06:43 G	27691797.58	27691797.78	27691797.99	0.0485	0.0029
Mercury	71105-08-23 01:27 G	27691861.40	27691861.56	27691861.71	0.0484	0.0084
Venus	71106-02-10 21:36 G	27692033.30	27692033.40	27692033.52	0.0483	0.0410
Venus	71111-04-18 12:15 G	27693925.82	27693926.01	27693926.20	0.0542	0.0182
Mercury	71111-07-28 19:41 G	27694027.26	27694027.32	27694027.38	0.0544	0.0494
Mercury	71111-10-26 13:55 G	27694116.99	27694117.08	27694117.18	0.0545	0.0391
Venus	71111-12-13 00:43 G	27694164.39	27694164.53	27694164.68	0.0545	0.0380
Venus	71116-07-02 13:27 G	27695828.02	27695828.06	27695828.11	0.0491	0.0477
Moon	71117-02-08 15:51 G	27696048.92	27696049.16	27696049.40	0.0486	0.0080
Earth	71117-02-08 18:15 G	27696049.02	27696049.26	27696049.49	0.0486	0.0076 *
Venus	71117-02-23 11:17 G	27696063.77	27696063.97	27696064.18	0.0486	0.0082
Mercury	71117-06-11 03:22 G	27696171.51	27696171.64	27696171.78	0.0484	0.0247
Mercury	71117-09-08 17:17 G	27696261.15	27696261.22	27696261.31	0.0484	0.0415
Venus	71117-10-17 03:22 G	27696299.49	27696299.64	27696299.80	0.0484	0.0306
Venus	71122-12-22 01:12 G	27698191.39	27698191.55	27698191.71	0.0540	0.0330
Mercury	71123-08-14 15:36 G	27698427.01	27698427.15	27698427.29	0.0544	0.0183
Venus	71123-08-17 11:31 G	27698429.80	27698429.98	27698430.16	0.0544	0.0227
Mars	71125-06-01 08:53 G	27699083.59	27699083.87	27699084.16	0.0534	0.0118
Venus	71128-10-29 16:19 G	27700329.99	27700330.18	27700330.37	0.0487	0.0190
Earth	71129-02-13 02:39 G	27700436.42	27700436.61	27700436.80	0.0485	0.0292
Moon	71129-02-13 03:22 G	27700436.45	27700436.64	27700436.83	0.0485	0.0263 *
Mercury	71129-03-30 06:00 G	27700481.67	27700481.75	27700481.84	0.0485	0.0402
Venus	71129-06-22 09:51 G	27700565.73	27700565.91	27700566.10	0.0484	0.0202
Mercury	71129-06-27 19:41 G	27700571.18	27700571.32	27700571.45	0.0484	0.0252
Venus	71134-08-26 12:15 G	27702456.92	27702457.01	27702457.10	0.0537	0.0475
Venus	71135-04-21 19:12 G	27702695.10	27702695.30	27702695.50	0.0543	0.0067
Mercury	71135-06-02 15:51 G	27702737.02	27702737.16	27702737.31	0.0544	0.0053

Venus	71140-07-04 19:41 G	27704596.17	27704596.32	27704596.49	0.0489	0.0302
Venus	71141-02-25 15:22 G	27704831.94	27704832.14	27704832.35	0.0485	0.0096
Mercury	71141-04-15 21:36 G	27704881.25	27704881.40	27704881.56	0.0485	0.0090
Venus	71141-10-19 06:29 G	27705067.73	27705067.77	27705067.82	0.0484	0.0472
Venus	71146-12-25 05:17 G	27706960.53	27706960.72	27706960.92	0.0542	0.0091
Mercury	71147-03-21 16:34 G	27707047.07	27707047.19	27707047.32	0.0543	0.0277
Venus	71147-08-20 17:46 G	27707199.14	27707199.24	27707199.35	0.0545	0.0468
Venus	71152-03-09 23:17 G	27708862.36	27708862.47	27708862.58	0.0490	0.0410
Venus	71152-10-31 20:39 G	27709098.15	27709098.36	27709098.56	0.0486	0.0015
Mercury	71153-02-01 23:46 G	27709191.34	27709191.49	27709191.65	0.0484	0.0075
Venus	71153-06-24 12:15 G	27709333.89	27709334.01	27709334.15	0.0484	0.0370
Venus	71158-08-29 16:19 G	27711226.00	27711226.18	27711226.36	0.0541	0.0244
Mercury	71159-01-07 17:17 G	27711357.17	27711357.22	27711357.28	0.0544	0.0500
Mercury	71159-04-07 11:46 G	27711446.89	27711446.99	27711447.09	0.0545	0.0384
Venus	71159-04-25 03:36 G	27711464.49	27711464.65	27711464.81	0.0545	0.0315
Venus	71164-07-07 01:55 G	27713364.38	27713364.58	27713364.78	0.0487	0.0122
Mercury	71164-11-21 02:10 G	27713501.46	27713501.59	27713501.73	0.0485	0.0233
Mercury	71165-02-18 16:05 G	27713591.11	27713591.17	27713591.25	0.0484	0.0429
Venus	71165-02-27 18:29 G	27713600.11	27713600.27	27713600.45	0.0484	0.0267
Venus	71170-05-04 05:46 G	27715491.61	27715491.74	27715491.88	0.0539	0.0389
Earth	71170-08-07 07:27 G	27715586.63	27715586.81	27715587.00	0.0542	0.0319
Moon	71170-08-07 07:27 G	27715586.63	27715586.81	27715586.99	0.0542	0.0321 *
Venus	71170-12-28 15:07 G	27715729.94	27715730.13	27715730.33	0.0544	0.0162
Mercury	71171-01-24 13:41 G	27715756.93	27715757.07	27715757.20	0.0545	0.0181
Venus	71176-03-12 05:46 G	27717630.56	27717630.74	27717630.92	0.0488	0.0232
Mercury	71176-09-09 04:34 G	27717811.60	27717811.69	27717811.77	0.0485	0.0394
Venus	71176-11-03 00:00 G	27717866.30	27717866.50	27717866.69	0.0484	0.0162
Mercury	71176-12-07 18:00 G	27717901.12	27717901.25	27717901.38	0.0484	0.0260
Venus	71182-01-06 20:10 G	27719757.30	27719757.34	27719757.37	0.0537	0.0526
Earth	71182-08-12 13:41 G	27719974.86	27719975.07	27719975.29	0.0543	0.0199

Moon	71182-08-12 16:05 G	27719974.96	27719975.17	27719975.39	0.0543	0.0233 *
Venus	71182-09-02 02:39 G	27719995.41	27719995.61	27719995.81	0.0543	0.0008
Mercury	71182-11-12 15:07 G	27720066.98	27720067.13	27720067.28	0.0544	0.0029
Venus	71187-11-16 09:36 G	27721896.76	27721896.90	27721897.05	0.0489	0.0341
Moon	71188-02-04 15:22 G	27721977.07	27721977.14	27721977.22	0.0488	0.0463
Venus	71188-07-09 05:46 G	27722132.54	27722132.74	27722132.94	0.0485	0.0055
Mercury	71188-09-25 20:24 G	27722211.19	27722211.35	27722211.50	0.0484	0.0099
Venus	71189-03-01 20:53 G	27722368.29	27722368.37	27722368.46	0.0484	0.0433
Venus	71194-05-07 12:00 G	27724260.81	27724261.00	27724261.20	0.0541	0.0149
Mercury	71194-08-31 15:22 G	27724377.01	27724377.14	27724377.27	0.0543	0.0262
Venus	71194-12-31 23:31 G	27724499.35	27724499.48	27724499.62	0.0544	0.0409
Venus	71199-07-22 11:31 G	27726162.91	27726162.98	27726163.07	0.0491	0.0452
Earth	71200-02-09 01:12 G	27726364.33	27726364.55	27726364.79	0.0487	0.0127
Moon	71200-02-09 01:55 G	27726364.36	27726364.58	27726364.80	0.0487	0.0135 *
Venus	71200-03-14 10:05 G	27726398.72	27726398.92	27726399.13	0.0486	0.0055
Mercury	71200-07-14 22:19 G	27726521.28	27726521.43	27726521.59	0.0485	0.0067
Venus	71200-11-05 02:53 G	27726634.47	27726634.62	27726634.77	0.0484	0.0332
Venus	71206-01-09 23:03 G	27728526.29	27728526.46	27728526.63	0.0539	0.0300
Mercury	71206-06-19 15:51 G	27728687.10	27728687.16	27728687.22	0.0543	0.0492
Venus	71206-09-05 08:24 G	27728764.67	27728764.85	27728765.03	0.0544	0.0253
Mercury	71206-09-17 10:19 G	27728776.83	27728776.93	27728777.03	0.0544	0.0390
Venus	71211-11-18 14:39 G	27730664.92	27730665.11	27730665.31	0.0487	0.0165
Earth	71212-02-13 09:22 G	27730751.69	27730751.89	27730752.10	0.0486	0.0242
Moon	71212-02-13 10:48 G	27730751.73	27730751.95	27730752.17	0.0486	0.0215 *
Mercury	71212-05-03 00:29 G	27730831.39	27730831.52	27730831.66	0.0485	0.0228
Venus	71212-07-11 08:24 G	27730900.67	27730900.85	27730901.03	0.0484	0.0226
Mercury	71212-07-31 14:39 G	27730921.04	27730921.11	27730921.18	0.0484	0.0435
Mars	71214-09-11 10:05 G	27731692.66	27731692.92	27731693.18	0.0494	0.0003
Venus	71217-09-14 10:19 G	27732791.82	27732791.93	27732792.04	0.0538	0.0446
Venus	71218-05-10 18:15 G	27733030.06	27733030.26	27733030.46	0.0544	0.0096

Mercury	71218-07-06 11:17 G	27733086.84	27733086.97	27733087.11	0.0544	0.0175
Venus	71223-07-24 19:12 G	27734931.13	27734931.30	27734931.47	0.0489	0.0273
Mercury	71224-02-20 03:07 G	27735141.54	27735141.63	27735141.72	0.0485	0.0383
Venus	71224-03-16 14:10 G	27735166.90	27735167.09	27735167.29	0.0485	0.0121
Mercury	71224-05-19 16:34 G	27735231.07	27735231.19	27735231.33	0.0484	0.0271
Venus	71230-01-13 06:15 G	27737295.55	27737295.76	27737295.96	0.0543	0.0058
Mercury	71230-04-24 12:58 G	27737396.89	27737397.04	27737397.19	0.0544	0.0034
Venus	71230-09-08 19:27 G	27737534.24	27737534.31	27737534.39	0.0545	0.0499
Venus	71235-03-29 22:05 G	27739197.30	27739197.42	27739197.56	0.0490	0.0382
Venus	71235-11-20 19:12 G	27739433.09	27739433.30	27739433.50	0.0485	0.0014
Mercury	71236-03-07 18:43 G	27739541.12	27739541.28	27739541.43	0.0484	0.0104
Venus	71236-07-13 10:34 G	27739668.83	27739668.94	27739669.06	0.0483	0.0394
Venus	71241-09-17 18:43 G	27741561.09	27741561.28	27741561.46	0.0541	0.0208
Mercury	71242-02-10 14:24 G	27741706.97	27741707.10	27741707.23	0.0544	0.0247
Venus	71242-05-14 06:00 G	27741799.60	27741799.75	27741799.91	0.0545	0.0351
Venus	71246-12-03 01:12 G	27743463.54	27743463.55	27743463.57	0.0492	0.0490
Venus	71247-07-27 00:00 G	27743699.30	27743699.50	27743699.71	0.0487	0.0096
Mercury	71247-12-25 20:53 G	27743851.22	27743851.37	27743851.53	0.0484	0.0057
Venus	71248-03-18 17:03 G	27743935.05	27743935.21	27743935.37	0.0484	0.0292
Venus	71253-05-23 06:00 G	27745826.60	27745826.75	27745826.90	0.0539	0.0356
Earth	71253-08-06 09:22 G	27745901.74	27745901.89	27745902.05	0.0540	0.0401
Moon	71253-08-06 11:17 G	27745901.81	27745901.97	27745902.13	0.0541	0.0396 *
Mercury	71253-11-29 14:39 G	27746017.04	27746017.11	27746017.18	0.0543	0.0479
Venus	71254-01-16 14:24 G	27746064.91	27746065.10	27746065.29	0.0543	0.0192
Mercury	71254-02-27 08:53 G	27746106.78	27746106.87	27746106.97	0.0544	0.0402
Venus	71259-04-01 03:22 G	27747965.45	27747965.64	27747965.82	0.0488	0.0207
Mercury	71259-10-13 23:03 G	27748161.32	27748161.46	27748161.60	0.0485	0.0222
Venus	71259-11-22 22:05 G	27748201.24	27748201.42	27748201.62	0.0485	0.0187
Mercury	71260-01-11 12:58 G	27748250.98	27748251.04	27748251.10	0.0484	0.0442
Venus	71265-01-25 17:46 G	27750092.18	27750092.24	27750092.32	0.0536	0.0498

Moon	71265-08-11 07:55 G	27750289.61	27750289.83	27750290.05	0.0542	0.0129
Earth	71265-08-11 11:17 G	27750289.75	27750289.97	27750290.20	0.0542	0.0097 *
Venus	71265-09-20 23:46 G	27750330.29	27750330.49	27750330.69	0.0542	0.0035
Mercury	71265-12-16 09:51 G	27750416.78	27750416.91	27750417.05	0.0544	0.0181
Venus	71270-12-05 06:58 G	27752231.64	27752231.79	27752231.95	0.0490	0.0317
Venus	71271-07-29 03:22 G	27752467.43	27752467.64	27752467.84	0.0485	0.0078
Mercury	71271-08-02 01:12 G	27752471.46	27752471.55	27752471.65	0.0485	0.0381
Mercury	71271-10-30 14:53 G	27752560.99	27752561.12	27752561.25	0.0484	0.0274
Venus	71272-03-20 18:29 G	27752703.21	27752703.27	27752703.35	0.0484	0.0454
Venus	71277-05-26 09:36 G	27754595.70	27754595.90	27754596.10	0.0542	0.0122
Mercury	71277-10-04 10:34 G	27754726.80	27754726.94	27754727.09	0.0544	0.0045
Venus	71278-01-19 21:36 G	27754834.29	27754834.40	27754834.53	0.0545	0.0435
Venus	71282-08-10 10:34 G	27756497.84	27756497.94	27756498.05	0.0491	0.0424
Earth	71283-02-08 08:10 G	27756679.62	27756679.84	27756680.06	0.0487	0.0177
Moon	71283-02-08 09:36 G	27756679.67	27756679.90	27756680.12	0.0487	0.0192 *
Venus	71283-04-03 08:39 G	27756733.65	27756733.86	27756734.06	0.0486	0.0029
Mercury	71283-08-18 17:03 G	27756871.06	27756871.21	27756871.36	0.0484	0.0112
Venus	71283-11-25 00:58 G	27756969.40	27756969.54	27756969.68	0.0484	0.0354
Venus	71289-01-28 22:05 G	27758861.25	27758861.42	27758861.60	0.0540	0.0270
Mercury	71289-07-23 12:00 G	27759036.87	27759037.00	27759037.13	0.0544	0.0256
Venus	71289-09-24 08:39 G	27759099.68	27759099.86	27759100.03	0.0545	0.0284
Venus	71294-12-07 12:58 G	27760999.84	27761000.04	27761000.23	0.0487	0.0138
Moon	71295-02-12 12:43 G	27761066.81	27761067.03	27761067.25	0.0486	0.0161
Earth	71295-02-12 15:36 G	27761066.94	27761067.15	27761067.37	0.0486	0.0188 *
Mercury	71295-06-06 18:58 G	27761181.14	27761181.29	27761181.45	0.0484	0.0056
Venus	71295-07-31 06:15 G	27761235.59	27761235.76	27761235.94	0.0484	0.0250
Venus	71300-10-04 11:46 G	27763126.86	27763126.99	27763127.12	0.0538	0.0412
Mercury	71301-05-12 13:12 G	27763346.98	27763347.05	27763347.12	0.0543	0.0471
Venus	71301-05-30 19:55 G	27763365.14	27763365.33	27763365.53	0.0544	0.0132
Mercury	71301-08-10 07:41 G	27763436.73	27763436.82	27763436.91	0.0544	0.0413

Venus	71306-08-13 16:48 G	27765266.03	27765266.20	27765266.38	0.0488	0.0247
Mercury	71307-03-26 21:22 G	27765491.26	27765491.39	27765491.53	0.0485	0.0214
Venus	71307-04-06 12:00 G	27765501.80	27765502.00	27765502.19	0.0485	0.0146
Mercury	71307-06-24 11:31 G	27765580.92	27765580.98	27765581.03	0.0484	0.0448
Venus	71313-02-02 05:46 G	27767630.54	27767630.74	27767630.94	0.0542	0.0026
Mercury	71313-05-29 08:24 G	27767746.72	27767746.85	27767746.99	0.0544	0.0191
Venus	71313-09-28 18:00 G	27767869.20	27767869.25	27767869.31	0.0544	0.0525
Venus	71318-04-18 18:43 G	27769532.14	27769532.28	27769532.42	0.0490	0.0359
Venus	71318-12-10 16:19 G	27769767.97	27769768.18	27769768.38	0.0486	0.0037
Mercury	71319-01-12 23:31 G	27769801.39	27769801.48	27769801.57	0.0485	0.0378
Mercury	71319-04-12 12:58 G	27769890.92	27769891.04	27769891.17	0.0485	0.0279
Venus	71319-08-03 08:24 G	27770003.75	27770003.85	27770003.96	0.0484	0.0416
Venus	71324-10-07 15:51 G	27771895.97	27771896.16	27771896.36	0.0540	0.0180
Mercury	71325-03-17 09:07 G	27772056.74	27772056.88	27772057.03	0.0543	0.0037
Venus	71325-06-03 02:39 G	27772134.46	27772134.61	27772134.76	0.0544	0.0374
Venus	71329-12-22 21:22 G	27773798.34	27773798.39	27773798.46	0.0492	0.0468
Venus	71330-08-15 20:39 G	27774034.16	27774034.36	27774034.57	0.0487	0.0074
Mercury	71331-01-29 15:07 G	27774200.98	27774201.13	27774201.28	0.0485	0.0112
Venus	71331-04-08 13:41 G	27774269.92	27774270.07	27774270.23	0.0484	0.0312
Venus	71336-06-12 02:10 G	27776161.43	27776161.59	27776161.75	0.0539	0.0331
Moon	71336-08-06 02:53 G	27776216.54	27776216.62	27776216.70	0.0540	0.0500
Earth	71336-08-06 05:31 G	27776216.66	27776216.73	27776216.82	0.0540	0.0507 *
Mercury	71337-01-03 09:36 G	27776366.77	27776366.90	27776367.03	0.0543	0.0266
Venus	71337-02-05 11:03 G	27776399.78	27776399.96	27776400.15	0.0544	0.0217
Venus	71342-04-21 01:27 G	27778300.37	27778300.56	27778300.75	0.0488	0.0181
Mercury	71342-11-17 17:31 G	27778511.07	27778511.23	27778511.38	0.0485	0.0050
Venus	71342-12-12 19:55 G	27778536.15	27778536.33	27778536.52	0.0484	0.0209
Venus	71348-02-15 15:22 G	27780427.05	27780427.14	27780427.24	0.0537	0.0471
Earth	71348-08-11 10:19 G	27780604.70	27780604.93	27780605.16	0.0542	0.0008
Moon	71348-08-11 14:24 G	27780604.87	27780605.10	27780605.32	0.0542	0.0040 *

Venus	71348-10-10 22:05 G	27780665.22	27780665.42	27780665.63	0.0543	0.0065
Mercury	71348-10-22 10:34 G	27780676.88	27780676.94	27780677.01	0.0543	0.0484
Mercury	71349-01-20 05:17 G	27780766.62	27780766.72	27780766.81	0.0545	0.0402
Venus	71353-12-25 05:03 G	27782566.55	27782566.71	27782566.88	0.0489	0.0289
Venus	71354-08-18 00:43 G	27782802.33	27782802.53	27782802.73	0.0485	0.0103
Mercury	71354-09-05 19:27 G	27782821.18	27782821.31	27782821.45	0.0485	0.0213
Mercury	71354-12-04 09:22 G	27782910.84	27782910.89	27782910.95	0.0484	0.0449
Venus	71355-04-10 15:51 G	27783038.13	27783038.16	27783038.20	0.0483	0.0474
Venus	71360-06-15 10:34 G	27784930.74	27784930.94	27784931.14	0.0542	0.0087
Moon	71360-08-16 13:12 G	27784992.98	27784993.05	27784993.13	0.0543	0.0513
Earth	71360-08-16 16:48 G	27784993.15	27784993.20	27784993.26	0.0543	0.0526
Mercury	71360-11-08 06:43 G	27785076.65	27785076.78	27785076.92	0.0544	0.0197
Venus	71361-02-08 22:48 G	27785169.35	27785169.45	27785169.56	0.0545	0.0466
Venus	71365-08-30 08:10 G	27786832.72	27786832.84	27786832.96	0.0491	0.0398
Moon	71366-02-08 09:51 G	27786994.72	27786994.91	27786995.10	0.0487	0.0261
Earth	71366-02-08 12:43 G	27786994.83	27786995.03	27786995.24	0.0487	0.0237 *
Venus	71366-04-23 05:46 G	27787068.54	27787068.74	27787068.95	0.0486	0.0006
Mercury	71366-06-24 21:51 G	27787131.32	27787131.41	27787131.51	0.0485	0.0371
Mercury	71366-09-22 11:31 G	27787220.85	27787220.98	27787221.11	0.0484	0.0284
Venus	71366-12-14 22:05 G	27787304.30	27787304.42	27787304.55	0.0484	0.0376
Mars	71368-12-06 07:41 G	27788026.65	27788026.82	27788027.00	0.0494	0.0366
Venus	71372-02-18 22:05 G	27789196.24	27789196.42	27789196.60	0.0540	0.0238
Mercury	71372-08-27 07:41 G	27789386.68	27789386.82	27789386.97	0.0543	0.0028
Venus	71372-10-14 07:41 G	27789434.66	27789434.82	27789434.99	0.0544	0.0312
Venus	71377-12-27 09:07 G	27791334.68	27791334.88	27791335.08	0.0487	0.0116
Earth	71378-02-12 18:43 G	27791382.05	27791382.28	27791382.51	0.0487	0.0125
Moon	71378-02-12 22:48 G	27791382.21	27791382.45	27791382.68	0.0487	0.0101 *
Mercury	71378-07-11 13:12 G	27791530.90	27791531.05	27791531.20	0.0485	0.0114
Venus	71378-08-20 03:07 G	27791570.46	27791570.63	27791570.80	0.0484	0.0272
Venus	71383-10-24 09:22 G	27793461.76	27793461.89	27793462.04	0.0538	0.0384

Mercury	71384-06-15 08:10 G	27793696.71	27793696.84	27793696.97	0.0543	0.0255
Venus	71384-06-18 16:48 G	27793700.01	27793700.20	27793700.40	0.0543	0.0157
Venus	71389-09-01 12:43 G	27795600.85	27795601.03	27795601.21	0.0489	0.0226
Venus	71390-04-25 08:10 G	27795836.65	27795836.84	27795837.03	0.0485	0.0166
Mercury	71390-04-29 15:22 G	27795840.98	27795841.14	27795841.29	0.0485	0.0050
Venus	71395-06-28 20:10 G	27797727.31	27797727.34	27797727.38	0.0536	0.0526
Venus	71396-02-22 01:12 G	27797965.35	27797965.55	27797965.75	0.0542	0.0003
Mercury	71396-04-03 08:10 G	27798006.78	27798006.84	27798006.90	0.0543	0.0494
Mercury	71396-07-02 02:53 G	27798096.52	27798096.62	27798096.72	0.0544	0.0391
Venus	71401-05-08 16:48 G	27799867.05	27799867.20	27799867.35	0.0490	0.0334
Venus	71401-12-30 13:55 G	27800102.88	27800103.08	27800103.28	0.0485	0.0060
Mercury	71402-02-16 17:46 G	27800151.10	27800151.24	27800151.38	0.0485	0.0208
Mercury	71402-05-17 07:41 G	27800240.77	27800240.82	27800240.87	0.0484	0.0454
Venus	71402-08-23 05:31 G	27800338.65	27800338.73	27800338.82	0.0484	0.0435
Venus	71407-10-28 12:58 G	27802230.84	27802231.04	27802231.23	0.0541	0.0153
Mercury	71408-04-21 04:19 G	27802406.54	27802406.68	27802406.81	0.0544	0.0181
Venus	71408-06-23 00:29 G	27802469.39	27802469.52	27802469.66	0.0545	0.0400
Venus	71413-01-11 19:27 G	27804133.23	27804133.31	27804133.41	0.0492	0.0441
Venus	71413-09-04 18:15 G	27804369.06	27804369.26	27804369.46	0.0486	0.0047
Mercury	71413-12-05 19:55 G	27804461.24	27804461.33	27804461.43	0.0485	0.0370
Mercury	71414-03-05 09:22 G	27804550.77	27804550.89	27804551.02	0.0484	0.0284
Venus	71414-04-28 10:48 G	27804604.81	27804604.95	27804605.10	0.0484	0.0334
Venus	71419-07-03 02:10 G	27806496.43	27806496.59	27806496.76	0.0539	0.0298
Mercury	71420-02-08 05:46 G	27806716.59	27806716.74	27806716.89	0.0544	0.0028
Venus	71420-02-26 11:31 G	27806734.81	27806734.98	27806735.17	0.0544	0.0250
Venus	71425-05-10 22:34 G	27808635.24	27808635.44	27808635.63	0.0488	0.0156
Mercury	71425-12-22 11:31 G	27808860.83	27808860.98	27808861.13	0.0484	0.0120
Venus	71426-01-01 16:48 G	27808871.02	27808871.20	27808871.38	0.0484	0.0232
Venus	71431-03-07 15:22 G	27810762.04	27810762.14	27810762.26	0.0537	0.0440
Moon	71431-08-12 08:39 G	27810919.63	27810919.86	27810920.09	0.0541	0.0044

Earth	71431-08-12 12:29 G	27810919.79	27810920.02	27810920.25	0.0541	0.0077	*
Venus	71431-10-31 21:51 G	27811000.21	27811000.41	27811000.61	0.0543	0.0095	
Mercury	71431-11-27 06:43 G	27811026.65	27811026.78	27811026.91	0.0543	0.0249	
Venus	71437-01-14 00:43 G	27812901.36	27812901.53	27812901.70	0.0489	0.0268	
Venus	71437-09-06 20:53 G	27813137.17	27813137.37	27813137.57	0.0485	0.0124	
Mercury	71437-10-10 13:27 G	27813170.90	27813171.06	27813171.21	0.0485	0.0050	
Venus	71443-07-06 07:55 G	27815265.63	27815265.83	27815266.03	0.0541	0.0060	
Earth	71443-08-17 14:10 G	27815307.95	27815308.09	27815308.24	0.0542	0.0426	
Moon	71443-08-17 16:48 G	27815308.06	27815308.20	27815308.34	0.0542	0.0416	*
Mercury	71443-09-15 06:58 G	27815336.73	27815336.79	27815336.86	0.0543	0.0480	
Mercury	71443-12-14 01:27 G	27815426.47	27815426.56	27815426.66	0.0544	0.0403	
Venus	71444-02-29 19:27 G	27815504.23	27815504.31	27815504.40	0.0544	0.0488	
Venus	71448-09-19 03:36 G	27817167.52	27817167.65	27817167.78	0.0491	0.0378	
Earth	71449-02-08 14:24 G	27817309.92	27817310.10	27817310.29	0.0488	0.0304	
Moon	71449-02-08 18:15 G	27817310.10	27817310.26	27817310.45	0.0488	0.0331	*
Venus	71449-05-13 01:41 G	27817403.36	27817403.57	27817403.77	0.0486	0.0017	
Mercury	71449-07-29 15:36 G	27817481.01	27817481.15	27817481.29	0.0485	0.0211	
Mercury	71449-10-27 05:31 G	27817570.68	27817570.73	27817570.78	0.0484	0.0452	
Venus	71450-01-03 18:15 G	27817639.14	27817639.26	27817639.38	0.0484	0.0393	
Venus	71455-03-10 16:34 G	27819531.01	27819531.19	27819531.38	0.0540	0.0215	
Mercury	71455-10-02 01:55 G	27819736.44	27819736.58	27819736.72	0.0544	0.0172	
Venus	71455-11-04 02:53 G	27819769.46	27819769.62	27819769.78	0.0544	0.0333	
Venus	71460-05-25 06:43 G	27821433.75	27821433.78	27821433.82	0.0493	0.0484	
Venus	71461-01-16 06:43 G	27821669.58	27821669.78	27821669.99	0.0487	0.0091	
Moon	71461-02-12 20:10 G	27821697.11	27821697.34	27821697.58	0.0487	0.0043	
Earth	71461-02-13 00:15 G	27821697.28	27821697.51	27821697.75	0.0487	0.0071	*
Mercury	71461-05-17 18:15 G	27821791.16	27821791.26	27821791.36	0.0485	0.0366	
Mercury	71461-08-15 07:41 G	27821880.69	27821880.82	27821880.94	0.0484	0.0288	
Venus	71461-09-09 00:15 G	27821905.35	27821905.51	27821905.68	0.0484	0.0293	
Venus	71466-11-13 05:17 G	27823796.57	27823796.72	27823796.87	0.0538	0.0360	

Venus	71467-07-09 13:27 G	27824034.87	27824035.06	27824035.25	0.0544	0.0182
Mercury	71467-07-21 03:07 G	27824046.48	27824046.63	27824046.78	0.0544	0.0043
Venus	71472-09-21 10:34 G	27825935.75	27825935.94	27825936.13	0.0488	0.0199
Earth	71473-02-17 07:41 G	27826084.72	27826084.82	27826084.93	0.0486	0.0433
Moon	71473-02-17 11:03 G	27826084.88	27826084.96	27826085.06	0.0486	0.0449 *
Venus	71473-05-15 05:17 G	27826171.54	27826171.72	27826171.91	0.0484	0.0189
Mercury	71473-06-03 09:36 G	27826190.75	27826190.90	27826191.05	0.0484	0.0120
Venus	71478-07-18 19:41 G	27828062.25	27828062.32	27828062.40	0.0536	0.0496
Venus	71479-03-14 01:12 G	27828300.35	27828300.55	27828300.76	0.0543	0.0033
Mercury	71479-05-09 04:34 G	27828356.56	27828356.69	27828356.82	0.0544	0.0255
Venus	71484-05-27 14:10 G	27830201.93	27830202.09	27830202.25	0.0490	0.0308
Venus	71485-01-18 10:48 G	27830437.75	27830437.95	27830438.15	0.0485	0.0084
Mercury	71485-03-22 11:46 G	27830500.84	27830500.99	27830501.15	0.0485	0.0044
Venus	71485-09-11 02:10 G	27830673.53	27830673.59	27830673.66	0.0484	0.0456
Mars	71487-05-30 07:41 G	27831299.71	27831299.82	27831299.96	0.0492	0.0427
Venus	71490-11-16 13:12 G	27832565.85	27832566.05	27832566.25	0.0541	0.0121
Mercury	71491-02-25 05:17 G	27832666.65	27832666.72	27832666.79	0.0543	0.0475
Mercury	71491-05-26 00:00 G	27832756.41	27832756.50	27832756.59	0.0544	0.0409
Venus	71491-07-13 00:15 G	27832804.39	27832804.51	27832804.64	0.0544	0.0427
Venus	71496-01-31 15:07 G	27834468.03	27834468.13	27834468.24	0.0492	0.0420
Venus	71496-09-23 13:55 G	27834703.88	27834704.08	27834704.29	0.0487	0.0029
Mercury	71497-01-08 13:41 G	27834810.93	27834811.07	27834811.21	0.0485	0.0210
Mercury	71497-04-08 03:36 G	27834900.60	27834900.65	27834900.70	0.0484	0.0453
Venus	71497-05-17 06:58 G	27834939.66	27834939.79	27834939.94	0.0484	0.0354
Venus	71502-07-23 00:29 G	27836831.34	27836831.52	27836831.69	0.0539	0.0270
Mercury	71503-03-15 00:43 G	27837066.40	27837066.53	27837066.67	0.0543	0.0188
Venus	71503-03-18 09:07 G	27837069.71	27837069.88	27837070.06	0.0544	0.0275
Venus	71508-05-30 18:15 G	27838970.06	27838970.26	27838970.46	0.0488	0.0136
Mercury	71508-10-28 16:05 G	27839121.07	27839121.17	27839121.27	0.0485	0.0369
Venus	71509-01-21 12:43 G	27839205.86	27839206.03	27839206.21	0.0484	0.0250

Mercury	71509-01-26 05:31 G	27839210.60	27839210.73	27839210.86	0.0484	0.0286
Venus	71514-03-27 09:51 G	27841096.79	27841096.91	27841097.04	0.0537	0.0417
Earth	71514-08-12 05:17 G	27841234.51	27841234.72	27841234.94	0.0541	0.0197
Moon	71514-08-12 08:39 G	27841234.65	27841234.86	27841235.08	0.0541	0.0162 *
Venus	71514-11-20 16:34 G	27841334.99	27841335.19	27841335.38	0.0543	0.0116
Mercury	71515-01-01 00:58 G	27841376.39	27841376.54	27841376.68	0.0544	0.0054
Venus	71520-02-03 22:48 G	27843236.27	27843236.45	27843236.63	0.0489	0.0242
Venus	71520-09-26 18:29 G	27843472.08	27843472.27	27843472.47	0.0485	0.0148
Mercury	71520-11-14 07:55 G	27843520.68	27843520.83	27843520.98	0.0484	0.0125
Venus	71526-07-26 03:36 G	27845600.45	27845600.65	27845600.85	0.0542	0.0036
Moon	71526-08-17 07:55 G	27845622.64	27845622.83	27845623.03	0.0542	0.0302
Earth	71526-08-17 09:22 G	27845622.71	27845622.89	27845623.08	0.0542	0.0316 *
Mercury	71526-10-20 01:41 G	27845686.45	27845686.57	27845686.70	0.0544	0.0271
Venus	71527-03-21 16:05 G	27845839.11	27845839.17	27845839.24	0.0545	0.0511
Venus	71531-10-10 01:55 G	27847502.44	27847502.58	27847502.72	0.0491	0.0350
Moon	71532-02-09 16:05 G	27847625.03	27847625.17	27847625.31	0.0488	0.0390
Earth	71532-02-09 20:24 G	27847625.19	27847625.35	27847625.50	0.0488	0.0361 *
Venus	71532-06-01 23:17 G	27847738.27	27847738.47	27847738.68	0.0486	0.0043
Mercury	71532-09-02 09:51 G	27847830.76	27847830.91	27847831.07	0.0485	0.0042
Venus	71533-01-23 15:22 G	27847974.04	27847974.14	27847974.25	0.0484	0.0415
Venus	71538-03-30 16:19 G	27849865.99	27849866.18	27849866.37	0.0540	0.0184
Mercury	71538-08-08 02:53 G	27849996.56	27849996.62	27849996.69	0.0543	0.0485
Mercury	71538-11-05 21:36 G	27850086.31	27850086.40	27850086.50	0.0544	0.0403
Venus	71538-11-24 03:07 G	27850104.49	27850104.63	27850104.78	0.0545	0.0365
Venus	71543-06-15 04:34 G	27851768.62	27851768.69	27851768.77	0.0492	0.0458
Venus	71544-02-06 04:05 G	27852004.47	27852004.67	27852004.87	0.0487	0.0066
Earth	71544-02-14 04:48 G	27852012.47	27852012.70	27852012.94	0.0487	0.0012
Moon	71544-02-14 08:24 G	27852012.62	27852012.85	27852013.08	0.0487	0.0011 *
Mercury	71544-06-21 12:15 G	27852140.87	27852141.01	27852141.15	0.0485	0.0201
Mercury	71544-09-19 01:55 G	27852230.54	27852230.58	27852230.63	0.0484	0.0461

Venus	71544-09-28 21:22 G	27852240.23	27852240.39	27852240.54	0.0484	0.0315
Venus	71549-12-03 06:00 G	27854131.59	27854131.75	27854131.91	0.0538	0.0327
Venus	71550-07-29 13:55 G	27854369.90	27854370.08	27854370.27	0.0543	0.0214
Mercury	71550-08-24 23:03 G	27854396.33	27854396.46	27854396.60	0.0544	0.0194
Mars	71552-05-08 08:53 G	27855018.67	27855018.87	27855019.08	0.0536	0.0382
Venus	71555-10-12 06:43 G	27856270.58	27856270.78	27856270.97	0.0488	0.0178
Moon	71556-02-18 08:24 G	27856399.71	27856399.85	27856400.00	0.0486	0.0387
Earth	71556-02-18 10:48 G	27856399.80	27856399.95	27856400.10	0.0486	0.0371 *
Mercury	71556-04-09 14:24 G	27856451.00	27856451.10	27856451.19	0.0485	0.0367
Venus	71556-06-04 01:41 G	27856506.39	27856506.57	27856506.76	0.0485	0.0210
Mercury	71556-07-08 03:36 G	27856540.53	27856540.65	27856540.78	0.0484	0.0288
Venus	71561-08-07 18:43 G	27858397.18	27858397.28	27858397.38	0.0536	0.0466
Venus	71562-04-02 23:46 G	27858635.29	27858635.49	27858635.70	0.0542	0.0060
Mercury	71562-06-13 00:00 G	27858706.35	27858706.50	27858706.64	0.0543	0.0033
Venus	71567-06-17 10:05 G	27860536.76	27860536.92	27860537.09	0.0490	0.0286
Venus	71568-02-08 06:58 G	27860772.59	27860772.79	27860772.99	0.0486	0.0104
Mercury	71568-04-26 05:46 G	27860850.59	27860850.74	27860850.89	0.0485	0.0124
Venus	71568-09-30 22:34 G	27861008.41	27861008.44	27861008.49	0.0484	0.0473
Venus	71573-12-06 07:41 G	27862900.63	27862900.82	27862901.02	0.0541	0.0098
Mercury	71574-03-31 23:31 G	27863016.36	27863016.48	27863016.61	0.0543	0.0276
Venus	71574-08-01 19:12 G	27863139.19	27863139.30	27863139.41	0.0545	0.0447
Venus	71579-02-20 13:41 G	27864802.95	27864803.07	27864803.19	0.0492	0.0393
Venus	71579-10-14 12:29 G	27865038.81	27865039.02	27865039.22	0.0486	0.0002
Mercury	71580-02-13 08:24 G	27865160.69	27865160.85	27865161.00	0.0485	0.0037
Venus	71580-06-06 05:17 G	27865274.59	27865274.72	27865274.85	0.0484	0.0375
Venus	71585-08-10 19:41 G	27867166.14	27867166.32	27867166.50	0.0539	0.0245
Mercury	71586-01-18 00:15 G	27867326.46	27867326.51	27867326.57	0.0543	0.0500
Venus	71586-04-06 05:03 G	27867404.55	27867404.71	27867404.88	0.0544	0.0299
Mercury	71586-04-17 19:12 G	27867416.20	27867416.30	27867416.40	0.0544	0.0390
Venus	71591-06-19 16:48 G	27869305.00	27869305.20	27869305.40	0.0487	0.0108

Mercury	71591-12-02 10:34 G	27869470.80	27869470.94	27869471.08	0.0485	0.0197
Venus	71592-02-10 10:34 G	27869540.78	27869540.94	27869541.11	0.0484	0.0275
Mercury	71592-03-01 00:15 G	27869560.47	27869560.51	27869560.55	0.0484	0.0464
Venus	71597-04-15 09:36 G	27871431.76	27871431.90	27871432.04	0.0538	0.0385
Moon	71597-08-11 05:31 G	27871549.52	27871549.73	27871549.94	0.0541	0.0249
Earth	71597-08-11 07:41 G	27871549.63	27871549.82	27871550.02	0.0541	0.0279 *
Venus	71597-12-09 16:48 G	27871670.01	27871670.20	27871670.40	0.0543	0.0149
Mercury	71598-02-03 20:53 G	27871726.23	27871726.37	27871726.51	0.0544	0.0185
Venus	71603-02-22 20:53 G	27873571.18	27873571.37	27873571.55	0.0489	0.0216
Mercury	71603-09-20 12:58 G	27873780.94	27873781.04	27873781.15	0.0485	0.0355
Venus	71603-10-16 16:05 G	27873806.98	27873807.17	27873807.37	0.0485	0.0172
Mercury	71603-12-19 02:10 G	27873870.47	27873870.59	27873870.72	0.0484	0.0300
Venus	71608-12-19 00:43 G	27875697.49	27875697.53	27875697.58	0.0535	0.0519
Venus	71609-08-14 05:03 G	27875935.51	27875935.71	27875935.91	0.0542	0.0003
Moon	71609-08-16 12:58 G	27875937.84	27875938.04	27875938.24	0.0542	0.0222
Earth	71609-08-16 13:41 G	27875937.87	27875938.07	27875938.28	0.0542	0.0244 *
Mercury	71609-11-22 22:19 G	27876036.28	27876036.43	27876036.58	0.0544	0.0026
Venus	71610-04-09 17:17 G	27876174.20	27876174.22	27876174.25	0.0545	0.0539
Venus	71614-10-28 22:34 G	27877837.29	27877837.44	27877837.59	0.0491	0.0327
Earth	71615-02-08 23:03 G	27877940.35	27877940.46	27877940.58	0.0488	0.0425
Moon	71615-02-09 02:53 G	27877940.53	27877940.62	27877940.70	0.0488	0.0453 *
Venus	71615-06-21 20:10 G	27878073.13	27878073.34	27878073.54	0.0486	0.0063
Mercury	71615-10-07 04:05 G	27878180.52	27878180.67	27878180.82	0.0485	0.0128
Venus	71616-02-12 12:15 G	27878308.93	27878309.01	27878309.10	0.0484	0.0435
Venus	71621-04-18 16:05 G	27880200.98	27880201.17	27880201.37	0.0540	0.0152
Mercury	71621-09-10 23:03 G	27880346.33	27880346.46	27880346.59	0.0543	0.0251
Venus	71621-12-13 02:24 G	27880439.46	27880439.60	27880439.74	0.0544	0.0391
Venus	71626-07-04 00:58 G	27882103.45	27882103.54	27882103.64	0.0493	0.0435
Moon	71627-02-13 06:15 G	27882327.52	27882327.76	27882328.00	0.0487	0.0068
Earth	71627-02-13 08:24 G	27882327.62	27882327.85	27882328.09	0.0487	0.0052 *

Venus	71627-02-25 00:43 G	27882339.33	27882339.53	27882339.74	0.0487	0.0044
Mercury	71627-07-26 06:29 G	27882490.61	27882490.77	27882490.92	0.0485	0.0035
Venus	71627-10-18 18:15 G	27882575.12	27882575.26	27882575.41	0.0484	0.0335
Venus	71632-12-22 00:58 G	27884466.38	27884466.54	27884466.71	0.0538	0.0303
Mercury	71633-06-29 22:19 G	27884656.38	27884656.43	27884656.49	0.0543	0.0500
Venus	71633-08-17 09:07 G	27884704.70	27884704.88	27884705.06	0.0544	0.0236
Mercury	71633-09-27 17:17 G	27884746.12	27884746.22	27884746.32	0.0544	0.0389
Venus	71638-10-31 05:46 G	27886605.54	27886605.74	27886605.93	0.0488	0.0149
Earth	71639-02-17 18:15 G	27886715.09	27886715.26	27886715.44	0.0486	0.0322
Moon	71639-02-17 18:29 G	27886715.11	27886715.27	27886715.43	0.0486	0.0349 *
Mercury	71639-05-14 08:53 G	27886800.73	27886800.87	27886801.02	0.0485	0.0190
Venus	71639-06-24 00:43 G	27886841.35	27886841.53	27886841.71	0.0485	0.0235
Mercury	71639-08-11 22:34 G	27886890.42	27886890.44	27886890.48	0.0484	0.0473
Mars	71641-08-23 22:48 G	27887633.20	27887633.45	27887633.71	0.0492	0.0092
Venus	71644-08-26 13:55 G	27888731.97	27888732.08	27888732.20	0.0536	0.0442
Venus	71645-04-21 19:41 G	27888970.12	27888970.32	27888970.52	0.0543	0.0084
Mercury	71645-07-16 18:29 G	27889056.13	27889056.27	27889056.41	0.0544	0.0174
Venus	71650-07-06 09:22 G	27890871.72	27890871.89	27890872.07	0.0490	0.0257
Venus	71651-02-27 05:46 G	27891107.54	27891107.74	27891107.94	0.0485	0.0131
Mercury	71651-03-02 11:31 G	27891110.87	27891110.98	27891111.08	0.0485	0.0349
Mercury	71651-05-31 00:43 G	27891200.41	27891200.53	27891200.65	0.0484	0.0305
Venus	71656-12-25 08:10 G	27893235.64	27893235.84	27893236.04	0.0542	0.0065
Mercury	71657-05-04 19:55 G	27893366.18	27893366.33	27893366.48	0.0544	0.0036
Venus	71657-08-20 20:10 G	27893474.25	27893474.34	27893474.44	0.0545	0.0479
Venus	71662-03-11 12:29 G	27895137.89	27895138.02	27895138.16	0.0491	0.0365
Venus	71662-11-02 10:48 G	27895373.75	27895373.95	27895374.16	0.0486	0.0027
Mercury	71663-03-19 02:53 G	27895510.47	27895510.62	27895510.77	0.0484	0.0142
Venus	71663-06-26 03:07 G	27895609.52	27895609.63	27895609.75	0.0484	0.0398
Venus	71668-08-29 21:36 G	27897501.22	27897501.40	27897501.59	0.0540	0.0211
Mercury	71669-02-20 21:22 G	27897676.26	27897676.39	27897676.52	0.0543	0.0245

Venus	71669-04-25 07:12 G	27897739.65	27897739.80	27897739.97	0.0544	0.0331
Venus	71673-11-14 13:27 G	27899404.01	27899404.06	27899404.12	0.0493	0.0474
Venus	71674-07-08 14:10 G	27899639.89	27899640.09	27899640.29	0.0487	0.0084
Mercury	71675-01-05 04:48 G	27899820.54	27899820.70	27899820.85	0.0485	0.0027
Venus	71675-03-01 08:10 G	27899875.68	27899875.84	27899876.00	0.0484	0.0296
Venus	71680-05-04 10:19 G	27901766.78	27901766.93	27901767.09	0.0537	0.0353
Earth	71680-08-10 11:03 G	27901864.79	27901864.96	27901865.14	0.0540	0.0355
Moon	71680-08-10 11:17 G	27901864.80	27901864.97	27901865.14	0.0540	0.0333 *
Mercury	71680-12-09 21:51 G	27901986.34	27901986.41	27901986.49	0.0543	0.0471
Venus	71680-12-28 17:31 G	27902005.04	27902005.23	27902005.42	0.0543	0.0180
Mercury	71681-03-09 16:48 G	27902076.11	27902076.20	27902076.29	0.0544	0.0416
Venus	71686-03-13 18:00 G	27903906.07	27903906.25	27903906.44	0.0489	0.0192
Mercury	71686-10-24 07:12 G	27904130.66	27904130.80	27904130.94	0.0485	0.0185
Venus	71686-11-04 13:55 G	27904141.89	27904142.08	27904142.26	0.0485	0.0194
Mercury	71687-01-21 20:53 G	27904220.35	27904220.37	27904220.40	0.0484	0.0477
Venus	71692-01-07 20:39 G	27906032.29	27906032.36	27906032.44	0.0535	0.0492
Earth	71692-08-15 08:39 G	27906252.64	27906252.86	27906253.09	0.0541	0.0130
Moon	71692-08-15 10:48 G	27906252.72	27906252.95	27906253.19	0.0541	0.0104 *
Venus	71692-09-02 00:43 G	27906270.33	27906270.53	27906270.73	0.0542	0.0024
Mercury	71692-12-26 16:48 G	27906386.06	27906386.20	27906386.34	0.0544	0.0177
Venus	71697-11-16 22:05 G	27908172.26	27908172.42	27908172.59	0.0491	0.0298
Earth	71698-02-08 07:41 G	27908255.77	27908255.82	27908255.87	0.0489	0.0474
Venus	71698-07-10 19:41 G	27908408.12	27908408.32	27908408.53	0.0486	0.0092
Mercury	71698-08-12 09:51 G	27908440.81	27908440.91	27908441.03	0.0485	0.0340
Mercury	71698-11-09 23:17 G	27908530.35	27908530.47	27908530.59	0.0484	0.0316
Venus	71699-03-03 11:46 G	27908643.93	27908643.99	27908644.06	0.0484	0.0458
Venus	71704-05-08 12:15 G	27910535.81	27910536.01	27910536.20	0.0540	0.0125
Mercury	71704-10-15 17:46 G	27910696.09	27910696.24	27910696.39	0.0544	0.0043
Venus	71705-01-01 22:48 G	27910774.32	27910774.45	27910774.58	0.0545	0.0416
Mars	71706-08-03 01:27 G	27911352.28	27911352.56	27911352.86	0.0536	0.0113

Venus	71709-07-24 00:58 G	27912438.43	27912438.54	27912438.66	0.0492	0.0405
Earth	71710-02-13 17:03 G	27912642.98	27912643.21	27912643.45	0.0487	0.0099
Moon	71710-02-13 17:17 G	27912643.00	27912643.22	27912643.44	0.0487	0.0105 *
Venus	71710-03-17 00:29 G	27912674.31	27912674.52	27912674.72	0.0487	0.0015
Mercury	71710-08-30 01:27 G	27912840.41	27912840.56	27912840.71	0.0484	0.0151
Venus	71710-11-07 17:31 G	27912910.09	27912910.23	27912910.36	0.0484	0.0360
Venus	71716-01-12 01:27 G	27914801.39	27914801.56	27914801.74	0.0539	0.0270
Mercury	71716-08-03 18:58 G	27915006.16	27915006.29	27915006.42	0.0544	0.0255
Venus	71716-09-06 10:19 G	27915039.75	27915039.93	27915040.10	0.0544	0.0269
Venus	71721-11-20 05:03 G	27916940.51	27916940.71	27916940.91	0.0488	0.0121
Earth	71722-02-18 01:55 G	27917030.39	27917030.58	27917030.78	0.0486	0.0274
Moon	71722-02-18 03:22 G	27917030.45	27917030.64	27917030.84	0.0486	0.0303 *
Mercury	71722-06-18 03:51 G	27917150.50	27917150.66	27917150.81	0.0485	0.0012
Venus	71722-07-13 23:31 G	27917176.31	27917176.48	27917176.65	0.0484	0.0260
Venus	71727-09-16 16:19 G	27919067.05	27919067.18	27919067.31	0.0537	0.0407
Venus	71728-05-11 22:34 G	27919305.24	27919305.44	27919305.64	0.0543	0.0120
Mercury	71728-05-22 20:24 G	27919316.27	27919316.35	27919316.42	0.0543	0.0465
Mercury	71728-08-20 15:22 G	27919406.05	27919406.14	27919406.22	0.0544	0.0424
Venus	71733-07-26 07:27 G	27921206.64	27921206.81	27921207.00	0.0490	0.0232
Venus	71734-03-19 03:51 G	27921442.47	27921442.66	27921442.86	0.0485	0.0155
Mercury	71734-04-06 05:46 G	27921460.60	27921460.74	27921460.89	0.0485	0.0176
Venus	71740-01-15 09:51 G	27923570.71	27923570.91	27923571.11	0.0541	0.0030
Mercury	71740-06-08 16:19 G	27923716.05	27923716.18	27923716.32	0.0544	0.0208
Venus	71740-09-09 21:36 G	27923809.33	27923809.40	27923809.47	0.0545	0.0508
Venus	71745-03-31 10:34 G	27925472.80	27925472.94	27925473.09	0.0491	0.0339
Venus	71745-11-22 09:07 G	27925708.68	27925708.88	27925709.09	0.0486	0.0051
Mercury	71746-01-23 08:24 G	27925770.74	27925770.85	27925770.96	0.0485	0.0332
Mercury	71746-04-22 21:36 G	27925860.29	27925860.40	27925860.52	0.0484	0.0323
Venus	71746-07-16 01:55 G	27925944.48	27925944.58	27925944.68	0.0484	0.0420
Venus	71751-09-19 18:15 G	27927836.07	27927836.26	27927836.45	0.0539	0.0182

Mercury	71752-03-27 16:19 G	27928026.03	27928026.18	27928026.32	0.0543	0.0038
Venus	71752-05-15 03:51 G	27928074.51	27928074.66	27928074.81	0.0544	0.0356
Venus	71756-12-04 13:27 G	27929738.98	27929739.06	27929739.15	0.0494	0.0445
Venus	71757-07-28 14:24 G	27929974.89	27929975.10	27929975.30	0.0488	0.0054
Mercury	71757-11-11 11:17 G	27930080.97	27930080.97	27930080.98	0.0486	0.0484
Mercury	71758-02-09 00:15 G	27930170.36	27930170.51	27930170.65	0.0485	0.0164
Venus	71758-03-21 08:10 G	27930210.70	27930210.84	27930211.00	0.0484	0.0324
Venus	71763-05-25 06:58 G	27932101.63	27932101.79	27932101.95	0.0537	0.0324
Earth	71763-08-11 07:41 G	27932179.71	27932179.82	27932179.94	0.0540	0.0462
Moon	71763-08-11 09:22 G	27932179.76	27932179.89	27932180.03	0.0540	0.0442 *
Mercury	71764-01-14 17:03 G	27932336.08	27932336.21	27932336.34	0.0543	0.0258
Venus	71764-01-18 13:55 G	27932339.90	27932340.08	27932340.27	0.0543	0.0207
Venus	71769-04-02 18:29 G	27934241.07	27934241.27	27934241.46	0.0489	0.0161
Venus	71769-11-24 13:55 G	27934476.90	27934477.08	27934477.26	0.0485	0.0222
Mercury	71769-11-28 02:24 G	27934480.45	27934480.60	27934480.76	0.0485	0.0005
Venus	71775-01-27 21:07 G	27936367.28	27936367.38	27936367.48	0.0536	0.0460
Moon	71775-08-16 09:36 G	27936567.68	27936567.90	27936568.13	0.0542	0.0025
Earth	71775-08-16 12:58 G	27936567.81	27936568.04	27936568.27	0.0542	0.0055 *
Venus	71775-09-23 01:55 G	27936605.38	27936605.58	27936605.78	0.0542	0.0058
Mercury	71775-11-02 18:00 G	27936646.18	27936646.25	27936646.33	0.0543	0.0474
Mercury	71776-01-31 12:58 G	27936735.95	27936736.04	27936736.14	0.0544	0.0418
Venus	71780-12-06 22:19 G	27938507.26	27938507.43	27938507.60	0.0490	0.0268
Venus	71781-07-30 19:27 G	27938743.11	27938743.31	27938743.51	0.0485	0.0119
Mercury	71781-09-16 05:03 G	27938790.56	27938790.71	27938790.85	0.0485	0.0158
Venus	71782-03-23 10:48 G	27938978.95	27938978.95	27938978.98	0.0483	0.0482
Venus	71787-05-28 15:22 G	27940870.94	27940871.14	27940871.34	0.0541	0.0089
Mercury	71787-11-19 14:53 G	27941045.99	27941046.12	27941046.25	0.0544	0.0215
Venus	71788-01-22 02:39 G	27941109.50	27941109.61	27941109.72	0.0545	0.0450
Venus	71792-08-12 00:00 G	27942773.37	27942773.50	27942773.63	0.0492	0.0377
Earth	71793-02-13 00:15 G	27942958.29	27942958.51	27942958.74	0.0488	0.0150

Moon	71793-02-13 01:55 G	27942958.35	27942958.58	27942958.81	0.0488	0.0149 *
Venus	71793-04-04 23:17 G	27943009.26	27943009.47	27943009.67	0.0487	0.0012
Mercury	71793-07-05 07:12 G	27943100.68	27943100.80	27943100.91	0.0485	0.0321
Mercury	71793-10-02 20:24 G	27943190.23	27943190.35	27943190.46	0.0484	0.0334
Venus	71793-11-26 16:19 G	27943245.06	27943245.18	27943245.31	0.0484	0.0384
Mars	71795-11-19 00:29 G	27943967.32	27943967.52	27943967.73	0.0493	0.0298
Venus	71799-01-31 04:05 G	27945136.49	27945136.67	27945136.85	0.0539	0.0233
Mercury	71799-09-07 15:51 G	27945356.02	27945356.16	27945356.31	0.0544	0.0017
Venus	71799-09-26 12:43 G	27945374.87	27945375.03	27945375.20	0.0544	0.0303
Venus	71804-04-18 02:10 G	27947039.55	27947039.59	27947039.63	0.0494	0.0484
Venus	71804-12-10 03:51 G	27947275.46	27947275.66	27947275.87	0.0488	0.0095
Moon	71805-02-18 06:58 G	27947345.60	27947345.79	27947345.99	0.0487	0.0255
Earth	71805-02-18 09:36 G	27947345.69	27947345.90	27947346.11	0.0487	0.0225 *
Mercury	71805-04-24 09:51 G	27947410.88	27947410.91	27947410.94	0.0486	0.0475
Mercury	71805-07-22 22:34 G	27947500.30	27947500.44	27947500.59	0.0485	0.0174
Venus	71805-08-02 22:34 G	27947511.28	27947511.44	27947511.61	0.0484	0.0284
Venus	71810-10-06 14:24 G	27949401.95	27949402.10	27949402.24	0.0536	0.0376
Venus	71811-06-01 19:55 G	27949640.14	27949640.33	27949640.53	0.0543	0.0149
Mercury	71811-06-27 15:36 G	27949666.02	27949666.15	27949666.28	0.0543	0.0246
Venus	71816-08-15 07:55 G	27951541.65	27951541.83	27951542.02	0.0490	0.0201
Venus	71817-04-08 04:34 G	27951777.50	27951777.69	27951777.88	0.0485	0.0184
Mercury	71817-05-11 01:12 G	27951810.40	27951810.55	27951810.71	0.0485	0.0017
Venus	71822-06-11 04:05 G	27953667.62	27953667.67	27953667.73	0.0534	0.0509
Venus	71823-02-04 06:58 G	27953905.58	27953905.79	27953905.99	0.0541	0.0007
Mercury	71823-04-15 16:05 G	27953976.11	27953976.17	27953976.25	0.0543	0.0473
Mercury	71823-07-14 11:17 G	27954065.88	27954065.97	27954066.06	0.0544	0.0417
Venus	71823-09-30 18:29 G	27954144.24	27954144.27	27954144.32	0.0545	0.0533
Venus	71828-04-20 11:17 G	27955807.82	27955807.97	27955808.14	0.0491	0.0308
Venus	71828-12-12 09:51 G	27956043.71	27956043.91	27956044.11	0.0486	0.0080
Mercury	71829-02-27 03:36 G	27956120.51	27956120.65	27956120.80	0.0485	0.0146

Venus	71829-08-05 01:55 G	27956279.51	27956279.58	27956279.66	0.0484	0.0446
Venus	71834-10-09 19:27 G	27958171.12	27958171.31	27958171.51	0.0540	0.0148
Mercury	71835-05-02 12:43 G	27958375.90	27958376.03	27958376.17	0.0544	0.0210
Venus	71835-06-05 05:46 G	27958409.60	27958409.74	27958409.88	0.0545	0.0390
Venus	71839-12-25 14:24 G	27960073.99	27960074.10	27960074.21	0.0493	0.0414
Venus	71840-08-17 14:39 G	27960309.91	27960310.11	27960310.32	0.0487	0.0025
Mercury	71840-12-16 06:15 G	27960430.65	27960430.76	27960430.88	0.0485	0.0302
Mercury	71841-03-15 19:27 G	27960520.21	27960520.31	27960520.42	0.0484	0.0353
Venus	71841-04-10 08:10 G	27960545.70	27960545.84	27960545.98	0.0484	0.0349
Venus	71846-06-14 10:05 G	27962436.75	27962436.92	27962437.09	0.0538	0.0288
Moon	71846-08-11 12:58 G	27962494.97	27962495.04	27962495.12	0.0540	0.0506
Earth	71846-08-11 16:05 G	27962495.11	27962495.17	27962495.23	0.0540	0.0519 *
Venus	71847-02-07 18:00 G	27962675.07	27962675.25	27962675.43	0.0544	0.0244
Mercury	71847-02-18 14:24 G	27962685.95	27962686.10	27962686.25	0.0544	0.0006
Venus	71852-04-22 17:46 G	27964576.05	27964576.24	27964576.44	0.0489	0.0134
Mercury	71852-10-04 08:39 G	27964740.82	27964740.86	27964740.91	0.0486	0.0462
Venus	71852-12-14 13:12 G	27964811.88	27964812.05	27964812.23	0.0485	0.0247
Mercury	71853-01-01 21:22 G	27964830.25	27964830.39	27964830.54	0.0484	0.0186
Venus	71858-02-17 00:15 G	27966702.40	27966702.51	27966702.64	0.0536	0.0424
Earth	71858-08-16 20:39 G	27966883.13	27966883.36	27966883.59	0.0541	0.0011
Moon	71858-08-17 00:29 G	27966883.29	27966883.52	27966883.75	0.0541	0.0037 *
Venus	71858-10-13 05:17 G	27966940.52	27966940.72	27966940.92	0.0542	0.0096
Mercury	71858-12-07 15:22 G	27966996.01	27966996.14	27966996.28	0.0543	0.0212
Venus	71863-12-27 21:36 G	27968842.23	27968842.40	27968842.58	0.0490	0.0240
Venus	71864-08-19 18:58 G	27969078.09	27969078.29	27969078.48	0.0486	0.0145
Mercury	71864-10-21 00:00 G	27969140.34	27969140.50	27969140.65	0.0485	0.0027
Venus	71870-06-17 13:55 G	27971205.88	27971206.08	27971206.28	0.0540	0.0057
Moon	71870-08-21 15:36 G	27971271.04	27971271.15	27971271.27	0.0542	0.0466
Earth	71870-08-21 19:12 G	27971271.21	27971271.30	27971271.41	0.0542	0.0487 *
Mercury	71870-09-25 15:07 G	27971306.05	27971306.13	27971306.21	0.0542	0.0458

Mercury	71870-12-24 10:05 G	27971395.83	27971395.92	27971396.01	0.0544	0.0431
Venus	71871-02-11 00:29 G	27971444.43	27971444.52	27971444.62	0.0544	0.0476
Venus	71875-09-02 00:29 G	27973108.38	27973108.52	27973108.67	0.0492	0.0347
Moon	71876-02-14 08:10 G	27973273.63	27973273.84	27973274.05	0.0488	0.0190
Earth	71876-02-14 10:48 G	27973273.73	27973273.95	27973274.17	0.0488	0.0191 *
Venus	71876-04-25 00:00 G	27973344.30	27973344.50	27973344.71	0.0487	0.0043
Mercury	71876-08-09 02:39 G	27973450.46	27973450.61	27973450.76	0.0485	0.0131
Venus	71876-12-16 17:31 G	27973580.13	27973580.23	27973580.34	0.0484	0.0411
Venus	71882-02-20 01:41 G	27975471.39	27975471.57	27975471.76	0.0539	0.0203
Mercury	71882-10-12 11:03 G	27975705.83	27975705.96	27975706.09	0.0544	0.0213
Venus	71882-10-16 10:05 G	27975709.77	27975709.92	27975710.09	0.0544	0.0331
Venus	71887-05-08 02:53 G	27977374.55	27977374.62	27977374.70	0.0494	0.0454
Venus	71887-12-30 04:48 G	27977610.49	27977610.70	27977610.90	0.0488	0.0065
Earth	71888-02-18 20:10 G	27977661.12	27977661.34	27977661.56	0.0487	0.0186
Moon	71888-02-18 23:46 G	27977661.28	27977661.49	27977661.70	0.0487	0.0217 *
Mercury	71888-05-28 05:03 G	27977760.59	27977760.71	27977760.84	0.0485	0.0289
Venus	71888-08-21 23:03 G	27977846.31	27977846.46	27977846.62	0.0484	0.0312
Mercury	71888-08-25 18:15 G	27977850.16	27977850.26	27977850.36	0.0484	0.0367
Venus	71893-10-25 15:07 G	27979736.98	27979737.13	27979737.29	0.0537	0.0343
Venus	71894-06-20 21:36 G	27979975.21	27979975.40	27979975.59	0.0543	0.0183
Mercury	71894-07-31 12:15 G	27980015.87	27980016.01	27980016.16	0.0544	0.0015
Venus	71899-09-04 08:53 G	27981876.68	27981876.87	27981877.06	0.0489	0.0170
Mercury	71900-03-17 07:41 G	27982070.77	27982070.82	27982070.89	0.0486	0.0444
Venus	71900-04-28 04:48 G	27982112.52	27982112.70	27982112.89	0.0485	0.0212
Mercury	71900-06-14 20:39 G	27982160.22	27982160.36	27982160.50	0.0484	0.0205
Venus	71905-07-01 06:43 G	27984002.70	27984002.78	27984002.88	0.0535	0.0475
Venus	71906-02-24 10:34 G	27984240.74	27984240.94	27984241.14	0.0542	0.0037
Mercury	71906-05-20 13:55 G	27984325.94	27984326.08	27984326.21	0.0543	0.0206
Venus	71911-05-11 11:31 G	27986142.81	27986142.98	27986143.15	0.0491	0.0278
Venus	71912-01-02 09:22 G	27986378.70	27986378.89	27986379.10	0.0486	0.0108

Mercury	71912-04-02 22:48 G	27986470.29	27986470.45	27986470.60	0.0485	0.0040
Venus	71912-08-25 01:41 G	27986614.53	27986614.57	27986614.62	0.0484	0.0469
Mars	71914-05-13 17:17 G	27987241.09	27987241.22	27987241.37	0.0491	0.0404
Venus	71917-10-29 23:17 G	27988506.27	27988506.47	27988506.67	0.0540	0.0109
Mercury	71918-03-08 14:53 G	27988636.03	27988636.12	27988636.21	0.0543	0.0424
Mercury	71918-06-06 09:36 G	27988725.83	27988725.90	27988725.98	0.0544	0.0466
Venus	71918-06-25 09:36 G	27988744.78	27988744.90	27988745.03	0.0544	0.0425
Venus	71923-01-14 14:10 G	27990408.97	27990409.09	27990409.22	0.0493	0.0385
Venus	71923-09-07 14:24 G	27990644.89	27990645.10	27990645.30	0.0487	0.0004
Mercury	71924-01-21 01:12 G	27990780.41	27990780.55	27990780.70	0.0485	0.0119
Venus	71924-04-30 08:10 G	27990880.71	27990880.84	27990880.97	0.0484	0.0374
Venus	71929-07-04 09:36 G	27992771.73	27992771.90	27992772.08	0.0537	0.0255
Venus	71930-02-27 16:34 G	27993010.02	27993010.19	27993010.37	0.0543	0.0275
Mercury	71930-03-25 09:51 G	27993035.78	27993035.91	27993036.05	0.0543	0.0229
Venus	71934-09-19 15:22 G	27994675.12	27994675.14	27994675.16	0.0496	0.0492
Venus	71935-05-13 18:29 G	27994911.07	27994911.27	27994911.47	0.0489	0.0103
Mercury	71935-11-09 03:51 G	27995090.54	27995090.66	27995090.79	0.0486	0.0276
Venus	71936-01-04 14:10 G	27995146.93	27995147.09	27995147.26	0.0485	0.0276
Mercury	71936-02-06 17:17 G	27995180.12	27995180.22	27995180.31	0.0485	0.0383
Venus	71941-03-08 22:48 G	27997037.31	27997037.45	27997037.59	0.0535	0.0393
Moon	71941-08-16 15:51 G	27997197.94	27997198.16	27997198.38	0.0540	0.0136
Earth	71941-08-16 19:41 G	27997198.09	27997198.32	27997198.54	0.0540	0.0104 *
Venus	71941-11-02 03:07 G	27997275.43	27997275.63	27997275.83	0.0542	0.0125
Mercury	71942-01-11 10:48 G	27997345.80	27997345.95	27997346.10	0.0543	0.0010
Venus	71947-01-16 22:19 G	27999177.24	27999177.43	27999177.61	0.0490	0.0210
Mercury	71947-08-28 06:43 G	27999400.71	27999400.78	27999400.84	0.0486	0.0431
Venus	71947-09-09 19:27 G	27999413.12	27999413.31	27999413.50	0.0486	0.0174
Mercury	71947-11-25 19:27 G	27999490.17	27999490.31	27999490.45	0.0485	0.0218
Venus	71952-11-11 12:58 G	28001303.01	28001303.04	28001303.08	0.0533	0.0524
Venus	71953-07-07 14:53 G	28001540.92	28001541.12	28001541.33	0.0541	0.0027

Earth	71953-08-21 23:31 G	28001586.33	28001586.48	28001586.63	0.0542	0.0413
Moon	71953-08-22 01:41 G	28001586.43	28001586.57	28001586.72	0.0542	0.0407 *
Mercury	71953-10-30 11:46 G	28001655.85	28001655.99	28001656.13	0.0543	0.0210
Venus	71954-03-03 02:24 G	28001779.53	28001779.60	28001779.67	0.0545	0.0508
Venus	71958-09-22 01:41 G	28003443.41	28003443.57	28003443.73	0.0492	0.0316
Earth	71959-02-14 21:07 G	28003589.17	28003589.38	28003589.59	0.0488	0.0231
Moon	71959-02-15 00:43 G	28003589.32	28003589.53	28003589.75	0.0488	0.0221 *
Venus	71959-05-16 00:43 G	28003679.33	28003679.53	28003679.73	0.0487	0.0071
Mercury	71959-09-13 21:51 G	28003800.26	28003800.41	28003800.57	0.0485	0.0059
Venus	71960-01-06 17:31 G	28003915.15	28003915.23	28003915.32	0.0484	0.0435
Venus	71965-03-12 04:48 G	28005806.51	28005806.70	28005806.89	0.0539	0.0166
Mercury	71965-08-18 13:12 G	28005965.95	28005966.05	28005966.14	0.0543	0.0420
Venus	71965-11-05 14:10 G	28006044.94	28006045.09	28006045.24	0.0544	0.0366
Mercury	71965-11-16 08:10 G	28006055.77	28006055.84	28006055.91	0.0544	0.0470
Venus	71970-05-28 03:36 G	28007709.54	28007709.65	28007709.75	0.0494	0.0423
Venus	71971-01-19 04:34 G	28007945.49	28007945.69	28007945.90	0.0488	0.0035
Moon	71971-02-19 01:41 G	28007976.35	28007976.57	28007976.79	0.0487	0.0170
Earth	71971-02-19 05:31 G	28007976.50	28007976.73	28007976.95	0.0487	0.0141 *
Mercury	71971-07-03 00:00 G	28008110.35	28008110.50	28008110.65	0.0485	0.0106
Venus	71971-09-11 22:48 G	28008181.31	28008181.45	28008181.60	0.0484	0.0338
Venus	71976-11-14 18:58 G	28010072.13	28010072.29	28010072.46	0.0537	0.0305
Venus	71977-07-11 01:41 G	28010310.38	28010310.57	28010310.75	0.0543	0.0221
Mercury	71977-09-04 09:36 G	28010365.77	28010365.90	28010366.03	0.0544	0.0261
Venus	71982-09-24 08:39 G	28012211.66	28012211.86	28012212.06	0.0489	0.0141
Mercury	71983-04-21 02:53 G	28012420.49	28012420.62	28012420.74	0.0485	0.0262
Venus	71983-05-18 04:34 G	28012447.52	28012447.69	28012447.87	0.0485	0.0239
Mercury	71983-07-19 15:51 G	28012510.08	28012510.16	28012510.25	0.0484	0.0396
Venus	71988-07-20 07:27 G	28014337.70	28014337.81	28014337.92	0.0534	0.0441
Venus	71989-03-15 10:19 G	28014575.73	28014575.93	28014576.13	0.0541	0.0069
Mercury	71989-06-23 09:36 G	28014675.76	28014675.90	28014676.05	0.0543	0.0030

Venus	71994-05-30 11:17 G	28016477.80	28016477.97	28016478.16	0.0491	0.0250
Venus	71995-01-21 09:51 G	28016713.72	28016713.91	28016714.11	0.0486	0.0137
Mercury	71995-02-07 05:17 G	28016730.65	28016730.72	28016730.80	0.0486	0.0419
Mercury	71995-05-07 18:15 G	28016820.13	28016820.26	28016820.40	0.0485	0.0233
Venus	72000-11-17 21:36 G	28018841.20	28018841.40	28018841.60	0.0539	0.0079

73RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 73rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	72001-04-11 10:19 G		28018985.79	28018985.93	28018986.07	0.0543	0.0201	
Venus	72001-07-14 07:12 G		28019079.69	28019079.80	28019079.91	0.0544	0.0451	
Venus	72006-02-02 14:10 G		28020743.95	28020744.09	28020744.23	0.0493	0.0357	
Venus	72006-09-26 14:24 G		28020979.90	28020980.10	28020980.31	0.0487	0.0033	
Mercury	72007-02-23 20:39 G		28021130.20	28021130.36	28021130.51	0.0485	0.0071	
Venus	72007-05-20 08:10 G		28021215.73	28021215.84	28021215.96	0.0484	0.0399	
Venus	72012-07-23 10:05 G		28023106.73	28023106.92	28023107.10	0.0538	0.0223	
Mercury	72013-01-28 11:03 G		28023295.87	28023295.96	28023296.05	0.0543	0.0424	
Venus	72013-03-18 17:46 G		28023345.07	28023345.24	28023345.41	0.0544	0.0306	
Mercury	72013-04-28 06:00 G		28023385.68	28023385.75	28023385.83	0.0544	0.0467	
Venus	72017-10-08 16:34 G		28025010.13	28025010.19	28025010.27	0.0495	0.0462	
Venus	72018-06-01 19:12 G		28025246.10	28025246.30	28025246.50	0.0489	0.0074	
Mercury	72018-12-12 23:03 G		28025440.31	28025440.46	28025440.61	0.0485	0.0089	
Venus	72019-01-23 14:10 G		28025481.94	28025482.09	28025482.26	0.0485	0.0302	

Venus	72024-03-28 00:43 G	28027372.38	28027372.53	28027372.68	0.0536	0.0360
Earth	72024-08-16 02:24 G	28027513.38	28027513.60	28027513.82	0.0540	0.0166
Moon	72024-08-16 05:17 G	28027513.51	28027513.72	28027513.93	0.0540	0.0199 *
Venus	72024-11-21 06:00 G	28027610.56	28027610.75	28027610.95	0.0543	0.0161
Mercury	72025-02-14 07:41 G	28027695.70	28027695.82	28027695.95	0.0544	0.0264
Venus	72030-02-04 22:19 G	28029512.24	28029512.43	28029512.62	0.0490	0.0180
Venus	72030-09-28 18:58 G	28029748.11	28029748.29	28029748.48	0.0485	0.0201
Mercury	72030-10-01 01:27 G	28029750.43	28029750.56	28029750.69	0.0485	0.0251
Mercury	72030-12-29 14:39 G	28029840.03	28029840.11	28029840.19	0.0484	0.0406
Venus	72035-12-01 16:34 G	28031638.11	28031638.19	28031638.27	0.0534	0.0488
Venus	72036-07-26 18:43 G	28031876.08	28031876.28	28031876.48	0.0541	0.0016
Moon	72036-08-21 06:58 G	28031901.62	28031901.79	28031901.98	0.0542	0.0353
Earth	72036-08-21 07:55 G	28031901.66	28031901.83	28031902.01	0.0542	0.0355 *
Mercury	72036-12-03 09:07 G	28032005.74	28032005.88	28032006.03	0.0544	0.0053
Venus	72037-03-22 06:00 G	28032114.74	28032114.75	28032114.77	0.0545	0.0543
Venus	72041-10-11 01:27 G	28033778.39	28033778.56	28033778.72	0.0492	0.0287
Moon	72042-02-14 01:41 G	28033904.37	28033904.57	28033904.77	0.0489	0.0265
Earth	72042-02-14 05:17 G	28033904.53	28033904.72	28033904.92	0.0489	0.0280 *
Venus	72042-06-04 00:15 G	28034014.31	28034014.51	28034014.71	0.0487	0.0099
Mercury	72042-07-20 04:05 G	28034060.59	28034060.67	28034060.76	0.0486	0.0406
Mercury	72042-10-17 17:03 G	28034150.07	28034150.21	28034150.34	0.0485	0.0245
Venus	72043-01-25 17:17 G	28034250.16	28034250.22	28034250.28	0.0484	0.0460
Venus	72048-03-31 05:17 G	28036141.52	28036141.72	28036141.91	0.0539	0.0133
Mercury	72048-09-21 09:07 G	28036315.75	28036315.88	28036316.03	0.0543	0.0185
Venus	72048-11-24 13:27 G	28036379.93	28036380.06	28036380.21	0.0543	0.0395
Venus	72053-06-16 02:24 G	28038044.49	28038044.60	28038044.73	0.0494	0.0397
Venus	72054-02-07 04:19 G	28038280.47	28038280.68	28038280.88	0.0488	0.0009
Earth	72054-02-18 13:55 G	28038291.85	28038292.08	28038292.31	0.0488	0.0096
Moon	72054-02-18 16:48 G	28038291.98	28038292.20	28038292.42	0.0488	0.0124 *
Mercury	72054-08-05 19:12 G	28038460.15	28038460.30	28038460.46	0.0485	0.0082

Venus	72054-09-30 23:03 G	28038516.33	28038516.46	28038516.59	0.0485	0.0364
Venus	72059-12-04 17:46 G	28040407.07	28040407.24	28040407.41	0.0536	0.0275
Mercury	72060-07-10 09:36 G	28040625.81	28040625.90	28040626.00	0.0542	0.0413
Venus	72060-07-29 23:31 G	28040645.30	28040645.48	28040645.66	0.0542	0.0248
Mercury	72060-10-08 04:34 G	28040715.62	28040715.69	28040715.76	0.0544	0.0474
Venus	72065-10-13 08:10 G	28042546.64	28042546.84	28042547.04	0.0490	0.0115
Moon	72066-02-22 21:07 G	28042679.31	28042679.38	28042679.46	0.0487	0.0461
Earth	72066-02-22 23:03 G	28042679.41	28042679.46	28042679.52	0.0487	0.0471 *
Mercury	72066-05-24 21:36 G	28042770.25	28042770.40	28042770.55	0.0485	0.0080
Venus	72066-06-06 04:19 G	28042782.51	28042782.68	28042782.85	0.0485	0.0264
Mars	72068-08-06 22:48 G	28043575.19	28043575.45	28043575.70	0.0491	0.0006
Venus	72071-08-09 06:29 G	28044672.65	28044672.77	28044672.91	0.0535	0.0413
Venus	72072-04-03 10:05 G	28044910.72	28044910.92	28044911.12	0.0542	0.0099
Mercury	72072-07-27 05:46 G	28045025.61	28045025.74	28045025.87	0.0544	0.0259
Venus	72077-06-18 12:00 G	28046812.82	28046813.00	28046813.18	0.0491	0.0220
Venus	72078-02-09 09:51 G	28047048.72	28047048.91	28047049.10	0.0486	0.0163
Mercury	72078-03-13 00:15 G	28047080.38	28047080.51	28047080.65	0.0485	0.0236
Mercury	72078-06-10 13:27 G	28047169.99	28047170.06	28047170.14	0.0484	0.0422
Venus	72083-12-07 23:17 G	28049176.27	28049176.47	28049176.67	0.0540	0.0046
Mercury	72084-05-15 07:12 G	28049335.65	28049335.80	28049335.95	0.0544	0.0052
Venus	72084-08-02 09:51 G	28049414.82	28049414.91	28049415.01	0.0545	0.0484
Venus	72089-02-21 14:10 G	28051078.94	28051079.09	28051079.25	0.0493	0.0327
Venus	72089-10-15 13:55 G	28051314.88	28051315.08	28051315.29	0.0487	0.0060
Mercury	72089-12-30 02:39 G	28051390.53	28051390.61	28051390.70	0.0486	0.0397
Mercury	72090-03-29 15:36 G	28051480.02	28051480.15	28051480.28	0.0485	0.0254
Venus	72090-06-08 07:27 G	28051550.71	28051550.81	28051550.91	0.0484	0.0423
Venus	72095-08-12 13:12 G	28053441.86	28053442.05	28053442.24	0.0538	0.0186
Mercury	72096-03-03 08:24 G	28053645.71	28053645.85	28053645.99	0.0543	0.0162
Venus	72096-04-06 21:07 G	28053680.22	28053680.38	28053680.54	0.0544	0.0341
Venus	72100-10-28 16:05 G	28055345.08	28055345.17	28055345.27	0.0495	0.0434

Venus	72101-06-21 18:29 G	28055581.06	28055581.27	28055581.47	0.0488	0.0046
Mercury	72102-01-16 18:00 G	28055790.10	28055790.25	28055790.40	0.0485	0.0093
Venus	72102-02-12 13:27 G	28055816.91	28055817.06	28055817.21	0.0485	0.0327
Venus	72107-04-18 01:41 G	28057707.41	28057707.57	28057707.73	0.0535	0.0326
Moon	72107-08-17 04:05 G	28057828.47	28057828.67	28057828.87	0.0539	0.0279
Earth	72107-08-17 05:31 G	28057828.53	28057828.73	28057828.94	0.0539	0.0245 *
Venus	72107-12-12 06:15 G	28057945.57	28057945.76	28057945.95	0.0542	0.0191
Mercury	72107-12-22 08:24 G	28057955.76	28057955.85	28057955.96	0.0542	0.0397
Mercury	72108-03-21 03:22 G	28058045.59	28058045.64	28058045.71	0.0543	0.0490
Venus	72113-02-24 20:53 G	28059847.18	28059847.37	28059847.57	0.0490	0.0155
Venus	72113-10-18 18:15 G	28060083.08	28060083.26	28060083.44	0.0486	0.0226
Mercury	72113-11-04 20:10 G	28060100.19	28060100.34	28060100.50	0.0486	0.0072
Venus	72118-12-21 15:22 G	28061973.05	28061973.14	28061973.25	0.0533	0.0459
Venus	72119-08-16 16:48 G	28062211.00	28062211.20	28062211.40	0.0540	0.0043
Moon	72119-08-22 06:29 G	28062216.58	28062216.77	28062216.97	0.0540	0.0260
Earth	72119-08-22 06:58 G	28062216.59	28062216.79	28062216.99	0.0540	0.0258 *
Mercury	72120-01-08 04:19 G	28062355.55	28062355.68	28062355.81	0.0543	0.0268
Venus	72124-10-30 23:46 G	28064113.32	28064113.49	28064113.67	0.0492	0.0262
Earth	72125-02-14 11:31 G	28064219.81	28064219.98	28064220.16	0.0489	0.0333
Moon	72125-02-14 14:24 G	28064219.92	28064220.10	28064220.28	0.0489	0.0309 *
Venus	72125-06-23 23:03 G	28064349.26	28064349.46	28064349.66	0.0487	0.0123
Mercury	72125-08-23 22:48 G	28064410.31	28064410.45	28064410.58	0.0486	0.0230
Mercury	72125-11-21 11:46 G	28064499.93	28064499.99	28064500.07	0.0485	0.0429
Venus	72126-02-14 16:05 G	28064585.15	28064585.17	28064585.19	0.0484	0.0481
Venus	72131-04-21 03:51 G	28066476.46	28066476.66	28066476.86	0.0539	0.0105
Mercury	72131-10-27 05:03 G	28066665.56	28066665.71	28066665.86	0.0543	0.0046
Venus	72131-12-15 12:58 G	28066714.91	28066715.04	28066715.16	0.0544	0.0422
Mars	72133-07-11 23:03 G	28067289.17	28067289.46	28067289.75	0.0538	0.0109
Venus	72136-07-06 02:39 G	28068379.48	28068379.61	28068379.75	0.0494	0.0368
Moon	72137-02-18 20:24 G	28068607.11	28068607.35	28068607.59	0.0488	0.0075

Earth	72137-02-18 22:19 G	28068607.19	28068607.43	28068607.66	0.0488	0.0050 *
Venus	72137-02-27 03:51 G	28068615.45	28068615.66	28068615.87	0.0488	0.0019
Mercury	72137-06-12 01:27 G	28068720.47	28068720.56	28068720.65	0.0486	0.0385
Mercury	72137-09-09 14:10 G	28068809.96	28068810.09	28068810.22	0.0485	0.0266
Venus	72137-10-20 22:05 G	28068851.30	28068851.42	28068851.54	0.0484	0.0387
Venus	72142-12-24 18:00 G	28070742.07	28070742.25	28070742.43	0.0537	0.0244
Mercury	72143-08-15 06:15 G	28070975.62	28070975.76	28070975.90	0.0543	0.0166
Venus	72143-08-20 00:43 G	28070980.36	28070980.53	28070980.70	0.0543	0.0280
Venus	72148-03-11 03:51 G	28072645.61	28072645.66	28072645.72	0.0496	0.0474
Venus	72148-11-02 07:12 G	28072881.60	28072881.80	28072882.01	0.0489	0.0088
Earth	72149-02-23 06:29 G	28072994.65	28072994.77	28072994.89	0.0487	0.0421
Moon	72149-02-23 06:43 G	28072994.67	28072994.78	28072994.91	0.0487	0.0411 *
Venus	72149-06-26 02:53 G	28073117.47	28073117.62	28073117.79	0.0485	0.0289
Mercury	72149-06-28 16:19 G	28073120.03	28073120.18	28073120.33	0.0485	0.0100
Venus	72154-08-29 08:53 G	28075007.73	28075007.87	28075008.01	0.0535	0.0378
Venus	72155-04-24 12:43 G	28075245.84	28075246.03	28075246.23	0.0542	0.0136
Mercury	72155-06-03 07:27 G	28075285.70	28075285.81	28075285.91	0.0543	0.0382
Mercury	72155-09-01 02:24 G	28075375.55	28075375.60	28075375.65	0.0544	0.0507
Venus	72160-07-08 10:48 G	28077147.76	28077147.95	28077148.14	0.0491	0.0193
Venus	72161-03-01 08:24 G	28077383.66	28077383.85	28077384.04	0.0486	0.0188
Mercury	72161-04-16 18:58 G	28077430.13	28077430.29	28077430.44	0.0485	0.0061
Venus	72166-05-03 23:46 G	28079273.43	28079273.49	28079273.55	0.0532	0.0506
Venus	72166-12-27 23:46 G	28079511.29	28079511.49	28079511.69	0.0540	0.0013
Mercury	72167-06-20 03:07 G	28079685.50	28079685.63	28079685.75	0.0543	0.0282
Venus	72167-08-23 09:22 G	28079749.82	28079749.89	28079749.96	0.0544	0.0510
Venus	72172-03-13 11:31 G	28081413.82	28081413.98	28081414.14	0.0493	0.0304
Venus	72172-11-04 12:00 G	28081649.80	28081650.00	28081650.20	0.0488	0.0084
Mercury	72173-02-02 21:07 G	28081740.25	28081740.38	28081740.52	0.0486	0.0224
Mercury	72173-05-03 10:19 G	28081829.86	28081829.93	28081830.00	0.0485	0.0436
Venus	72173-06-28 06:00 G	28081885.68	28081885.75	28081885.83	0.0485	0.0446

Venus	72178-09-01 11:17 G	28083776.78	28083776.97	28083777.17	0.0538	0.0158
Mercury	72179-04-08 03:36 G	28083995.51	28083995.65	28083995.80	0.0543	0.0058
Venus	72179-04-27 18:29 G	28084015.12	28084015.27	28084015.42	0.0543	0.0366
Venus	72183-11-17 13:12 G	28085679.94	28085680.05	28085680.17	0.0495	0.0411
Venus	72184-07-10 16:05 G	28085915.96	28085916.17	28085916.37	0.0489	0.0023
Mercury	72184-11-21 23:46 G	28086050.40	28086050.49	28086050.58	0.0486	0.0382
Mercury	72185-02-19 12:29 G	28086139.89	28086140.02	28086140.15	0.0485	0.0270
Venus	72185-03-03 11:17 G	28086151.83	28086151.97	28086152.11	0.0485	0.0348
Venus	72190-05-06 23:03 G	28088042.30	28088042.46	28088042.63	0.0536	0.0300
Earth	72190-08-16 04:05 G	28088143.50	28088143.67	28088143.85	0.0539	0.0341
Moon	72190-08-16 04:19 G	28088143.53	28088143.68	28088143.84	0.0539	0.0377 *
Venus	72190-12-31 04:05 G	28088280.48	28088280.67	28088280.85	0.0542	0.0217
Mercury	72191-01-25 04:05 G	28088305.53	28088305.67	28088305.81	0.0543	0.0173
Venus	72196-03-15 20:10 G	28090182.14	28090182.34	28090182.53	0.0490	0.0129
Venus	72196-11-06 17:03 G	28090418.03	28090418.21	28090418.38	0.0486	0.0250
Mercury	72196-12-08 14:53 G	28090449.97	28090450.12	28090450.27	0.0485	0.0109
Venus	72202-01-10 13:55 G	28092307.97	28092308.08	28092308.20	0.0534	0.0432
Earth	72202-08-22 08:24 G	28092531.63	28092531.85	28092532.07	0.0541	0.0174
Moon	72202-08-22 10:05 G	28092531.70	28092531.92	28092532.14	0.0541	0.0178 *
Venus	72202-09-05 16:19 G	28092545.98	28092546.18	28092546.38	0.0541	0.0073
Mercury	72202-11-14 05:03 G	28092615.61	28092615.71	28092615.81	0.0543	0.0390
Mercury	72203-02-12 00:15 G	28092705.45	28092705.51	28092705.56	0.0544	0.0499
Venus	72207-11-20 22:48 G	28094448.27	28094448.45	28094448.63	0.0492	0.0234
Moon	72208-02-15 16:34 G	28094535.02	28094535.19	28094535.35	0.0489	0.0361
Earth	72208-02-15 18:00 G	28094535.12	28094535.25	28094535.41	0.0489	0.0388 *
Venus	72208-07-13 21:22 G	28094684.20	28094684.39	28094684.59	0.0486	0.0148
Mercury	72208-09-27 17:03 G	28094760.06	28094760.21	28094760.37	0.0485	0.0057
Venus	72214-05-11 05:46 G	28096811.54	28096811.74	28096811.94	0.0539	0.0071
Mercury	72214-12-01 01:41 G	28097015.45	28097015.57	28097015.69	0.0544	0.0293
Venus	72215-01-04 14:53 G	28097050.02	28097050.12	28097050.24	0.0544	0.0455

Venus	72219-07-27 00:58 G	28098714.39	28098714.54	28098714.69	0.0494	0.0342
Earth	72220-02-20 03:51 G	28098922.43	28098922.66	28098922.90	0.0488	0.0010
Moon	72220-02-20 04:19 G	28098922.45	28098922.68	28098922.91	0.0488	0.0017 *
Venus	72220-03-19 01:55 G	28098950.37	28098950.58	28098950.78	0.0488	0.0045
Mercury	72220-07-16 19:41 G	28099070.19	28099070.32	28099070.46	0.0486	0.0215
Mercury	72220-10-14 08:53 G	28099159.81	28099159.87	28099159.93	0.0485	0.0444
Venus	72220-11-09 19:55 G	28099186.23	28099186.33	28099186.44	0.0484	0.0410
Mars	72222-11-03 00:00 G	28099909.34	28099909.50	28099909.66	0.0492	0.0387
Venus	72226-01-13 18:29 G	28101077.08	28101077.27	28101077.45	0.0537	0.0213
Venus	72226-09-09 00:29 G	28101315.35	28101315.52	28101315.68	0.0542	0.0308
Mercury	72226-09-19 02:24 G	28101325.45	28101325.60	28101325.74	0.0543	0.0069
Venus	72231-04-01 00:15 G	28102980.43	28102980.51	28102980.59	0.0496	0.0452
Venus	72231-11-23 04:19 G	28103216.47	28103216.68	28103216.88	0.0490	0.0064
Earth	72232-02-24 10:34 G	28103309.79	28103309.94	28103310.10	0.0488	0.0363
Moon	72232-02-24 12:00 G	28103309.83	28103310.00	28103310.18	0.0488	0.0346 *
Mercury	72232-05-04 21:51 G	28103380.32	28103380.41	28103380.51	0.0486	0.0379
Venus	72232-07-16 00:29 G	28103452.37	28103452.52	28103452.68	0.0485	0.0311
Mercury	72232-08-02 10:48 G	28103469.82	28103469.95	28103470.07	0.0485	0.0274
Venus	72237-09-18 07:12 G	28105342.65	28105342.80	28105342.96	0.0534	0.0350
Venus	72238-05-14 10:34 G	28105580.74	28105580.94	28105581.13	0.0541	0.0161
Mercury	72238-07-08 02:39 G	28105635.47	28105635.61	28105635.76	0.0542	0.0162
Venus	72243-07-29 07:12 G	28107482.61	28107482.80	28107482.99	0.0491	0.0172
Venus	72244-03-21 05:17 G	28107718.54	28107718.72	28107718.91	0.0486	0.0209
Mercury	72244-05-21 12:58 G	28107779.89	28107780.04	28107780.19	0.0485	0.0110
Venus	72249-05-23 19:55 G	28109608.25	28109608.33	28109608.41	0.0532	0.0482
Venus	72250-01-16 20:10 G	28109846.14	28109846.34	28109846.54	0.0540	0.0013
Mercury	72250-04-26 02:39 G	28109945.51	28109945.61	28109945.71	0.0542	0.0398
Mercury	72250-07-24 21:51 G	28110035.35	28110035.41	28110035.47	0.0544	0.0491
Venus	72250-09-12 06:15 G	28110084.73	28110084.76	28110084.80	0.0544	0.0532
Venus	72255-04-03 10:19 G	28111748.76	28111748.93	28111749.10	0.0493	0.0277

Venus	72255-11-25 10:19 G	28111984.73	28111984.93	28111985.13	0.0487	0.0108
Mercury	72256-03-09 15:36 G	28112089.99	28112090.15	28112090.30	0.0485	0.0051
Venus	72256-07-18 03:51 G	28112220.61	28112220.66	28112220.72	0.0484	0.0466
Venus	72261-09-21 09:07 G	28114111.68	28114111.88	28114112.08	0.0538	0.0131
Mercury	72262-05-12 23:17 G	28114345.34	28114345.47	28114345.59	0.0544	0.0282
Venus	72262-05-17 17:17 G	28114350.08	28114350.22	28114350.36	0.0544	0.0393
Venus	72266-12-07 12:00 G	28116014.88	28116015.00	28116015.13	0.0495	0.0384
Venus	72267-07-31 14:10 G	28116250.89	28116251.09	28116251.30	0.0488	0.0004
Mercury	72267-12-27 17:46 G	28116400.11	28116400.24	28116400.38	0.0486	0.0213
Venus	72268-03-23 08:53 G	28116486.75	28116486.87	28116487.01	0.0485	0.0370
Mercury	72268-03-26 06:58 G	28116489.73	28116489.79	28116489.85	0.0485	0.0446
Venus	72273-05-26 23:46 G	28118377.32	28118377.49	28118377.66	0.0536	0.0268
Earth	72273-08-16 08:10 G	28118458.70	28118458.84	28118458.99	0.0539	0.0416
Moon	72273-08-16 09:22 G	28118458.76	28118458.89	28118459.02	0.0539	0.0448 *
Venus	72274-01-20 05:17 G	28118615.54	28118615.72	28118615.90	0.0543	0.0250
Mercury	72274-03-01 00:43 G	28118655.38	28118655.53	28118655.67	0.0543	0.0074
Venus	72278-08-12 12:58 G	28120281.01	28120281.04	28120281.07	0.0497	0.0490
Venus	72279-04-05 17:31 G	28120517.03	28120517.23	28120517.43	0.0490	0.0103
Mercury	72279-10-15 20:24 G	28120710.26	28120710.35	28120710.45	0.0486	0.0370
Venus	72279-11-27 14:24 G	28120752.93	28120753.10	28120753.27	0.0485	0.0273
Mercury	72280-01-13 09:07 G	28120799.76	28120799.88	28120800.01	0.0485	0.0281
Venus	72285-01-29 14:24 G	28122642.97	28122643.10	28122643.23	0.0533	0.0401
Moon	72285-08-21 08:10 G	28122846.62	28122846.84	28122847.06	0.0540	0.0104
Earth	72285-08-21 11:03 G	28122846.74	28122846.96	28122847.19	0.0540	0.0095 *
Venus	72285-09-24 16:19 G	28122880.98	28122881.18	28122881.38	0.0541	0.0102
Mercury	72285-12-18 01:12 G	28122965.41	28122965.55	28122965.69	0.0542	0.0152
Mars	72287-10-06 17:31 G	28123623.05	28123623.23	28123623.44	0.0537	0.0402
Venus	72290-12-09 18:43 G	28124783.10	28124783.28	28124783.46	0.0492	0.0214
Earth	72291-02-14 20:10 G	28124850.26	28124850.34	28124850.43	0.0490	0.0456
Moon	72291-02-14 20:39 G	28124850.26	28124850.36	28124850.47	0.0490	0.0431 *

Venus	72291-08-02 17:46 G	28125019.05	28125019.24	28125019.44	0.0487	0.0169
Mercury	72291-11-01 11:03 G	28125109.81	28125109.96	28125110.11	0.0486	0.0111
Venus	72296-10-04 04:48 G	28126908.69	28126908.70	28126908.72	0.0531	0.0528
Venus	72297-05-30 03:36 G	28127146.45	28127146.65	28127146.85	0.0539	0.0044
Mercury	72297-10-06 01:27 G	28127275.46	28127275.56	28127275.67	0.0542	0.0384
Mercury	72298-01-03 20:39 G	28127365.30	28127365.36	28127365.41	0.0543	0.0502
Venus	72298-01-23 12:00 G	28127384.91	28127385.00	28127385.10	0.0543	0.0477
Venus	72302-08-15 20:24 G	28129049.20	28129049.35	28129049.51	0.0494	0.0322
Earth	72303-02-20 06:00 G	28129237.52	28129237.75	28129237.99	0.0489	0.0074
Moon	72303-02-20 07:27 G	28129237.56	28129237.81	28129238.05	0.0489	0.0055 *
Venus	72303-04-08 21:51 G	28129285.21	28129285.41	28129285.62	0.0488	0.0064
Mercury	72303-08-21 13:27 G	28129419.91	28129420.06	28129420.21	0.0486	0.0051
Venus	72303-11-30 16:34 G	28129521.09	28129521.19	28129521.28	0.0485	0.0427
Venus	72309-02-02 13:41 G	28131411.89	28131412.07	28131412.26	0.0537	0.0189
Venus	72309-09-28 20:10 G	28131650.18	28131650.34	28131650.50	0.0543	0.0330
Mercury	72309-10-23 20:53 G	28131675.24	28131675.37	28131675.50	0.0543	0.0273
Venus	72314-04-20 22:19 G	28133315.34	28133315.43	28133315.54	0.0496	0.0427
Venus	72314-12-13 02:24 G	28133551.39	28133551.60	28133551.80	0.0489	0.0040
Moon	72315-02-24 13:12 G	28133624.87	28133625.05	28133625.24	0.0488	0.0285
Earth	72315-02-24 16:19 G	28133625.00	28133625.18	28133625.36	0.0488	0.0308 *
Mercury	72315-06-09 16:05 G	28133730.03	28133730.17	28133730.31	0.0486	0.0209
Venus	72315-08-05 22:19 G	28133787.28	28133787.43	28133787.58	0.0485	0.0331
Mercury	72315-09-07 05:03 G	28133819.66	28133819.71	28133819.77	0.0485	0.0450
Venus	72320-10-08 03:36 G	28135677.49	28135677.65	28135677.81	0.0535	0.0325
Venus	72321-06-03 07:41 G	28135915.63	28135915.82	28135916.01	0.0542	0.0186
Mercury	72321-08-11 22:05 G	28135985.27	28135985.42	28135985.56	0.0543	0.0060
Venus	72326-08-18 05:17 G	28137817.52	28137817.72	28137817.92	0.0491	0.0145
Mercury	72327-03-28 18:29 G	28138040.18	28138040.27	28138040.37	0.0486	0.0369
Venus	72327-04-11 02:53 G	28138053.44	28138053.62	28138053.80	0.0486	0.0232
Mercury	72327-06-26 07:12 G	28138129.68	28138129.80	28138129.93	0.0485	0.0282

Venus	72332-06-12 19:27 G	28139943.21	28139943.31	28139943.42	0.0533	0.0453
Venus	72333-02-05 20:24 G	28140181.15	28140181.35	28140181.56	0.0540	0.0045
Mercury	72333-05-30 23:17 G	28140295.32	28140295.47	28140295.61	0.0543	0.0156
Venus	72338-04-23 07:41 G	28142083.65	28142083.82	28142084.00	0.0492	0.0252
Venus	72338-12-15 07:27 G	28142319.62	28142319.81	28142320.01	0.0487	0.0131
Mercury	72339-04-14 09:36 G	28142439.75	28142439.90	28142440.05	0.0485	0.0119
Mars	72341-04-26 06:00 G	28143182.60	28143182.75	28143182.92	0.0490	0.0378
Venus	72344-10-11 09:22 G	28144446.69	28144446.89	28144447.09	0.0538	0.0100
Mercury	72345-03-18 23:46 G	28144605.39	28144605.49	28144605.60	0.0542	0.0378
Venus	72345-06-06 17:03 G	28144685.09	28144685.21	28144685.34	0.0543	0.0419
Mercury	72345-06-16 18:58 G	28144695.24	28144695.29	28144695.34	0.0543	0.0510
Venus	72349-12-27 07:27 G	28146349.67	28146349.81	28146349.95	0.0495	0.0363
Venus	72350-08-20 09:51 G	28146585.71	28146585.91	28146586.12	0.0489	0.0024
Mercury	72351-01-31 11:31 G	28146749.83	28146749.98	28146750.13	0.0486	0.0051
Venus	72351-04-13 05:03 G	28146821.60	28146821.71	28146821.84	0.0485	0.0389
Venus	72356-06-15 21:51 G	28148712.23	28148712.41	28148712.59	0.0536	0.0241
Earth	72356-08-16 07:41 G	28148773.75	28148773.82	28148773.90	0.0538	0.0507
Venus	72357-02-09 02:39 G	28148950.44	28148950.61	28148950.79	0.0542	0.0274
Mercury	72357-04-04 19:41 G	28149005.20	28149005.32	28149005.44	0.0543	0.0287
Venus	72361-09-01 07:55 G	28150615.77	28150615.83	28150615.90	0.0497	0.0470
Venus	72362-04-25 12:58 G	28150851.84	28150852.04	28150852.25	0.0490	0.0084
Mercury	72362-11-19 13:55 G	28151059.95	28151060.08	28151060.22	0.0486	0.0211
Venus	72362-12-17 10:05 G	28151087.76	28151087.92	28151088.09	0.0486	0.0291
Mercury	72363-02-17 02:53 G	28151149.57	28151149.62	28151149.68	0.0485	0.0448
Venus	72368-02-19 08:53 G	28152977.74	28152977.87	28152978.02	0.0534	0.0379
Earth	72368-08-21 05:03 G	28153161.48	28153161.71	28153161.94	0.0539	0.0024
Moon	72368-08-21 08:39 G	28153161.63	28153161.86	28153162.09	0.0539	0.0005 *
Venus	72368-10-14 11:03 G	28153215.77	28153215.96	28153216.16	0.0541	0.0125
Mercury	72369-01-21 19:41 G	28153315.17	28153315.32	28153315.47	0.0543	0.0049
Venus	72373-12-29 16:48 G	28155118.01	28155118.20	28155118.39	0.0492	0.0188

Moon	72374-02-15 02:24 G	28155165.58	28155165.60	28155165.64	0.0491	0.0486
Venus	72374-08-22 15:36 G	28155353.96	28155354.15	28155354.34	0.0487	0.0192
Mercury	72374-09-07 16:48 G	28155370.10	28155370.20	28155370.30	0.0486	0.0366
Mercury	72374-12-06 05:17 G	28155459.60	28155459.72	28155459.85	0.0485	0.0286
Venus	72379-10-25 00:15 G	28157243.45	28157243.51	28157243.57	0.0531	0.0505
Venus	72380-06-18 23:17 G	28157481.27	28157481.47	28157481.68	0.0539	0.0023
Moon	72380-08-26 04:34 G	28157549.63	28157549.69	28157549.74	0.0541	0.0522
Earth	72380-08-26 08:10 G	28157549.75	28157549.84	28157549.94	0.0541	0.0491
Mercury	72380-11-09 20:24 G	28157625.21	28157625.35	28157625.50	0.0543	0.0172
Venus	72381-02-12 08:53 G	28157719.79	28157719.87	28157719.94	0.0544	0.0499
Venus	72385-09-03 18:43 G	28159384.12	28159384.28	28159384.45	0.0493	0.0294
Moon	72386-02-19 08:24 G	28159552.63	28159552.85	28159553.08	0.0489	0.0123
Earth	72386-02-19 11:17 G	28159552.75	28159552.97	28159553.20	0.0489	0.0133 *
Venus	72386-04-27 19:27 G	28159620.11	28159620.31	28159620.52	0.0488	0.0090
Mercury	72386-09-24 07:27 G	28159769.67	28159769.81	28159769.97	0.0485	0.0121
Venus	72386-12-19 13:41 G	28159856.00	28159856.07	28159856.15	0.0484	0.0447
Venus	72392-02-22 13:12 G	28161746.86	28161747.05	28161747.25	0.0538	0.0158
Mercury	72392-08-28 21:22 G	28161935.29	28161935.39	28161935.50	0.0542	0.0388
Venus	72392-10-17 20:24 G	28161985.20	28161985.35	28161985.50	0.0543	0.0360
Mercury	72392-11-26 16:48 G	28162025.15	28162025.20	28162025.25	0.0544	0.0505
Venus	72397-05-09 20:10 G	28163650.22	28163650.34	28163650.46	0.0495	0.0401
Venus	72397-12-31 23:31 G	28163886.27	28163886.48	28163886.68	0.0489	0.0016
Earth	72398-02-23 20:24 G	28163940.15	28163940.35	28163940.55	0.0488	0.0246
Moon	72398-02-24 00:15 G	28163940.30	28163940.51	28163940.73	0.0488	0.0218 *
Mercury	72398-07-13 10:05 G	28164079.76	28164079.92	28164080.07	0.0485	0.0043
Venus	72398-08-24 18:58 G	28164122.16	28164122.29	28164122.44	0.0485	0.0353
Venus	72403-10-28 03:51 G	28166012.50	28166012.66	28166012.83	0.0535	0.0295
Venus	72404-06-22 07:55 G	28166250.64	28166250.83	28166251.01	0.0542	0.0215
Mercury	72404-09-14 18:00 G	28166335.13	28166335.25	28166335.37	0.0543	0.0292
Venus	72409-09-06 00:43 G	28168152.33	28168152.53	28168152.73	0.0491	0.0125

Venus	72410-04-29 22:34 G	28168388.27	28168388.44	28168388.62	0.0486	0.0251
Mercury	72410-05-01 12:00 G	28168389.87	28168390.00	28168390.14	0.0486	0.0211
Mercury	72410-07-30 00:58 G	28168479.49	28168479.54	28168479.60	0.0485	0.0448
Venus	72415-07-02 18:00 G	28170278.13	28170278.25	28170278.37	0.0532	0.0426
Venus	72416-02-25 18:43 G	28170516.08	28170516.28	28170516.48	0.0540	0.0071
Mercury	72416-07-03 18:29 G	28170645.13	28170645.27	28170645.42	0.0542	0.0067
Venus	72421-05-12 02:53 G	28172418.44	28172418.62	28172418.80	0.0493	0.0232
Venus	72422-01-03 03:07 G	28172654.43	28172654.63	28172654.83	0.0487	0.0149
Mercury	72422-02-17 14:39 G	28172700.01	28172700.11	28172700.21	0.0486	0.0370
Mercury	72422-05-18 03:07 G	28172789.51	28172789.63	28172789.76	0.0485	0.0283
Venus	72427-10-31 03:51 G	28174781.46	28174781.66	28174781.86	0.0538	0.0078
Mercury	72428-04-21 18:15 G	28174955.12	28174955.26	28174955.40	0.0542	0.0178
Venus	72428-06-25 11:46 G	28175019.87	28175019.99	28175020.11	0.0543	0.0439
Venus	72433-01-15 05:31 G	28176684.58	28176684.73	28176684.88	0.0495	0.0337
Venus	72433-09-08 07:41 G	28176920.62	28176920.82	28176921.03	0.0488	0.0048
Mercury	72434-03-06 05:46 G	28177099.59	28177099.74	28177099.89	0.0485	0.0122
Venus	72434-05-02 02:39 G	28177156.51	28177156.61	28177156.72	0.0485	0.0410
Venus	72439-07-05 17:03 G	28179047.02	28179047.21	28179047.39	0.0536	0.0217
Mercury	72440-02-08 18:43 G	28179265.18	28179265.28	28179265.38	0.0542	0.0403
Venus	72440-02-28 22:19 G	28179285.27	28179285.43	28179285.60	0.0543	0.0298
Mercury	72440-05-08 14:10 G	28179355.03	28179355.09	28179355.15	0.0544	0.0490
Venus	72444-09-20 06:43 G	28180950.69	28180950.78	28180950.87	0.0497	0.0443
Venus	72445-05-14 11:17 G	28181186.76	28181186.97	28181187.17	0.0490	0.0058
Mercury	72445-12-23 08:10 G	28181409.69	28181409.84	28181409.99	0.0485	0.0042
Venus	72446-01-05 07:41 G	28181422.67	28181422.82	28181422.98	0.0485	0.0313
Venus	72451-03-10 07:55 G	28183312.68	28183312.83	28183312.98	0.0534	0.0349
Moon	72451-08-21 02:53 G	28183476.39	28183476.62	28183476.85	0.0539	0.0089
Earth	72451-08-21 06:43 G	28183476.56	28183476.78	28183477.01	0.0539	0.0108 *
Venus	72451-11-03 10:48 G	28183550.76	28183550.95	28183551.14	0.0541	0.0155
Mercury	72452-02-25 15:36 G	28183665.03	28183665.15	28183665.28	0.0543	0.0283

Venus	72457-01-17 14:10 G	28185452.90	28185453.09	28185453.29	0.0491	0.0162
Venus	72457-09-10 12:29 G	28185688.84	28185689.02	28185689.21	0.0486	0.0215
Mercury	72457-10-11 10:34 G	28185719.81	28185719.94	28185720.08	0.0486	0.0202
Mercury	72458-01-08 23:31 G	28185809.43	28185809.48	28185809.53	0.0485	0.0456
Venus	72462-11-13 00:29 G	28187578.43	28187578.52	28187578.61	0.0532	0.0475
Venus	72463-07-09 00:00 G	28187816.30	28187816.50	28187816.70	0.0539	0.0012
Earth	72463-08-26 11:31 G	28187864.83	28187864.98	28187865.12	0.0541	0.0415
Moon	72463-08-26 14:24 G	28187864.98	28187865.10	28187865.23	0.0541	0.0448 *
Mercury	72463-12-14 16:48 G	28187975.05	28187975.20	28187975.35	0.0543	0.0070
Venus	72464-03-03 09:07 G	28188054.84	28188054.88	28188054.93	0.0544	0.0526
Venus	72468-09-22 14:24 G	28189718.93	28189719.10	28189719.27	0.0493	0.0273
Earth	72469-02-18 12:43 G	28189867.82	28189868.03	28189868.25	0.0490	0.0203
Moon	72469-02-18 16:48 G	28189867.98	28189868.20	28189868.42	0.0490	0.0197 *
Venus	72469-05-16 15:22 G	28189954.94	28189955.14	28189955.34	0.0488	0.0109
Mercury	72469-07-30 12:43 G	28190029.94	28190030.03	28190030.13	0.0486	0.0368
Mercury	72469-10-28 01:12 G	28190119.43	28190119.55	28190119.68	0.0485	0.0284
Venus	72470-01-07 09:51 G	28190190.86	28190190.91	28190190.96	0.0485	0.0465
Venus	72475-03-13 12:00 G	28192081.81	28192082.00	28192082.20	0.0537	0.0131
Mercury	72475-10-02 17:17 G	28192285.08	28192285.22	28192285.36	0.0542	0.0157
Venus	72475-11-06 18:43 G	28192320.14	28192320.28	28192320.42	0.0543	0.0385
Venus	72480-05-28 15:36 G	28193985.02	28193985.15	28193985.28	0.0496	0.0380
Venus	72481-01-19 19:12 G	28194221.09	28194221.30	28194221.50	0.0489	0.0012
Moon	72481-02-22 18:15 G	28194255.03	28194255.26	28194255.49	0.0488	0.0148
Earth	72481-02-22 22:19 G	28194255.21	28194255.43	28194255.65	0.0488	0.0179 *
Mercury	72481-08-16 03:36 G	28194429.50	28194429.65	28194429.80	0.0486	0.0121
Venus	72481-09-12 15:07 G	28194457.00	28194457.13	28194457.26	0.0485	0.0370
Venus	72486-11-15 22:19 G	28196347.26	28196347.43	28196347.61	0.0535	0.0271
Venus	72487-07-12 02:10 G	28196585.42	28196585.59	28196585.78	0.0542	0.0238
Mercury	72487-07-21 16:34 G	28196595.10	28196595.19	28196595.29	0.0542	0.0407
Mercury	72487-10-19 12:00 G	28196684.94	28196685.00	28196685.07	0.0543	0.0485

Venus	72492-02-01 16:48 G	28198251.16	28198251.20	28198251.25	0.0498	0.0484
Venus	72492-09-24 23:03 G	28198487.26	28198487.46	28198487.66	0.0491	0.0099
Venus	72493-05-18 20:39 G	28198723.19	28198723.36	28198723.53	0.0486	0.0274
Mercury	72493-06-04 06:29 G	28198739.61	28198739.77	28198739.92	0.0486	0.0039
Mars	72495-07-20 17:17 G	28199515.96	28199516.22	28199516.47	0.0490	0.0066
Venus	72498-07-21 12:43 G	28200612.91	28200613.03	28200613.17	0.0533	0.0402
Venus	72499-03-16 13:41 G	28200850.87	28200851.07	28200851.27	0.0540	0.0094
Mercury	72499-08-07 13:12 G	28200994.92	28200995.05	28200995.17	0.0543	0.0270
Venus	72504-06-01 01:41 G	28202753.39	28202753.57	28202753.76	0.0492	0.0204
Venus	72505-01-23 01:12 G	28202989.36	28202989.55	28202989.74	0.0487	0.0175
Mercury	72505-03-24 08:53 G	28203049.73	28203049.87	28203050.01	0.0486	0.0198
Mercury	72505-06-21 21:36 G	28203139.36	28203139.40	28203139.45	0.0485	0.0459
Venus	72510-03-27 05:03 G	28204878.69	28204878.71	28204878.74	0.0530	0.0525
Venus	72510-11-20 03:07 G	28205116.43	28205116.63	28205116.83	0.0539	0.0047
Mercury	72511-05-27 14:24 G	28205304.95	28205305.10	28205305.25	0.0543	0.0059
Venus	72511-07-16 11:46 G	28205354.89	28205354.99	28205355.09	0.0544	0.0468
Venus	72516-02-05 03:51 G	28207019.50	28207019.66	28207019.82	0.0494	0.0310
Venus	72516-09-28 05:31 G	28207255.52	28207255.73	28207255.93	0.0488	0.0073
Mercury	72517-01-10 11:31 G	28207359.88	28207359.98	28207360.08	0.0486	0.0356
Mercury	72517-04-10 00:00 G	28207449.38	28207449.50	28207449.62	0.0485	0.0295
Venus	72517-05-22 00:00 G	28207491.41	28207491.50	28207491.59	0.0485	0.0431
Venus	72522-07-25 17:46 G	28209382.05	28209382.24	28209382.43	0.0537	0.0185
Mercury	72523-03-15 15:36 G	28209615.00	28209615.15	28209615.29	0.0542	0.0155
Venus	72523-03-20 23:31 G	28209620.32	28209620.48	28209620.64	0.0543	0.0327
Venus	72527-10-11 03:07 G	28211285.52	28211285.63	28211285.74	0.0496	0.0420
Venus	72528-06-03 07:27 G	28211521.61	28211521.81	28211522.02	0.0490	0.0035
Venus	72529-01-25 04:05 G	28211757.53	28211757.67	28211757.82	0.0485	0.0333
Mercury	72529-01-27 01:55 G	28211759.43	28211759.58	28211759.73	0.0485	0.0124
Venus	72534-03-30 07:41 G	28213647.66	28213647.82	28213647.98	0.0534	0.0319
Earth	72534-08-21 08:39 G	28213791.65	28213791.86	28213792.08	0.0539	0.0191

Moon	72534-08-21 12:15 G	28213791.79	28213792.01	28213792.22	0.0539	0.0167 *
Venus	72534-11-23 10:19 G	28213885.74	28213885.93	28213886.12	0.0541	0.0184
Mercury	72535-01-01 15:51 G	28213925.06	28213925.16	28213925.27	0.0542	0.0383
Mercury	72535-04-01 11:17 G	28214014.92	28214014.97	28214015.02	0.0543	0.0508
Venus	72540-02-07 10:19 G	28215787.73	28215787.93	28215788.13	0.0492	0.0141
Venus	72540-09-30 08:53 G	28216023.69	28216023.87	28216024.05	0.0486	0.0235
Mercury	72540-11-15 04:19 G	28216069.53	28216069.68	28216069.83	0.0486	0.0038
Venus	72545-12-02 19:41 G	28217913.21	28217913.32	28217913.42	0.0531	0.0450
Venus	72546-07-28 18:43 G	28218151.08	28218151.28	28218151.49	0.0539	0.0037
Moon	72546-08-26 03:07 G	28218179.44	28218179.63	28218179.82	0.0540	0.0324
Earth	72546-08-26 05:17 G	28218179.53	28218179.72	28218179.92	0.0540	0.0296 *
Mercury	72547-01-18 11:03 G	28218324.84	28218324.96	28218325.09	0.0543	0.0268
Venus	72551-10-13 13:12 G	28220053.87	28220054.05	28220054.23	0.0494	0.0245
Moon	72552-02-19 15:22 G	28220182.94	28220183.14	28220183.35	0.0490	0.0255
Earth	72552-02-19 19:27 G	28220183.11	28220183.31	28220183.52	0.0490	0.0258 *
Venus	72552-06-05 14:10 G	28220289.89	28220290.09	28220290.29	0.0488	0.0135
Mercury	72552-09-03 07:12 G	28220379.66	28220379.80	28220379.94	0.0486	0.0193
Mercury	72552-12-01 19:55 G	28220469.30	28220469.33	28220469.38	0.0485	0.0466
Venus	72558-04-02 07:12 G	28222416.61	28222416.80	28222417.00	0.0537	0.0105
Mercury	72558-11-06 12:00 G	28222634.85	28222635.00	28222635.14	0.0543	0.0050
Venus	72558-11-26 14:10 G	28222654.96	28222655.09	28222655.23	0.0543	0.0408
Venus	72563-06-18 15:07 G	28224319.99	28224320.13	28224320.28	0.0495	0.0351
Venus	72564-02-09 18:00 G	28224556.05	28224556.25	28224556.46	0.0489	0.0034
Earth	72564-02-24 05:17 G	28224570.50	28224570.72	28224570.96	0.0489	0.0127
Moon	72564-02-24 08:53 G	28224570.64	28224570.87	28224571.10	0.0488	0.0098 *
Mercury	72564-06-22 09:51 G	28224689.81	28224689.91	28224690.01	0.0486	0.0351
Mercury	72564-09-19 22:19 G	28224779.31	28224779.43	28224779.55	0.0485	0.0300
Venus	72564-10-02 13:27 G	28224791.95	28224792.06	28224792.18	0.0485	0.0394
Venus	72569-12-05 21:51 G	28226682.23	28226682.41	28226682.59	0.0536	0.0241
Venus	72570-08-01 02:24 G	28226920.43	28226920.60	28226920.78	0.0542	0.0268

Mercury	72570-08-25 12:58 G	28226944.90	28226945.04	28226945.19	0.0543	0.0167
Venus	72575-02-21 16:05 G	28228586.09	28228586.17	28228586.25	0.0498	0.0457
Venus	72575-10-15 21:36 G	28228822.20	28228822.40	28228822.60	0.0490	0.0072
Venus	72576-06-07 18:43 G	28229058.12	28229058.28	28229058.44	0.0486	0.0298
Mercury	72576-07-09 00:43 G	28229089.38	28229089.53	28229089.68	0.0485	0.0137
Venus	72581-08-10 13:55 G	28230947.94	28230948.08	28230948.23	0.0533	0.0371
Venus	72582-04-05 15:22 G	28231185.95	28231186.14	28231186.34	0.0541	0.0126
Mercury	72582-06-13 14:10 G	28231254.98	28231255.09	28231255.20	0.0542	0.0380
Mercury	72582-09-11 09:36 G	28231344.86	28231344.90	28231344.95	0.0544	0.0513
Venus	72587-06-20 22:48 G	28233088.26	28233088.45	28233088.64	0.0492	0.0180
Venus	72588-02-11 22:19 G	28233324.24	28233324.43	28233324.62	0.0487	0.0197
Mercury	72588-04-27 02:53 G	28233399.46	28233399.62	28233399.77	0.0486	0.0033
Venus	72593-04-15 05:31 G	28235213.67	28235213.73	28235213.81	0.0530	0.0495
Venus	72593-12-09 03:51 G	28235451.45	28235451.66	28235451.86	0.0539	0.0019
Mercury	72594-06-30 10:34 G	28235654.82	28235654.94	28235655.06	0.0543	0.0295
Venus	72594-08-04 12:00 G	28235689.92	28235690.00	28235690.08	0.0543	0.0495
Venus	72599-02-24 00:29 G	28237354.36	28237354.52	28237354.69	0.0494	0.0287
Venus	72599-10-18 02:24 G	28237590.40	28237590.60	28237590.80	0.0488	0.0095
Mercury	72600-02-14 05:31 G	28237709.59	28237709.73	28237709.87	0.0486	0.0190
Mercury	72600-05-14 18:15 G	28237799.23	28237799.26	28237799.30	0.0485	0.0469
Venus	72600-06-10 21:22 G	28237826.32	28237826.39	28237826.47	0.0485	0.0450
Venus	72605-08-14 13:27 G	28239716.87	28239717.06	28239717.26	0.0536	0.0160
Venus	72606-04-09 18:58 G	28239955.14	28239955.29	28239955.44	0.0542	0.0350
Mercury	72606-04-19 10:05 G	28239964.78	28239964.92	28239965.07	0.0543	0.0052
Venus	72610-10-31 02:10 G	28241620.47	28241620.59	28241620.72	0.0497	0.0392
Venus	72611-06-24 06:58 G	28241856.58	28241856.79	28241856.99	0.0490	0.0011
Mercury	72611-12-04 08:24 G	28242019.74	28242019.85	28242019.96	0.0487	0.0343
Venus	72612-02-15 03:22 G	28242092.51	28242092.64	28242092.78	0.0485	0.0358
Mercury	72612-03-02 20:53 G	28242109.25	28242109.37	28242109.49	0.0485	0.0309
Venus	72617-04-19 03:22 G	28243982.47	28243982.64	28243982.81	0.0534	0.0293

Moon	72617-08-21 01:27 G	28244106.36	28244106.56	28244106.76	0.0538	0.0284
Earth	72617-08-21 04:05 G	28244106.49	28244106.67	28244106.87	0.0538	0.0304 *
Venus	72617-12-13 06:00 G	28244220.56	28244220.75	28244220.94	0.0541	0.0209
Mercury	72618-02-05 10:48 G	28244274.81	28244274.95	28244275.09	0.0542	0.0174
Venus	72622-07-06 02:53 G	28245886.62	28245886.62	28245886.65	0.0499	0.0497
Venus	72623-02-27 10:05 G	28246122.72	28246122.92	28246123.12	0.0491	0.0112
Venus	72623-10-21 08:24 G	28246358.67	28246358.85	28246359.02	0.0486	0.0260
Mercury	72623-12-20 23:17 G	28246419.32	28246419.47	28246419.61	0.0485	0.0145
Venus	72628-12-22 18:58 G	28248248.17	28248248.29	28248248.42	0.0532	0.0421
Venus	72629-08-17 18:58 G	28248486.09	28248486.29	28248486.49	0.0540	0.0067
Earth	72629-08-26 08:10 G	28248494.63	28248494.84	28248495.05	0.0540	0.0215
Moon	72629-08-26 08:24 G	28248494.66	28248494.85	28248495.05	0.0540	0.0239 *
Mercury	72629-11-24 11:46 G	28248584.89	28248584.99	28248585.09	0.0542	0.0391
Mercury	72630-02-22 07:12 G	28248674.75	28248674.80	28248674.86	0.0544	0.0505
Venus	72634-11-02 12:43 G	28250388.85	28250389.03	28250389.22	0.0493	0.0217
Earth	72635-02-20 02:39 G	28250498.43	28250498.61	28250498.80	0.0490	0.0310
Moon	72635-02-20 06:15 G	28250498.58	28250498.76	28250498.94	0.0490	0.0309 *
Venus	72635-06-26 13:12 G	28250624.85	28250625.05	28250625.24	0.0487	0.0161
Mercury	72635-10-09 01:41 G	28250729.42	28250729.57	28250729.73	0.0486	0.0020
Venus	72641-04-22 09:22 G	28252751.69	28252751.89	28252752.09	0.0538	0.0071
Mercury	72641-12-11 08:53 G	28252984.75	28252984.87	28252984.99	0.0543	0.0300
Venus	72641-12-16 16:48 G	28252990.09	28252990.20	28252990.32	0.0543	0.0439
Venus	72646-07-08 13:12 G	28254654.90	28254655.05	28254655.21	0.0495	0.0325
Moon	72647-02-24 08:24 G	28254885.61	28254885.85	28254886.10	0.0489	0.0039
Earth	72647-02-24 10:48 G	28254885.71	28254885.95	28254886.18	0.0489	0.0068 *
Venus	72647-03-01 15:51 G	28254890.96	28254891.16	28254891.37	0.0489	0.0058
Mercury	72647-07-28 04:05 G	28255039.53	28255039.67	28255039.81	0.0486	0.0181
Venus	72647-10-23 11:17 G	28255126.87	28255126.97	28255127.08	0.0485	0.0415
Mercury	72647-10-25 16:48 G	28255129.18	28255129.20	28255129.22	0.0485	0.0477
Mars	72649-10-15 13:12 G	28255849.85	28255850.05	28255850.26	0.0490	0.0289

Venus	72652-12-25 23:17 G	28257017.29	28257017.47	28257017.66	0.0536	0.0207
Venus	72653-08-21 03:51 G	28257255.49	28257255.66	28257255.83	0.0542	0.0300
Mercury	72653-09-29 09:51 G	28257294.76	28257294.91	28257295.05	0.0543	0.0082
Venus	72658-03-13 13:41 G	28258920.98	28258921.07	28258921.18	0.0497	0.0432
Venus	72658-11-04 19:27 G	28259157.10	28259157.31	28259157.51	0.0490	0.0047
Earth	72659-02-28 20:10 G	28259273.25	28259273.34	28259273.44	0.0488	0.0448
Moon	72659-02-28 20:24 G	28259273.26	28259273.35	28259273.44	0.0488	0.0445 *
Mercury	72659-05-16 06:43 G	28259349.67	28259349.78	28259349.89	0.0486	0.0338
Venus	72659-06-28 16:48 G	28259393.05	28259393.20	28259393.35	0.0486	0.0320
Mercury	72659-08-13 19:12 G	28259439.18	28259439.30	28259439.42	0.0485	0.0314
Venus	72664-08-30 10:48 G	28261282.80	28261282.95	28261283.11	0.0533	0.0343
Venus	72665-04-25 11:46 G	28261520.80	28261520.99	28261521.19	0.0540	0.0154
Mercury	72665-07-18 09:07 G	28261604.74	28261604.88	28261605.03	0.0542	0.0167
Venus	72670-07-10 22:34 G	28263423.25	28263423.44	28263423.64	0.0492	0.0151
Venus	72671-03-03 22:19 G	28263659.25	28263659.43	28263659.61	0.0487	0.0224
Mercury	72671-06-01 21:51 G	28263749.27	28263749.41	28263749.56	0.0486	0.0156
Venus	72676-05-05 02:10 G	28265548.50	28265548.59	28265548.69	0.0530	0.0467
Venus	72676-12-29 00:00 G	28265786.30	28265786.50	28265786.70	0.0539	0.0012
Mercury	72677-05-06 09:36 G	28265914.80	28265914.90	28265915.00	0.0542	0.0394
Mercury	72677-08-04 05:17 G	28266004.66	28266004.72	28266004.77	0.0543	0.0501
Venus	72677-08-24 08:24 G	28266024.79	28266024.85	28266024.91	0.0544	0.0519
Venus	72682-03-16 00:58 G	28267689.37	28267689.54	28267689.72	0.0494	0.0257
Venus	72682-11-07 02:39 G	28267925.41	28267925.61	28267925.81	0.0488	0.0123
Mercury	72683-03-21 00:29 G	28268059.36	28268059.52	28268059.67	0.0486	0.0014
Venus	72683-06-30 21:07 G	28268161.34	28268161.38	28268161.42	0.0484	0.0474
Venus	72688-09-02 13:41 G	28270051.88	28270052.07	28270052.27	0.0537	0.0128
Venus	72689-04-28 19:55 G	28270290.19	28270290.33	28270290.48	0.0543	0.0382
Mercury	72689-05-23 06:29 G	28270314.65	28270314.77	28270314.90	0.0543	0.0293
Venus	72693-11-19 02:39 G	28271955.48	28271955.61	28271955.76	0.0496	0.0363
Venus	72694-07-13 06:43 G	28272191.58	28272191.78	28272191.99	0.0489	0.0023

Mercury	72695-01-07 03:07 G	28272369.49	28272369.63	28272369.77	0.0486	0.0163
Venus	72695-03-06 02:39 G	28272427.49	28272427.61	28272427.74	0.0485	0.0382
Venus	72700-05-09 05:31 G	28274317.56	28274317.73	28274317.91	0.0535	0.0260
Earth	72700-08-21 11:17 G	28274421.81	28274421.97	28274422.14	0.0538	0.0365
Moon	72700-08-21 12:15 G	28274421.85	28274422.01	28274422.19	0.0538	0.0342 *
Venus	72701-01-02 09:07 G	28274555.70	28274555.88	28274556.06	0.0542	0.0243
Mercury	72701-03-12 08:10 G	28274624.69	28274624.84	28274624.98	0.0543	0.0087
Venus	72705-07-26 02:24 G	28276221.53	28276221.60	28276221.66	0.0498	0.0469
Venus	72706-03-19 08:53 G	28276457.67	28276457.87	28276458.07	0.0491	0.0085
Mercury	72706-10-27 05:31 G	28276679.62	28276679.73	28276679.84	0.0486	0.0327
Venus	72706-11-10 06:58 G	28276693.62	28276693.79	28276693.95	0.0486	0.0284
Mercury	72707-01-24 17:46 G	28276769.13	28276769.24	28276769.36	0.0485	0.0325
Venus	72712-01-12 21:22 G	28278583.25	28278583.39	28278583.52	0.0532	0.0388
Earth	72712-08-26 14:39 G	28278809.89	28278810.11	28278810.33	0.0540	0.0149
Moon	72712-08-26 16:34 G	28278809.96	28278810.19	28278810.42	0.0540	0.0163 *
Venus	72712-09-06 21:22 G	28278821.19	28278821.39	28278821.59	0.0540	0.0102
Mercury	72712-12-29 08:53 G	28278934.73	28278934.87	28278935.02	0.0542	0.0134
Mars	72714-09-13 23:03 G	28279558.16	28279558.46	28279558.76	0.0539	0.0033
Venus	72717-11-22 11:31 G	28280723.79	28280723.98	28280724.17	0.0493	0.0190
Moon	72718-02-20 06:43 G	28280813.62	28280813.78	28280813.94	0.0491	0.0369
Earth	72718-02-20 09:07 G	28280813.72	28280813.88	28280814.03	0.0491	0.0366 *
Venus	72718-07-16 11:46 G	28280959.80	28280959.99	28280960.18	0.0487	0.0186
Mercury	72718-08-15 08:24 G	28280989.83	28280989.85	28280989.87	0.0487	0.0481
Mercury	72718-11-12 20:24 G	28281079.21	28281079.35	28281079.49	0.0485	0.0165
Venus	72723-09-17 10:48 G	28282848.91	28282848.95	28282849.01	0.0529	0.0511
Venus	72724-05-12 07:12 G	28283086.60	28283086.80	28283087.00	0.0537	0.0042
Mercury	72724-10-17 08:10 G	28283244.74	28283244.84	28283244.95	0.0542	0.0383
Venus	72725-01-05 14:10 G	28283324.99	28283325.09	28283325.19	0.0543	0.0464
Mercury	72725-01-15 03:51 G	28283334.62	28283334.66	28283334.71	0.0543	0.0511
Venus	72729-07-28 13:12 G	28284989.89	28284990.05	28284990.21	0.0495	0.0296

Earth	72730-02-24 20:10 G	28285201.10	28285201.34	28285201.58	0.0490	0.0023
Moon	72730-02-24 20:10 G	28285201.11	28285201.34	28285201.57	0.0490	0.0005 *
Venus	72730-03-21 16:19 G	28285225.98	28285226.18	28285226.38	0.0489	0.0086
Mercury	72730-08-31 23:03 G	28285389.31	28285389.46	28285389.62	0.0486	0.0017
Venus	72730-11-12 11:46 G	28285461.92	28285461.99	28285462.08	0.0485	0.0441
Venus	72736-01-15 20:24 G	28287352.16	28287352.35	28287352.54	0.0535	0.0179
Venus	72736-09-10 00:43 G	28287590.37	28287590.53	28287590.69	0.0542	0.0325
Mercury	72736-11-03 04:48 G	28287644.58	28287644.70	28287644.82	0.0543	0.0293
Venus	72741-04-02 14:24 G	28289255.98	28289256.10	28289256.22	0.0498	0.0402
Venus	72741-11-24 20:10 G	28289492.13	28289492.34	28289492.54	0.0490	0.0018
Earth	72742-03-01 06:00 G	28289588.63	28289588.75	28289588.89	0.0488	0.0408
Moon	72742-03-01 08:10 G	28289588.71	28289588.84	28289588.97	0.0488	0.0410 *
Mercury	72742-06-20 01:41 G	28289699.43	28289699.57	28289699.72	0.0486	0.0152
Venus	72742-07-18 17:17 G	28289728.08	28289728.22	28289728.36	0.0486	0.0347
Venus	72747-09-20 11:03 G	28291617.80	28291617.96	28291618.13	0.0533	0.0312
Venus	72748-05-15 12:58 G	28291855.85	28291856.04	28291856.23	0.0541	0.0185
Mercury	72748-08-22 06:00 G	28291954.60	28291954.75	28291954.89	0.0543	0.0082
Venus	72753-07-30 23:17 G	28293758.28	28293758.47	28293758.67	0.0492	0.0122
Venus	72754-03-23 22:19 G	28293994.26	28293994.43	28293994.61	0.0487	0.0250
Mercury	72754-04-08 04:34 G	28294009.58	28294009.69	28294009.81	0.0486	0.0308
Mercury	72754-07-06 17:03 G	28294099.10	28294099.21	28294099.32	0.0485	0.0345
Venus	72759-05-26 04:19 G	28295883.57	28295883.68	28295883.79	0.0531	0.0435
Venus	72760-01-19 03:07 G	28296121.43	28296121.63	28296121.83	0.0539	0.0046
Mercury	72760-06-10 07:12 G	28296264.66	28296264.80	28296264.95	0.0543	0.0129
Venus	72765-04-05 00:43 G	28298024.35	28298024.53	28298024.71	0.0494	0.0228
Venus	72765-11-27 01:55 G	28298260.39	28298260.58	28298260.78	0.0488	0.0150
Mercury	72766-01-25 07:12 G	28298319.76	28298319.80	28298319.84	0.0487	0.0468
Mercury	72766-04-24 19:12 G	28298409.16	28298409.30	28298409.44	0.0485	0.0177
Mars	72768-04-08 07:55 G	28299123.70	28299123.83	28299123.98	0.0489	0.0409
Venus	72771-09-23 16:48 G	28300387.01	28300387.20	28300387.40	0.0537	0.0092

Mercury	72772-03-29 07:55 G	28300574.72	28300574.83	28300574.95	0.0542	0.0349
Venus	72772-05-18 23:17 G	28300625.34	28300625.47	28300625.60	0.0543	0.0416
Venus	72776-12-09 02:10 G	28302290.44	28302290.59	28302290.74	0.0496	0.0334
Venus	72777-08-02 06:00 G	28302526.55	28302526.75	28302526.96	0.0489	0.0049
Mercury	72778-02-10 21:51 G	28302719.26	28302719.41	28302719.56	0.0486	0.0018
Venus	72778-03-26 02:10 G	28302762.48	28302762.59	28302762.71	0.0485	0.0406
Venus	72783-05-29 04:48 G	28304652.51	28304652.70	28304652.88	0.0534	0.0229
Earth	72783-08-21 12:15 G	28304736.89	28304737.01	28304737.13	0.0537	0.0455
Moon	72783-08-21 12:58 G	28304736.91	28304737.04	28304737.20	0.0537	0.0425 *
Venus	72784-01-22 07:27 G	28304890.64	28304890.81	28304890.99	0.0541	0.0271
Mercury	72784-04-15 03:36 G	28304974.53	28304974.65	28304974.77	0.0543	0.0307
Venus	72788-08-14 02:10 G	28306556.50	28306556.59	28306556.68	0.0499	0.0440
Venus	72789-04-07 09:22 G	28306792.68	28306792.89	28306793.09	0.0491	0.0056
Venus	72789-11-29 07:41 G	28307028.67	28307028.82	28307028.98	0.0486	0.0313
Mercury	72789-11-30 00:29 G	28307029.38	28307029.52	28307029.67	0.0486	0.0140
Venus	72795-01-31 19:12 G	28308918.16	28308918.30	28308918.45	0.0532	0.0358
Moon	72795-08-26 10:34 G	28309124.72	28309124.94	28309125.16	0.0539	0.0061
Earth	72795-08-26 13:27 G	28309124.83	28309125.06	28309125.29	0.0539	0.0048 *
Venus	72795-09-26 18:58 G	28309156.09	28309156.29	28309156.48	0.0540	0.0130
Mercury	72796-02-02 04:19 G	28309284.53	28309284.68	28309284.82	0.0542	0.0086
Venus	72800-12-11 12:15 G	28311058.82	28311059.01	28311059.20	0.0493	0.0161
Earth	72801-02-19 18:43 G	28311129.16	28311129.28	28311129.42	0.0491	0.0409
Moon	72801-02-19 18:58 G	28311129.17	28311129.29	28311129.40	0.0491	0.0425 *
Venus	72801-08-04 12:29 G	28311294.84	28311295.02	28311295.21	0.0487	0.0214
Mercury	72801-09-18 03:22 G	28311339.52	28311339.64	28311339.76	0.0487	0.0295
Mercury	72801-12-16 15:36 G	28311429.05	28311429.15	28311429.26	0.0485	0.0359
Venus	72806-10-06 11:03 G	28313183.88	28313183.96	28313184.05	0.0529	0.0482
Venus	72807-06-01 07:55 G	28313421.63	28313421.83	28313422.04	0.0538	0.0015
Moon	72807-08-31 20:39 G	28313513.34	28313513.36	28313513.39	0.0541	0.0536
Mercury	72807-11-21 05:03 G	28313594.57	28313594.71	28313594.86	0.0542	0.0133

Venus	72808-01-25 15:36 G	28313660.08	28313660.15	28313660.24	0.0544	0.0496
Venus	72812-08-16 14:24 G	28315324.93	28315325.10	28315325.28	0.0495	0.0266
Earth	72813-02-24 06:15 G	28315516.53	28315516.76	28315517.00	0.0490	0.0020
Moon	72813-02-24 08:24 G	28315516.60	28315516.85	28315517.09	0.0490	0.0045 *
Venus	72813-04-09 17:03 G	28315561.01	28315561.21	28315561.41	0.0489	0.0114
Mercury	72813-07-07 06:15 G	28315649.71	28315649.76	28315649.82	0.0487	0.0449
Mercury	72813-10-04 18:15 G	28315739.12	28315739.26	28315739.40	0.0485	0.0197
Venus	72813-12-01 12:15 G	28315796.96	28315797.01	28315797.06	0.0485	0.0465
Venus	72819-02-03 23:17 G	28317687.27	28317687.47	28317687.66	0.0536	0.0145
Mercury	72819-09-09 06:15 G	28317904.65	28317904.76	28317904.88	0.0542	0.0344
Venus	72819-09-30 04:19 G	28317925.53	28317925.68	28317925.83	0.0543	0.0360
Venus	72824-04-21 14:53 G	28319590.99	28319591.12	28319591.26	0.0497	0.0372
Venus	72824-12-13 20:10 G	28319827.13	28319827.34	28319827.54	0.0490	0.0013
Moon	72825-02-28 12:00 G	28319903.85	28319904.00	28319904.15	0.0488	0.0366
Earth	72825-02-28 14:53 G	28319903.97	28319904.12	28319904.28	0.0488	0.0361 *
Mercury	72825-07-23 20:39 G	28320049.21	28320049.36	28320049.51	0.0486	0.0032
Venus	72825-08-06 16:48 G	28320063.08	28320063.20	28320063.34	0.0485	0.0372
Venus	72830-10-09 14:39 G	28321952.94	28321953.11	28321953.28	0.0534	0.0275
Venus	72831-06-04 16:48 G	28322191.02	28322191.20	28322191.39	0.0541	0.0222
Mercury	72831-09-26 03:22 G	28322304.52	28322304.64	28322304.75	0.0543	0.0341
Venus	72835-12-26 15:07 G	28323857.08	28323857.13	28323857.19	0.0499	0.0477
Venus	72836-08-18 23:03 G	28324093.26	28324093.46	28324093.66	0.0492	0.0093
Venus	72837-04-11 22:05 G	28324329.25	28324329.42	28324329.59	0.0487	0.0276
Mercury	72837-05-11 23:31 G	28324359.33	28324359.48	28324359.62	0.0486	0.0126
Venus	72842-06-14 04:34 G	28326218.56	28326218.69	28326218.82	0.0530	0.0403
Venus	72843-02-07 02:39 G	28326456.41	28326456.61	28326456.81	0.0539	0.0077
Mercury	72843-07-15 03:07 G	28326614.49	28326614.63	28326614.78	0.0542	0.0102
Venus	72848-04-24 00:43 G	28328359.34	28328359.53	28328359.72	0.0494	0.0199
Venus	72848-12-16 02:39 G	28328595.42	28328595.61	28328595.81	0.0488	0.0178
Mercury	72849-02-28 02:10 G	28328669.47	28328669.59	28328669.72	0.0487	0.0282

Mercury	72849-05-28 14:39 G	28328759.01	28328759.11	28328759.21	0.0486	0.0373
Venus	72854-02-16 20:39 G	28330484.34	28330484.36	28330484.39	0.0528	0.0523
Venus	72854-10-12 15:07 G	28330721.93	28330722.13	28330722.34	0.0537	0.0063
Mercury	72855-05-03 03:36 G	28330924.51	28330924.65	28330924.80	0.0542	0.0124
Venus	72855-06-07 21:07 G	28330960.27	28330960.38	28330960.50	0.0543	0.0441
Venus	72859-12-29 02:39 G	28332625.45	28332625.61	28332625.77	0.0496	0.0305
Venus	72860-08-21 06:43 G	28332861.58	28332861.78	28332861.98	0.0489	0.0076
Mercury	72860-12-17 05:03 G	28332979.65	28332979.71	28332979.78	0.0487	0.0437
Mercury	72861-03-16 17:03 G	28333069.08	28333069.21	28333069.35	0.0486	0.0211
Venus	72861-04-14 02:53 G	28333097.53	28333097.62	28333097.71	0.0485	0.0431
Venus	72866-06-17 05:03 G	28334987.53	28334987.71	28334987.90	0.0535	0.0198
Moon	72866-08-20 13:55 G	28335052.01	28335052.08	28335052.16	0.0537	0.0499
Earth	72866-08-20 16:34 G	28335052.16	28335052.19	28335052.22	0.0537	0.0530 *
Venus	72867-02-10 08:39 G	28335225.69	28335225.86	28335226.03	0.0542	0.0303
Mercury	72867-02-19 04:19 G	28335234.56	28335234.68	28335234.79	0.0542	0.0346
Venus	72871-09-03 03:51 G	28336891.55	28336891.66	28336891.78	0.0498	0.0410
Venus	72872-04-26 10:19 G	28337127.73	28337127.93	28337128.14	0.0491	0.0027
Venus	72872-12-18 08:24 G	28337363.71	28337363.85	28337364.00	0.0486	0.0338
Mercury	72873-01-02 19:55 G	28337379.17	28337379.33	28337379.48	0.0486	0.0053
Venus	72878-02-19 21:22 G	28339253.24	28339253.39	28339253.55	0.0532	0.0326
Earth	72878-08-25 21:07 G	28339440.15	28339440.38	28339440.61	0.0539	0.0011
Moon	72878-08-26 00:58 G	28339440.31	28339440.54	28339440.77	0.0539	0.0003 *
Venus	72878-10-15 22:05 G	28339491.23	28339491.42	28339491.61	0.0540	0.0165
Mercury	72879-03-08 01:41 G	28339634.46	28339634.57	28339634.68	0.0543	0.0346
Venus	72883-12-31 12:29 G	28341393.83	28341394.02	28341394.22	0.0493	0.0132
Earth	72884-02-20 03:36 G	28341444.58	28341444.65	28341444.75	0.0491	0.0457
Moon	72884-02-20 05:46 G	28341444.69	28341444.74	28341444.80	0.0491	0.0477 *
Venus	72884-08-23 12:29 G	28341629.84	28341630.02	28341630.20	0.0487	0.0241
Mercury	72884-10-21 22:19 G	28341689.28	28341689.43	28341689.57	0.0486	0.0113
Venus	72889-10-25 14:39 G	28343519.00	28343519.11	28343519.21	0.0530	0.0447

Venus	72890-06-20 12:00 G	28343756.80	28343757.00	28343757.20	0.0538	0.0028
Moon	72890-08-30 22:05 G	28343828.32	28343828.42	28343828.53	0.0540	0.0478
Earth	72890-08-31 01:55 G	28343828.51	28343828.58	28343828.65	0.0540	0.0513 *
Mercury	72890-12-25 02:53 G	28343944.47	28343944.62	28343944.76	0.0543	0.0134
Venus	72891-02-13 19:55 G	28343995.29	28343995.33	28343995.37	0.0544	0.0529
Venus	72895-09-05 14:24 G	28345659.92	28345660.10	28345660.28	0.0495	0.0236
Moon	72896-02-24 11:46 G	28345831.77	28345831.99	28345832.22	0.0490	0.0095
Earth	72896-02-24 14:53 G	28345831.89	28345832.12	28345832.36	0.0490	0.0066 *
Venus	72896-04-28 16:48 G	28345896.01	28345896.20	28345896.40	0.0489	0.0142
Mercury	72896-08-10 00:58 G	28345999.42	28345999.54	28345999.67	0.0487	0.0269
Mercury	72896-11-07 13:27 G	28346088.97	28346089.06	28346089.15	0.0485	0.0386
Venus	72902-02-23 23:46 G	28348022.29	28348022.49	28348022.69	0.0535	0.0112
Mercury	72902-10-14 02:39 G	28348254.46	28348254.61	28348254.76	0.0542	0.0105
Venus	72902-10-20 04:05 G	28348260.53	28348260.67	28348260.81	0.0542	0.0389
Venus	72907-05-12 14:24 G	28349925.96	28349926.10	28349926.25	0.0498	0.0345
Venus	72908-01-03 20:10 G	28350162.14	28350162.34	28350162.55	0.0490	0.0039
Earth	72908-03-01 00:15 G	28350219.34	28350219.51	28350219.70	0.0489	0.0318
Moon	72908-03-01 04:05 G	28350219.50	28350219.67	28350219.85	0.0489	0.0330 *
Mercury	72908-05-30 03:51 G	28350309.59	28350309.66	28350309.73	0.0487	0.0425
Venus	72908-08-26 17:31 G	28350398.12	28350398.23	28350398.35	0.0486	0.0398
Mercury	72908-08-27 15:51 G	28350399.03	28350399.16	28350399.30	0.0486	0.0224
Venus	72913-10-29 13:41 G	28352287.89	28352288.07	28352288.25	0.0533	0.0245
Venus	72914-06-24 15:07 G	28352525.95	28352526.13	28352526.31	0.0540	0.0249
Mercury	72914-08-02 02:53 G	28352564.51	28352564.62	28352564.74	0.0541	0.0335
Venus	72919-01-15 14:53 G	28354192.04	28354192.12	28354192.21	0.0500	0.0450
Venus	72919-09-08 23:17 G	28354428.26	28354428.47	28354428.67	0.0492	0.0066
Venus	72920-05-01 22:19 G	28354664.27	28354664.43	28354664.59	0.0487	0.0302
Mercury	72920-06-15 18:29 G	28354709.12	28354709.27	28354709.42	0.0486	0.0063
Mars	72922-07-04 15:07 G	28355457.87	28355458.13	28355458.38	0.0489	0.0006
Venus	72925-07-04 04:34 G	28356553.55	28356553.69	28356553.83	0.0531	0.0374

Venus	72926-02-27 03:07 G	28356791.43	28356791.63	28356791.83	0.0539	0.0108
Mercury	72926-08-18 23:31 G	28356964.37	28356964.48	28356964.60	0.0543	0.0343
Venus	72931-05-15 01:55 G	28358694.39	28358694.58	28358694.78	0.0494	0.0170
Venus	72932-01-06 03:22 G	28358930.46	28358930.64	28358930.83	0.0488	0.0205
Mercury	72932-04-03 21:22 G	28359019.24	28359019.39	28359019.54	0.0486	0.0095
Venus	72937-03-08 21:51 G	28360819.35	28360819.41	28360819.48	0.0528	0.0493
Venus	72937-11-01 17:31 G	28361057.03	28361057.23	28361057.43	0.0537	0.0028
Mercury	72938-06-07 00:58 G	28361274.40	28361274.54	28361274.69	0.0543	0.0136
Venus	72938-06-28 00:15 G	28361295.42	28361295.51	28361295.61	0.0543	0.0474
Venus	72943-01-18 03:22 G	28362960.47	28362960.64	28362960.81	0.0496	0.0275
Venus	72943-09-11 06:43 G	28363196.58	28363196.78	28363196.98	0.0489	0.0105
Mercury	72944-01-21 23:46 G	28363329.37	28363329.49	28363329.62	0.0486	0.0256
Mercury	72944-04-20 12:15 G	28363418.92	28363419.01	28363419.09	0.0485	0.0398
Venus	72944-05-04 02:24 G	28363432.54	28363432.60	28363432.68	0.0485	0.0455
Venus	72949-07-07 08:39 G	28365322.67	28365322.86	28365323.06	0.0535	0.0161
Venus	72950-03-02 12:29 G	28365560.87	28365561.02	28365561.18	0.0542	0.0339
Mercury	72950-03-26 02:10 G	28365584.44	28365584.59	28365584.74	0.0542	0.0078
Venus	72954-09-23 03:51 G	28367226.54	28367226.66	28367226.80	0.0498	0.0381
Venus	72955-05-17 10:05 G	28367462.72	28367462.92	28367463.13	0.0491	0.0011
Mercury	72955-11-10 02:39 G	28367639.54	28367639.61	28367639.69	0.0487	0.0411
Venus	72956-01-08 08:10 G	28367698.71	28367698.84	28367698.98	0.0486	0.0363
Mercury	72956-02-07 14:39 G	28367728.98	28367729.11	28367729.25	0.0486	0.0238
Venus	72961-03-11 22:34 G	28369588.28	28369588.44	28369588.62	0.0532	0.0293
Moon	72961-08-25 21:22 G	28369755.16	28369755.39	28369755.62	0.0538	0.0078
Earth	72961-08-26 01:12 G	28369755.33	28369755.55	28369755.78	0.0538	0.0087 *
Venus	72961-11-04 22:34 G	28369826.25	28369826.44	28369826.63	0.0540	0.0196
Mercury	72962-01-12 01:55 G	28369894.46	28369894.58	28369894.70	0.0541	0.0316
Venus	72966-05-29 01:55 G	28371492.55	28371492.58	28371492.63	0.0501	0.0490
Venus	72967-01-20 11:46 G	28371728.79	28371728.99	28371729.20	0.0493	0.0105
Venus	72967-09-13 12:29 G	28371964.85	28371965.02	28371965.19	0.0488	0.0267

Mercury	72967-11-26 17:17 G	28372039.07	28372039.22	28372039.37	0.0486	0.0075
Venus	72972-11-14 14:10 G	28373853.97	28373854.09	28373854.21	0.0529	0.0418
Venus	72973-07-10 10:48 G	28374091.74	28374091.95	28374092.15	0.0538	0.0058
Earth	72973-08-31 01:55 G	28374143.44	28374143.58	28374143.73	0.0539	0.0420
Moon	72973-08-31 04:48 G	28374143.55	28374143.70	28374143.86	0.0539	0.0389 *
Mercury	72974-01-28 22:19 G	28374294.32	28374294.43	28374294.54	0.0542	0.0355
Venus	72978-09-25 13:41 G	28375994.89	28375995.07	28375995.26	0.0495	0.0211
Earth	72979-02-24 22:48 G	28376147.22	28376147.45	28376147.68	0.0491	0.0113
Moon	72979-02-25 02:39 G	28376147.38	28376147.61	28376147.84	0.0491	0.0137 *
Venus	72979-05-19 16:34 G	28376230.99	28376231.19	28376231.38	0.0489	0.0167
Mercury	72979-09-14 19:55 G	28376349.18	28376349.33	28376349.48	0.0486	0.0085
Venus	72985-03-14 23:17 G	28378357.27	28378357.47	28378357.67	0.0536	0.0083
Venus	72985-11-08 04:05 G	28378595.55	28378595.67	28378595.81	0.0542	0.0418
Mercury	72985-11-16 23:03 G	28378604.31	28378604.46	28378604.60	0.0542	0.0134
Venus	72990-05-31 15:36 G	28380260.99	28380261.15	28380261.31	0.0497	0.0315
Venus	72991-01-22 20:39 G	28380497.16	28380497.36	28380497.57	0.0490	0.0067
Moon	72991-03-01 06:15 G	28380534.58	28380534.76	28380534.96	0.0489	0.0292
Earth	72991-03-01 10:05 G	28380534.73	28380534.92	28380535.12	0.0489	0.0277 *
Mercury	72991-07-03 22:48 G	28380659.32	28380659.45	28380659.58	0.0487	0.0241
Venus	72991-09-15 17:31 G	28380733.13	28380733.23	28380733.33	0.0486	0.0421
Mercury	72991-10-01 11:03 G	28380748.89	28380748.96	28380749.04	0.0485	0.0414
Venus	72996-11-17 14:39 G	28382622.93	28382623.11	28382623.30	0.0534	0.0214
Venus	72997-07-13 17:17 G	28382861.04	28382861.22	28382861.39	0.0541	0.0282
Mercury	72997-09-05 00:15 G	28382914.36	28382914.51	28382914.65	0.0542	0.0079

74TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 74th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	73002-02-04 15:51	G	28384527.05	28384527.16	28384527.27	0.0499	0.0420	
Venus	73002-09-28 23:17	G	28384763.26	28384763.47	28384763.67	0.0492	0.0037	
Mercury	73003-04-23 01:27	G	28384969.48	28384969.56	28384969.64	0.0487	0.0400	
Venus	73003-05-22 21:51	G	28384999.27	28384999.41	28384999.57	0.0486	0.0328	
Mercury	73003-07-21 13:27	G	28385058.93	28385059.06	28385059.19	0.0486	0.0248	
Venus	73008-07-24 07:27	G	28386888.65	28386888.81	28386888.96	0.0531	0.0340	
Venus	73009-03-19 06:29	G	28387126.58	28387126.77	28387126.97	0.0539	0.0145	
Mercury	73009-06-25 01:12	G	28387224.42	28387224.55	28387224.67	0.0542	0.0294	
Venus	73014-06-04 01:41	G	28389029.37	28389029.57	28389029.77	0.0494	0.0141	
Venus	73015-01-26 02:39	G	28389265.44	28389265.61	28389265.80	0.0488	0.0232	
Mercury	73015-05-09 16:05	G	28389369.02	28389369.17	28389369.32	0.0486	0.0088	
Venus	73020-03-28 23:31	G	28391154.39	28391154.48	28391154.58	0.0528	0.0462	
Venus	73020-11-21 18:29	G	28391392.07	28391392.27	28391392.48	0.0537	0.0009	
Mercury	73021-04-13 00:58	G	28391534.52	28391534.54	28391534.57	0.0541	0.0530	
Mercury	73021-07-11 21:07	G	28391624.28	28391624.38	28391624.49	0.0542	0.0372	
Venus	73021-07-18 00:29	G	28391630.45	28391630.52	28391630.60	0.0542	0.0501	
Venus	73026-02-07 01:27	G	28393295.39	28393295.56	28393295.74	0.0496	0.0251	
Venus	73026-10-01 05:31	G	28393531.54	28393531.73	28393531.93	0.0490	0.0130	
Mercury	73027-02-25 18:29	G	28393679.12	28393679.27	28393679.42	0.0487	0.0076	
Venus	73027-05-25 02:10	G	28393767.55	28393767.59	28393767.62	0.0486	0.0478	
Venus	73032-07-27 07:55	G	28395657.63	28395657.83	28395658.02	0.0534	0.0132	
Venus	73033-03-22 10:48	G	28395895.80	28395895.95	28395896.10	0.0541	0.0364	
Mercury	73033-04-29 21:36	G	28395934.26	28395934.40	28395934.55	0.0542	0.0147	
Venus	73037-10-13 02:10	G	28397561.45	28397561.59	28397561.73	0.0498	0.0358	
Venus	73038-06-06 08:53	G	28397797.66	28397797.87	28397798.07	0.0491	0.0026	

Mercury	73038-12-14 21:07 G	28397989.25	28397989.38	28397989.51	0.0487	0.0234
Venus	73039-01-28 06:58 G	28398033.67	28398033.79	28398033.92	0.0486	0.0386
Mercury	73039-03-14 09:36 G	28398078.82	28398078.90	28398078.97	0.0486	0.0422
Venus	73044-03-31 21:07 G	28399923.21	28399923.38	28399923.56	0.0532	0.0266
Earth	73044-08-26 02:10 G	28400070.37	28400070.59	28400070.81	0.0537	0.0174
Moon	73044-08-26 05:31 G	28400070.51	28400070.73	28400070.94	0.0537	0.0172 *
Venus	73044-11-24 21:36 G	28400161.22	28400161.40	28400161.58	0.0540	0.0223
Mercury	73045-02-15 22:05 G	28400244.27	28400244.42	28400244.57	0.0542	0.0081
Venus	73049-06-18 02:39 G	28401827.54	28401827.61	28401827.70	0.0501	0.0462
Venus	73050-02-09 12:00 G	28402063.80	28402064.00	28402064.21	0.0493	0.0077
Mercury	73050-10-03 00:00 G	28402299.42	28402299.50	28402299.59	0.0487	0.0389
Venus	73050-10-03 12:00 G	28402299.84	28402300.00	28402300.17	0.0487	0.0291
Mercury	73050-12-31 12:00 G	28402388.88	28402389.00	28402389.13	0.0486	0.0261
Venus	73055-12-05 13:41 G	28404188.94	28404189.07	28404189.21	0.0530	0.0390
Venus	73056-07-30 11:17 G	28404426.77	28404426.97	28404427.17	0.0538	0.0087
Moon	73056-08-31 04:19 G	28404458.49	28404458.68	28404458.88	0.0539	0.0310
Earth	73056-08-31 05:46 G	28404458.57	28404458.74	28404458.92	0.0539	0.0346 *
Mercury	73056-12-04 23:03 G	28404554.33	28404554.46	28404554.58	0.0542	0.0298
Venus	73061-10-15 13:55 G	28406329.88	28406330.08	28406330.27	0.0495	0.0182
Moon	73062-02-25 02:53 G	28406462.40	28406462.62	28406462.85	0.0491	0.0186
Earth	73062-02-25 06:43 G	28406462.56	28406462.78	28406463.00	0.0491	0.0164 *
Venus	73062-06-08 15:51 G	28406565.97	28406566.16	28406566.35	0.0488	0.0193
Mercury	73062-10-19 14:24 G	28406698.95	28406699.10	28406699.25	0.0486	0.0096
Venus	73067-08-10 07:41 G	28408454.77	28408454.82	28408454.88	0.0527	0.0506
Venus	73068-04-04 01:55 G	28408692.38	28408692.58	28408692.78	0.0536	0.0049
Mercury	73068-09-22 23:46 G	28408864.45	28408864.49	28408864.53	0.0541	0.0516
Venus	73068-11-28 07:12 G	28408930.69	28408930.80	28408930.92	0.0542	0.0450
Mercury	73068-12-21 20:10 G	28408954.24	28408954.34	28408954.44	0.0543	0.0389
Venus	73073-06-20 14:53 G	28410595.96	28410596.12	28410596.29	0.0497	0.0288
Venus	73074-02-11 19:41 G	28410832.12	28410832.32	28410832.52	0.0490	0.0093

Earth	73074-03-01 17:03 G	28410850.00	28410850.21	28410850.42	0.0489	0.0224
Moon	73074-03-01 19:41 G	28410850.12	28410850.32	28410850.52	0.0489	0.0249 *
Mercury	73074-08-07 17:17 G	28411009.07	28411009.22	28411009.37	0.0486	0.0065
Venus	73074-10-05 16:19 G	28411068.10	28411068.18	28411068.26	0.0486	0.0444
Mars	73076-09-28 20:53 G	28411792.23	28411792.37	28411792.51	0.0489	0.0406
Venus	73079-12-08 16:05 G	28412957.98	28412958.17	28412958.36	0.0533	0.0183
Venus	73080-08-02 17:46 G	28413196.08	28413196.24	28413196.40	0.0540	0.0310
Mercury	73080-10-09 20:24 G	28413264.21	28413264.35	28413264.50	0.0542	0.0163
Venus	73085-02-23 12:58 G	28414861.92	28414862.04	28414862.17	0.0500	0.0398
Venus	73085-10-17 21:07 G	28415098.17	28415098.38	28415098.58	0.0492	0.0016
Mercury	73086-05-26 19:41 G	28415319.18	28415319.32	28415319.45	0.0487	0.0228
Venus	73086-06-10 20:24 G	28415334.21	28415334.35	28415334.49	0.0487	0.0349
Mercury	73086-08-24 07:55 G	28415408.76	28415408.83	28415408.90	0.0486	0.0429
Venus	73091-08-13 06:43 G	28417223.62	28417223.78	28417223.94	0.0531	0.0312
Venus	73092-04-07 05:03 G	28417461.52	28417461.71	28417461.90	0.0539	0.0171
Mercury	73092-07-28 20:53 G	28417574.22	28417574.37	28417574.52	0.0541	0.0068
Venus	73097-06-22 23:17 G	28419364.27	28419364.47	28419364.67	0.0494	0.0119
Venus	73098-02-14 00:43 G	28419600.35	28419600.53	28419600.70	0.0488	0.0253
Mercury	73098-03-14 22:19 G	28419629.34	28419629.43	28419629.52	0.0487	0.0385
Mercury	73098-06-12 10:19 G	28419718.81	28419718.93	28419719.06	0.0486	0.0265
Venus	73103-04-18 21:07 G	28421489.27	28421489.38	28421489.49	0.0528	0.0437
Venus	73103-12-12 16:19 G	28421726.98	28421727.18	28421727.38	0.0537	0.0030
Mercury	73104-05-17 20:53 G	28421884.24	28421884.37	28421884.49	0.0541	0.0302
Venus	73104-08-06 22:34 G	28421965.40	28421965.44	28421965.50	0.0543	0.0525
Venus	73109-02-27 01:12 G	28423630.37	28423630.55	28423630.74	0.0496	0.0224
Venus	73109-10-21 04:48 G	28423866.51	28423866.70	28423866.90	0.0489	0.0155
Mercury	73110-04-01 12:58 G	28424028.90	28424029.04	28424029.19	0.0486	0.0106
Venus	73115-08-17 06:43 G	28425992.58	28425992.78	28425992.98	0.0535	0.0104
Mercury	73116-03-05 21:22 G	28426194.36	28426194.39	28426194.43	0.0541	0.0524
Venus	73116-04-11 10:34 G	28426230.81	28426230.94	28426231.08	0.0542	0.0392

Mercury	73116-06-03 17:46 G	28426284.14	28426284.24	28426284.35	0.0543	0.0383
Venus	73120-11-02 01:55 G	28427896.43	28427896.58	28427896.74	0.0498	0.0329
Venus	73121-06-26 07:55 G	28428132.63	28428132.83	28428133.04	0.0491	0.0054
Mercury	73122-01-18 15:36 G	28428339.00	28428339.15	28428339.30	0.0486	0.0059
Venus	73122-02-17 05:31 G	28428368.63	28428368.73	28428368.84	0.0486	0.0408
Venus	73127-04-21 22:34 G	28430258.27	28430258.44	28430258.63	0.0533	0.0234
Moon	73127-08-27 06:00 G	28430385.55	28430385.75	28430385.97	0.0537	0.0249
Earth	73127-08-27 08:10 G	28430385.64	28430385.84	28430386.05	0.0537	0.0242 *
Venus	73127-12-15 23:46 G	28430496.31	28430496.49	28430496.66	0.0540	0.0257
Mercury	73128-03-22 19:12 G	28430594.15	28430594.30	28430594.44	0.0542	0.0173
Venus	73132-07-08 01:55 G	28432162.48	28432162.58	28432162.68	0.0500	0.0435
Venus	73133-03-01 10:34 G	28432398.74	28432398.94	28432399.15	0.0492	0.0051
Venus	73133-10-23 10:19 G	28432634.78	28432634.93	28432635.09	0.0487	0.0314
Mercury	73133-11-06 18:15 G	28432649.13	28432649.26	28432649.40	0.0487	0.0217
Mercury	73134-02-04 06:43 G	28432738.71	28432738.78	28432738.84	0.0486	0.0439
Venus	73138-12-25 14:53 G	28434523.98	28434524.12	28434524.27	0.0530	0.0360
Venus	73139-08-20 12:00 G	28434761.80	28434762.00	28434762.20	0.0538	0.0117
Earth	73139-09-01 09:51 G	28434773.71	28434773.91	28434774.11	0.0538	0.0270
Moon	73139-09-01 09:36 G	28434773.71	28434773.90	28434774.10	0.0538	0.0237 *
Mercury	73140-01-09 19:27 G	28434904.16	28434904.31	28434904.46	0.0541	0.0055
Mars	73141-08-21 23:17 G	28435494.26	28435494.47	28435494.69	0.0540	0.0374
Venus	73144-11-04 10:34 G	28436664.74	28436664.94	28436665.13	0.0495	0.0160
Earth	73145-02-25 09:36 G	28436777.70	28436777.90	28436778.11	0.0492	0.0229
Moon	73145-02-25 12:29 G	28436777.82	28436778.02	28436778.22	0.0492	0.0240 *
Venus	73145-06-28 13:12 G	28436900.86	28436901.05	28436901.23	0.0489	0.0214
Mercury	73145-08-25 20:39 G	28436959.27	28436959.36	28436959.45	0.0488	0.0382
Mercury	73145-11-23 08:39 G	28437048.73	28437048.86	28437048.99	0.0486	0.0269
Venus	73150-08-30 07:12 G	28438789.72	28438789.80	28438789.88	0.0527	0.0479
Venus	73151-04-25 00:29 G	28439027.32	28439027.52	28439027.72	0.0536	0.0021
Mercury	73151-10-28 19:41 G	28439214.19	28439214.32	28439214.45	0.0541	0.0287

Venus	73151-12-19 05:03 G	28439265.61	28439265.71	28439265.81	0.0542	0.0472
Venus	73156-07-10 11:17 G	28440930.80	28440930.97	28440931.14	0.0497	0.0267
Moon	73157-03-01 18:43 G	28441165.06	28441165.28	28441165.51	0.0490	0.0189
Earth	73157-03-01 20:10 G	28441165.12	28441165.34	28441165.57	0.0490	0.0163 *
Venus	73157-03-03 16:19 G	28441166.98	28441167.18	28441167.38	0.0490	0.0113
Mercury	73157-09-11 11:03 G	28441358.81	28441358.96	28441359.11	0.0486	0.0107
Venus	73157-10-25 13:27 G	28441403.00	28441403.06	28441403.13	0.0486	0.0462
Venus	73162-12-28 12:29 G	28443292.83	28443293.02	28443293.22	0.0534	0.0158
Mercury	73163-08-16 19:12 G	28443524.27	28443524.30	28443524.33	0.0541	0.0529
Venus	73163-08-23 14:39 G	28443530.95	28443531.11	28443531.27	0.0541	0.0334
Mercury	73163-11-14 15:36 G	28443614.04	28443614.15	28443614.26	0.0542	0.0376
Venus	73168-03-15 12:15 G	28445196.87	28445197.01	28445197.14	0.0499	0.0372
Venus	73168-11-06 19:55 G	28445433.13	28445433.33	28445433.54	0.0492	0.0012
Mercury	73169-06-30 13:55 G	28445668.93	28445669.08	28445669.23	0.0487	0.0052
Venus	73169-06-30 18:43 G	28445669.15	28445669.28	28445669.42	0.0487	0.0371 *
Venus	73174-09-02 04:05 G	28447558.50	28447558.67	28447558.84	0.0531	0.0287
Venus	73175-04-28 03:07 G	28447796.44	28447796.63	28447796.82	0.0539	0.0197
Mercury	73175-09-02 16:34 G	28447924.05	28447924.19	28447924.33	0.0542	0.0161
Venus	73179-11-19 11:46 G	28449462.93	28449462.99	28449463.06	0.0502	0.0476
Venus	73180-07-12 22:05 G	28449699.22	28449699.42	28449699.62	0.0493	0.0092
Venus	73181-03-05 22:48 G	28449935.29	28449935.45	28449935.62	0.0488	0.0276
Mercury	73181-04-18 16:34 G	28449979.05	28449979.19	28449979.32	0.0487	0.0214
Mercury	73181-07-17 04:48 G	28450068.64	28450068.70	28450068.76	0.0485	0.0441
Venus	73186-05-07 21:07 G	28451824.26	28451824.38	28451824.51	0.0529	0.0408
Venus	73186-12-31 17:17 G	28452062.02	28452062.22	28452062.42	0.0538	0.0062
Mercury	73187-06-21 17:46 G	28452234.09	28452234.24	28452234.39	0.0542	0.0053
Venus	73192-03-17 23:31 G	28453965.29	28453965.48	28453965.67	0.0495	0.0198
Venus	73192-11-09 02:39 G	28454201.42	28454201.61	28454201.81	0.0489	0.0178
Mercury	73193-02-04 19:12 G	28454289.21	28454289.30	28454289.40	0.0487	0.0372
Mercury	73193-05-05 07:12 G	28454378.68	28454378.80	28454378.93	0.0486	0.0278

Mars	73195-03-23 10:34 G	28455065.75	28455065.94	28455066.13	0.0488	0.0327
Venus	73198-01-10 15:22 G	28456090.13	28456090.14	28456090.16	0.0526	0.0523
Venus	73198-09-05 07:27 G	28456327.61	28456327.81	28456328.01	0.0535	0.0074
Mercury	73199-04-09 18:00 G	28456544.13	28456544.25	28456544.38	0.0541	0.0278
Venus	73199-05-01 10:48 G	28456565.83	28456565.95	28456566.08	0.0541	0.0418
Venus	73203-11-21 21:51 G	28458231.25	28458231.41	28458231.57	0.0498	0.0308
Venus	73204-07-15 04:05 G	28458467.47	28458467.67	28458467.88	0.0491	0.0074
Mercury	73205-02-21 09:22 G	28458688.74	28458688.89	28458689.04	0.0487	0.0108
Venus	73205-03-08 02:24 G	28458703.50	28458703.60	28458703.69	0.0486	0.0427
Venus	73210-05-10 21:22 G	28460593.21	28460593.39	28460593.58	0.0532	0.0207
Earth	73210-08-26 08:24 G	28460700.68	28460700.85	28460701.04	0.0536	0.0329
Moon	73210-08-26 09:07 G	28460700.71	28460700.88	28460701.05	0.0536	0.0343 *
Venus	73211-01-03 21:36 G	28460831.23	28460831.40	28460831.58	0.0540	0.0281
Mercury	73211-01-26 18:00 G	28460854.21	28460854.25	28460854.30	0.0540	0.0512
Mercury	73211-04-26 14:24 G	28460944.00	28460944.10	28460944.20	0.0542	0.0390
Venus	73215-07-27 21:07 G	28462497.27	28462497.38	28462497.49	0.0501	0.0415
Venus	73216-03-20 06:29 G	28462733.56	28462733.77	28462733.97	0.0493	0.0032
Venus	73216-11-11 06:29 G	28462969.63	28462969.77	28462969.92	0.0487	0.0332
Mercury	73216-12-10 11:46 G	28462998.84	28462998.99	28462999.14	0.0487	0.0055
Venus	73222-01-13 10:34 G	28464858.78	28464858.94	28464859.09	0.0530	0.0336
Earth	73222-08-31 05:17 G	28465088.51	28465088.72	28465088.94	0.0538	0.0160
Moon	73222-08-31 06:29 G	28465088.54	28465088.77	28465089.01	0.0538	0.0126 *
Venus	73222-09-08 07:41 G	28465096.62	28465096.82	28465097.01	0.0538	0.0140
Mercury	73223-02-12 14:24 G	28465253.95	28465254.10	28465254.24	0.0542	0.0155
Venus	73227-11-24 08:53 G	28466999.68	28466999.87	28467000.07	0.0495	0.0135
Moon	73228-02-25 13:41 G	28467092.88	28467093.07	28467093.27	0.0492	0.0294
Earth	73228-02-25 15:07 G	28467092.94	28467093.13	28467093.33	0.0492	0.0287 *
Venus	73228-07-17 11:17 G	28467235.79	28467235.97	28467236.15	0.0488	0.0237
Mercury	73228-09-28 14:39 G	28467308.98	28467309.11	28467309.25	0.0487	0.0211
Mercury	73228-12-27 03:07 G	28467398.57	28467398.63	28467398.68	0.0486	0.0446

Venus	73233-09-18 03:07 G	28469124.53	28469124.63	28469124.73	0.0527	0.0456
Venus	73234-05-13 21:07 G	28469362.18	28469362.38	28469362.58	0.0536	0.0004
Mercury	73234-12-01 15:07 G	28469563.98	28469564.13	28469564.28	0.0542	0.0065
Venus	73235-01-07 02:39 G	28469600.53	28469600.61	28469600.69	0.0542	0.0496
Venus	73239-07-30 10:05 G	28471265.74	28471265.92	28471266.10	0.0497	0.0240
Earth	73240-03-01 01:41 G	28471480.34	28471480.57	28471480.81	0.0490	0.0103
Moon	73240-03-01 01:55 G	28471480.36	28471480.58	28471480.80	0.0490	0.0132 *
Venus	73240-03-22 14:39 G	28471501.91	28471502.11	28471502.30	0.0490	0.0138
Mercury	73240-07-17 17:31 G	28471619.13	28471619.23	28471619.32	0.0487	0.0370
Mercury	73240-10-15 05:17 G	28471708.60	28471708.72	28471708.85	0.0486	0.0279
Venus	73240-11-13 11:03 G	28471737.95	28471737.96	28471737.98	0.0485	0.0482
Venus	73246-01-16 12:29 G	28473627.82	28473628.02	28473628.21	0.0534	0.0128
Venus	73246-09-11 15:07 G	28473865.98	28473866.13	28473866.28	0.0541	0.0363
Mercury	73246-09-19 15:51 G	28473874.04	28473874.16	28473874.29	0.0541	0.0283
Venus	73251-04-04 10:05 G	28475531.78	28475531.92	28475532.07	0.0499	0.0346
Venus	73251-11-26 17:31 G	28475768.02	28475768.23	28475768.44	0.0491	0.0036
Earth	73252-03-05 11:31 G	28475867.98	28475867.98	28475867.99	0.0489	0.0489
Venus	73252-07-19 16:05 G	28476004.05	28476004.17	28476004.29	0.0486	0.0392
Mercury	73252-08-03 07:55 G	28476018.68	28476018.83	28476018.98	0.0486	0.0117
Venus	73257-09-21 04:19 G	28477893.51	28477893.68	28477893.86	0.0531	0.0257
Venus	73258-05-17 03:22 G	28478131.46	28478131.64	28478131.83	0.0539	0.0226
Mercury	73258-07-08 16:19 G	28478184.13	28478184.18	28478184.23	0.0540	0.0506
Mercury	73258-10-06 12:43 G	28478273.93	28478274.03	28478274.13	0.0542	0.0397
Venus	73262-12-08 07:12 G	28479797.72	28479797.80	28479797.88	0.0501	0.0456
Venus	73263-08-01 17:31 G	28480034.03	28480034.23	28480034.44	0.0494	0.0073
Venus	73264-03-24 18:43 G	28480270.12	28480270.28	28480270.44	0.0488	0.0294
Mercury	73264-05-22 09:51 G	28480328.76	28480328.91	28480329.07	0.0487	0.0055
Venus	73269-05-26 20:10 G	28482159.20	28482159.34	28482159.48	0.0529	0.0381
Venus	73270-01-19 15:36 G	28482396.95	28482397.15	28482397.35	0.0537	0.0088
Mercury	73270-07-25 13:12 G	28482583.91	28482584.05	28482584.19	0.0542	0.0170

Venus	73275-04-06 18:29 G	28484300.08	28484300.27	28484300.46	0.0496	0.0178
Venus	73275-11-28 22:19 G	28484536.24	28484536.43	28484536.62	0.0489	0.0196
Mercury	73276-03-10 12:29 G	28484638.89	28484639.02	28484639.16	0.0487	0.0214
Mercury	73276-06-08 00:43 G	28484728.48	28484728.53	28484728.60	0.0486	0.0443
Venus	73281-01-29 10:19 G	28486424.87	28486424.93	28486424.99	0.0526	0.0500
Venus	73281-09-24 02:10 G	28486662.39	28486662.59	28486662.80	0.0535	0.0053
Mercury	73282-05-13 12:43 G	28486893.88	28486894.03	28486894.18	0.0541	0.0072
Venus	73282-05-20 05:46 G	28486900.63	28486900.74	28486900.86	0.0542	0.0439
Venus	73286-12-10 19:55 G	28488566.17	28488566.33	28488566.50	0.0498	0.0283
Venus	73287-08-04 02:10 G	28488802.39	28488802.59	28488802.79	0.0491	0.0097
Mercury	73287-12-28 15:36 G	28488949.05	28488949.15	28488949.25	0.0488	0.0368
Venus	73288-03-27 00:00 G	28489038.42	28489038.50	28489038.58	0.0486	0.0446
Mercury	73288-03-27 03:22 G	28489038.52	28489038.64	28489038.77	0.0486	0.0282 *
Venus	73293-05-29 16:48 G	28490928.02	28490928.20	28490928.39	0.0533	0.0183
Earth	73293-08-25 04:19 G	28491015.56	28491015.68	28491015.82	0.0536	0.0439
Moon	73293-08-25 04:48 G	28491015.58	28491015.70	28491015.84	0.0536	0.0451 *
Venus	73294-01-22 17:46 G	28491166.07	28491166.24	28491166.41	0.0540	0.0304
Mercury	73294-03-01 13:12 G	28491203.93	28491204.05	28491204.18	0.0541	0.0297
Mars	73295-11-15 14:39 G	28491827.82	28491828.11	28491828.40	0.0540	0.0127
Venus	73298-08-15 19:55 G	28492832.20	28492832.33	28492832.46	0.0500	0.0388
Venus	73299-04-09 04:34 G	28493068.49	28493068.69	28493068.90	0.0492	0.0009
Venus	73299-12-01 04:19 G	28493304.54	28493304.68	28493304.82	0.0487	0.0354
Mercury	73300-01-14 06:00 G	28493348.60	28493348.75	28493348.89	0.0486	0.0118
Venus	73305-02-02 09:22 G	28495193.72	28495193.89	28495194.05	0.0530	0.0309
Moon	73305-08-31 05:17 G	28495403.50	28495403.72	28495403.94	0.0538	0.0043
Earth	73305-08-31 07:27 G	28495403.59	28495403.81	28495404.04	0.0538	0.0077 *
Venus	73305-09-28 07:12 G	28495431.61	28495431.80	28495431.99	0.0539	0.0169
Mercury	73305-12-19 13:55 G	28495514.04	28495514.08	28495514.12	0.0541	0.0517
Mercury	73306-03-19 10:19 G	28495603.84	28495603.93	28495604.04	0.0543	0.0391
Venus	73310-04-21 18:58 G	28497098.25	28497098.29	28497098.32	0.0503	0.0493

Venus	73310-12-14 06:29 G	28497334.57	28497334.77	28497334.98	0.0494	0.0110
Earth	73311-02-25 18:58 G	28497408.13	28497408.29	28497408.46	0.0492	0.0352
Moon	73311-02-25 19:12 G	28497408.14	28497408.30	28497408.46	0.0492	0.0357 *
Venus	73311-08-07 08:24 G	28497570.68	28497570.85	28497571.02	0.0488	0.0259
Mercury	73311-11-03 08:39 G	28497658.70	28497658.86	28497659.01	0.0487	0.0047
Venus	73316-10-08 03:07 G	28499459.52	28499459.63	28499459.75	0.0528	0.0428
Venus	73317-06-02 21:36 G	28499697.20	28499697.40	28499697.60	0.0536	0.0035
Mercury	73318-01-05 11:31 G	28499913.84	28499913.98	28499914.12	0.0542	0.0175
Venus	73318-01-27 02:39 G	28499935.56	28499935.61	28499935.67	0.0542	0.0521
Venus	73322-08-19 05:17 G	28501600.54	28501600.72	28501600.91	0.0497	0.0219
Earth	73323-03-02 02:24 G	28501795.37	28501795.60	28501795.84	0.0491	0.0031
Moon	73323-03-02 03:51 G	28501795.41	28501795.66	28501795.90	0.0491	0.0059 *
Venus	73323-04-12 10:05 G	28501836.72	28501836.92	28501837.11	0.0490	0.0157
Mercury	73323-08-22 10:34 G	28501968.81	28501968.94	28501969.08	0.0487	0.0214
Mercury	73323-11-19 22:48 G	28502058.39	28502058.45	28502058.52	0.0486	0.0443
Venus	73329-02-05 11:03 G	28503962.76	28503962.96	28503963.16	0.0534	0.0101
Venus	73329-10-01 12:58 G	28504200.91	28504201.04	28504201.19	0.0541	0.0387
Mercury	73329-10-24 11:46 G	28504223.84	28504223.99	28504224.14	0.0541	0.0055
Venus	73334-04-24 05:03 G	28505866.55	28505866.71	28505866.86	0.0499	0.0326
Venus	73334-12-16 12:43 G	28506102.82	28506103.03	28506103.23	0.0492	0.0055
Moon	73335-03-06 09:22 G	28506182.79	28506182.89	28506183.01	0.0490	0.0429
Earth	73335-03-06 12:15 G	28506182.89	28506183.01	28506183.14	0.0490	0.0418 *
Mercury	73335-06-10 13:27 G	28506278.97	28506279.06	28506279.16	0.0488	0.0372
Venus	73335-08-09 11:31 G	28506338.88	28506338.98	28506339.10	0.0487	0.0409
Mercury	73335-09-08 01:12 G	28506368.43	28506368.55	28506368.68	0.0486	0.0278
Venus	73340-10-10 22:48 G	28508228.27	28508228.45	28508228.63	0.0531	0.0234
Venus	73341-06-05 21:51 G	28508466.24	28508466.41	28508466.60	0.0539	0.0248
Mercury	73341-08-12 11:03 G	28508533.83	28508533.96	28508534.08	0.0541	0.0303
Venus	73345-12-28 04:48 G	28510132.61	28510132.70	28510132.82	0.0502	0.0431
Venus	73346-08-21 15:36 G	28510368.94	28510369.15	28510369.35	0.0494	0.0047

Venus	73347-04-14 16:19 G	28510605.03	28510605.18	28510605.34	0.0488	0.0317
Mercury	73347-06-27 04:05 G	28510678.52	28510678.67	28510678.82	0.0486	0.0119
Mars	73349-06-16 22:05 G	28511399.16	28511399.42	28511399.67	0.0488	0.0019
Venus	73352-06-15 14:53 G	28512493.97	28512494.12	28512494.26	0.0529	0.0358
Venus	73353-02-08 10:34 G	28512731.75	28512731.94	28512732.14	0.0537	0.0111
Mercury	73353-05-31 11:17 G	28512843.95	28512843.97	28512843.99	0.0541	0.0533
Mercury	73353-08-29 07:55 G	28512933.72	28512933.83	28512933.93	0.0542	0.0375
Venus	73358-04-26 17:03 G	28514635.02	28514635.21	28514635.41	0.0495	0.0151
Venus	73358-12-18 20:24 G	28514871.16	28514871.35	28514871.53	0.0489	0.0220
Mercury	73359-04-15 06:43 G	28514988.63	28514988.78	28514988.93	0.0487	0.0045
Venus	73364-02-19 08:24 G	28516759.77	28516759.85	28516759.94	0.0526	0.0475
Venus	73364-10-14 01:12 G	28516997.34	28516997.55	28516997.75	0.0536	0.0024
Venus	73365-06-09 05:31 G	28517235.63	28517235.73	28517235.84	0.0542	0.0466
Mercury	73365-06-17 08:53 G	28517243.73	28517243.87	28517244.02	0.0542	0.0164
Venus	73369-12-30 18:00 G	28518901.07	28518901.25	28518901.42	0.0497	0.0257
Venus	73370-08-23 23:31 G	28519137.28	28519137.48	28519137.68	0.0490	0.0121
Mercury	73371-02-01 09:22 G	28519298.75	28519298.89	28519299.03	0.0487	0.0203
Venus	73371-04-16 20:53 G	28519373.32	28519373.37	28519373.43	0.0486	0.0466
Mercury	73371-05-01 21:36 G	28519388.34	28519388.40	28519388.45	0.0486	0.0452
Venus	73376-06-18 17:03 G	28521263.02	28521263.21	28521263.41	0.0533	0.0154
Moon	73376-08-25 06:43 G	28521330.75	28521330.78	28521330.80	0.0535	0.0531
Earth	73376-08-25 08:24 G	28521330.79	28521330.85	28521330.92	0.0535	0.0512 *
Venus	73377-02-11 18:15 G	28521501.10	28521501.26	28521501.42	0.0540	0.0332
Mercury	73377-04-05 09:51 G	28521553.76	28521553.91	28521554.06	0.0541	0.0052
Venus	73381-09-04 15:36 G	28523167.01	28523167.15	28523167.29	0.0500	0.0366
Venus	73382-04-29 00:00 G	28523403.30	28523403.50	28523403.71	0.0492	0.0018
Mercury	73382-11-20 11:31 G	28523608.89	28523608.98	28523609.08	0.0488	0.0371
Venus	73382-12-21 00:00 G	28523639.37	28523639.50	28523639.63	0.0487	0.0372
Mercury	73383-02-17 23:17 G	28523698.35	28523698.47	28523698.60	0.0486	0.0279
Venus	73388-02-22 08:24 G	28525528.68	28525528.85	28525529.02	0.0530	0.0280

Earth	73388-08-30 08:39 G	28525718.63	28525718.86	28525719.09	0.0537	0.0013
Moon	73388-08-30 12:00 G	28525718.77	28525719.00	28525719.23	0.0537	0.0037 *
Venus	73388-10-17 06:00 G	28525766.56	28525766.75	28525766.94	0.0538	0.0196
Mercury	73389-01-22 10:05 G	28525863.79	28525863.92	28525864.05	0.0541	0.0283
Venus	73393-05-10 13:55 G	28527433.01	28527433.08	28527433.15	0.0503	0.0473
Venus	73394-01-02 01:41 G	28527669.37	28527669.57	28527669.77	0.0494	0.0090
Earth	73394-02-24 19:12 G	28527723.19	28527723.30	28527723.42	0.0493	0.0429
Moon	73394-02-24 20:24 G	28527723.24	28527723.35	28527723.47	0.0493	0.0429 *
Venus	73394-08-26 03:51 G	28527905.50	28527905.66	28527905.83	0.0488	0.0277
Mercury	73394-12-07 01:55 G	28528008.43	28528008.58	28528008.73	0.0487	0.0116
Venus	73399-10-27 21:51 G	28529794.28	28529794.41	28529794.54	0.0527	0.0404
Venus	73400-06-22 15:51 G	28530031.96	28530032.16	28530032.36	0.0536	0.0056
Moon	73400-09-05 00:29 G	28530106.44	28530106.52	28530106.62	0.0538	0.0495
Earth	73400-09-05 04:19 G	28530106.58	28530106.68	28530106.79	0.0538	0.0476 *
Mercury	73400-11-11 09:07 G	28530173.86	28530173.88	28530173.89	0.0540	0.0536
Mercury	73401-02-09 05:46 G	28530263.63	28530263.74	28530263.84	0.0542	0.0371
Venus	73401-02-15 20:53 G	28530270.37	28530270.37	28530270.40	0.0542	0.0541
Venus	73405-09-08 03:22 G	28531935.45	28531935.64	28531935.83	0.0497	0.0193
Moon	73406-03-02 05:03 G	28532110.48	28532110.71	28532110.94	0.0491	0.0002
Earth	73406-03-02 07:55 G	28532110.59	28532110.83	28532111.06	0.0491	0.0031 *
Venus	73406-05-02 07:55 G	28532171.64	28532171.83	28532172.03	0.0490	0.0182
Mercury	73406-09-26 04:48 G	28532318.55	28532318.70	28532318.85	0.0487	0.0041
Venus	73411-07-03 15:07 G	28534060.10	28534060.13	28534060.16	0.0525	0.0518
Venus	73412-02-26 05:31 G	28534297.53	28534297.73	28534297.93	0.0534	0.0078
Venus	73412-10-21 08:10 G	28534535.71	28534535.84	28534535.97	0.0541	0.0408
Mercury	73412-11-28 06:15 G	28534573.62	28534573.76	28534573.91	0.0542	0.0150
Venus	73417-05-14 03:51 G	28536201.50	28536201.66	28536201.83	0.0499	0.0299
Venus	73418-01-05 11:17 G	28536437.76	28536437.97	28536438.17	0.0491	0.0081
Earth	73418-03-06 18:00 G	28536498.10	28536498.25	28536498.42	0.0490	0.0361
Moon	73418-03-06 22:05 G	28536498.26	28536498.42	28536498.58	0.0490	0.0363 *

Mercury	73418-07-15 07:27 G	28536628.68	28536628.81	28536628.95	0.0487	0.0202
Venus	73418-08-29 09:36 G	28536673.81	28536673.90	28536673.99	0.0486	0.0430
Mercury	73418-10-12 19:27 G	28536718.27	28536718.31	28536718.37	0.0486	0.0454
Venus	73423-10-31 21:22 G	28538563.20	28538563.39	28538563.57	0.0532	0.0207
Venus	73424-06-25 21:07 G	28538801.21	28538801.38	28538801.56	0.0540	0.0276
Mercury	73424-09-16 07:12 G	28538883.65	28538883.80	28538883.95	0.0542	0.0066
Venus	73429-01-17 03:36 G	28540467.53	28540467.65	28540467.77	0.0501	0.0403
Venus	73429-09-10 13:27 G	28540703.85	28540704.06	28540704.27	0.0493	0.0021
Mercury	73430-05-03 10:19 G	28540938.83	28540938.93	28540939.03	0.0487	0.0359
Venus	73430-05-04 13:55 G	28540939.94	28540940.08	28540940.23	0.0487	0.0339
Mercury	73430-07-31 22:05 G	28541028.30	28541028.42	28541028.54	0.0486	0.0290
Venus	73435-07-06 14:53 G	28542828.97	28542829.12	28542829.28	0.0529	0.0329
Venus	73436-02-29 11:17 G	28543066.78	28543066.97	28543067.17	0.0538	0.0141
Mercury	73436-07-05 08:10 G	28543193.71	28543193.84	28543193.97	0.0541	0.0282
Venus	73441-05-16 13:12 G	28544969.85	28544970.05	28544970.25	0.0495	0.0129
Venus	73442-01-07 16:19 G	28545206.00	28545206.18	28545206.36	0.0489	0.0240
Mercury	73442-05-20 00:00 G	28545338.36	28545338.50	28545338.65	0.0487	0.0120
Venus	73447-03-11 07:55 G	28547094.73	28547094.83	28547094.94	0.0526	0.0447
Venus	73447-11-04 00:43 G	28547332.33	28547332.53	28547332.73	0.0535	0.0008
Mercury	73448-04-23 08:10 G	28547503.80	28547503.84	28547503.89	0.0540	0.0513
Venus	73448-06-29 04:48 G	28547570.62	28547570.70	28547570.79	0.0542	0.0491
Mercury	73448-07-22 04:48 G	28547593.60	28547593.70	28547593.80	0.0542	0.0394
Venus	73453-01-19 13:27 G	28549235.88	28549236.06	28549236.25	0.0498	0.0235
Venus	73453-09-12 19:12 G	28549472.11	28549472.30	28549472.50	0.0491	0.0142
Mercury	73454-03-08 02:53 G	28549648.47	28549648.62	28549648.77	0.0487	0.0044
Venus	73454-05-06 16:48 G	28549708.20	28549708.20	28549708.23	0.0486	0.0484
Venus	73459-07-09 12:00 G	28551597.81	28551598.00	28551598.20	0.0533	0.0129
Venus	73460-03-03 12:58 G	28551835.89	28551836.04	28551836.19	0.0540	0.0354
Mercury	73460-05-10 04:19 G	28551903.54	28551903.68	28551903.82	0.0542	0.0148
Venus	73464-09-24 13:41 G	28553501.92	28553502.07	28553502.22	0.0500	0.0340

Venus	73465-05-18 22:34 G	28553738.24	28553738.44	28553738.65	0.0492	0.0041
Mercury	73465-12-25 05:46 G	28553958.61	28553958.74	28553958.88	0.0487	0.0198
Venus	73466-01-09 22:34 G	28553974.32	28553974.44	28553974.56	0.0487	0.0395
Mercury	73466-03-24 17:46 G	28554048.20	28554048.24	28554048.29	0.0486	0.0459
Venus	73471-03-14 03:07 G	28555863.46	28555863.63	28555863.81	0.0530	0.0256
Moon	73471-08-30 23:31 G	28556033.26	28556033.48	28556033.70	0.0536	0.0156
Earth	73471-08-31 03:22 G	28556033.41	28556033.64	28556033.86	0.0536	0.0129 *
Venus	73471-11-07 00:43 G	28556101.35	28556101.53	28556101.72	0.0539	0.0220
Mercury	73472-02-27 04:48 G	28556213.55	28556213.70	28556213.85	0.0541	0.0077
Venus	73476-05-30 13:12 G	28557767.96	28557768.05	28557768.15	0.0503	0.0445
Venus	73477-01-22 00:58 G	28558004.33	28558004.54	28558004.74	0.0494	0.0062
Moon	73477-02-24 23:03 G	28558038.42	28558038.46	28558038.51	0.0493	0.0483
Earth	73477-02-25 01:55 G	28558038.54	28558038.58	28558038.62	0.0493	0.0486
Venus	73477-09-15 02:24 G	28558240.45	28558240.60	28558240.77	0.0488	0.0302
Mercury	73477-10-13 08:39 G	28558268.76	28558268.86	28558268.96	0.0488	0.0355
Mercury	73478-01-10 20:24 G	28558358.23	28558358.35	28558358.47	0.0486	0.0294
Venus	73482-11-16 20:10 G	28560129.20	28560129.34	28560129.48	0.0528	0.0378
Venus	73483-07-12 14:53 G	28560366.92	28560367.12	28560367.32	0.0537	0.0085
Earth	73483-09-05 05:46 G	28560421.59	28560421.74	28560421.91	0.0539	0.0390
Moon	73483-09-05 09:07 G	28560421.75	28560421.88	28560422.03	0.0539	0.0417 *
Mercury	73483-12-16 05:31 G	28560523.60	28560523.73	28560523.86	0.0541	0.0296
Venus	73488-09-27 02:10 G	28562270.40	28562270.59	28562270.78	0.0496	0.0166
Earth	73489-03-01 13:27 G	28562425.83	28562426.06	28562426.30	0.0491	0.0089
Moon	73489-03-01 17:17 G	28562425.99	28562426.22	28562426.46	0.0491	0.0058 *
Venus	73489-05-21 06:15 G	28562506.58	28562506.76	28562506.95	0.0489	0.0205
Mercury	73489-10-29 23:03 G	28562668.31	28562668.46	28562668.60	0.0486	0.0132
Venus	73494-07-22 15:07 G	28564395.07	28564395.13	28564395.20	0.0525	0.0491
Venus	73495-03-17 06:29 G	28564632.57	28564632.77	28564632.97	0.0535	0.0047
Mercury	73495-10-04 06:15 G	28564833.72	28564833.76	28564833.81	0.0540	0.0513
Venus	73495-11-10 09:36 G	28564870.78	28564870.90	28564871.02	0.0541	0.0438

Mercury	73496-01-02 03:07 G	28564923.53	28564923.63	28564923.73	0.0542	0.0397
Venus	73500-06-03 00:58 G	28566536.37	28566536.54	28566536.71	0.0498	0.0274
Venus	73501-01-25 07:55 G	28566772.63	28566772.83	28566773.03	0.0491	0.0104
Moon	73501-03-06 17:31 G	28566813.04	28566813.23	28566813.42	0.0490	0.0294
Earth	73501-03-06 21:22 G	28566813.21	28566813.39	28566813.59	0.0490	0.0295 *
Mercury	73501-08-19 01:12 G	28566978.40	28566978.55	28566978.70	0.0487	0.0037
Venus	73501-09-18 06:15 G	28567008.69	28567008.76	28567008.84	0.0486	0.0450
Mars	73503-09-12 13:55 G	28567732.88	28567733.08	28567733.28	0.0489	0.0306
Venus	73506-11-20 21:36 G	28568898.21	28568898.40	28568898.59	0.0532	0.0176
Venus	73507-07-16 21:22 G	28569136.23	28569136.39	28569136.56	0.0540	0.0305
Mercury	73507-10-22 03:36 G	28569233.51	28569233.65	28569233.80	0.0542	0.0175
Venus	73512-02-07 00:15 G	28570802.38	28570802.51	28570802.64	0.0501	0.0380
Venus	73512-09-30 10:05 G	28571038.71	28571038.92	28571039.12	0.0493	0.0011
Venus	73513-05-24 10:34 G	28571274.81	28571274.94	28571275.08	0.0488	0.0359
Mercury	73513-06-07 04:05 G	28571288.53	28571288.67	28571288.80	0.0487	0.0196
Mercury	73513-09-04 16:05 G	28571378.12	28571378.17	28571378.22	0.0486	0.0460
Venus	73518-07-26 10:48 G	28573163.79	28573163.95	28573164.12	0.0529	0.0303
Venus	73519-03-21 06:43 G	28573401.59	28573401.78	28573401.98	0.0537	0.0166
Mercury	73519-08-10 02:53 G	28573543.47	28573543.62	28573543.77	0.0541	0.0075
Venus	73523-10-12 22:34 G	28575068.40	28575068.44	28575068.50	0.0504	0.0485
Venus	73524-06-05 12:00 G	28575304.80	28575305.00	28575305.20	0.0495	0.0102
Venus	73525-01-27 15:22 G	28575540.97	28575541.14	28575541.31	0.0489	0.0266
Mercury	73525-03-26 06:58 G	28575598.69	28575598.79	28575598.90	0.0488	0.0350
Mercury	73525-06-23 18:43 G	28575688.16	28575688.28	28575688.40	0.0486	0.0301
Venus	73530-03-31 03:22 G	28577429.53	28577429.64	28577429.77	0.0526	0.0422
Venus	73530-11-23 19:55 G	28577667.13	28577667.33	28577667.54	0.0535	0.0033
Mercury	73531-05-29 03:07 G	28577853.51	28577853.63	28577853.76	0.0541	0.0304
Venus	73531-07-20 00:15 G	28577905.45	28577905.51	28577905.58	0.0542	0.0513
Venus	73536-02-09 13:12 G	28579570.87	28579571.05	28579571.24	0.0497	0.0206
Venus	73536-10-02 18:43 G	28579807.09	28579807.28	28579807.48	0.0490	0.0168

Mercury	73537-04-11 21:22 G	28579998.25	28579998.39	28579998.54	0.0486	0.0139
Venus	73542-07-29 11:17 G	28581932.77	28581932.97	28581933.16	0.0533	0.0100
Mercury	73543-03-17 03:36 G	28582163.62	28582163.65	28582163.69	0.0541	0.0526
Venus	73543-03-24 12:43 G	28582170.89	28582171.03	28582171.17	0.0541	0.0383
Mercury	73543-06-15 00:29 G	28582253.42	28582253.52	28582253.63	0.0542	0.0386
Venus	73547-10-15 13:41 G	28583836.91	28583837.07	28583837.23	0.0500	0.0311
Venus	73548-06-07 21:51 G	28584073.21	28584073.41	28584073.61	0.0492	0.0068
Mercury	73549-01-29 00:15 G	28584308.36	28584308.51	28584308.66	0.0487	0.0025
Venus	73549-01-29 21:07 G	28584309.28	28584309.38	28584309.48	0.0487	0.0418
Venus	73554-04-03 04:05 G	28586198.49	28586198.67	28586198.86	0.0531	0.0226
Earth	73554-08-31 09:07 G	28586348.66	28586348.88	28586349.09	0.0536	0.0197
Moon	73554-08-31 12:43 G	28586348.82	28586349.03	28586349.23	0.0536	0.0218 *
Venus	73554-11-27 02:39 G	28586436.44	28586436.61	28586436.79	0.0539	0.0251
Mercury	73555-04-03 01:55 G	28586563.44	28586563.58	28586563.72	0.0542	0.0178
Venus	73559-06-20 11:31 G	28588102.87	28588102.98	28588103.10	0.0502	0.0418
Venus	73560-02-11 22:34 G	28588339.24	28588339.44	28588339.65	0.0494	0.0037
Venus	73560-10-05 00:00 G	28588575.35	28588575.50	28588575.66	0.0488	0.0324
Mercury	73560-11-17 02:24 G	28588618.47	28588618.60	28588618.74	0.0487	0.0188
Mercury	73561-02-14 14:24 G	28588708.07	28588708.10	28588708.14	0.0486	0.0468
Venus	73565-12-06 21:22 G	28590464.24	28590464.39	28590464.54	0.0528	0.0346
Venus	73566-08-01 16:19 G	28590701.98	28590702.18	28590702.37	0.0537	0.0117
Moon	73566-09-05 08:24 G	28590736.67	28590736.85	28590737.04	0.0538	0.0339
Earth	73566-09-05 11:03 G	28590736.78	28590736.96	28590737.15	0.0538	0.0317 *
Mercury	73567-01-20 02:24 G	28590873.45	28590873.60	28590873.75	0.0541	0.0046
Venus	73571-10-17 23:46 G	28592605.29	28592605.49	28592605.68	0.0496	0.0141
Moon	73572-03-01 13:27 G	28592740.84	28592741.06	28592741.30	0.0492	0.0123
Earth	73572-03-01 17:31 G	28592741.01	28592741.23	28592741.46	0.0492	0.0153 *
Venus	73572-06-10 03:51 G	28592841.48	28592841.66	28592841.84	0.0490	0.0228
Mercury	73572-09-05 05:17 G	28592928.62	28592928.72	28592928.83	0.0488	0.0345
Mercury	73572-12-03 17:03 G	28593018.09	28593018.21	28593018.33	0.0486	0.0306

Venus	73577-08-11 12:29 G	28594729.93	28594730.02	28594730.12	0.0525	0.0464
Venus	73578-04-06 03:22 G	28594967.43	28594967.64	28594967.84	0.0534	0.0023
Mercury	73578-11-08 01:41 G	28595183.44	28595183.57	28595183.69	0.0541	0.0296
Venus	73578-11-30 05:46 G	28595205.64	28595205.74	28595205.85	0.0541	0.0461
Venus	73583-06-23 00:15 G	28596871.33	28596871.51	28596871.69	0.0499	0.0246
Venus	73584-02-14 07:27 G	28597107.61	28597107.81	28597108.01	0.0491	0.0131
Earth	73584-03-06 05:17 G	28597128.52	28597128.72	28597128.93	0.0491	0.0244
Moon	73584-03-06 08:39 G	28597128.66	28597128.86	28597129.06	0.0491	0.0243 *
Mercury	73584-09-21 19:55 G	28597328.19	28597328.33	28597328.48	0.0487	0.0148
Venus	73584-10-07 06:00 G	28597343.71	28597343.75	28597343.79	0.0486	0.0474
Venus	73589-12-09 18:00 G	28599233.05	28599233.25	28599233.44	0.0532	0.0149
Venus	73590-08-04 17:31 G	28599471.07	28599471.23	28599471.39	0.0540	0.0329
Mercury	73590-08-27 01:41 G	28599493.54	28599493.57	28599493.60	0.0540	0.0528
Mercury	73590-11-24 22:34 G	28599583.33	28599583.44	28599583.54	0.0542	0.0382
Venus	73595-02-26 00:15 G	28601137.37	28601137.51	28601137.66	0.0501	0.0352
Venus	73595-10-20 10:05 G	28601373.72	28601373.92	28601374.13	0.0493	0.0030
Venus	73596-06-12 10:34 G	28601609.82	28601609.94	28601610.07	0.0487	0.0383
Mercury	73596-07-10 22:48 G	28601638.30	28601638.45	28601638.60	0.0487	0.0017
Venus	73601-08-14 10:05 G	28603498.75	28603498.92	28603499.10	0.0529	0.0275
Venus	73602-04-09 06:43 G	28603736.60	28603736.78	28603736.97	0.0538	0.0195
Mercury	73602-09-12 23:31 G	28603893.34	28603893.48	28603893.62	0.0542	0.0169
Venus	73606-10-31 23:31 G	28605403.40	28605403.48	28605403.57	0.0503	0.0456
Venus	73607-06-25 12:15 G	28605639.81	28605640.01	28605640.22	0.0495	0.0074
Venus	73608-02-16 14:53 G	28605875.96	28605876.12	28605876.29	0.0489	0.0291
Mercury	73608-04-29 01:41 G	28605948.43	28605948.57	28605948.71	0.0487	0.0170
Mercury	73608-07-27 13:41 G	28606038.07	28606038.07	28606038.07	0.0486	0.0486
Venus	73613-04-19 04:48 G	28607764.56	28607764.70	28607764.83	0.0527	0.0392
Venus	73613-12-12 22:05 G	28608002.22	28608002.42	28608002.62	0.0536	0.0064
Mercury	73614-07-02 00:43 G	28608203.38	28608203.53	28608203.68	0.0542	0.0041
Venus	73619-02-28 12:15 G	28609905.82	28609906.01	28609906.20	0.0497	0.0179

Venus	73619-10-22 17:17 G	28610142.03	28610142.22	28610142.41	0.0490	0.0193
Mercury	73620-02-16 04:05 G	28610258.57	28610258.67	28610258.78	0.0488	0.0334
Mercury	73620-05-15 15:51 G	28610348.04	28610348.16	28610348.27	0.0486	0.0316
Mars	73622-03-05 08:10 G	28611006.71	28611006.84	28611006.99	0.0487	0.0400
Venus	73624-12-22 23:31 G	28612030.43	28612030.48	28612030.54	0.0524	0.0503
Venus	73625-08-17 13:12 G	28612267.85	28612268.05	28612268.25	0.0534	0.0067
Venus	73626-04-12 14:53 G	28612506.00	28612506.12	28612506.25	0.0541	0.0414
Mercury	73626-04-20 01:12 G	28612513.42	28612513.55	28612513.69	0.0541	0.0264
Venus	73630-11-03 12:15 G	28614171.84	28614172.01	28614172.18	0.0499	0.0284
Venus	73631-06-27 20:10 G	28614408.14	28614408.34	28614408.55	0.0492	0.0094
Venus	73632-02-18 19:27 G	28614644.23	28614644.31	28614644.40	0.0487	0.0441
Mercury	73632-03-03 18:29 G	28614658.13	28614658.27	28614658.41	0.0487	0.0155
Venus	73637-04-22 02:24 G	28616533.41	28616533.60	28616533.79	0.0530	0.0196
Moon	73637-08-30 05:31 G	28616663.55	28616663.73	28616663.92	0.0535	0.0317
Earth	73637-08-30 08:39 G	28616663.67	28616663.86	28616664.05	0.0535	0.0293 *
Venus	73637-12-16 00:15 G	28616771.34	28616771.51	28616771.68	0.0539	0.0277
Mercury	73638-02-06 00:15 G	28616823.47	28616823.51	28616823.56	0.0540	0.0516
Mercury	73638-05-06 21:07 G	28616913.28	28616913.38	28616913.48	0.0542	0.0393
Venus	73642-07-09 11:03 G	28618437.83	28618437.96	28618438.08	0.0502	0.0391
Venus	73643-03-02 22:34 G	28618674.23	28618674.44	28618674.64	0.0494	0.0013
Venus	73643-10-25 00:15 G	28618910.37	28618910.51	28618910.65	0.0488	0.0350
Mercury	73643-12-21 21:22 G	28618968.24	28618968.39	28618968.54	0.0487	0.0005
Venus	73648-12-25 18:43 G	28620799.12	28620799.28	28620799.44	0.0528	0.0319
Venus	73649-08-20 13:12 G	28621036.85	28621037.05	28621037.24	0.0537	0.0144
Earth	73649-09-04 08:53 G	28621051.65	28621051.87	28621052.08	0.0537	0.0211
Moon	73649-09-04 09:51 G	28621051.71	28621051.91	28621052.11	0.0537	0.0237 *
Mercury	73650-02-22 21:36 G	28621223.26	28621223.40	28621223.55	0.0542	0.0171
Venus	73654-03-14 09:36 G	28622703.87	28622703.90	28622703.94	0.0505	0.0496
Venus	73654-11-06 00:15 G	28622940.31	28622940.51	28622940.71	0.0496	0.0112
Earth	73655-03-02 02:39 G	28623056.39	28623056.61	28623056.83	0.0493	0.0199

Moon	73655-03-02 06:00 G	28623056.53	28623056.75	28623056.97	0.0493	0.0169 *
Venus	73655-06-30 04:19 G	28623176.51	28623176.68	28623176.86	0.0489	0.0255
Mercury	73655-10-10 00:15 G	28623278.37	28623278.51	28623278.65	0.0487	0.0159
Venus	73660-08-30 12:00 G	28625064.89	28625065.00	28625065.11	0.0525	0.0437
Venus	73661-04-25 03:22 G	28625302.44	28625302.64	28625302.84	0.0535	0.0011
Mercury	73661-12-11 22:34 G	28625533.28	28625533.44	28625533.59	0.0541	0.0051
Venus	73661-12-19 06:43 G	28625540.70	28625540.78	28625540.86	0.0542	0.0490
Venus	73666-07-12 01:27 G	28627206.38	28627206.56	28627206.75	0.0498	0.0216
Venus	73667-03-05 07:55 G	28627442.64	28627442.83	28627443.03	0.0491	0.0158
Moon	73667-03-06 12:29 G	28627443.80	28627444.02	28627444.25	0.0491	0.0193
Earth	73667-03-06 14:39 G	28627443.90	28627444.11	28627444.33	0.0491	0.0200 *
Mercury	73667-07-29 03:22 G	28627588.52	28627588.64	28627588.75	0.0488	0.0315
Mercury	73667-10-26 14:53 G	28627678.01	28627678.12	28627678.23	0.0486	0.0335
Venus	73672-12-28 19:55 G	28629568.14	28629568.33	28629568.53	0.0532	0.0117
Venus	73673-08-23 20:24 G	28629806.21	28629806.35	28629806.50	0.0540	0.0362
Mercury	73673-09-29 23:31 G	28629843.35	28629843.48	28629843.61	0.0541	0.0260
Venus	73678-03-17 00:15 G	28631472.36	28631472.51	28631472.67	0.0501	0.0323
Venus	73678-11-08 09:36 G	28631708.70	28631708.90	28631709.11	0.0493	0.0057
Mercury	73679-05-17 06:00 G	28631898.72	28631898.75	28631898.78	0.0488	0.0475
Venus	73679-07-02 09:36 G	28631944.80	28631944.90	28631945.02	0.0487	0.0407
Mercury	73679-08-14 17:17 G	28631988.08	28631988.22	28631988.36	0.0486	0.0168
Venus	73684-09-02 12:43 G	28633833.86	28633834.03	28633834.21	0.0530	0.0241
Venus	73685-04-28 09:51 G	28634071.73	28634071.91	28634072.09	0.0538	0.0230
Mercury	73685-07-19 00:00 G	28634153.44	28634153.50	28634153.57	0.0540	0.0483
Mercury	73685-10-16 20:53 G	28634243.28	28634243.37	28634243.46	0.0542	0.0426
Venus	73689-11-19 23:03 G	28635738.36	28635738.46	28635738.57	0.0503	0.0428
Venus	73690-07-14 11:31 G	28635974.78	28635974.98	28635975.19	0.0495	0.0046
Venus	73691-03-07 14:10 G	28636210.93	28636211.09	28636211.24	0.0489	0.0316
Mercury	73691-06-02 20:10 G	28636298.19	28636298.34	28636298.49	0.0487	0.0014
Venus	73696-05-08 04:19 G	28638099.54	28638099.68	28638099.83	0.0526	0.0362

Venus	73696-12-31 21:07 G	28638337.18	28638337.38	28638337.58	0.0535	0.0093
Mercury	73697-08-04 20:24 G	28638553.21	28638553.35	28638553.49	0.0541	0.0185
Venus	73702-03-20 12:00 G	28640240.81	28640241.00	28640241.20	0.0497	0.0151
Venus	73702-11-11 17:46 G	28640477.06	28640477.24	28640477.42	0.0491	0.0220
Mercury	73703-03-22 23:03 G	28640608.32	28640608.46	28640608.60	0.0488	0.0147
Venus	73708-01-12 22:05 G	28642365.34	28642365.42	28642365.51	0.0523	0.0475
Venus	73708-09-06 11:17 G	28642602.77	28642602.97	28642603.17	0.0533	0.0039
Venus	73709-05-02 12:29 G	28642840.90	28642841.02	28642841.13	0.0540	0.0439
Mercury	73709-05-24 20:53 G	28642863.22	28642863.37	28642863.52	0.0541	0.0042
Venus	73713-11-23 12:43 G	28644506.86	28644507.03	28644507.21	0.0500	0.0256
Venus	73714-07-17 20:53 G	28644743.18	28644743.37	28644743.57	0.0492	0.0122
Mercury	73715-01-09 01:55 G	28644918.47	28644918.58	28644918.70	0.0488	0.0303
Venus	73715-03-10 20:10 G	28644979.28	28644979.34	28644979.40	0.0487	0.0464
Mercury	73715-04-08 13:41 G	28645007.96	28645008.07	28645008.18	0.0486	0.0348
Venus	73720-05-12 02:39 G	28646868.42	28646868.61	28646868.80	0.0531	0.0167
Earth	73720-08-30 12:43 G	28646978.86	28646979.03	28646979.19	0.0535	0.0368
Moon	73720-08-30 14:10 G	28646978.95	28646979.09	28646979.25	0.0535	0.0387 *
Venus	73721-01-05 01:12 G	28647106.38	28647106.55	28647106.71	0.0539	0.0307
Mercury	73721-03-12 21:22 G	28647173.26	28647173.39	28647173.52	0.0541	0.0264
Mars	73722-10-23 17:17 G	28647762.99	28647763.22	28647763.46	0.0542	0.0334
Venus	73725-07-29 12:43 G	28648772.89	28648773.03	28648773.17	0.0502	0.0361
Venus	73726-03-22 23:46 G	28649009.28	28649009.49	28649009.69	0.0494	0.0022
Mercury	73726-10-28 05:17 G	28649228.67	28649228.72	28649228.77	0.0488	0.0456
Venus	73726-11-14 00:58 G	28649245.41	28649245.54	28649245.67	0.0488	0.0375
Mercury	73727-01-25 16:19 G	28649318.05	28649318.18	28649318.33	0.0487	0.0189
Venus	73732-01-15 20:24 G	28651134.18	28651134.35	28651134.52	0.0529	0.0288
Earth	73732-09-04 16:34 G	28651366.97	28651367.19	28651367.41	0.0537	0.0151
Moon	73732-09-04 17:31 G	28651367.00	28651367.23	28651367.45	0.0537	0.0181 *
Venus	73732-09-09 15:51 G	28651371.97	28651372.16	28651372.35	0.0537	0.0177
Mercury	73732-12-29 22:19 G	28651483.36	28651483.43	28651483.50	0.0540	0.0479

Mercury	73733-03-29 19:12 G	28651573.21	28651573.30	28651573.39	0.0542	0.0432
Venus	73737-04-03 10:48 G	28653038.87	28653038.95	28653039.03	0.0504	0.0465
Venus	73737-11-26 00:43 G	28653275.32	28653275.53	28653275.73	0.0496	0.0083
Moon	73738-03-02 08:53 G	28653371.65	28653371.87	28653372.09	0.0493	0.0222
Earth	73738-03-02 11:03 G	28653371.76	28653371.96	28653372.17	0.0493	0.0249 *
Venus	73738-07-20 04:19 G	28653511.51	28653511.68	28653511.84	0.0489	0.0281
Mercury	73738-11-13 18:58 G	28653628.14	28653628.29	28653628.44	0.0487	0.0023
Venus	73743-09-20 14:53 G	28655400.00	28655400.12	28655400.25	0.0526	0.0404
Venus	73744-05-15 06:58 G	28655637.59	28655637.79	28655637.99	0.0535	0.0047
Venus	73745-01-08 10:34 G	28655875.89	28655875.94	28655875.99	0.0542	0.0523
Mercury	73745-01-15 20:10 G	28655883.21	28655883.34	28655883.48	0.0542	0.0218
Venus	73749-08-01 01:12 G	28657541.36	28657541.55	28657541.75	0.0498	0.0188
Earth	73750-03-06 22:34 G	28657759.22	28657759.44	28657759.67	0.0491	0.0150
Moon	73750-03-06 22:34 G	28657759.22	28657759.44	28657759.66	0.0491	0.0135 *
Venus	73750-03-25 07:41 G	28657777.63	28657777.82	28657778.01	0.0491	0.0185
Mercury	73750-09-01 21:51 G	28657938.27	28657938.41	28657938.56	0.0487	0.0134
Venus	73755-05-26 08:39 G	28659665.84	28659665.86	28659665.90	0.0522	0.0514
Venus	73756-01-18 20:10 G	28659903.15	28659903.34	28659903.54	0.0532	0.0087
Venus	73756-09-12 19:55 G	28660141.19	28660141.33	28660141.47	0.0540	0.0389
Mercury	73756-11-03 19:55 G	28660193.17	28660193.33	28660193.48	0.0541	0.0027
Venus	73761-04-06 00:00 G	28661807.33	28661807.50	28661807.66	0.0501	0.0295
Venus	73761-11-28 09:51 G	28662043.71	28662043.91	28662044.12	0.0493	0.0085
Mercury	73762-06-21 00:43 G	28662248.42	28662248.53	28662248.65	0.0488	0.0291
Venus	73762-07-22 10:34 G	28662279.85	28662279.94	28662280.03	0.0488	0.0433
Mercury	73762-09-18 12:29 G	28662337.92	28662338.02	28662338.12	0.0487	0.0362
Venus	73767-09-23 11:46 G	28664168.81	28664168.99	28664169.18	0.0529	0.0212
Venus	73768-05-18 08:10 G	28664406.66	28664406.84	28664407.02	0.0538	0.0257
Mercury	73768-08-22 19:55 G	28664503.20	28664503.33	28664503.47	0.0540	0.0253
Venus	73772-12-09 23:17 G	28666073.35	28666073.47	28666073.59	0.0504	0.0401
Venus	73773-08-03 12:00 G	28666309.80	28666310.00	28666310.21	0.0495	0.0021

Venus	73774-03-27 14:53 G	28666545.97	28666546.12	28666546.26	0.0489	0.0341
Mercury	73774-04-09 03:51 G	28666558.61	28666558.66	28666558.72	0.0488	0.0445
Mercury	73774-07-07 15:07 G	28666648.00	28666648.13	28666648.27	0.0487	0.0201
Mars	73776-05-30 15:07 G	28667340.87	28667341.13	28667341.38	0.0487	0.0010
Venus	73779-05-29 04:19 G	28668434.53	28668434.68	28668434.84	0.0527	0.0334
Venus	73780-01-21 21:36 G	28668672.21	28668672.40	28668672.60	0.0536	0.0124
Mercury	73780-06-10 20:10 G	28668813.28	28668813.34	28668813.41	0.0540	0.0481
Mercury	73780-09-08 17:03 G	28668903.13	28668903.21	28668903.30	0.0542	0.0430
Venus	73784-08-14 22:05 G	28670339.41	28670339.42	28670339.43	0.0506	0.0504
Venus	73785-04-08 13:41 G	28670575.87	28670576.07	28670576.27	0.0497	0.0121
Venus	73785-11-30 18:58 G	28670812.11	28670812.29	28670812.47	0.0490	0.0247
Mercury	73786-04-25 18:00 G	28670958.10	28670958.25	28670958.40	0.0487	0.0044
Venus	73791-01-31 23:17 G	28672700.37	28672700.47	28672700.58	0.0524	0.0447
Venus	73791-09-26 13:27 G	28672937.86	28672938.06	28672938.26	0.0534	0.0006
Venus	73792-05-21 15:36 G	28673176.06	28673176.15	28673176.26	0.0541	0.0471
Mercury	73792-06-27 18:29 G	28673213.13	28673213.27	28673213.41	0.0542	0.0222
Venus	73796-12-12 13:41 G	28674841.89	28674842.07	28674842.26	0.0499	0.0227
Venus	73797-08-05 21:22 G	28675078.20	28675078.39	28675078.59	0.0492	0.0149
Mercury	73798-02-11 20:39 G	28675268.22	28675268.36	28675268.51	0.0487	0.0120
Venus	73803-06-02 06:15 G	28677203.56	28677203.76	28677203.95	0.0531	0.0131
Earth	73803-08-31 22:19 G	28677294.30	28677294.43	28677294.57	0.0535	0.0421
Moon	73803-08-31 22:48 G	28677294.31	28677294.45	28677294.59	0.0535	0.0427 *
Venus	73804-01-26 05:17 G	28677441.56	28677441.72	28677441.87	0.0539	0.0342
Mercury	73804-04-16 19:27 G	28677523.16	28677523.31	28677523.46	0.0541	0.0009
Venus	73808-08-18 12:58 G	28679107.90	28679108.04	28679108.20	0.0502	0.0332
Venus	73809-04-11 23:46 G	28679344.28	28679344.49	28679344.69	0.0494	0.0049
Mercury	73809-12-01 23:46 G	28679578.37	28679578.49	28679578.61	0.0488	0.0276
Venus	73809-12-04 00:58 G	28679580.43	28679580.54	28679580.66	0.0488	0.0401
Mercury	73810-03-01 11:17 G	28679667.88	28679667.97	28679668.07	0.0486	0.0376
Venus	73815-02-04 21:36 G	28681469.23	28681469.40	28681469.58	0.0528	0.0257

Moon	73815-09-05 18:00 G	28681682.04	28681682.25	28681682.47	0.0536	0.0109
Earth	73815-09-05 20:53 G	28681682.14	28681682.37	28681682.59	0.0536	0.0076 *
Venus	73815-09-30 16:34 G	28681707.00	28681707.19	28681707.37	0.0537	0.0207
Mercury	73816-02-03 18:58 G	28681833.16	28681833.29	28681833.43	0.0540	0.0233
Venus	73820-04-23 09:36 G	28683373.81	28683373.90	28683374.01	0.0505	0.0441
Venus	73820-12-16 00:29 G	28683610.31	28683610.52	28683610.72	0.0496	0.0057
Earth	73821-03-02 18:58 G	28683687.10	28683687.29	28683687.48	0.0494	0.0299
Moon	73821-03-02 18:58 G	28683687.11	28683687.29	28683687.48	0.0494	0.0281 *
Venus	73821-08-09 04:34 G	28683846.53	28683846.69	28683846.85	0.0490	0.0307
Mercury	73821-09-20 02:39 G	28683888.55	28683888.61	28683888.68	0.0489	0.0433
Mercury	73821-12-18 13:55 G	28683977.95	28683978.08	28683978.22	0.0487	0.0215
Venus	73826-10-10 14:53 G	28685734.98	28685735.12	28685735.26	0.0525	0.0375
Venus	73827-06-05 06:00 G	28685972.55	28685972.75	28685972.95	0.0534	0.0075
Mercury	73827-11-22 18:58 G	28686143.22	28686143.29	28686143.37	0.0540	0.0466
Mercury	73828-02-20 15:51 G	28686233.08	28686233.16	28686233.24	0.0542	0.0441
Venus	73832-08-21 01:12 G	28687876.36	28687876.55	28687876.75	0.0498	0.0161
Earth	73833-03-07 07:27 G	28688074.58	28688074.81	28688075.04	0.0492	0.0106
Moon	73833-03-07 09:36 G	28688074.66	28688074.90	28688075.15	0.0492	0.0083 *
Venus	73833-04-14 07:55 G	28688112.65	28688112.83	28688113.02	0.0491	0.0211
Mercury	73833-10-06 16:48 G	28688288.05	28688288.20	28688288.35	0.0487	0.0055
Venus	73838-06-15 08:24 G	28690000.78	28690000.85	28690000.92	0.0523	0.0488
Venus	73839-02-07 20:24 G	28690238.15	28690238.35	28690238.55	0.0532	0.0057
Venus	73839-10-03 20:39 G	28690476.23	28690476.36	28690476.49	0.0540	0.0417
Mercury	73839-12-09 16:34 G	28690543.05	28690543.19	28690543.32	0.0542	0.0222
Venus	73844-04-26 01:41 G	28692142.40	28692142.57	28692142.75	0.0501	0.0266
Venus	73844-12-18 11:17 G	28692378.77	28692378.97	28692379.17	0.0493	0.0113
Moon	73845-03-11 16:05 G	28692462.13	28692462.17	28692462.22	0.0491	0.0478
Mercury	73845-07-25 19:41 G	28692598.18	28692598.32	28692598.47	0.0488	0.0103
Venus	73845-08-11 11:17 G	28692614.90	28692614.97	28692615.04	0.0487	0.0457
Venus	73850-10-13 13:12 G	28694503.86	28694504.05	28694504.24	0.0530	0.0181

Venus	73851-06-08 10:34 G	28694741.78	28694741.94	28694742.12	0.0538	0.0290
Mercury	73851-09-27 17:31 G	28694853.08	28694853.23	28694853.38	0.0541	0.0014
Venus	73855-12-31 00:43 G	28696408.40	28696408.53	28696408.67	0.0503	0.0371
Venus	73856-08-23 12:58 G	28696644.83	28696645.04	28696645.24	0.0494	0.0015
Venus	73857-04-16 14:53 G	28696880.99	28696881.12	28696881.26	0.0488	0.0367
Mercury	73857-05-13 22:34 G	28696908.32	28696908.44	28696908.57	0.0488	0.0263
Mercury	73857-08-11 10:05 G	28696997.84	28696997.92	28696998.01	0.0486	0.0390
Venus	73862-06-18 07:27 G	28698769.65	28698769.81	28698769.98	0.0527	0.0300
Venus	73863-02-11 01:27 G	28699007.37	28699007.56	28699007.75	0.0536	0.0159
Mercury	73863-07-16 18:29 G	28699163.13	28699163.27	28699163.41	0.0541	0.0206
Venus	73867-09-04 22:34 G	28700674.38	28700674.44	28700674.52	0.0506	0.0476
Venus	73868-04-28 13:55 G	28700910.88	28700911.08	28700911.29	0.0497	0.0092
Venus	73868-12-20 18:58 G	28701147.12	28701147.29	28701147.46	0.0490	0.0274
Mercury	73869-03-02 01:41 G	28701218.50	28701218.57	28701218.64	0.0488	0.0417
Mercury	73869-05-30 12:58 G	28701307.91	28701308.04	28701308.17	0.0487	0.0229
Venus	73874-02-21 01:12 G	28703035.43	28703035.55	28703035.68	0.0524	0.0416
Venus	73874-10-16 14:53 G	28703272.92	28703273.12	28703273.32	0.0533	0.0026
Mercury	73875-05-04 18:00 G	28703473.17	28703473.25	28703473.34	0.0539	0.0445
Venus	73875-06-11 16:34 G	28703511.11	28703511.19	28703511.26	0.0540	0.0498
Mercury	73875-08-02 14:53 G	28703563.05	28703563.12	28703563.20	0.0541	0.0461
Mars	73877-01-18 03:36 G	28704097.40	28704097.65	28704097.91	0.0541	0.0280
Venus	73880-01-02 12:43 G	28705176.84	28705177.03	28705177.22	0.0500	0.0201
Venus	73880-08-25 20:53 G	28705413.18	28705413.37	28705413.57	0.0492	0.0175
Mercury	73881-03-18 15:36 G	28705618.00	28705618.15	28705618.30	0.0488	0.0067
Venus	73886-06-21 06:00 G	28707538.55	28707538.75	28707538.94	0.0531	0.0103
Moon	73886-08-30 23:03 G	28707609.39	28707609.46	28707609.53	0.0533	0.0502
Earth	73886-08-31 01:12 G	28707609.48	28707609.55	28707609.63	0.0533	0.0501 *
Venus	73887-02-14 04:05 G	28707776.53	28707776.67	28707776.82	0.0539	0.0368
Mercury	73887-05-21 15:22 G	28707873.00	28707873.14	28707873.27	0.0541	0.0236
Venus	73891-09-07 12:00 G	28709442.84	28709443.00	28709443.17	0.0502	0.0307

Venus	73892-04-30 23:17 G	28709679.27	28709679.47	28709679.67	0.0494	0.0074
Venus	73892-12-23 00:43 G	28709915.44	28709915.53	28709915.64	0.0488	0.0423
Mercury	73893-01-04 18:29 G	28709928.12	28709928.27	28709928.41	0.0488	0.0093
Venus	73898-02-23 21:07 G	28711804.20	28711804.38	28711804.56	0.0528	0.0229
Earth	73898-09-04 23:46 G	28711997.26	28711997.49	28711997.72	0.0536	0.0011
Moon	73898-09-05 03:22 G	28711997.41	28711997.64	28711997.87	0.0536	0.0034 *
Venus	73898-10-19 16:19 G	28712042.00	28712042.18	28712042.36	0.0537	0.0235
Mercury	73899-03-09 15:36 G	28712183.00	28712183.15	28712183.30	0.0541	0.0011
Venus	73903-05-14 11:31 G	28713708.86	28713708.98	28713709.10	0.0504	0.0411
Venus	73904-01-06 01:41 G	28713945.36	28713945.57	28713945.77	0.0496	0.0029
Earth	73904-03-03 04:34 G	28714002.53	28714002.69	28714002.87	0.0494	0.0341
Moon	73904-03-03 06:58 G	28714002.61	28714002.79	28714002.98	0.0494	0.0329 *
Venus	73904-08-29 05:17 G	28714181.57	28714181.72	28714181.87	0.0489	0.0332
Mercury	73904-10-24 21:22 G	28714238.27	28714238.39	28714238.52	0.0488	0.0248
Mercury	73905-01-22 09:07 G	28714327.80	28714327.88	28714327.96	0.0486	0.0406
Venus	73909-10-30 15:22 G	28716069.99	28716070.14	28716070.29	0.0526	0.0346
Venus	73910-06-25 07:27 G	28716307.61	28716307.81	28716308.01	0.0535	0.0106
Moon	73910-09-10 22:48 G	28716385.40	28716385.45	28716385.50	0.0538	0.0523
Earth	73910-09-11 02:39 G	28716385.56	28716385.61	28716385.68	0.0538	0.0517
Mercury	73910-12-27 16:34 G	28716493.05	28716493.19	28716493.33	0.0541	0.0206
Venus	73915-09-11 02:10 G	28718211.39	28718211.59	28718211.79	0.0498	0.0131
Moon	73916-03-07 13:12 G	28718389.82	28718390.05	28718390.28	0.0492	0.0031
Earth	73916-03-07 16:34 G	28718389.96	28718390.19	28718390.43	0.0492	0.0060 *
Venus	73916-05-04 08:10 G	28718447.66	28718447.84	28718448.02	0.0491	0.0237
Mercury	73916-08-13 00:15 G	28718548.44	28718548.51	28718548.60	0.0488	0.0406
Mercury	73916-11-10 11:31 G	28718637.85	28718637.98	28718638.11	0.0487	0.0241
Venus	73921-07-05 10:48 G	28720335.86	28720335.95	28720336.05	0.0523	0.0457
Venus	73922-02-27 23:31 G	28720573.28	28720573.48	28720573.68	0.0533	0.0022
Mercury	73922-10-15 17:17 G	28720803.12	28720803.22	28720803.31	0.0540	0.0424
Venus	73922-10-24 00:15 G	28720811.41	28720811.51	28720811.62	0.0540	0.0451

Mercury	73923-01-13 13:55 G	28720893.02	28720893.08	28720893.15	0.0542	0.0485
Venus	73927-05-17 01:55 G	28722477.40	28722477.58	28722477.77	0.0500	0.0237
Venus	73928-01-08 11:03 G	28722713.77	28722713.96	28722714.16	0.0493	0.0140
Earth	73928-03-12 03:51 G	28722777.57	28722777.66	28722777.74	0.0491	0.0455
Moon	73928-03-12 07:41 G	28722777.71	28722777.82	28722777.93	0.0491	0.0433 *
Mercury	73928-08-29 14:24 G	28722947.95	28722948.10	28722948.25	0.0487	0.0081
Venus	73928-08-31 10:48 G	28722949.93	28722949.95	28722949.99	0.0487	0.0480
Mars	73930-08-26 23:03 G	28723675.34	28723675.46	28723675.59	0.0488	0.0422
Venus	73933-11-02 15:07 G	28724838.94	28724839.13	28724839.32	0.0530	0.0149
Venus	73934-06-28 12:00 G	28725076.84	28725077.00	28725077.16	0.0538	0.0318
Mercury	73934-11-01 14:10 G	28725202.96	28725203.09	28725203.23	0.0541	0.0256
Venus	73939-01-19 22:48 G	28726743.31	28726743.45	28726743.60	0.0503	0.0347
Venus	73939-09-13 11:17 G	28726979.77	28726979.97	28726980.18	0.0495	0.0037
Venus	73940-05-06 14:10 G	28727215.97	28727216.09	28727216.22	0.0489	0.0389
Mercury	73940-06-17 17:03 G	28727258.06	28727258.21	28727258.36	0.0488	0.0083
Venus	73945-07-08 07:41 G	28729104.65	28729104.82	28729104.99	0.0527	0.0272
Venus	73946-03-03 00:43 G	28729342.34	28729342.53	28729342.72	0.0536	0.0186
Mercury	73946-08-20 14:24 G	28729512.95	28729513.10	28729513.26	0.0540	0.0031
Venus	73950-09-24 20:39 G	28731009.27	28731009.36	28731009.45	0.0506	0.0454
Venus	73951-05-19 12:29 G	28731245.81	28731246.02	28731246.22	0.0497	0.0069
Venus	73952-01-10 18:00 G	28731482.08	28731482.25	28731482.41	0.0490	0.0296
Mercury	73952-04-05 19:55 G	28731568.20	28731568.33	28731568.46	0.0488	0.0240
Mercury	73952-07-04 07:27 G	28731657.74	28731657.81	28731657.89	0.0487	0.0415
Venus	73957-03-12 23:46 G	28733370.36	28733370.49	28733370.63	0.0524	0.0390
Venus	73957-11-05 13:41 G	28733607.87	28733608.07	28733608.27	0.0534	0.0054
Mercury	73958-06-08 14:24 G	28733822.96	28733823.10	28733823.24	0.0540	0.0206
Venus	73958-07-01 15:51 G	28733846.11	28733846.16	28733846.21	0.0541	0.0523
Venus	73963-01-22 13:27 G	28735511.87	28735512.06	28735512.26	0.0499	0.0173
Venus	73963-09-15 21:22 G	28735748.20	28735748.39	28735748.58	0.0492	0.0200
Mercury	73964-01-23 23:03 G	28735878.38	28735878.46	28735878.55	0.0489	0.0394

Mercury	73964-04-22 10:19 G	28735967.80	28735967.93	28735968.06	0.0487	0.0254
Venus	73968-11-15 19:12 G	28737636.25	28737636.30	28737636.36	0.0521	0.0499
Venus	73969-07-11 06:00 G	28737873.55	28737873.75	28737873.95	0.0531	0.0074
Venus	73970-03-06 05:03 G	28738111.58	28738111.71	28738111.85	0.0539	0.0397
Mercury	73970-03-27 15:07 G	28738133.04	28738133.13	28738133.22	0.0540	0.0427
Mercury	73970-06-25 12:00 G	28738222.94	28738223.00	28738223.07	0.0542	0.0483
Venus	73974-09-27 12:58 G	28739777.88	28739778.04	28739778.22	0.0501	0.0278
Venus	73975-05-21 23:31 G	28740014.27	28740014.48	28740014.68	0.0493	0.0102
Venus	73976-01-13 00:29 G	28740250.44	28740250.52	28740250.60	0.0488	0.0446
Mercury	73976-02-09 12:58 G	28740277.89	28740278.04	28740278.19	0.0487	0.0090
Venus	73981-03-15 23:17 G	28742139.29	28742139.47	28742139.66	0.0529	0.0196
Moon	73981-09-05 03:51 G	28742312.43	28742312.66	28742312.89	0.0535	0.0029
Earth	73981-09-05 07:41 G	28742312.60	28742312.82	28742313.05	0.0535	0.0065 *
Venus	73981-11-08 19:12 G	28742377.13	28742377.30	28742377.48	0.0538	0.0269
Mercury	73982-04-13 13:12 G	28742532.92	28742533.05	28742533.18	0.0541	0.0272
Venus	73986-06-02 11:46 G	28744043.86	28744043.99	28744044.12	0.0504	0.0383
Venus	73987-01-25 01:12 G	28744280.34	28744280.55	28744280.75	0.0495	0.0009
Moon	73987-03-03 08:39 G	28744317.72	28744317.86	28744318.00	0.0494	0.0389
Earth	73987-03-03 12:00 G	28744317.86	28744318.00	28744318.14	0.0494	0.0395 *
Venus	73987-09-18 04:19 G	28744516.55	28744516.68	28744516.83	0.0489	0.0357
Mercury	73987-11-28 15:51 G	28744588.01	28744588.16	28744588.31	0.0488	0.0069
Venus	73992-11-18 17:03 G	28746405.05	28746405.21	28746405.37	0.0526	0.0316
Venus	73993-07-14 08:53 G	28746642.68	28746642.87	28746643.07	0.0535	0.0136
Earth	73993-09-10 07:55 G	28746700.71	28746700.83	28746700.96	0.0537	0.0448
Moon	73993-09-10 11:17 G	28746700.86	28746700.97	28746701.10	0.0537	0.0449 *
Mercury	73994-01-30 13:27 G	28746842.91	28746843.06	28746843.21	0.0540	0.0044
Venus	73998-02-05 06:15 G	28748309.73	28748309.76	28748309.82	0.0507	0.0495
Venus	73998-09-29 23:46 G	28748546.29	28748546.49	28748546.69	0.0498	0.0109
Earth	73999-03-07 21:07 G	28748705.14	28748705.38	28748705.62	0.0493	0.0004
Moon	73999-03-08 01:12 G	28748705.31	28748705.55	28748705.79	0.0493	0.0029 *

Venus	73999-05-24 06:15 G	28748782.59	28748782.76	28748782.93	0.0491	0.0259
Mercury	73999-09-16 18:29 G	28748898.14	28748898.27	28748898.40	0.0489	0.0233
Mercury	73999-12-15 06:00 G	28748987.68	28748987.75	28748987.83	0.0487	0.0422

75TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 75th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	74004-07-24 11:03 G		28750670.85	28750670.96	28750671.08	0.0523	0.0430	
Venus	74005-03-18 23:03 G		28750908.26	28750908.46	28750908.66	0.0532	0.0007	
Venus	74005-11-11 23:03 G		28751146.37	28751146.46	28751146.56	0.0539	0.0474	
Mercury	74005-11-18 13:27 G		28751152.92	28751153.06	28751153.20	0.0540	0.0188	
Venus	74010-06-04 23:17 G		28752812.29	28752812.47	28752812.66	0.0501	0.0215	
Venus	74011-01-27 08:53 G		28753048.67	28753048.87	28753049.06	0.0493	0.0161	
Moon	74011-03-12 04:48 G		28753092.55	28753092.70	28753092.86	0.0492	0.0378	
Earth	74011-03-12 08:39 G		28753092.73	28753092.86	28753093.00	0.0492	0.0400	*
Mercury	74011-07-05 21:22 G		28753208.31	28753208.39	28753208.48	0.0489	0.0390	
Mercury	74011-10-03 08:39 G		28753297.74	28753297.86	28753297.99	0.0487	0.0259	
Venus	74016-11-21 12:58 G		28755173.84	28755174.04	28755174.24	0.0530	0.0124	
Venus	74017-07-17 10:05 G		28755411.77	28755411.92	28755412.08	0.0538	0.0343	
Mercury	74017-09-06 12:58 G		28755462.95	28755463.04	28755463.13	0.0539	0.0428	
Mercury	74017-12-05 09:51 G		28755552.85	28755552.91	28755552.98	0.0542	0.0481	
Venus	74022-02-07 23:03 G		28757078.31	28757078.46	28757078.62	0.0503	0.0319	
Venus	74022-10-02 11:17 G		28757314.77	28757314.97	28757315.18	0.0495	0.0062	

Venus	74023-05-26 13:41 G	28757550.96	28757551.07	28757551.18	0.0489	0.0412
Mercury	74023-07-22 11:31 G	28757607.84	28757607.98	28757608.13	0.0487	0.0100
Venus	74028-07-27 06:00 G	28759439.58	28759439.75	28759439.94	0.0527	0.0246
Venus	74029-03-22 00:00 G	28759677.32	28759677.50	28759677.69	0.0536	0.0214
Mercury	74029-09-23 10:48 G	28759862.83	28759862.95	28759863.09	0.0541	0.0268
Venus	74033-10-13 21:22 G	28761344.29	28761344.39	28761344.51	0.0505	0.0425
Venus	74034-06-07 12:29 G	28761580.82	28761581.02	28761581.23	0.0497	0.0041
Venus	74035-01-29 17:03 G	28761817.06	28761817.21	28761817.37	0.0490	0.0320
Mercury	74035-05-10 14:24 G	28761917.95	28761918.10	28761918.24	0.0488	0.0064
Venus	74040-04-01 00:58 G	28763705.39	28763705.54	28763705.68	0.0525	0.0361
Venus	74040-11-24 15:36 G	28763942.95	28763943.15	28763943.35	0.0534	0.0085
Mercury	74041-07-12 12:00 G	28764172.85	28764173.00	28764173.15	0.0541	0.0055
Venus	74046-02-10 12:43 G	28765846.84	28765847.03	28765847.23	0.0499	0.0145
Venus	74046-10-04 19:55 G	28766083.15	28766083.33	28766083.52	0.0491	0.0226
Mercury	74047-02-26 17:17 G	28766228.09	28766228.22	28766228.35	0.0488	0.0221
Mercury	74047-05-27 04:48 G	28766317.64	28766317.70	28766317.77	0.0487	0.0434
Mars	74049-02-16 18:15 G	28766949.06	28766949.26	28766949.48	0.0487	0.0279
Venus	74051-12-05 20:39 G	28767971.28	28767971.36	28767971.45	0.0522	0.0471
Venus	74052-07-30 07:27 G	28768208.61	28768208.81	28768209.01	0.0531	0.0044
Venus	74053-03-25 06:00 G	28768446.63	28768446.75	28768446.88	0.0539	0.0424
Mercury	74053-04-30 12:00 G	28768482.86	28768483.00	28768483.15	0.0540	0.0175
Venus	74057-10-16 09:36 G	28770112.73	28770112.90	28770113.08	0.0502	0.0256
Venus	74058-06-09 20:24 G	28770349.15	28770349.35	28770349.55	0.0494	0.0122
Mercury	74058-12-15 19:41 G	28770538.23	28770538.32	28770538.41	0.0489	0.0386
Venus	74059-01-31 21:51 G	28770585.36	28770585.41	28770585.47	0.0488	0.0466
Mercury	74059-03-15 06:58 G	28770627.67	28770627.79	28770627.92	0.0487	0.0264
Venus	74064-04-03 22:48 G	28772474.27	28772474.45	28772474.65	0.0528	0.0170
Earth	74064-09-04 09:36 G	28772627.68	28772627.90	28772628.13	0.0534	0.0146
Moon	74064-09-04 13:12 G	28772627.83	28772628.05	28772628.28	0.0534	0.0111 *
Venus	74064-11-27 18:00 G	28772712.09	28772712.25	28772712.42	0.0537	0.0294

Mercury	74065-02-16 12:00 G	28772792.90	28772793.00	28772793.10	0.0539	0.0409
Mercury	74065-05-17 08:53 G	28772882.81	28772882.87	28772882.93	0.0541	0.0496
Venus	74069-06-21 07:41 G	28774378.68	28774378.82	28774378.97	0.0504	0.0363
Venus	74070-02-12 21:36 G	28774615.20	28774615.40	28774615.61	0.0496	0.0021
Earth	74070-03-02 13:55 G	28774633.01	28774633.08	28774633.17	0.0495	0.0464
Moon	74070-03-02 18:00 G	28774633.17	28774633.25	28774633.35	0.0495	0.0457 *
Venus	74070-10-07 01:27 G	28774851.43	28774851.56	28774851.69	0.0489	0.0375
Mercury	74071-01-01 09:36 G	28774937.76	28774937.90	28774938.05	0.0488	0.0102
Venus	74075-12-08 13:55 G	28776739.92	28776740.08	28776740.25	0.0526	0.0292
Venus	74076-08-02 05:46 G	28776977.55	28776977.74	28776977.94	0.0535	0.0161
Moon	74076-09-09 04:05 G	28777015.49	28777015.67	28777015.86	0.0536	0.0340
Earth	74076-09-09 06:15 G	28777015.59	28777015.76	28777015.94	0.0536	0.0347 *
Mercury	74077-03-05 08:39 G	28777192.74	28777192.86	28777193.00	0.0541	0.0264
Venus	74081-02-24 06:00 G	28778644.68	28778644.75	28778644.83	0.0507	0.0467
Venus	74081-10-18 23:03 G	28778881.26	28778881.46	28778881.66	0.0498	0.0082
Moon	74082-03-07 00:00 G	28779020.27	28779020.50	28779020.74	0.0493	0.0084
Earth	74082-03-07 03:51 G	28779020.43	28779020.66	28779020.90	0.0493	0.0054 *
Venus	74082-06-12 05:17 G	28779117.55	28779117.72	28779117.89	0.0491	0.0283
Mercury	74082-10-20 12:43 G	28779247.88	28779248.03	28779248.18	0.0488	0.0056
Venus	74087-08-13 08:24 G	28781005.72	28781005.85	28781005.97	0.0523	0.0405
Venus	74088-04-06 20:53 G	28781243.16	28781243.37	28781243.57	0.0533	0.0034
Venus	74088-11-30 21:36 G	28781481.33	28781481.40	28781481.48	0.0540	0.0498
Mercury	74088-12-22 09:22 G	28781502.74	28781502.89	28781503.04	0.0541	0.0046
Venus	74093-06-23 23:03 G	28783147.28	28783147.46	28783147.66	0.0500	0.0187
Venus	74094-02-15 07:55 G	28783383.64	28783383.83	28783384.02	0.0492	0.0187
Earth	74094-03-11 15:07 G	28783407.97	28783408.13	28783408.30	0.0492	0.0345
Moon	74094-03-11 18:00 G	28783408.08	28783408.25	28783408.41	0.0492	0.0336 *
Mercury	74094-08-08 15:36 G	28783558.01	28783558.15	28783558.28	0.0488	0.0217
Mercury	74094-11-06 03:07 G	28783647.56	28783647.63	28783647.69	0.0487	0.0437
Venus	74099-04-18 04:19 G	28785271.65	28785271.68	28785271.71	0.0520	0.0512

Venus	74099-12-11 13:27 G	28785508.87	28785509.06	28785509.26	0.0530	0.0094
Venus	74100-08-06 11:17 G	28785746.83	28785746.97	28785747.12	0.0539	0.0373
Mercury	74100-10-11 10:19 G	28785812.78	28785812.93	28785813.07	0.0540	0.0173
Venus	74105-02-27 22:05 G	28787413.25	28787413.42	28787413.59	0.0502	0.0293
Venus	74105-10-22 09:36 G	28787649.70	28787649.90	28787650.11	0.0494	0.0087
Mercury	74106-05-28 18:29 G	28787868.18	28787868.27	28787868.37	0.0489	0.0374
Venus	74106-06-15 11:31 G	28787885.89	28787885.98	28787886.08	0.0488	0.0433
Mercury	74106-08-26 05:46 G	28787957.61	28787957.74	28787957.86	0.0487	0.0274
Venus	74111-08-17 07:12 G	28789774.62	28789774.80	28789774.98	0.0527	0.0216
Venus	74112-04-11 00:58 G	28790012.36	28790012.54	28790012.72	0.0536	0.0242
Mercury	74112-07-30 10:34 G	28790122.83	28790122.94	28790123.04	0.0539	0.0399
Mercury	74112-10-28 07:27 G	28790212.76	28790212.81	28790212.86	0.0541	0.0507
Venus	74116-11-02 17:17 G	28791679.10	28791679.22	28791679.35	0.0505	0.0404
Venus	74117-06-27 08:24 G	28791915.65	28791915.85	28791916.06	0.0497	0.0023
Venus	74118-02-18 13:27 G	28792151.92	28792152.06	28792152.21	0.0490	0.0339
Mercury	74118-06-14 07:55 G	28792267.68	28792267.83	28792267.98	0.0488	0.0104
Venus	74123-04-22 00:29 G	28794040.36	28794040.52	28794040.67	0.0524	0.0334
Venus	74123-12-15 14:39 G	28794277.91	28794278.11	28794278.30	0.0534	0.0112
Mercury	74124-08-16 07:41 G	28794522.69	28794522.82	28794522.95	0.0540	0.0280
Venus	74129-03-02 08:24 G	28796181.65	28796181.85	28796182.05	0.0499	0.0126
Venus	74129-10-24 16:05 G	28796417.99	28796418.17	28796418.35	0.0492	0.0243
Mercury	74130-04-02 10:34 G	28796577.80	28796577.94	28796578.09	0.0488	0.0059
Venus	74134-12-25 16:34 G	28798306.10	28798306.19	28798306.30	0.0522	0.0448
Venus	74135-08-20 03:07 G	28798543.43	28798543.63	28798543.83	0.0531	0.0021
Venus	74136-04-14 01:55 G	28798781.47	28798781.58	28798781.70	0.0539	0.0445
Mercury	74136-06-04 07:12 G	28798832.65	28798832.80	28798832.95	0.0540	0.0041
Venus	74140-11-05 08:24 G	28800447.67	28800447.85	28800448.04	0.0502	0.0230
Venus	74141-06-29 18:58 G	28800684.09	28800684.29	28800684.49	0.0494	0.0147
Mercury	74142-01-19 13:41 G	28800887.94	28800888.07	28800888.21	0.0488	0.0214
Venus	74142-02-20 19:55 G	28800920.32	28800920.33	28800920.35	0.0488	0.0486

Mercury	74142-04-19 01:12 G	28800977.49	28800977.55	28800977.62	0.0487	0.0441
Venus	74147-04-24 19:12 G	28802809.11	28802809.30	28802809.50	0.0529	0.0145
Moon	74147-09-05 05:03 G	28802942.49	28802942.71	28802942.93	0.0534	0.0217
Earth	74147-09-05 07:41 G	28802942.62	28802942.82	28802943.03	0.0534	0.0248 *
Venus	74147-12-18 14:53 G	28803046.96	28803047.12	28803047.29	0.0537	0.0318
Mercury	74148-03-23 07:41 G	28803142.68	28803142.82	28803142.96	0.0540	0.0185
Venus	74152-07-11 07:27 G	28804713.65	28804713.81	28804713.96	0.0504	0.0335
Venus	74153-03-04 20:24 G	28804950.15	28804950.35	28804950.56	0.0495	0.0047
Venus	74153-10-26 23:31 G	28805186.37	28805186.48	28805186.60	0.0489	0.0397
Mercury	74153-11-07 16:34 G	28805198.10	28805198.19	28805198.29	0.0489	0.0373
Mercury	74154-02-05 03:51 G	28805287.54	28805287.66	28805287.78	0.0487	0.0276
Venus	74158-12-28 13:12 G	28807074.88	28807075.05	28807075.23	0.0526	0.0264
Venus	74159-08-23 06:00 G	28807312.56	28807312.75	28807312.93	0.0535	0.0190
Earth	74159-09-10 09:36 G	28807330.71	28807330.90	28807331.10	0.0536	0.0269
Moon	74159-09-10 10:05 G	28807330.73	28807330.92	28807331.12	0.0536	0.0255 *
Mercury	74160-01-10 08:10 G	28807452.74	28807452.84	28807452.94	0.0540	0.0405
Mercury	74160-04-09 05:17 G	28807542.67	28807542.72	28807542.77	0.0542	0.0504
Venus	74164-03-16 04:48 G	28808979.60	28808979.70	28808979.80	0.0506	0.0441
Venus	74164-11-07 21:07 G	28809216.18	28809216.38	28809216.59	0.0497	0.0058
Earth	74165-03-07 08:10 G	28809335.61	28809335.84	28809336.07	0.0494	0.0118
Moon	74165-03-07 11:03 G	28809335.74	28809335.96	28809336.18	0.0494	0.0147 *
Venus	74165-07-02 02:53 G	28809452.46	28809452.62	28809452.78	0.0491	0.0305
Mercury	74165-11-24 06:29 G	28809597.63	28809597.77	28809597.92	0.0487	0.0114
Venus	74170-09-02 08:39 G	28811340.72	28811340.86	28811341.00	0.0523	0.0379
Venus	74171-04-27 21:22 G	28811578.19	28811578.39	28811578.59	0.0533	0.0060
Venus	74171-12-21 22:05 G	28811816.37	28811816.42	28811816.47	0.0540	0.0523
Mercury	74172-01-27 06:00 G	28811852.62	28811852.75	28811852.88	0.0541	0.0287
Venus	74176-07-13 18:29 G	28813482.08	28813482.27	28813482.47	0.0500	0.0167
Venus	74177-03-07 03:22 G	28813718.46	28813718.64	28813718.83	0.0493	0.0205
Moon	74177-03-11 14:39 G	28813722.91	28813723.11	28813723.32	0.0492	0.0266

Earth	74177-03-11 16:05 G	28813722.98	28813723.17	28813723.37	0.0492	0.0272	*
Mercury	74177-09-12 08:39 G	28813907.72	28813907.86	28813908.01	0.0488	0.0059	
Venus	74182-05-08 03:36 G	28815606.58	28815606.65	28815606.72	0.0520	0.0486	
Venus	74182-12-31 12:29 G	28815843.82	28815844.02	28815844.22	0.0530	0.0067	
Venus	74183-08-26 09:51 G	28816081.77	28816081.91	28816082.04	0.0538	0.0396	
Mercury	74183-11-15 06:15 G	28816162.61	28816162.76	28816162.91	0.0540	0.0059	
Venus	74188-03-18 16:48 G	28817748.03	28817748.20	28817748.37	0.0503	0.0274	
Venus	74188-11-10 04:48 G	28817984.50	28817984.70	28817984.90	0.0495	0.0105	
Mercury	74189-07-01 11:31 G	28818217.85	28818217.98	28818218.12	0.0489	0.0218	
Venus	74189-07-04 07:12 G	28818220.73	28818220.80	28818220.88	0.0489	0.0449	
Mercury	74189-09-28 23:03 G	28818307.40	28818307.46	28818307.53	0.0487	0.0438	
Venus	74194-09-05 02:10 G	28820109.41	28820109.59	28820109.78	0.0527	0.0194	
Venus	74195-04-30 20:10 G	28820347.16	28820347.34	28820347.51	0.0536	0.0263	
Mercury	74195-09-03 05:17 G	28820472.58	28820472.72	28820472.87	0.0540	0.0191	
Venus	74199-11-22 15:22 G	28822014.01	28822014.14	28822014.28	0.0505	0.0379	
Venus	74200-07-17 06:43 G	28822250.57	28822250.78	28822250.99	0.0497	0.0005	
Venus	74201-03-10 11:17 G	28822486.84	28822486.97	28822487.11	0.0490	0.0361	
Mercury	74201-04-20 14:39 G	28822528.02	28822528.11	28822528.21	0.0489	0.0372	
Mercury	74201-07-19 01:55 G	28822617.46	28822617.58	28822617.71	0.0487	0.0277	
Mars	74203-05-15 08:10 G	28823282.58	28823282.84	28823283.09	0.0487	0.0042	
Venus	74206-05-11 19:41 G	28824375.16	28824375.32	28824375.48	0.0525	0.0311	
Venus	74207-01-04 10:05 G	28824612.73	28824612.92	28824613.12	0.0534	0.0135	
Mercury	74207-06-23 05:31 G	28824782.63	28824782.73	28824782.82	0.0539	0.0420	
Mercury	74207-09-21 02:39 G	28824872.55	28824872.61	28824872.67	0.0541	0.0490	
Venus	74211-07-29 12:58 G	28826279.99	28826280.04	28826280.11	0.0508	0.0483	
Venus	74212-03-22 07:12 G	28826516.60	28826516.80	28826517.00	0.0499	0.0099	
Venus	74212-11-13 14:10 G	28826752.92	28826753.09	28826753.27	0.0491	0.0267	
Mercury	74213-05-07 04:34 G	28826927.55	28826927.69	28826927.84	0.0487	0.0114	
Venus	74218-01-14 14:53 G	28828641.00	28828641.12	28828641.24	0.0522	0.0423	
Venus	74218-09-09 02:10 G	28828878.39	28828878.59	28828878.79	0.0532	0.0011	

Venus	74219-05-05 01:41 G	28829116.48	28829116.57	28829116.67	0.0540	0.0472
Mercury	74219-07-10 03:36 G	28829182.52	28829182.65	28829182.78	0.0541	0.0278
Venus	74223-11-26 06:43 G	28830782.59	28830782.78	28830782.97	0.0501	0.0204
Venus	74224-07-19 16:34 G	28831019.00	28831019.19	28831019.38	0.0493	0.0170
Mercury	74225-02-23 07:27 G	28831237.66	28831237.81	28831237.96	0.0488	0.0047
Venus	74230-05-14 19:27 G	28833144.11	28833144.31	28833144.51	0.0529	0.0116
Earth	74230-09-05 11:46 G	28833257.81	28833257.99	28833258.18	0.0533	0.0320
Moon	74230-09-05 12:43 G	28833257.85	28833258.03	28833258.22	0.0533	0.0293 *
Venus	74231-01-07 15:22 G	28833381.99	28833382.14	28833382.30	0.0537	0.0344
Mercury	74231-04-28 04:19 G	28833492.53	28833492.68	28833492.83	0.0540	0.0061
Venus	74235-08-01 02:39 G	28835048.45	28835048.61	28835048.77	0.0504	0.0315
Venus	74236-03-24 15:51 G	28835284.95	28835285.16	28835285.36	0.0495	0.0066
Venus	74236-11-15 18:58 G	28835521.19	28835521.29	28835521.40	0.0489	0.0414
Mercury	74236-12-12 09:36 G	28835547.77	28835547.90	28835548.04	0.0489	0.0218
Mercury	74237-03-11 21:07 G	28835637.32	28835637.38	28835637.45	0.0487	0.0438
Venus	74242-01-17 12:15 G	28837409.83	28837410.01	28837410.19	0.0526	0.0237
Earth	74242-09-10 10:48 G	28837645.74	28837645.95	28837646.17	0.0535	0.0181
Moon	74242-09-10 11:46 G	28837645.77	28837645.99	28837646.22	0.0535	0.0163 *
Venus	74242-09-12 04:34 G	28837647.51	28837647.69	28837647.87	0.0535	0.0215
Mercury	74243-02-14 04:19 G	28837802.54	28837802.68	28837802.83	0.0539	0.0172
Venus	74247-04-05 23:17 G	28839314.36	28839314.47	28839314.58	0.0506	0.0422
Venus	74247-11-28 16:05 G	28839550.96	28839551.17	28839551.37	0.0498	0.0039
Moon	74248-03-07 06:00 G	28839650.53	28839650.75	28839650.96	0.0494	0.0229
Earth	74248-03-07 07:27 G	28839650.59	28839650.81	28839651.03	0.0494	0.0198 *
Venus	74248-07-21 22:05 G	28839787.27	28839787.42	28839787.58	0.0491	0.0322
Mercury	74248-09-30 12:43 G	28839857.93	28839858.03	28839858.12	0.0489	0.0376
Mercury	74248-12-28 23:46 G	28839947.37	28839947.49	28839947.62	0.0487	0.0273
Venus	74253-09-22 03:22 G	28841675.50	28841675.64	28841675.79	0.0523	0.0355
Venus	74254-05-17 16:05 G	28841912.97	28841913.17	28841913.37	0.0533	0.0083
Mercury	74254-12-03 03:07 G	28842112.54	28842112.63	28842112.73	0.0539	0.0425

Mercury	74255-03-03 00:29 G	28842202.46	28842202.52	28842202.58	0.0541	0.0485
Venus	74259-08-03 16:34 G	28843816.99	28843817.19	28843817.38	0.0500	0.0141
Earth	74260-03-11 20:39 G	28844038.15	28844038.36	28844038.57	0.0493	0.0209
Moon	74260-03-11 20:24 G	28844038.15	28844038.35	28844038.56	0.0493	0.0208 *
Venus	74260-03-27 01:12 G	28844053.37	28844053.55	28844053.74	0.0492	0.0229
Mercury	74260-10-17 02:39 G	28844257.47	28844257.61	28844257.76	0.0488	0.0115
Venus	74265-05-27 22:19 G	28845941.34	28845941.43	28845941.52	0.0520	0.0464
Venus	74266-01-20 07:12 G	28846178.60	28846178.80	28846179.01	0.0530	0.0046
Venus	74266-09-15 04:48 G	28846416.58	28846416.70	28846416.83	0.0538	0.0417
Mercury	74266-12-20 00:58 G	28846512.41	28846512.54	28846512.67	0.0541	0.0263
Venus	74271-04-08 15:36 G	28848082.98	28848083.15	28848083.33	0.0502	0.0247
Venus	74271-12-01 03:22 G	28848319.44	28848319.64	28848319.84	0.0494	0.0130
Venus	74272-07-24 05:03 G	28848555.66	28848555.71	28848555.77	0.0488	0.0470
Mercury	74272-08-05 05:31 G	28848567.58	28848567.73	28848567.88	0.0488	0.0047
Venus	74277-09-25 00:15 G	28850444.32	28850444.51	28850444.70	0.0528	0.0167
Venus	74278-05-20 18:58 G	28850682.12	28850682.29	28850682.46	0.0537	0.0291
Mercury	74278-10-08 01:41 G	28850822.42	28850822.57	28850822.72	0.0541	0.0048
Venus	74282-12-12 13:55 G	28852348.94	28852349.08	28852349.23	0.0505	0.0352
Venus	74283-08-06 04:34 G	28852585.48	28852585.69	28852585.89	0.0496	0.0030
Venus	74284-03-29 08:39 G	28852821.74	28852821.86	28852821.99	0.0490	0.0382
Mercury	74284-05-24 08:24 G	28852877.72	28852877.85	28852877.98	0.0488	0.0207
Mercury	74284-08-21 19:55 G	28852967.27	28852967.33	28852967.38	0.0487	0.0447
Venus	74289-05-30 19:27 G	28854710.14	28854710.31	28854710.48	0.0525	0.0284
Venus	74290-01-23 10:19 G	28854947.74	28854947.93	28854948.13	0.0534	0.0163
Mercury	74290-07-27 02:24 G	28855132.46	28855132.60	28855132.75	0.0540	0.0171
Venus	74294-08-17 08:39 G	28856614.78	28856614.86	28856614.95	0.0507	0.0461
Venus	74295-04-11 02:24 G	28856851.40	28856851.60	28856851.81	0.0498	0.0079
Venus	74295-12-03 09:36 G	28857087.74	28857087.90	28857088.07	0.0491	0.0286
Mercury	74296-03-12 10:48 G	28857187.86	28857187.95	28857188.04	0.0489	0.0375
Mercury	74296-06-09 21:51 G	28857277.29	28857277.41	28857277.53	0.0487	0.0274

Venus	74301-02-03 13:55 G	28858975.95	28858976.08	28858976.21	0.0522	0.0396
Venus	74301-09-29 00:58 G	28859213.34	28859213.54	28859213.75	0.0532	0.0037
Mercury	74302-05-16 02:10 G	28859442.50	28859442.59	28859442.70	0.0539	0.0405
Venus	74302-05-25 00:15 G	28859451.44	28859451.51	28859451.59	0.0539	0.0495
Mercury	74302-08-13 23:31 G	28859532.43	28859532.48	28859532.53	0.0541	0.0504
Mars	74303-12-27 00:15 G	28860032.24	28860032.51	28860032.79	0.0541	0.0203
Venus	74306-12-16 01:27 G	28861117.37	28861117.56	28861117.75	0.0501	0.0184
Venus	74307-08-09 11:31 G	28861353.79	28861353.98	28861354.17	0.0493	0.0189
Mercury	74308-03-30 00:29 G	28861587.38	28861587.52	28861587.67	0.0488	0.0111
Venus	74312-10-09 06:43 G	28863241.74	28863241.78	28863241.83	0.0519	0.0504
Venus	74313-06-03 14:10 G	28863478.89	28863479.09	28863479.29	0.0529	0.0093
Moon	74313-09-05 06:29 G	28863572.63	28863572.77	28863572.93	0.0533	0.0408
Earth	74313-09-05 06:15 G	28863572.64	28863572.76	28863572.90	0.0533	0.0438 *
Venus	74314-01-27 09:51 G	28863716.76	28863716.91	28863717.06	0.0537	0.0365
Mercury	74314-06-01 22:48 G	28863842.32	28863842.45	28863842.58	0.0541	0.0259
Venus	74318-08-21 00:15 G	28865383.34	28865383.51	28865383.68	0.0504	0.0289
Venus	74319-04-14 13:41 G	28865619.87	28865620.07	28865620.27	0.0495	0.0091
Venus	74319-12-06 17:03 G	28865856.12	28865856.21	28865856.30	0.0489	0.0436
Mercury	74320-01-17 03:36 G	28865897.50	28865897.65	28865897.80	0.0488	0.0047
Venus	74325-02-06 06:43 G	28867744.60	28867744.78	28867744.96	0.0526	0.0215
Moon	74325-09-10 03:22 G	28867960.42	28867960.64	28867960.87	0.0535	0.0045
Earth	74325-09-10 05:17 G	28867960.49	28867960.72	28867960.95	0.0535	0.0062 *
Venus	74325-10-01 23:03 G	28867982.28	28867982.46	28867982.64	0.0535	0.0237
Mercury	74326-03-20 23:03 G	28868152.31	28868152.46	28868152.61	0.0540	0.0034
Venus	74330-04-25 22:19 G	28869649.30	28869649.43	28869649.56	0.0506	0.0394
Venus	74330-12-18 14:39 G	28869885.91	28869886.11	28869886.32	0.0497	0.0017
Earth	74331-03-08 12:43 G	28869965.83	28869966.03	28869966.23	0.0495	0.0260
Moon	74331-03-08 12:29 G	28869965.85	28869966.02	28869966.21	0.0495	0.0292 *
Venus	74331-08-11 20:24 G	28870122.21	28870122.35	28870122.49	0.0490	0.0345
Mercury	74331-11-05 06:29 G	28870207.64	28870207.77	28870207.91	0.0488	0.0206

Mercury	74332-02-02 18:00 G	28870297.19	28870297.25	28870297.30	0.0487	0.0448
Venus	74336-10-12 00:58 G	28872010.38	28872010.54	28872010.69	0.0524	0.0331
Venus	74337-06-06 14:24 G	28872247.90	28872248.10	28872248.30	0.0533	0.0110
Mercury	74338-01-06 23:46 G	28872462.34	28872462.49	28872462.63	0.0540	0.0187
Venus	74341-12-29 19:12 G	28873915.27	28873915.30	28873915.34	0.0509	0.0499
Venus	74342-08-23 14:39 G	28874151.91	28874152.11	28874152.32	0.0500	0.0116
Earth	74343-03-13 00:58 G	28874353.32	28874353.54	28874353.77	0.0493	0.0145
Moon	74343-03-13 02:39 G	28874353.37	28874353.61	28874353.84	0.0493	0.0147 *
Venus	74343-04-16 23:03 G	28874388.28	28874388.46	28874388.64	0.0492	0.0251
Mercury	74343-08-24 09:36 G	28874517.80	28874517.90	28874518.00	0.0489	0.0363
Mercury	74343-11-21 20:39 G	28874607.24	28874607.36	28874607.48	0.0487	0.0285
Venus	74348-06-16 21:22 G	28876276.29	28876276.39	28876276.50	0.0521	0.0439
Venus	74349-02-09 07:12 G	28876513.60	28876513.80	28876514.01	0.0531	0.0019
Venus	74349-10-05 05:17 G	28876751.61	28876751.72	28876751.84	0.0539	0.0444
Mercury	74349-10-26 00:15 G	28876772.41	28876772.51	28876772.61	0.0539	0.0405
Mercury	74350-01-23 21:36 G	28876862.35	28876862.40	28876862.45	0.0541	0.0506
Venus	74354-04-28 11:46 G	28878417.81	28878417.99	28878418.17	0.0502	0.0224
Venus	74354-12-20 23:03 G	28878654.27	28878654.46	28878654.66	0.0494	0.0151
Venus	74355-08-14 00:58 G	28878890.54	28878890.54	28878890.55	0.0488	0.0488
Mercury	74355-09-09 22:48 G	28878917.30	28878917.45	28878917.60	0.0488	0.0113
Mars	74357-08-08 19:27 G	28879616.14	28879616.31	28879616.49	0.0487	0.0346
Venus	74360-10-14 23:46 G	28880779.29	28880779.49	28880779.68	0.0528	0.0138
Venus	74361-06-09 18:15 G	28881017.10	28881017.26	28881017.43	0.0537	0.0318
Mercury	74361-11-11 21:51 G	28881172.29	28881172.41	28881172.54	0.0541	0.0282
Venus	74366-01-01 09:07 G	28882683.73	28882683.88	28882684.04	0.0505	0.0331
Venus	74366-08-25 23:46 G	28882920.29	28882920.49	28882920.70	0.0496	0.0051
Venus	74367-04-19 04:19 G	28883156.56	28883156.68	28883156.80	0.0490	0.0400
Mercury	74367-06-29 01:41 G	28883227.42	28883227.57	28883227.71	0.0488	0.0050
Venus	74372-06-19 14:39 G	28885044.93	28885045.11	28885045.28	0.0525	0.0260
Venus	74373-02-12 05:03 G	28885282.53	28885282.71	28885282.90	0.0534	0.0186

Mercury	74373-08-30 21:07 G	28885482.23	28885482.38	28885482.53	0.0540	0.0033
Venus	74377-09-06 06:15 G	28886949.66	28886949.76	28886949.87	0.0508	0.0436
Venus	74378-05-01 00:29 G	28887186.32	28887186.52	28887186.73	0.0499	0.0052
Venus	74378-12-23 07:55 G	28887422.67	28887422.83	28887422.99	0.0491	0.0310
Mercury	74379-04-17 04:48 G	28887537.56	28887537.70	28887537.83	0.0489	0.0204
Mercury	74379-07-15 16:05 G	28887627.12	28887627.17	28887627.23	0.0487	0.0451
Venus	74384-02-23 08:39 G	28889310.72	28889310.86	28889311.00	0.0522	0.0373
Venus	74384-10-17 19:41 G	28889548.12	28889548.32	28889548.52	0.0532	0.0058
Venus	74385-06-12 19:12 G	28889786.24	28889786.30	28889786.35	0.0539	0.0516
Mercury	74385-06-18 21:07 G	28889792.24	28889792.38	28889792.52	0.0540	0.0198
Venus	74390-01-04 00:29 G	28891452.33	28891452.52	28891452.72	0.0501	0.0157
Venus	74390-08-28 10:19 G	28891688.75	28891688.93	28891689.12	0.0493	0.0214
Mercury	74391-02-03 07:41 G	28891847.73	28891847.82	28891847.92	0.0489	0.0361
Mercury	74391-05-03 18:43 G	28891937.16	28891937.28	28891937.40	0.0487	0.0287
Venus	74395-10-29 04:05 G	28893576.60	28893576.67	28893576.75	0.0519	0.0481
Venus	74396-06-22 12:15 G	28893813.81	28893814.01	28893814.21	0.0530	0.0068
Moon	74396-09-04 06:00 G	28893887.69	28893887.75	28893887.83	0.0532	0.0501
Earth	74396-09-04 07:27 G	28893887.78	28893887.81	28893887.85	0.0532	0.0526 *
Venus	74397-02-15 08:39 G	28894051.73	28894051.86	28894052.00	0.0538	0.0391
Mercury	74397-04-06 21:36 G	28894102.30	28894102.40	28894102.49	0.0539	0.0422
Mercury	74397-07-05 18:58 G	28894192.23	28894192.29	28894192.35	0.0541	0.0492
Venus	74401-09-08 23:17 G	28895718.30	28895718.47	28895718.65	0.0503	0.0262
Venus	74402-05-03 12:00 G	28895954.80	28895955.00	28895955.20	0.0495	0.0116
Venus	74402-12-25 15:07 G	28896191.06	28896191.13	28896191.20	0.0489	0.0457
Mercury	74403-02-19 21:36 G	28896247.25	28896247.40	28896247.54	0.0488	0.0125
Venus	74408-02-26 06:29 G	28898079.58	28898079.77	28898079.96	0.0527	0.0187
Earth	74408-09-09 09:51 G	28898275.68	28898275.91	28898276.14	0.0534	0.0011
Moon	74408-09-09 12:58 G	28898275.80	28898276.04	28898276.27	0.0534	0.0033 *
Venus	74408-10-20 23:46 G	28898317.32	28898317.49	28898317.67	0.0536	0.0266
Mercury	74409-04-23 19:55 G	28898502.21	28898502.33	28898502.46	0.0541	0.0282

Venus	74413-05-14 19:27 G	28899984.17	28899984.31	28899984.45	0.0506	0.0370
Venus	74414-01-06 11:17 G	28900220.77	28900220.97	28900221.18	0.0497	0.0016
Earth	74414-03-07 14:53 G	28900280.94	28900281.12	28900281.29	0.0495	0.0334
Moon	74414-03-07 16:05 G	28900281.01	28900281.17	28900281.34	0.0495	0.0363 *
Venus	74414-08-30 16:48 G	28900457.06	28900457.20	28900457.34	0.0490	0.0365
Mercury	74414-12-09 00:00 G	28900557.35	28900557.50	28900557.65	0.0488	0.0045
Venus	74419-11-01 00:43 G	28902345.37	28902345.53	28902345.70	0.0524	0.0302
Venus	74420-06-25 14:24 G	28902582.91	28902583.10	28902583.30	0.0533	0.0139
Moon	74420-09-14 06:29 G	28902663.67	28902663.77	28902663.88	0.0536	0.0475
Earth	74420-09-14 10:19 G	28902663.86	28902663.93	28902664.01	0.0536	0.0500 *
Mercury	74421-02-09 20:24 G	28902812.20	28902812.35	28902812.50	0.0540	0.0058
Venus	74425-01-17 15:36 G	28904250.08	28904250.15	28904250.22	0.0509	0.0476
Venus	74425-09-11 10:48 G	28904486.75	28904486.95	28904487.15	0.0499	0.0092
Moon	74426-03-12 00:00 G	28904668.27	28904668.50	28904668.73	0.0494	0.0076
Earth	74426-03-12 02:39 G	28904668.38	28904668.61	28904668.85	0.0494	0.0072 *
Venus	74426-05-05 19:12 G	28904723.13	28904723.30	28904723.47	0.0492	0.0272
Mercury	74426-09-27 02:53 G	28904867.48	28904867.62	28904867.75	0.0489	0.0204
Mercury	74426-12-25 14:10 G	28904957.04	28904957.09	28904957.15	0.0487	0.0451
Venus	74431-07-06 17:46 G	28906611.12	28906611.24	28906611.36	0.0521	0.0414
Venus	74432-02-29 02:53 G	28906848.42	28906848.62	28906848.82	0.0530	0.0012
Venus	74432-10-24 00:29 G	28907086.43	28907086.52	28907086.63	0.0538	0.0466
Mercury	74432-11-28 19:12 G	28907122.16	28907122.30	28907122.45	0.0539	0.0196
Venus	74437-05-17 09:51 G	28908752.73	28908752.91	28908753.10	0.0502	0.0198
Venus	74438-01-08 21:36 G	28908989.21	28908989.40	28908989.60	0.0494	0.0177
Earth	74438-03-16 15:07 G	28909056.07	28909056.13	28909056.19	0.0492	0.0475
Mercury	74438-07-16 06:00 G	28909177.66	28909177.75	28909177.85	0.0489	0.0358
Mercury	74438-10-13 17:03 G	28909267.09	28909267.21	28909267.33	0.0488	0.0292
Venus	74443-03-11 13:27 G	28910877.06	28910877.06	28910877.06	0.0518	0.0517
Venus	74443-11-03 18:58 G	28911114.09	28911114.29	28911114.49	0.0528	0.0114
Venus	74444-06-28 13:27 G	28911351.91	28911352.06	28911352.22	0.0537	0.0340

Mercury	74444-09-16 19:12 G	28911432.21	28911432.30	28911432.39	0.0539	0.0429
Mercury	74444-12-15 16:34 G	28911522.13	28911522.19	28911522.25	0.0541	0.0484
Venus	74449-01-20 08:39 G	28913018.70	28913018.86	28913019.03	0.0505	0.0303
Venus	74449-09-13 23:17 G	28913255.26	28913255.47	28913255.67	0.0496	0.0077
Venus	74450-05-08 03:22 G	28913491.54	28913491.64	28913491.75	0.0490	0.0423
Mercury	74450-08-01 19:55 G	28913577.19	28913577.33	28913577.47	0.0488	0.0131
Venus	74455-07-09 12:43 G	28915379.85	28915380.03	28915380.21	0.0525	0.0234
Venus	74456-03-03 03:51 G	28915617.48	28915617.66	28915617.85	0.0535	0.0213
Mercury	74456-10-03 17:17 G	28915832.09	28915832.22	28915832.35	0.0541	0.0269
Mars	74458-03-21 15:51 G	28916365.92	28916366.16	28916366.42	0.0542	0.0307
Venus	74460-09-25 06:15 G	28917284.65	28917284.76	28917284.89	0.0507	0.0409
Venus	74461-05-20 00:00 G	28917521.29	28917521.50	28917521.70	0.0498	0.0025
Venus	74462-01-11 06:43 G	28917757.63	28917757.78	28917757.93	0.0491	0.0333
Mercury	74462-05-20 22:48 G	28917887.30	28917887.45	28917887.60	0.0488	0.0031
Venus	74467-03-14 08:24 G	28919645.71	28919645.85	28919646.01	0.0523	0.0346
Venus	74467-11-06 20:24 G	28919883.15	28919883.35	28919883.55	0.0532	0.0088
Mercury	74468-07-22 18:29 G	28920142.11	28920142.27	28920142.42	0.0540	0.0059
Venus	74473-01-22 22:19 G	28921787.23	28921787.43	28921787.63	0.0500	0.0131
Venus	74473-09-16 07:41 G	28922023.64	28922023.82	28922024.00	0.0493	0.0237
Mercury	74474-03-09 01:27 G	28922197.42	28922197.56	28922197.69	0.0489	0.0196
Mercury	74474-06-06 12:43 G	28922286.98	28922287.03	28922287.08	0.0487	0.0458
Mars	74476-01-30 10:48 G	28922889.80	28922889.95	28922890.11	0.0486	0.0378
Venus	74478-11-17 04:34 G	28923911.60	28923911.69	28923911.79	0.0520	0.0453
Venus	74479-07-12 12:58 G	28924148.84	28924149.04	28924149.24	0.0530	0.0036
Venus	74480-03-06 09:36 G	28924386.78	28924386.90	28924387.03	0.0538	0.0420
Mercury	74480-05-10 18:43 G	28924452.13	28924452.28	28924452.42	0.0540	0.0168
Venus	74484-09-27 20:24 G	28926053.18	28926053.35	28926053.54	0.0503	0.0237
Venus	74485-05-22 09:07 G	28926289.69	28926289.88	28926290.08	0.0495	0.0139
Mercury	74485-12-26 04:34 G	28926507.59	28926507.69	28926507.79	0.0489	0.0353
Venus	74486-01-13 12:15 G	28926525.97	28926526.01	28926526.05	0.0489	0.0477

Mercury	74486-03-25 15:22 G	28926597.02	28926597.14	28926597.26	0.0487	0.0296
Venus	74491-03-17 03:36 G	28928414.46	28928414.65	28928414.84	0.0526	0.0160
Moon	74491-09-09 04:05 G	28928590.45	28928590.67	28928590.89	0.0533	0.0143
Earth	74491-09-09 07:41 G	28928590.60	28928590.82	28928591.05	0.0533	0.0116 *
Venus	74491-11-09 20:10 G	28928652.17	28928652.34	28928652.51	0.0535	0.0290
Mercury	74492-02-27 17:31 G	28928762.14	28928762.23	28928762.33	0.0539	0.0422
Mercury	74492-05-27 14:53 G	28928852.06	28928852.12	28928852.18	0.0541	0.0490
Venus	74496-06-02 17:46 G	28930319.10	28930319.24	28930319.40	0.0506	0.0344
Venus	74497-01-25 10:19 G	28930555.72	28930555.93	28930556.13	0.0497	0.0039
Moon	74497-03-06 18:15 G	28930596.15	28930596.26	28930596.38	0.0496	0.0423
Earth	74497-03-06 20:39 G	28930596.23	28930596.36	28930596.52	0.0496	0.0395 *
Venus	74497-09-18 15:51 G	28930792.05	28930792.16	28930792.29	0.0491	0.0391
Mercury	74498-01-11 18:29 G	28930907.12	28930907.27	28930907.41	0.0488	0.0138
Venus	74502-11-20 21:07 G	28932680.21	28932680.38	28932680.56	0.0524	0.0277
Venus	74503-07-16 10:19 G	28932917.74	28932917.93	28932918.12	0.0533	0.0163
Earth	74503-09-15 06:29 G	28932978.62	28932978.77	28932978.94	0.0535	0.0389
Moon	74503-09-15 10:05 G	28932978.76	28932978.92	28932979.08	0.0535	0.0370 *
Mercury	74504-03-16 15:22 G	28933162.01	28933162.14	28933162.27	0.0540	0.0266
Venus	74508-02-07 15:07 G	28934585.04	28934585.13	28934585.23	0.0509	0.0449
Venus	74508-10-01 10:34 G	28934821.74	28934821.94	28934822.15	0.0500	0.0066
Earth	74509-03-12 10:34 G	28934983.70	28934983.94	28934984.17	0.0494	0.0021
Moon	74509-03-12 14:10 G	28934983.86	28934984.09	28934984.33	0.0494	0.0039 *
Venus	74509-05-25 18:58 G	28935058.13	28935058.29	28935058.46	0.0492	0.0298
Mercury	74509-10-31 21:22 G	28935217.24	28935217.39	28935217.54	0.0488	0.0022
Venus	74514-07-26 16:05 G	28936946.04	28936946.17	28936946.31	0.0521	0.0389
Venus	74515-03-21 01:55 G	28937183.38	28937183.58	28937183.78	0.0531	0.0037
Venus	74515-11-14 00:15 G	28937421.43	28937421.51	28937421.59	0.0539	0.0492
Mercury	74516-01-03 15:51 G	28937472.01	28937472.16	28937472.31	0.0540	0.0048
Venus	74520-06-06 10:34 G	28939087.74	28939087.94	28939088.13	0.0502	0.0169
Venus	74521-01-28 21:36 G	28939324.21	28939324.40	28939324.59	0.0494	0.0203

Moon	74521-03-16 19:12 G	28939371.21	28939371.30	28939371.39	0.0492	0.0454
Earth	74521-03-16 22:48 G	28939371.34	28939371.45	28939371.58	0.0492	0.0426 *
Mercury	74521-08-20 00:29 G	28939527.38	28939527.52	28939527.66	0.0489	0.0179
Mercury	74521-11-17 11:31 G	28939616.96	28939616.98	28939617.02	0.0487	0.0476
Venus	74526-03-31 13:12 G	28941212.00	28941212.05	28941212.12	0.0518	0.0493
Venus	74526-11-23 19:55 G	28941449.13	28941449.33	28941449.53	0.0529	0.0085
Venus	74527-07-19 15:07 G	28941686.99	28941687.13	28941687.28	0.0537	0.0370
Mercury	74527-10-22 16:48 G	28941782.05	28941782.20	28941782.35	0.0540	0.0167
Venus	74532-02-10 07:55 G	28943353.66	28943353.83	28943354.00	0.0504	0.0275
Venus	74532-10-03 21:51 G	28943590.21	28943590.41	28943590.61	0.0496	0.0103
Venus	74533-05-28 01:27 G	28943826.48	28943826.56	28943826.65	0.0489	0.0445
Mercury	74533-06-08 03:07 G	28943837.53	28943837.63	28943837.73	0.0489	0.0343
Mercury	74533-09-05 13:55 G	28943926.97	28943927.08	28943927.20	0.0487	0.0306
Venus	74538-07-29 14:10 G	28945714.91	28945715.09	28945715.28	0.0526	0.0202
Venus	74539-03-24 05:46 G	28945952.56	28945952.74	28945952.92	0.0535	0.0245
Mercury	74539-08-10 17:03 G	28946092.11	28946092.21	28946092.32	0.0539	0.0392
Mercury	74539-11-08 14:24 G	28946182.07	28946182.10	28946182.14	0.0541	0.0520
Venus	74543-10-16 04:48 G	28947619.57	28947619.70	28947619.84	0.0507	0.0382
Venus	74544-06-08 22:05 G	28947856.22	28947856.42	28947856.63	0.0498	0.0007
Venus	74545-01-31 04:48 G	28948092.56	28948092.70	28948092.84	0.0491	0.0356
Mercury	74545-06-24 16:48 G	28948237.06	28948237.20	28948237.35	0.0488	0.0146
Venus	74550-04-03 06:58 G	28949980.63	28949980.79	28949980.95	0.0522	0.0318
Venus	74550-11-26 18:15 G	28950218.07	28950218.26	28950218.46	0.0532	0.0115
Mercury	74551-08-27 13:55 G	28950491.95	28950492.08	28950492.21	0.0540	0.0277
Venus	74555-06-21 00:00 G	28951885.45	28951885.50	28951885.56	0.0510	0.0490
Venus	74556-02-12 21:22 G	28952122.19	28952122.39	28952122.60	0.0501	0.0104
Venus	74556-10-06 07:27 G	28952358.64	28952358.81	28952358.98	0.0493	0.0263
Mercury	74557-04-12 19:55 G	28952547.18	28952547.33	28952547.48	0.0489	0.0014
Venus	74561-12-07 02:24 G	28954246.49	28954246.60	28954246.72	0.0519	0.0427
Venus	74562-08-01 10:05 G	28954483.72	28954483.92	28954484.12	0.0529	0.0010

Venus	74563-03-27 06:15 G	28954721.65	28954721.76	28954721.87	0.0538	0.0444
Mercury	74563-06-15 14:10 G	28954801.93	28954802.09	28954802.24	0.0540	0.0051
Venus	74567-10-18 20:39 G	28956388.17	28956388.36	28956388.55	0.0503	0.0209
Venus	74568-06-11 09:22 G	28956624.70	28956624.89	28956625.09	0.0495	0.0166
Mercury	74569-01-29 23:03 G	28956857.32	28956857.46	28956857.60	0.0489	0.0170
Mercury	74569-04-29 10:19 G	28956946.92	28956946.93	28956946.94	0.0487	0.0486
Venus	74574-04-06 02:39 G	28958749.42	28958749.61	28958749.81	0.0527	0.0133
Earth	74574-09-09 10:48 G	28958905.74	28958905.95	28958906.17	0.0533	0.0196
Moon	74574-09-09 14:24 G	28958905.90	28958906.10	28958906.31	0.0533	0.0227 *
Venus	74574-11-29 19:55 G	28958987.17	28958987.33	28958987.50	0.0536	0.0318
Mercury	74575-04-03 14:24 G	28959111.96	28959112.10	28959112.25	0.0540	0.0174
Venus	74579-06-23 19:27 G	28960654.15	28960654.31	28960654.47	0.0506	0.0314
Venus	74580-02-15 11:03 G	28960890.76	28960890.96	28960891.17	0.0497	0.0067
Earth	74580-03-07 05:31 G	28960911.63	28960911.73	28960911.85	0.0496	0.0442
Moon	74580-03-07 09:22 G	28960911.81	28960911.89	28960911.98	0.0496	0.0461 *
Venus	74580-10-08 16:19 G	28961127.07	28961127.18	28961127.28	0.0490	0.0414
Mercury	74580-11-18 02:10 G	28961167.48	28961167.59	28961167.70	0.0489	0.0325
Mercury	74581-02-15 13:12 G	28961256.94	28961257.05	28961257.16	0.0487	0.0324
Venus	74585-12-09 22:05 G	28963015.25	28963015.42	28963015.60	0.0524	0.0248
Venus	74586-08-04 12:15 G	28963252.82	28963253.01	28963253.20	0.0534	0.0195
Moon	74586-09-14 10:48 G	28963293.76	28963293.95	28963294.15	0.0535	0.0304
Earth	74586-09-14 13:41 G	28963293.89	28963294.07	28963294.25	0.0535	0.0325 *
Mercury	74587-01-20 15:07 G	28963422.03	28963422.13	28963422.24	0.0539	0.0390
Mercury	74587-04-20 12:43 G	28963512.00	28963512.03	28963512.06	0.0541	0.0524
Venus	74591-02-26 15:36 G	28964920.05	28964920.15	28964920.27	0.0508	0.0421
Venus	74591-10-21 10:34 G	28965156.73	28965156.94	28965157.14	0.0499	0.0037
Moon	74592-03-11 13:41 G	28965298.83	28965299.07	28965299.31	0.0494	0.0016
Earth	74592-03-11 17:31 G	28965298.99	28965299.23	28965299.47	0.0494	0.0036 *
Venus	74592-06-13 18:00 G	28965393.11	28965393.25	28965393.41	0.0492	0.0323
Mercury	74592-09-06 05:03 G	28965477.70	28965477.71	28965477.73	0.0490	0.0486

Mercury	74592-12-04 15:36 G	28965567.01	28965567.15	28965567.30	0.0488	0.0158
Venus	74597-08-14 18:00 G	28967281.11	28967281.25	28967281.40	0.0522	0.0358
Venus	74598-04-09 04:34 G	28967518.49	28967518.69	28967518.89	0.0531	0.0071
Venus	74598-12-03 03:07 G	28967756.59	28967756.63	28967756.68	0.0539	0.0524
Mercury	74599-02-06 13:27 G	28967821.94	28967822.06	28967822.19	0.0541	0.0308
Venus	74603-06-27 09:36 G	28969422.71	28969422.90	28969423.10	0.0502	0.0142
Venus	74604-02-18 20:24 G	28969659.17	28969659.35	28969659.54	0.0494	0.0229
Earth	74604-03-17 05:31 G	28969686.57	28969686.73	28969686.88	0.0493	0.0369
Moon	74604-03-17 08:39 G	28969686.72	28969686.86	28969686.99	0.0493	0.0399 *
Mercury	74604-09-23 18:43 G	28969877.13	28969877.28	28969877.43	0.0488	0.0005
Venus	74609-04-20 13:12 G	28971546.97	28971547.05	28971547.14	0.0518	0.0464
Venus	74609-12-13 19:12 G	28971784.10	28971784.30	28971784.50	0.0528	0.0056
Venus	74610-08-08 13:55 G	28972021.95	28972022.08	28972022.22	0.0537	0.0396
Mercury	74610-11-26 12:58 G	28972131.88	28972132.04	28972132.19	0.0540	0.0066
Venus	74615-03-02 06:58 G	28973688.62	28973688.79	28973688.97	0.0505	0.0249
Venus	74615-10-24 21:36 G	28973925.20	28973925.40	28973925.60	0.0496	0.0130
Venus	74616-06-17 01:41 G	28974161.52	28974161.57	28974161.63	0.0490	0.0470
Mercury	74616-07-12 21:51 G	28974187.27	28974187.41	28974187.55	0.0489	0.0159
Venus	74621-08-18 12:29 G	28976049.83	28976050.02	28976050.21	0.0525	0.0175
Venus	74622-04-13 03:22 G	28976287.47	28976287.64	28976287.82	0.0534	0.0271
Mercury	74622-09-14 12:58 G	28976441.89	28976442.04	28976442.18	0.0539	0.0166
Venus	74626-11-05 04:48 G	28977954.56	28977954.70	28977954.85	0.0507	0.0356
Venus	74627-06-29 22:34 G	28978191.24	28978191.44	28978191.65	0.0498	0.0028
Venus	74628-02-21 05:17 G	28978427.60	28978427.72	28978427.85	0.0491	0.0381
Mercury	74628-05-01 00:58 G	28978497.43	28978497.54	28978497.65	0.0489	0.0314
Mercury	74628-07-29 11:46 G	28978586.89	28978586.99	28978587.10	0.0488	0.0337
Mars	74630-04-27 14:53 G	28979223.87	28979224.12	28979224.38	0.0486	0.0014
Venus	74633-04-23 06:29 G	28980315.61	28980315.77	28980315.94	0.0523	0.0291
Venus	74633-12-16 18:15 G	28980553.07	28980553.26	28980553.46	0.0532	0.0144
Mercury	74634-07-03 12:58 G	28980751.94	28980752.04	28980752.15	0.0539	0.0394

Mercury	74634-10-01 10:34 G	28980841.90	28980841.94	28980841.98	0.0541	0.0520
Venus	74638-07-11 02:10 G	28982220.51	28982220.59	28982220.68	0.0510	0.0460
Venus	74639-03-04 23:03 G	28982457.26	28982457.46	28982457.66	0.0501	0.0074
Venus	74639-10-27 08:24 G	28982693.68	28982693.85	28982694.02	0.0493	0.0289
Mercury	74640-02-18 04:19 G	28982807.64	28982807.68	28982807.72	0.0490	0.0467
Mercury	74640-05-17 14:53 G	28982896.98	28982897.12	28982897.26	0.0488	0.0177
Venus	74644-12-27 03:07 G	28984581.51	28984581.63	28984581.76	0.0520	0.0399
Venus	74645-08-21 11:46 G	28984818.79	28984818.99	28984819.19	0.0530	0.0022
Venus	74646-04-16 08:53 G	28985056.78	28985056.87	28985056.97	0.0538	0.0474
Mercury	74646-07-20 11:46 G	28985151.87	28985151.99	28985152.11	0.0541	0.0313
Venus	74650-11-07 21:36 G	28986723.21	28986723.40	28986723.59	0.0503	0.0179
Venus	74651-07-02 09:36 G	28986959.72	28986959.90	28986960.09	0.0495	0.0193
Mercury	74652-03-05 17:31 G	28987207.08	28987207.23	28987207.38	0.0488	0.0013
Venus	74656-09-01 00:43 G	28988847.48	28988847.53	28988847.58	0.0517	0.0500
Venus	74657-04-26 05:46 G	28989084.54	28989084.74	28989084.94	0.0527	0.0098
Moon	74657-09-09 17:03 G	28989221.02	28989221.21	28989221.42	0.0533	0.0286
Earth	74657-09-09 20:10 G	28989221.14	28989221.34	28989221.55	0.0533	0.0251 *
Venus	74657-12-19 23:31 G	28989322.33	28989322.48	28989322.63	0.0536	0.0352
Mercury	74658-05-08 12:29 G	28989461.87	28989462.02	28989462.17	0.0540	0.0096
Venus	74662-07-13 19:27 G	28990989.15	28990989.31	28990989.48	0.0505	0.0286
Venus	74663-03-07 10:48 G	28991225.75	28991225.95	28991226.15	0.0497	0.0094
Venus	74663-10-29 15:51 G	28991462.07	28991462.16	28991462.25	0.0490	0.0438
Mercury	74663-12-23 20:39 G	28991517.22	28991517.36	28991517.50	0.0489	0.0145
Venus	74668-12-29 22:48 G	28993350.27	28993350.45	28993350.64	0.0524	0.0218
Venus	74669-08-24 12:15 G	28993587.83	28993588.01	28993588.20	0.0533	0.0223
Earth	74669-09-14 17:03 G	28993609.01	28993609.21	28993609.42	0.0534	0.0245
Moon	74669-09-14 18:29 G	28993609.07	28993609.27	28993609.47	0.0534	0.0231 *
Mercury	74670-02-24 11:46 G	28993771.85	28993771.99	28993772.14	0.0539	0.0148
Venus	74674-03-18 14:39 G	28995254.99	28995255.11	28995255.24	0.0509	0.0396
Venus	74674-11-10 10:05 G	28995491.72	28995491.92	28995492.13	0.0500	0.0012

Earth	74675-03-13 00:58 G	28995614.31	28995614.54	28995614.78	0.0495	0.0088
Moon	74675-03-13 04:05 G	28995614.45	28995614.67	28995614.91	0.0495	0.0062 *
Venus	74675-07-04 18:29 G	28995728.13	28995728.27	28995728.42	0.0492	0.0348
Mercury	74675-10-11 23:46 G	28995827.37	28995827.49	28995827.60	0.0490	0.0303
Mercury	74676-01-09 10:34 G	28995916.84	28995916.94	28995917.05	0.0488	0.0350
Venus	74680-09-03 17:31 G	28997616.08	28997616.23	28997616.39	0.0521	0.0331
Venus	74681-04-29 03:22 G	28997853.44	28997853.64	28997853.84	0.0531	0.0098
Mercury	74681-12-13 11:46 G	28998081.88	28998081.99	28998082.10	0.0538	0.0381
Mercury	74682-03-13 09:07 G	28998171.86	28998171.88	28998171.91	0.0541	0.0530
Venus	74685-11-21 11:03 G	28999520.93	28999520.96	28999521.00	0.0512	0.0501
Venus	74686-07-16 09:51 G	28999757.71	28999757.91	28999758.11	0.0502	0.0115
Venus	74687-03-09 20:53 G	28999994.20	28999994.37	28999994.55	0.0494	0.0254
Moon	74687-03-17 12:29 G	29000001.85	29000002.02	29000002.20	0.0494	0.0351
Earth	74687-03-17 14:39 G	29000001.93	29000002.11	29000002.29	0.0494	0.0326 *
Mercury	74687-07-31 02:53 G	29000137.57	29000137.62	29000137.67	0.0490	0.0456
Mercury	74687-10-28 13:41 G	29000226.93	29000227.07	29000227.20	0.0488	0.0190
Venus	74692-05-09 12:58 G	29001881.94	29001882.04	29001882.15	0.0518	0.0438
Venus	74693-01-01 19:12 G	29002119.10	29002119.30	29002119.51	0.0528	0.0029
Venus	74693-08-27 14:24 G	29002356.98	29002357.10	29002357.23	0.0537	0.0424
Mercury	74693-12-30 09:36 G	29002481.78	29002481.90	29002482.03	0.0540	0.0312
Venus	74698-03-21 09:07 G	29004023.70	29004023.88	29004024.07	0.0504	0.0219
Venus	74698-11-12 23:03 G	29004260.27	29004260.46	29004260.66	0.0496	0.0158
Mercury	74699-08-16 16:34 G	29004537.05	29004537.19	29004537.34	0.0488	0.0034
Venus	74704-09-07 13:55 G	29006384.88	29006385.08	29006385.27	0.0526	0.0145
Venus	74705-05-03 05:46 G	29006622.58	29006622.74	29006622.91	0.0535	0.0302
Mercury	74705-10-19 10:48 G	29006791.80	29006791.95	29006792.10	0.0540	0.0101
Venus	74709-11-25 06:43 G	29008289.63	29008289.78	29008289.94	0.0507	0.0324
Venus	74710-07-19 23:31 G	29008526.28	29008526.48	29008526.69	0.0498	0.0059
Venus	74711-03-13 05:46 G	29008762.63	29008762.74	29008762.85	0.0491	0.0406
Mercury	74711-06-05 19:27 G	29008847.17	29008847.31	29008847.46	0.0489	0.0131

Venus	74716-05-13 09:36 G	29010650.72	29010650.90	29010651.07	0.0523	0.0259
Venus	74717-01-05 22:05 G	29010888.23	29010888.42	29010888.61	0.0533	0.0179
Mercury	74717-08-07 11:17 G	29011101.82	29011101.97	29011102.12	0.0540	0.0119
Venus	74721-07-31 03:22 G	29012555.53	29012555.64	29012555.75	0.0509	0.0431
Venus	74722-03-24 23:31 G	29012792.27	29012792.48	29012792.68	0.0500	0.0046
Venus	74722-11-16 08:24 G	29013028.70	29013028.85	29013029.01	0.0493	0.0316
Mercury	74723-03-24 22:34 G	29013157.33	29013157.44	29013157.56	0.0489	0.0287
Mercury	74723-06-22 09:36 G	29013246.80	29013246.90	29013247.00	0.0488	0.0364
Venus	74728-01-17 04:48 G	29014916.57	29014916.70	29014916.85	0.0520	0.0370
Venus	74728-09-10 12:58 G	29015153.84	29015154.04	29015154.24	0.0530	0.0052
Venus	74729-05-06 09:36 G	29015391.83	29015391.90	29015391.97	0.0538	0.0500
Mercury	74729-05-26 10:48 G	29015411.83	29015411.95	29015412.06	0.0538	0.0359
Venus	74733-11-27 20:53 G	29017058.18	29017058.37	29017058.57	0.0503	0.0154
Venus	74734-07-22 09:36 G	29017294.72	29017294.90	29017295.09	0.0495	0.0219
Mercury	74735-01-11 01:41 G	29017467.51	29017467.57	29017467.63	0.0490	0.0445
Mercury	74735-04-10 12:29 G	29017556.88	29017557.02	29017557.15	0.0488	0.0202
Venus	74739-09-22 01:12 G	29019182.48	29019182.55	29019182.63	0.0517	0.0474
Venus	74740-05-16 05:46 G	29019419.54	29019419.74	29019419.94	0.0527	0.0071
Earth	74740-09-09 23:03 G	29019536.29	29019536.46	29019536.64	0.0531	0.0329
Moon	74740-09-10 00:58 G	29019536.38	29019536.54	29019536.70	0.0531	0.0363 *
Venus	74741-01-08 22:34 G	29019657.30	29019657.44	29019657.59	0.0536	0.0377
Mercury	74741-06-12 08:24 G	29019811.74	29019811.85	29019811.98	0.0540	0.0327
Venus	74745-08-02 18:58 G	29021324.12	29021324.29	29021324.47	0.0506	0.0261
Venus	74746-03-27 11:03 G	29021560.76	29021560.96	29021561.16	0.0497	0.0119
Venus	74746-11-18 16:05 G	29021797.11	29021797.17	29021797.25	0.0490	0.0461
Mercury	74747-01-27 15:22 G	29021866.99	29021867.14	29021867.29	0.0489	0.0044
Venus	74752-01-19 22:34 G	29023685.26	29023685.44	29023685.63	0.0524	0.0191
Venus	74752-09-13 12:29 G	29023922.84	29023923.02	29023923.20	0.0534	0.0251
Earth	74752-09-14 21:07 G	29023924.16	29023924.38	29023924.60	0.0534	0.0169
Moon	74752-09-14 21:22 G	29023924.16	29023924.39	29023924.62	0.0534	0.0160 *

Mercury	74753-03-31 08:53 G	29024121.72	29024121.87	29024122.02	0.0540	0.0102
Venus	74757-04-07 17:03 G	29025590.07	29025590.21	29025590.35	0.0508	0.0365
Venus	74757-11-30 12:00 G	29025826.80	29025827.00	29025827.21	0.0499	0.0021
Moon	74758-03-13 09:36 G	29025929.66	29025929.90	29025930.14	0.0496	0.0102
Earth	74758-03-13 11:31 G	29025929.75	29025929.98	29025930.21	0.0496	0.0127 *
Venus	74758-07-24 19:41 G	29026063.20	29026063.32	29026063.46	0.0492	0.0374
Mercury	74758-11-15 18:29 G	29026177.13	29026177.27	29026177.42	0.0489	0.0114
Venus	74763-09-24 18:29 G	29027951.11	29027951.27	29027951.43	0.0522	0.0302
Venus	74764-05-19 05:03 G	29028188.51	29028188.71	29028188.91	0.0532	0.0129
Mercury	74765-01-17 09:36 G	29028431.75	29028431.90	29028432.05	0.0539	0.0115
Venus	74768-12-11 13:41 G	29029855.99	29029856.07	29029856.15	0.0511	0.0470
Venus	74769-08-05 11:31 G	29030092.78	29030092.98	29030093.18	0.0501	0.0084
Earth	74770-03-17 23:46 G	29030317.30	29030317.49	29030317.69	0.0494	0.0281
Moon	74770-03-17 23:46 G	29030317.31	29030317.49	29030317.67	0.0494	0.0299 *
Venus	74770-03-29 21:51 G	29030329.24	29030329.41	29030329.58	0.0493	0.0281
Mercury	74770-09-03 21:36 G	29030487.28	29030487.40	29030487.52	0.0489	0.0273
Mercury	74770-12-02 08:24 G	29030576.76	29030576.85	29030576.95	0.0488	0.0378
Venus	74775-05-30 15:36 G	29032217.03	29032217.15	29032217.28	0.0519	0.0408
Venus	74776-01-22 22:48 G	29032454.25	29032454.45	29032454.65	0.0529	0.0010
Venus	74776-09-16 18:29 G	29032692.17	29032692.27	29032692.38	0.0537	0.0457
Mercury	74776-11-05 10:05 G	29032741.80	29032741.92	29032742.04	0.0539	0.0334
Venus	74781-04-10 10:05 G	29034358.73	29034358.92	29034359.11	0.0504	0.0190
Venus	74781-12-02 23:31 G	29034595.29	29034595.48	29034595.67	0.0495	0.0185
Mercury	74782-06-23 00:43 G	29034797.46	29034797.53	29034797.60	0.0490	0.0428
Mercury	74782-09-20 11:17 G	29034886.84	29034886.97	29034887.11	0.0488	0.0219
Mars	74784-07-22 23:17 G	29035558.35	29035558.47	29035558.59	0.0486	0.0429
Venus	74787-02-02 12:58 G	29036483.02	29036483.04	29036483.07	0.0516	0.0510
Venus	74787-09-27 15:51 G	29036719.97	29036720.16	29036720.36	0.0526	0.0115
Venus	74788-05-22 07:27 G	29036957.65	29036957.81	29036957.97	0.0535	0.0330
Mercury	74788-11-22 07:41 G	29037141.70	29037141.82	29037141.93	0.0540	0.0347

Venus	74792-12-14 05:17 G	29038624.56	29038624.72	29038624.89	0.0507	0.0301
Venus	74793-08-07 22:48 G	29038861.25	29038861.45	29038861.66	0.0498	0.0082
Venus	74794-04-01 05:31 G	29039097.64	29039097.73	29039097.83	0.0491	0.0429
Mercury	74794-07-09 14:10 G	29039196.94	29039197.09	29039197.24	0.0489	0.0055
Venus	74799-06-02 10:05 G	29040985.75	29040985.92	29040986.11	0.0523	0.0231
Venus	74800-01-25 21:51 G	29041223.23	29041223.41	29041223.60	0.0532	0.0206
Mercury	74800-09-10 07:41 G	29041451.67	29041451.82	29041451.97	0.0539	0.0119
Venus	74804-08-19 01:55 G	29042890.46	29042890.58	29042890.70	0.0510	0.0408
Venus	74805-04-12 22:48 G	29043127.24	29043127.45	29043127.65	0.0501	0.0022
Venus	74805-12-05 08:24 G	29043363.70	29043363.85	29043364.00	0.0493	0.0338
Mercury	74806-04-27 17:17 G	29043507.07	29043507.22	29043507.36	0.0489	0.0104
Venus	74811-02-05 04:19 G	29045251.53	29045251.68	29045251.83	0.0520	0.0343
Venus	74811-09-30 12:43 G	29045488.83	29045489.03	29045489.23	0.0530	0.0080
Venus	74812-05-25 09:36 G	29045726.86	29045726.90	29045726.94	0.0538	0.0526
Mercury	74812-06-29 07:41 G	29045761.67	29045761.82	29045761.97	0.0539	0.0112
Venus	74816-04-23 22:19 G	29047156.43	29047156.43	29047156.45	0.0513	0.0512
Venus	74816-12-16 22:48 G	29047393.25	29047393.45	29047393.65	0.0503	0.0125
Venus	74817-08-10 10:48 G	29047629.78	29047629.95	29047630.14	0.0495	0.0246
Mercury	74818-02-13 20:24 G	29047817.23	29047817.35	29047817.48	0.0490	0.0258
Mercury	74818-05-14 07:27 G	29047906.72	29047906.81	29047906.89	0.0488	0.0395
Venus	74822-10-11 01:12 G	29049517.46	29049517.55	29049517.65	0.0517	0.0447
Venus	74823-06-05 06:29 G	29049754.57	29049754.77	29049754.97	0.0528	0.0041
Moon	74823-09-10 04:48 G	29049851.56	29049851.70	29049851.84	0.0531	0.0427
Earth	74823-09-10 05:03 G	29049851.56	29049851.71	29049851.86	0.0531	0.0397 *
Venus	74824-01-29 00:15 G	29049992.39	29049992.51	29049992.65	0.0536	0.0407
Mercury	74824-04-17 08:10 G	29050071.72	29050071.84	29050071.96	0.0539	0.0332
Venus	74828-08-21 20:53 G	29051659.19	29051659.37	29051659.56	0.0505	0.0230
Venus	74829-04-15 12:00 G	29051895.80	29051896.00	29051896.20	0.0496	0.0148
Mercury	74829-12-02 23:31 G	29052127.41	29052127.48	29052127.56	0.0490	0.0416
Venus	74829-12-07 16:34 G	29052132.17	29052132.19	29052132.22	0.0490	0.0485

Mercury	74830-03-02 10:05 G	29052216.79	29052216.92	29052217.05	0.0488	0.0231
Venus	74835-02-08 01:27 G	29054020.37	29054020.56	29054020.75	0.0525	0.0158
Moon	74835-09-15 04:19 G	29054239.46	29054239.68	29054239.90	0.0534	0.0118
Earth	74835-09-15 06:29 G	29054239.55	29054239.77	29054240.00	0.0534	0.0116 *
Venus	74835-10-03 16:05 G	29054258.00	29054258.17	29054258.34	0.0534	0.0285
Mercury	74836-05-04 06:43 G	29054471.67	29054471.78	29054471.89	0.0540	0.0370
Venus	74840-04-26 18:00 G	29055925.10	29055925.25	29055925.41	0.0508	0.0336
Venus	74840-12-19 12:29 G	29056161.82	29056162.02	29056162.23	0.0499	0.0048
Earth	74841-03-12 19:27 G	29056245.09	29056245.31	29056245.54	0.0496	0.0178
Moon	74841-03-12 19:41 G	29056245.10	29056245.32	29056245.53	0.0496	0.0151 *
Venus	74841-08-12 19:55 G	29056398.21	29056398.33	29056398.45	0.0492	0.0398
Mercury	74841-12-19 13:12 G	29056526.90	29056527.05	29056527.20	0.0489	0.0072
Venus	74846-10-13 20:39 G	29058286.19	29058286.36	29058286.54	0.0522	0.0273
Venus	74847-06-08 07:12 G	29058523.61	29058523.80	29058523.99	0.0531	0.0158
Mercury	74848-02-21 06:43 G	29058781.63	29058781.78	29058781.93	0.0539	0.0140
Venus	74851-12-31 11:31 G	29060190.88	29060190.98	29060191.08	0.0511	0.0448
Venus	74852-08-24 09:51 G	29060427.71	29060427.91	29060428.11	0.0502	0.0061
Earth	74853-03-17 05:46 G	29060632.53	29060632.74	29060632.95	0.0495	0.0227
Moon	74853-03-17 07:55 G	29060632.62	29060632.83	29060633.05	0.0495	0.0236 *
Venus	74853-04-17 20:53 G	29060664.21	29060664.37	29060664.53	0.0494	0.0303
Mercury	74853-10-07 15:51 G	29060837.01	29060837.16	29060837.31	0.0490	0.0093
Venus	74858-06-18 16:48 G	29062552.06	29062552.20	29062552.33	0.0519	0.0381
Venus	74859-02-10 23:03 G	29062789.26	29062789.46	29062789.66	0.0528	0.0035
Venus	74859-10-06 18:00 G	29063027.16	29063027.25	29063027.34	0.0537	0.0480
Mercury	74859-12-10 06:43 G	29063091.63	29063091.78	29063091.93	0.0538	0.0092
Venus	74864-04-29 08:10 G	29064693.65	29064693.84	29064694.03	0.0504	0.0167
Venus	74864-12-21 22:19 G	29064930.25	29064930.43	29064930.62	0.0496	0.0207
Mercury	74865-07-26 18:58 G	29065147.16	29065147.29	29065147.42	0.0490	0.0250
Mercury	74865-10-24 05:46 G	29065236.67	29065236.74	29065236.83	0.0488	0.0404
Venus	74870-02-21 11:46 G	29066817.93	29066817.99	29066818.06	0.0516	0.0485

Venus	74870-10-16 14:53 G	29067054.92	29067055.12	29067055.32	0.0526	0.0088
Venus	74871-06-11 06:43 G	29067292.63	29067292.78	29067292.93	0.0535	0.0356
Mercury	74871-09-28 06:15 G	29067401.64	29067401.76	29067401.89	0.0538	0.0329
Venus	74876-01-03 06:43 G	29068959.61	29068959.78	29068959.96	0.0507	0.0272
Venus	74876-08-26 23:46 G	29069196.29	29069196.49	29069196.69	0.0498	0.0110
Venus	74877-04-20 06:15 G	29069432.68	29069432.76	29069432.83	0.0491	0.0452
Mercury	74877-05-14 22:19 G	29069457.35	29069457.43	29069457.51	0.0490	0.0403
Mercury	74877-08-12 08:53 G	29069546.74	29069546.87	29069547.00	0.0488	0.0245
Venus	74882-06-21 09:51 G	29071320.72	29071320.91	29071321.09	0.0523	0.0203
Venus	74883-02-13 22:19 G	29071558.25	29071558.43	29071558.61	0.0533	0.0234
Mercury	74883-10-15 04:48 G	29071801.59	29071801.70	29071801.81	0.0540	0.0369
Mars	74885-02-27 02:10 G	29072302.29	29072302.59	29072302.89	0.0543	0.0029
Venus	74887-09-08 03:51 G	29073225.52	29073225.66	29073225.80	0.0509	0.0377
Venus	74888-05-01 23:46 G	29073462.29	29073462.49	29073462.70	0.0500	0.0011
Venus	74888-12-24 08:39 G	29073698.73	29073698.86	29073699.00	0.0492	0.0364
Mercury	74889-05-31 11:46 G	29073856.84	29073856.99	29073857.14	0.0489	0.0081
Venus	74894-02-24 06:00 G	29075586.59	29075586.75	29075586.91	0.0521	0.0314
Venus	74894-10-19 15:07 G	29075823.94	29075824.13	29075824.33	0.0531	0.0113
Mercury	74895-08-03 05:31 G	29076111.59	29076111.73	29076111.88	0.0540	0.0157
Venus	74899-05-13 23:31 G	29077491.42	29077491.48	29077491.55	0.0512	0.0483
Venus	74900-01-05 23:03 G	29077728.26	29077728.46	29077728.66	0.0502	0.0096
Venus	74900-08-30 10:48 G	29077964.78	29077964.95	29077965.12	0.0494	0.0271
Mercury	74901-03-20 14:53 G	29078166.97	29078167.12	29078167.26	0.0489	0.0077
Mars	74903-01-14 23:46 G	29078832.27	29078832.49	29078832.71	0.0486	0.0245
Venus	74905-10-31 03:22 G	29079852.53	29079852.64	29079852.76	0.0517	0.0420
Venus	74906-06-25 08:39 G	29080089.66	29080089.86	29080090.06	0.0527	0.0012
Moon	74906-09-10 10:48 G	29080166.87	29080166.95	29080167.04	0.0530	0.0486
Earth	74906-09-10 12:43 G	29080166.91	29080167.03	29080167.15	0.0530	0.0454 *
Venus	74907-02-18 02:10 G	29080327.47	29080327.59	29080327.71	0.0536	0.0433
Mercury	74907-05-23 05:31 G	29080421.58	29080421.73	29080421.89	0.0539	0.0075

Venus	74911-09-11 18:29 G	29081994.08	29081994.27	29081994.45	0.0505	0.0208
Venus	74912-05-05 09:51 G	29082230.72	29082230.91	29082231.10	0.0497	0.0169
Mercury	74913-01-06 17:31 G	29082477.10	29082477.23	29082477.36	0.0490	0.0243
Mercury	74913-04-06 04:19 G	29082566.61	29082566.68	29082566.76	0.0488	0.0412
Venus	74918-02-28 01:55 G	29084355.39	29084355.58	29084355.78	0.0524	0.0130
Earth	74918-09-15 10:19 G	29084554.70	29084554.93	29084555.16	0.0532	0.0040
Moon	74918-09-15 13:55 G	29084554.85	29084555.08	29084555.31	0.0532	0.0053 *
Venus	74918-10-23 15:51 G	29084593.00	29084593.16	29084593.32	0.0534	0.0310
Mercury	74919-03-11 05:17 G	29084731.60	29084731.72	29084731.85	0.0538	0.0308
Venus	74923-05-17 15:07 G	29086259.97	29086260.13	29086260.29	0.0508	0.0315
Venus	74924-01-09 10:05 G	29086496.72	29086496.92	29086497.13	0.0499	0.0068
Earth	74924-03-12 23:17 G	29086560.26	29086560.47	29086560.68	0.0497	0.0241
Moon	74924-03-13 01:12 G	29086560.33	29086560.55	29086560.78	0.0497	0.0211 *
Venus	74924-09-01 18:00 G	29086733.15	29086733.25	29086733.36	0.0492	0.0417
Mercury	74924-10-25 20:39 G	29086787.28	29086787.36	29086787.44	0.0491	0.0399
Mercury	74925-01-23 07:12 G	29086876.67	29086876.80	29086876.93	0.0489	0.0250
Venus	74929-11-02 18:58 G	29088621.11	29088621.29	29088621.46	0.0522	0.0247
Venus	74930-06-28 05:17 G	29088858.54	29088858.72	29088858.91	0.0531	0.0184
Mercury	74931-03-28 02:53 G	29089131.51	29089131.62	29089131.73	0.0540	0.0370
Venus	74935-01-20 12:00 G	29090525.89	29090526.00	29090526.12	0.0511	0.0420
Venus	74935-09-14 10:19 G	29090762.72	29090762.93	29090763.13	0.0501	0.0033
Moon	74936-03-17 10:34 G	29090947.73	29090947.94	29090948.16	0.0495	0.0182
Earth	74936-03-17 14:10 G	29090947.87	29090948.09	29090948.31	0.0495	0.0178 *
Venus	74936-05-07 20:53 G	29090999.22	29090999.37	29090999.52	0.0494	0.0328
Mercury	74936-11-11 10:19 G	29091186.79	29091186.93	29091187.08	0.0489	0.0091
Venus	74941-07-08 14:53 G	29092886.98	29092887.12	29092887.27	0.0519	0.0356
Venus	74942-03-02 22:05 G	29093124.22	29093124.42	29093124.62	0.0529	0.0063
Venus	74942-10-26 17:46 G	29093362.18	29093362.24	29093362.30	0.0537	0.0506
Mercury	74943-01-14 03:22 G	29093441.50	29093441.64	29093441.79	0.0540	0.0152
Venus	74947-05-20 09:07 G	29095028.68	29095028.88	29095029.08	0.0504	0.0138

Venus	74948-01-11 22:34 G	29095265.26	29095265.44	29095265.62	0.0495	0.0233
Mercury	74948-08-30 13:12 G	29095496.91	29095497.05	29095497.20	0.0489	0.0071
Venus	74953-03-13 12:29 G	29097152.93	29097153.02	29097153.11	0.0516	0.0458
Venus	74953-11-05 16:19 G	29097389.98	29097390.18	29097390.38	0.0527	0.0058
Venus	74954-07-01 08:53 G	29097627.74	29097627.87	29097628.01	0.0535	0.0387
Mercury	74954-11-02 04:05 G	29097751.52	29097751.67	29097751.82	0.0539	0.0065
Venus	74959-01-23 06:43 G	29099294.61	29099294.78	29099294.97	0.0506	0.0244
Venus	74959-09-16 23:17 G	29099531.27	29099531.47	29099531.67	0.0497	0.0135
Venus	74960-05-10 05:03 G	29099767.67	29099767.71	29099767.77	0.0491	0.0475
Mercury	74960-06-18 16:19 G	29099807.05	29099807.18	29099807.31	0.0490	0.0228
Mercury	74960-09-16 03:22 G	29099896.57	29099896.64	29099896.71	0.0488	0.0425
Venus	74965-07-11 11:31 G	29101655.79	29101655.98	29101656.17	0.0523	0.0174
Venus	74966-03-06 00:00 G	29101893.33	29101893.50	29101893.68	0.0533	0.0262
Mercury	74966-08-21 04:05 G	29102061.54	29102061.67	29102061.80	0.0538	0.0293
Venus	74970-09-28 00:29 G	29103560.37	29103560.52	29103560.67	0.0509	0.0356
Venus	74971-05-22 20:39 G	29103797.16	29103797.36	29103797.57	0.0500	0.0029
Venus	74972-01-14 06:00 G	29104033.63	29104033.75	29104033.88	0.0493	0.0383
Mercury	74972-04-06 18:58 G	29104117.21	29104117.29	29104117.38	0.0491	0.0394
Mercury	74972-07-05 05:31 G	29104206.61	29104206.73	29104206.86	0.0489	0.0256
Venus	74977-03-16 06:29 G	29105921.61	29105921.77	29105921.94	0.0520	0.0287
Venus	74977-11-08 15:07 G	29106158.94	29106159.13	29106159.33	0.0530	0.0138
Mercury	74978-06-09 03:36 G	29106371.63	29106371.65	29106371.68	0.0537	0.0530
Mercury	74978-09-07 01:41 G	29106461.47	29106461.57	29106461.68	0.0539	0.0390
Venus	74982-06-02 19:27 G	29107826.23	29107826.31	29107826.40	0.0512	0.0464
Venus	74983-01-25 19:27 G	29108063.10	29108063.31	29108063.51	0.0503	0.0076
Venus	74983-09-19 07:41 G	29108299.65	29108299.82	29108299.98	0.0495	0.0290
Mercury	74984-04-23 08:39 G	29108516.71	29108516.86	29108517.00	0.0489	0.0094
Venus	74988-11-19 00:43 G	29110187.40	29110187.53	29110187.66	0.0517	0.0396
Venus	74989-07-14 05:46 G	29110424.54	29110424.74	29110424.94	0.0527	0.0014
Venus	74990-03-08 23:17 G	29110662.37	29110662.47	29110662.58	0.0536	0.0456

Mercury	74990-06-26 01:27 G	29110771.41	29110771.56	29110771.70	0.0539	0.0152
Venus	74994-09-30 18:15 G	29112329.06	29112329.26	29112329.45	0.0505	0.0180
Venus	74995-05-25 09:22 G	29112565.70	29112565.89	29112566.08	0.0497	0.0195
Mercury	74996-02-10 11:46 G	29112826.84	29112826.99	29112827.14	0.0489	0.0064
Venus	75000-07-25 21:51 G	29114453.37	29114453.41	29114453.47	0.0515	0.0496

76TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 76th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	75001-03-19 23:31 G		29114690.28	29114690.48	29114690.68	0.0525	0.0105	
Moon	75001-09-15 06:58 G		29114869.56	29114869.79	29114870.02	0.0532	0.0042	
Earth	75001-09-15 11:03 G		29114869.73	29114869.96	29114870.19	0.0532	0.0051	*
Venus	75001-11-12 13:55 G		29114927.92	29114928.08	29114928.24	0.0534	0.0335	
Mercury	75002-04-15 01:41 G		29115081.42	29115081.57	29115081.73	0.0539	0.0072	
Venus	75006-06-06 15:51 G		29116594.99	29116595.16	29116595.33	0.0508	0.0286	
Venus	75007-01-29 10:05 G		29116831.72	29116831.92	29116832.12	0.0499	0.0096	
Moon	75007-03-14 02:53 G		29116875.43	29116875.62	29116875.82	0.0497	0.0266	
Earth	75007-03-14 06:15 G		29116875.58	29116875.76	29116875.96	0.0497	0.0297	*
Venus	75007-09-22 17:03 G		29117068.13	29117068.21	29117068.31	0.0491	0.0440	
Mercury	75007-11-30 14:39 G		29117136.98	29117137.11	29117137.25	0.0490	0.0224	
Mercury	75008-02-28 01:41 G		29117226.50	29117226.57	29117226.64	0.0488	0.0430	
Venus	75012-11-22 18:58 G		29118956.11	29118956.29	29118956.47	0.0522	0.0219	
Venus	75013-07-18 06:15 G		29119193.58	29119193.76	29119193.95	0.0532	0.0213	

Earth	75013-09-20 12:00 G	29119257.89	29119258.00	29119258.11	0.0534	0.0464
Moon	75013-09-20 15:36 G	29119258.08	29119258.15	29119258.23	0.0534	0.0501 *
Mercury	75014-02-01 02:10 G	29119391.46	29119391.59	29119391.72	0.0538	0.0292
Venus	75018-02-09 12:00 G	29120860.87	29120861.00	29120861.13	0.0510	0.0393
Venus	75018-10-04 09:22 G	29121097.69	29121097.89	29121098.10	0.0501	0.0008
Earth	75019-03-18 19:41 G	29121263.09	29121263.32	29121263.55	0.0495	0.0119
Moon	75019-03-18 23:46 G	29121263.26	29121263.49	29121263.72	0.0495	0.0121 *
Venus	75019-05-28 19:27 G	29121334.17	29121334.31	29121334.45	0.0493	0.0351
Mercury	75019-09-18 18:00 G	29121447.16	29121447.25	29121447.34	0.0490	0.0380
Mercury	75019-12-17 04:34 G	29121536.56	29121536.69	29121536.81	0.0488	0.0268
Venus	75024-07-28 16:05 G	29123222.01	29123222.17	29123222.32	0.0519	0.0328
Venus	75025-03-22 23:17 G	29123459.27	29123459.47	29123459.67	0.0529	0.0091
Venus	75025-11-15 18:43 G	29123697.26	29123697.28	29123697.32	0.0537	0.0531
Mercury	75025-11-20 02:10 G	29123701.56	29123701.59	29123701.63	0.0537	0.0519
Mercury	75026-02-18 00:29 G	29123791.42	29123791.52	29123791.62	0.0539	0.0401
Venus	75029-10-15 04:05 G	29125126.64	29125126.67	29125126.71	0.0513	0.0504
Venus	75030-06-09 05:17 G	29125363.52	29125363.72	29125363.92	0.0504	0.0117
Venus	75031-01-31 18:43 G	29125600.11	29125600.28	29125600.46	0.0496	0.0253
Moon	75031-03-23 00:29 G	29125650.48	29125650.52	29125650.56	0.0494	0.0484
Mercury	75031-10-05 06:43 G	29125846.64	29125846.78	29125846.93	0.0489	0.0097
Venus	75036-04-02 12:43 G	29127487.92	29127488.03	29127488.13	0.0516	0.0433
Venus	75036-11-25 16:05 G	29127724.97	29127725.17	29127725.37	0.0526	0.0031
Venus	75037-07-21 08:10 G	29127962.71	29127962.84	29127962.97	0.0535	0.0410
Mercury	75037-12-07 00:15 G	29128101.37	29128101.51	29128101.66	0.0539	0.0172
Venus	75042-02-12 02:10 G	29129629.41	29129629.59	29129629.78	0.0506	0.0224
Venus	75042-10-06 18:58 G	29129866.10	29129866.29	29129866.49	0.0498	0.0154
Venus	75043-05-31 01:27 G	29130102.56	29130102.56	29130102.56	0.0491	0.0491
Mercury	75043-07-24 09:36 G	29130156.76	29130156.90	29130157.05	0.0490	0.0067
Venus	75048-07-31 07:41 G	29131990.63	29131990.82	29131991.02	0.0523	0.0151
Venus	75049-03-25 20:10 G	29132228.17	29132228.34	29132228.51	0.0533	0.0285

Mercury	75049-09-24 23:31 G	29132411.33	29132411.48	29132411.64	0.0538	0.0075
Venus	75053-10-17 23:17 G	29133895.32	29133895.47	29133895.63	0.0509	0.0330
Venus	75054-06-11 19:41 G	29134132.11	29134132.32	29134132.52	0.0500	0.0055
Venus	75055-02-03 04:34 G	29134368.58	29134368.69	29134368.81	0.0493	0.0405
Mercury	75055-05-12 12:58 G	29134466.91	29134467.04	29134467.17	0.0490	0.0221
Mercury	75055-08-09 23:46 G	29134556.43	29134556.49	29134556.56	0.0488	0.0434
Mars	75057-04-10 19:12 G	29135166.05	29135166.30	29135166.55	0.0486	0.0102
Venus	75060-04-05 02:39 G	29136256.44	29136256.61	29136256.79	0.0521	0.0264
Venus	75060-11-28 11:46 G	29136493.80	29136493.99	29136494.18	0.0530	0.0162
Mercury	75061-07-13 23:31 G	29136721.36	29136721.48	29136721.61	0.0538	0.0303
Venus	75065-06-22 19:41 G	29138161.22	29138161.32	29138161.43	0.0512	0.0436
Venus	75066-02-14 18:58 G	29138398.09	29138398.29	29138398.50	0.0502	0.0048
Venus	75066-10-09 06:29 G	29138634.62	29138634.77	29138634.93	0.0494	0.0314
Mercury	75067-02-28 16:05 G	29138777.08	29138777.17	29138777.26	0.0490	0.0379
Mercury	75067-05-29 02:39 G	29138866.49	29138866.61	29138866.73	0.0488	0.0269
Venus	75071-12-09 23:31 G	29140522.34	29140522.48	29140522.62	0.0518	0.0371
Venus	75072-08-03 05:17 G	29140759.52	29140759.72	29140759.92	0.0528	0.0042
Venus	75073-03-28 23:46 G	29140997.41	29140997.49	29140997.58	0.0537	0.0483
Mercury	75073-05-02 00:00 G	29141031.47	29141031.50	29141031.53	0.0538	0.0526
Mercury	75073-07-30 22:19 G	29141121.32	29141121.43	29141121.53	0.0540	0.0397
Venus	75077-10-20 17:03 G	29142664.02	29142664.21	29142664.41	0.0505	0.0154
Venus	75078-06-14 07:41 G	29142900.64	29142900.82	29142901.00	0.0496	0.0218
Mercury	75079-03-17 05:31 G	29143176.58	29143176.73	29143176.87	0.0489	0.0107
Venus	75083-08-14 22:05 G	29144788.34	29144788.42	29144788.50	0.0515	0.0471
Venus	75084-04-08 00:00 G	29145025.31	29145025.50	29145025.70	0.0525	0.0078
Earth	75084-09-14 16:19 G	29145184.96	29145185.18	29145185.40	0.0531	0.0118
Moon	75084-09-14 20:10 G	29145185.12	29145185.34	29145185.56	0.0531	0.0104 *
Venus	75084-12-01 14:53 G	29145262.97	29145263.12	29145263.27	0.0534	0.0361
Mercury	75085-05-18 22:48 G	29145431.30	29145431.45	29145431.59	0.0539	0.0179
Venus	75089-06-25 11:31 G	29146929.80	29146929.98	29146930.15	0.0507	0.0265

Venus	75090-02-17 05:31 G	29147166.53	29147166.73	29147166.93	0.0499	0.0115
Earth	75090-03-13 06:00 G	29147190.61	29147190.75	29147190.91	0.0498	0.0377
Moon	75090-03-13 10:05 G	29147190.76	29147190.92	29147191.10	0.0498	0.0342 *
Venus	75090-10-11 12:58 G	29147402.97	29147403.04	29147403.11	0.0492	0.0457
Mercury	75091-01-03 07:55 G	29147486.68	29147486.83	29147486.97	0.0490	0.0064
Venus	75095-12-12 18:29 G	29149291.09	29149291.27	29149291.46	0.0522	0.0193
Venus	75096-08-06 05:31 G	29149528.55	29149528.73	29149528.91	0.0532	0.0239
Moon	75096-09-19 11:31 G	29149572.84	29149572.98	29149573.13	0.0533	0.0411
Earth	75096-09-19 14:10 G	29149572.94	29149573.09	29149573.26	0.0533	0.0382 *
Mercury	75097-03-06 22:34 G	29149741.29	29149741.44	29149741.59	0.0538	0.0054
Venus	75101-03-01 06:43 G	29151195.64	29151195.78	29151195.92	0.0510	0.0374
Venus	75101-10-24 04:19 G	29151432.47	29151432.68	29151432.89	0.0501	0.0012
Moon	75102-03-18 15:07 G	29151577.89	29151578.13	29151578.37	0.0496	0.0041
Earth	75102-03-18 19:12 G	29151578.06	29151578.30	29151578.54	0.0496	0.0039 *
Venus	75102-06-17 14:39 G	29151668.98	29151669.11	29151669.25	0.0494	0.0368
Mercury	75102-10-23 10:48 G	29151796.82	29151796.95	29151797.08	0.0490	0.0225
Mercury	75103-01-20 21:51 G	29151886.34	29151886.41	29151886.48	0.0488	0.0431
Venus	75107-08-18 11:31 G	29153556.82	29153556.98	29153557.15	0.0519	0.0306
Venus	75108-04-11 18:43 G	29153794.08	29153794.28	29153794.47	0.0529	0.0113
Mercury	75108-12-24 21:22 G	29154051.27	29154051.39	29154051.52	0.0538	0.0306
Venus	75112-11-04 02:10 G	29155461.52	29155461.59	29155461.67	0.0513	0.0479
Venus	75113-06-29 03:36 G	29155698.44	29155698.65	29155698.85	0.0504	0.0091
Venus	75114-02-20 17:03 G	29155935.04	29155935.21	29155935.38	0.0495	0.0276
Earth	75114-03-23 09:07 G	29155965.79	29155965.88	29155965.97	0.0495	0.0455
Moon	75114-03-23 12:00 G	29155965.89	29155966.00	29155966.12	0.0495	0.0427 *
Mercury	75114-08-11 14:10 G	29156107.00	29156107.09	29156107.19	0.0491	0.0379
Mercury	75114-11-09 00:43 G	29156196.41	29156196.53	29156196.66	0.0489	0.0271
Venus	75119-04-23 07:55 G	29157822.71	29157822.83	29157822.95	0.0516	0.0410
Venus	75119-12-16 11:31 G	29158059.78	29158059.98	29158060.18	0.0526	0.0007
Venus	75120-08-10 03:51 G	29158297.55	29158297.66	29158297.78	0.0535	0.0432

Mercury	75121-01-10 19:41 G	29158451.21	29158451.32	29158451.42	0.0540	0.0385
Venus	75125-03-04 01:27 G	29159964.38	29159964.56	29159964.76	0.0506	0.0197
Venus	75125-10-26 17:46 G	29160201.05	29160201.24	29160201.43	0.0497	0.0179
Mercury	75126-08-28 03:36 G	29160506.51	29160506.65	29160506.80	0.0489	0.0108
Venus	75130-12-27 05:46 G	29162088.72	29162088.74	29162088.77	0.0514	0.0509
Venus	75131-08-21 06:15 G	29162325.56	29162325.76	29162325.95	0.0524	0.0125
Venus	75132-04-14 19:27 G	29162563.14	29162563.31	29162563.47	0.0533	0.0312
Mercury	75132-10-29 20:10 G	29162761.20	29162761.34	29162761.49	0.0539	0.0169
Venus	75136-11-06 22:19 G	29164230.27	29164230.43	29164230.60	0.0509	0.0303
Venus	75137-07-01 17:46 G	29164467.04	29164467.24	29164467.45	0.0500	0.0079
Venus	75138-02-23 02:10 G	29164703.49	29164703.59	29164703.70	0.0492	0.0426
Mercury	75138-06-16 06:43 G	29164816.63	29164816.78	29164816.92	0.0489	0.0055
Venus	75143-04-26 02:39 G	29166591.43	29166591.61	29166591.79	0.0521	0.0237
Venus	75143-12-19 12:00 G	29166828.82	29166829.00	29166829.19	0.0531	0.0190
Mercury	75144-08-17 20:39 G	29167071.21	29167071.36	29167071.52	0.0538	0.0053
Venus	75148-07-12 15:22 G	29168496.03	29168496.14	29168496.26	0.0511	0.0414
Venus	75149-03-06 14:24 G	29168732.89	29168733.10	29168733.30	0.0502	0.0030
Venus	75149-10-29 01:41 G	29168969.42	29168969.57	29168969.73	0.0494	0.0332
Mercury	75150-04-04 09:07 G	29169126.75	29169126.88	29169127.01	0.0490	0.0224
Mercury	75150-07-02 19:55 G	29169216.26	29169216.33	29169216.40	0.0488	0.0431
Venus	75154-12-29 22:34 G	29170857.30	29170857.44	29170857.60	0.0518	0.0345
Venus	75155-08-24 04:19 G	29171094.49	29171094.68	29171094.89	0.0528	0.0070
Venus	75156-04-17 22:19 G	29171332.38	29171332.43	29171332.50	0.0536	0.0506
Mercury	75156-06-05 20:24 G	29171381.22	29171381.35	29171381.48	0.0538	0.0286
Venus	75160-11-09 11:31 G	29172998.79	29172998.98	29172999.18	0.0505	0.0135
Venus	75161-07-04 02:24 G	29173235.42	29173235.60	29173235.78	0.0496	0.0237
Mercury	75162-01-21 12:00 G	29173436.91	29173437.00	29173437.09	0.0491	0.0384
Mercury	75162-04-20 22:34 G	29173526.32	29173526.44	29173526.56	0.0489	0.0266
Venus	75166-09-03 17:17 G	29175123.13	29175123.22	29175123.32	0.0515	0.0449
Venus	75167-04-28 18:58 G	29175360.09	29175360.29	29175360.49	0.0525	0.0055

Moon	75167-09-15 08:24 G	29175499.64	29175499.85	29175500.07	0.0531	0.0222
Earth	75167-09-15 11:46 G	29175499.79	29175499.99	29175500.20	0.0531	0.0233 *
Venus	75167-12-22 09:22 G	29175597.76	29175597.89	29175598.04	0.0534	0.0382
Mercury	75168-06-22 17:31 G	29175781.12	29175781.23	29175781.33	0.0539	0.0381
Venus	75172-07-15 09:07 G	29177264.70	29177264.88	29177265.06	0.0508	0.0240
Venus	75173-03-09 03:22 G	29177501.44	29177501.64	29177501.84	0.0499	0.0140
Moon	75173-03-13 05:46 G	29177505.61	29177505.74	29177505.87	0.0499	0.0415
Earth	75173-03-13 09:51 G	29177505.81	29177505.91	29177506.02	0.0499	0.0447 *
Venus	75173-10-31 10:34 G	29177737.90	29177737.94	29177737.99	0.0492	0.0479
Mercury	75174-02-07 01:41 G	29177836.43	29177836.57	29177836.72	0.0489	0.0107
Venus	75179-01-01 13:12 G	29179625.86	29179626.05	29179626.25	0.0522	0.0170
Venus	75179-08-27 00:15 G	29179863.34	29179863.51	29179863.69	0.0532	0.0261
Earth	75179-09-20 09:22 G	29179887.70	29179887.89	29179888.10	0.0533	0.0267
Moon	75179-09-20 10:34 G	29179887.76	29179887.94	29179888.13	0.0533	0.0294 *
Mercury	75180-04-10 17:31 G	29180091.08	29180091.23	29180091.38	0.0539	0.0154
Venus	75184-03-20 05:46 G	29181530.59	29181530.74	29181530.89	0.0510	0.0347
Venus	75184-11-12 03:07 G	29181767.43	29181767.63	29181767.84	0.0501	0.0038
Earth	75185-03-18 00:00 G	29181893.27	29181893.50	29181893.74	0.0496	0.0025
Moon	75185-03-18 03:07 G	29181893.40	29181893.63	29181893.86	0.0496	0.0028 *
Venus	75185-07-06 12:58 G	29182003.92	29182004.04	29182004.17	0.0493	0.0390
Mercury	75185-11-26 04:34 G	29182146.55	29182146.69	29182146.84	0.0490	0.0056
Venus	75190-09-06 09:07 G	29183891.71	29183891.88	29183892.05	0.0520	0.0282
Venus	75191-05-01 16:48 G	29184129.01	29184129.20	29184129.40	0.0530	0.0139
Mercury	75192-01-28 18:00 G	29184401.10	29184401.25	29184401.40	0.0539	0.0066
Venus	75195-11-24 01:12 G	29185796.46	29185796.55	29185796.65	0.0513	0.0453
Venus	75196-07-18 01:55 G	29186033.38	29186033.58	29186033.78	0.0503	0.0065
Venus	75197-03-11 14:39 G	29186269.95	29186270.11	29186270.27	0.0495	0.0299
Moon	75197-03-22 11:31 G	29186280.82	29186280.98	29186281.16	0.0495	0.0359
Earth	75197-03-22 12:58 G	29186280.90	29186281.04	29186281.19	0.0495	0.0389 *
Mercury	75197-09-14 07:41 G	29186456.69	29186456.82	29186456.95	0.0490	0.0213

Mercury	75197-12-12 18:29 G	29186546.21	29186546.27	29186546.33	0.0488	0.0440
Venus	75202-05-12 06:58 G	29188157.66	29188157.79	29188157.92	0.0517	0.0386
Venus	75203-01-04 11:17 G	29188394.77	29188394.97	29188395.17	0.0527	0.0020
Venus	75203-08-30 04:05 G	29188632.57	29188632.67	29188632.78	0.0536	0.0458
Mercury	75203-11-16 18:29 G	29188711.14	29188711.27	29188711.40	0.0538	0.0286
Venus	75208-03-22 21:07 G	29190299.19	29190299.38	29190299.57	0.0506	0.0175
Venus	75208-11-14 13:12 G	29190535.86	29190536.05	29190536.24	0.0497	0.0199
Mercury	75209-07-03 10:19 G	29190766.84	29190766.93	29190767.02	0.0491	0.0382
Mercury	75209-09-30 20:39 G	29190856.24	29190856.36	29190856.49	0.0489	0.0266
Mars	75211-07-06 06:58 G	29191499.65	29191499.79	29191499.93	0.0486	0.0405
Venus	75214-01-15 04:34 G	29192423.63	29192423.69	29192423.76	0.0514	0.0485
Venus	75214-09-09 05:17 G	29192660.52	29192660.72	29192660.92	0.0524	0.0097
Venus	75215-05-04 18:15 G	29192898.11	29192898.26	29192898.42	0.0533	0.0337
Mercury	75215-09-04 18:00 G	29193021.22	29193021.25	29193021.28	0.0537	0.0522
Mercury	75215-12-03 16:19 G	29193111.08	29193111.18	29193111.28	0.0539	0.0400
Venus	75219-11-26 17:03 G	29194565.04	29194565.21	29194565.38	0.0509	0.0283
Venus	75220-07-20 12:29 G	29194801.82	29194802.02	29194802.22	0.0500	0.0099
Venus	75221-03-13 21:07 G	29195038.30	29195038.38	29195038.47	0.0492	0.0443
Mercury	75221-07-19 23:31 G	29195166.34	29195166.48	29195166.63	0.0489	0.0103
Venus	75226-05-14 21:36 G	29196926.22	29196926.40	29196926.59	0.0521	0.0214
Venus	75227-01-07 06:43 G	29197163.60	29197163.78	29197163.97	0.0530	0.0212
Mercury	75227-09-21 15:22 G	29197421.00	29197421.14	29197421.29	0.0539	0.0151
Venus	75231-08-01 12:29 G	29198830.90	29198831.02	29198831.16	0.0512	0.0390
Venus	75232-03-25 12:00 G	29199067.79	29199068.00	29199068.20	0.0502	0.0011
Venus	75232-11-16 23:31 G	29199304.34	29199304.48	29199304.63	0.0494	0.0355
Mercury	75233-05-08 02:39 G	29199476.47	29199476.61	29199476.76	0.0490	0.0056
Venus	75238-01-17 17:17 G	29201192.07	29201192.22	29201192.38	0.0518	0.0323
Venus	75238-09-11 22:48 G	29201429.25	29201429.45	29201429.65	0.0528	0.0090
Venus	75239-05-07 17:03 G	29201667.17	29201667.21	29201667.25	0.0536	0.0526
Mercury	75239-07-10 15:22 G	29201730.99	29201731.14	29201731.29	0.0538	0.0080

Venus	75243-04-06 07:41 G	29203096.77	29203096.82	29203096.88	0.0515	0.0496
Venus	75243-11-29 10:34 G	29203333.74	29203333.94	29203334.14	0.0505	0.0107
Venus	75244-07-23 00:58 G	29203570.37	29203570.54	29203570.72	0.0496	0.0261
Mercury	75245-02-24 05:46 G	29203786.61	29203786.74	29203786.88	0.0490	0.0214
Mercury	75245-05-24 16:34 G	29203876.13	29203876.19	29203876.25	0.0488	0.0440
Venus	75249-09-22 14:10 G	29205457.98	29205458.09	29205458.20	0.0515	0.0427
Venus	75250-05-17 16:34 G	29205694.99	29205695.19	29205695.39	0.0526	0.0029
Earth	75250-09-14 12:15 G	29205814.83	29205815.01	29205815.20	0.0530	0.0324
Moon	75250-09-14 14:10 G	29205814.91	29205815.09	29205815.27	0.0530	0.0304 *
Venus	75251-01-10 07:41 G	29205932.70	29205932.82	29205932.96	0.0535	0.0407
Mercury	75251-04-28 15:36 G	29206041.02	29206041.15	29206041.28	0.0538	0.0304
Venus	75255-08-04 07:55 G	29207599.65	29207599.83	29207600.02	0.0507	0.0214
Moon	75256-03-12 16:48 G	29207821.16	29207821.20	29207821.26	0.0499	0.0485
Venus	75256-03-28 01:27 G	29207836.37	29207836.56	29207836.76	0.0498	0.0164
Mercury	75256-12-13 09:07 G	29208096.78	29208096.88	29208096.97	0.0491	0.0371
Mercury	75257-03-12 19:27 G	29208186.19	29208186.31	29208186.43	0.0489	0.0277
Venus	75262-01-20 12:29 G	29209960.83	29209961.02	29209961.22	0.0523	0.0144
Venus	75262-09-15 00:15 G	29210198.34	29210198.51	29210198.68	0.0532	0.0288
Earth	75262-09-19 13:27 G	29210202.85	29210203.06	29210203.27	0.0532	0.0191
Moon	75262-09-19 13:55 G	29210202.87	29210203.08	29210203.30	0.0532	0.0214 *
Mercury	75263-02-14 15:51 G	29210351.13	29210351.16	29210351.19	0.0537	0.0525
Mercury	75263-05-15 14:24 G	29210441.00	29210441.10	29210441.20	0.0540	0.0399
Venus	75267-04-09 02:10 G	29211865.43	29211865.59	29211865.75	0.0510	0.0323
Venus	75267-12-01 23:03 G	29212102.25	29212102.46	29212102.66	0.0500	0.0060
Moon	75268-03-16 22:34 G	29212208.20	29212208.44	29212208.68	0.0497	0.0116
Earth	75268-03-17 00:15 G	29212208.28	29212208.51	29212208.74	0.0497	0.0105 *
Venus	75268-07-25 08:39 G	29212338.75	29212338.86	29212338.98	0.0493	0.0409
Mercury	75268-12-29 21:51 G	29212496.26	29212496.41	29212496.55	0.0489	0.0105
Venus	75273-09-25 08:10 G	29214226.66	29214226.84	29214227.02	0.0520	0.0255
Venus	75274-05-20 16:05 G	29214463.98	29214464.17	29214464.37	0.0530	0.0167

Mercury	75275-03-03 14:24 G	29214750.96	29214751.10	29214751.25	0.0539	0.0173
Venus	75278-12-12 20:39 G	29216131.25	29216131.36	29216131.47	0.0513	0.0431
Venus	75279-08-06 21:07 G	29216368.17	29216368.38	29216368.58	0.0503	0.0045
Moon	75280-03-21 12:15 G	29216595.82	29216596.01	29216596.20	0.0495	0.0278
Earth	75280-03-21 12:29 G	29216595.84	29216596.02	29216596.21	0.0495	0.0307 *
Venus	75280-03-30 09:51 G	29216604.75	29216604.91	29216605.07	0.0495	0.0318
Mercury	75280-10-18 00:43 G	29216806.38	29216806.53	29216806.67	0.0490	0.0058
Venus	75285-05-31 02:24 G	29218492.47	29218492.60	29218492.75	0.0517	0.0363
Venus	75286-01-23 06:29 G	29218729.57	29218729.77	29218729.97	0.0527	0.0044
Venus	75286-09-17 22:48 G	29218967.36	29218967.45	29218967.54	0.0535	0.0478
Mercury	75286-12-20 13:12 G	29219060.90	29219061.05	29219061.21	0.0538	0.0082
Venus	75291-04-11 18:29 G	29220634.08	29220634.27	29220634.47	0.0506	0.0150
Venus	75291-12-04 11:03 G	29220870.78	29220870.96	29220871.14	0.0497	0.0224
Mercury	75292-08-06 04:05 G	29221116.54	29221116.67	29221116.80	0.0490	0.0213
Mercury	75292-11-03 14:39 G	29221206.05	29221206.11	29221206.18	0.0489	0.0442
Venus	75297-02-02 23:31 G	29222758.40	29222758.48	29222758.57	0.0514	0.0463
Venus	75297-09-27 23:46 G	29222995.29	29222995.49	29222995.69	0.0524	0.0075
Venus	75298-05-23 12:43 G	29223232.89	29223233.03	29223233.18	0.0533	0.0358
Mercury	75298-10-08 12:58 G	29223370.92	29223371.04	29223371.17	0.0538	0.0315
Venus	75302-12-16 15:51 G	29224899.99	29224900.16	29224900.34	0.0509	0.0256
Venus	75303-08-10 11:31 G	29225136.78	29225136.98	29225137.18	0.0500	0.0125
Venus	75304-04-02 19:41 G	29225373.26	29225373.32	29225373.39	0.0492	0.0465
Mercury	75304-05-26 07:12 G	29225426.71	29225426.80	29225426.89	0.0491	0.0370
Mercury	75304-08-23 17:31 G	29225516.11	29225516.23	29225516.35	0.0489	0.0279
Venus	75309-06-03 18:58 G	29227261.10	29227261.29	29227261.48	0.0521	0.0189
Venus	75310-01-27 04:48 G	29227498.52	29227498.70	29227498.88	0.0531	0.0237
Mercury	75310-10-26 11:31 G	29227770.88	29227770.98	29227771.09	0.0540	0.0384
Venus	75314-08-21 12:00 G	29229165.86	29229166.00	29229166.15	0.0511	0.0363
Venus	75315-04-15 10:48 G	29229402.74	29229402.95	29229403.15	0.0502	0.0024
Venus	75315-12-07 21:51 G	29229639.28	29229639.41	29229639.54	0.0494	0.0377

Mercury	75316-06-11 20:24 G	29229826.21	29229826.35	29229826.50	0.0489	0.0118
Venus	75321-02-06 16:05 G	29231527.01	29231527.17	29231527.34	0.0519	0.0298
Venus	75321-10-01 22:34 G	29231764.24	29231764.44	29231764.64	0.0529	0.0118
Mercury	75322-08-14 12:29 G	29232080.87	29232081.02	29232081.16	0.0539	0.0171
Venus	75326-04-26 05:17 G	29233431.64	29233431.72	29233431.80	0.0514	0.0470
Venus	75326-12-19 07:27 G	29233668.60	29233668.81	29233669.01	0.0504	0.0084
Venus	75327-08-12 21:22 G	29233905.22	29233905.39	29233905.56	0.0496	0.0282
Mercury	75328-03-30 23:03 G	29234136.31	29234136.46	29234136.61	0.0490	0.0053
Mars	75329-12-27 19:12 G	29234773.13	29234773.30	29234773.49	0.0486	0.0337
Venus	75332-10-12 13:27 G	29235792.94	29235793.06	29235793.19	0.0516	0.0400
Venus	75333-06-06 16:19 G	29236029.98	29236030.18	29236030.39	0.0526	0.0009
Moon	75333-09-14 16:19 G	29236130.02	29236130.18	29236130.36	0.0530	0.0373
Earth	75333-09-14 16:34 G	29236130.04	29236130.19	29236130.33	0.0530	0.0400 *
Venus	75334-01-30 07:41 G	29236267.71	29236267.82	29236267.94	0.0535	0.0434
Mercury	75334-06-02 12:29 G	29236390.87	29236391.02	29236391.17	0.0538	0.0058
Venus	75338-08-24 03:51 G	29237934.47	29237934.66	29237934.85	0.0507	0.0191
Venus	75339-04-17 21:22 G	29238171.20	29238171.39	29238171.58	0.0498	0.0185
Mercury	75340-01-18 01:55 G	29238446.46	29238446.58	29238446.72	0.0490	0.0215
Mercury	75340-04-16 12:43 G	29238535.97	29238536.03	29238536.09	0.0488	0.0441
Venus	75344-06-17 09:51 G	29240058.87	29240058.91	29240058.96	0.0512	0.0499
Venus	75345-02-09 08:24 G	29240295.66	29240295.85	29240296.05	0.0522	0.0120
Moon	75345-09-19 08:10 G	29240517.62	29240517.84	29240518.06	0.0531	0.0103
Earth	75345-09-19 09:51 G	29240517.68	29240517.91	29240518.14	0.0531	0.0078 *
Venus	75345-10-04 19:41 G	29240533.16	29240533.32	29240533.48	0.0532	0.0310
Mercury	75346-03-21 11:03 G	29240700.84	29240700.96	29240701.09	0.0537	0.0313
Venus	75350-04-28 23:31 G	29242200.32	29242200.48	29242200.65	0.0510	0.0298
Venus	75350-12-21 21:07 G	29242437.18	29242437.38	29242437.58	0.0501	0.0086
Earth	75351-03-18 04:34 G	29242523.46	29242523.69	29242523.91	0.0498	0.0172
Moon	75351-03-18 04:19 G	29242523.47	29242523.68	29242523.89	0.0498	0.0190 *
Venus	75351-08-15 06:58 G	29242673.70	29242673.79	29242673.89	0.0493	0.0433

Mercury	75351-11-06 05:31 G	29242756.63	29242756.73	29242756.82	0.0491	0.0368
Mercury	75352-02-03 15:51 G	29242846.04	29242846.16	29242846.28	0.0489	0.0281
Venus	75356-10-15 03:36 G	29244561.47	29244561.65	29244561.83	0.0520	0.0231
Venus	75357-06-09 11:17 G	29244798.78	29244798.97	29244799.16	0.0529	0.0189
Mercury	75358-04-07 09:07 G	29245100.78	29245100.88	29245100.99	0.0539	0.0376
Venus	75362-01-01 19:12 G	29246466.19	29246466.30	29246466.44	0.0513	0.0406
Venus	75362-08-26 20:10 G	29246703.13	29246703.34	29246703.55	0.0503	0.0018
Earth	75363-03-22 18:43 G	29246911.08	29246911.28	29246911.49	0.0496	0.0250
Moon	75363-03-22 20:24 G	29246911.13	29246911.35	29246911.57	0.0496	0.0221 *
Venus	75363-04-20 08:53 G	29246939.73	29246939.87	29246940.02	0.0495	0.0342
Mercury	75363-11-22 18:58 G	29247156.14	29247156.29	29247156.43	0.0489	0.0121
Venus	75368-06-20 00:00 G	29248827.35	29248827.50	29248827.65	0.0517	0.0339
Venus	75369-02-12 04:19 G	29249064.48	29249064.68	29249064.88	0.0527	0.0069
Venus	75369-10-07 21:22 G	29249302.32	29249302.39	29249302.46	0.0536	0.0502
Mercury	75370-01-24 09:36 G	29249410.76	29249410.90	29249411.05	0.0539	0.0156
Venus	75373-09-06 14:10 G	29250732.07	29250732.09	29250732.12	0.0516	0.0511
Venus	75374-05-01 18:15 G	29250969.06	29250969.26	29250969.46	0.0506	0.0122
Venus	75374-12-24 10:05 G	29251205.75	29251205.92	29251206.10	0.0497	0.0249
Mercury	75375-09-10 21:51 G	29251466.27	29251466.41	29251466.56	0.0490	0.0042
Venus	75380-02-23 22:19 G	29253093.33	29253093.43	29253093.54	0.0514	0.0439
Venus	75380-10-17 23:31 G	29253330.28	29253330.48	29253330.68	0.0525	0.0047
Venus	75381-06-12 13:27 G	29253567.92	29253568.06	29253568.20	0.0534	0.0386
Mercury	75381-11-12 10:19 G	29253720.78	29253720.93	29253721.09	0.0538	0.0060
Venus	75386-01-04 13:55 G	29255234.90	29255235.08	29255235.27	0.0508	0.0230
Venus	75386-08-29 08:53 G	29255471.67	29255471.87	29255472.07	0.0499	0.0149
Venus	75387-04-22 16:48 G	29255708.17	29255708.20	29255708.23	0.0492	0.0485
Mercury	75387-06-30 00:29 G	29255776.39	29255776.52	29255776.66	0.0490	0.0207
Mercury	75387-09-27 11:17 G	29255865.91	29255865.97	29255866.03	0.0488	0.0447
Venus	75392-06-22 19:12 G	29257596.11	29257596.30	29257596.49	0.0522	0.0160
Venus	75393-02-15 05:17 G	29257833.55	29257833.72	29257833.90	0.0531	0.0267

Mercury	75393-08-31 10:19 G	29258030.80	29258030.93	29258031.07	0.0538	0.0288
Venus	75397-09-09 09:07 G	29259500.73	29259500.88	29259501.04	0.0511	0.0338
Venus	75398-05-04 07:27 G	29259737.61	29259737.81	29259738.02	0.0502	0.0048
Venus	75398-12-26 18:29 G	29259974.16	29259974.27	29259974.40	0.0494	0.0399
Mercury	75399-04-18 03:51 G	29260086.56	29260086.66	29260086.75	0.0491	0.0365
Mercury	75399-07-16 14:10 G	29260175.97	29260176.09	29260176.21	0.0489	0.0284
Venus	75404-02-27 13:27 G	29261861.89	29261862.06	29261862.23	0.0518	0.0272
Venus	75404-10-21 19:12 G	29262099.11	29262099.30	29262099.50	0.0528	0.0143
Mercury	75405-09-18 07:27 G	29262430.71	29262430.81	29262430.92	0.0539	0.0382
Venus	75409-05-16 02:53 G	29263766.52	29263766.62	29263766.72	0.0514	0.0447
Venus	75410-01-08 05:31 G	29264003.53	29264003.73	29264003.93	0.0505	0.0058
Venus	75410-09-01 19:55 G	29264240.18	29264240.33	29264240.50	0.0496	0.0308
Mercury	75411-05-05 17:17 G	29264486.08	29264486.22	29264486.36	0.0490	0.0126
Venus	75415-11-02 10:05 G	29266127.79	29266127.92	29266128.06	0.0515	0.0377
Venus	75416-06-26 12:29 G	29266364.82	29266365.02	29266365.22	0.0525	0.0024
Moon	75416-09-14 12:29 G	29266444.94	29266445.02	29266445.12	0.0529	0.0479
Earth	75416-09-14 13:55 G	29266445.02	29266445.08	29266445.15	0.0529	0.0505 *
Venus	75417-02-19 03:22 G	29266602.54	29266602.64	29266602.74	0.0534	0.0455
Mercury	75417-07-07 07:41 G	29266740.67	29266740.82	29266740.96	0.0539	0.0154
Venus	75421-09-13 03:07 G	29268269.44	29268269.63	29268269.83	0.0507	0.0164
Venus	75422-05-07 20:53 G	29268506.19	29268506.37	29268506.56	0.0498	0.0211
Mercury	75423-02-21 20:24 G	29268796.20	29268796.35	29268796.50	0.0490	0.0033
Venus	75427-07-08 07:27 G	29270393.75	29270393.81	29270393.89	0.0513	0.0477
Venus	75428-03-01 06:29 G	29270630.58	29270630.77	29270630.97	0.0523	0.0094
Earth	75428-09-19 11:46 G	29270832.76	29270832.99	29270833.21	0.0531	0.0013
Moon	75428-09-19 14:24 G	29270832.87	29270833.10	29270833.34	0.0531	0.0016 *
Venus	75428-10-24 18:15 G	29270868.11	29270868.26	29270868.42	0.0532	0.0336
Mercury	75429-04-25 07:41 G	29271050.67	29271050.82	29271050.98	0.0538	0.0073
Venus	75433-05-19 00:15 G	29272535.34	29272535.51	29272535.68	0.0510	0.0270
Venus	75434-01-10 21:07 G	29272772.18	29272772.38	29272772.58	0.0500	0.0113

Earth	75434-03-18 11:31 G	29272838.77	29272838.98	29272839.19	0.0498	0.0227
Moon	75434-03-18 13:12 G	29272838.84	29272839.05	29272839.26	0.0498	0.0248 *
Venus	75434-09-04 06:29 G	29273008.70	29273008.77	29273008.85	0.0493	0.0455
Mercury	75434-12-10 23:31 G	29273106.35	29273106.48	29273106.62	0.0490	0.0191
Mercury	75435-03-10 10:05 G	29273195.88	29273195.92	29273195.97	0.0488	0.0464
Venus	75439-11-05 03:22 G	29274896.45	29274896.64	29274896.82	0.0520	0.0204
Venus	75440-06-29 12:00 G	29275133.81	29275134.00	29275134.18	0.0530	0.0218
Moon	75440-09-24 09:36 G	29275220.81	29275220.90	29275220.99	0.0533	0.0485
Earth	75440-09-24 13:12 G	29275220.99	29275221.05	29275221.11	0.0533	0.0512 *
Mercury	75441-02-11 08:24 G	29275360.72	29275360.85	29275360.98	0.0538	0.0289
Venus	75445-01-21 18:58 G	29276801.16	29276801.29	29276801.43	0.0512	0.0377
Venus	75445-09-15 18:58 G	29277038.08	29277038.29	29277038.50	0.0503	0.0010
Moon	75446-03-22 20:53 G	29277226.15	29277226.37	29277226.59	0.0496	0.0157
Earth	75446-03-22 23:31 G	29277226.26	29277226.48	29277226.70	0.0496	0.0186 *
Venus	75446-05-10 07:12 G	29277274.66	29277274.80	29277274.94	0.0495	0.0365
Mercury	75446-09-29 02:24 G	29277416.50	29277416.60	29277416.70	0.0491	0.0355
Mercury	75446-12-27 12:43 G	29277505.91	29277506.03	29277506.15	0.0489	0.0293
Venus	75451-07-11 00:29 G	29279162.37	29279162.52	29279162.69	0.0517	0.0311
Venus	75452-03-04 05:31 G	29279399.53	29279399.73	29279399.93	0.0527	0.0100
Venus	75452-10-27 23:03 G	29279637.44	29279637.46	29279637.48	0.0536	0.0531
Mercury	75452-11-30 08:24 G	29279670.81	29279670.85	29279670.89	0.0537	0.0516
Mercury	75453-02-28 06:58 G	29279760.69	29279760.79	29279760.89	0.0539	0.0410
Venus	75456-09-26 12:58 G	29281066.97	29281067.04	29281067.11	0.0515	0.0485
Venus	75457-05-21 16:19 G	29281303.98	29281304.18	29281304.39	0.0505	0.0097
Venus	75458-01-13 08:10 G	29281540.67	29281540.84	29281541.01	0.0497	0.0272
Mercury	75458-10-15 15:36 G	29281816.01	29281816.15	29281816.30	0.0489	0.0133
Venus	75463-03-15 20:53 G	29283428.26	29283428.37	29283428.50	0.0514	0.0414
Venus	75463-11-07 21:36 G	29283665.20	29283665.40	29283665.60	0.0524	0.0022
Venus	75464-07-02 11:03 G	29283902.83	29283902.96	29283903.09	0.0533	0.0410
Mercury	75464-12-17 06:00 G	29284070.61	29284070.75	29284070.90	0.0538	0.0165

Mars	75466-04-30 20:39 G	29284570.06	29284570.36	29284570.66	0.0543	0.0076
Venus	75469-01-24 12:15 G	29285569.83	29285570.01	29285570.20	0.0509	0.0205
Venus	75469-09-18 07:41 G	29285806.63	29285806.82	29285807.02	0.0500	0.0175
Mercury	75470-08-03 18:58 G	29286126.14	29286126.29	29286126.43	0.0490	0.0027
Venus	75474-11-18 19:27 G	29287694.30	29287694.31	29287694.33	0.0511	0.0510
Venus	75475-07-13 16:34 G	29287930.99	29287931.19	29287931.38	0.0521	0.0135
Venus	75476-03-07 01:55 G	29288168.42	29288168.58	29288168.75	0.0531	0.0290
Mercury	75476-10-05 06:00 G	29288380.60	29288380.75	29288380.90	0.0538	0.0068
Venus	75480-09-29 08:39 G	29289835.70	29289835.86	29289836.02	0.0511	0.0313
Venus	75481-05-24 07:27 G	29290072.61	29290072.81	29290073.01	0.0502	0.0073
Venus	75482-01-15 18:43 G	29290309.18	29290309.28	29290309.39	0.0494	0.0422
Mercury	75482-05-22 22:05 G	29290436.29	29290436.42	29290436.56	0.0491	0.0183
Mercury	75482-08-20 08:53 G	29290525.83	29290525.87	29290525.90	0.0489	0.0473
Mars	75484-03-23 19:41 G	29291107.06	29291107.32	29291107.57	0.0485	0.0031
Venus	75487-03-18 12:00 G	29292196.82	29292197.00	29292197.17	0.0519	0.0247
Venus	75487-11-10 18:15 G	29292434.07	29292434.26	29292434.45	0.0529	0.0169
Mercury	75488-07-24 06:00 G	29292690.62	29292690.75	29292690.88	0.0538	0.0296
Venus	75492-06-04 04:19 G	29294101.57	29294101.68	29294101.80	0.0514	0.0419
Venus	75493-01-27 06:29 G	29294338.57	29294338.77	29294338.98	0.0504	0.0030
Venus	75493-09-20 20:24 G	29294575.21	29294575.35	29294575.51	0.0496	0.0333
Mercury	75494-03-11 01:27 G	29294746.46	29294746.56	29294746.67	0.0491	0.0338
Mercury	75494-06-08 11:46 G	29294835.88	29294835.99	29294836.11	0.0489	0.0312
Venus	75498-11-21 10:05 G	29296462.77	29296462.92	29296463.06	0.0516	0.0351
Venus	75499-07-16 13:12 G	29296699.85	29296700.05	29296700.25	0.0526	0.0053
Venus	75500-03-11 05:03 G	29296937.63	29296937.71	29296937.79	0.0535	0.0484
Mercury	75500-05-13 06:15 G	29297000.73	29297000.76	29297000.81	0.0537	0.0516
Mercury	75500-08-11 05:03 G	29297090.62	29297090.71	29297090.81	0.0540	0.0412
Venus	75504-10-03 03:22 G	29298604.44	29298604.64	29298604.84	0.0507	0.0135
Venus	75505-05-27 20:24 G	29298841.17	29298841.35	29298841.53	0.0498	0.0237
Mercury	75506-03-28 14:24 G	29299145.96	29299146.10	29299146.25	0.0489	0.0145

Venus	75510-07-28 08:39 G	29300728.77	29300728.86	29300728.96	0.0513	0.0449
Venus	75511-03-22 08:24 G	29300965.65	29300965.85	29300966.05	0.0523	0.0062
Moon	75511-09-20 16:19 G	29301147.95	29301148.18	29301148.40	0.0531	0.0054
Earth	75511-09-20 19:41 G	29301148.10	29301148.32	29301148.55	0.0531	0.0069 *
Venus	75511-11-14 20:39 G	29301203.22	29301203.36	29301203.51	0.0533	0.0368
Mercury	75512-05-30 05:46 G	29301400.59	29301400.74	29301400.88	0.0539	0.0194
Venus	75516-06-07 23:46 G	29302870.31	29302870.49	29302870.67	0.0509	0.0243
Venus	75517-01-30 20:10 G	29303107.14	29303107.34	29303107.54	0.0500	0.0139
Moon	75517-03-18 14:10 G	29303153.92	29303154.09	29303154.28	0.0498	0.0315
Earth	75517-03-18 17:03 G	29303154.02	29303154.21	29303154.40	0.0498	0.0289 *
Venus	75517-09-24 05:17 G	29303343.68	29303343.72	29303343.77	0.0493	0.0478
Mercury	75518-01-14 17:31 G	29303456.09	29303456.23	29303456.38	0.0490	0.0020
Venus	75522-11-25 02:53 G	29305231.43	29305231.62	29305231.81	0.0520	0.0177
Venus	75523-07-20 11:03 G	29305468.78	29305468.96	29305469.14	0.0530	0.0244
Earth	75523-09-25 15:07 G	29305536.00	29305536.13	29305536.27	0.0532	0.0425
Moon	75523-09-25 18:43 G	29305536.13	29305536.28	29305536.43	0.0532	0.0395 *
Mercury	75524-03-18 04:48 G	29305710.54	29305710.70	29305710.85	0.0538	0.0053
Venus	75528-02-11 17:17 G	29307136.08	29307136.22	29307136.38	0.0513	0.0354
Venus	75528-10-05 18:00 G	29307373.04	29307373.25	29307373.45	0.0503	0.0035
Earth	75529-03-23 06:15 G	29307541.53	29307541.76	29307541.99	0.0497	0.0131
Moon	75529-03-23 09:51 G	29307541.68	29307541.91	29307542.15	0.0497	0.0111 *
Venus	75529-05-30 06:43 G	29307609.66	29307609.78	29307609.91	0.0495	0.0390
Mercury	75529-11-02 20:53 G	29307766.23	29307766.37	29307766.50	0.0491	0.0173
Mercury	75530-01-31 07:27 G	29307855.79	29307855.81	29307855.83	0.0489	0.0483
Venus	75534-07-30 23:17 G	29309497.31	29309497.47	29309497.64	0.0517	0.0285
Venus	75535-03-25 03:36 G	29309734.45	29309734.65	29309734.84	0.0527	0.0125
Mercury	75536-01-05 04:19 G	29310020.56	29310020.68	29310020.82	0.0537	0.0287
Venus	75539-10-17 12:00 G	29311401.92	29311402.00	29311402.10	0.0516	0.0462
Venus	75540-06-10 16:19 G	29311638.97	29311639.18	29311639.38	0.0506	0.0071
Venus	75541-02-02 08:10 G	29311875.68	29311875.84	29311876.01	0.0497	0.0297

Mercury	75541-08-22 00:00 G	29312076.40	29312076.50	29312076.61	0.0491	0.0329
Mercury	75541-11-19 10:19 G	29312165.83	29312165.93	29312166.05	0.0489	0.0323
Venus	75546-04-04 20:10 G	29313763.21	29313763.34	29313763.47	0.0514	0.0389
Venus	75546-11-27 20:53 G	29314000.17	29314000.37	29314000.58	0.0524	0.0014
Venus	75547-07-23 10:48 G	29314237.84	29314237.95	29314238.07	0.0534	0.0436
Mercury	75547-10-24 04:05 G	29314330.64	29314330.67	29314330.71	0.0537	0.0519
Mercury	75548-01-22 02:53 G	29314420.52	29314420.62	29314420.72	0.0539	0.0408
Venus	75552-02-14 14:10 G	29315904.90	29315905.09	29315905.28	0.0508	0.0175
Venus	75552-10-08 09:07 G	29316141.69	29316141.88	29316142.07	0.0499	0.0202
Mercury	75553-06-10 03:36 G	29316386.63	29316386.65	29316386.68	0.0492	0.0481
Mercury	75553-09-07 13:41 G	29316475.93	29316476.07	29316476.21	0.0489	0.0164
Venus	75557-12-08 19:27 G	29318029.25	29318029.31	29318029.37	0.0512	0.0485
Venus	75558-08-02 17:17 G	29318266.02	29318266.22	29318266.41	0.0522	0.0107
Venus	75559-03-28 03:36 G	29318503.49	29318503.65	29318503.81	0.0532	0.0320
Mercury	75559-11-10 03:51 G	29318730.51	29318730.66	29318730.80	0.0539	0.0196
Venus	75563-10-20 10:05 G	29320170.75	29320170.92	29320171.09	0.0511	0.0282
Venus	75564-06-13 07:55 G	29320407.63	29320407.83	29320408.04	0.0501	0.0103
Venus	75565-02-04 18:29 G	29320644.20	29320644.27	29320644.37	0.0493	0.0447
Mercury	75565-06-26 16:34 G	29320786.04	29320786.19	29320786.33	0.0490	0.0014
Venus	75570-04-07 14:10 G	29322531.90	29322532.09	29322532.27	0.0519	0.0216
Venus	75570-11-30 21:07 G	29322769.19	29322769.38	29322769.57	0.0529	0.0202
Mercury	75571-08-29 04:19 G	29323040.52	29323040.68	29323040.83	0.0538	0.0025
Venus	75575-06-25 05:03 G	29324436.58	29324436.71	29324436.85	0.0513	0.0390
Venus	75576-02-17 06:29 G	29324673.57	29324673.77	29324673.98	0.0504	0.0005
Venus	75576-10-10 20:10 G	29324910.20	29324910.34	29324910.48	0.0496	0.0358
Mercury	75577-04-14 19:41 G	29325096.18	29325096.32	29325096.46	0.0490	0.0159
Venus	75581-12-11 10:48 G	29326797.80	29326797.95	29326798.11	0.0516	0.0324
Venus	75582-08-05 13:41 G	29327034.87	29327035.07	29327035.27	0.0526	0.0081
Venus	75583-03-31 04:48 G	29327272.65	29327272.70	29327272.77	0.0535	0.0509
Mercury	75583-06-17 03:22 G	29327350.51	29327350.64	29327350.78	0.0537	0.0267

Venus	75587-02-27 20:39 G	29328702.32	29328702.36	29328702.41	0.0517	0.0502
Venus	75587-10-23 02:24 G	29328939.40	29328939.60	29328939.80	0.0507	0.0110
Venus	75588-06-15 19:55 G	29329176.16	29329176.33	29329176.51	0.0498	0.0262
Mercury	75589-01-31 22:48 G	29329406.34	29329406.45	29329406.56	0.0491	0.0318
Mercury	75589-05-01 09:07 G	29329495.78	29329495.88	29329495.99	0.0489	0.0335
Venus	75593-08-16 08:53 G	29331063.76	29331063.87	29331063.99	0.0513	0.0424
Venus	75594-04-10 07:55 G	29331300.63	29331300.83	29331301.03	0.0523	0.0036
Earth	75594-09-19 22:05 G	29331463.20	29331463.42	29331463.64	0.0529	0.0150
Moon	75594-09-20 01:41 G	29331463.35	29331463.57	29331463.79	0.0529	0.0142 *
Venus	75594-12-03 19:27 G	29331538.18	29331538.31	29331538.45	0.0532	0.0391
Mercury	75595-04-05 02:53 G	29331660.57	29331660.62	29331660.67	0.0536	0.0503
Mercury	75595-07-04 01:41 G	29331750.47	29331750.57	29331750.66	0.0539	0.0421
Venus	75599-06-27 23:17 G	29333205.28	29333205.47	29333205.66	0.0510	0.0218
Venus	75600-02-19 20:10 G	29333442.15	29333442.34	29333442.54	0.0501	0.0164
Earth	75600-03-18 00:29 G	29333469.35	29333469.52	29333469.69	0.0500	0.0341
Moon	75600-03-18 04:05 G	29333469.51	29333469.67	29333469.83	0.0500	0.0367 *
Mercury	75600-11-20 02:24 G	29333716.56	29333716.60	29333716.63	0.0492	0.0471
Mercury	75601-02-17 12:15 G	29333805.88	29333806.01	29333806.15	0.0490	0.0175
Venus	75605-12-14 02:39 G	29335566.41	29335566.61	29335566.80	0.0520	0.0150
Venus	75606-08-08 10:48 G	29335803.78	29335803.95	29335804.13	0.0530	0.0272
Moon	75606-09-24 16:19 G	29335851.00	29335851.18	29335851.38	0.0532	0.0314
Earth	75606-09-24 19:12 G	29335851.14	29335851.30	29335851.48	0.0532	0.0350 *
Mercury	75607-04-22 01:41 G	29336060.43	29336060.57	29336060.72	0.0539	0.0197
Venus	75611-03-02 19:55 G	29337471.17	29337471.33	29337471.49	0.0512	0.0324
Venus	75611-10-25 19:55 G	29337708.12	29337708.33	29337708.53	0.0503	0.0064
Moon	75612-03-22 12:43 G	29337856.80	29337857.03	29337857.27	0.0497	0.0072
Earth	75612-03-22 16:34 G	29337856.95	29337857.19	29337857.42	0.0497	0.0089 *
Venus	75612-06-18 08:10 G	29337944.73	29337944.84	29337944.95	0.0495	0.0415
Mercury	75612-12-06 15:36 G	29338116.00	29338116.15	29338116.30	0.0490	0.0018
Venus	75617-08-19 00:00 G	29339832.33	29339832.50	29339832.67	0.0518	0.0257

Venus	75618-04-13 04:48 G	29340069.51	29340069.70	29340069.90	0.0528	0.0156
Mercury	75619-02-08 02:24 G	29340370.45	29340370.60	29340370.76	0.0538	0.0021
Venus	75622-11-05 14:53 G	29341737.01	29341737.12	29341737.23	0.0515	0.0430
Venus	75623-06-30 18:00 G	29341974.05	29341974.25	29341974.46	0.0505	0.0040
Venus	75624-02-22 09:07 G	29342210.73	29342210.88	29342211.04	0.0496	0.0324
Mercury	75624-09-24 18:29 G	29342426.14	29342426.27	29342426.42	0.0490	0.0145
Venus	75629-04-23 22:19 G	29344098.29	29344098.43	29344098.58	0.0515	0.0360
Venus	75629-12-17 00:00 G	29344335.30	29344335.50	29344335.70	0.0525	0.0039
Venus	75630-08-11 14:24 G	29344573.01	29344573.10	29344573.20	0.0534	0.0468
Mercury	75630-11-27 02:53 G	29344680.48	29344680.62	29344680.76	0.0538	0.0240
Venus	75635-03-05 15:07 G	29346239.93	29346240.13	29346240.33	0.0508	0.0146
Venus	75635-10-28 09:22 G	29346476.71	29346476.89	29346477.08	0.0499	0.0229
Mercury	75636-07-13 21:51 G	29346736.30	29346736.41	29346736.53	0.0491	0.0301
Mercury	75636-10-11 08:10 G	29346825.74	29346825.84	29346825.94	0.0489	0.0350
Mars	75638-06-19 01:55 G	29347441.48	29347441.58	29347441.70	0.0486	0.0435
Venus	75640-12-27 21:22 G	29348364.30	29348364.39	29348364.48	0.0512	0.0458
Venus	75641-08-21 18:43 G	29348601.09	29348601.28	29348601.48	0.0522	0.0079
Venus	75642-04-16 04:48 G	29348838.55	29348838.70	29348838.85	0.0531	0.0347
Mercury	75642-09-15 01:55 G	29348990.52	29348990.58	29348990.65	0.0536	0.0482
Mercury	75642-12-14 00:43 G	29349080.44	29349080.53	29349080.61	0.0539	0.0441
Venus	75646-11-08 08:53 G	29350505.70	29350505.87	29350506.05	0.0511	0.0259
Venus	75647-07-03 07:27 G	29350742.61	29350742.81	29350743.01	0.0502	0.0126
Venus	75648-02-24 18:29 G	29350979.22	29350979.27	29350979.34	0.0494	0.0469
Mercury	75648-05-02 00:58 G	29351046.50	29351046.54	29351046.59	0.0492	0.0460
Mercury	75648-07-30 11:03 G	29351135.83	29351135.96	29351136.10	0.0490	0.0187
Venus	75653-04-26 14:39 G	29352866.93	29352867.11	29352867.30	0.0519	0.0189
Venus	75653-12-19 20:53 G	29353104.19	29353104.37	29353104.56	0.0528	0.0228
Mercury	75654-10-02 00:43 G	29353390.39	29353390.53	29353390.67	0.0538	0.0214
Venus	75658-07-14 04:05 G	29354771.53	29354771.67	29354771.82	0.0514	0.0367
Venus	75659-03-08 06:15 G	29355008.55	29355008.76	29355008.96	0.0504	0.0025

Venus	75659-10-30 20:10 G	29355245.22	29355245.34	29355245.48	0.0496	0.0381
Mercury	75660-05-18 14:10 G	29355445.95	29355446.09	29355446.24	0.0490	0.0033
Venus	75664-12-30 10:34 G	29357132.78	29357132.94	29357133.11	0.0516	0.0297
Venus	75665-08-24 13:27 G	29357369.87	29357370.06	29357370.26	0.0526	0.0109
Venus	75666-04-19 05:03 G	29357607.71	29357607.71	29357607.72	0.0535	0.0535
Mercury	75666-07-21 00:29 G	29357700.37	29357700.52	29357700.68	0.0538	0.0021
Venus	75670-03-18 23:03 G	29359037.39	29359037.46	29359037.55	0.0517	0.0473
Venus	75670-11-11 04:48 G	29359274.49	29359274.70	29359274.90	0.0507	0.0081
Venus	75671-07-05 21:51 G	29359511.24	29359511.41	29359511.58	0.0498	0.0289
Mercury	75672-03-06 17:31 G	29359756.09	29359756.23	29359756.38	0.0491	0.0128
Venus	75676-09-04 09:07 G	29361398.76	29361398.88	29361399.01	0.0513	0.0398
Venus	75677-04-29 08:53 G	29361635.66	29361635.87	29361636.07	0.0523	0.0013
Moon	75677-09-19 01:55 G	29361778.37	29361778.58	29361778.80	0.0529	0.0213
Earth	75677-09-19 05:03 G	29361778.50	29361778.71	29361778.92	0.0529	0.0214 *
Venus	75677-12-22 21:07 G	29361873.26	29361873.38	29361873.51	0.0533	0.0421
Mercury	75678-05-09 00:58 G	29362010.40	29362010.54	29362010.68	0.0537	0.0236
Venus	75682-07-17 01:41 G	29363540.38	29363540.57	29363540.77	0.0509	0.0187
Venus	75683-03-10 21:36 G	29363777.22	29363777.40	29363777.60	0.0500	0.0193
Moon	75683-03-18 06:29 G	29363784.64	29363784.77	29363784.90	0.0500	0.0419
Earth	75683-03-18 09:51 G	29363784.77	29363784.91	29363785.07	0.0500	0.0388 *
Mercury	75683-12-24 20:39 G	29364066.25	29364066.36	29364066.48	0.0491	0.0287
Mercury	75684-03-23 06:58 G	29364155.70	29364155.79	29364155.89	0.0489	0.0365
Venus	75688-05-10 08:53 G	29365664.82	29365664.87	29365664.92	0.0511	0.0492
Venus	75689-01-02 05:17 G	29365901.53	29365901.72	29365901.92	0.0521	0.0119
Venus	75689-08-27 14:24 G	29366138.94	29366139.10	29366139.27	0.0531	0.0305
Earth	75689-09-24 05:31 G	29366166.54	29366166.73	29366166.92	0.0532	0.0299
Moon	75689-09-24 06:58 G	29366166.60	29366166.79	29366166.98	0.0532	0.0265 *
Mercury	75690-02-25 01:12 G	29366320.47	29366320.55	29366320.63	0.0537	0.0458
Mercury	75690-05-26 00:00 G	29366410.43	29366410.50	29366410.58	0.0539	0.0468
Venus	75694-03-21 21:22 G	29367806.22	29367806.39	29367806.56	0.0512	0.0294

Venus	75694-11-13 20:53 G	29368043.17	29368043.37	29368043.57	0.0502	0.0092
Earth	75695-03-23 00:43 G	29368172.29	29368172.53	29368172.77	0.0498	0.0039
Moon	75695-03-23 03:36 G	29368172.42	29368172.65	29368172.88	0.0498	0.0031 *
Venus	75695-07-08 08:39 G	29368279.77	29368279.86	29368279.96	0.0494	0.0439
Mercury	75695-10-13 00:15 G	29368376.45	29368376.51	29368376.57	0.0492	0.0442
Mercury	75696-01-10 10:05 G	29368465.79	29368465.92	29368466.06	0.0490	0.0205
Venus	75700-09-08 02:10 G	29370167.42	29370167.59	29370167.78	0.0517	0.0229
Venus	75701-05-03 06:58 G	29370404.61	29370404.79	29370404.98	0.0527	0.0184
Mercury	75702-03-14 23:46 G	29370720.35	29370720.49	29370720.63	0.0538	0.0236
Venus	75705-11-25 13:27 G	29372071.93	29372072.06	29372072.18	0.0515	0.0408
Venus	75706-07-20 16:48 G	29372309.00	29372309.20	29372309.41	0.0505	0.0018
Venus	75707-03-14 08:24 G	29372545.71	29372545.85	29372546.00	0.0497	0.0347
Moon	75707-03-28 10:05 G	29372559.87	29372559.92	29372559.99	0.0497	0.0479
Earth	75707-03-28 12:00 G	29372559.91	29372560.00	29372560.10	0.0496	0.0452 *
Mercury	75707-10-30 12:58 G	29372775.90	29372776.04	29372776.19	0.0491	0.0041
Venus	75712-05-13 23:46 G	29374433.34	29374433.49	29374433.65	0.0514	0.0333
Venus	75713-01-06 00:43 G	29374670.34	29374670.53	29374670.73	0.0524	0.0068
Venus	75713-08-31 14:24 G	29374908.03	29374908.10	29374908.18	0.0533	0.0492
Mercury	75713-12-31 23:31 G	29375030.33	29375030.48	29375030.64	0.0537	0.0017
Venus	75717-07-31 06:43 G	29376337.76	29376337.78	29376337.80	0.0518	0.0515
Venus	75718-03-25 13:55 G	29376574.88	29376575.08	29376575.28	0.0508	0.0123
Venus	75718-11-17 08:53 G	29376811.69	29376811.87	29376812.05	0.0499	0.0251
Mercury	75719-08-18 16:19 G	29377086.04	29377086.18	29377086.32	0.0491	0.0117
Venus	75724-01-17 20:53 G	29378699.27	29378699.37	29378699.48	0.0512	0.0433
Venus	75724-09-10 18:29 G	29378936.07	29378936.27	29378936.47	0.0522	0.0051
Venus	75725-05-06 04:34 G	29379173.55	29379173.69	29379173.84	0.0531	0.0374
Mercury	75725-10-19 23:17 G	29379340.33	29379340.47	29379340.61	0.0537	0.0231
Venus	75729-11-28 11:03 G	29380840.78	29380840.96	29380841.15	0.0511	0.0229
Venus	75730-07-23 09:22 G	29381077.69	29381077.89	29381078.08	0.0501	0.0155
Venus	75731-03-16 19:55 G	29381314.33	29381314.33	29381314.34	0.0494	0.0493

Mercury	75731-06-06 19:41 G	29381396.20	29381396.32	29381396.44	0.0491	0.0271
Mercury	75731-09-04 06:00 G	29381485.66	29381485.75	29381485.84	0.0489	0.0381
Venus	75736-05-16 14:53 G	29383201.93	29383202.12	29383202.32	0.0519	0.0161
Venus	75737-01-08 21:51 G	29383439.24	29383439.41	29383439.59	0.0529	0.0257
Mercury	75737-08-07 23:17 G	29383650.39	29383650.47	29383650.56	0.0537	0.0455
Mercury	75737-11-05 22:05 G	29383740.35	29383740.42	29383740.50	0.0539	0.0472
Venus	75741-08-03 06:58 G	29385106.64	29385106.79	29385106.95	0.0513	0.0336
Venus	75742-03-28 08:10 G	29385343.63	29385343.84	29385344.04	0.0504	0.0053
Venus	75742-11-19 21:22 G	29385580.28	29385580.39	29385580.51	0.0495	0.0406
Mercury	75743-03-25 23:03 G	29385706.39	29385706.46	29385706.53	0.0492	0.0429
Mercury	75743-06-23 08:53 G	29385795.74	29385795.87	29385796.01	0.0490	0.0218
Venus	75748-01-20 12:58 G	29387467.87	29387468.04	29387468.21	0.0517	0.0268
Venus	75748-09-13 16:34 G	29387705.00	29387705.19	29387705.38	0.0527	0.0141
Mercury	75749-08-24 22:48 G	29388050.32	29388050.45	29388050.59	0.0539	0.0259
Venus	75753-04-08 01:12 G	29389372.45	29389372.55	29389372.65	0.0516	0.0443
Venus	75753-12-01 06:00 G	29389609.54	29389609.75	29389609.95	0.0506	0.0052
Venus	75754-07-25 22:34 G	29389846.28	29389846.44	29389846.59	0.0497	0.0315
Mercury	75755-04-11 12:15 G	29390105.86	29390106.01	29390106.15	0.0490	0.0060
Mars	75756-12-11 04:19 G	29390715.46	29390715.68	29390715.91	0.0485	0.0224
Venus	75759-09-25 11:31 G	29391733.85	29391733.98	29391734.12	0.0513	0.0371
Venus	75760-05-19 11:17 G	29391970.77	29391970.97	29391971.17	0.0523	0.0024
Earth	75760-09-19 13:27 G	29392093.87	29392094.06	29392094.26	0.0528	0.0267
Moon	75760-09-19 15:22 G	29392093.95	29392094.14	29392094.33	0.0528	0.0271 *
Venus	75761-01-11 23:31 G	29392208.37	29392208.48	29392208.59	0.0532	0.0447
Mercury	75761-06-12 22:48 G	29392360.29	29392360.45	29392360.60	0.0537	0.0028
Venus	75765-08-06 00:00 G	29393875.30	29393875.50	29393875.69	0.0509	0.0164
Earth	75766-03-18 14:24 G	29394100.00	29394100.10	29394100.21	0.0501	0.0450
Moon	75766-03-18 17:31 G	29394100.17	29394100.23	29394100.29	0.0501	0.0483 *
Venus	75766-03-30 20:24 G	29394112.16	29394112.35	29394112.53	0.0500	0.0214
Mercury	75767-01-28 14:53 G	29394415.98	29394416.12	29394416.27	0.0491	0.0107

Venus	75771-05-31 10:34 G	29395999.87	29395999.94	29396000.03	0.0510	0.0467
Venus	75772-01-23 06:43 G	29396236.58	29396236.78	29396236.98	0.0520	0.0091
Venus	75772-09-16 15:07 G	29396473.97	29396474.13	29396474.28	0.0530	0.0330
Moon	75772-09-24 10:19 G	29396481.71	29396481.93	29396482.16	0.0530	0.0195
Earth	75772-09-24 10:19 G	29396481.73	29396481.93	29396482.14	0.0530	0.0229 *
Mercury	75773-03-31 22:19 G	29396670.29	29396670.43	29396670.58	0.0536	0.0208
Venus	75777-04-10 19:12 G	29398141.13	29398141.30	29398141.48	0.0512	0.0273
Venus	75777-12-03 19:27 G	29398378.11	29398378.31	29398378.51	0.0503	0.0114
Moon	75778-03-23 04:05 G	29398487.42	29398487.67	29398487.91	0.0499	0.0027
Earth	75778-03-23 06:00 G	29398487.51	29398487.75	29398487.98	0.0499	0.0021 *
Venus	75778-07-28 07:41 G	29398614.75	29398614.82	29398614.90	0.0495	0.0459
Mercury	75778-11-16 18:15 G	29398726.14	29398726.26	29398726.38	0.0492	0.0264
Mercury	75779-02-14 04:34 G	29398815.60	29398815.69	29398815.78	0.0490	0.0390
Venus	75783-09-28 01:27 G	29400502.37	29400502.56	29400502.74	0.0518	0.0203
Venus	75784-05-22 06:15 G	29400739.58	29400739.76	29400739.95	0.0528	0.0210
Mercury	75785-01-17 21:36 G	29400980.32	29400980.40	29400980.49	0.0536	0.0449
Mercury	75785-04-17 20:24 G	29401070.28	29401070.35	29401070.42	0.0539	0.0475
Venus	75788-12-14 14:53 G	29402406.99	29402407.12	29402407.27	0.0515	0.0379
Venus	75789-08-08 18:29 G	29402644.06	29402644.27	29402644.47	0.0505	0.0014
Earth	75790-03-27 21:36 G	29402875.27	29402875.40	29402875.53	0.0497	0.0408
Moon	75790-03-27 21:36 G	29402875.30	29402875.40	29402875.51	0.0497	0.0438 *
Venus	75790-04-02 09:36 G	29402880.77	29402880.90	29402881.04	0.0497	0.0372
Mercury	75790-09-04 21:51 G	29403036.33	29403036.41	29403036.48	0.0492	0.0417
Mercury	75790-12-03 07:41 G	29403125.69	29403125.82	29403125.95	0.0490	0.0232
Venus	75795-06-02 23:17 G	29404768.31	29404768.47	29404768.63	0.0515	0.0307
Venus	75796-01-26 00:43 G	29405005.33	29405005.53	29405005.73	0.0525	0.0094
Venus	75796-09-19 15:07 G	29405243.09	29405243.13	29405243.18	0.0534	0.0518
Mercury	75797-02-03 20:53 G	29405380.24	29405380.37	29405380.51	0.0538	0.0259
Venus	75800-08-20 09:22 G	29406672.83	29406672.89	29406672.97	0.0518	0.0485
Venus	75801-04-14 16:05 G	29406909.97	29406910.17	29406910.37	0.0508	0.0092

Venus	75801-12-07 10:05 G	29407146.76	29407146.92	29407147.10	0.0499	0.0279
Mercury	75802-09-22 10:48 G	29407435.80	29407435.95	29407436.10	0.0490	0.0069
Venus	75807-02-06 22:05 G	29409034.30	29409034.42	29409034.54	0.0512	0.0407
Venus	75807-10-01 20:39 G	29409271.16	29409271.36	29409271.56	0.0522	0.0022
Venus	75808-05-26 07:41 G	29409508.69	29409508.82	29409508.95	0.0532	0.0404
Mercury	75808-11-23 21:36 G	29409690.24	29409690.40	29409690.55	0.0538	0.0043
Venus	75812-12-18 12:29 G	29411175.83	29411176.02	29411176.21	0.0510	0.0199
Venus	75813-08-12 09:51 G	29411412.72	29411412.91	29411413.10	0.0501	0.0181
Mercury	75814-07-11 13:55 G	29411745.94	29411746.08	29411746.23	0.0491	0.0090
Venus	75818-10-12 22:34 G	29413300.41	29413300.44	29413300.47	0.0509	0.0501
Venus	75819-06-06 17:31 G	29413537.03	29413537.23	29413537.42	0.0519	0.0132
Venus	75820-01-30 00:29 G	29413774.35	29413774.52	29413774.69	0.0529	0.0285
Mercury	75820-09-11 21:22 G	29414000.24	29414000.39	29414000.54	0.0537	0.0187
Venus	75824-08-23 04:34 G	29415441.53	29415441.69	29415441.85	0.0513	0.0313
Venus	75825-04-17 05:46 G	29415678.54	29415678.74	29415678.95	0.0504	0.0076
Venus	75825-12-09 19:41 G	29415915.22	29415915.32	29415915.43	0.0496	0.0426
Mercury	75826-04-29 16:48 G	29416056.08	29416056.20	29416056.32	0.0492	0.0256
Mercury	75826-07-28 03:07 G	29416145.55	29416145.63	29416145.71	0.0490	0.0399
Venus	75831-02-09 14:10 G	29417802.91	29417803.09	29417803.27	0.0516	0.0241
Venus	75831-10-04 17:17 G	29418040.03	29418040.22	29418040.42	0.0526	0.0168
Mercury	75832-06-30 20:53 G	29418310.27	29418310.37	29418310.46	0.0536	0.0424
Mercury	75832-09-28 19:27 G	29418400.26	29418400.31	29418400.37	0.0538	0.0497
Venus	75836-04-27 22:05 G	29419707.30	29419707.42	29419707.54	0.0516	0.0422
Venus	75836-12-21 03:22 G	29419944.43	29419944.64	29419944.84	0.0506	0.0030
Venus	75837-08-14 20:24 G	29420181.20	29420181.35	29420181.50	0.0498	0.0335
Mercury	75838-02-15 20:10 G	29420366.26	29420366.34	29420366.42	0.0492	0.0413
Mercury	75838-05-16 06:00 G	29420455.63	29420455.75	29420455.88	0.0490	0.0238
Venus	75842-10-15 10:05 G	29422068.77	29422068.92	29422069.07	0.0513	0.0345
Venus	75843-06-09 09:51 G	29422305.71	29422305.91	29422306.11	0.0523	0.0049
Moon	75843-09-20 15:07 G	29422408.95	29422409.13	29422409.30	0.0528	0.0355

Earth	75843-09-20 15:36 G	29422408.98	29422409.15	29422409.32	0.0528	0.0351	*
Venus	75844-02-01 22:05 G	29422543.33	29422543.42	29422543.52	0.0533	0.0471	
Mercury	75844-07-17 18:58 G	29422710.16	29422710.29	29422710.43	0.0538	0.0263	
Venus	75848-08-26 00:43 G	29424210.34	29424210.53	29424210.73	0.0509	0.0135	
Venus	75849-04-19 20:53 G	29424447.20	29424447.37	29424447.56	0.0500	0.0241	
Mercury	75850-03-04 09:22 G	29424765.75	29424765.89	29424766.04	0.0491	0.0080	
Venus	75854-06-20 08:53 G	29426334.78	29426334.87	29426334.98	0.0511	0.0443	
Venus	75855-02-12 05:17 G	29426571.52	29426571.72	29426571.92	0.0521	0.0065	
Moon	75855-09-25 12:00 G	29426796.78	29426797.00	29426797.22	0.0530	0.0117	
Earth	75855-09-25 13:41 G	29426796.85	29426797.07	29426797.29	0.0530	0.0148	*
Venus	75855-10-07 14:10 G	29426808.95	29426809.09	29426809.25	0.0531	0.0356	
Mercury	75856-05-05 19:27 G	29427020.15	29427020.31	29427020.46	0.0538	0.0040	
Venus	75860-04-30 21:07 G	29428476.20	29428476.38	29428476.56	0.0512	0.0242	
Venus	75860-12-23 20:24 G	29428713.16	29428713.35	29428713.55	0.0502	0.0143	
Earth	75861-03-23 14:24 G	29428802.86	29428803.10	29428803.33	0.0499	0.0069	
Moon	75861-03-23 14:24 G	29428802.88	29428803.10	29428803.33	0.0499	0.0071	*
Venus	75861-08-17 08:10 G	29428949.80	29428949.84	29428949.88	0.0494	0.0483	
Mercury	75861-12-21 12:29 G	29429075.88	29429076.02	29429076.17	0.0491	0.0082	
Venus	75866-10-18 02:24 G	29430837.41	29430837.60	29430837.79	0.0518	0.0174	
Venus	75867-06-12 08:10 G	29431074.66	29431074.84	29431075.02	0.0528	0.0240	
Mercury	75868-02-22 19:41 G	29431330.18	29431330.32	29431330.47	0.0537	0.0180	
Venus	75872-01-04 16:05 G	29432742.02	29432742.17	29432742.32	0.0514	0.0350	
Venus	75872-08-28 18:43 G	29432979.08	29432979.28	29432979.49	0.0505	0.0040	
Earth	75873-03-28 04:34 G	29433190.53	29433190.69	29433190.86	0.0497	0.0354	
Moon	75873-03-28 06:43 G	29433190.62	29433190.78	29433190.93	0.0497	0.0383	*
Venus	75873-04-22 09:22 G	29433215.77	29433215.89	29433216.02	0.0496	0.0395	
Mercury	75873-10-09 15:51 G	29433386.03	29433386.16	29433386.29	0.0491	0.0239	
Mercury	75874-01-07 02:10 G	29433475.51	29433475.59	29433475.67	0.0489	0.0414	
Venus	75878-06-23 00:58 G	29435103.37	29435103.54	29435103.71	0.0515	0.0280	
Venus	75879-02-15 02:53 G	29435340.43	29435340.62	29435340.82	0.0525	0.0123	

Mercury	75879-12-11 19:41 G	29435640.22	29435640.32	29435640.42	0.0536	0.0408
Mercury	75880-03-10 18:15 G	29435730.22	29435730.26	29435730.31	0.0538	0.0514
Venus	75883-09-09 06:29 G	29437007.68	29437007.77	29437007.86	0.0517	0.0463
Venus	75884-05-03 12:58 G	29437244.83	29437245.04	29437245.24	0.0508	0.0071
Venus	75884-12-26 07:27 G	29437481.65	29437481.81	29437481.97	0.0499	0.0299
Mercury	75885-07-28 18:29 G	29437696.20	29437696.27	29437696.35	0.0492	0.0407
Mercury	75885-10-26 04:34 G	29437785.56	29437785.69	29437785.82	0.0490	0.0243
Venus	75890-02-25 23:03 G	29439369.33	29439369.46	29439369.60	0.0512	0.0381
Venus	75890-10-20 21:22 G	29439606.19	29439606.39	29439606.59	0.0522	0.0009
Venus	75891-06-15 07:55 G	29439843.72	29439843.83	29439843.95	0.0531	0.0428
Mercury	75891-12-28 18:15 G	29440040.13	29440040.26	29440040.39	0.0537	0.0284
Mars	75893-04-08 13:12 G	29440506.81	29440507.05	29440507.29	0.0542	0.0319
Venus	75896-01-07 08:39 G	29441510.67	29441510.86	29441511.05	0.0510	0.0179
Venus	75896-08-31 06:29 G	29441747.59	29441747.77	29441747.96	0.0501	0.0201
Mercury	75897-08-14 07:41 G	29442095.67	29442095.82	29442095.96	0.0491	0.0082
Venus	75901-11-01 20:10 G	29443635.28	29443635.34	29443635.42	0.0509	0.0477
Venus	75902-06-26 15:07 G	29443871.93	29443872.13	29443872.33	0.0519	0.0107
Venus	75903-02-18 22:05 G	29444109.26	29444109.42	29444109.58	0.0529	0.0309
Mercury	75903-10-17 17:31 G	29444350.07	29444350.23	29444350.38	0.0537	0.0043
Venus	75907-09-13 04:34 G	29445776.52	29445776.69	29445776.86	0.0513	0.0286
Venus	75908-05-07 05:46 G	29446013.54	29446013.74	29446013.95	0.0504	0.0102
Venus	75908-12-29 19:27 G	29446250.23	29446250.31	29446250.40	0.0495	0.0449
Mercury	75909-06-03 11:03 G	29446405.81	29446405.96	29446406.10	0.0491	0.0075
Mars	75911-03-09 04:48 G	29447049.46	29447049.70	29447049.94	0.0485	0.0154
Venus	75914-03-01 11:46 G	29448137.80	29448137.99	29448138.17	0.0517	0.0216
Venus	75914-10-24 15:22 G	29448374.95	29448375.14	29448375.32	0.0527	0.0193
Mercury	75915-08-05 17:31 G	29448660.08	29448660.23	29448660.38	0.0537	0.0185
Venus	75919-05-18 23:31 G	29450042.35	29450042.48	29450042.61	0.0516	0.0393
Venus	75920-01-11 04:05 G	29450279.47	29450279.67	29450279.88	0.0506	0.0006
Venus	75920-09-03 20:24 G	29450516.21	29450516.35	29450516.49	0.0497	0.0359

Mercury	75921-03-22 14:10 G	29450715.97	29450716.09	29450716.22	0.0491	0.0234
Mercury	75921-06-20 00:29 G	29450805.45	29450805.52	29450805.59	0.0489	0.0419
Venus	75925-11-04 09:36 G	29452403.75	29452403.90	29452404.06	0.0514	0.0320
Venus	75926-06-29 10:19 G	29452640.73	29452640.93	29452641.13	0.0524	0.0077
Moon	75926-09-20 20:10 G	29452724.23	29452724.34	29452724.48	0.0528	0.0433
Earth	75926-09-20 21:36 G	29452724.27	29452724.40	29452724.54	0.0528	0.0418 *
Venus	75927-02-21 23:31 G	29452878.41	29452878.48	29452878.55	0.0533	0.0499
Mercury	75927-05-24 17:46 G	29452970.14	29452970.24	29452970.34	0.0536	0.0408
Mercury	75927-08-22 16:34 G	29453060.15	29453060.19	29453060.23	0.0539	0.0517
Venus	75931-01-21 17:03 G	29454308.16	29454308.21	29454308.26	0.0519	0.0500
Venus	75931-09-16 00:58 G	29454545.33	29454545.54	29454545.74	0.0509	0.0108
Venus	75932-05-09 20:24 G	29454782.18	29454782.35	29454782.52	0.0500	0.0266
Mercury	75933-01-08 17:31 G	29455026.15	29455026.23	29455026.32	0.0492	0.0391
Mercury	75933-04-08 03:22 G	29455115.52	29455115.64	29455115.77	0.0490	0.0258
Venus	75937-07-10 09:36 G	29456669.80	29456669.90	29456670.03	0.0511	0.0419
Venus	75938-03-04 06:43 G	29456906.58	29456906.78	29456906.98	0.0521	0.0037
Earth	75938-09-25 20:53 G	29457112.14	29457112.37	29457112.59	0.0529	0.0089
Moon	75938-09-26 00:15 G	29457112.27	29457112.51	29457112.74	0.0529	0.0062 *
Venus	75938-10-27 15:51 G	29457144.03	29457144.16	29457144.30	0.0530	0.0383
Mercury	75939-06-10 16:48 G	29457370.07	29457370.20	29457370.33	0.0538	0.0297
Venus	75943-05-21 17:31 G	29458811.04	29458811.23	29458811.42	0.0511	0.0220
Venus	75944-01-13 16:48 G	29459048.01	29459048.20	29459048.40	0.0502	0.0162
Earth	75944-03-23 15:07 G	29459117.91	29459118.13	29459118.36	0.0500	0.0146
Moon	75944-03-23 16:48 G	29459117.97	29459118.20	29459118.44	0.0500	0.0139 *
Mercury	75945-01-25 06:00 G	29459425.60	29459425.75	29459425.89	0.0491	0.0086
Venus	75949-11-07 02:39 G	29461172.42	29461172.61	29461172.81	0.0518	0.0148
Venus	75950-07-02 08:24 G	29461409.67	29461409.85	29461410.02	0.0528	0.0266
Mercury	75951-03-29 16:34 G	29461680.04	29461680.19	29461680.34	0.0537	0.0065
Venus	75955-01-24 11:17 G	29463076.82	29463076.97	29463077.13	0.0514	0.0330
Venus	75955-09-18 14:10 G	29463313.89	29463314.09	29463314.30	0.0505	0.0061

Moon	75956-03-28 01:41 G	29463505.40	29463505.57	29463505.76	0.0498	0.0309
Earth	75956-03-28 05:03 G	29463505.52	29463505.71	29463505.91	0.0498	0.0279 *
Venus	75956-05-12 05:31 G	29463550.61	29463550.73	29463550.84	0.0497	0.0413
Mercury	75956-11-13 09:07 G	29463735.73	29463735.88	29463736.02	0.0491	0.0078
Venus	75961-07-12 21:51 G	29465438.23	29465438.41	29465438.58	0.0515	0.0256
Venus	75962-03-06 23:32 G	29465675.29	29465675.48	29465675.67	0.0525	0.0147
Mercury	75963-01-15 15:22 G	29465990.00	29465990.14	29465990.29	0.0536	0.0184
Venus	75966-09-29 05:32 G	29467342.62	29467342.73	29467342.84	0.0517	0.0437
Venus	75967-05-24 12:00 G	29467579.80	29467580.00	29467580.21	0.0508	0.0044
Venus	75968-01-16 06:29 G	29467816.62	29467816.77	29467816.93	0.0499	0.0323
Mercury	75968-09-01 12:29 G	29468045.89	29468046.02	29468046.15	0.0492	0.0232
Mercury	75968-11-29 22:48 G	29468135.38	29468135.45	29468135.52	0.0490	0.0423
Venus	75973-03-17 19:41 G	29469704.17	29469704.32	29469704.46	0.0512	0.0358
Venus	75973-11-09 18:00 G	29469941.04	29469941.25	29469941.45	0.0522	0.0034
Venus	75974-07-05 05:03 G	29470178.60	29470178.71	29470178.81	0.0532	0.0451
Mercury	75974-11-03 15:08 G	29470300.04	29470300.13	29470300.23	0.0536	0.0416
Mercury	75975-02-01 13:56 G	29470390.04	29470390.08	29470390.13	0.0538	0.0509
Venus	75979-01-27 08:53 G	29471845.68	29471845.87	29471846.07	0.0510	0.0151
Venus	75979-09-21 06:15 G	29472082.58	29472082.76	29472082.95	0.0501	0.0227
Mercury	75980-06-20 15:51 G	29472356.07	29472356.16	29472356.25	0.0492	0.0389
Mercury	75980-09-18 01:41 G	29472445.45	29472445.57	29472445.70	0.0490	0.0260
Venus	75984-11-20 18:44 G	29473970.20	29473970.28	29473970.37	0.0510	0.0455
Venus	75985-07-15 14:10 G	29474206.89	29474207.09	29474207.29	0.0520	0.0081
Venus	75986-03-09 21:51 G	29474444.26	29474444.41	29474444.57	0.0530	0.0336
Mercury	75986-11-20 14:39 G	29474699.98	29474700.11	29474700.24	0.0538	0.0293
Venus	75990-10-02 04:20 G	29476111.50	29476111.68	29476111.86	0.0513	0.0258
Venus	75991-05-27 04:48 G	29476348.50	29476348.70	29476348.90	0.0503	0.0127
Venus	75992-01-18 18:00 G	29476585.19	29476585.25	29476585.31	0.0495	0.0470
Mercury	75992-07-07 04:48 G	29476755.56	29476755.70	29476755.84	0.0491	0.0098
Venus	75997-03-20 12:00 G	29478472.81	29478473.00	29478473.19	0.0517	0.0189

Venus 75997-11-12 16:05 G 29478709.99 29478710.17 29478710.36 0.0527 0.0220

Mercury 75998-09-08 14:53 G 29479009.97 29479010.12 29479010.28 0.0537 0.0073

77TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 77th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	76002-06-06 19:41	G	29480377.18	29480377.32	29480377.46	0.0515	0.0371	
Venus	76003-01-29 23:46	G	29480614.29	29480614.49	29480614.70	0.0506	0.0021	
Venus	76003-09-23 16:05	G	29480851.04	29480851.17	29480851.31	0.0497	0.0378	
Mercury	76004-04-25 07:12	G	29481065.66	29481065.80	29481065.95	0.0491	0.0075	
Venus	76008-11-23 09:36	G	29482738.74	29482738.90	29482739.07	0.0514	0.0294	
Venus	76009-07-18 10:05	G	29482975.72	29482975.92	29482976.12	0.0524	0.0104	
Earth	76009-09-20 01:56	G	29483039.50	29483039.58	29483039.66	0.0526	0.0491	
Moon	76009-09-20 04:48	G	29483039.66	29483039.70	29483039.76	0.0526	0.0512	*
Venus	76010-03-12 22:48	G	29483213.42	29483213.45	29483213.49	0.0533	0.0521	
Mercury	76010-06-27 14:39	G	29483319.96	29483320.11	29483320.25	0.0536	0.0163	
Venus	76014-02-09 11:46	G	29484642.92	29484642.99	29484643.07	0.0518	0.0480	
Venus	76014-10-04 19:41	G	29484880.11	29484880.32	29484880.52	0.0509	0.0088	
Venus	76015-05-29 15:22	G	29485116.97	29485117.14	29485117.31	0.0500	0.0284	
Mercury	76016-02-12 10:20	G	29485375.81	29485375.93	29485376.06	0.0492	0.0236	
Mercury	76016-05-11 20:39	G	29485465.29	29485465.36	29485465.43	0.0490	0.0420	
Venus	76020-07-29 06:00	G	29487004.63	29487004.75	29487004.88	0.0511	0.0394	
Venus	76021-03-23 02:39	G	29487241.41	29487241.61	29487241.81	0.0521	0.0015	

Moon	76021-09-24 14:10 G	29487426.87	29487427.09	29487427.32	0.0528	0.0051
Earth	76021-09-24 18:15 G	29487427.03	29487427.26	29487427.49	0.0528	0.0019 *
Venus	76021-11-15 11:32 G	29487478.86	29487478.98	29487479.11	0.0530	0.0404
Mercury	76022-04-15 13:12 G	29487629.95	29487630.05	29487630.14	0.0536	0.0417
Mercury	76022-07-14 12:00 G	29487719.95	29487720.00	29487720.05	0.0538	0.0506
Venus	76026-06-09 15:51 G	29489145.97	29489146.16	29489146.35	0.0512	0.0195
Venus	76027-02-01 15:08 G	29489382.94	29489383.13	29489383.32	0.0502	0.0188
Moon	76027-03-23 16:20 G	29489432.97	29489433.18	29489433.39	0.0500	0.0201
Earth	76027-03-23 19:27 G	29489433.10	29489433.31	29489433.52	0.0500	0.0213 *
Mercury	76027-12-01 13:56 G	29489685.99	29489686.08	29489686.17	0.0493	0.0390
Mercury	76028-02-28 23:46 G	29489775.37	29489775.49	29489775.62	0.0490	0.0260
Venus	76032-04-03 05:03 G	29491270.66	29491270.71	29491270.76	0.0508	0.0489
Venus	76032-11-25 22:20 G	29491507.23	29491507.43	29491507.62	0.0518	0.0124
Venus	76033-07-21 04:05 G	29491744.50	29491744.67	29491744.84	0.0528	0.0288
Earth	76033-09-29 14:53 G	29491815.03	29491815.12	29491815.22	0.0531	0.0480
Moon	76033-09-29 18:58 G	29491815.21	29491815.29	29491815.37	0.0531	0.0497 *
Mercury	76034-05-02 12:00 G	29492029.87	29492030.00	29492030.13	0.0538	0.0281
Venus	76038-02-12 11:03 G	29493411.80	29493411.96	29493412.13	0.0514	0.0303
Venus	76038-10-07 13:41 G	29493648.87	29493649.07	29493649.27	0.0504	0.0086
Earth	76039-03-28 10:34 G	29493820.73	29493820.94	29493821.16	0.0498	0.0218
Moon	76039-03-28 14:39 G	29493820.91	29493821.11	29493821.32	0.0498	0.0251 *
Venus	76039-06-01 04:20 G	29493885.58	29493885.68	29493885.77	0.0496	0.0436
Mercury	76039-12-18 02:53 G	29494085.48	29494085.62	29494085.76	0.0491	0.0098
Venus	76044-07-31 19:41 G	29495773.14	29495773.32	29495773.50	0.0516	0.0232
Venus	76045-03-25 22:05 G	29496010.23	29496010.42	29496010.61	0.0526	0.0173
Mercury	76046-02-18 12:15 G	29496339.86	29496340.01	29496340.17	0.0537	0.0064
Mars	76047-07-04 13:27 G	29496840.81	29496841.06	29496841.34	0.0543	0.0246
Venus	76049-10-18 05:03 G	29497677.59	29497677.71	29497677.84	0.0517	0.0411
Venus	76050-06-12 11:03 G	29497914.75	29497914.96	29497915.16	0.0507	0.0021
Venus	76051-02-04 04:48 G	29498151.55	29498151.70	29498151.84	0.0498	0.0345

Mercury	76051-10-06 06:00 G	29498395.61	29498395.75	29498395.90	0.0491	0.0063
Venus	76056-04-05 18:44 G	29500039.13	29500039.28	29500039.44	0.0513	0.0334
Venus	76056-11-28 18:00 G	29500276.05	29500276.25	29500276.45	0.0523	0.0059
Venus	76057-07-24 05:32 G	29500513.64	29500513.73	29500513.82	0.0532	0.0476
Mercury	76057-12-07 12:44 G	29500649.88	29500650.03	29500650.18	0.0536	0.0161
Venus	76062-02-15 04:34 G	29502180.49	29502180.69	29502180.89	0.0510	0.0128
Venus	76062-10-10 01:27 G	29502417.39	29502417.56	29502417.74	0.0501	0.0247
Mercury	76063-07-25 08:39 G	29502705.73	29502705.86	29502705.98	0.0492	0.0235
Mercury	76063-10-22 18:44 G	29502795.21	29502795.28	29502795.36	0.0490	0.0420
Mars	76065-06-01 18:00 G	29503383.21	29503383.25	29503383.32	0.0486	0.0473
Venus	76067-12-10 18:00 G	29504305.14	29504305.25	29504305.36	0.0510	0.0430
Venus	76068-08-03 13:27 G	29504541.86	29504542.06	29504542.26	0.0520	0.0054
Venus	76069-03-28 21:08 G	29504779.24	29504779.38	29504779.53	0.0529	0.0361
Mercury	76069-09-25 12:00 G	29504959.90	29504960.00	29504960.11	0.0535	0.0397
Mercury	76069-12-24 10:48 G	29505049.93	29505049.95	29505049.98	0.0538	0.0526
Venus	76073-10-20 22:48 G	29506446.27	29506446.45	29506446.63	0.0513	0.0238
Venus	76074-06-14 23:17 G	29506683.28	29506683.47	29506683.67	0.0503	0.0147
Venus	76075-02-06 12:44 G	29506920.00	29506920.03	29506920.07	0.0495	0.0487
Mercury	76075-05-13 11:46 G	29507015.91	29507015.99	29507016.07	0.0493	0.0395
Mercury	76075-08-10 21:36 G	29507105.28	29507105.40	29507105.53	0.0490	0.0255
Venus	76080-04-08 07:27 G	29508807.62	29508807.81	29508808.00	0.0517	0.0166
Venus	76080-12-01 11:17 G	29509044.79	29509044.97	29509045.15	0.0527	0.0242
Mercury	76081-10-12 09:51 G	29509359.78	29509359.91	29509360.04	0.0537	0.0279
Venus	76085-06-25 17:03 G	29510712.06	29510712.21	29510712.36	0.0516	0.0347
Venus	76086-02-17 21:36 G	29510949.19	29510949.40	29510949.60	0.0506	0.0046
Venus	76086-10-12 13:56 G	29511185.96	29511186.08	29511186.20	0.0497	0.0401
Mercury	76087-05-30 00:58 G	29511415.40	29511415.54	29511415.68	0.0491	0.0097
Venus	76091-12-13 04:34 G	29513073.52	29513073.69	29513073.86	0.0514	0.0272
Venus	76092-08-06 04:48 G	29513310.51	29513310.70	29513310.90	0.0524	0.0127
Mercury	76093-07-31 09:36 G	29513669.75	29513669.90	29513670.06	0.0537	0.0050

Venus	76097-02-28 10:48 G	29514977.86	29514977.95	29514978.05	0.0519	0.0455
Venus	76097-10-23 18:44 G	29515215.07	29515215.28	29515215.48	0.0508	0.0061
Venus	76098-06-17 14:10 G	29515451.93	29515452.09	29515452.25	0.0499	0.0308
Mercury	76099-03-18 04:05 G	29515725.53	29515725.67	29515725.82	0.0491	0.0064
Venus	76103-08-19 02:53 G	29517339.49	29517339.62	29517339.76	0.0511	0.0373
Venus	76104-04-12 00:00 G	29517576.30	29517576.50	29517576.70	0.0521	0.0013
Earth	76104-09-24 19:27 G	29517742.08	29517742.31	29517742.53	0.0528	0.0107
Moon	76104-09-24 23:17 G	29517742.25	29517742.47	29517742.69	0.0528	0.0135 *
Venus	76104-12-05 09:51 G	29517813.79	29517813.91	29517814.03	0.0531	0.0428
Mercury	76105-05-20 09:51 G	29517979.76	29517979.91	29517980.06	0.0537	0.0177
Venus	76109-06-29 14:39 G	29519480.92	29519481.11	29519481.31	0.0511	0.0168
Venus	76110-02-21 13:27 G	29519717.87	29519718.06	29519718.24	0.0502	0.0212
Earth	76110-03-23 23:03 G	29519748.27	29519748.46	29519748.66	0.0501	0.0282
Moon	76110-03-24 03:08 G	29519748.43	29519748.63	29519748.84	0.0501	0.0261 *
Mercury	76111-01-05 07:27 G	29520035.68	29520035.81	29520035.93	0.0492	0.0224
Mercury	76111-04-04 17:32 G	29520125.16	29520125.23	29520125.30	0.0490	0.0430
Venus	76115-04-24 03:22 G	29521605.57	29521605.64	29521605.72	0.0509	0.0467
Venus	76115-12-16 21:22 G	29521842.20	29521842.39	29521842.59	0.0519	0.0099
Venus	76116-08-10 03:51 G	29522079.50	29522079.66	29522079.82	0.0528	0.0314
Moon	76116-09-29 16:05 G	29522130.03	29522130.17	29522130.32	0.0530	0.0419
Earth	76116-09-29 19:12 G	29522130.16	29522130.30	29522130.46	0.0530	0.0406 *
Mercury	76117-03-08 09:51 G	29522289.81	29522289.91	29522290.02	0.0536	0.0399
Mercury	76117-06-06 08:53 G	29522379.84	29522379.87	29522379.90	0.0538	0.0526
Venus	76121-03-04 06:58 G	29523746.63	29523746.79	29523746.97	0.0514	0.0280
Venus	76121-10-27 09:08 G	29523983.68	29523983.88	29523984.08	0.0504	0.0108
Moon	76122-03-28 05:46 G	29524135.52	29524135.74	29524135.97	0.0499	0.0164
Earth	76122-03-28 09:51 G	29524135.69	29524135.91	29524136.14	0.0499	0.0133 *
Venus	76122-06-20 23:17 G	29524220.40	29524220.47	29524220.56	0.0496	0.0453
Mercury	76122-10-24 10:05 G	29524345.83	29524345.92	29524346.00	0.0492	0.0394
Mercury	76123-01-21 19:41 G	29524435.20	29524435.32	29524435.45	0.0490	0.0256

Venus	76127-08-21 18:29 G	29526108.09	29526108.27	29526108.46	0.0516	0.0206
Venus	76128-04-14 21:08 G	29526345.19	29526345.38	29526345.57	0.0526	0.0199
Mercury	76129-03-25 08:53 G	29526689.74	29526689.87	29526690.00	0.0537	0.0298
Venus	76132-11-06 23:46 G	29528012.36	29528012.49	29528012.63	0.0517	0.0390
Venus	76133-07-02 05:32 G	29528249.52	29528249.73	29528249.94	0.0507	0.0003
Venus	76134-02-23 23:17 G	29528486.33	29528486.47	29528486.61	0.0498	0.0364
Mercury	76134-11-09 22:48 G	29528745.31	29528745.45	29528745.59	0.0491	0.0091
Venus	76139-04-26 14:24 G	29530373.94	29530374.10	29530374.26	0.0513	0.0311
Venus	76139-12-19 12:58 G	29530610.84	29530611.04	29530611.24	0.0523	0.0081
Venus	76140-08-13 00:00 G	29530848.44	29530848.50	29530848.58	0.0532	0.0496
Mercury	76141-01-11 07:27 G	29530999.66	29530999.81	29530999.97	0.0537	0.0049
Venus	76144-07-12 16:05 G	29532278.12	29532278.17	29532278.23	0.0520	0.0498
Venus	76145-03-07 01:41 G	29532515.37	29532515.57	29532515.77	0.0510	0.0104
Venus	76145-10-29 23:03 G	29532752.29	29532752.46	29532752.63	0.0501	0.0270
Mercury	76146-08-29 02:10 G	29533055.44	29533055.59	29533055.73	0.0492	0.0066
Venus	76150-12-30 12:58 G	29534639.92	29534640.04	29534640.16	0.0510	0.0409
Venus	76151-08-24 07:56 G	29534876.63	29534876.83	29534877.03	0.0520	0.0033
Venus	76152-04-17 15:22 G	29535114.01	29535114.14	29535114.28	0.0529	0.0382
Mercury	76152-10-30 07:12 G	29535309.65	29535309.80	29535309.94	0.0536	0.0189
Venus	76156-11-09 21:36 G	29536781.21	29536781.40	29536781.58	0.0513	0.0212
Venus	76157-07-04 22:05 G	29537018.23	29537018.42	29537018.61	0.0503	0.0172
Mercury	76158-06-17 05:32 G	29537365.60	29537365.73	29537365.85	0.0492	0.0225
Mercury	76158-09-14 15:22 G	29537455.08	29537455.14	29537455.22	0.0490	0.0430
Venus	76162-09-04 12:15 G	29538905.99	29538906.01	29538906.03	0.0507	0.0502
Venus	76163-04-29 04:20 G	29539142.49	29539142.68	29539142.87	0.0517	0.0143
Venus	76163-12-22 08:39 G	29539379.69	29539379.86	29539380.04	0.0527	0.0266
Mercury	76164-08-18 06:58 G	29539619.69	29539619.79	29539619.89	0.0536	0.0418
Mercury	76164-11-16 06:00 G	29539709.71	29539709.75	29539709.80	0.0538	0.0510
Venus	76168-07-15 16:05 G	29541047.02	29541047.17	29541047.34	0.0515	0.0321
Venus	76169-03-09 19:56 G	29541284.13	29541284.33	29541284.54	0.0505	0.0071

Venus	76169-11-01 11:46 G	29541520.89	29541520.99	29541521.10	0.0497	0.0422
Mercury	76170-04-05 08:39 G	29541675.78	29541675.86	29541675.95	0.0492	0.0383
Mercury	76170-07-03 18:29 G	29541765.15	29541765.27	29541765.40	0.0490	0.0266
Venus	76175-01-02 03:08 G	29543408.45	29543408.63	29543408.80	0.0515	0.0248
Venus	76175-08-27 04:05 G	29543645.48	29543645.67	29543645.86	0.0525	0.0152
Mercury	76176-09-04 06:44 G	29544019.65	29544019.78	29544019.91	0.0538	0.0296
Venus	76180-03-20 07:41 G	29545312.71	29545312.82	29545312.94	0.0518	0.0430
Venus	76180-11-12 14:53 G	29545549.91	29545550.12	29545550.32	0.0508	0.0039
Venus	76181-07-07 09:36 G	29545786.75	29545786.90	29545787.06	0.0499	0.0328
Mercury	76182-04-21 20:53 G	29546075.23	29546075.37	29546075.52	0.0491	0.0093
Mars	76183-11-24 02:39 G	29546656.41	29546656.61	29546656.82	0.0485	0.0283
Venus	76186-09-07 01:41 G	29547674.42	29547674.57	29547674.71	0.0512	0.0348
Venus	76187-05-01 23:03 G	29547911.26	29547911.46	29547911.67	0.0522	0.0040
Moon	76187-09-24 19:27 G	29548057.10	29548057.31	29548057.52	0.0528	0.0216
Earth	76187-09-24 22:48 G	29548057.24	29548057.45	29548057.67	0.0528	0.0187 *
Venus	76187-12-25 08:53 G	29548148.78	29548148.87	29548148.98	0.0531	0.0454
Mercury	76188-06-23 06:29 G	29548329.62	29548329.77	29548329.93	0.0537	0.0066
Venus	76192-07-18 09:51 G	29549815.71	29549815.91	29549816.11	0.0511	0.0146
Venus	76193-03-12 08:10 G	29550052.66	29550052.84	29550053.02	0.0502	0.0232
Moon	76193-03-22 17:03 G	29550063.05	29550063.21	29550063.38	0.0501	0.0358
Earth	76193-03-22 21:08 G	29550063.23	29550063.38	29550063.54	0.0501	0.0374 *
Mercury	76194-02-08 00:00 G	29550385.36	29550385.50	29550385.65	0.0492	0.0070
Venus	76198-05-12 23:17 G	29551940.38	29551940.47	29551940.57	0.0509	0.0445
Venus	76199-01-04 16:48 G	29552177.00	29552177.20	29552177.40	0.0518	0.0076
Venus	76199-08-29 22:34 G	29552414.29	29552414.44	29552414.60	0.0528	0.0336
Earth	76199-09-29 14:53 G	29552444.94	29552445.12	29552445.32	0.0529	0.0291
Moon	76199-09-29 16:48 G	29552445.02	29552445.20	29552445.38	0.0529	0.0312 *
Mercury	76200-04-12 05:03 G	29552639.56	29552639.71	29552639.86	0.0536	0.0190
Venus	76204-03-24 03:51 G	29554081.49	29554081.66	29554081.84	0.0514	0.0256
Venus	76204-11-16 06:29 G	29554318.57	29554318.77	29554318.97	0.0504	0.0132

Earth	76205-03-28 12:44 G	29554450.80	29554451.03	29554451.27	0.0500	0.0060
Moon	76205-03-28 16:05 G	29554450.94	29554451.17	29554451.40	0.0500	0.0090 *
Venus	76205-07-10 21:08 G	29554555.32	29554555.38	29554555.44	0.0496	0.0475
Mercury	76205-11-28 03:22 G	29554695.52	29554695.64	29554695.77	0.0492	0.0227
Mercury	76206-02-25 13:27 G	29554785.00	29554785.06	29554785.14	0.0490	0.0429
Venus	76210-09-10 13:27 G	29556442.87	29556443.06	29556443.25	0.0516	0.0184
Venus	76211-05-05 15:36 G	29556679.97	29556680.15	29556680.33	0.0525	0.0220
Mercury	76212-01-30 04:20 G	29556949.59	29556949.68	29556949.78	0.0535	0.0428
Mercury	76212-04-29 03:36 G	29557039.59	29557039.65	29557039.70	0.0538	0.0498
Venus	76215-11-27 22:05 G	29558347.29	29558347.42	29558347.57	0.0517	0.0365
Venus	76216-07-22 04:05 G	29558584.47	29558584.67	29558584.88	0.0507	0.0030
Venus	76217-03-15 21:36 G	29558821.28	29558821.40	29558821.54	0.0498	0.0388
Moon	76217-04-02 02:10 G	29558838.52	29558838.59	29558838.66	0.0498	0.0477
Earth	76217-04-02 03:51 G	29558838.62	29558838.66	29558838.70	0.0498	0.0490 *
Mercury	76217-09-16 06:58 G	29559005.70	29559005.79	29559005.88	0.0493	0.0383
Mercury	76217-12-14 16:34 G	29559095.07	29559095.19	29559095.32	0.0490	0.0267
Venus	76222-05-16 10:48 G	29560708.79	29560708.95	29560709.12	0.0513	0.0289
Venus	76223-01-08 10:05 G	29560945.72	29560945.92	29560946.11	0.0523	0.0105
Venus	76223-09-02 21:36 G	29561183.37	29561183.40	29561183.45	0.0532	0.0519
Mercury	76224-02-16 03:51 G	29561349.53	29561349.66	29561349.79	0.0538	0.0278
Venus	76227-08-02 15:51 G	29562613.07	29562613.16	29562613.24	0.0520	0.0472
Venus	76228-03-27 00:44 G	29562850.33	29562850.53	29562850.74	0.0509	0.0079
Venus	76228-11-18 21:36 G	29563087.23	29563087.40	29563087.56	0.0500	0.0294
Mercury	76229-10-02 19:41 G	29563405.18	29563405.32	29563405.47	0.0491	0.0105
Venus	76234-01-19 10:48 G	29564974.82	29564974.95	29564975.08	0.0510	0.0387
Venus	76234-09-13 06:44 G	29565211.58	29565211.78	29565211.98	0.0520	0.0008
Venus	76235-05-08 15:08 G	29565449.00	29565449.13	29565449.26	0.0530	0.0407
Mercury	76235-12-05 04:20 G	29565659.53	29565659.68	29565659.84	0.0537	0.0062
Venus	76239-11-30 18:44 G	29567116.09	29567116.28	29567116.47	0.0512	0.0187
Venus	76240-07-24 18:29 G	29567353.09	29567353.27	29567353.47	0.0503	0.0195

Mercury	76241-07-21 22:20 G	29567715.29	29567715.43	29567715.58	0.0491	0.0067
Venus	76245-09-24 10:48 G	29569240.89	29569240.95	29569241.01	0.0508	0.0479
Venus	76246-05-19 03:36 G	29569477.45	29569477.65	29569477.84	0.0518	0.0116
Venus	76247-01-11 08:24 G	29569714.68	29569714.85	29569715.01	0.0527	0.0293
Mercury	76247-09-23 04:05 G	29569969.52	29569969.67	29569969.82	0.0536	0.0169
Venus	76251-08-05 12:15 G	29571381.85	29571382.01	29571382.18	0.0515	0.0297
Venus	76252-03-29 15:36 G	29571618.95	29571619.15	29571619.36	0.0505	0.0093
Venus	76252-11-21 07:27 G	29571855.72	29571855.81	29571855.90	0.0497	0.0441
Mercury	76253-05-10 01:27 G	29572025.44	29572025.56	29572025.69	0.0492	0.0229
Mercury	76253-08-07 11:32 G	29572114.91	29572114.98	29572115.06	0.0490	0.0427
Venus	76258-01-21 23:17 G	29573743.29	29573743.47	29573743.65	0.0514	0.0224
Venus	76258-09-15 23:46 G	29573980.30	29573980.49	29573980.68	0.0524	0.0175
Mercury	76259-07-12 02:24 G	29574279.51	29574279.60	29574279.70	0.0535	0.0426
Mercury	76259-10-10 01:41 G	29574369.51	29574369.57	29574369.62	0.0538	0.0500
Venus	76263-04-10 04:20 G	29575647.56	29575647.68	29575647.81	0.0518	0.0408
Venus	76263-12-03 12:00 G	29575884.80	29575885.00	29575885.21	0.0508	0.0016
Venus	76264-07-27 07:27 G	29576121.67	29576121.81	29576121.96	0.0499	0.0352
Mercury	76265-02-26 05:03 G	29576335.62	29576335.71	29576335.80	0.0493	0.0383
Mercury	76265-05-26 14:53 G	29576425.00	29576425.12	29576425.24	0.0491	0.0267
Venus	76269-09-26 21:22 G	29578009.23	29578009.39	29578009.54	0.0511	0.0327
Venus	76270-05-21 18:15 G	29578246.06	29578246.26	29578246.46	0.0521	0.0061
Earth	76270-09-24 18:58 G	29578372.10	29578372.29	29578372.48	0.0527	0.0298
Moon	76270-09-24 21:08 G	29578372.21	29578372.38	29578372.56	0.0527	0.0320 *
Venus	76271-01-14 03:36 G	29578483.57	29578483.65	29578483.75	0.0531	0.0474
Mercury	76271-07-29 01:27 G	29578679.43	29578679.56	29578679.69	0.0537	0.0270
Venus	76274-12-13 21:08 G	29579913.36	29579913.38	29579913.41	0.0521	0.0516
Venus	76275-08-08 08:24 G	29580150.65	29580150.85	29580151.05	0.0511	0.0121
Earth	76276-03-23 01:41 G	29580378.47	29580378.57	29580378.70	0.0502	0.0440
Moon	76276-03-23 05:32 G	29580378.61	29580378.73	29580378.86	0.0502	0.0419 *
Venus	76276-04-01 07:12 G	29580387.62	29580387.80	29580387.97	0.0502	0.0256

Mercury	76277-03-14 18:00 G	29580735.11	29580735.25	29580735.39	0.0491	0.0107
Venus	76281-06-01 19:56 G	29582275.23	29582275.33	29582275.45	0.0509	0.0424
Venus	76282-01-24 13:56 G	29582511.88	29582512.08	29582512.28	0.0519	0.0052
Venus	76282-09-18 20:10 G	29582749.20	29582749.34	29582749.49	0.0529	0.0360
Earth	76282-09-29 15:36 G	29582759.94	29582760.15	29582760.36	0.0529	0.0198
Moon	76282-09-29 15:36 G	29582759.94	29582760.15	29582760.37	0.0529	0.0223 *
Mercury	76283-05-17 01:27 G	29582989.41	29582989.56	29582989.72	0.0537	0.0046
Venus	76287-04-13 03:51 G	29584416.47	29584416.66	29584416.84	0.0514	0.0229
Venus	76287-12-06 05:46 G	29584653.55	29584653.74	29584653.94	0.0504	0.0158
Moon	76288-03-27 16:05 G	29584765.93	29584766.17	29584766.42	0.0500	0.0022
Earth	76288-03-27 18:00 G	29584766.02	29584766.25	29584766.49	0.0500	0.0009 *
Mercury	76288-12-31 21:22 G	29585045.24	29585045.39	29585045.53	0.0491	0.0055
Venus	76293-09-29 12:00 G	29586777.81	29586778.00	29586778.19	0.0516	0.0159
Venus	76294-05-24 14:53 G	29587014.95	29587015.12	29587015.30	0.0526	0.0247
Mercury	76295-03-05 01:56 G	29587299.43	29587299.58	29587299.73	0.0536	0.0173
Venus	76298-12-16 20:53 G	29588682.22	29588682.37	29588682.53	0.0516	0.0338
Venus	76299-08-11 01:56 G	29588919.38	29588919.58	29588919.79	0.0506	0.0053
Moon	76300-04-02 05:46 G	29589153.61	29589153.74	29589153.88	0.0498	0.0398
Earth	76300-04-02 06:00 G	29589153.63	29589153.75	29589153.88	0.0498	0.0416 *
Venus	76300-04-04 18:58 G	29589156.17	29589156.29	29589156.40	0.0498	0.0408
Mercury	76300-10-21 00:00 G	29589355.37	29589355.50	29589355.63	0.0492	0.0221
Mercury	76301-01-18 09:51 G	29589444.85	29589444.91	29589444.99	0.0490	0.0433
Venus	76305-06-05 10:20 G	29591043.76	29591043.93	29591044.11	0.0513	0.0263
Venus	76306-01-28 10:05 G	29591280.73	29591280.92	29591281.11	0.0523	0.0133
Mercury	76306-12-23 01:41 G	29591609.47	29591609.57	29591609.67	0.0536	0.0404
Mercury	76307-03-23 00:44 G	29591699.50	29591699.53	29591699.57	0.0538	0.0524
Venus	76310-08-22 13:12 G	29592947.94	29592948.05	29592948.15	0.0519	0.0447
Venus	76311-04-16 21:36 G	29593185.20	29593185.40	29593185.61	0.0509	0.0054
Venus	76311-12-09 18:00 G	29593422.10	29593422.25	29593422.42	0.0500	0.0316
Mercury	76312-08-09 03:22 G	29593665.55	29593665.64	29593665.73	0.0493	0.0380

Mercury	76312-11-06 12:58 G	29593754.92	29593755.04	29593755.17	0.0491	0.0269
Venus	76317-02-08 08:10 G	29595309.70	29595309.84	29595309.98	0.0510	0.0363
Venus	76317-10-03 03:36 G	29595546.45	29595546.65	29595546.85	0.0520	0.0018
Venus	76318-05-28 11:17 G	29595783.86	29595783.97	29595784.10	0.0530	0.0430
Mercury	76319-01-08 23:46 G	29596009.35	29596009.49	29596009.62	0.0537	0.0276
Venus	76322-12-20 16:05 G	29597450.98	29597451.17	29597451.37	0.0512	0.0163
Venus	76323-08-14 16:34 G	29597688.01	29597688.19	29597688.38	0.0503	0.0218
Mercury	76324-08-25 16:20 G	29598065.04	29598065.18	29598065.32	0.0491	0.0110
Venus	76328-10-14 07:41 G	29599575.74	29599575.82	29599575.91	0.0507	0.0457
Venus	76329-06-07 23:46 G	29599812.30	29599812.49	29599812.69	0.0517	0.0094
Venus	76330-01-31 04:05 G	29600049.51	29600049.67	29600049.83	0.0527	0.0315
Mercury	76330-10-27 23:17 G	29600319.32	29600319.47	29600319.63	0.0536	0.0045
Venus	76334-08-25 10:48 G	29601716.78	29601716.95	29601717.12	0.0515	0.0273
Venus	76335-04-19 14:53 G	29601953.92	29601954.12	29601954.32	0.0506	0.0117
Venus	76335-12-12 06:44 G	29602190.71	29602190.78	29602190.85	0.0497	0.0464
Mercury	76336-06-13 19:41 G	29602375.17	29602375.32	29602375.46	0.0492	0.0050
Mars	76338-02-18 21:22 G	29602990.13	29602990.39	29602990.64	0.0485	0.0057
Venus	76341-02-10 20:39 G	29604078.18	29604078.36	29604078.55	0.0515	0.0201
Venus	76341-10-05 21:36 G	29604315.22	29604315.40	29604315.59	0.0525	0.0199
Mercury	76342-08-15 23:17 G	29604629.32	29604629.47	29604629.61	0.0536	0.0186
Venus	76346-04-30 05:03 G	29605982.57	29605982.71	29605982.85	0.0518	0.0381
Venus	76346-12-23 12:29 G	29606219.81	29606220.02	29606220.22	0.0508	0.0017
Venus	76347-08-17 07:12 G	29606456.67	29606456.80	29606456.94	0.0499	0.0376
Mercury	76348-04-01 23:03 G	29606685.33	29606685.46	29606685.59	0.0492	0.0206
Mercury	76348-06-30 08:53 G	29606774.82	29606774.87	29606774.93	0.0490	0.0448
Venus	76352-10-16 19:56 G	29608344.17	29608344.33	29608344.49	0.0512	0.0302
Venus	76353-06-10 17:46 G	29608581.04	29608581.24	29608581.44	0.0522	0.0088
Moon	76353-09-24 23:17 G	29608687.31	29608687.47	29608687.64	0.0526	0.0384
Earth	76353-09-24 23:32 G	29608687.33	29608687.48	29608687.65	0.0526	0.0372 *
Venus	76354-02-03 04:05 G	29608818.62	29608818.67	29608818.75	0.0532	0.0501

Mercury	76354-06-03 23:32 G	29608939.38	29608939.48	29608939.58	0.0536	0.0407
Mercury	76354-09-01 22:48 G	29609029.41	29609029.45	29609029.48	0.0538	0.0523
Venus	76358-01-02 21:08 G	29610248.32	29610248.38	29610248.46	0.0520	0.0489
Venus	76358-08-28 07:41 G	29610485.62	29610485.82	29610486.02	0.0510	0.0093
Moon	76359-03-24 03:36 G	29610693.60	29610693.65	29610693.71	0.0502	0.0487
Venus	76359-04-22 05:32 G	29610722.56	29610722.73	29610722.90	0.0501	0.0280
Mercury	76360-01-20 01:56 G	29610995.49	29610995.58	29610995.68	0.0493	0.0371
Mercury	76360-04-18 11:32 G	29611084.87	29611084.98	29611085.11	0.0490	0.0279
Venus	76364-06-21 19:56 G	29612610.21	29612610.33	29612610.45	0.0509	0.0399
Venus	76365-02-13 14:24 G	29612846.90	29612847.10	29612847.31	0.0519	0.0025
Moon	76365-09-29 20:10 G	29613075.14	29613075.34	29613075.56	0.0529	0.0161
Earth	76365-09-29 21:51 G	29613075.19	29613075.41	29613075.64	0.0529	0.0130 *
Venus	76365-10-08 21:22 G	29613084.26	29613084.39	29613084.53	0.0529	0.0389
Mercury	76366-06-20 23:03 G	29613339.33	29613339.46	29613339.59	0.0537	0.0301
Venus	76370-05-03 01:56 G	29614751.40	29614751.58	29614751.77	0.0513	0.0203
Venus	76370-12-26 03:36 G	29614988.46	29614988.65	29614988.84	0.0504	0.0182
Earth	76371-03-28 20:53 G	29615081.14	29615081.37	29615081.61	0.0500	0.0076
Moon	76371-03-28 20:53 G	29615081.15	29615081.37	29615081.60	0.0500	0.0058 *
Mercury	76372-02-05 14:53 G	29615394.97	29615395.12	29615395.26	0.0491	0.0116
Venus	76376-02-25 19:27 G	29616876.27	29616876.31	29616876.36	0.0506	0.0491
Venus	76376-10-19 10:20 G	29617112.73	29617112.93	29617113.12	0.0516	0.0134
Venus	76377-06-13 12:58 G	29617349.87	29617350.04	29617350.21	0.0526	0.0271
Mercury	76378-04-08 21:51 G	29617649.26	29617649.41	29617649.57	0.0536	0.0054
Venus	76382-01-05 18:15 G	29619017.10	29619017.26	29619017.43	0.0517	0.0316
Venus	76382-08-31 00:00 G	29619254.30	29619254.50	29619254.71	0.0507	0.0078
Earth	76383-04-02 11:03 G	29619468.80	29619468.96	29619469.13	0.0499	0.0354
Moon	76383-04-02 12:44 G	29619468.86	29619469.03	29619469.22	0.0499	0.0330 *
Venus	76383-04-24 17:32 G	29619491.14	29619491.23	29619491.34	0.0498	0.0431
Mercury	76383-11-24 18:00 G	29619705.11	29619705.25	29619705.40	0.0492	0.0045
Venus	76388-06-24 08:10 G	29621378.66	29621378.84	29621379.02	0.0513	0.0239

Venus	76389-02-16 06:58 G	29621615.60	29621615.79	29621615.99	0.0523	0.0157
Mercury	76390-01-25 21:22 G	29621959.24	29621959.39	29621959.54	0.0536	0.0182
Venus	76393-09-10 11:32 G	29623282.86	29623282.98	29623283.09	0.0520	0.0425
Venus	76394-05-05 20:53 G	29623520.16	29623520.37	29623520.57	0.0510	0.0029
Venus	76394-12-28 17:46 G	29623757.09	29623757.24	29623757.39	0.0500	0.0340
Mercury	76395-09-12 21:36 G	29624015.26	29624015.40	29624015.53	0.0492	0.0200
Mercury	76395-12-11 07:27 G	29624104.76	29624104.81	29624104.87	0.0490	0.0456
Venus	76400-02-28 06:15 G	29625644.61	29625644.76	29625644.91	0.0510	0.0340
Venus	76400-10-22 01:56 G	29625881.38	29625881.58	29625881.78	0.0520	0.0042
Venus	76401-06-16 10:05 G	29626118.83	29626118.92	29626119.03	0.0530	0.0454
Mercury	76401-11-13 20:53 G	29626269.28	29626269.37	29626269.47	0.0535	0.0415
Mercury	76402-02-11 20:24 G	29626359.30	29626359.35	29626359.39	0.0538	0.0514
Venus	76406-01-08 17:17 G	29627786.02	29627786.22	29627786.42	0.0512	0.0135
Venus	76406-09-02 17:17 G	29628023.04	29628023.22	29628023.40	0.0503	0.0245
Mercury	76407-07-02 00:58 G	29628325.44	29628325.54	29628325.64	0.0493	0.0355
Mercury	76407-09-29 10:34 G	29628414.83	29628414.94	29628415.06	0.0491	0.0295
Venus	76411-11-03 06:44 G	29629910.68	29629910.78	29629910.88	0.0508	0.0434
Venus	76412-06-26 23:32 G	29630147.28	29630147.48	29630147.68	0.0518	0.0066
Venus	76413-02-19 04:34 G	29630384.54	29630384.69	29630384.84	0.0528	0.0343
Mercury	76413-11-30 20:53 G	29630669.25	29630669.37	29630669.50	0.0538	0.0302
Venus	76417-09-13 11:32 G	29632051.80	29632051.98	29632052.16	0.0515	0.0243
Venus	76418-05-08 14:39 G	29632288.91	29632289.11	29632289.31	0.0505	0.0145
Venus	76418-12-31 05:46 G	29632525.71	29632525.74	29632525.78	0.0496	0.0487
Mercury	76419-07-18 13:27 G	29632724.92	29632725.06	29632725.20	0.0491	0.0128
Venus	76424-03-01 21:36 G	29634413.21	29634413.40	29634413.59	0.0515	0.0173
Venus	76424-10-24 23:17 G	29634650.29	29634650.47	29634650.65	0.0525	0.0230
Mercury	76425-09-18 21:08 G	29634979.23	29634979.38	29634979.54	0.0537	0.0082
Venus	76429-05-19 04:48 G	29636317.55	29636317.70	29636317.85	0.0517	0.0353
Venus	76430-01-11 11:32 G	29636554.77	29636554.98	29636555.19	0.0508	0.0041
Venus	76430-09-05 06:00 G	29636791.63	29636791.75	29636791.87	0.0499	0.0399

Mercury	76431-05-06 16:48 G	29637035.05	29637035.20	29637035.34	0.0492	0.0033
Venus	76435-11-05 19:41 G	29638679.15	29638679.32	29638679.49	0.0512	0.0277
Venus	76436-06-29 17:17 G	29638916.02	29638916.22	29638916.42	0.0522	0.0114
Moon	76436-09-24 02:10 G	29639002.48	29639002.59	29639002.70	0.0525	0.0458
Earth	76436-09-24 03:22 G	29639002.52	29639002.64	29639002.76	0.0525	0.0447 *
Venus	76437-02-22 03:08 G	29639153.60	29639153.63	29639153.66	0.0531	0.0523
Mercury	76437-07-07 20:10 G	29639289.19	29639289.34	29639289.49	0.0536	0.0167
Venus	76441-01-21 18:58 G	29640583.20	29640583.29	29640583.38	0.0521	0.0467
Venus	76441-09-16 05:46 G	29640820.54	29640820.74	29640820.95	0.0511	0.0070
Venus	76442-05-11 04:20 G	29641057.52	29641057.68	29641057.85	0.0502	0.0304
Mercury	76443-02-22 19:56 G	29641345.20	29641345.33	29641345.47	0.0493	0.0193
Mercury	76443-05-23 06:00 G	29641434.71	29641434.75	29641434.80	0.0490	0.0465
Venus	76447-07-11 18:58 G	29642945.16	29642945.29	29642945.43	0.0509	0.0375
Venus	76448-03-04 12:58 G	29643181.84	29643182.04	29643182.24	0.0519	0.0004
Earth	76448-09-28 23:03 G	29643390.23	29643390.46	29643390.69	0.0527	0.0041
Moon	76448-09-29 01:41 G	29643390.34	29643390.57	29643390.81	0.0527	0.0075 *
Venus	76448-10-27 19:12 G	29643419.17	29643419.30	29643419.42	0.0528	0.0411
Mercury	76449-04-25 19:27 G	29643599.21	29643599.31	29643599.42	0.0535	0.0404
Mercury	76449-07-24 18:44 G	29643689.25	29643689.28	29643689.31	0.0537	0.0522
Venus	76453-05-22 00:58 G	29645086.35	29645086.54	29645086.74	0.0514	0.0179
Venus	76454-01-14 03:22 G	29645323.45	29645323.64	29645323.83	0.0504	0.0206
Earth	76454-03-28 03:36 G	29645396.42	29645396.65	29645396.88	0.0501	0.0130
Moon	76454-03-28 05:17 G	29645396.48	29645396.72	29645396.96	0.0501	0.0115 *
Mercury	76454-12-11 23:32 G	29645655.38	29645655.48	29645655.58	0.0493	0.0347
Mercury	76455-03-11 09:22 G	29645744.77	29645744.89	29645745.00	0.0491	0.0305
Venus	76459-03-16 18:15 G	29647211.19	29647211.26	29647211.34	0.0506	0.0468
Venus	76459-11-08 09:08 G	29647447.68	29647447.88	29647448.08	0.0516	0.0108
Venus	76460-07-02 12:00 G	29647684.84	29647685.00	29647685.17	0.0526	0.0297
Mercury	76461-05-12 18:44 G	29647999.15	29647999.28	29647999.41	0.0537	0.0298
Venus	76465-01-24 20:10 G	29649352.17	29649352.34	29649352.52	0.0516	0.0286

Venus	76465-09-19 01:41 G	29649589.36	29649589.57	29649589.77	0.0507	0.0107
Moon	76466-04-01 17:17 G	29649784.03	29649784.22	29649784.41	0.0499	0.0282
Earth	76466-04-01 20:10 G	29649784.16	29649784.34	29649784.53	0.0499	0.0308 *
Venus	76466-05-13 18:44 G	29649826.20	29649826.28	29649826.36	0.0498	0.0456
Mercury	76466-12-28 12:44 G	29650054.89	29650055.03	29650055.17	0.0491	0.0146
Venus	76471-07-14 07:56 G	29651713.65	29651713.83	29651714.01	0.0514	0.0213
Venus	76472-03-07 07:41 G	29651950.63	29651950.82	29651951.01	0.0524	0.0185
Mercury	76473-02-28 19:12 G	29652309.15	29652309.30	29652309.46	0.0537	0.0083
Mars	76474-06-10 04:34 G	29652775.45	29652775.69	29652775.94	0.0543	0.0307
Venus	76476-09-29 13:27 G	29653617.94	29653618.06	29653618.20	0.0519	0.0395
Venus	76477-05-24 22:05 G	29653855.21	29653855.42	29653855.62	0.0509	0.0003
Venus	76478-01-16 18:15 G	29654092.12	29654092.26	29654092.40	0.0500	0.0366
Mercury	76478-10-16 15:36 G	29654365.01	29654365.15	29654365.30	0.0492	0.0020
Venus	76483-03-19 07:27 G	29655979.65	29655979.81	29655979.97	0.0511	0.0313
Venus	76483-11-11 04:05 G	29656216.47	29656216.67	29656216.86	0.0521	0.0074
Venus	76484-07-05 12:58 G	29656453.97	29656454.04	29656454.13	0.0531	0.0484
Mercury	76484-12-17 19:27 G	29656619.16	29656619.31	29656619.46	0.0536	0.0140
Venus	76488-06-04 05:32 G	29657883.69	29657883.73	29657883.79	0.0522	0.0504
Venus	76489-01-27 17:32 G	29658121.03	29658121.23	29658121.44	0.0512	0.0107
Venus	76489-09-21 17:03 G	29658358.04	29658358.21	29658358.39	0.0502	0.0271
Mercury	76490-08-04 18:58 G	29658675.16	29658675.29	29658675.43	0.0492	0.0178
Mercury	76490-11-02 05:03 G	29658764.68	29658764.71	29658764.74	0.0490	0.0478
Mars	76492-05-14 23:46 G	29659324.39	29659324.49	29659324.61	0.0485	0.0440
Venus	76494-11-22 07:27 G	29660245.70	29660245.81	29660245.93	0.0508	0.0410
Venus	76495-07-17 00:15 G	29660482.31	29660482.51	29660482.71	0.0518	0.0039
Venus	76496-03-10 04:48 G	29660719.56	29660719.70	29660719.85	0.0527	0.0368
Mercury	76496-10-05 18:29 G	29660929.16	29660929.27	29660929.38	0.0535	0.0385
Venus	76500-10-03 09:51 G	29662386.72	29662386.91	29662387.10	0.0515	0.0220
Venus	76501-05-28 13:27 G	29662623.87	29662624.06	29662624.26	0.0505	0.0169
Mercury	76502-05-24 22:20 G	29662985.33	29662985.43	29662985.53	0.0493	0.0337

Mercury	76502-08-22 07:56 G	29663074.72	29663074.83	29663074.95	0.0491	0.0316
Venus	76506-07-29 08:24 G	29664511.83	29664511.85	29664511.88	0.0505	0.0499
Venus	76507-03-22 21:36 G	29664748.21	29664748.40	29664748.59	0.0515	0.0147
Venus	76507-11-14 22:34 G	29664985.26	29664985.44	29664985.61	0.0524	0.0254
Mercury	76508-10-23 17:32 G	29665329.11	29665329.23	29665329.36	0.0537	0.0313
Venus	76512-06-08 03:22 G	29666652.49	29666652.64	29666652.81	0.0518	0.0331
Venus	76513-01-31 11:03 G	29666889.75	29666889.96	29666890.16	0.0508	0.0065
Venus	76513-09-25 06:00 G	29667126.65	29667126.75	29667126.86	0.0499	0.0422
Mercury	76514-03-13 01:56 G	29667295.57	29667295.58	29667295.59	0.0494	0.0491
Mercury	76514-06-10 11:17 G	29667384.83	29667384.97	29667385.11	0.0491	0.0156
Venus	76518-11-25 18:58 G	29669014.12	29669014.29	29669014.47	0.0512	0.0252
Venus	76519-07-20 16:48 G	29669251.00	29669251.20	29669251.39	0.0522	0.0140
Earth	76519-09-25 07:41 G	29669317.80	29669317.82	29669317.85	0.0525	0.0521
Moon	76519-09-25 10:20 G	29669317.93	29669317.93	29669317.95	0.0525	0.0524
Mercury	76520-08-11 17:17 G	29669639.07	29669639.22	29669639.38	0.0536	0.0084
Venus	76524-02-11 21:22 G	29670918.28	29670918.39	29670918.50	0.0521	0.0438
Venus	76524-10-06 07:56 G	29671155.63	29671155.83	29671156.04	0.0511	0.0040
Venus	76525-05-31 06:15 G	29671392.60	29671392.76	29671392.91	0.0501	0.0331
Mercury	76526-03-29 14:39 G	29671694.97	29671695.11	29671695.26	0.0492	0.0012
Venus	76530-07-31 18:58 G	29673280.15	29673280.29	29673280.44	0.0509	0.0349
Venus	76531-03-25 13:27 G	29673516.86	29673517.06	29673517.26	0.0519	0.0030
Moon	76531-09-30 02:24 G	29673705.38	29673705.60	29673705.83	0.0527	0.0011
Earth	76531-09-30 06:00 G	29673705.52	29673705.75	29673705.98	0.0527	0.0025 *
Venus	76531-11-17 20:24 G	29673754.24	29673754.35	29673754.46	0.0529	0.0439
Mercury	76532-05-30 17:46 G	29673949.08	29673949.24	29673949.39	0.0536	0.0137
Venus	76536-06-11 03:36 G	29675421.45	29675421.65	29675421.85	0.0513	0.0147
Venus	76537-02-03 04:48 G	29675658.52	29675658.70	29675658.88	0.0503	0.0235
Moon	76537-03-28 09:36 G	29675711.69	29675711.90	29675712.12	0.0501	0.0168
Earth	76537-03-28 12:29 G	29675711.80	29675712.02	29675712.24	0.0501	0.0180 *
Mercury	76538-01-15 18:00 G	29676005.11	29676005.25	29676005.38	0.0492	0.0163

Venus	76542-04-05 19:41 G	29677546.23	29677546.32	29677546.42	0.0507	0.0443
Venus	76542-11-28 11:17 G	29677782.77	29677782.97	29677783.17	0.0517	0.0079
Venus	76543-07-23 15:08 G	29678019.97	29678020.13	29678020.29	0.0527	0.0328
Earth	76543-10-05 05:03 G	29678093.63	29678093.71	29678093.80	0.0530	0.0487
Moon	76543-10-05 08:39 G	29678093.79	29678093.86	29678093.94	0.0530	0.0494 *
Mercury	76544-03-18 17:46 G	29678259.12	29678259.24	29678259.36	0.0535	0.0359
Venus	76548-02-14 21:36 G	29679687.23	29679687.40	29679687.59	0.0516	0.0257
Venus	76548-10-09 02:24 G	29679924.40	29679924.60	29679924.80	0.0506	0.0134
Earth	76549-04-02 03:51 G	29680099.46	29680099.66	29680099.87	0.0500	0.0255
Moon	76549-04-02 07:41 G	29680099.61	29680099.82	29680100.03	0.0500	0.0227 *
Venus	76549-06-02 18:44 G	29680161.24	29680161.28	29680161.34	0.0497	0.0481
Mercury	76549-11-03 21:22 G	29680315.28	29680315.39	29680315.50	0.0493	0.0320
Mercury	76550-02-01 06:58 G	29680404.69	29680404.79	29680404.90	0.0491	0.0332
Venus	76554-08-03 09:36 G	29682048.72	29682048.90	29682049.09	0.0513	0.0186
Venus	76555-03-28 09:08 G	29682285.70	29682285.88	29682286.07	0.0523	0.0212
Mercury	76556-04-04 16:34 G	29682659.07	29682659.19	29682659.31	0.0537	0.0334
Venus	76559-10-20 12:00 G	29683952.86	29683953.00	29683953.14	0.0519	0.0372
Venus	76560-06-13 20:53 G	29684190.16	29684190.37	29684190.58	0.0509	0.0025
Venus	76561-02-05 17:32 G	29684427.11	29684427.23	29684427.36	0.0500	0.0388
Mercury	76561-08-23 00:29 G	29684625.50	29684625.52	29684625.56	0.0494	0.0480
Mercury	76561-11-20 10:05 G	29684714.78	29684714.92	29684715.05	0.0492	0.0168
Venus	76566-04-08 08:39 G	29686314.70	29686314.86	29686315.03	0.0511	0.0287
Venus	76566-12-01 04:34 G	29686551.49	29686551.69	29686551.89	0.0520	0.0099
Venus	76567-07-26 12:44 G	29686788.98	29686789.03	29686789.09	0.0530	0.0507
Mercury	76568-01-22 16:20 G	29686969.03	29686969.18	29686969.33	0.0536	0.0103
Venus	76571-06-25 04:05 G	29688218.60	29688218.67	29688218.75	0.0522	0.0482
Venus	76572-02-17 16:34 G	29688455.99	29688456.19	29688456.40	0.0512	0.0083
Venus	76572-10-11 16:48 G	29688693.03	29688693.20	29688693.37	0.0503	0.0294
Mercury	76573-09-08 13:27 G	29689024.91	29689025.06	29689025.20	0.0492	0.0011
Venus	76577-12-12 07:12 G	29690580.68	29690580.80	29690580.94	0.0508	0.0385

Venus	76578-08-06 00:00 G	29690817.30	29690817.50	29690817.70	0.0518	0.0013
Venus	76579-03-31 04:48 G	29691054.57	29691054.70	29691054.83	0.0528	0.0394
Mercury	76579-11-10 15:51 G	29691279.01	29691279.16	29691279.31	0.0536	0.0131
Venus	76583-10-23 12:29 G	29692721.82	29692722.02	29692722.21	0.0515	0.0190
Venus	76584-06-16 15:36 G	29692958.97	29692959.15	29692959.35	0.0505	0.0198
Mercury	76585-06-27 16:48 G	29693335.07	29693335.20	29693335.34	0.0493	0.0147
Venus	76589-08-17 08:24 G	29694846.79	29694846.85	29694846.92	0.0505	0.0475
Venus	76590-04-10 21:51 G	29695083.22	29695083.41	29695083.61	0.0515	0.0120
Venus	76590-12-03 23:32 G	29695320.31	29695320.48	29695320.65	0.0525	0.0283
Mercury	76591-08-29 15:51 G	29695589.05	29695589.16	29695589.28	0.0535	0.0355
Venus	76595-06-28 06:58 G	29696987.62	29696987.79	29696987.96	0.0517	0.0299
Venus	76596-02-20 13:27 G	29697224.85	29697225.06	29697225.26	0.0507	0.0096
Venus	76596-10-14 07:27 G	29697461.73	29697461.81	29697461.90	0.0498	0.0448
Mercury	76597-04-15 20:10 G	29697645.23	29697645.34	29697645.46	0.0493	0.0305
Mercury	76597-07-14 06:00 G	29697734.64	29697734.75	29697734.85	0.0491	0.0347
Venus	76601-12-15 21:08 G	29699349.20	29699349.38	29699349.56	0.0513	0.0223
Venus	76602-08-09 19:41 G	29699586.13	29699586.32	29699586.51	0.0523	0.0172
Mercury	76603-09-16 15:51 G	29699989.05	29699989.16	29699989.28	0.0537	0.0360
Venus	76607-03-03 23:46 G	29701253.37	29701253.49	29701253.62	0.0520	0.0408
Venus	76607-10-27 09:36 G	29701490.69	29701490.90	29701491.11	0.0510	0.0010
Venus	76608-06-20 07:12 G	29701727.65	29701727.80	29701727.94	0.0501	0.0357
Mercury	76609-02-02 23:46 G	29701955.44	29701955.49	29701955.54	0.0494	0.0461
Mercury	76609-05-03 09:08 G	29702044.75	29702044.88	29702045.02	0.0491	0.0187
Mars	76610-11-08 01:12 G	29702598.32	29702598.55	29702598.78	0.0485	0.0219
Venus	76613-08-20 21:22 G	29703615.24	29703615.39	29703615.55	0.0509	0.0323
Venus	76614-04-14 15:51 G	29703851.96	29703852.16	29703852.36	0.0519	0.0059
Earth	76614-09-30 14:39 G	29704020.88	29704021.11	29704021.33	0.0526	0.0077
Moon	76614-09-30 18:15 G	29704021.03	29704021.26	29704021.49	0.0526	0.0042 *
Venus	76614-12-07 22:34 G	29704089.35	29704089.44	29704089.54	0.0529	0.0465
Mercury	76615-07-05 15:22 G	29704298.99	29704299.14	29704299.30	0.0536	0.0127

Venus	76618-11-06 12:15 G	29705519.01	29705519.01	29705519.02	0.0523	0.0522
Venus	76619-07-02 02:10 G	29705756.39	29705756.59	29705756.79	0.0513	0.0124
Venus	76620-02-24 03:51 G	29705993.48	29705993.66	29705993.84	0.0504	0.0258
Earth	76620-03-28 17:32 G	29706027.03	29706027.23	29706027.44	0.0503	0.0240
Moon	76620-03-28 21:08 G	29706027.17	29706027.38	29706027.60	0.0503	0.0232 *
Mercury	76621-02-19 12:15 G	29706354.86	29706355.01	29706355.15	0.0492	0.0023
Venus	76625-04-25 21:51 G	29707881.30	29707881.41	29707881.52	0.0507	0.0417
Venus	76625-12-18 12:58 G	29708117.84	29708118.04	29708118.24	0.0516	0.0052
Venus	76626-08-12 15:51 G	29708355.02	29708355.16	29708355.31	0.0526	0.0353
Moon	76626-10-05 07:56 G	29708408.69	29708408.83	29708408.98	0.0528	0.0416
Earth	76626-10-05 10:34 G	29708408.81	29708408.94	29708409.09	0.0528	0.0420 *
Mercury	76627-04-23 15:08 G	29708608.97	29708609.13	29708609.28	0.0535	0.0107
Mars	76628-09-05 09:51 G	29709109.66	29709109.91	29709110.17	0.0542	0.0279
Venus	76631-03-06 20:10 G	29710022.16	29710022.34	29710022.53	0.0516	0.0234
Venus	76631-10-30 01:27 G	29710259.36	29710259.56	29710259.75	0.0506	0.0157
Moon	76632-04-02 06:29 G	29710414.54	29710414.77	29710414.99	0.0501	0.0169
Earth	76632-04-02 10:05 G	29710414.71	29710414.92	29710415.14	0.0501	0.0201 *
Mercury	76632-12-08 15:36 G	29710665.01	29710665.15	29710665.29	0.0493	0.0136
Venus	76637-08-23 09:36 G	29712383.70	29712383.90	29712384.09	0.0514	0.0159
Venus	76638-04-17 08:53 G	29712620.70	29712620.87	29712621.05	0.0524	0.0239
Mercury	76639-02-09 14:10 G	29712918.98	29712919.09	29712919.21	0.0535	0.0347
Venus	76642-11-09 14:39 G	29714287.95	29714288.11	29714288.26	0.0519	0.0342
Venus	76643-07-04 23:03 G	29714525.26	29714525.46	29714525.67	0.0509	0.0056
Venus	76644-02-26 19:27 G	29714762.20	29714762.31	29714762.43	0.0500	0.0414
Mercury	76644-09-26 19:12 G	29714975.19	29714975.30	29714975.42	0.0493	0.0290
Mercury	76644-12-25 04:48 G	29715064.61	29715064.70	29715064.80	0.0491	0.0364
Venus	76649-04-28 08:39 G	29716649.69	29716649.86	29716650.03	0.0511	0.0261
Venus	76649-12-21 05:03 G	29716886.51	29716886.71	29716886.90	0.0521	0.0128
Mercury	76651-02-26 13:56 G	29717318.97	29717319.08	29717319.20	0.0537	0.0365
Venus	76654-07-15 07:56 G	29718553.73	29718553.83	29718553.93	0.0522	0.0450

Venus	76655-03-09 19:41 G	29718791.11	29718791.32	29718791.52	0.0511	0.0052
Venus	76655-11-01 18:44 G	29719028.13	29719028.28	29719028.44	0.0502	0.0322
Mercury	76656-07-15 22:34 G	29719285.39	29719285.44	29719285.50	0.0494	0.0447
Mercury	76656-10-13 07:56 G	29719374.70	29719374.83	29719374.97	0.0491	0.0201
Venus	76661-01-01 08:53 G	29720915.74	29720915.87	29720916.02	0.0508	0.0359
Venus	76661-08-26 02:24 G	29721152.40	29721152.60	29721152.80	0.0518	0.0018
Venus	76662-04-20 07:56 G	29721389.72	29721389.83	29721389.96	0.0528	0.0425
Mercury	76662-12-15 14:24 G	29721628.96	29721629.10	29721629.26	0.0537	0.0149
Venus	76666-11-12 14:24 G	29723056.91	29723057.10	29723057.30	0.0514	0.0161
Venus	76667-07-07 17:03 G	29723294.03	29723294.21	29723294.40	0.0505	0.0225
Mercury	76668-08-01 11:17 G	29723684.83	29723684.97	29723685.12	0.0492	0.0043
Venus	76672-09-06 10:34 G	29725181.86	29725181.94	29725182.04	0.0506	0.0451
Venus	76673-05-01 00:44 G	29725418.33	29725418.53	29725418.73	0.0515	0.0091
Venus	76673-12-24 02:24 G	29725655.44	29725655.60	29725655.76	0.0525	0.0310
Mercury	76674-10-03 14:10 G	29725938.93	29725939.09	29725939.25	0.0535	0.0084
Venus	76678-07-18 05:03 G	29727322.54	29727322.71	29727322.89	0.0517	0.0277
Venus	76679-03-12 11:46 G	29727559.79	29727559.99	29727560.19	0.0508	0.0118
Venus	76679-11-04 06:29 G	29727796.70	29727796.77	29727796.84	0.0499	0.0468
Mercury	76680-05-20 14:10 G	29727994.96	29727995.09	29727995.23	0.0493	0.0126
Venus	76685-01-03 23:17 G	29729684.28	29729684.47	29729684.65	0.0512	0.0195
Venus	76685-08-28 21:08 G	29729921.19	29729921.38	29729921.57	0.0522	0.0198
Mercury	76686-07-22 13:27 G	29730248.94	29730249.06	29730249.19	0.0534	0.0320
Venus	76690-03-22 21:22 G	29731588.26	29731588.39	29731588.53	0.0520	0.0387
Venus	76690-11-15 07:56 G	29731825.62	29731825.83	29731826.03	0.0510	0.0015
Venus	76691-07-10 05:46 G	29732062.61	29732062.74	29732062.88	0.0501	0.0378
Mercury	76692-03-08 17:46 G	29732305.12	29732305.24	29732305.36	0.0494	0.0283
Mercury	76692-06-06 03:22 G	29732394.55	29732394.64	29732394.74	0.0491	0.0373
Venus	76696-09-08 20:53 G	29733950.21	29733950.37	29733950.54	0.0509	0.0297
Venus	76697-05-03 15:22 G	29734186.94	29734187.14	29734187.34	0.0519	0.0085
Moon	76697-09-29 15:51 G	29734335.93	29734336.16	29734336.39	0.0526	0.0120

Earth	76697-09-29 18:44 G	29734336.07	29734336.28	29734336.51	0.0526	0.0153	*
Venus	76697-12-26 22:20 G	29734424.36	29734424.43	29734424.50	0.0529	0.0489	
Mercury	76698-08-08 12:29 G	29734648.90	29734649.02	29734649.13	0.0537	0.0371	
Venus	76701-11-26 14:10 G	29735854.03	29735854.09	29735854.16	0.0523	0.0494	
Venus	76702-07-22 04:05 G	29736091.47	29736091.67	29736091.88	0.0513	0.0094	
Venus	76703-03-16 05:32 G	29736328.56	29736328.73	29736328.90	0.0504	0.0285	
Moon	76703-03-29 23:03 G	29736342.27	29736342.46	29736342.66	0.0503	0.0289	
Earth	76703-03-30 02:53 G	29736342.43	29736342.62	29736342.82	0.0503	0.0287	*
Mercury	76703-12-27 21:22 G	29736615.33	29736615.39	29736615.46	0.0494	0.0435	
Mercury	76704-03-26 06:44 G	29736704.65	29736704.78	29736704.92	0.0492	0.0215	
Venus	76708-05-15 21:08 G	29738216.26	29738216.38	29738216.51	0.0507	0.0392	
Venus	76709-01-07 12:44 G	29738452.82	29738453.03	29738453.23	0.0517	0.0027	
Venus	76709-09-01 16:05 G	29738690.04	29738690.17	29738690.31	0.0527	0.0380	
Earth	76709-10-05 16:05 G	29738724.00	29738724.17	29738724.34	0.0528	0.0348	
Moon	76709-10-05 17:32 G	29738724.07	29738724.23	29738724.40	0.0528	0.0343	*
Mercury	76710-05-28 12:44 G	29738958.88	29738959.03	29738959.18	0.0536	0.0151	
Venus	76714-03-26 23:17 G	29740357.28	29740357.47	29740357.66	0.0516	0.0203	
Venus	76714-11-19 03:36 G	29740594.46	29740594.65	29740594.85	0.0506	0.0186	
Earth	76715-04-03 19:41 G	29740730.10	29740730.32	29740730.55	0.0501	0.0156	
Moon	76715-04-03 22:20 G	29740730.21	29740730.43	29740730.66	0.0501	0.0126	*
Mercury	76716-01-13 10:05 G	29741014.78	29741014.92	29741015.06	0.0492	0.0053	
Venus	76720-01-19 22:34 G	29742482.38	29742482.44	29742482.49	0.0505	0.0483	
Venus	76720-09-12 11:03 G	29742718.77	29742718.96	29742719.16	0.0514	0.0131	
Venus	76721-05-07 11:32 G	29742955.81	29742955.98	29742956.15	0.0524	0.0269	
Mercury	76722-03-16 12:58 G	29743268.88	29743269.04	29743269.20	0.0536	0.0069	
Venus	76725-11-29 16:48 G	29744623.04	29744623.20	29744623.37	0.0518	0.0313	
Venus	76726-07-25 00:44 G	29744860.33	29744860.53	29744860.73	0.0508	0.0083	
Venus	76727-03-18 20:24 G	29745097.25	29745097.35	29745097.44	0.0499	0.0439	
Mercury	76727-11-01 13:27 G	29745324.92	29745325.06	29745325.20	0.0493	0.0106	
Venus	76732-05-18 11:03 G	29746984.79	29746984.96	29746985.14	0.0511	0.0233	

Venus	76733-01-10 07:56 G	29747221.63	29747221.83	29747222.02	0.0521	0.0156
Mercury	76734-01-02 12:29 G	29747578.89	29747579.02	29747579.16	0.0534	0.0299
Venus	76737-08-04 05:46 G	29748888.63	29748888.74	29748888.86	0.0521	0.0428
Venus	76738-03-29 17:32 G	29749126.02	29749126.23	29749126.43	0.0511	0.0029
Venus	76738-11-21 16:48 G	29749363.05	29749363.20	29749363.35	0.0502	0.0342
Mercury	76739-08-20 16:20 G	29749635.06	29749635.18	29749635.30	0.0494	0.0274
Mercury	76739-11-18 02:10 G	29749724.50	29749724.59	29749724.68	0.0491	0.0382
Venus	76744-01-22 11:03 G	29751250.81	29751250.96	29751251.11	0.0508	0.0331
Venus	76744-09-15 04:05 G	29751487.47	29751487.67	29751487.87	0.0518	0.0046
Venus	76745-05-10 09:22 G	29751724.78	29751724.89	29751724.99	0.0528	0.0449
Mercury	76746-01-19 11:32 G	29751978.88	29751978.98	29751979.09	0.0536	0.0397
Venus	76749-12-02 11:46 G	29753391.79	29753391.99	29753392.19	0.0514	0.0138
Venus	76750-07-27 14:53 G	29753628.94	29753629.12	29753629.30	0.0505	0.0245
Mercury	76751-06-08 19:56 G	29753945.26	29753945.33	29753945.40	0.0494	0.0430
Mercury	76751-09-06 05:17 G	29754034.59	29754034.72	29754034.85	0.0492	0.0220
Venus	76755-09-27 09:51 G	29755516.80	29755516.91	29755517.02	0.0506	0.0426
Venus	76756-05-20 23:46 G	29755753.29	29755753.49	29755753.68	0.0515	0.0066
Venus	76757-01-13 01:12 G	29755990.40	29755990.55	29755990.71	0.0525	0.0336
Mercury	76757-11-07 11:03 G	29756288.81	29756288.96	29756289.11	0.0536	0.0158
Venus	76761-08-07 06:29 G	29757657.59	29757657.77	29757657.95	0.0517	0.0247
Venus	76762-04-01 12:58 G	29757894.84	29757895.04	29757895.24	0.0507	0.0146
Venus	76762-11-24 07:27 G	29758131.78	29758131.81	29758131.84	0.0499	0.0492
Mercury	76763-06-25 08:53 G	29758344.72	29758344.87	29758345.01	0.0492	0.0065
Mars	76765-02-02 07:12 G	29758932.57	29758932.80	29758933.04	0.0485	0.0193
Venus	76768-01-24 22:05 G	29760019.23	29760019.42	29760019.61	0.0513	0.0170
Venus	76768-09-17 20:10 G	29760256.16	29760256.34	29760256.53	0.0523	0.0225
Mercury	76769-08-26 10:48 G	29760598.80	29760598.95	29760599.11	0.0535	0.0070
Venus	76773-04-12 00:15 G	29761923.36	29761923.51	29761923.66	0.0520	0.0356
Venus	76773-12-05 10:05 G	29762160.71	29762160.92	29762161.12	0.0510	0.0043
Venus	76774-07-30 07:12 G	29762397.69	29762397.80	29762397.93	0.0501	0.0404

Mercury	76775-04-13 12:00 G	29762654.86	29762655.00	29762655.15	0.0493	0.0098
Venus	76779-09-29 21:22 G	29764285.22	29764285.39	29764285.56	0.0510	0.0271
Venus	76780-05-23 16:48 G	29764522.00	29764522.20	29764522.40	0.0520	0.0114
Earth	76780-09-30 02:53 G	29764651.41	29764651.62	29764651.83	0.0525	0.0210
Moon	76780-09-30 04:34 G	29764651.49	29764651.69	29764651.90	0.0525	0.0179 *
Venus	76781-01-16 00:29 G	29764759.48	29764759.52	29764759.56	0.0530	0.0518
Mercury	76781-06-14 11:03 G	29764908.83	29764908.96	29764909.09	0.0535	0.0291
Venus	76784-12-15 16:34 G	29766189.10	29766189.19	29766189.28	0.0522	0.0465
Venus	76785-08-10 05:32 G	29766426.53	29766426.73	29766426.94	0.0512	0.0065
Earth	76786-03-29 10:20 G	29766657.76	29766657.93	29766658.11	0.0503	0.0341
Moon	76786-03-29 12:58 G	29766657.89	29766658.04	29766658.21	0.0503	0.0353 *
Venus	76786-04-04 06:00 G	29766663.59	29766663.75	29766663.92	0.0503	0.0311
Mercury	76787-01-30 15:36 G	29766965.03	29766965.15	29766965.27	0.0493	0.0255
Mercury	76787-04-30 01:12 G	29767054.47	29767054.55	29767054.63	0.0491	0.0400
Venus	76791-06-04 22:48 G	29768551.32	29768551.45	29768551.59	0.0507	0.0367
Venus	76792-01-27 14:53 G	29768787.92	29768788.12	29768788.32	0.0517	0.0005
Venus	76792-09-20 18:44 G	29769025.16	29769025.28	29769025.41	0.0527	0.0407
Moon	76792-10-05 00:58 G	29769039.34	29769039.54	29769039.74	0.0527	0.0285
Earth	76792-10-05 00:58 G	29769039.36	29769039.54	29769039.73	0.0527	0.0296 *
Mercury	76793-04-02 10:34 G	29769218.91	29769218.94	29769218.98	0.0534	0.0519
Mercury	76793-07-01 10:34 G	29769308.84	29769308.94	29769309.04	0.0536	0.0414
Venus	76797-04-14 20:39 G	29770692.17	29770692.36	29770692.55	0.0515	0.0180
Venus	76797-12-08 00:58 G	29770929.36	29770929.54	29770929.73	0.0506	0.0207
Moon	76798-04-02 20:24 G	29771045.11	29771045.35	29771045.60	0.0502	0.0052
Earth	76798-04-02 22:05 G	29771045.19	29771045.42	29771045.66	0.0502	0.0086 *
Mercury	76798-11-18 18:29 G	29771275.19	29771275.27	29771275.34	0.0494	0.0424
Mercury	76799-02-16 03:51 G	29771364.53	29771364.66	29771364.79	0.0492	0.0228
Venus	76803-02-07 23:46 G	29772817.42	29772817.49	29772817.58	0.0505	0.0458
Venus	76803-10-02 12:29 G	29773053.83	29773054.02	29773054.22	0.0514	0.0103
Venus	76804-05-26 12:44 G	29773290.86	29773291.03	29773291.20	0.0524	0.0295

Mercury	76805-04-19 10:05 G	29773618.78	29773618.92	29773619.07	0.0535	0.0184
Venus	76808-12-18 13:12 G	29774957.88	29774958.05	29774958.22	0.0518	0.0292
Venus	76809-08-12 21:22 G	29775195.19	29775195.39	29775195.59	0.0509	0.0104
Venus	76810-04-06 17:17 G	29775432.14	29775432.22	29775432.30	0.0500	0.0457
Mercury	76810-12-05 06:58 G	29775674.65	29775674.79	29775674.94	0.0493	0.0066
Venus	76815-06-07 09:22 G	29777319.71	29777319.89	29777320.08	0.0511	0.0208
Venus	76816-01-30 06:00 G	29777556.56	29777556.75	29777556.94	0.0521	0.0181
Mercury	76817-02-05 09:08 G	29777928.72	29777928.88	29777929.04	0.0535	0.0063
Venus	76820-08-23 06:00 G	29779223.63	29779223.75	29779223.89	0.0521	0.0401
Venus	76821-04-17 17:46 G	29779461.04	29779461.24	29779461.45	0.0511	0.0004
Venus	76821-12-10 17:03 G	29779698.08	29779698.21	29779698.36	0.0502	0.0368
Mercury	76822-09-23 10:34 G	29779984.80	29779984.94	29779985.08	0.0493	0.0091
Venus	76827-02-10 08:39 G	29781585.71	29781585.86	29781586.02	0.0509	0.0308
Venus	76827-10-05 02:10 G	29781822.39	29781822.59	29781822.78	0.0518	0.0072
Venus	76828-05-29 07:27 G	29782059.73	29782059.81	29782059.90	0.0528	0.0474
Mercury	76828-11-24 08:53 G	29782238.74	29782238.87	29782239.00	0.0535	0.0293
Venus	76832-04-27 22:20 G	29783489.39	29783489.43	29783489.48	0.0524	0.0509
Venus	76832-12-21 13:27 G	29783726.86	29783727.06	29783727.26	0.0514	0.0108
Venus	76833-08-15 16:05 G	29783963.99	29783964.17	29783964.34	0.0504	0.0273
Mercury	76834-07-12 13:56 G	29784294.96	29784295.08	29784295.21	0.0493	0.0249
Mercury	76834-10-09 23:32 G	29784384.40	29784384.48	29784384.56	0.0491	0.0406
Venus	76838-10-16 09:08 G	29785851.76	29785851.88	29785852.00	0.0506	0.0403
Venus	76839-06-09 23:46 G	29786088.29	29786088.49	29786088.69	0.0516	0.0038
Venus	76840-02-02 02:10 G	29786325.45	29786325.59	29786325.74	0.0526	0.0364
Mercury	76840-09-12 08:39 G	29786548.83	29786548.86	29786548.90	0.0534	0.0519
Mercury	76840-12-11 08:39 G	29786638.77	29786638.86	29786638.96	0.0537	0.0417
Venus	76844-08-26 07:27 G	29787992.63	29787992.81	29787993.00	0.0517	0.0219
Venus	76845-04-20 13:12 G	29788229.86	29788230.05	29788230.25	0.0507	0.0173
Mercury	76846-04-30 17:32 G	29788605.15	29788605.23	29788605.31	0.0494	0.0406
Mercury	76846-07-29 02:53 G	29788694.49	29788694.62	29788694.74	0.0492	0.0244

Venus	76850-06-21 11:46 G	29790117.95	29790117.99	29790118.03	0.0504	0.0491
Venus	76851-02-12 23:17 G	29790354.28	29790354.47	29790354.66	0.0513	0.0143
Venus	76851-10-07 22:05 G	29790591.25	29790591.42	29790591.60	0.0523	0.0252
Mercury	76852-09-29 08:53 G	29790948.72	29790948.87	29790949.01	0.0536	0.0196
Venus	76856-04-30 21:08 G	29792258.23	29792258.38	29792258.54	0.0519	0.0333
Venus	76856-12-24 06:44 G	29792495.57	29792495.78	29792495.98	0.0510	0.0064
Venus	76857-08-18 03:51 G	29792732.56	29792732.66	29792732.78	0.0501	0.0423
Mercury	76858-05-17 05:17 G	29793004.58	29793004.72	29793004.87	0.0493	0.0072
Venus	76862-10-18 22:20 G	29794620.25	29794620.43	29794620.61	0.0510	0.0244
Venus	76863-06-12 17:46 G	29794857.04	29794857.24	29794857.43	0.0520	0.0141
Moon	76863-09-30 08:39 G	29794966.66	29794966.86	29794967.08	0.0524	0.0244
Earth	76863-09-30 09:08 G	29794966.69	29794966.88	29794967.08	0.0524	0.0274 *
Mercury	76864-07-18 08:24 G	29795258.69	29795258.85	29795259.01	0.0535	0.0038
Venus	76868-01-04 12:15 G	29796523.91	29796524.01	29796524.12	0.0522	0.0444
Venus	76868-08-29 01:12 G	29796761.34	29796761.55	29796761.75	0.0512	0.0044
Moon	76869-03-28 07:41 G	29796972.71	29796972.82	29796972.94	0.0504	0.0439
Earth	76869-03-28 09:36 G	29796972.78	29796972.90	29796973.03	0.0504	0.0427 *
Venus	76869-04-23 01:56 G	29796998.43	29796998.58	29796998.74	0.0503	0.0330
Mercury	76870-03-05 08:39 G	29797314.72	29797314.86	29797315.00	0.0493	0.0092
Venus	76874-06-23 20:24 G	29798886.20	29798886.35	29798886.50	0.0507	0.0343
Venus	76875-02-15 12:15 G	29799122.80	29799123.01	29799123.21	0.0517	0.0031
Moon	76875-10-04 23:46 G	29799354.28	29799354.49	29799354.70	0.0526	0.0187
Earth	76875-10-05 00:58 G	29799354.33	29799354.54	29799354.75	0.0526	0.0200 *
Venus	76875-10-10 15:36 G	29799360.04	29799360.15	29799360.27	0.0527	0.0430
Mercury	76876-05-06 06:58 G	29799568.66	29799568.79	29799568.92	0.0534	0.0289
Venus	76880-05-03 19:56 G	29801027.13	29801027.33	29801027.53	0.0516	0.0153
Venus	76880-12-27 00:29 G	29801264.34	29801264.52	29801264.70	0.0506	0.0234
Earth	76881-04-02 03:36 G	29801360.41	29801360.65	29801360.89	0.0502	0.0023
Moon	76881-04-02 03:51 G	29801360.43	29801360.66	29801360.89	0.0502	0.0009 *
Mercury	76881-12-22 12:15 G	29801624.89	29801625.01	29801625.13	0.0494	0.0247

Mercury	76882-03-21 21:51 G	29801714.33	29801714.41	29801714.49	0.0491	0.0409
Venus	76886-02-26 20:39 G	29803152.27	29803152.36	29803152.46	0.0505	0.0436
Venus	76886-10-21 09:22 G	29803388.69	29803388.89	29803389.09	0.0514	0.0079
Venus	76887-06-15 09:36 G	29803625.75	29803625.90	29803626.07	0.0524	0.0319
Mercury	76888-02-23 06:15 G	29803878.74	29803878.76	29803878.79	0.0534	0.0525
Mercury	76888-05-23 06:15 G	29803968.67	29803968.76	29803968.86	0.0536	0.0411
Venus	76892-01-07 14:10 G	29805292.91	29805293.09	29805293.27	0.0518	0.0263
Venus	76892-08-31 21:51 G	29805530.21	29805530.41	29805530.61	0.0508	0.0132
Earth	76893-04-06 19:56 G	29805748.25	29805748.33	29805748.42	0.0500	0.0462
Moon	76893-04-06 21:36 G	29805748.32	29805748.40	29805748.49	0.0500	0.0469 *
Venus	76893-04-25 17:17 G	29805767.17	29805767.22	29805767.27	0.0499	0.0480
Mercury	76893-10-10 15:36 G	29805935.08	29805935.15	29805935.24	0.0494	0.0404
Mercury	76894-01-08 00:58 G	29806024.42	29806024.54	29806024.67	0.0492	0.0247
Venus	76898-06-26 08:10 G	29807654.65	29807654.84	29807655.03	0.0512	0.0183
Venus	76899-02-18 05:32 G	29807891.54	29807891.73	29807891.91	0.0522	0.0208
Mercury	76900-03-12 06:44 G	29808278.63	29808278.78	29808278.92	0.0536	0.0192
Venus	76903-09-13 06:44 G	29809558.64	29809558.78	29809558.93	0.0521	0.0373
Venus	76904-05-07 17:46 G	29809796.03	29809796.24	29809796.45	0.0511	0.0027
Venus	76904-12-30 16:20 G	29810033.06	29810033.18	29810033.32	0.0502	0.0392
Mercury	76905-10-28 04:20 G	29810334.54	29810334.68	29810334.82	0.0492	0.0085
Venus	76910-03-02 08:39 G	29811920.70	29811920.86	29811921.03	0.0509	0.0283
Venus	76910-10-25 02:53 G	29812157.42	29812157.62	29812157.81	0.0519	0.0098
Venus	76911-06-19 08:53 G	29812394.81	29812394.87	29812394.94	0.0528	0.0498
Mercury	76911-12-30 06:44 G	29812588.62	29812588.78	29812588.94	0.0535	0.0030
Venus	76915-05-18 19:27 G	29813824.24	29813824.31	29813824.38	0.0523	0.0485
Venus	76916-01-11 09:51 G	29814061.70	29814061.91	29814062.11	0.0514	0.0086
Venus	76916-09-04 12:00 G	29814298.83	29814299.00	29814299.16	0.0504	0.0292
Mercury	76917-08-16 06:58 G	29814644.65	29814644.79	29814644.93	0.0493	0.0089
Venus	76921-11-05 09:08 G	29816186.75	29816186.88	29816187.01	0.0506	0.0377
Venus	76922-06-30 00:00 G	29816423.30	29816423.50	29816423.70	0.0516	0.0010

Venus	76923-02-22 02:24 G	29816660.47	29816660.60	29816660.73	0.0526	0.0389
Mercury	76923-10-18 06:00 G	29816898.62	29816898.75	29816898.89	0.0534	0.0266
Venus	76927-09-16 02:24 G	29818327.42	29818327.60	29818327.80	0.0516	0.0198
Venus	76928-05-10 08:24 G	29818564.66	29818564.85	29818565.04	0.0507	0.0192
Mercury	76929-06-04 10:05 G	29818954.80	29818954.92	29818955.05	0.0494	0.0251
Mercury	76929-09-01 19:56 G	29819044.25	29819044.33	29819044.41	0.0492	0.0406
Venus	76933-07-11 08:24 G	29820452.79	29820452.85	29820452.93	0.0504	0.0469
Venus	76934-03-04 19:41 G	29820689.13	29820689.32	29820689.52	0.0513	0.0119
Venus	76934-10-27 18:15 G	29820926.09	29820926.26	29820926.43	0.0523	0.0275
Mercury	76935-08-06 04:20 G	29821208.65	29821208.68	29821208.71	0.0533	0.0523
Mercury	76935-11-04 04:20 G	29821298.58	29821298.68	29821298.78	0.0536	0.0411
Venus	76939-05-21 19:27 G	29822593.14	29822593.31	29822593.47	0.0520	0.0308
Venus	76940-01-14 05:03 G	29822830.51	29822830.71	29822830.92	0.0510	0.0091
Venus	76940-09-07 02:39 G	29823067.52	29823067.61	29823067.70	0.0501	0.0446
Mercury	76941-03-23 13:41 G	29823265.00	29823265.07	29823265.16	0.0494	0.0406
Mercury	76941-06-20 23:03 G	29823354.34	29823354.46	29823354.59	0.0492	0.0247
Venus	76945-11-07 18:00 G	29824955.08	29824955.25	29824955.44	0.0510	0.0222
Venus	76946-07-02 13:27 G	29825191.87	29825192.06	29825192.26	0.0520	0.0164
Moon	76946-09-30 06:44 G	29825281.62	29825281.78	29825281.95	0.0524	0.0350
Earth	76946-09-30 07:27 G	29825281.66	29825281.81	29825281.98	0.0524	0.0376 *
Mercury	76947-08-23 04:05 G	29825608.52	29825608.67	29825608.82	0.0536	0.0182
Venus	76951-01-24 12:15 G	29826858.89	29826859.01	29826859.13	0.0522	0.0418
Venus	76951-09-19 00:58 G	29827096.34	29827096.54	29827096.75	0.0512	0.0018
Earth	76952-03-28 15:08 G	29827288.08	29827288.13	29827288.19	0.0505	0.0490
Venus	76952-05-13 01:27 G	29827333.42	29827333.56	29827333.71	0.0503	0.0354
Mercury	76953-04-09 02:24 G	29827664.46	29827664.60	29827664.75	0.0492	0.0085
Venus	76957-07-13 18:00 G	29829221.09	29829221.25	29829221.40	0.0508	0.0321
Venus	76958-03-07 10:20 G	29829457.73	29829457.93	29829458.13	0.0518	0.0054
Earth	76958-10-05 03:51 G	29829669.44	29829669.66	29829669.89	0.0526	0.0119
Moon	76958-10-05 06:44 G	29829669.55	29829669.78	29829670.02	0.0526	0.0098 *

Venus	76958-10-30 14:39 G	29829695.01	29829695.11	29829695.21	0.0527	0.0454
Mercury	76959-06-11 04:05 G	29829918.51	29829918.67	29829918.83	0.0535	0.0041
Venus	76963-05-24 19:27 G	29831362.12	29831362.31	29831362.52	0.0515	0.0126
Venus	76964-01-16 23:32 G	29831599.30	29831599.48	29831599.66	0.0505	0.0258
Earth	76964-04-02 07:56 G	29831675.59	29831675.83	29831676.07	0.0502	0.0044
Moon	76964-04-02 09:22 G	29831675.64	29831675.89	29831676.13	0.0502	0.0071 *
Mercury	76965-01-26 05:46 G	29831974.60	29831974.74	29831974.88	0.0493	0.0076
Venus	76969-03-18 19:27 G	29833487.20	29833487.31	29833487.43	0.0505	0.0414
Venus	76969-11-10 08:53 G	29833723.67	29833723.87	29833724.07	0.0515	0.0054
Venus	76970-07-05 10:05 G	29833960.77	29833960.92	29833961.07	0.0525	0.0345
Mercury	76971-03-30 04:05 G	29834228.53	29834228.67	29834228.81	0.0534	0.0264
Venus	76975-01-27 10:20 G	29835627.75	29835627.93	29835628.12	0.0518	0.0239
Venus	76975-09-21 17:32 G	29835865.03	29835865.23	29835865.43	0.0508	0.0153
Moon	76976-04-06 16:05 G	29836063.03	29836063.17	29836063.32	0.0501	0.0390
Earth	76976-04-06 19:12 G	29836063.15	29836063.30	29836063.46	0.0501	0.0377 *
Venus	76976-05-15 12:29 G	29836102.02	29836102.02	29836102.04	0.0499	0.0499
Mercury	76976-11-14 08:24 G	29836284.73	29836284.85	29836284.97	0.0494	0.0249
Mercury	76977-02-11 18:00 G	29836374.17	29836374.25	29836374.33	0.0492	0.0407
Venus	76980-11-21 20:53 G	29837753.36	29837753.37	29837753.39	0.0503	0.0501
Venus	76981-07-16 07:41 G	29837989.62	29837989.82	29837990.01	0.0512	0.0157
Venus	76982-03-10 05:03 G	29838226.53	29838226.71	29838226.89	0.0522	0.0234
Mercury	76983-01-16 03:22 G	29838538.59	29838538.64	29838538.69	0.0533	0.0502
Mercury	76983-04-16 03:22 G	29838628.55	29838628.64	29838628.73	0.0536	0.0432
Venus	76986-10-02 01:41 G	29839893.42	29839893.57	29839893.72	0.0520	0.0352
Venus	76987-05-27 12:15 G	29840130.81	29840131.01	29840131.22	0.0511	0.0047
Venus	76988-01-19 11:03 G	29840367.85	29840367.96	29840368.08	0.0502	0.0410
Mercury	76988-09-02 11:46 G	29840594.91	29840594.99	29840595.07	0.0495	0.0410
Mercury	76988-11-30 21:08 G	29840684.25	29840684.38	29840684.50	0.0492	0.0241
Venus	76993-03-21 04:48 G	29842255.53	29842255.70	29842255.87	0.0509	0.0259
Venus	76993-11-12 22:20 G	29842492.24	29842492.43	29842492.63	0.0519	0.0122

Venus	76994-07-08 04:20 G	29842729.65	29842729.68	29842729.72	0.0528	0.0519
Mercury	76995-02-02 01:56 G	29842938.44	29842938.58	29842938.73	0.0535	0.0182
Venus	76998-06-06 16:34 G	29844159.10	29844159.19	29844159.28	0.0524	0.0463
Venus	76999-01-30 07:12 G	29844396.60	29844396.80	29844397.01	0.0514	0.0061
Venus	76999-09-24 09:36 G	29844633.75	29844633.90	29844634.06	0.0504	0.0317
Mercury	77000-09-20 00:29 G	29844994.38	29844994.52	29844994.66	0.0493	0.0083

78TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 78th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	77004-11-25 04:34 G		29846521.55	29846521.69	29846521.83	0.0506	0.0356	
Venus	77005-07-19 18:58 G		29846758.09	29846758.29	29846758.49	0.0516	0.0014	
Venus	77006-03-13 21:08 G		29846995.26	29846995.38	29846995.51	0.0526	0.0410	
Mercury	77006-11-22 01:27 G		29847248.40	29847248.56	29847248.72	0.0535	0.0053	
Venus	77010-10-06 01:41 G		29848662.37	29848662.57	29848662.76	0.0517	0.0170	
Venus	77011-05-31 07:27 G		29848899.62	29848899.81	29848899.99	0.0507	0.0218	
Mercury	77012-07-09 03:51 G		29849304.52	29849304.66	29849304.80	0.0493	0.0077	
Venus	77016-07-31 05:03 G		29850787.62	29850787.71	29850787.80	0.0504	0.0449	
Venus	77017-03-24 16:48 G		29851024.00	29851024.20	29851024.39	0.0513	0.0096	
Venus	77017-11-16 15:51 G		29851261.00	29851261.16	29851261.33	0.0523	0.0299	
Mercury	77018-09-10 01:12 G		29851558.42	29851558.55	29851558.69	0.0534	0.0281	
Venus	77022-06-10 18:58 G		29852928.12	29852928.29	29852928.46	0.0519	0.0281	
Venus	77023-02-03 03:51 G		29853165.47	29853165.66	29853165.87	0.0509	0.0116	

Venus	77023-09-28 00:44 G	29853402.46	29853402.53	29853402.60	0.0500	0.0467
Mercury	77024-04-27 07:12 G	29853614.68	29853614.80	29853614.93	0.0494	0.0237
Mercury	77024-07-25 16:48 G	29853704.13	29853704.20	29853704.27	0.0491	0.0418
Venus	77028-11-27 16:34 G	29855290.01	29855290.19	29855290.38	0.0511	0.0198
Venus	77029-07-22 12:44 G	29855526.85	29855527.03	29855527.22	0.0521	0.0190
Earth	77029-09-30 12:00 G	29855596.89	29855597.00	29855597.13	0.0523	0.0449
Moon	77029-09-30 14:39 G	29855596.98	29855597.11	29855597.25	0.0523	0.0428 *
Mercury	77030-06-29 01:12 G	29855868.50	29855868.55	29855868.60	0.0533	0.0505
Mercury	77030-09-27 01:12 G	29855958.46	29855958.55	29855958.64	0.0536	0.0432
Venus	77034-02-13 08:39 G	29857193.74	29857193.86	29857194.00	0.0522	0.0394
Venus	77034-10-08 20:53 G	29857431.16	29857431.37	29857431.57	0.0512	0.0007
Venus	77035-06-02 20:53 G	29857668.23	29857668.37	29857668.51	0.0503	0.0374
Mercury	77036-02-14 09:51 G	29857924.84	29857924.91	29857924.99	0.0494	0.0410
Mercury	77036-05-13 19:12 G	29858014.18	29858014.30	29858014.43	0.0492	0.0242
Mars	77037-10-21 09:22 G	29858539.67	29858539.89	29858540.12	0.0486	0.0219
Venus	77040-08-02 16:34 G	29859556.03	29859556.19	29859556.35	0.0508	0.0296
Venus	77041-03-27 09:22 G	29859792.69	29859792.89	29859793.09	0.0518	0.0081
Moon	77041-10-05 04:05 G	29859984.44	29859984.67	29859984.90	0.0526	0.0013
Earth	77041-10-05 07:41 G	29859984.60	29859984.82	29859985.05	0.0526	0.0042 *
Venus	77041-11-19 13:56 G	29860030.00	29860030.08	29860030.16	0.0527	0.0478
Mercury	77042-07-16 00:58 G	29860268.39	29860268.54	29860268.68	0.0535	0.0201
Venus	77045-10-18 22:34 G	29861459.39	29861459.44	29861459.50	0.0524	0.0505
Venus	77046-06-13 14:10 G	29861696.89	29861697.09	29861697.29	0.0515	0.0104
Venus	77047-02-05 17:46 G	29861934.07	29861934.24	29861934.42	0.0505	0.0278
Moon	77047-04-03 02:10 G	29861990.38	29861990.59	29861990.81	0.0503	0.0166
Earth	77047-04-03 05:03 G	29861990.48	29861990.71	29861990.94	0.0503	0.0140 *
Mercury	77048-03-01 22:20 G	29862324.29	29862324.43	29862324.57	0.0493	0.0077
Venus	77052-04-07 15:22 G	29863822.02	29863822.14	29863822.27	0.0505	0.0392
Venus	77052-11-30 04:34 G	29864058.48	29864058.69	29864058.89	0.0515	0.0032
Venus	77053-07-25 05:17 G	29864295.57	29864295.72	29864295.86	0.0524	0.0366

Earth	77053-10-09 23:03 G	29864372.42	29864372.46	29864372.50	0.0527	0.0516
Moon	77053-10-10 02:53 G	29864372.54	29864372.62	29864372.70	0.0527	0.0493
Mercury	77054-05-03 23:17 G	29864578.32	29864578.47	29864578.63	0.0535	0.0055
Mars	77055-08-13 21:36 G	29865045.12	29865045.40	29865045.69	0.0542	0.0157
Venus	77058-02-16 06:58 G	29865962.61	29865962.79	29865962.98	0.0518	0.0216
Venus	77058-10-11 14:39 G	29866199.92	29866200.11	29866200.30	0.0508	0.0177
Earth	77059-04-07 21:36 G	29866378.21	29866378.40	29866378.59	0.0501	0.0303
Moon	77059-04-08 01:27 G	29866378.38	29866378.56	29866378.74	0.0501	0.0325 *
Mercury	77059-12-20 01:56 G	29866634.43	29866634.58	29866634.72	0.0493	0.0082
Venus	77063-12-12 16:20 G	29868088.13	29868088.18	29868088.24	0.0502	0.0481
Venus	77064-08-05 02:24 G	29868324.41	29868324.60	29868324.79	0.0512	0.0136
Venus	77065-03-29 23:32 G	29868561.30	29868561.48	29868561.65	0.0522	0.0255
Mercury	77066-02-19 22:34 G	29868888.31	29868888.44	29868888.57	0.0534	0.0292
Venus	77069-10-22 00:00 G	29870228.34	29870228.50	29870228.66	0.0521	0.0327
Venus	77070-06-16 10:48 G	29870465.75	29870465.95	29870466.16	0.0511	0.0074
Venus	77071-02-08 09:36 G	29870702.80	29870702.90	29870703.01	0.0502	0.0432
Mercury	77071-10-08 05:17 G	29870944.60	29870944.72	29870944.84	0.0494	0.0239
Mercury	77072-01-05 14:39 G	29871034.04	29871034.11	29871034.19	0.0492	0.0417
Venus	77076-04-10 01:12 G	29872590.37	29872590.55	29872590.72	0.0509	0.0238
Venus	77076-12-02 19:12 G	29872827.11	29872827.30	29872827.49	0.0519	0.0144
Mercury	77077-12-08 22:05 G	29873198.40	29873198.42	29873198.44	0.0534	0.0525
Mercury	77078-03-08 22:20 G	29873288.33	29873288.43	29873288.53	0.0536	0.0413
Venus	77081-06-26 16:05 G	29874494.06	29874494.17	29874494.28	0.0523	0.0437
Venus	77082-02-19 06:15 G	29874731.55	29874731.76	29874731.96	0.0513	0.0034
Venus	77082-10-14 07:56 G	29874968.68	29874968.83	29874968.99	0.0504	0.0340
Mercury	77083-07-27 08:39 G	29875254.78	29875254.86	29875254.95	0.0494	0.0398
Mercury	77083-10-24 18:00 G	29875344.12	29875344.25	29875344.37	0.0492	0.0253
Venus	77087-12-15 02:10 G	29876856.44	29876856.59	29876856.74	0.0507	0.0335
Venus	77088-08-07 17:32 G	29877093.03	29877093.23	29877093.43	0.0517	0.0037
Venus	77089-04-01 20:24 G	29877330.24	29877330.35	29877330.47	0.0526	0.0434

Mercury	77089-12-25 22:34 G	29877598.30	29877598.44	29877598.59	0.0536	0.0197
Venus	77093-10-24 22:05 G	29878997.23	29878997.42	29878997.62	0.0516	0.0147
Venus	77094-06-19 03:08 G	29879234.45	29879234.63	29879234.81	0.0506	0.0239
Mercury	77095-08-12 20:39 G	29879654.21	29879654.36	29879654.50	0.0493	0.0079
Venus	77099-08-20 03:08 G	29881122.53	29881122.63	29881122.74	0.0504	0.0426
Venus	77100-04-13 15:22 G	29881358.94	29881359.14	29881359.34	0.0514	0.0070
Venus	77100-12-06 14:53 G	29881595.97	29881596.12	29881596.28	0.0523	0.0325
Mercury	77101-10-14 22:20 G	29881908.27	29881908.43	29881908.59	0.0535	0.0036
Venus	77105-06-30 14:10 G	29883262.91	29883263.09	29883263.27	0.0519	0.0259
Venus	77106-02-22 22:48 G	29883500.25	29883500.45	29883500.65	0.0509	0.0137
Venus	77106-10-17 19:12 G	29883737.26	29883737.30	29883737.35	0.0500	0.0486
Mercury	77107-06-01 23:46 G	29883964.35	29883964.49	29883964.63	0.0493	0.0086
Venus	77111-12-18 12:29 G	29885624.83	29885625.02	29885625.21	0.0511	0.0176
Venus	77112-08-11 08:10 G	29885861.65	29885861.84	29885862.02	0.0520	0.0211
Mercury	77113-08-02 20:24 G	29886218.22	29886218.35	29886218.49	0.0534	0.0294
Venus	77117-03-05 04:48 G	29887528.56	29887528.70	29887528.85	0.0522	0.0372
Venus	77117-10-28 17:32 G	29887766.03	29887766.23	29887766.44	0.0512	0.0030
Venus	77118-06-22 18:00 G	29888003.13	29888003.25	29888003.38	0.0503	0.0396
Mercury	77119-03-21 03:22 G	29888274.51	29888274.64	29888274.76	0.0494	0.0243
Mercury	77119-06-18 12:44 G	29888363.96	29888364.03	29888364.11	0.0492	0.0414
Venus	77123-08-23 11:46 G	29889890.82	29889890.99	29889891.16	0.0508	0.0275
Venus	77124-04-16 03:51 G	29890127.47	29890127.66	29890127.86	0.0517	0.0101
Earth	77124-10-05 03:22 G	29890299.41	29890299.64	29890299.87	0.0525	0.0073
Moon	77124-10-05 07:12 G	29890299.58	29890299.80	29890300.03	0.0525	0.0103 *
Venus	77124-12-09 08:10 G	29890364.78	29890364.84	29890364.90	0.0527	0.0497
Mercury	77125-08-19 19:41 G	29890618.22	29890618.32	29890618.43	0.0536	0.0403
Venus	77128-11-07 20:10 G	29891794.27	29891794.34	29891794.43	0.0525	0.0483
Venus	77129-07-03 12:29 G	29892031.82	29892032.02	29892032.22	0.0515	0.0079
Venus	77130-02-25 16:20 G	29892269.02	29892269.18	29892269.35	0.0505	0.0301
Earth	77130-04-03 08:39 G	29892305.65	29892305.86	29892306.08	0.0504	0.0210

Moon	77130-04-03 12:44 G	29892305.82	29892306.03	29892306.24	0.0504	0.0228	*
Mercury	77131-01-07 06:44 G	29892584.70	29892584.78	29892584.87	0.0495	0.0400	
Mercury	77131-04-06 16:05 G	29892674.05	29892674.17	29892674.29	0.0492	0.0251	
Venus	77135-04-28 11:32 G	29894156.85	29894156.98	29894157.12	0.0505	0.0372	
Venus	77135-12-21 00:58 G	29894393.33	29894393.54	29894393.74	0.0515	0.0013	
Venus	77136-08-14 01:56 G	29894630.45	29894630.58	29894630.72	0.0525	0.0388	
Moon	77136-10-09 19:27 G	29894687.16	29894687.31	29894687.47	0.0527	0.0393	
Earth	77136-10-09 22:48 G	29894687.32	29894687.45	29894687.59	0.0527	0.0422	*
Mercury	77137-06-07 19:41 G	29894928.17	29894928.32	29894928.47	0.0536	0.0178	
Venus	77141-03-08 06:15 G	29896297.58	29896297.76	29896297.96	0.0518	0.0190	
Venus	77141-10-31 13:27 G	29896534.87	29896535.06	29896535.25	0.0508	0.0202	
Moon	77142-04-07 21:22 G	29896693.19	29896693.39	29896693.60	0.0502	0.0254	
Earth	77142-04-08 01:27 G	29896693.36	29896693.56	29896693.78	0.0502	0.0235	*
Mercury	77143-01-23 19:27 G	29896984.16	29896984.31	29896984.45	0.0493	0.0090	
Venus	77147-01-01 13:41 G	29898422.99	29898423.07	29898423.15	0.0503	0.0461	
Venus	77147-08-26 00:15 G	29898659.31	29898659.51	29898659.71	0.0512	0.0112	
Venus	77148-04-18 22:05 G	29898896.25	29898896.42	29898896.59	0.0522	0.0280	
Mercury	77149-03-26 19:56 G	29899238.17	29899238.33	29899238.49	0.0535	0.0042	
Venus	77152-11-10 21:51 G	29900563.24	29900563.41	29900563.57	0.0520	0.0301	
Venus	77153-07-06 07:41 G	29900800.62	29900800.82	29900801.03	0.0510	0.0097	
Venus	77154-02-28 05:46 G	29901037.66	29901037.74	29901037.83	0.0501	0.0452	
Mercury	77154-11-11 22:05 G	29901294.28	29901294.42	29901294.56	0.0493	0.0083	
Venus	77159-04-30 23:32 G	29902925.30	29902925.48	29902925.67	0.0510	0.0214	
Venus	77159-12-23 18:15 G	29903162.07	29903162.26	29903162.45	0.0520	0.0171	
Mercury	77161-01-12 19:27 G	29903548.17	29903548.31	29903548.45	0.0534	0.0274	
Venus	77164-07-16 12:15 G	29904828.89	29904829.01	29904829.14	0.0523	0.0414	
Venus	77165-03-11 01:56 G	29905066.37	29905066.58	29905066.78	0.0513	0.0013	
Venus	77165-11-03 03:08 G	29905303.50	29905303.63	29905303.78	0.0504	0.0361	
Mercury	77166-08-31 01:27 G	29905604.43	29905604.56	29905604.68	0.0494	0.0245	
Mercury	77166-11-28 10:48 G	29905693.87	29905693.95	29905694.03	0.0492	0.0410	

Venus	77171-01-03 22:34 G	29907191.29	29907191.44	29907191.60	0.0507	0.0313
Venus	77171-08-28 13:27 G	29907427.86	29907428.06	29907428.26	0.0516	0.0059
Venus	77172-04-21 15:51 G	29907665.07	29907665.16	29907665.26	0.0526	0.0455
Mercury	77173-01-29 17:46 G	29907948.14	29907948.24	29907948.34	0.0536	0.0404
Venus	77176-11-13 18:44 G	29909332.08	29909332.28	29909332.48	0.0516	0.0124
Venus	77177-07-09 00:15 G	29909569.34	29909569.51	29909569.69	0.0507	0.0262
Mercury	77178-06-19 04:48 G	29909914.63	29909914.70	29909914.79	0.0495	0.0402
Mercury	77178-09-16 14:10 G	29910003.97	29910004.09	29910004.21	0.0492	0.0250
Venus	77182-09-08 23:17 G	29911457.35	29911457.47	29911457.59	0.0504	0.0406
Venus	77183-05-03 10:48 G	29911693.75	29911693.95	29911694.15	0.0513	0.0049
Venus	77183-12-26 09:36 G	29911930.76	29911930.90	29911931.06	0.0523	0.0345
Mercury	77184-11-17 17:17 G	29912258.07	29912258.22	29912258.37	0.0535	0.0170
Venus	77188-07-19 12:00 G	29913597.82	29913598.00	29913598.19	0.0519	0.0235
Venus	77189-03-13 21:08 G	29913835.18	29913835.38	29913835.57	0.0509	0.0161
Mercury	77190-07-05 17:32 G	29914314.09	29914314.23	29914314.37	0.0493	0.0090
Mars	77192-01-16 00:29 G	29914873.27	29914873.52	29914873.77	0.0485	0.0103
Venus	77194-05-15 00:00 G	29915723.48	29915723.50	29915723.54	0.0502	0.0495
Venus	77195-01-06 08:53 G	29915959.68	29915959.87	29915960.07	0.0511	0.0154
Venus	77195-08-31 04:48 G	29916196.52	29916196.70	29916196.88	0.0521	0.0234
Mercury	77196-09-05 17:03 G	29916568.05	29916568.21	29916568.36	0.0535	0.0061
Venus	77200-03-24 04:48 G	29917863.55	29917863.70	29917863.85	0.0522	0.0346
Venus	77200-11-16 17:03 G	29918101.01	29918101.21	29918101.42	0.0512	0.0056
Venus	77201-07-11 16:48 G	29918338.10	29918338.20	29918338.32	0.0502	0.0420
Mercury	77202-04-23 20:53 G	29918624.23	29918624.37	29918624.51	0.0493	0.0070
Venus	77206-09-11 09:22 G	29920225.72	29920225.89	29920226.07	0.0508	0.0253
Venus	77207-05-06 02:24 G	29920462.40	29920462.60	29920462.79	0.0518	0.0126
Moon	77207-10-05 03:22 G	29920614.42	29920614.64	29920614.85	0.0524	0.0182
Earth	77207-10-05 06:58 G	29920614.57	29920614.79	29920615.01	0.0524	0.0152 *
Venus	77207-12-29 07:27 G	29920699.78	29920699.81	29920699.83	0.0528	0.0522
Mercury	77208-06-24 17:03 G	29920878.07	29920878.21	29920878.34	0.0534	0.0281

Mars	77209-11-07 22:48 G	29921379.25	29921379.45	29921379.65	0.0543	0.0399
Venus	77211-11-27 19:27 G	29922129.21	29922129.31	29922129.41	0.0524	0.0456
Venus	77212-07-22 10:34 G	29922366.74	29922366.94	29922367.15	0.0514	0.0054
Venus	77213-03-16 13:27 G	29922603.91	29922604.06	29922604.22	0.0505	0.0325
Moon	77213-04-02 06:15 G	29922620.58	29922620.76	29922620.95	0.0504	0.0313
Earth	77213-04-02 10:20 G	29922620.74	29922620.93	29922621.13	0.0504	0.0290 *
Mercury	77214-02-09 23:46 G	29922934.37	29922934.49	29922934.62	0.0494	0.0239
Mercury	77214-05-10 09:08 G	29923023.81	29923023.88	29923023.96	0.0492	0.0415
Venus	77218-05-17 10:20 G	29924491.78	29924491.93	29924492.07	0.0506	0.0348
Venus	77219-01-09 00:15 G	29924728.31	29924728.51	29924728.71	0.0515	0.0020
Venus	77219-09-03 01:56 G	29924965.46	29924965.58	29924965.70	0.0525	0.0415
Earth	77219-10-10 03:36 G	29925002.48	29925002.65	29925002.82	0.0527	0.0346
Moon	77219-10-10 05:32 G	29925002.57	29925002.73	29925002.91	0.0527	0.0329 *
Mercury	77220-04-12 16:20 G	29925188.15	29925188.18	29925188.23	0.0533	0.0514
Mercury	77220-07-11 16:48 G	29925278.11	29925278.20	29925278.30	0.0536	0.0425
Venus	77224-03-27 03:22 G	29926632.45	29926632.64	29926632.84	0.0517	0.0165
Venus	77224-11-19 09:51 G	29926869.73	29926869.91	29926870.10	0.0507	0.0225
Earth	77225-04-07 01:41 G	29927008.35	29927008.57	29927008.80	0.0502	0.0150
Moon	77225-04-07 05:17 G	29927008.50	29927008.72	29927008.94	0.0502	0.0173 *
Mercury	77225-11-29 03:08 G	29927244.55	29927244.63	29927244.72	0.0495	0.0400
Mercury	77226-02-26 12:15 G	29927333.89	29927334.01	29927334.14	0.0492	0.0251
Venus	77230-01-20 11:03 G	29928757.86	29928757.96	29928758.05	0.0503	0.0440
Venus	77230-09-13 21:22 G	29928994.19	29928994.39	29928994.59	0.0512	0.0090
Venus	77231-05-08 18:44 G	29929231.12	29929231.28	29929231.44	0.0522	0.0302
Mercury	77232-04-29 15:22 G	29929588.00	29929588.14	29929588.29	0.0535	0.0176
Venus	77235-11-30 18:00 G	29930898.08	29930898.25	29930898.43	0.0520	0.0280
Venus	77236-07-25 04:48 G	29931135.50	29931135.70	29931135.90	0.0511	0.0120
Venus	77237-03-19 03:22 G	29931372.58	29931372.64	29931372.71	0.0502	0.0474
Mercury	77237-12-15 15:51 G	29931644.01	29931644.16	29931644.30	0.0493	0.0092
Venus	77242-05-19 20:10 G	29933260.16	29933260.34	29933260.53	0.0509	0.0192

Venus	77243-01-11 14:10 G	29933496.91	29933497.09	29933497.28	0.0519	0.0192
Mercury	77244-02-16 14:53 G	29933897.96	29933898.12	29933898.28	0.0534	0.0061
Venus	77247-08-05 09:51 G	29935163.78	29935163.91	29935164.05	0.0523	0.0392
Venus	77248-03-30 00:15 G	29935401.30	29935401.51	29935401.71	0.0513	0.0014
Venus	77248-11-22 02:10 G	29935638.46	29935638.59	29935638.72	0.0504	0.0383
Mercury	77249-10-03 19:12 G	29935954.16	29935954.30	29935954.44	0.0494	0.0068
Venus	77254-01-22 19:41 G	29937526.15	29937526.32	29937526.48	0.0507	0.0291
Venus	77254-09-16 10:34 G	29937762.74	29937762.94	29937763.14	0.0516	0.0082
Venus	77255-05-11 13:27 G	29937999.98	29938000.06	29938000.14	0.0526	0.0477
Mercury	77255-12-05 14:10 G	29938207.96	29938208.09	29938208.23	0.0534	0.0295
Venus	77259-04-10 01:12 G	29939429.50	29939429.55	29939429.62	0.0526	0.0501
Venus	77259-12-03 18:58 G	29939667.09	29939667.29	29939667.49	0.0516	0.0096
Venus	77260-07-28 00:00 G	29939904.34	29939904.50	29939904.68	0.0506	0.0288
Mercury	77261-07-22 22:48 G	29940264.32	29940264.45	29940264.57	0.0494	0.0226
Mercury	77261-10-20 08:10 G	29940353.77	29940353.84	29940353.91	0.0492	0.0430
Venus	77265-09-27 21:08 G	29941792.25	29941792.38	29941792.51	0.0504	0.0385
Venus	77266-05-22 09:22 G	29942028.68	29942028.89	29942029.09	0.0514	0.0026
Venus	77267-01-14 08:53 G	29942265.74	29942265.87	29942266.02	0.0524	0.0371
Mercury	77267-09-23 14:10 G	29942518.06	29942518.09	29942518.12	0.0533	0.0519
Mercury	77267-12-22 14:39 G	29942608.02	29942608.11	29942608.20	0.0536	0.0421
Venus	77271-08-08 11:46 G	29943932.80	29943932.99	29943933.18	0.0518	0.0207
Venus	77272-04-01 19:41 G	29944170.13	29944170.32	29944170.52	0.0509	0.0187
Mercury	77273-05-11 01:56 G	29944574.49	29944574.58	29944574.66	0.0494	0.0391
Mercury	77273-08-08 10:48 G	29944663.83	29944663.95	29944664.08	0.0492	0.0260
Venus	77277-06-02 22:48 G	29946058.40	29946058.45	29946058.53	0.0502	0.0474
Venus	77278-01-25 08:39 G	29946294.66	29946294.86	29946295.05	0.0511	0.0127
Venus	77278-09-19 05:03 G	29946531.54	29946531.71	29946531.89	0.0521	0.0262
Mercury	77279-10-10 14:39 G	29946917.96	29946918.11	29946918.26	0.0535	0.0198
Venus	77283-04-13 03:08 G	29948198.48	29948198.63	29948198.80	0.0521	0.0320
Venus	77283-12-06 14:53 G	29948435.92	29948436.12	29948436.33	0.0511	0.0081

Venus	77284-07-30 14:24 G	29948673.01	29948673.10	29948673.20	0.0502	0.0441
Mercury	77285-05-27 14:10 G	29948973.95	29948974.09	29948974.23	0.0493	0.0096
Venus	77289-09-30 07:41 G	29950560.64	29950560.82	29950561.00	0.0508	0.0230
Venus	77290-05-25 00:15 G	29950797.32	29950797.51	29950797.70	0.0518	0.0150
Earth	77290-10-04 08:10 G	29950929.64	29950929.84	29950930.05	0.0523	0.0239
Moon	77290-10-04 10:48 G	29950929.76	29950929.95	29950930.15	0.0523	0.0266 *
Mercury	77291-07-29 13:12 G	29951227.89	29951228.05	29951228.21	0.0534	0.0052
Venus	77294-12-16 15:51 G	29952464.06	29952464.16	29952464.28	0.0524	0.0437
Venus	77295-08-11 07:56 G	29952701.62	29952701.83	29952702.03	0.0515	0.0032
Earth	77296-04-01 12:58 G	29952935.88	29952936.04	29952936.20	0.0505	0.0364
Moon	77296-04-01 16:34 G	29952936.04	29952936.19	29952936.34	0.0505	0.0382 *
Venus	77296-04-04 11:32 G	29952938.83	29952938.98	29952939.13	0.0505	0.0347
Mercury	77297-03-15 17:32 G	29953284.09	29953284.23	29953284.37	0.0494	0.0064
Venus	77301-06-06 08:10 G	29954826.69	29954826.84	29954827.00	0.0505	0.0326
Venus	77302-01-28 21:36 G	29955063.20	29955063.40	29955063.60	0.0515	0.0042
Venus	77302-09-22 22:20 G	29955300.32	29955300.43	29955300.55	0.0525	0.0436
Moon	77302-10-10 02:24 G	29955317.39	29955317.60	29955317.81	0.0525	0.0235
Earth	77302-10-10 02:53 G	29955317.42	29955317.62	29955317.82	0.0525	0.0249 *
Mercury	77303-05-18 12:29 G	29955537.88	29955538.02	29955538.15	0.0533	0.0290
Venus	77307-04-17 01:27 G	29956967.37	29956967.56	29956967.76	0.0518	0.0142
Venus	77307-12-10 08:39 G	29957204.69	29957204.86	29957205.05	0.0508	0.0249
Moon	77308-04-07 04:20 G	29957323.45	29957323.68	29957323.92	0.0503	0.0110
Earth	77308-04-07 06:58 G	29957323.55	29957323.79	29957324.02	0.0503	0.0089 *
Mercury	77309-01-02 21:08 G	29957594.25	29957594.38	29957594.51	0.0494	0.0221
Mercury	77309-04-02 06:29 G	29957683.71	29957683.77	29957683.84	0.0492	0.0436
Venus	77313-02-09 08:39 G	29959092.75	29959092.86	29959092.97	0.0503	0.0419
Venus	77313-10-03 18:58 G	29959329.09	29959329.29	29959329.49	0.0512	0.0066
Venus	77314-05-28 16:34 G	29959566.04	29959566.19	29959566.35	0.0522	0.0326
Mercury	77315-03-06 11:32 G	29959847.97	29959847.98	29959848.00	0.0533	0.0528
Mercury	77315-06-04 12:00 G	29959937.91	29959938.00	29959938.10	0.0536	0.0413

Venus	77318-12-20 19:12 G	29961233.12	29961233.30	29961233.48	0.0520	0.0252
Venus	77319-08-15 05:32 G	29961470.54	29961470.73	29961470.93	0.0510	0.0148
Venus	77320-04-08 03:51 G	29961707.64	29961707.66	29961707.68	0.0501	0.0498
Mercury	77320-10-22 00:44 G	29961904.44	29961904.53	29961904.62	0.0495	0.0377
Mercury	77321-01-19 09:51 G	29961993.79	29961993.91	29961994.03	0.0492	0.0275
Venus	77325-06-08 18:58 G	29963595.10	29963595.29	29963595.48	0.0510	0.0167
Venus	77326-01-31 13:41 G	29963831.89	29963832.07	29963832.25	0.0520	0.0218
Mercury	77327-03-23 12:29 G	29964247.87	29964248.02	29964248.17	0.0535	0.0196
Venus	77330-08-25 11:03 G	29965498.82	29965498.96	29965499.11	0.0523	0.0363
Venus	77331-04-20 00:29 G	29965736.31	29965736.52	29965736.73	0.0513	0.0040
Venus	77331-12-13 01:27 G	29965973.45	29965973.56	29965973.68	0.0503	0.0408
Mercury	77332-11-07 12:58 G	29966303.90	29966304.04	29966304.18	0.0493	0.0107
Venus	77337-02-11 19:27 G	29967861.14	29967861.31	29967861.49	0.0507	0.0266
Venus	77337-10-06 11:17 G	29968097.77	29968097.97	29968098.17	0.0517	0.0110
Venus	77338-05-31 14:53 G	29968335.07	29968335.12	29968335.17	0.0527	0.0505
Mercury	77339-01-09 12:29 G	29968557.86	29968558.02	29968558.18	0.0535	0.0029
Venus	77342-04-30 01:27 G	29969764.48	29969764.56	29969764.65	0.0525	0.0474
Venus	77342-12-23 18:29 G	29970002.06	29970002.27	29970002.47	0.0515	0.0070
Venus	77343-08-17 22:48 G	29970239.29	29970239.45	29970239.62	0.0506	0.0313
Mercury	77344-08-26 16:20 G	29970614.03	29970614.18	29970614.32	0.0493	0.0055
Mars	77346-04-11 21:22 G	29971207.32	29971207.39	29971207.49	0.0485	0.0456
Venus	77348-10-17 20:24 G	29972127.22	29972127.35	29972127.49	0.0504	0.0362
Venus	77349-06-11 08:39 G	29972363.66	29972363.86	29972364.06	0.0514	0.0007
Venus	77350-02-03 08:10 G	29972600.71	29972600.84	29972600.97	0.0523	0.0394
Mercury	77350-10-28 11:03 G	29972867.83	29972867.96	29972868.10	0.0533	0.0276
Venus	77354-08-28 09:08 G	29974267.69	29974267.88	29974268.07	0.0519	0.0186
Venus	77355-04-22 17:46 G	29974505.06	29974505.24	29974505.43	0.0509	0.0209
Mercury	77356-06-14 19:41 G	29974924.19	29974924.32	29974924.45	0.0495	0.0215
Mercury	77356-09-12 05:03 G	29975013.65	29975013.71	29975013.77	0.0492	0.0443
Venus	77360-06-22 22:34 G	29976393.36	29976393.44	29976393.53	0.0502	0.0451

Venus	77361-02-14 07:27 G	29976629.61	29976629.81	29976630.01	0.0511	0.0104
Venus	77361-10-09 03:08 G	29976866.47	29976866.63	29976866.81	0.0521	0.0285
Mercury	77362-08-16 10:05 G	29977177.89	29977177.92	29977177.96	0.0532	0.0516
Mercury	77362-11-14 10:34 G	29977267.85	29977267.94	29977268.04	0.0535	0.0422
Venus	77366-05-03 01:12 G	29978533.38	29978533.55	29978533.72	0.0522	0.0298
Venus	77366-12-26 13:56 G	29978770.87	29978771.08	29978771.28	0.0512	0.0105
Venus	77367-08-20 13:56 G	29979008.01	29979008.08	29979008.16	0.0503	0.0463
Mercury	77368-04-02 23:17 G	29979234.38	29979234.47	29979234.56	0.0495	0.0370
Mercury	77368-07-01 08:24 G	29979323.73	29979323.85	29979323.97	0.0493	0.0283
Venus	77372-10-20 06:00 G	29980895.57	29980895.75	29980895.94	0.0508	0.0206
Venus	77373-06-13 22:48 G	29981132.27	29981132.45	29981132.64	0.0518	0.0175
Moon	77373-10-04 10:34 G	29981244.77	29981244.94	29981245.12	0.0523	0.0346
Earth	77373-10-04 11:32 G	29981244.80	29981244.98	29981245.17	0.0523	0.0317 *
Mercury	77374-09-02 10:20 G	29981577.78	29981577.93	29981578.07	0.0535	0.0192
Venus	77378-01-05 17:32 G	29982799.11	29982799.23	29982799.37	0.0524	0.0409
Venus	77378-08-31 09:22 G	29983036.69	29983036.89	29983037.10	0.0515	0.0005
Moon	77379-04-02 18:15 G	29983251.14	29983251.26	29983251.39	0.0506	0.0432
Earth	77379-04-02 20:53 G	29983251.25	29983251.37	29983251.51	0.0506	0.0417 *
Venus	77379-04-25 12:29 G	29983273.89	29983274.02	29983274.17	0.0505	0.0373
Mercury	77380-04-19 12:00 G	29983633.86	29983634.00	29983634.14	0.0493	0.0124
Venus	77384-06-25 07:12 G	29985161.65	29985161.80	29985161.97	0.0506	0.0303
Venus	77385-02-16 21:08 G	29985398.18	29985398.38	29985398.58	0.0515	0.0068
Moon	77385-10-09 06:58 G	29985632.59	29985632.79	29985633.01	0.0525	0.0175
Earth	77385-10-09 08:39 G	29985632.64	29985632.86	29985633.07	0.0525	0.0179 *
Venus	77385-10-11 22:48 G	29985635.36	29985635.45	29985635.54	0.0525	0.0462
Mercury	77386-06-21 10:20 G	29985887.78	29985887.93	29985888.09	0.0535	0.0031
Venus	77389-09-10 08:53 G	29987064.83	29987064.87	29987064.91	0.0527	0.0517
Venus	77390-05-06 03:22 G	29987302.44	29987302.64	29987302.84	0.0517	0.0111
Venus	77390-12-29 09:36 G	29987539.73	29987539.90	29987540.08	0.0507	0.0276
Earth	77391-04-07 13:56 G	29987638.84	29987639.08	29987639.32	0.0503	0.0032

Moon	77391-04-07 14:10 G	29987638.87	29987639.09	29987639.32	0.0503	0.0060 *
Mercury	77392-02-06 15:08 G	29987943.99	29987944.13	29987944.27	0.0493	0.0041
Venus	77396-02-29 08:53 G	29989427.75	29989427.87	29989428.00	0.0504	0.0395
Venus	77396-10-22 20:10 G	29989664.14	29989664.34	29989664.54	0.0513	0.0039
Venus	77397-06-16 18:44 G	29989901.13	29989901.28	29989901.42	0.0523	0.0355
Mercury	77398-04-09 10:20 G	29990197.79	29990197.93	29990198.07	0.0534	0.0252
Venus	77402-01-09 19:56 G	29991568.15	29991568.33	29991568.52	0.0520	0.0224
Venus	77402-09-04 05:46 G	29991805.55	29991805.74	29991805.93	0.0510	0.0174
Earth	77403-04-13 06:00 G	29992026.67	29992026.75	29992026.82	0.0501	0.0473
Moon	77403-04-13 07:41 G	29992026.77	29992026.82	29992026.89	0.0501	0.0483 *
Mercury	77403-11-26 18:29 G	29992254.14	29992254.27	29992254.40	0.0494	0.0201
Mercury	77404-02-24 04:05 G	29992343.61	29992343.67	29992343.72	0.0492	0.0456
Venus	77407-11-05 11:32 G	29993693.94	29993693.98	29993694.04	0.0501	0.0483
Venus	77408-06-28 19:41 G	29993930.13	29993930.32	29993930.51	0.0510	0.0142
Venus	77409-02-20 14:10 G	29994166.91	29994167.09	29994167.27	0.0519	0.0243
Mercury	77410-01-27 08:53 G	29994507.82	29994507.87	29994507.93	0.0532	0.0498
Mercury	77410-04-27 09:22 G	29994597.81	29994597.89	29994597.98	0.0535	0.0440
Venus	77413-09-14 08:39 G	29995833.71	29995833.86	29995834.02	0.0523	0.0342
Venus	77414-05-09 22:34 G	29996071.24	29996071.44	29996071.65	0.0513	0.0064
Venus	77415-01-02 00:15 G	29996308.41	29996308.51	29996308.63	0.0504	0.0430
Mercury	77415-09-14 21:51 G	29996564.32	29996564.41	29996564.51	0.0495	0.0362
Mercury	77415-12-13 06:58 G	29996653.68	29996653.79	29996653.91	0.0493	0.0293
Venus	77420-03-03 19:56 G	29998196.15	29998196.33	29998196.51	0.0507	0.0241
Venus	77420-10-26 11:03 G	29998432.76	29998432.96	29998433.15	0.0516	0.0135
Venus	77421-06-20 13:56 G	29998670.08	29998670.08	29998670.08	0.0526	0.0526
Mercury	77422-02-13 09:08 G	29998907.73	29998907.88	29998908.02	0.0535	0.0209
Venus	77425-05-19 23:32 G	30000099.38	30000099.48	30000099.58	0.0526	0.0454
Venus	77426-01-12 17:03 G	30000337.00	30000337.21	30000337.42	0.0516	0.0046
Venus	77426-09-06 22:20 G	30000574.28	30000574.43	30000574.58	0.0506	0.0335
Mercury	77427-10-01 10:34 G	30000963.80	30000963.94	30000964.08	0.0493	0.0133

Venus	77431-11-07 19:41 G	30002462.18	30002462.32	30002462.47	0.0504	0.0337
Venus	77432-07-01 07:56 G	30002698.63	30002698.83	30002699.03	0.0514	0.0027
Venus	77433-02-23 07:27 G	30002935.70	30002935.81	30002935.93	0.0524	0.0419
Mercury	77433-12-02 08:24 G	30003217.69	30003217.85	30003218.01	0.0534	0.0026
Venus	77437-09-17 11:17 G	30004602.77	30004602.97	30004603.17	0.0519	0.0155
Venus	77438-05-12 19:41 G	30004840.14	30004840.32	30004840.51	0.0509	0.0238
Mercury	77439-07-20 14:10 G	30005273.94	30005274.09	30005274.23	0.0494	0.0026
Venus	77443-07-13 21:51 G	30006728.31	30006728.41	30006728.52	0.0502	0.0428
Venus	77444-03-06 07:12 G	30006964.60	30006964.80	30006965.00	0.0511	0.0078
Venus	77444-10-29 03:36 G	30007201.49	30007201.65	30007201.81	0.0521	0.0312
Mercury	77445-09-20 08:24 G	30007527.71	30007527.85	30007527.99	0.0534	0.0249
Venus	77449-05-23 04:20 G	30008868.51	30008868.68	30008868.86	0.0521	0.0267
Venus	77450-01-15 16:05 G	30009105.97	30009106.17	30009106.37	0.0511	0.0134
Venus	77450-09-09 15:22 G	30009343.09	30009343.14	30009343.18	0.0502	0.0488
Mercury	77451-05-08 17:32 G	30009584.10	30009584.23	30009584.36	0.0494	0.0186
Mercury	77451-08-06 02:53 G	30009673.58	30009673.62	30009673.66	0.0492	0.0471
Venus	77455-11-10 07:27 G	30011230.62	30011230.81	30011231.00	0.0509	0.0179
Venus	77456-07-04 00:58 G	30011467.36	30011467.54	30011467.73	0.0519	0.0205
Moon	77456-10-04 20:10 G	30011560.20	30011560.34	30011560.48	0.0523	0.0402
Earth	77456-10-04 21:08 G	30011560.23	30011560.38	30011560.55	0.0523	0.0369 *
Mercury	77457-07-09 08:10 G	30011837.77	30011837.84	30011837.91	0.0533	0.0474
Mercury	77457-10-07 08:39 G	30011927.79	30011927.86	30011927.94	0.0536	0.0465
Venus	77461-01-25 19:56 G	30013134.19	30013134.33	30013134.47	0.0524	0.0379
Venus	77461-09-20 10:48 G	30013371.74	30013371.95	30013372.15	0.0514	0.0029
Earth	77462-04-03 04:05 G	30013566.60	30013566.67	30013566.76	0.0506	0.0473
Moon	77462-04-03 04:48 G	30013566.63	30013566.70	30013566.77	0.0506	0.0478 *
Venus	77462-05-15 13:12 G	30013608.93	30013609.05	30013609.18	0.0504	0.0398
Mercury	77463-02-24 20:53 G	30013894.28	30013894.37	30013894.48	0.0495	0.0344
Mercury	77463-05-25 06:00 G	30013983.64	30013983.75	30013983.87	0.0492	0.0310
Mars	77464-10-03 18:29 G	30014481.04	30014481.27	30014481.50	0.0486	0.0222

Venus	77467-07-16 08:53 G	30015496.70	30015496.87	30015497.04	0.0506	0.0277
Venus	77468-03-08 22:48 G	30015733.25	30015733.45	30015733.65	0.0515	0.0094
Earth	77468-10-09 16:05 G	30015947.95	30015948.17	30015948.40	0.0524	0.0123
Moon	77468-10-09 19:12 G	30015948.07	30015948.30	30015948.53	0.0524	0.0123 *
Venus	77468-11-01 00:00 G	30015970.44	30015970.50	30015970.58	0.0525	0.0486
Mercury	77469-07-26 08:10 G	30016237.69	30016237.84	30016237.98	0.0534	0.0230
Venus	77472-09-30 06:44 G	30017399.72	30017399.78	30017399.86	0.0527	0.0496
Venus	77473-05-26 01:41 G	30017637.37	30017637.57	30017637.77	0.0517	0.0089
Venus	77474-01-18 08:39 G	30017874.69	30017874.86	30017875.02	0.0508	0.0298
Earth	77474-04-07 18:29 G	30017954.04	30017954.27	30017954.51	0.0505	0.0031
Moon	77474-04-07 20:10 G	30017954.10	30017954.34	30017954.59	0.0504	0.0003 *
Mercury	77475-03-13 09:22 G	30018293.75	30018293.89	30018294.02	0.0494	0.0145
Venus	77479-03-21 10:20 G	30019762.80	30019762.93	30019763.07	0.0503	0.0370
Venus	77479-11-12 21:08 G	30019999.18	30019999.38	30019999.58	0.0512	0.0011
Venus	77480-07-06 18:58 G	30020236.16	30020236.29	30020236.43	0.0522	0.0379
Mercury	77481-05-14 07:27 G	30020547.65	30020547.81	30020547.97	0.0534	0.0011
Venus	77485-01-28 18:29 G	30021903.08	30021903.27	30021903.46	0.0520	0.0201
Venus	77485-09-23 04:48 G	30022140.51	30022140.70	30022140.89	0.0510	0.0197
Moon	77486-04-12 09:08 G	30022341.76	30022341.88	30022341.99	0.0503	0.0429
Earth	77486-04-12 12:00 G	30022341.87	30022342.00	30022342.13	0.0503	0.0419 *
Mercury	77486-12-30 12:44 G	30022603.89	30022604.03	30022604.18	0.0494	0.0017
Venus	77490-11-24 11:32 G	30024028.90	30024028.98	30024029.06	0.0501	0.0459
Venus	77491-07-18 19:12 G	30024265.11	30024265.30	30024265.50	0.0510	0.0117
Venus	77492-03-11 13:41 G	30024501.91	30024502.07	30024502.25	0.0520	0.0270
Mercury	77493-03-02 06:44 G	30024857.64	30024857.78	30024857.92	0.0533	0.0243
Venus	77496-10-03 11:17 G	30026168.80	30026168.97	30026169.13	0.0523	0.0312
Venus	77497-05-29 00:58 G	30026406.34	30026406.54	30026406.74	0.0513	0.0093
Venus	77498-01-21 02:24 G	30026643.52	30026643.60	30026643.69	0.0503	0.0456
Mercury	77498-10-18 16:34 G	30026914.05	30026914.19	30026914.32	0.0495	0.0170
Mercury	77499-01-16 01:56 G	30027003.57	30027003.58	30027003.59	0.0492	0.0489

Venus	77503-03-24 19:41 G	30028531.14	30028531.32	30028531.50	0.0507	0.0215
Venus	77503-11-16 11:17 G	30028767.78	30028767.97	30028768.16	0.0517	0.0162
Mercury	77504-12-20 06:29 G	30029167.69	30029167.77	30029167.84	0.0533	0.0469
Mercury	77505-03-20 06:58 G	30029257.72	30029257.79	30029257.86	0.0536	0.0470
Venus	77508-06-09 03:22 G	30030434.52	30030434.64	30030434.76	0.0525	0.0423
Venus	77509-02-01 20:10 G	30030672.13	30030672.34	30030672.55	0.0515	0.0015
Venus	77509-09-27 00:29 G	30030909.38	30030909.52	30030909.67	0.0506	0.0363
Mercury	77510-08-07 19:56 G	30031224.23	30031224.33	30031224.44	0.0495	0.0329
Mercury	77510-11-05 05:03 G	30031313.60	30031313.71	30031313.82	0.0492	0.0324
Venus	77514-11-27 21:08 G	30032797.22	30032797.38	30032797.54	0.0505	0.0312
Venus	77515-07-22 10:05 G	30033033.72	30033033.92	30033034.12	0.0515	0.0056
Venus	77516-03-15 10:34 G	30033270.84	30033270.94	30033271.04	0.0524	0.0448
Mercury	77517-01-06 07:12 G	30033567.67	30033567.80	30033567.94	0.0535	0.0254
Venus	77520-10-07 13:27 G	30034937.87	30034938.06	30034938.26	0.0518	0.0126
Venus	77521-06-01 21:22 G	30035175.21	30035175.39	30035175.56	0.0508	0.0265
Mercury	77522-05-26 23:46 G	30035534.46	30035534.49	30035534.51	0.0496	0.0485
Mercury	77522-08-24 08:24 G	30035623.72	30035623.85	30035623.99	0.0493	0.0164
Venus	77526-08-03 00:00 G	30037063.38	30037063.50	30037063.62	0.0502	0.0403
Venus	77527-03-27 09:36 G	30037299.70	30037299.90	30037300.10	0.0511	0.0050
Venus	77527-11-19 06:00 G	30037536.60	30037536.75	30037536.91	0.0521	0.0338
Mercury	77528-10-25 06:44 G	30037877.62	30037877.78	30037877.94	0.0534	0.0022
Venus	77532-06-12 02:39 G	30039203.43	30039203.61	30039203.80	0.0521	0.0244
Venus	77533-02-04 14:39 G	30039440.91	30039441.11	30039441.31	0.0511	0.0157
Mercury	77534-06-12 11:32 G	30039933.84	30039933.98	30039934.12	0.0494	0.0004
Venus	77538-04-08 02:53 G	30041329.58	30041329.62	30041329.66	0.0500	0.0489
Venus	77538-11-30 09:22 G	30041565.70	30041565.89	30041566.09	0.0509	0.0152
Venus	77539-07-25 02:39 G	30041802.43	30041802.61	30041802.79	0.0518	0.0230
Earth	77539-10-06 05:03 G	30041875.58	30041875.71	30041875.84	0.0521	0.0424
Moon	77539-10-06 07:41 G	30041875.72	30041875.82	30041875.94	0.0521	0.0456 *
Mercury	77540-08-13 06:00 G	30042187.60	30042187.75	30042187.89	0.0533	0.0216

Venus	77544-02-15 17:46 G	30043469.09	30043469.24	30043469.39	0.0524	0.0357
Venus	77544-10-10 09:08 G	30043706.68	30043706.88	30043707.09	0.0514	0.0051
Venus	77545-06-04 12:15 G	30043943.91	30043944.01	30043944.13	0.0505	0.0420
Mercury	77546-03-31 15:08 G	30044243.99	30044244.13	30044244.26	0.0495	0.0161
Venus	77550-08-05 08:53 G	30045831.69	30045831.87	30045832.04	0.0506	0.0251
Venus	77551-03-29 22:34 G	30046068.25	30046068.44	30046068.64	0.0515	0.0121
Moon	77551-10-10 18:00 G	30046263.02	30046263.25	30046263.48	0.0523	0.0050
Earth	77551-10-10 21:36 G	30046263.17	30046263.40	30046263.63	0.0523	0.0050 *
Venus	77551-11-22 00:15 G	30046305.46	30046305.51	30046305.55	0.0525	0.0511
Mercury	77552-06-01 04:48 G	30046497.62	30046497.70	30046497.78	0.0532	0.0459
Mercury	77552-08-30 05:17 G	30046587.65	30046587.72	30046587.79	0.0535	0.0478
Venus	77555-10-21 09:22 G	30047734.80	30047734.89	30047734.98	0.0527	0.0467
Venus	77556-06-15 04:05 G	30047972.46	30047972.67	30047972.87	0.0517	0.0058
Venus	77557-02-07 10:48 G	30048209.79	30048209.95	30048210.11	0.0507	0.0326
Moon	77557-04-08 01:27 G	30048269.33	30048269.56	30048269.79	0.0505	0.0043
Earth	77557-04-08 04:20 G	30048269.45	30048269.68	30048269.92	0.0505	0.0076 *
Mercury	77558-01-17 18:44 G	30048554.18	30048554.28	30048554.40	0.0495	0.0315
Mercury	77558-04-17 03:51 G	30048643.56	30048643.66	30048643.77	0.0493	0.0341
Venus	77562-04-10 10:05 G	30050097.78	30050097.92	30050098.07	0.0503	0.0346
Venus	77562-12-02 21:08 G	30050334.18	30050334.38	30050334.58	0.0513	0.0017
Venus	77563-07-27 19:41 G	30050571.20	30050571.32	30050571.45	0.0523	0.0406
Mercury	77564-06-18 05:32 G	30050897.59	30050897.73	30050897.87	0.0535	0.0259
Venus	77568-02-18 22:05 G	30052238.22	30052238.42	30052238.61	0.0520	0.0169
Venus	77568-10-13 07:41 G	30052475.63	30052475.82	30052476.00	0.0510	0.0227
Earth	77569-04-12 22:20 G	30052657.27	30052657.43	30052657.58	0.0503	0.0376
Moon	77569-04-13 01:56 G	30052657.43	30052657.58	30052657.74	0.0503	0.0382 *
Mercury	77569-11-05 22:20 G	30052864.40	30052864.43	30052864.48	0.0496	0.0472
Mercury	77570-02-03 07:27 G	30052953.67	30052953.81	30052953.94	0.0493	0.0179
Venus	77573-12-14 12:44 G	30054363.93	30054364.03	30054364.12	0.0501	0.0436
Venus	77574-08-07 21:08 G	30054600.18	30054600.38	30054600.58	0.0510	0.0088

Venus	77575-04-01 16:20 G	30054837.02	30054837.18	30054837.35	0.0520	0.0299
Mercury	77576-04-06 05:46 G	30055207.58	30055207.74	30055207.89	0.0534	0.0042
Venus	77579-10-24 14:10 G	30056503.92	30056504.09	30056504.27	0.0522	0.0282
Venus	77580-06-18 03:08 G	30056741.43	30056741.63	30056741.83	0.0512	0.0122
Venus	77581-02-10 03:51 G	30056978.61	30056978.66	30056978.72	0.0503	0.0480
Mercury	77581-11-22 10:48 G	30057263.81	30057263.95	30057264.09	0.0494	0.0018
Venus	77586-04-12 22:20 G	30058866.24	30058866.43	30058866.62	0.0508	0.0189
Venus	77586-12-05 14:10 G	30059102.90	30059103.09	30059103.28	0.0517	0.0190
Mercury	77588-01-24 05:03 G	30059517.56	30059517.71	30059517.86	0.0533	0.0192
Venus	77591-06-29 01:56 G	30060769.45	30060769.58	30060769.71	0.0525	0.0399
Venus	77592-02-21 18:29 G	30061007.07	30061007.27	30061007.48	0.0515	0.0011
Venus	77592-10-15 23:03 G	30061244.33	30061244.46	30061244.60	0.0506	0.0384
Mercury	77593-09-10 13:56 G	30061573.94	30061574.08	30061574.21	0.0495	0.0150
Venus	77597-12-16 23:32 G	30063132.32	30063132.48	30063132.65	0.0505	0.0285
Venus	77598-08-10 12:15 G	30063368.81	30063369.01	30063369.21	0.0514	0.0084
Venus	77599-04-04 12:00 G	30063605.92	30063606.00	30063606.09	0.0524	0.0472
Mercury	77599-11-12 04:20 G	30063827.59	30063827.68	30063827.77	0.0532	0.0429
Mercury	77600-02-10 04:34 G	30063917.65	30063917.69	30063917.74	0.0535	0.0505
Venus	77603-03-03 15:22 G	30065035.10	30065035.14	30065035.19	0.0528	0.0511
Venus	77603-10-27 11:32 G	30065272.78	30065272.98	30065273.18	0.0518	0.0103
Venus	77604-06-20 19:41 G	30065510.15	30065510.32	30065510.49	0.0509	0.0287
Mercury	77605-06-29 17:17 G	30065884.12	30065884.22	30065884.34	0.0496	0.0308
Mercury	77605-09-27 02:39 G	30065973.51	30065973.61	30065973.71	0.0493	0.0349
Venus	77609-08-21 23:46 G	30067398.37	30067398.49	30067398.63	0.0502	0.0378
Venus	77610-04-15 09:22 G	30067634.69	30067634.89	30067635.09	0.0511	0.0023
Venus	77610-12-08 05:46 G	30067871.60	30067871.74	30067871.89	0.0521	0.0364
Mercury	77611-11-29 03:51 G	30068227.53	30068227.66	30068227.80	0.0534	0.0268
Venus	77615-07-02 04:48 G	30069538.52	30069538.70	30069538.89	0.0521	0.0214
Venus	77616-02-24 16:34 G	30069776.00	30069776.19	30069776.39	0.0511	0.0187
Mercury	77617-04-17 21:22 G	30070194.34	30070194.39	30070194.44	0.0496	0.0460

Mercury	77617-07-16 06:15 G	30070283.62	30070283.76	30070283.89	0.0494	0.0192
Mars	77618-12-30 03:36 G	30070815.42	30070815.65	30070815.88	0.0486	0.0213
Venus	77621-04-27 02:10 G	30071664.53	30071664.59	30071664.67	0.0500	0.0466
Venus	77621-12-19 09:08 G	30071900.68	30071900.88	30071901.07	0.0509	0.0126
Venus	77622-08-13 02:24 G	30072137.43	30072137.60	30072137.78	0.0519	0.0258
Earth	77622-10-05 11:03 G	30072190.89	30072190.96	30072191.04	0.0521	0.0492
Mercury	77623-09-17 03:51 G	30072537.50	30072537.66	30072537.82	0.0534	0.0044
Venus	77627-03-06 21:36 G	30073804.24	30073804.40	30073804.56	0.0524	0.0325
Venus	77627-10-30 12:15 G	30074041.81	30074042.01	30074042.22	0.0514	0.0081
Venus	77628-06-23 14:39 G	30074279.02	30074279.11	30074279.21	0.0504	0.0446
Mercury	77629-05-04 09:36 G	30074593.76	30074593.90	30074594.04	0.0494	0.0031
Venus	77633-08-24 09:51 G	30076166.74	30076166.91	30076167.10	0.0506	0.0225
Venus	77634-04-18 00:29 G	30076403.33	30076403.52	30076403.71	0.0516	0.0150
Earth	77634-10-10 07:12 G	30076578.57	30076578.80	30076579.03	0.0523	0.0005
Moon	77634-10-10 11:03 G	30076578.73	30076578.96	30076579.19	0.0523	0.0010 *
Mercury	77635-07-06 03:51 G	30076847.51	30076847.66	30076847.81	0.0533	0.0177
Mars	77636-10-16 16:48 G	30077315.92	30077316.20	30077316.49	0.0542	0.0124
Venus	77638-11-09 12:44 G	30078069.92	30078070.03	30078070.14	0.0526	0.0437
Venus	77639-07-05 06:29 G	30078307.57	30078307.77	30078307.98	0.0516	0.0030
Venus	77640-02-27 12:15 G	30078544.87	30078545.01	30078545.16	0.0507	0.0353
Earth	77640-04-07 12:58 G	30078584.81	30078585.04	30078585.27	0.0505	0.0125
Moon	77640-04-07 16:48 G	30078584.96	30078585.20	30078585.44	0.0505	0.0090 *
Mercury	77641-02-20 13:12 G	30078903.91	30078904.05	30078904.19	0.0495	0.0128
Venus	77645-04-29 12:29 G	30080432.87	30080433.02	30080433.18	0.0504	0.0320
Venus	77645-12-22 00:00 G	30080669.30	30080669.50	30080669.70	0.0513	0.0044
Venus	77646-08-15 22:48 G	30080906.34	30080906.45	30080906.56	0.0523	0.0432
Earth	77646-10-15 04:20 G	30080966.62	30080966.68	30080966.75	0.0525	0.0502
Mercury	77647-04-24 03:22 G	30081157.54	30081157.64	30081157.74	0.0532	0.0407
Mercury	77647-07-23 03:36 G	30081247.63	30081247.65	30081247.68	0.0535	0.0527
Venus	77651-03-09 20:10 G	30082573.15	30082573.34	30082573.54	0.0519	0.0145

Venus	77651-11-02 05:46 G	30082810.56	30082810.74	30082810.92	0.0510	0.0249
Moon	77652-04-11 21:51 G	30082972.23	30082972.41	30082972.61	0.0504	0.0311
Earth	77652-04-12 01:41 G	30082972.39	30082972.57	30082972.77	0.0504	0.0311 *
Mercury	77652-12-09 16:05 G	30083214.06	30083214.17	30083214.28	0.0496	0.0297
Mercury	77653-03-09 01:12 G	30083303.46	30083303.55	30083303.65	0.0493	0.0360
Venus	77657-01-02 14:53 G	30084699.01	30084699.12	30084699.24	0.0501	0.0409
Venus	77657-08-26 23:17 G	30084935.27	30084935.47	30084935.67	0.0510	0.0060
Venus	77658-04-20 18:15 G	30085172.11	30085172.26	30085172.42	0.0520	0.0326
Mercury	77659-05-11 03:22 G	30085557.51	30085557.64	30085557.77	0.0534	0.0297
Venus	77662-11-12 11:32 G	30086838.80	30086838.98	30086839.16	0.0522	0.0259
Venus	77663-07-08 00:44 G	30087076.33	30087076.53	30087076.73	0.0512	0.0144
Venus	77664-03-01 01:56 G	30087313.56	30087313.58	30087313.60	0.0503	0.0500
Mercury	77664-09-27 19:41 G	30087524.27	30087524.32	30087524.38	0.0496	0.0455
Mercury	77664-12-26 04:34 G	30087613.56	30087613.69	30087613.82	0.0494	0.0198
Venus	77668-09-07 16:05 G	30088965.16	30088965.17	30088965.20	0.0499	0.0496
Venus	77669-05-01 21:51 G	30089201.22	30089201.41	30089201.60	0.0507	0.0162
Venus	77669-12-24 13:27 G	30089437.88	30089438.06	30089438.24	0.0517	0.0216
Mercury	77671-02-27 02:10 G	30089867.44	30089867.59	30089867.75	0.0534	0.0057
Venus	77674-07-18 03:22 G	30091104.50	30091104.64	30091104.79	0.0525	0.0370
Venus	77675-03-12 19:56 G	30091342.13	30091342.33	30091342.54	0.0515	0.0039
Venus	77675-11-05 00:29 G	30091579.40	30091579.52	30091579.64	0.0506	0.0411
Mercury	77676-10-14 08:10 G	30091923.70	30091923.84	30091923.99	0.0494	0.0043
Venus	77681-01-04 22:34 G	30093467.27	30093467.44	30093467.61	0.0505	0.0260
Venus	77681-08-29 11:17 G	30093703.77	30093703.97	30093704.17	0.0514	0.0110
Venus	77682-04-23 11:32 G	30093940.92	30093940.98	30093941.04	0.0524	0.0497
Mercury	77682-12-16 01:56 G	30094177.43	30094177.58	30094177.73	0.0533	0.0175
Venus	77686-03-22 18:44 G	30095370.20	30095370.28	30095370.36	0.0528	0.0481
Venus	77686-11-15 14:24 G	30095607.90	30095608.10	30095608.31	0.0518	0.0072
Venus	77687-07-10 21:51 G	30095845.26	30095845.41	30095845.58	0.0508	0.0315
Mercury	77688-08-02 11:46 G	30096233.85	30096233.99	30096234.13	0.0495	0.0118

Venus	77692-09-10 00:15 G	30097733.37	30097733.51	30097733.65	0.0503	0.0354
Venus	77693-05-04 10:20 G	30097969.73	30097969.93	30097970.13	0.0512	0.0005
Venus	77693-12-27 07:27 G	30098206.69	30098206.81	30098206.95	0.0522	0.0392
Mercury	77694-10-04 01:41 G	30098487.47	30098487.57	30098487.68	0.0533	0.0399
Venus	77698-07-21 07:27 G	30099873.62	30099873.81	30099874.00	0.0520	0.0183
Venus	77699-03-15 18:15 G	30100111.07	30100111.26	30100111.45	0.0511	0.0215
Mercury	77700-05-22 15:22 G	30100544.02	30100544.14	30100544.26	0.0495	0.0277
Mercury	77700-08-20 00:29 G	30100633.43	30100633.52	30100633.61	0.0493	0.0379
Venus	77704-05-17 03:36 G	30101999.57	30101999.65	30101999.75	0.0501	0.0443
Venus	77705-01-08 11:17 G	30102235.77	30102235.97	30102236.17	0.0509	0.0098
Venus	77705-09-02 05:03 G	30102472.55	30102472.71	30102472.88	0.0519	0.0285
Mercury	77706-10-22 02:10 G	30102887.47	30102887.59	30102887.72	0.0534	0.0316
Venus	77710-03-26 19:41 G	30104139.15	30104139.32	30104139.49	0.0523	0.0301
Venus	77710-11-19 09:51 G	30104376.71	30104376.91	30104377.12	0.0514	0.0105
Venus	77711-07-14 12:29 G	30104613.94	30104614.02	30104614.09	0.0504	0.0466
Mercury	77712-03-10 18:15 G	30104854.20	30104854.26	30104854.32	0.0496	0.0447
Mercury	77712-06-08 03:08 G	30104943.50	30104943.63	30104943.76	0.0494	0.0206
Venus	77716-09-13 11:46 G	30106501.81	30106501.99	30106502.18	0.0507	0.0198
Venus	77717-05-08 02:24 G	30106738.41	30106738.60	30106738.79	0.0516	0.0178
Moon	77717-10-10 12:29 G	30106893.79	30106894.02	30106894.26	0.0522	0.0043
Earth	77717-10-10 15:36 G	30106893.92	30106894.15	30106894.38	0.0522	0.0057 *
Mercury	77718-08-10 01:41 G	30107197.41	30107197.57	30107197.73	0.0533	0.0083
Venus	77721-11-29 09:22 G	30108404.77	30108404.89	30108405.02	0.0526	0.0415
Venus	77722-07-25 03:22 G	30108642.43	30108642.64	30108642.84	0.0516	0.0011
Venus	77723-03-19 09:08 G	30108879.75	30108879.88	30108880.03	0.0507	0.0373
Moon	77723-04-08 10:05 G	30108899.70	30108899.92	30108900.15	0.0506	0.0174
Earth	77723-04-08 13:56 G	30108899.87	30108900.08	30108900.30	0.0506	0.0205 *
Mercury	77724-03-27 06:29 G	30109253.63	30109253.77	30109253.92	0.0495	0.0045
Venus	77728-05-19 11:17 G	30110767.81	30110767.97	30110768.14	0.0504	0.0295
Venus	77729-01-10 22:34 G	30111004.25	30111004.44	30111004.64	0.0513	0.0071

Venus	77729-09-04 21:08 G	30111241.29	30111241.38	30111241.48	0.0523	0.0457
Earth	77729-10-15 06:44 G	30111281.66	30111281.78	30111281.93	0.0524	0.0419
Moon	77729-10-15 08:24 G	30111281.74	30111281.85	30111281.97	0.0524	0.0449 *
Mercury	77730-05-29 00:15 G	30111507.36	30111507.51	30111507.66	0.0533	0.0166
Venus	77733-08-03 23:32 G	30112670.46	30112670.48	30112670.50	0.0529	0.0525
Venus	77734-03-29 20:53 G	30112908.17	30112908.37	30112908.57	0.0519	0.0117
Venus	77734-11-22 06:15 G	30113145.59	30113145.76	30113145.94	0.0510	0.0276
Earth	77735-04-13 09:08 G	30113287.67	30113287.88	30113288.08	0.0504	0.0255
Moon	77735-04-13 11:46 G	30113287.80	30113287.99	30113288.20	0.0504	0.0246 *
Mercury	77736-01-14 10:20 G	30113563.79	30113563.93	30113564.07	0.0495	0.0113
Venus	77740-01-23 12:58 G	30115033.92	30115034.04	30115034.18	0.0501	0.0387
Venus	77740-09-15 21:36 G	30115270.20	30115270.40	30115270.60	0.0510	0.0035
Venus	77741-05-10 16:48 G	30115507.05	30115507.20	30115507.35	0.0520	0.0350
Mercury	77742-03-16 23:32 G	30115817.38	30115817.48	30115817.59	0.0532	0.0399
Venus	77745-12-02 13:56 G	30117173.90	30117174.08	30117174.27	0.0522	0.0228
Venus	77746-07-28 02:39 G	30117411.42	30117411.61	30117411.80	0.0512	0.0174
Mercury	77747-11-02 13:56 G	30117873.96	30117874.08	30117874.20	0.0495	0.0270
Mercury	77748-01-30 23:03 G	30117963.37	30117963.46	30117963.55	0.0493	0.0386
Venus	77751-09-28 15:22 G	30119300.08	30119300.14	30119300.20	0.0499	0.0475
Venus	77752-05-21 21:36 G	30119536.20	30119536.40	30119536.59	0.0508	0.0137
Venus	77753-01-13 13:56 G	30119772.91	30119773.08	30119773.26	0.0518	0.0243
Mercury	77754-04-03 00:15 G	30120217.39	30120217.51	30120217.64	0.0535	0.0320
Venus	77757-08-07 05:32 G	30121439.58	30121439.73	30121439.89	0.0524	0.0341
Venus	77758-04-01 21:22 G	30121677.19	30121677.39	30121677.59	0.0515	0.0067
Venus	77758-11-25 00:58 G	30121914.44	30121914.54	30121914.65	0.0505	0.0435
Mercury	77759-08-21 17:32 G	30122184.16	30122184.23	30122184.30	0.0496	0.0428
Mercury	77759-11-19 02:24 G	30122273.47	30122273.60	30122273.73	0.0494	0.0224
Venus	77764-01-25 23:32 G	30123802.31	30123802.48	30123802.66	0.0506	0.0235
Venus	77764-09-18 12:58 G	30124038.85	30124039.04	30124039.24	0.0515	0.0137
Venus	77765-05-13 13:41 G	30124276.06	30124276.07	30124276.09	0.0524	0.0523

Mercury	77766-01-20 00:15 G	30124527.36	30124527.51	30124527.67	0.0533	0.0098
Venus	77769-04-11 16:34 G	30125705.10	30125705.19	30125705.30	0.0527	0.0457
Venus	77769-12-05 11:46 G	30125942.78	30125942.99	30125943.19	0.0517	0.0048
Venus	77770-07-30 18:58 G	30126180.14	30126180.29	30126180.45	0.0508	0.0336
Mercury	77771-09-07 05:03 G	30126583.57	30126583.71	30126583.85	0.0495	0.0049
Venus	77775-10-01 01:12 G	30128068.40	30128068.55	30128068.70	0.0503	0.0328
Venus	77776-05-24 11:32 G	30128304.78	30128304.98	30128305.19	0.0512	0.0034
Venus	77777-01-16 08:53 G	30128541.75	30128541.87	30128541.99	0.0522	0.0418
Mercury	77777-11-07 23:32 G	30128837.33	30128837.48	30128837.64	0.0532	0.0139
Venus	77781-08-10 03:22 G	30130208.44	30130208.64	30130208.84	0.0520	0.0161
Venus	77782-04-04 14:10 G	30130445.91	30130446.09	30130446.27	0.0511	0.0235
Mercury	77783-06-26 08:24 G	30130893.71	30130893.85	30130893.99	0.0495	0.0113
Venus	77787-06-06 01:56 G	30132334.48	30132334.58	30132334.69	0.0500	0.0419
Venus	77788-01-28 09:08 G	30132570.68	30132570.88	30132571.08	0.0509	0.0073
Venus	77788-09-21 02:53 G	30132807.46	30132807.62	30132807.78	0.0519	0.0309
Mercury	77789-08-26 21:51 G	30133147.31	30133147.41	30133147.52	0.0532	0.0392
Venus	77793-04-14 18:58 G	30134474.12	30134474.29	30134474.47	0.0523	0.0274
Venus	77793-12-08 09:36 G	30134711.70	30134711.90	30134712.10	0.0514	0.0131
Venus	77794-08-02 12:00 G	30134948.96	30134949.00	30134949.05	0.0504	0.0490
Mercury	77795-04-14 12:15 G	30135203.89	30135204.01	30135204.13	0.0496	0.0269
Mercury	77795-07-12 21:08 G	30135293.30	30135293.38	30135293.47	0.0493	0.0390
Venus	77799-10-03 09:08 G	30136836.69	30136836.88	30136837.07	0.0507	0.0174
Venus	77800-05-27 23:32 G	30137073.30	30137073.48	30137073.67	0.0516	0.0202
Earth	77800-10-10 16:34 G	30137208.98	30137209.19	30137209.42	0.0522	0.0148
Moon	77800-10-10 18:29 G	30137209.05	30137209.27	30137209.49	0.0522	0.0124 *
Mercury	77801-09-13 22:05 G	30137547.29	30137547.42	30137547.55	0.0534	0.0315
Venus	77804-12-19 10:34 G	30138739.81	30138739.94	30138740.09	0.0526	0.0387
Venus	77805-08-14 04:34 G	30138977.48	30138977.69	30138977.89	0.0516	0.0025
Venus	77806-04-08 09:51 G	30139214.79	30139214.91	30139215.04	0.0507	0.0399
Earth	77806-04-08 21:08 G	30139215.18	30139215.38	30139215.58	0.0507	0.0262

Moon	77806-04-09 00:00 G	30139215.30	30139215.50	30139215.71	0.0507	0.0235	*
Mercury	77807-02-01 15:51 G	30139514.09	30139514.16	30139514.23	0.0496	0.0425	
Mercury	77807-05-02 00:44 G	30139603.40	30139603.53	30139603.65	0.0494	0.0228	
Venus	77811-06-09 09:51 G	30141102.75	30141102.91	30141103.09	0.0504	0.0272	
Venus	77812-01-31 21:51 G	30141339.21	30141339.41	30141339.61	0.0514	0.0095	
Venus	77812-09-24 21:08 G	30141576.30	30141576.38	30141576.45	0.0523	0.0482	
Earth	77812-10-15 12:00 G	30141596.84	30141597.00	30141597.18	0.0524	0.0348	
Moon	77812-10-15 12:00 G	30141596.84	30141597.00	30141597.17	0.0524	0.0373	*
Mercury	77813-07-02 22:05 G	30141857.26	30141857.42	30141857.58	0.0534	0.0093	
Venus	77816-08-24 00:58 G	30143005.48	30143005.54	30143005.61	0.0528	0.0498	
Venus	77817-04-18 21:51 G	30143243.20	30143243.41	30143243.61	0.0519	0.0088	
Venus	77817-12-12 06:29 G	30143480.61	30143480.77	30143480.94	0.0509	0.0302	
Moon	77818-04-13 13:12 G	30143602.83	30143603.05	30143603.28	0.0504	0.0177	
Earth	77818-04-13 14:53 G	30143602.90	30143603.12	30143603.34	0.0504	0.0194	*
Mercury	77819-02-18 04:05 G	30143913.53	30143913.67	30143913.81	0.0494	0.0066	
Venus	77823-02-12 12:44 G	30145368.90	30145369.03	30145369.17	0.0502	0.0364	
Venus	77823-10-06 22:05 G	30145605.22	30145605.42	30145605.62	0.0511	0.0011	
Venus	77824-05-30 18:00 G	30145842.11	30145842.25	30145842.39	0.0521	0.0376	
Mercury	77825-04-20 21:51 G	30146167.26	30146167.41	30146167.57	0.0533	0.0131	
Venus	77828-12-22 11:03 G	30147508.77	30147508.96	30147509.15	0.0521	0.0204	
Venus	77829-08-16 23:03 G	30147746.27	30147746.46	30147746.65	0.0512	0.0196	
Mercury	77830-12-07 06:44 G	30148223.64	30148223.78	30148223.92	0.0495	0.0109	
Venus	77834-10-18 15:08 G	30149635.05	30149635.13	30149635.22	0.0500	0.0451	
Venus	77835-06-11 21:51 G	30149871.22	30149871.41	30149871.61	0.0508	0.0111	
Venus	77836-02-03 14:39 G	30150107.94	30150108.11	30150108.28	0.0518	0.0270	
Mercury	77837-02-06 21:08 G	30150477.26	30150477.38	30150477.49	0.0532	0.0368	
Venus	77840-08-27 00:58 G	30151774.38	30151774.54	30151774.71	0.0524	0.0319	
Venus	77841-04-21 16:34 G	30152011.99	30152012.19	30152012.39	0.0515	0.0088	
Venus	77841-12-14 20:24 G	30152249.26	30152249.35	30152249.44	0.0505	0.0454	
Mercury	77842-09-25 10:05 G	30152533.80	30152533.92	30152534.04	0.0496	0.0272	

Mercury	77842-12-23 19:12 G	30152623.21	30152623.30	30152623.39	0.0493	0.0386
Venus	77847-02-14 20:53 G	30154137.18	30154137.37	30154137.55	0.0505	0.0211
Venus	77847-10-09 09:51 G	30154373.72	30154373.91	30154374.10	0.0515	0.0161
Mercury	77849-02-23 20:10 G	30154877.22	30154877.34	30154877.47	0.0534	0.0319
Venus	77852-05-01 14:53 G	30156040.00	30156040.12	30156040.23	0.0527	0.0432
Venus	77852-12-25 10:20 G	30156277.72	30156277.93	30156278.13	0.0518	0.0022
Venus	77853-08-19 17:46 G	30156515.10	30156515.24	30156515.38	0.0508	0.0361
Mercury	77854-07-14 13:56 G	30156844.01	30156844.08	30156844.15	0.0497	0.0427
Mercury	77854-10-11 22:48 G	30156933.32	30156933.45	30156933.58	0.0494	0.0227
Venus	77858-10-20 21:36 G	30158403.24	30158403.40	30158403.56	0.0503	0.0306
Venus	77859-06-14 07:56 G	30158639.63	30158639.83	30158640.03	0.0512	0.0055
Venus	77860-02-06 05:03 G	30158876.61	30158876.71	30158876.82	0.0522	0.0440
Mercury	77860-12-12 19:41 G	30159187.16	30159187.32	30159187.48	0.0533	0.0086
Venus	77864-08-30 03:36 G	30160543.45	30160543.65	30160543.85	0.0520	0.0134
Venus	77865-04-24 14:10 G	30160780.92	30160781.09	30160781.27	0.0511	0.0261
Mercury	77866-07-31 02:10 G	30161243.45	30161243.59	30161243.73	0.0494	0.0067
Venus	77870-06-25 23:17 G	30162669.35	30162669.47	30162669.60	0.0501	0.0398
Venus	77871-02-17 06:58 G	30162905.59	30162905.79	30162905.99	0.0510	0.0050
Venus	77871-10-12 01:12 G	30163142.40	30163142.55	30163142.71	0.0519	0.0333
Mercury	77872-09-30 19:27 G	30163497.15	30163497.31	30163497.46	0.0533	0.0142
Venus	77876-05-04 19:27 G	30164809.13	30164809.31	30164809.49	0.0523	0.0246
Venus	77876-12-28 09:36 G	30165046.70	30165046.90	30165047.09	0.0513	0.0158
Mercury	77878-05-19 05:46 G	30165553.60	30165553.74	30165553.88	0.0495	0.0095
Venus	77882-03-01 02:53 G	30166935.58	30166935.62	30166935.67	0.0499	0.0484
Venus	77882-10-23 08:10 G	30167171.65	30167171.84	30167172.03	0.0507	0.0150
Venus	77883-06-16 23:32 G	30167408.30	30167408.48	30167408.66	0.0517	0.0228
Moon	77883-10-10 22:34 G	30167524.22	30167524.44	30167524.66	0.0521	0.0185
Earth	77883-10-10 22:48 G	30167524.25	30167524.45	30167524.67	0.0521	0.0213 *
Mercury	77884-07-19 19:12 G	30167807.18	30167807.30	30167807.41	0.0532	0.0365
Venus	77888-01-08 07:56 G	30169074.69	30169074.83	30169074.98	0.0525	0.0362

Venus	77888-09-02 00:44 G	30169312.33	30169312.53	30169312.74	0.0516	0.0047
Moon	77889-04-07 17:32 G	30169530.05	30169530.23	30169530.43	0.0507	0.0328
Earth	77889-04-07 19:56 G	30169530.16	30169530.33	30169530.49	0.0507	0.0353 *
Venus	77889-04-27 05:46 G	30169549.63	30169549.74	30169549.86	0.0506	0.0418
Mercury	77890-03-07 08:24 G	30169863.73	30169863.85	30169863.97	0.0496	0.0270
Mercury	77890-06-04 17:32 G	30169953.14	30169953.23	30169953.32	0.0493	0.0388
Mars	77891-09-17 09:08 G	30170422.64	30170422.88	30170423.13	0.0486	0.0160
Venus	77894-06-28 09:22 G	30171437.71	30171437.89	30171438.06	0.0505	0.0246
Venus	77895-02-19 21:36 G	30171674.21	30171674.40	30171674.60	0.0514	0.0122
Venus	77895-10-14 20:53 G	30171911.33	30171911.37	30171911.42	0.0523	0.0507
Moon	77895-10-15 16:20 G	30171912.00	30171912.18	30171912.36	0.0523	0.0300
Earth	77895-10-15 17:32 G	30171912.04	30171912.23	30171912.43	0.0523	0.0275 *
Mercury	77896-08-05 19:12 G	30172207.18	30172207.30	30172207.43	0.0534	0.0340
Venus	77899-09-12 20:24 G	30173340.27	30173340.35	30173340.44	0.0528	0.0476
Venus	77900-05-08 16:34 G	30173577.99	30173578.19	30173578.40	0.0518	0.0066
Venus	77901-01-01 01:12 G	30173815.40	30173815.55	30173815.72	0.0509	0.0322
Earth	77901-04-13 12:00 G	30173917.77	30173918.00	30173918.24	0.0505	0.0098
Moon	77901-04-13 12:29 G	30173917.80	30173918.02	30173918.25	0.0505	0.0081 *
Mercury	77901-12-25 12:00 G	30174173.93	30174174.00	30174174.06	0.0497	0.0432
Mercury	77902-03-24 20:39 G	30174263.23	30174263.36	30174263.49	0.0494	0.0222
Venus	77906-03-04 09:22 G	30175703.74	30175703.89	30175704.04	0.0502	0.0341
Venus	77906-10-26 18:15 G	30175940.06	30175940.26	30175940.46	0.0511	0.0015
Venus	77907-06-20 13:56 G	30176176.96	30176177.08	30176177.21	0.0520	0.0398
Mercury	77908-05-25 17:46 G	30176517.08	30176517.24	30176517.39	0.0533	0.0088
Venus	77912-01-12 08:24 G	30177843.66	30177843.85	30177844.04	0.0522	0.0180
Venus	77912-09-05 20:53 G	30178081.18	30178081.37	30178081.56	0.0512	0.0220
Mercury	77914-01-11 00:15 G	30178573.37	30178573.51	30178573.65	0.0495	0.0063
Venus	77917-11-07 11:17 G	30179969.87	30179969.97	30179970.07	0.0500	0.0431
Venus	77918-07-01 17:32 G	30180206.03	30180206.23	30180206.43	0.0508	0.0088
Venus	77919-02-23 09:51 G	30180442.75	30180442.91	30180443.08	0.0518	0.0292

Mercury	77920-03-13 16:48 G	30180827.05	30180827.20	30180827.35	0.0532	0.0151
Venus	77923-09-17 00:00 G	30182109.33	30182109.50	30182109.67	0.0524	0.0293
Venus	77924-05-11 15:51 G	30182346.96	30182347.16	30182347.36	0.0515	0.0114
Venus	77925-01-03 19:27 G	30182584.25	30182584.31	30182584.38	0.0505	0.0477
Mercury	77925-10-30 03:51 G	30182883.52	30182883.66	30182883.80	0.0495	0.0098
Venus	77930-03-06 17:32 G	30184472.04	30184472.23	30184472.42	0.0506	0.0189
Venus	77930-10-29 06:58 G	30184708.61	30184708.79	30184708.98	0.0515	0.0184
Mercury	77931-12-31 16:20 G	30185137.06	30185137.18	30185137.29	0.0532	0.0382
Venus	77935-05-22 14:53 G	30186374.99	30186375.12	30186375.25	0.0527	0.0406
Venus	77936-01-15 09:51 G	30186612.70	30186612.91	30186613.11	0.0517	0.0006
Venus	77936-09-08 16:34 G	30186850.06	30186850.19	30186850.33	0.0508	0.0385
Mercury	77937-08-18 07:12 G	30187193.68	30187193.80	30187193.92	0.0496	0.0257
Mercury	77937-11-15 16:20 G	30187283.10	30187283.18	30187283.26	0.0493	0.0400
Venus	77941-11-09 19:27 G	30188738.15	30188738.31	30188738.48	0.0504	0.0284
Venus	77942-07-04 06:44 G	30188974.58	30188974.78	30188974.97	0.0513	0.0081
Venus	77943-02-26 04:34 G	30189211.61	30189211.69	30189211.78	0.0522	0.0464
Mercury	77944-01-17 17:03 G	30189537.09	30189537.21	30189537.34	0.0534	0.0339
Venus	77947-01-25 02:39 G	30190640.58	30190640.61	30190640.65	0.0529	0.0518
Venus	77947-09-20 00:00 G	30190878.30	30190878.50	30190878.71	0.0519	0.0110
Venus	77948-05-14 10:05 G	30191115.75	30191115.92	30191116.09	0.0510	0.0283
Mercury	77949-06-06 10:05 G	30191503.86	30191503.92	30191503.99	0.0496	0.0430
Mercury	77949-09-03 18:58 G	30191593.16	30191593.29	30191593.41	0.0494	0.0222
Venus	77953-07-15 21:36 G	30193004.27	30193004.40	30193004.53	0.0501	0.0375
Venus	77954-03-09 05:46 G	30193240.54	30193240.74	30193240.95	0.0510	0.0026
Venus	77954-11-01 00:29 G	30193477.38	30193477.52	30193477.67	0.0520	0.0359
Mercury	77955-11-05 16:34 G	30193847.03	30193847.19	30193847.35	0.0533	0.0106
Venus	77959-05-25 14:24 G	30195143.92	30195144.10	30195144.29	0.0522	0.0225
Venus	77960-01-18 04:05 G	30195381.48	30195381.67	30195381.87	0.0513	0.0179
Mercury	77961-06-22 22:05 G	30195903.28	30195903.42	30195903.56	0.0495	0.0056
Venus	77965-03-20 22:48 G	30197270.39	30197270.45	30197270.53	0.0499	0.0464

Venus	77965-11-12 04:05 G	30197506.48	30197506.67	30197506.87	0.0507	0.0127
Venus	77966-07-06 19:12 G	30197743.13	30197743.30	30197743.48	0.0516	0.0250
Moon	77966-10-10 20:10 G	30197839.17	30197839.34	30197839.53	0.0520	0.0291
Earth	77966-10-10 20:53 G	30197839.20	30197839.37	30197839.56	0.0520	0.0315 *
Mercury	77967-08-24 14:39 G	30198156.96	30198157.11	30198157.27	0.0532	0.0151
Venus	77971-01-28 04:05 G	30199409.52	30199409.67	30199409.83	0.0525	0.0340
Venus	77971-09-22 21:36 G	30199647.20	30199647.40	30199647.60	0.0516	0.0070
Earth	77972-04-07 20:39 G	30199845.25	30199845.36	30199845.49	0.0508	0.0437
Moon	77972-04-07 21:22 G	30199845.27	30199845.39	30199845.53	0.0508	0.0415 *
Venus	77972-05-17 03:08 G	30199884.53	30199884.63	30199884.73	0.0506	0.0441
Mercury	77973-04-11 01:41 G	30200213.43	30200213.57	30200213.71	0.0495	0.0102
Venus	77977-07-18 04:34 G	30201772.51	30201772.69	30201772.87	0.0504	0.0226
Venus	77978-03-11 16:20 G	30202008.99	30202009.18	30202009.38	0.0514	0.0143
Earth	77978-10-15 13:56 G	30202226.86	30202227.08	30202227.30	0.0523	0.0163
Moon	77978-10-15 16:20 G	30202226.96	30202227.18	30202227.41	0.0523	0.0183 *
Mercury	77979-06-12 13:27 G	30202466.96	30202467.06	30202467.18	0.0532	0.0393
Venus	77982-10-02 18:15 G	30203675.16	30203675.26	30203675.37	0.0528	0.0453
Venus	77983-05-28 14:53 G	30203912.92	30203913.12	30203913.33	0.0519	0.0043
Venus	77984-01-21 00:00 G	30204150.35	30204150.50	30204150.65	0.0509	0.0345
Earth	77984-04-12 15:51 G	30204232.92	30204233.16	30204233.39	0.0506	0.0029
Moon	77984-04-12 16:48 G	30204232.95	30204233.20	30204233.44	0.0506	0.0011 *
Mercury	77985-01-28 05:17 G	30204523.60	30204523.72	30204523.84	0.0496	0.0260
Mercury	77985-04-27 14:10 G	30204613.01	30204613.09	30204613.18	0.0493	0.0398
Venus	77989-03-23 05:17 G	30206038.57	30206038.72	30206038.88	0.0502	0.0322
Venus	77989-11-14 14:39 G	30206274.91	30206275.11	30206275.31	0.0511	0.0037
Venus	77990-07-09 10:48 G	30206511.83	30206511.95	30206512.07	0.0521	0.0420
Mercury	77991-06-29 14:10 G	30206866.96	30206867.09	30206867.21	0.0534	0.0320
Venus	77995-01-31 07:41 G	30208178.62	30208178.82	30208179.02	0.0521	0.0153
Venus	77995-09-25 19:41 G	30208416.14	30208416.32	30208416.50	0.0511	0.0245
Moon	77996-04-17 06:29 G	30208620.68	30208620.77	30208620.87	0.0504	0.0454

Earth	77996-04-17 09:22 G	30208620.82	30208620.89	30208620.96	0.0504	0.0479	*
Mercury	77996-11-16 08:53 G	30208833.80	30208833.87	30208833.95	0.0496	0.0419	
Mercury	77997-02-13 17:32 G	30208923.11	30208923.23	30208923.36	0.0494	0.0234	
Venus	78000-11-26 08:10 G	30210304.74	30210304.84	30210304.96	0.0500	0.0411	

79TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 79th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	78001-07-20 15:08 G		30210540.94	30210541.13	30210541.33	0.0509	0.0066	
Venus	78002-03-14 08:24 G		30210777.69	30210777.85	30210778.01	0.0518	0.0316	
Mercury	78003-04-17 14:10 G		30211176.94	30211177.09	30211177.25	0.0533	0.0101	
Venus	78006-10-05 21:08 G		30212444.21	30212444.38	30212444.56	0.0523	0.0269	
Venus	78007-05-31 12:15 G		30212681.81	30212682.01	30212682.21	0.0514	0.0138	
Venus	78008-01-23 15:08 G		30212919.10	30212919.13	30212919.17	0.0505	0.0497	
Mercury	78008-12-02 20:24 G		30213233.21	30213233.35	30213233.49	0.0495	0.0058	
Venus	78012-08-01 11:03 G		30214570.95	30214570.96	30214570.98	0.0498	0.0496	
Venus	78013-03-25 15:36 G		30214806.96	30214807.15	30214807.34	0.0506	0.0165	
Venus	78013-11-17 05:46 G		30215043.56	30215043.74	30215043.92	0.0516	0.0210	
Mercury	78015-02-03 13:27 G		30215486.91	30215487.06	30215487.22	0.0532	0.0135	
Venus	78018-06-10 10:34 G		30216709.80	30216709.94	30216710.08	0.0526	0.0384	
Venus	78019-02-03 04:48 G		30216947.49	30216947.70	30216947.91	0.0517	0.0027	
Venus	78019-09-28 11:03 G		30217184.85	30217184.96	30217185.09	0.0507	0.0405	
Mercury	78020-09-20 23:46 G		30217543.35	30217543.49	30217543.63	0.0495	0.0108	

Venus	78024-11-28 15:36 G	30219072.98	30219073.15	30219073.32	0.0503	0.0263
Venus	78025-07-23 02:10 G	30219309.40	30219309.59	30219309.79	0.0512	0.0102
Venus	78026-03-16 23:46 G	30219546.42	30219546.49	30219546.57	0.0522	0.0484
Mercury	78026-11-22 11:32 G	30219796.87	30219796.98	30219797.09	0.0531	0.0393
Venus	78030-02-12 22:05 G	30220975.36	30220975.42	30220975.49	0.0529	0.0499
Venus	78030-10-08 20:10 G	30221213.14	30221213.34	30221213.54	0.0520	0.0087
Venus	78031-06-03 06:44 G	30221450.62	30221450.78	30221450.94	0.0510	0.0306
Mercury	78032-07-10 03:22 G	30221853.52	30221853.64	30221853.76	0.0496	0.0265
Mercury	78032-10-07 12:15 G	30221942.93	30221943.01	30221943.10	0.0494	0.0393
Venus	78036-08-03 17:17 G	30223339.08	30223339.22	30223339.36	0.0501	0.0356
Venus	78037-03-28 00:44 G	30223575.33	30223575.53	30223575.74	0.0510	0.0012
Venus	78037-11-19 18:58 G	30223812.16	30223812.29	30223812.43	0.0519	0.0378
Mercury	78038-12-09 11:32 G	30224196.85	30224196.98	30224197.11	0.0534	0.0310
Venus	78042-06-13 12:00 G	30225478.82	30225479.00	30225479.19	0.0523	0.0201
Venus	78043-02-06 02:10 G	30225716.40	30225716.59	30225716.78	0.0513	0.0203
Mercury	78044-04-28 06:58 G	30226163.72	30226163.79	30226163.86	0.0497	0.0422
Mercury	78044-07-26 15:36 G	30226253.03	30226253.15	30226253.28	0.0494	0.0231
Mars	78045-12-11 22:05 G	30226756.17	30226756.42	30226756.66	0.0486	0.0159
Venus	78048-04-08 18:58 G	30227605.20	30227605.29	30227605.38	0.0499	0.0445
Venus	78048-12-01 00:00 G	30227841.31	30227841.50	30227841.70	0.0507	0.0107
Venus	78049-07-25 15:22 G	30228077.97	30228078.14	30228078.32	0.0517	0.0272
Earth	78049-10-09 20:53 G	30228154.23	30228154.37	30228154.52	0.0520	0.0409
Moon	78049-10-09 23:03 G	30228154.30	30228154.46	30228154.63	0.0520	0.0379 *
Mercury	78050-09-27 11:03 G	30228506.81	30228506.96	30228507.12	0.0533	0.0081
Venus	78054-02-16 03:36 G	30229744.49	30229744.65	30229744.81	0.0525	0.0314
Venus	78054-10-11 20:39 G	30229982.16	30229982.36	30229982.56	0.0516	0.0097
Moon	78055-04-08 00:44 G	30230160.46	30230160.53	30230160.60	0.0508	0.0487
Venus	78055-06-06 01:41 G	30230219.49	30230219.57	30230219.65	0.0506	0.0464
Mercury	78056-05-14 19:12 G	30230563.15	30230563.30	30230563.44	0.0495	0.0070
Venus	78060-08-06 01:41 G	30232107.39	30232107.57	30232107.75	0.0505	0.0204

Venus	78061-03-30 14:10 G	30232343.90	30232344.09	30232344.28	0.0514	0.0167
Moon	78061-10-14 13:27 G	30232541.84	30232542.06	30232542.29	0.0522	0.0096
Earth	78061-10-14 17:03 G	30232541.98	30232542.21	30232542.44	0.0522	0.0083 *
Mercury	78062-07-16 11:03 G	30232816.81	30232816.96	30232817.11	0.0533	0.0142
Mars	78063-09-23 23:46 G	30233251.28	30233251.49	30233251.71	0.0542	0.0360
Venus	78065-10-21 16:48 G	30234010.08	30234010.20	30234010.32	0.0527	0.0428
Venus	78066-06-16 12:15 G	30234247.81	30234248.01	30234248.22	0.0518	0.0020
Venus	78067-02-08 20:24 G	30234485.21	30234485.35	30234485.49	0.0508	0.0367
Moon	78067-04-12 12:58 G	30234547.82	30234548.04	30234548.27	0.0506	0.0085
Earth	78067-04-12 15:22 G	30234547.91	30234548.14	30234548.38	0.0506	0.0061 *
Mercury	78068-03-02 21:51 G	30234873.28	30234873.41	30234873.55	0.0495	0.0106
Venus	78072-04-11 03:08 G	30236373.47	30236373.63	30236373.80	0.0503	0.0299
Venus	78072-12-03 12:58 G	30236609.84	30236610.04	30236610.24	0.0512	0.0063
Venus	78073-07-28 09:51 G	30236846.81	30236846.91	30236847.01	0.0521	0.0446
Mercury	78074-05-04 10:20 G	30237126.82	30237126.93	30237127.04	0.0532	0.0376
Venus	78078-02-19 03:36 G	30238513.45	30238513.65	30238513.85	0.0521	0.0130
Venus	78078-10-14 14:53 G	30238750.95	30238751.12	30238751.30	0.0511	0.0267
Earth	78079-04-17 07:12 G	30238935.65	30238935.80	30238935.95	0.0504	0.0385
Moon	78079-04-17 10:48 G	30238935.80	30238935.95	30238936.12	0.0504	0.0367 *
Mercury	78079-12-21 01:27 G	30239183.44	30239183.56	30239183.67	0.0496	0.0268
Mercury	78080-03-19 10:20 G	30239272.84	30239272.93	30239273.01	0.0493	0.0389
Venus	78083-12-16 04:48 G	30240639.58	30240639.70	30240639.82	0.0500	0.0391
Venus	78084-08-08 11:17 G	30240875.77	30240875.97	30240876.18	0.0509	0.0045
Venus	78085-04-02 04:05 G	30241112.52	30241112.67	30241112.83	0.0518	0.0337
Mercury	78086-05-21 09:36 G	30241526.77	30241526.90	30241527.03	0.0533	0.0311
Venus	78089-10-24 17:03 G	30242779.03	30242779.21	30242779.39	0.0524	0.0248
Venus	78090-06-19 08:24 G	30243016.66	30243016.85	30243017.05	0.0514	0.0160
Mercury	78091-10-09 05:03 G	30243493.64	30243493.71	30243493.78	0.0497	0.0426
Mercury	78092-01-06 13:41 G	30243582.94	30243583.07	30243583.20	0.0494	0.0228
Venus	78095-08-21 07:27 G	30244905.76	30244905.81	30244905.87	0.0498	0.0477

Venus	78096-04-13 11:17 G	30245141.78	30245141.97	30245142.17	0.0506	0.0145
Venus	78096-12-06 00:44 G	30245378.36	30245378.53	30245378.72	0.0515	0.0231
Mercury	78098-03-09 08:39 G	30245836.71	30245836.86	30245837.02	0.0533	0.0075
Venus	78101-06-30 07:27 G	30247044.66	30247044.81	30247044.96	0.0527	0.0363
Venus	78102-02-23 02:24 G	30247282.40	30247282.60	30247282.81	0.0517	0.0051
Venus	78102-10-18 09:22 G	30247519.78	30247519.89	30247520.00	0.0508	0.0426
Mercury	78103-10-26 17:17 G	30247893.08	30247893.22	30247893.36	0.0495	0.0068
Venus	78107-12-19 11:46 G	30249407.81	30249407.99	30249408.17	0.0503	0.0243
Venus	78108-08-11 22:34 G	30249644.24	30249644.44	30249644.63	0.0513	0.0123
Venus	78109-04-05 20:10 G	30249881.30	30249881.34	30249881.40	0.0522	0.0506
Mercury	78109-12-27 07:56 G	30250146.68	30250146.83	30250146.99	0.0532	0.0161
Venus	78113-03-04 21:51 G	30251310.32	30251310.41	30251310.50	0.0529	0.0474
Venus	78113-10-28 19:41 G	30251548.11	30251548.32	30251548.52	0.0520	0.0060
Venus	78114-06-23 05:46 G	30251785.59	30251785.74	30251785.90	0.0510	0.0330
Mercury	78115-08-14 20:39 G	30252203.22	30252203.36	30252203.50	0.0495	0.0094
Venus	78119-08-24 14:10 G	30253673.94	30253674.09	30253674.24	0.0501	0.0335
Venus	78120-04-16 22:20 G	30253910.23	30253910.43	30253910.63	0.0510	0.0020
Venus	78120-12-09 17:03 G	30254147.09	30254147.21	30254147.34	0.0520	0.0403
Mercury	78121-10-15 07:41 G	30254456.71	30254456.82	30254456.93	0.0532	0.0385
Venus	78125-07-03 10:48 G	30255813.76	30255813.95	30255814.15	0.0522	0.0174
Venus	78126-02-25 23:46 G	30256051.31	30256051.49	30256051.68	0.0512	0.0228
Mercury	78127-06-02 23:46 G	30256513.37	30256513.49	30256513.61	0.0496	0.0263
Mercury	78127-08-31 08:39 G	30256602.78	30256602.86	30256602.95	0.0493	0.0393
Venus	78131-04-29 16:34 G	30257940.09	30257940.19	30257940.30	0.0499	0.0425
Venus	78131-12-21 22:34 G	30258176.24	30258176.44	30258176.64	0.0508	0.0082
Venus	78132-08-14 14:39 G	30258412.94	30258413.11	30258413.27	0.0517	0.0298
Moon	78132-10-09 22:20 G	30258469.33	30258469.43	30258469.55	0.0520	0.0454
Earth	78132-10-10 01:56 G	30258469.50	30258469.58	30258469.66	0.0520	0.0483 *
Mercury	78133-11-01 08:24 G	30258856.73	30258856.85	30258856.98	0.0534	0.0330
Venus	78137-03-08 00:58 G	30260079.37	30260079.54	30260079.71	0.0525	0.0290

Venus	78137-10-31 17:03 G	30260317.01	30260317.21	30260317.42	0.0515	0.0120
Venus	78138-06-25 21:36 G	30260554.35	30260554.40	30260554.46	0.0506	0.0484
Mercury	78139-03-22 03:22 G	30260823.57	30260823.64	30260823.71	0.0497	0.0424
Mercury	78139-06-19 12:00 G	30260912.87	30260913.00	30260913.12	0.0494	0.0228
Venus	78143-08-26 22:34 G	30262442.26	30262442.44	30262442.63	0.0505	0.0183
Venus	78144-04-19 10:48 G	30262678.77	30262678.95	30262679.14	0.0514	0.0189
Earth	78144-10-14 16:34 G	30262856.96	30262857.19	30262857.42	0.0521	0.0014
Moon	78144-10-14 20:39 G	30262857.13	30262857.36	30262857.58	0.0521	0.0010 *
Mercury	78145-08-20 06:58 G	30263166.63	30263166.79	30263166.94	0.0533	0.0079
Venus	78148-11-10 12:15 G	30264344.89	30264345.01	30264345.14	0.0528	0.0409
Venus	78149-07-06 08:39 G	30264582.65	30264582.86	30264583.07	0.0518	0.0006
Venus	78150-02-28 17:17 G	30264820.09	30264820.22	30264820.35	0.0509	0.0389
Earth	78150-04-12 16:05 G	30264862.95	30264863.17	30264863.40	0.0507	0.0143
Moon	78150-04-12 19:41 G	30264863.10	30264863.32	30264863.55	0.0507	0.0170 *
Mercury	78151-04-07 15:22 G	30265223.00	30265223.14	30265223.28	0.0495	0.0067
Venus	78155-05-02 00:00 G	30266708.34	30266708.50	30266708.67	0.0502	0.0279
Venus	78155-12-24 09:22 G	30266944.69	30266944.89	30266945.08	0.0511	0.0083
Venus	78156-08-17 05:17 G	30267181.64	30267181.72	30267181.81	0.0521	0.0464
Moon	78156-10-19 06:29 G	30267244.64	30267244.77	30267244.89	0.0523	0.0439
Earth	78156-10-19 09:51 G	30267244.82	30267244.91	30267245.01	0.0523	0.0472 *
Mercury	78157-06-08 06:00 G	30267476.59	30267476.75	30267476.90	0.0532	0.0162
Venus	78160-07-16 01:27 G	30268610.53	30268610.56	30268610.59	0.0530	0.0522
Venus	78161-03-11 00:58 G	30268848.34	30268848.54	30268848.74	0.0521	0.0108
Venus	78161-11-03 12:58 G	30269085.87	30269086.04	30269086.21	0.0512	0.0290
Moon	78162-04-17 06:44 G	30269250.60	30269250.78	30269250.98	0.0505	0.0298
Earth	78162-04-17 10:48 G	30269250.77	30269250.95	30269251.14	0.0505	0.0318 *
Mercury	78163-01-24 18:58 G	30269533.15	30269533.29	30269533.43	0.0496	0.0092
Venus	78167-01-05 01:27 G	30270974.43	30270974.56	30270974.70	0.0500	0.0371
Venus	78167-08-29 07:56 G	30271210.63	30271210.83	30271211.04	0.0509	0.0025
Venus	78168-04-22 00:58 G	30271447.40	30271447.54	30271447.68	0.0518	0.0359

Mercury	78169-03-27 04:48 G	30271786.60	30271786.70	30271786.81	0.0531	0.0400
Venus	78172-11-13 17:03 G	30273114.03	30273114.21	30273114.40	0.0524	0.0221
Venus	78173-07-09 08:24 G	30273351.66	30273351.85	30273352.04	0.0514	0.0186
Mercury	78174-11-12 22:34 G	30273843.32	30273843.44	30273843.56	0.0496	0.0251
Mercury	78175-02-10 07:27 G	30273932.73	30273932.81	30273932.89	0.0494	0.0406
Venus	78178-09-10 04:48 G	30275240.62	30275240.70	30275240.78	0.0498	0.0458
Venus	78179-05-04 08:53 G	30275476.68	30275476.87	30275477.07	0.0506	0.0122
Venus	78179-12-26 23:03 G	30275713.29	30275713.46	30275713.64	0.0516	0.0254
Mercury	78181-04-13 06:00 G	30276186.63	30276186.75	30276186.88	0.0534	0.0324
Venus	78184-07-19 07:41 G	30277379.66	30277379.82	30277379.98	0.0526	0.0335
Venus	78185-03-14 01:41 G	30277617.36	30277617.57	30277617.77	0.0516	0.0078
Venus	78185-11-06 07:41 G	30277854.73	30277854.82	30277854.91	0.0507	0.0449
Mercury	78186-09-01 01:56 G	30278153.50	30278153.58	30278153.65	0.0497	0.0417
Mercury	78186-11-29 10:34 G	30278242.81	30278242.94	30278243.06	0.0494	0.0235
Venus	78191-01-07 10:20 G	30279742.75	30279742.93	30279743.12	0.0504	0.0220
Venus	78191-08-31 21:51 G	30279979.22	30279979.41	30279979.60	0.0513	0.0150
Mercury	78193-01-30 05:46 G	30280496.59	30280496.74	30280496.90	0.0533	0.0097
Venus	78196-03-23 20:39 G	30281645.26	30281645.36	30281645.47	0.0528	0.0450
Venus	78196-11-16 17:46 G	30281883.03	30281883.24	30281883.45	0.0519	0.0035
Venus	78197-07-12 03:08 G	30282120.49	30282120.63	30282120.78	0.0509	0.0353
Mercury	78198-09-17 13:41 G	30282552.93	30282553.07	30282553.22	0.0495	0.0073
Mars	78200-03-08 12:00 G	30283089.96	30283090.00	30283090.04	0.0486	0.0479
Venus	78202-09-13 12:15 G	30284008.85	30284009.01	30284009.17	0.0501	0.0315
Venus	78203-05-07 20:10 G	30284245.14	30284245.34	30284245.55	0.0510	0.0044
Venus	78203-12-30 14:39 G	30284482.01	30284482.11	30284482.23	0.0520	0.0424
Mercury	78204-11-19 04:05 G	30284806.52	30284806.67	30284806.83	0.0532	0.0154
Venus	78208-07-23 07:12 G	30286148.60	30286148.80	30286149.00	0.0522	0.0154
Venus	78209-03-17 20:53 G	30286386.19	30286386.37	30286386.55	0.0513	0.0249
Mercury	78210-07-07 17:17 G	30286863.08	30286863.22	30286863.36	0.0496	0.0090
Venus	78214-05-19 15:08 G	30288275.01	30288275.13	30288275.24	0.0499	0.0404

Venus	78215-01-10 20:10 G	30288511.14	30288511.34	30288511.54	0.0507	0.0061
Venus	78215-09-04 11:32 G	30288747.82	30288747.98	30288748.14	0.0517	0.0318
Mercury	78216-09-07 03:08 G	30289116.52	30289116.63	30289116.74	0.0531	0.0394
Mars	78217-12-19 01:56 G	30289584.29	30289584.58	30289584.88	0.0541	0.0044
Venus	78220-03-27 21:51 G	30290414.24	30290414.41	30290414.59	0.0525	0.0270
Venus	78220-11-20 15:08 G	30290651.93	30290652.13	30290652.33	0.0516	0.0142
Venus	78221-07-15 20:10 G	30290889.34	30290889.34	30290889.36	0.0506	0.0505
Mercury	78222-04-25 20:53 G	30291173.25	30291173.37	30291173.49	0.0496	0.0248
Mercury	78222-07-24 05:46 G	30291262.67	30291262.74	30291262.82	0.0494	0.0411
Venus	78226-01-22 17:17 G	30292541.20	30292541.22	30292541.26	0.0497	0.0490
Venus	78226-09-15 20:10 G	30292777.15	30292777.34	30292777.53	0.0505	0.0160
Venus	78227-05-10 08:24 G	30293013.66	30293013.85	30293014.03	0.0514	0.0212
Moon	78227-10-15 14:39 G	30293171.89	30293172.11	30293172.35	0.0521	0.0090
Earth	78227-10-15 18:29 G	30293172.04	30293172.27	30293172.50	0.0521	0.0098 *
Mercury	78228-09-24 03:36 G	30293516.52	30293516.65	30293516.77	0.0534	0.0314
Venus	78231-12-01 12:58 G	30294679.90	30294680.04	30294680.19	0.0528	0.0382
Venus	78232-07-26 09:22 G	30294917.68	30294917.89	30294918.09	0.0518	0.0034
Venus	78233-03-20 17:32 G	30295155.12	30295155.23	30295155.35	0.0509	0.0414
Moon	78233-04-12 18:29 G	30295178.06	30295178.27	30295178.48	0.0508	0.0237
Earth	78233-04-12 22:34 G	30295178.22	30295178.44	30295178.66	0.0508	0.0203 *
Mercury	78234-02-12 00:44 G	30295483.45	30295483.53	30295483.61	0.0497	0.0404
Mercury	78234-05-12 09:22 G	30295572.77	30295572.89	30295573.01	0.0494	0.0249
Venus	78238-05-21 22:05 G	30297043.25	30297043.42	30297043.60	0.0503	0.0256
Venus	78239-01-13 07:41 G	30297279.63	30297279.82	30297280.02	0.0512	0.0108
Venus	78239-09-07 04:34 G	30297516.62	30297516.69	30297516.75	0.0521	0.0489
Earth	78239-10-20 14:10 G	30297559.95	30297560.09	30297560.24	0.0523	0.0397
Moon	78239-10-20 16:34 G	30297560.04	30297560.19	30297560.36	0.0523	0.0368 *
Mercury	78240-07-13 03:36 G	30297826.49	30297826.65	30297826.81	0.0533	0.0094
Venus	78243-08-06 03:08 G	30298945.56	30298945.63	30298945.70	0.0530	0.0494
Venus	78244-03-31 01:41 G	30299183.37	30299183.57	30299183.78	0.0521	0.0079

Venus	78244-11-23 12:58 G	30299420.88	30299421.04	30299421.20	0.0511	0.0315
Earth	78245-04-17 15:36 G	30299565.95	30299566.15	30299566.36	0.0505	0.0251
Moon	78245-04-17 19:12 G	30299566.10	30299566.30	30299566.51	0.0505	0.0237 *
Mercury	78246-02-28 12:29 G	30299882.88	30299883.02	30299883.16	0.0495	0.0081
Venus	78250-01-25 00:29 G	30301309.38	30301309.52	30301309.67	0.0501	0.0349
Venus	78250-09-18 07:41 G	30301545.62	30301545.82	30301546.03	0.0509	0.0012
Venus	78251-05-13 01:12 G	30301782.43	30301782.55	30301782.69	0.0519	0.0386
Mercury	78252-05-01 03:08 G	30302136.48	30302136.63	30302136.79	0.0532	0.0134
Venus	78255-12-04 16:48 G	30303449.01	30303449.20	30303449.39	0.0523	0.0194
Venus	78256-07-29 07:27 G	30303686.62	30303686.81	30303687.00	0.0513	0.0212
Mercury	78257-12-17 16:05 G	30304193.03	30304193.17	30304193.31	0.0495	0.0081
Venus	78261-09-30 03:51 G	30305575.57	30305575.66	30305575.76	0.0498	0.0438
Venus	78262-05-24 08:10 G	30305811.65	30305811.84	30305812.04	0.0506	0.0099
Venus	78263-01-15 22:05 G	30306048.26	30306048.42	30306048.59	0.0516	0.0277
Mercury	78264-02-18 01:41 G	30306446.46	30306446.57	30306446.68	0.0531	0.0381
Venus	78267-08-09 04:20 G	30307714.52	30307714.68	30307714.85	0.0526	0.0315
Venus	78268-04-02 22:48 G	30307952.25	30307952.45	30307952.65	0.0517	0.0099
Venus	78268-11-26 05:32 G	30308189.66	30308189.73	30308189.81	0.0507	0.0470
Mercury	78269-10-05 19:27 G	30308503.19	30308503.31	30308503.43	0.0497	0.0243
Mercury	78270-01-03 04:20 G	30308592.61	30308592.68	30308592.76	0.0494	0.0417
Venus	78274-01-27 09:36 G	30310077.72	30310077.90	30310078.09	0.0504	0.0197
Venus	78274-09-20 20:24 G	30310314.16	30310314.35	30310314.54	0.0513	0.0172
Mercury	78276-03-06 01:56 G	30310846.46	30310846.58	30310846.71	0.0533	0.0325
Venus	78279-04-13 17:46 G	30311980.12	30311980.24	30311980.36	0.0529	0.0430
Venus	78279-12-07 15:36 G	30312217.95	30312218.15	30312218.36	0.0520	0.0015
Venus	78280-08-01 01:56 G	30312455.44	30312455.58	30312455.72	0.0510	0.0375
Mercury	78281-07-24 23:17 G	30312813.39	30312813.47	30312813.55	0.0497	0.0399
Mercury	78281-10-22 07:41 G	30312902.71	30312902.82	30312902.95	0.0495	0.0257
Venus	78285-10-02 10:34 G	30314343.78	30314343.94	30314344.10	0.0501	0.0292
Venus	78286-05-26 18:29 G	30314580.07	30314580.27	30314580.47	0.0510	0.0067

Venus	78287-01-18 12:58 G	30314816.95	30314817.04	30314817.15	0.0520	0.0447
Mercury	78287-12-24 01:12 G	30315156.39	30315156.55	30315156.71	0.0533	0.0090
Venus	78291-08-12 08:39 G	30316483.66	30316483.86	30316484.06	0.0522	0.0125
Venus	78292-04-05 22:05 G	30316721.25	30316721.42	30316721.59	0.0513	0.0276
Mercury	78293-08-10 11:32 G	30317212.84	30317212.98	30317213.12	0.0495	0.0097
Venus	78297-06-07 13:27 G	30318609.94	30318610.06	30318610.20	0.0499	0.0382
Venus	78298-01-29 19:12 G	30318846.10	30318846.30	30318846.50	0.0508	0.0036
Venus	78298-09-23 10:48 G	30319082.80	30319082.95	30319083.10	0.0517	0.0344
Mercury	78299-10-12 01:12 G	30319466.39	30319466.55	30319466.70	0.0532	0.0134
Venus	78303-04-18 00:15 G	30320749.33	30320749.51	30320749.70	0.0525	0.0239
Venus	78303-12-11 16:34 G	30320987.00	30320987.19	30320987.39	0.0515	0.0171
Mercury	78305-05-30 14:53 G	30321522.98	30321523.12	30321523.26	0.0495	0.0069
Venus	78309-02-11 16:48 G	30322876.14	30322876.20	30322876.27	0.0497	0.0469
Venus	78309-10-05 20:24 G	30323112.15	30323112.35	30323112.54	0.0505	0.0136
Venus	78310-05-30 09:22 G	30323348.71	30323348.89	30323349.07	0.0515	0.0239
Earth	78310-10-16 02:39 G	30323487.39	30323487.61	30323487.83	0.0521	0.0156
Moon	78310-10-16 05:17 G	30323487.51	30323487.72	30323487.93	0.0521	0.0151 *
Mercury	78311-08-01 00:44 G	30323776.41	30323776.53	30323776.65	0.0532	0.0361
Venus	78314-12-21 14:24 G	30325014.95	30325015.10	30325015.25	0.0527	0.0354
Venus	78315-08-16 09:51 G	30325252.71	30325252.91	30325253.12	0.0518	0.0061
Venus	78316-04-09 17:17 G	30325490.12	30325490.22	30325490.33	0.0508	0.0438
Earth	78316-04-13 03:51 G	30325493.46	30325493.66	30325493.86	0.0508	0.0268
Moon	78316-04-13 07:27 G	30325493.63	30325493.81	30325494.00	0.0508	0.0301 *
Mercury	78317-03-18 18:29 G	30325833.14	30325833.27	30325833.39	0.0496	0.0228
Mercury	78317-06-16 03:08 G	30325922.57	30325922.63	30325922.70	0.0494	0.0430
Mars	78318-08-31 01:12 G	30326363.33	30326363.55	30326363.78	0.0486	0.0232
Venus	78321-06-10 22:34 G	30327378.26	30327378.44	30327378.62	0.0503	0.0233
Venus	78322-02-02 08:10 G	30327614.65	30327614.84	30327615.04	0.0512	0.0132
Venus	78322-09-27 04:34 G	30327851.66	30327851.69	30327851.73	0.0521	0.0511
Moon	78322-10-20 19:27 G	30327875.12	30327875.31	30327875.51	0.0522	0.0300

Earth	78322-10-20 20:10 G	30327875.17	30327875.34	30327875.52	0.0522	0.0331	*
Mercury	78323-08-18 00:44 G	30328176.41	30328176.53	30328176.65	0.0533	0.0342	
Venus	78326-08-26 00:15 G	30329280.43	30329280.51	30329280.60	0.0530	0.0474	
Venus	78327-04-20 23:17 G	30329518.27	30329518.47	30329518.68	0.0521	0.0058	
Venus	78327-12-14 11:03 G	30329755.81	30329755.96	30329756.12	0.0511	0.0337	
Moon	78328-04-17 16:34 G	30329880.96	30329881.19	30329881.42	0.0506	0.0168	
Earth	78328-04-17 19:12 G	30329881.08	30329881.30	30329881.52	0.0506	0.0184	*
Mercury	78329-01-04 21:51 G	30330143.32	30330143.41	30330143.49	0.0497	0.0391	
Mercury	78329-04-04 06:29 G	30330232.65	30330232.77	30330232.89	0.0495	0.0265	
Venus	78333-02-14 01:12 G	30331644.40	30331644.55	30331644.70	0.0500	0.0325	
Venus	78333-10-08 07:56 G	30331880.63	30331880.83	30331881.03	0.0509	0.0029	
Venus	78334-06-02 00:58 G	30332117.42	30332117.54	30332117.66	0.0518	0.0407	
Mercury	78335-06-06 00:00 G	30332486.35	30332486.50	30332486.66	0.0532	0.0108	
Venus	78338-12-24 14:39 G	30333783.92	30333784.11	30333784.31	0.0524	0.0172	
Venus	78339-08-19 06:00 G	30334021.57	30334021.75	30334021.93	0.0514	0.0234	
Mercury	78341-01-21 10:05 G	30334542.78	30334542.92	30334543.06	0.0495	0.0105	
Venus	78344-10-20 03:08 G	30335910.52	30335910.63	30335910.74	0.0498	0.0415	
Venus	78345-06-13 07:27 G	30336146.61	30336146.81	30336147.01	0.0506	0.0073	
Venus	78346-02-04 21:22 G	30336383.23	30336383.39	30336383.55	0.0516	0.0302	
Mercury	78347-03-24 23:03 G	30336796.31	30336796.46	30336796.62	0.0532	0.0131	
Venus	78350-08-29 06:15 G	30338049.59	30338049.76	30338049.94	0.0526	0.0286	
Venus	78351-04-24 00:44 G	30338287.33	30338287.53	30338287.73	0.0517	0.0128	
Venus	78351-12-17 07:12 G	30338524.76	30338524.80	30338524.84	0.0507	0.0495	
Mercury	78352-11-09 13:41 G	30338852.93	30338853.07	30338853.21	0.0496	0.0053	
Venus	78357-02-16 08:53 G	30340412.68	30340412.87	30340413.06	0.0504	0.0172	
Venus	78357-10-10 20:10 G	30340649.15	30340649.34	30340649.52	0.0513	0.0198	
Mercury	78359-01-10 22:48 G	30341106.33	30341106.45	30341106.57	0.0531	0.0357	
Venus	78362-05-03 21:08 G	30342315.25	30342315.38	30342315.52	0.0529	0.0400	
Venus	78362-12-27 18:29 G	30342553.07	30342553.27	30342553.48	0.0519	0.0019	
Venus	78363-08-22 03:51 G	30342790.54	30342790.66	30342790.79	0.0509	0.0402	

Mercury	78364-08-28 17:17 G	30343163.09	30343163.22	30343163.35	0.0496	0.0214
Mercury	78364-11-26 02:10 G	30343252.53	30343252.59	30343252.65	0.0494	0.0444
Venus	78368-10-22 11:03 G	30344678.79	30344678.96	30344679.13	0.0502	0.0268
Venus	78369-06-15 19:56 G	30344915.13	30344915.33	30344915.53	0.0511	0.0094
Venus	78370-02-07 15:22 G	30345152.06	30345152.14	30345152.22	0.0520	0.0474
Mercury	78371-01-28 00:00 G	30345506.39	30345506.50	30345506.61	0.0534	0.0365
Venus	78374-01-06 10:34 G	30346580.89	30346580.94	30346580.99	0.0531	0.0512
Venus	78374-09-01 10:34 G	30346818.74	30346818.94	30346819.14	0.0522	0.0095
Venus	78375-04-26 23:03 G	30347056.30	30347056.46	30347056.63	0.0512	0.0303
Mercury	78376-06-16 20:53 G	30347473.28	30347473.37	30347473.47	0.0497	0.0373
Mercury	78376-09-14 05:32 G	30347562.61	30347562.73	30347562.85	0.0494	0.0282
Venus	78380-06-27 14:39 G	30348944.98	30348945.11	30348945.26	0.0499	0.0360
Venus	78381-02-18 20:39 G	30349181.16	30349181.36	30349181.56	0.0508	0.0010
Venus	78381-10-13 12:15 G	30349417.88	30349418.01	30349418.16	0.0517	0.0369
Mercury	78382-11-15 23:03 G	30349816.31	30349816.46	30349816.62	0.0532	0.0129
Venus	78386-05-06 22:20 G	30351084.24	30351084.43	30351084.62	0.0525	0.0217
Venus	78386-12-30 14:53 G	30351321.93	30351322.12	30351322.32	0.0515	0.0194
Mercury	78388-07-03 08:39 G	30351872.73	30351872.86	30351873.00	0.0496	0.0117
Venus	78392-03-02 18:29 G	30353211.19	30353211.27	30353211.36	0.0497	0.0445
Venus	78392-10-24 21:36 G	30353447.21	30353447.40	30353447.60	0.0505	0.0110
Venus	78393-06-18 10:20 G	30353683.76	30353683.93	30353684.10	0.0514	0.0264
Moon	78393-10-15 08:39 G	30353802.64	30353802.86	30353803.07	0.0519	0.0216
Earth	78393-10-15 09:36 G	30353802.69	30353802.90	30353803.11	0.0519	0.0215 *
Mercury	78394-09-03 22:20 G	30354126.27	30354126.43	30354126.59	0.0531	0.0107
Venus	78398-01-09 12:15 G	30355349.85	30355350.01	30355350.17	0.0527	0.0333
Venus	78398-09-04 08:10 G	30355587.64	30355587.84	30355588.05	0.0518	0.0084
Moon	78399-04-13 04:48 G	30355808.53	30355808.70	30355808.87	0.0509	0.0368
Earth	78399-04-13 07:41 G	30355808.65	30355808.82	30355809.00	0.0509	0.0335 *
Venus	78399-04-29 16:20 G	30355825.10	30355825.18	30355825.28	0.0509	0.0460
Mercury	78400-04-21 12:29 G	30356182.88	30356183.02	30356183.16	0.0496	0.0045

Venus	78404-06-29 22:20 G	30357713.25	30357713.43	30357713.62	0.0503	0.0207
Venus	78405-02-21 07:56 G	30357949.64	30357949.83	30357950.02	0.0512	0.0158
Moon	78405-10-20 00:00 G	30358190.30	30358190.50	30358190.70	0.0521	0.0229
Earth	78405-10-20 01:12 G	30358190.36	30358190.55	30358190.76	0.0521	0.0260 *
Mercury	78406-06-22 21:08 G	30358436.26	30358436.38	30358436.50	0.0531	0.0349
Venus	78409-09-14 02:24 G	30359615.50	30359615.60	30359615.72	0.0530	0.0446
Venus	78410-05-10 01:41 G	30359853.36	30359853.57	30359853.78	0.0521	0.0026
Venus	78411-01-02 13:12 G	30360090.91	30360091.05	30360091.20	0.0511	0.0365
Earth	78411-04-18 04:34 G	30360196.46	30360196.69	30360196.92	0.0507	0.0137
Moon	78411-04-18 05:17 G	30360196.50	30360196.72	30360196.94	0.0507	0.0133 *
Mercury	78412-02-08 16:20 G	30360493.05	30360493.18	30360493.31	0.0497	0.0200
Mercury	78412-05-08 00:58 G	30360582.50	30360582.54	30360582.60	0.0494	0.0461
Venus	78416-03-05 00:44 G	30361979.37	30361979.53	30361979.69	0.0500	0.0301
Venus	78416-10-27 07:41 G	30362215.62	30362215.82	30362216.02	0.0509	0.0056
Venus	78417-06-21 01:12 G	30362452.45	30362452.55	30362452.66	0.0519	0.0434
Mercury	78418-07-09 22:05 G	30362836.31	30362836.42	30362836.54	0.0533	0.0370
Venus	78422-01-12 18:29 G	30364119.07	30364119.27	30364119.47	0.0523	0.0140
Venus	78422-09-07 09:08 G	30364356.70	30364356.88	30364357.05	0.0513	0.0264
Mercury	78423-11-27 19:56 G	30364803.23	30364803.33	30364803.43	0.0497	0.0358
Mercury	78424-02-25 04:20 G	30364892.57	30364892.68	30364892.80	0.0494	0.0298
Venus	78427-11-09 03:51 G	30366245.54	30366245.66	30366245.78	0.0498	0.0391
Venus	78428-07-02 08:53 G	30366481.67	30366481.87	30366482.07	0.0507	0.0047
Venus	78429-02-23 23:32 G	30366718.33	30366718.48	30366718.63	0.0516	0.0330
Mercury	78430-04-27 22:20 G	30367146.27	30367146.43	30367146.58	0.0533	0.0151
Venus	78433-09-17 09:22 G	30368384.71	30368384.89	30368385.07	0.0526	0.0255
Venus	78434-05-13 02:53 G	30368622.43	30368622.62	30368622.82	0.0516	0.0158
Mercury	78435-12-14 07:56 G	30369202.70	30369202.83	30369202.97	0.0495	0.0136
Venus	78439-07-15 08:39 G	30370511.81	30370511.86	30370511.91	0.0496	0.0477
Venus	78440-03-07 11:03 G	30370747.77	30370747.96	30370748.15	0.0504	0.0146
Venus	78440-10-29 22:34 G	30370984.26	30370984.44	30370984.62	0.0513	0.0225

Mercury	78442-02-13 21:22 G	30371456.23	30371456.39	30371456.55	0.0531	0.0084
Venus	78445-05-22 19:41 G	30372650.18	30372650.32	30372650.47	0.0528	0.0376
Venus	78446-01-15 17:03 G	30372888.00	30372888.21	30372888.41	0.0519	0.0042
Venus	78446-09-10 02:39 G	30373125.50	30373125.61	30373125.73	0.0510	0.0423
Mercury	78447-10-02 11:03 G	30373512.82	30373512.96	30373513.11	0.0496	0.0035
Venus	78451-11-11 13:27 G	30375013.88	30375014.06	30375014.23	0.0502	0.0241
Venus	78452-07-04 21:51 G	30375250.22	30375250.41	30375250.61	0.0510	0.0122
Venus	78453-02-26 16:48 G	30375487.15	30375487.20	30375487.26	0.0520	0.0498
Mercury	78453-12-02 20:24 G	30375766.23	30375766.35	30375766.48	0.0530	0.0320
Venus	78457-01-25 08:10 G	30376915.77	30376915.84	30376915.92	0.0531	0.0491
Venus	78457-09-20 08:39 G	30377153.66	30377153.86	30377154.06	0.0522	0.0072
Venus	78458-05-15 21:51 G	30377391.25	30377391.41	30377391.57	0.0512	0.0325
Mercury	78459-07-21 14:53 G	30377822.99	30377823.12	30377823.25	0.0497	0.0191
Mercury	78459-10-18 23:46 G	30377912.45	30377912.49	30377912.53	0.0494	0.0471
Venus	78463-07-17 15:08 G	30379279.98	30379280.13	30379280.28	0.0499	0.0334
Venus	78464-03-09 20:39 G	30379516.16	30379516.36	30379516.56	0.0508	0.0018
Venus	78464-11-01 12:29 G	30379752.89	30379753.02	30379753.15	0.0517	0.0394
Mercury	78465-12-19 20:39 G	30380166.25	30380166.36	30380166.47	0.0533	0.0380
Venus	78469-05-26 00:44 G	30381419.34	30381419.53	30381419.72	0.0525	0.0186
Venus	78470-01-18 17:32 G	30381657.04	30381657.23	30381657.41	0.0515	0.0223
Mercury	78471-05-09 18:44 G	30382133.18	30382133.28	30382133.38	0.0497	0.0345
Mercury	78471-08-07 03:22 G	30382222.53	30382222.64	30382222.75	0.0495	0.0312
Mars	78472-11-24 11:32 G	30382697.75	30382697.98	30382698.21	0.0486	0.0215
Venus	78475-03-22 18:15 G	30383546.16	30383546.26	30383546.37	0.0497	0.0422
Venus	78475-11-13 21:36 G	30383782.20	30383782.40	30383782.60	0.0505	0.0083
Venus	78476-07-07 10:34 G	30384018.78	30384018.94	30384019.11	0.0515	0.0291
Moon	78476-10-14 15:22 G	30384117.96	30384118.14	30384118.32	0.0519	0.0293
Earth	78476-10-14 16:20 G	30384117.99	30384118.18	30384118.38	0.0519	0.0280 *
Mercury	78477-10-07 20:24 G	30384476.20	30384476.35	30384476.51	0.0533	0.0157
Venus	78481-01-28 16:34 G	30385685.02	30385685.19	30385685.36	0.0527	0.0301

Venus	78481-09-23 11:46 G	30385922.80	30385922.99	30385923.20	0.0518	0.0117
Earth	78482-04-12 18:00 G	30386124.10	30386124.25	30386124.41	0.0509	0.0379
Moon	78482-04-12 18:58 G	30386124.17	30386124.29	30386124.43	0.0509	0.0410 *
Venus	78482-05-18 19:27 G	30386160.25	30386160.31	30386160.37	0.0508	0.0486
Mercury	78483-05-26 06:58 G	30386532.65	30386532.79	30386532.92	0.0495	0.0151
Venus	78487-07-19 23:32 G	30388048.29	30388048.48	30388048.67	0.0503	0.0181
Venus	78488-03-12 09:51 G	30388284.72	30388284.91	30388285.10	0.0512	0.0186
Earth	78488-10-19 11:46 G	30388505.78	30388505.99	30388506.20	0.0521	0.0211
Moon	78488-10-19 14:39 G	30388505.89	30388506.11	30388506.34	0.0521	0.0181 *
Mercury	78489-07-26 20:24 G	30388786.19	30388786.35	30388786.51	0.0532	0.0065
Venus	78492-10-03 06:15 G	30389950.64	30389950.76	30389950.89	0.0529	0.0415
Venus	78493-05-29 04:48 G	30390188.49	30390188.70	30390188.90	0.0520	0.0010
Venus	78494-01-21 15:36 G	30390426.02	30390426.15	30390426.28	0.0510	0.0392
Earth	78494-04-17 13:27 G	30390511.83	30390512.06	30390512.29	0.0507	0.0088
Moon	78494-04-17 14:53 G	30390511.88	30390512.12	30390512.37	0.0507	0.0096 *
Mercury	78495-03-14 10:34 G	30390842.80	30390842.94	30390843.08	0.0496	0.0011
Venus	78499-03-25 02:53 G	30392314.46	30392314.62	30392314.79	0.0501	0.0276
Venus	78499-11-16 10:34 G	30392550.74	30392550.94	30392551.14	0.0509	0.0083
Venus	78500-07-11 04:20 G	30392787.59	30392787.68	30392787.78	0.0519	0.0460
Mercury	78501-05-15 19:41 G	30393096.18	30393096.32	30393096.45	0.0531	0.0296
Venus	78505-02-01 17:03 G	30394454.01	30394454.21	30394454.41	0.0523	0.0116
Venus	78505-09-27 07:27 G	30394691.65	30394691.81	30394691.99	0.0513	0.0287
Mercury	78507-01-01 13:41 G	30395152.94	30395153.07	30395153.20	0.0497	0.0179
Mercury	78507-03-31 22:34 G	30395242.41	30395242.44	30395242.47	0.0495	0.0483
Venus	78510-11-29 06:29 G	30396580.64	30396580.77	30396580.91	0.0499	0.0365
Venus	78511-07-23 11:32 G	30396816.77	30396816.98	30396817.18	0.0507	0.0022
Venus	78512-03-16 01:41 G	30397053.43	30397053.57	30397053.72	0.0516	0.0357
Mercury	78513-06-01 20:10 G	30397496.24	30397496.34	30397496.44	0.0533	0.0410
Venus	78516-10-07 07:12 G	30398719.62	30398719.80	30398719.98	0.0526	0.0232
Venus	78517-06-02 01:12 G	30398957.35	30398957.55	30398957.74	0.0516	0.0181

Mercury	78518-10-20 17:17 G	30399463.12	30399463.22	30399463.33	0.0498	0.0337
Mercury	78519-01-18 01:56 G	30399552.48	30399552.58	30399552.69	0.0495	0.0322
Venus	78522-08-04 09:08 G	30400846.80	30400846.88	30400846.96	0.0496	0.0452
Venus	78523-03-28 11:17 G	30401082.77	30401082.97	30401083.16	0.0504	0.0119
Venus	78523-11-19 22:34 G	30401319.26	30401319.44	30401319.61	0.0513	0.0251
Mercury	78525-03-20 18:58 G	30401806.14	30401806.29	30401806.45	0.0532	0.0171
Venus	78528-06-11 21:51 G	30402985.26	30402985.41	30402985.57	0.0528	0.0347
Venus	78529-02-04 19:12 G	30403223.10	30403223.30	30403223.51	0.0519	0.0072
Venus	78529-09-30 04:48 G	30403460.61	30403460.70	30403460.80	0.0510	0.0451
Mercury	78530-08-08 21:22 G	30403773.37	30403773.39	30403773.41	0.0498	0.0490
Mercury	78530-11-06 05:46 G	30403862.60	30403862.74	30403862.87	0.0496	0.0163
Venus	78534-12-01 12:58 G	30405348.86	30405349.04	30405349.23	0.0502	0.0216
Venus	78535-07-25 21:51 G	30405585.22	30405585.41	30405585.60	0.0511	0.0148
Mercury	78537-01-06 18:44 G	30406116.12	30406116.28	30406116.44	0.0532	0.0058
Venus	78540-02-15 12:29 G	30407250.92	30407251.02	30407251.12	0.0531	0.0460
Venus	78540-10-10 12:29 G	30407488.81	30407489.02	30407489.23	0.0522	0.0040
Venus	78541-06-05 00:58 G	30407726.40	30407726.54	30407726.69	0.0512	0.0355
Mercury	78542-08-25 09:22 G	30408172.75	30408172.89	30408173.03	0.0496	0.0005
Venus	78546-08-06 15:51 G	30409615.00	30409615.16	30409615.32	0.0500	0.0309
Venus	78547-03-30 22:05 G	30409851.22	30409851.42	30409851.62	0.0508	0.0045
Venus	78547-11-22 14:24 G	30410087.99	30410088.10	30410088.22	0.0518	0.0422
Mercury	78548-10-25 18:15 G	30410426.13	30410426.26	30410426.40	0.0531	0.0282
Venus	78552-06-15 04:05 G	30411754.48	30411754.67	30411754.87	0.0524	0.0155
Venus	78553-02-07 19:56 G	30411992.16	30411992.33	30411992.52	0.0514	0.0253
Mercury	78554-06-13 12:58 G	30412482.91	30412483.04	30412483.18	0.0497	0.0156
Venus	78558-04-11 20:10 G	30413881.22	30413881.34	30413881.46	0.0498	0.0398
Venus	78558-12-04 00:00 G	30414117.30	30414117.50	30414117.71	0.0506	0.0057
Venus	78559-07-28 13:41 G	30414353.91	30414354.07	30414354.23	0.0515	0.0318
Earth	78559-10-16 03:51 G	30414433.48	30414433.66	30414433.84	0.0518	0.0319
Moon	78559-10-16 06:44 G	30414433.61	30414433.78	30414433.96	0.0518	0.0340 *

Mercury	78560-08-13 17:32 G	30414736.20	30414736.23	30414736.28	0.0530	0.0512
Mercury	78560-11-11 19:12 G	30414826.21	30414826.30	30414826.39	0.0533	0.0433
Venus	78564-02-18 15:08 G	30416019.96	30416020.13	30416020.31	0.0527	0.0275
Venus	78564-10-13 10:20 G	30416257.73	30416257.93	30416258.13	0.0517	0.0140
Earth	78565-04-12 20:53 G	30416439.26	30416439.37	30416439.48	0.0510	0.0452
Moon	78565-04-12 21:51 G	30416439.33	30416439.41	30416439.50	0.0510	0.0478 *
Venus	78565-06-07 17:46 G	30416495.23	30416495.24	30416495.25	0.0508	0.0507
Mercury	78566-04-01 16:05 G	30416793.06	30416793.17	30416793.27	0.0498	0.0326
Mercury	78566-06-30 00:44 G	30416882.42	30416882.53	30416882.63	0.0495	0.0332
Venus	78569-12-16 00:29 G	30418147.48	30418147.52	30418147.57	0.0496	0.0481
Venus	78570-08-09 02:10 G	30418383.40	30418383.59	30418383.78	0.0503	0.0153
Venus	78571-04-02 12:29 G	30418619.84	30418620.02	30418620.20	0.0512	0.0215
Moon	78571-10-20 17:46 G	30418821.03	30418821.24	30418821.47	0.0520	0.0129
Earth	78571-10-20 21:36 G	30418821.18	30418821.40	30418821.62	0.0520	0.0162 *
Mercury	78572-08-30 18:29 G	30419136.13	30419136.27	30419136.42	0.0532	0.0202
Venus	78575-10-24 03:51 G	30420285.53	30420285.66	30420285.80	0.0529	0.0392
Venus	78576-06-18 02:10 G	30420523.39	30420523.59	30420523.80	0.0520	0.0029
Venus	78577-02-10 13:27 G	30420760.94	30420761.06	30420761.18	0.0511	0.0413
Moon	78577-04-17 12:58 G	30420826.81	30420827.04	30420827.27	0.0508	0.0026
Earth	78577-04-17 15:51 G	30420826.92	30420827.16	30420827.39	0.0508	0.0016 *
Mercury	78578-01-18 19:56 G	30421103.30	30421103.33	30421103.35	0.0498	0.0485
Mercury	78578-04-18 04:05 G	30421192.54	30421192.67	30421192.81	0.0496	0.0171
Venus	78582-04-14 03:08 G	30422649.45	30422649.63	30422649.80	0.0501	0.0249
Venus	78582-12-06 10:20 G	30422885.73	30422885.93	30422886.13	0.0509	0.0110
Venus	78583-07-31 04:05 G	30423122.60	30423122.67	30423122.74	0.0519	0.0485
Mercury	78584-06-18 17:17 G	30423446.06	30423446.22	30423446.38	0.0531	0.0045
Venus	78587-06-28 17:17 G	30424551.16	30424551.22	30424551.28	0.0532	0.0505
Venus	78588-02-21 18:44 G	30424789.08	30424789.28	30424789.48	0.0523	0.0085
Venus	78588-10-16 09:08 G	30425026.72	30425026.88	30425027.05	0.0513	0.0316
Earth	78589-04-22 11:46 G	30425214.93	30425214.99	30425215.07	0.0506	0.0482

Mercury	78590-02-04 07:56 G	30425502.69	30425502.83	30425502.97	0.0496	0.0017
Mars	78591-05-19 02:53 G	30425971.59	30425971.62	30425971.65	0.0487	0.0482
Venus	78593-12-18 05:46 G	30426915.60	30426915.74	30426915.89	0.0499	0.0341
Venus	78594-08-11 10:34 G	30427151.74	30427151.94	30427152.15	0.0507	0.0012
Venus	78595-04-05 01:12 G	30427388.42	30427388.55	30427388.69	0.0516	0.0383
Mercury	78596-04-06 16:34 G	30427756.05	30427756.19	30427756.33	0.0531	0.0276
Venus	78599-10-27 10:48 G	30429054.76	30429054.95	30429055.14	0.0525	0.0200
Venus	78600-06-22 04:20 G	30429292.49	30429292.68	30429292.87	0.0516	0.0211
Mercury	78601-11-24 11:46 G	30429812.85	30429812.99	30429813.12	0.0497	0.0146
Venus	78605-08-24 09:08 G	30431181.78	30431181.88	30431181.98	0.0497	0.0429
Venus	78606-04-17 11:46 G	30431417.79	30431417.99	30431418.19	0.0505	0.0093
Venus	78606-12-09 23:46 G	30431654.32	30431654.49	30431654.66	0.0514	0.0279
Mercury	78608-01-25 16:05 G	30432066.12	30432066.17	30432066.22	0.0530	0.0503
Mercury	78608-04-24 17:46 G	30432156.15	30432156.24	30432156.33	0.0533	0.0444
Venus	78611-07-03 01:27 G	30433320.40	30433320.56	30433320.72	0.0528	0.0316
Venus	78612-02-25 21:51 G	30433558.21	30433558.41	30433558.61	0.0518	0.0103
Venus	78612-10-20 06:29 G	30433795.71	30433795.77	30433795.85	0.0509	0.0477
Mercury	78613-09-12 15:22 G	30434123.03	30434123.14	30434123.25	0.0497	0.0304
Mercury	78613-12-11 00:00 G	30434212.40	30434212.50	30434212.60	0.0495	0.0354
Venus	78617-12-21 14:53 G	30435683.94	30435684.12	30435684.31	0.0502	0.0189
Venus	78618-08-15 00:15 G	30435920.32	30435920.51	30435920.70	0.0511	0.0176
Mercury	78620-02-11 17:32 G	30436466.09	30436466.23	30436466.38	0.0532	0.0221
Venus	78623-03-07 11:32 G	30437585.87	30437585.98	30437586.10	0.0530	0.0434
Venus	78623-10-31 10:48 G	30437823.74	30437823.95	30437824.15	0.0521	0.0016
Venus	78624-06-24 22:48 G	30438061.32	30438061.45	30438061.60	0.0512	0.0377
Mercury	78625-07-01 18:29 G	30438433.23	30438433.27	30438433.31	0.0498	0.0475
Mercury	78625-09-29 02:53 G	30438522.49	30438522.62	30438522.75	0.0496	0.0179
Venus	78629-08-26 17:46 G	30439950.08	30439950.24	30439950.41	0.0500	0.0282
Venus	78630-04-20 00:29 G	30440186.32	30440186.52	30440186.72	0.0509	0.0075
Venus	78630-12-12 16:48 G	30440423.11	30440423.20	30440423.30	0.0518	0.0449

Mercury	78631-11-30 16:48 G	30440776.04	30440776.20	30440776.36	0.0531	0.0013
Venus	78635-07-06 01:12 G	30442089.35	30442089.55	30442089.75	0.0524	0.0131
Venus	78636-02-28 17:03 G	30442327.04	30442327.21	30442327.38	0.0514	0.0274
Mercury	78637-07-18 06:29 G	30442832.62	30442832.77	30442832.91	0.0497	0.0023
Venus	78641-05-01 19:41 G	30444216.19	30444216.32	30444216.46	0.0498	0.0373
Venus	78641-12-23 23:32 G	30444452.28	30444452.48	30444452.68	0.0506	0.0029
Venus	78642-08-17 12:44 G	30444688.88	30444689.03	30444689.18	0.0515	0.0344
Moon	78642-10-16 05:03 G	30444748.58	30444748.71	30444748.84	0.0517	0.0418
Earth	78642-10-16 08:39 G	30444748.72	30444748.86	30444749.01	0.0517	0.0393 *
Mercury	78643-09-18 15:08 G	30445085.99	30445086.13	30445086.27	0.0530	0.0263
Mars	78644-11-27 18:29 G	30445521.98	30445522.27	30445522.55	0.0541	0.0113
Venus	78647-03-10 15:51 G	30446354.98	30446355.16	30446355.35	0.0527	0.0247
Venus	78647-11-03 11:03 G	30446592.77	30446592.96	30446593.16	0.0517	0.0169
Mercury	78649-05-06 10:20 G	30447142.79	30447142.93	30447143.06	0.0497	0.0140
Venus	78653-01-04 23:17 G	30448482.40	30448482.47	30448482.55	0.0496	0.0459
Venus	78653-08-29 00:44 G	30448718.34	30448718.53	30448718.73	0.0503	0.0128
Venus	78654-04-22 11:03 G	30448954.78	30448954.96	30448955.13	0.0512	0.0240
Earth	78654-10-21 01:27 G	30449136.33	30449136.56	30449136.79	0.0520	0.0084
Moon	78654-10-21 05:17 G	30449136.49	30449136.72	30449136.95	0.0520	0.0056 *
Mercury	78655-07-07 14:10 G	30449396.04	30449396.09	30449396.14	0.0530	0.0499
Mercury	78655-10-05 15:51 G	30449486.07	30449486.16	30449486.24	0.0533	0.0446
Venus	78658-11-13 06:44 G	30450620.63	30450620.78	30450620.93	0.0529	0.0362
Venus	78659-07-09 04:48 G	30450858.50	30450858.70	30450858.91	0.0520	0.0059
Venus	78660-03-02 15:36 G	30451096.05	30451096.15	30451096.25	0.0510	0.0440
Earth	78660-04-18 00:44 G	30451142.29	30451142.53	30451142.76	0.0508	0.0035
Moon	78660-04-18 04:34 G	30451142.45	30451142.69	30451142.93	0.0508	0.0018 *
Mercury	78661-02-22 13:56 G	30451452.97	30451453.08	30451453.20	0.0497	0.0297
Mercury	78661-05-22 22:34 G	30451542.34	30451542.44	30451542.54	0.0495	0.0361
Venus	78665-05-04 02:39 G	30452984.43	30452984.61	30452984.79	0.0501	0.0225
Venus	78665-12-26 10:34 G	30453220.74	30453220.94	30453221.13	0.0510	0.0136

Venus	78666-08-20 05:03 G	30453457.68	30453457.71	30453457.74	0.0520	0.0511
Mercury	78667-07-24 15:36 G	30453796.01	30453796.15	30453796.30	0.0532	0.0225
Venus	78670-07-18 20:24 G	30454886.26	30454886.35	30454886.44	0.0531	0.0475
Venus	78671-03-13 21:08 G	30455124.18	30455124.38	30455124.59	0.0522	0.0055
Venus	78671-11-06 10:48 G	30455361.80	30455361.95	30455362.10	0.0513	0.0343
Moon	78672-04-22 15:36 G	30455530.06	30455530.15	30455530.26	0.0506	0.0460
Earth	78672-04-22 19:41 G	30455530.20	30455530.32	30455530.45	0.0506	0.0428 *
Mercury	78672-12-11 17:46 G	30455763.19	30455763.24	30455763.30	0.0498	0.0454
Mercury	78673-03-11 02:10 G	30455852.46	30455852.59	30455852.72	0.0495	0.0200
Venus	78677-01-07 06:29 G	30457250.62	30457250.77	30457250.93	0.0499	0.0317
Venus	78677-08-31 12:15 G	30457486.80	30457487.01	30457487.21	0.0508	0.0037
Venus	78678-04-25 03:22 G	30457723.52	30457723.64	30457723.76	0.0517	0.0410
Mercury	78679-05-12 15:22 G	30458105.98	30458106.14	30458106.31	0.0531	0.0015
Venus	78682-11-16 08:53 G	30459389.68	30459389.87	30459390.07	0.0525	0.0175
Venus	78683-07-12 01:41 G	30459627.39	30459627.57	30459627.76	0.0515	0.0235
Mercury	78684-12-28 04:48 G	30460162.56	30460162.70	30460162.84	0.0496	0.0026
Venus	78688-09-12 10:05 G	30461516.81	30461516.92	30461517.04	0.0497	0.0405
Venus	78689-05-06 13:27 G	30461752.86	30461753.06	30461753.26	0.0505	0.0065
Venus	78689-12-29 01:27 G	30461989.41	30461989.56	30461989.73	0.0514	0.0307
Mercury	78691-02-28 14:39 G	30462415.96	30462416.11	30462416.25	0.0530	0.0234
Venus	78694-07-21 22:05 G	30463655.25	30463655.42	30463655.59	0.0527	0.0292
Venus	78695-03-16 18:00 G	30463893.05	30463893.25	30463893.45	0.0518	0.0126
Venus	78695-11-09 02:53 G	30464130.58	30464130.62	30464130.66	0.0509	0.0496
Mercury	78696-10-16 08:24 G	30464472.72	30464472.85	30464472.99	0.0497	0.0139
Venus	78700-05-19 12:58 G	30465783.02	30465783.04	30465783.07	0.0495	0.0489
Venus	78701-01-10 13:41 G	30466018.88	30466019.07	30466019.26	0.0502	0.0164
Venus	78701-09-03 22:34 G	30466255.26	30466255.44	30466255.63	0.0511	0.0202
Mercury	78702-12-18 12:29 G	30466725.96	30466726.02	30466726.08	0.0529	0.0489
Mercury	78703-03-18 14:10 G	30466816.01	30466816.09	30466816.17	0.0532	0.0455
Venus	78706-03-27 11:03 G	30467920.83	30467920.96	30467921.09	0.0530	0.0409

Venus	78706-11-20 10:34 G	30468158.73	30468158.94	30468159.14	0.0521	0.0014
Venus	78707-07-15 22:48 G	30468396.33	30468396.45	30468396.58	0.0512	0.0403
Mercury	78708-08-05 12:15 G	30468782.90	30468783.01	30468783.12	0.0498	0.0295
Mercury	78708-11-02 20:53 G	30468872.28	30468872.37	30468872.47	0.0495	0.0364
Venus	78712-09-15 15:36 G	30470284.98	30470285.15	30470285.33	0.0500	0.0259
Venus	78713-05-09 22:05 G	30470521.22	30470521.42	30470521.61	0.0509	0.0099
Venus	78714-01-01 14:24 G	30470758.02	30470758.10	30470758.18	0.0518	0.0472
Mercury	78715-01-04 13:27 G	30471125.92	30471126.06	30471126.21	0.0532	0.0224
Venus	78717-11-30 00:15 G	30472186.48	30472186.51	30472186.56	0.0532	0.0522
Venus	78718-07-26 02:53 G	30472424.42	30472424.62	30472424.82	0.0524	0.0101
Venus	78719-03-20 18:29 G	30472662.10	30472662.27	30472662.43	0.0514	0.0302
Mercury	78720-05-24 16:05 G	30473093.12	30473093.17	30473093.23	0.0498	0.0451
Mercury	78720-08-22 00:29 G	30473182.39	30473182.52	30473182.65	0.0496	0.0203
Venus	78724-05-21 18:15 G	30474551.12	30474551.26	30474551.41	0.0498	0.0351
Venus	78725-01-12 22:34 G	30474787.23	30474787.44	30474787.64	0.0506	0.0013
Venus	78725-09-06 12:00 G	30475023.87	30475024.00	30475024.15	0.0516	0.0370
Earth	78725-10-16 14:24 G	30475064.00	30475064.10	30475064.21	0.0517	0.0461
Moon	78725-10-16 18:15 G	30475064.19	30475064.26	30475064.34	0.0517	0.0485 *
Mercury	78726-10-23 13:12 G	30475435.89	30475436.05	30475436.21	0.0531	0.0002
Venus	78730-03-30 17:46 G	30476690.06	30476690.24	30476690.43	0.0526	0.0217
Venus	78730-11-23 12:15 G	30476927.82	30476928.01	30476928.20	0.0517	0.0197
Mercury	78732-06-10 04:05 G	30477492.53	30477492.67	30477492.81	0.0496	0.0042
Venus	78736-01-25 22:48 G	30478817.36	30478817.45	30478817.55	0.0496	0.0437
Venus	78736-09-18 00:58 G	30479053.34	30479053.54	30479053.74	0.0504	0.0103
Venus	78737-05-12 11:46 G	30479289.83	30479289.99	30479290.17	0.0513	0.0267
Moon	78737-10-21 06:44 G	30479451.54	30479451.78	30479452.01	0.0519	0.0004
Earth	78737-10-21 09:51 G	30479451.69	30479451.91	30479452.15	0.0519	0.0030 *
Mercury	78738-08-11 12:58 G	30479745.89	30479746.04	30479746.19	0.0530	0.0225
Venus	78741-12-03 05:03 G	30480955.55	30480955.71	30480955.87	0.0528	0.0336
Venus	78742-07-29 02:10 G	30481193.39	30481193.59	30481193.80	0.0519	0.0083

Venus	78743-03-23 12:15 G	30481430.93	30481431.01	30481431.10	0.0510	0.0461
Moon	78743-04-18 20:39 G	30481457.13	30481457.36	30481457.59	0.0509	0.0110
Earth	78743-04-19 00:29 G	30481457.30	30481457.52	30481457.76	0.0509	0.0123 *
Mercury	78744-03-29 06:58 G	30481802.65	30481802.79	30481802.92	0.0497	0.0136
Mars	78745-08-13 22:34 G	30482305.19	30482305.44	30482305.70	0.0487	0.0114
Venus	78748-05-24 03:08 G	30483319.45	30483319.63	30483319.81	0.0502	0.0199
Venus	78749-01-15 11:17 G	30483555.79	30483555.97	30483556.17	0.0510	0.0165
Earth	78749-10-26 03:36 G	30483839.62	30483839.65	30483839.69	0.0521	0.0513
Mercury	78750-05-30 11:46 G	30484055.92	30484055.99	30484056.07	0.0529	0.0463
Mercury	78750-08-28 13:27 G	30484145.99	30484146.06	30484146.13	0.0532	0.0480
Venus	78753-08-07 16:34 G	30485221.10	30485221.19	30485221.31	0.0531	0.0453
Venus	78754-04-02 16:48 G	30485459.00	30485459.20	30485459.41	0.0522	0.0033
Venus	78754-11-26 06:15 G	30485696.62	30485696.76	30485696.91	0.0513	0.0363
Earth	78755-04-23 18:00 G	30485845.07	30485845.25	30485845.43	0.0507	0.0336
Moon	78755-04-23 21:08 G	30485845.23	30485845.38	30485845.54	0.0507	0.0366 *
Mercury	78756-01-16 10:20 G	30486112.82	30486112.93	30486113.04	0.0498	0.0298
Mercury	78756-04-14 18:58 G	30486202.19	30486202.29	30486202.39	0.0495	0.0362
Venus	78760-01-28 04:34 G	30487585.53	30487585.69	30487585.85	0.0499	0.0293
Venus	78760-09-20 09:51 G	30487821.71	30487821.91	30487822.11	0.0507	0.0060
Venus	78761-05-15 00:44 G	30488058.42	30488058.53	30488058.64	0.0517	0.0433
Mercury	78762-06-16 11:46 G	30488455.85	30488455.99	30488456.14	0.0532	0.0230
Venus	78765-12-06 07:27 G	30489724.61	30489724.81	30489725.01	0.0525	0.0149
Venus	78766-08-01 00:29 G	30489962.35	30489962.52	30489962.71	0.0516	0.0261
Mercury	78767-11-04 14:10 G	30490423.04	30490423.09	30490423.15	0.0499	0.0454
Mercury	78768-02-01 22:34 G	30490512.31	30490512.44	30490512.57	0.0496	0.0203
Venus	78771-10-03 07:12 G	30491851.68	30491851.80	30491851.93	0.0497	0.0384
Venus	78772-05-26 10:05 G	30492087.72	30492087.92	30492088.12	0.0505	0.0042
Venus	78773-01-17 22:05 G	30492324.27	30492324.42	30492324.58	0.0514	0.0329
Mercury	78774-04-04 11:03 G	30492765.79	30492765.96	30492766.12	0.0531	0.0012
Venus	78777-08-10 22:05 G	30493990.25	30493990.42	30493990.61	0.0528	0.0266

Venus	78778-04-05 18:29 G	30494228.08	30494228.27	30494228.47	0.0518	0.0153
Mercury	78779-11-21 02:10 G	30494822.45	30494822.59	30494822.74	0.0496	0.0044
Venus	78783-06-08 10:34 G	30496117.88	30496117.94	30496118.00	0.0495	0.0469
Venus	78784-01-30 11:17 G	30496353.78	30496353.97	30496354.17	0.0503	0.0141
Venus	78784-09-22 20:39 G	30496590.19	30496590.36	30496590.55	0.0512	0.0226
Mercury	78786-01-21 10:20 G	30497075.78	30497075.93	30497076.07	0.0531	0.0236
Venus	78789-04-15 12:00 G	30498255.87	30498256.00	30498256.15	0.0530	0.0381
Venus	78789-12-09 11:17 G	30498493.76	30498493.97	30498494.17	0.0521	0.0042
Venus	78790-08-03 23:03 G	30498731.35	30498731.46	30498731.57	0.0511	0.0427
Mercury	78791-09-09 05:46 G	30499132.61	30499132.74	30499132.88	0.0497	0.0120
Venus	78795-10-05 14:24 G	30500619.93	30500620.10	30500620.28	0.0501	0.0236
Venus	78796-05-28 21:36 G	30500856.20	30500856.40	30500856.59	0.0509	0.0124
Venus	78797-01-20 14:39 G	30501093.06	30501093.11	30501093.17	0.0519	0.0497
Mercury	78797-11-09 09:51 G	30501385.83	30501385.91	30501385.99	0.0530	0.0461
Mercury	78798-02-07 11:32 G	30501475.92	30501475.98	30501476.05	0.0533	0.0484
Mars	78799-02-23 07:12 G	30501856.70	30501856.80	30501856.90	0.0540	0.0505
Venus	78800-12-18 22:48 G	30502521.39	30502521.45	30502521.53	0.0531	0.0496
Venus	78801-08-14 00:15 G	30502759.30	30502759.51	30502759.71	0.0523	0.0076
Venus	78802-04-08 14:39 G	30502996.96	30502997.11	30502997.28	0.0514	0.0325
Mercury	78803-06-28 08:39 G	30503442.75	30503442.86	30503442.98	0.0498	0.0295
Mercury	78803-09-25 17:17 G	30503532.12	30503532.22	30503532.31	0.0495	0.0364
Venus	78807-06-10 17:32 G	30504886.08	30504886.23	30504886.38	0.0499	0.0327
Venus	78808-02-01 22:20 G	30505122.22	30505122.43	30505122.63	0.0507	0.0025
Venus	78808-09-25 12:15 G	30505358.89	30505359.01	30505359.14	0.0516	0.0396
Mercury	78809-11-26 10:48 G	30505785.81	30505785.95	30505786.09	0.0532	0.0253
Venus	78813-04-18 13:27 G	30507024.87	30507025.06	30507025.25	0.0526	0.0194
Venus	78813-12-12 07:27 G	30507262.62	30507262.81	30507263.00	0.0516	0.0218
Mercury	78815-04-16 12:15 G	30507752.96	30507753.01	30507753.06	0.0499	0.0458
Mercury	78815-07-14 20:39 G	30507842.23	30507842.36	30507842.49	0.0496	0.0198
Venus	78819-02-13 19:41 G	30509152.22	30509152.32	30509152.43	0.0496	0.0417

Venus	78819-10-07 21:51 G	30509388.21	30509388.41	30509388.61	0.0504	0.0080
Venus	78820-05-31 08:24 G	30509624.69	30509624.85	30509625.02	0.0513	0.0290
Earth	78820-10-20 09:51 G	30509766.69	30509766.91	30509767.14	0.0518	0.0068
Moon	78820-10-20 11:46 G	30509766.77	30509766.99	30509767.21	0.0518	0.0082 *
Mercury	78821-09-14 08:53 G	30510095.71	30510095.87	30510096.04	0.0531	0.0014
Venus	78824-12-22 02:10 G	30511290.43	30511290.59	30511290.75	0.0529	0.0313
Venus	78825-08-16 23:46 G	30511528.29	30511528.49	30511528.69	0.0520	0.0108
Venus	78826-04-11 10:05 G	30511765.86	30511765.92	30511765.98	0.0510	0.0484
Earth	78826-04-18 02:24 G	30511772.39	30511772.60	30511772.82	0.0510	0.0203
Moon	78826-04-18 06:00 G	30511772.53	30511772.75	30511772.97	0.0510	0.0182 *
Mercury	78827-05-03 00:15 G	30512152.37	30512152.51	30512152.65	0.0497	0.0038
Venus	78831-06-12 23:17 G	30513654.28	30513654.47	30513654.66	0.0501	0.0177
Venus	78832-02-04 07:12 G	30513890.61	30513890.80	30513890.99	0.0510	0.0186
Earth	78832-10-25 01:56 G	30514154.44	30514154.58	30514154.72	0.0521	0.0410
Moon	78832-10-25 01:41 G	30514154.45	30514154.57	30514154.71	0.0521	0.0437 *
Mercury	78833-07-03 07:56 G	30514405.68	30514405.83	30514405.97	0.0530	0.0243
Venus	78836-08-26 15:22 G	30515556.02	30515556.14	30515556.26	0.0531	0.0429
Venus	78837-04-21 16:05 G	30515793.96	30515794.17	30515794.38	0.0522	0.0006
Venus	78837-12-15 05:46 G	30516031.61	30516031.74	30516031.87	0.0513	0.0388
Moon	78838-04-22 20:39 G	30516160.16	30516160.36	30516160.56	0.0508	0.0292
Earth	78838-04-22 22:34 G	30516160.24	30516160.44	30516160.64	0.0508	0.0270 *
Mercury	78839-02-19 03:51 G	30516462.53	30516462.66	30516462.80	0.0497	0.0122
Venus	78843-02-16 00:58 G	30517920.38	30517920.54	30517920.72	0.0499	0.0274
Venus	78843-10-10 06:44 G	30518156.58	30518156.78	30518156.98	0.0508	0.0082
Venus	78844-06-02 22:05 G	30518393.33	30518393.42	30518393.52	0.0517	0.0455
Mercury	78845-04-21 06:58 G	30518715.72	30518715.79	30518715.86	0.0530	0.0478
Mercury	78845-07-20 08:39 G	30518805.79	30518805.86	30518805.94	0.0533	0.0469
Venus	78848-12-25 07:41 G	30520059.62	30520059.82	30520060.02	0.0525	0.0121
Venus	78849-08-20 00:15 G	30520297.34	30520297.51	30520297.68	0.0515	0.0286
Mercury	78850-12-08 07:41 G	30520772.70	30520772.82	30520772.93	0.0498	0.0282

Mercury	78851-03-07 16:05 G	30520862.08	30520862.17	30520862.26	0.0495	0.0377
Venus	78854-10-22 04:48 G	30522186.57	30522186.70	30522186.84	0.0497	0.0363
Venus	78855-06-15 08:24 G	30522422.65	30522422.85	30522423.05	0.0505	0.0018
Venus	78856-02-06 21:08 G	30522659.24	30522659.38	30522659.53	0.0515	0.0354
Mercury	78857-05-08 08:39 G	30523115.72	30523115.86	30523116.00	0.0532	0.0251
Venus	78860-08-29 19:56 G	30524325.15	30524325.33	30524325.51	0.0527	0.0239
Venus	78861-04-24 15:08 G	30524562.94	30524563.13	30524563.32	0.0517	0.0176
Mercury	78862-09-26 10:34 G	30525082.89	30525082.94	30525082.99	0.0498	0.0456
Mercury	78862-12-24 18:44 G	30525172.15	30525172.28	30525172.41	0.0496	0.0199
Venus	78866-06-27 08:24 G	30526452.77	30526452.85	30526452.93	0.0496	0.0449
Venus	78867-02-18 09:51 G	30526688.72	30526688.91	30526689.11	0.0503	0.0117
Venus	78867-10-12 19:56 G	30526925.16	30526925.33	30526925.51	0.0512	0.0252
Mercury	78869-02-24 07:56 G	30527425.67	30527425.83	30527425.99	0.0531	0.0016
Venus	78872-05-04 07:56 G	30528590.68	30528590.83	30528590.98	0.0529	0.0358
Venus	78872-12-28 06:15 G	30528828.56	30528828.76	30528828.97	0.0520	0.0064
Venus	78873-08-22 17:32 G	30529066.14	30529066.23	30529066.33	0.0511	0.0447
Mercury	78874-10-12 22:05 G	30529482.28	30529482.42	30529482.56	0.0497	0.0034
Venus	78878-10-24 10:48 G	30530954.77	30530954.95	30530955.13	0.0501	0.0215
Venus	78879-06-17 17:46 G	30531191.05	30531191.24	30531191.43	0.0509	0.0146
Venus	78880-02-09 10:34 G	30531427.93	30531427.94	30531427.96	0.0518	0.0517
Mercury	78880-12-13 05:46 G	30531735.60	30531735.74	30531735.89	0.0530	0.0242
Venus	78884-01-07 18:58 G	30532856.20	30532856.29	30532856.37	0.0532	0.0476
Venus	78884-09-01 20:39 G	30533094.15	30533094.36	30533094.56	0.0523	0.0053
Venus	78885-04-27 11:46 G	30533331.84	30533331.99	30533332.14	0.0514	0.0347
Mercury	78886-08-01 01:56 G	30533792.44	30533792.58	30533792.72	0.0497	0.0127
Venus	78890-06-29 13:12 G	30535220.90	30535221.05	30535221.21	0.0498	0.0308
Venus	78891-02-20 17:32 G	30535457.03	30535457.23	30535457.43	0.0506	0.0043
Venus	78891-10-15 07:12 G	30535693.69	30535693.80	30535693.92	0.0516	0.0415
Mercury	78892-10-01 04:20 G	30536045.62	30536045.68	30536045.75	0.0529	0.0486
Mercury	78892-12-30 06:15 G	30536135.68	30536135.76	30536135.84	0.0532	0.0460

Venus	78896-05-07 11:17 G	30537359.78	30537359.97	30537360.17	0.0526	0.0170
Venus	78896-12-31 06:00 G	30537597.57	30537597.75	30537597.93	0.0517	0.0243
Mercury	78898-05-20 05:32 G	30538102.62	30538102.73	30538102.85	0.0498	0.0286
Mercury	78898-08-17 14:10 G	30538192.00	30538192.09	30538192.18	0.0495	0.0374
Mars	78899-11-07 13:56 G	30538638.85	30538639.08	30538639.32	0.0487	0.0222
Venus	78902-03-05 15:51 G	30539487.04	30539487.16	30539487.28	0.0496	0.0398
Venus	78902-10-27 17:46 G	30539723.04	30539723.24	30539723.44	0.0504	0.0060
Venus	78903-06-21 05:03 G	30539959.55	30539959.71	30539959.87	0.0513	0.0311
Moon	78903-10-21 10:05 G	30540081.69	30540081.92	30540082.14	0.0518	0.0170
Earth	78903-10-21 10:34 G	30540081.72	30540081.94	30540082.16	0.0518	0.0159 *
Mercury	78904-10-19 05:32 G	30540445.59	30540445.73	30540445.88	0.0532	0.0232
Venus	78908-01-12 01:41 G	30541625.40	30541625.57	30541625.75	0.0528	0.0287
Venus	78908-09-05 23:03 G	30541863.26	30541863.46	30541863.66	0.0519	0.0134
Moon	78909-04-18 03:08 G	30542087.43	30542087.63	30542087.85	0.0510	0.0254
Earth	78909-04-18 05:32 G	30542087.54	30542087.73	30542087.93	0.0510	0.0278 *
Venus	78909-05-01 08:53 G	30542100.85	30542100.87	30542100.89	0.0510	0.0507
Mercury	78910-03-09 09:22 G	30542412.83	30542412.89	30542412.95	0.0499	0.0445
Mercury	78910-06-06 17:32 G	30542502.10	30542502.23	30542502.36	0.0496	0.0210
Venus	78913-11-08 19:56 G	30543753.29	30543753.33	30543753.38	0.0495	0.0482
Venus	78914-07-02 20:24 G	30543989.16	30543989.35	30543989.54	0.0502	0.0156
Venus	78915-02-24 05:03 G	30544225.53	30544225.71	30544225.89	0.0511	0.0209
Moon	78915-10-26 04:20 G	30544469.53	30544469.68	30544469.84	0.0520	0.0362
Earth	78915-10-26 05:32 G	30544469.56	30544469.73	30544469.91	0.0520	0.0332 *
Mercury	78916-08-07 05:32 G	30544755.57	30544755.73	30544755.89	0.0531	0.0012
Venus	78919-09-16 13:41 G	30545890.94	30545891.07	30545891.20	0.0530	0.0403
Venus	78920-05-11 13:12 G	30546128.84	30546129.05	30546129.26	0.0521	0.0019
Venus	78921-01-04 01:56 G	30546366.46	30546366.58	30546366.70	0.0512	0.0410
Earth	78921-04-22 20:53 G	30546475.15	30546475.37	30546475.60	0.0508	0.0176
Moon	78921-04-22 21:36 G	30546475.19	30546475.40	30546475.61	0.0508	0.0198 *
Mercury	78922-03-25 20:24 G	30546812.21	30546812.35	30546812.49	0.0496	0.0033

Venus	78926-03-07 22:34 G	30548255.27	30548255.44	30548255.62	0.0500	0.0251
Venus	78926-10-30 05:03 G	30548491.51	30548491.71	30548491.90	0.0508	0.0107
Venus	78927-06-23 21:08 G	30548728.31	30548728.38	30548728.45	0.0518	0.0480
Mercury	78928-05-26 04:34 G	30549065.54	30549065.69	30549065.84	0.0530	0.0226
Venus	78931-05-22 00:44 G	30550156.49	30550156.53	30550156.58	0.0532	0.0519
Venus	78932-01-15 03:08 G	30550394.43	30550394.63	30550394.83	0.0524	0.0098
Venus	78932-09-08 19:12 G	30550632.13	30550632.30	30550632.46	0.0515	0.0307
Mercury	78934-01-11 23:46 G	30551122.36	30551122.49	30551122.63	0.0497	0.0133
Venus	78937-11-11 00:44 G	30552521.39	30552521.53	30552521.68	0.0497	0.0344
Venus	78938-07-05 04:20 G	30552757.48	30552757.68	30552757.88	0.0505	0.0007
Venus	78939-02-26 16:48 G	30552994.07	30552994.20	30552994.34	0.0514	0.0374
Mercury	78940-03-14 02:10 G	30553375.53	30553375.59	30553375.66	0.0529	0.0486
Mercury	78940-06-12 04:05 G	30553465.59	30553465.67	30553465.75	0.0532	0.0460
Venus	78943-09-19 15:22 G	30554659.95	30554660.14	30554660.33	0.0527	0.0219
Venus	78944-05-14 11:17 G	30554897.78	30554897.97	30554898.16	0.0518	0.0198
Mercury	78945-10-31 03:36 G	30555432.54	30555432.65	30555432.76	0.0498	0.0292
Mercury	78946-01-28 12:00 G	30555521.91	30555522.00	30555522.10	0.0496	0.0368
Venus	78949-07-17 04:20 G	30556787.58	30556787.68	30556787.78	0.0495	0.0431
Venus	78950-03-10 05:17 G	30557023.52	30557023.72	30557023.92	0.0503	0.0097
Venus	78950-11-01 14:39 G	30557259.95	30557260.11	30557260.29	0.0512	0.0271
Mercury	78952-03-31 03:08 G	30557775.48	30557775.63	30557775.77	0.0531	0.0223
Venus	78955-05-25 04:34 G	30558925.54	30558925.69	30558925.85	0.0530	0.0337
Venus	78956-01-18 03:51 G	30559163.46	30559163.66	30559163.86	0.0521	0.0087
Venus	78956-09-11 15:36 G	30559401.07	30559401.15	30559401.23	0.0511	0.0469
Mercury	78957-08-19 07:12 G	30559742.75	30559742.80	30559742.86	0.0499	0.0450
Mercury	78957-11-16 15:36 G	30559832.02	30559832.15	30559832.28	0.0496	0.0206
Venus	78961-11-13 06:29 G	30561289.59	30561289.77	30561289.96	0.0501	0.0195
Venus	78962-07-07 13:27 G	30561525.88	30561526.06	30561526.26	0.0509	0.0168
Mercury	78964-01-18 02:10 G	30562085.43	30562085.59	30562085.76	0.0531	0.0016
Venus	78967-01-27 18:00 G	30563191.15	30563191.25	30563191.36	0.0532	0.0452

Venus	78967-09-22 19:41 G	30563429.12	30563429.32	30563429.53	0.0523	0.0028
Venus	78968-05-17 10:34 G	30563666.80	30563666.94	30563667.08	0.0514	0.0372
Mercury	78969-09-04 19:12 G	30564142.16	30564142.30	30564142.44	0.0497	0.0044
Venus	78973-07-19 09:51 G	30565555.75	30565555.91	30565556.07	0.0499	0.0288
Venus	78974-03-12 14:39 G	30565791.91	30565792.11	30565792.31	0.0507	0.0066
Venus	78974-11-04 05:03 G	30566028.60	30566028.71	30566028.81	0.0516	0.0438
Mercury	78975-11-06 01:56 G	30566395.43	30566395.58	30566395.72	0.0530	0.0236
Venus	78979-05-28 09:22 G	30567694.69	30567694.89	30567695.09	0.0525	0.0144
Venus	78980-01-21 02:53 G	30567932.45	30567932.62	30567932.80	0.0516	0.0266
Mercury	78981-06-23 22:05 G	30568452.29	30568452.42	30568452.56	0.0497	0.0131
Venus	78985-03-24 12:44 G	30569821.90	30569822.03	30569822.16	0.0497	0.0378
Venus	78985-11-15 15:36 G	30570057.95	30570058.15	30570058.35	0.0505	0.0036
Venus	78986-07-10 03:22 G	30570294.49	30570294.64	30570294.79	0.0514	0.0336
Moon	78986-10-20 13:27 G	30570396.87	30570397.06	30570397.26	0.0518	0.0247
Earth	78986-10-20 14:24 G	30570396.90	30570397.10	30570397.31	0.0518	0.0236 *
Mercury	78987-08-25 00:58 G	30570705.47	30570705.54	30570705.61	0.0529	0.0473
Mercury	78987-11-23 02:53 G	30570795.55	30570795.62	30570795.69	0.0532	0.0475
Venus	78991-01-30 22:05 G	30571960.25	30571960.42	30571960.60	0.0528	0.0264
Venus	78991-09-25 18:44 G	30572198.08	30572198.28	30572198.48	0.0519	0.0156
Earth	78992-04-17 02:39 G	30572402.45	30572402.61	30572402.77	0.0511	0.0379
Moon	78992-04-17 03:36 G	30572402.49	30572402.65	30572402.82	0.0511	0.0351 *
Mercury	78993-04-12 01:41 G	30572762.46	30572762.57	30572762.68	0.0498	0.0295
Mercury	78993-07-10 10:05 G	30572851.82	30572851.92	30572852.01	0.0495	0.0363
Venus	78996-11-27 16:05 G	30574088.11	30574088.17	30574088.24	0.0495	0.0465
Venus	78997-07-21 16:34 G	30574324.00	30574324.19	30574324.39	0.0502	0.0136
Venus	78998-03-15 00:58 G	30574560.36	30574560.54	30574560.72	0.0511	0.0230
Earth	78998-10-25 04:05 G	30574784.47	30574784.67	30574784.88	0.0519	0.0231
Moon	78998-10-25 06:29 G	30574784.57	30574784.77	30574784.97	0.0519	0.0262 *
Mercury	78999-09-11 00:58 G	30575105.40	30575105.54	30575105.69	0.0531	0.0223

80TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 80th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	79002-10-06 08:24	G	30576225.72	30576225.85	30576225.99	0.0531	0.0386	
Venus	79003-06-01 08:39	G	30576463.66	30576463.86	30576464.07	0.0522	0.0041	
Venus	79004-01-24 22:05	G	30576701.32	30576701.42	30576701.54	0.0512	0.0430	
Earth	79004-04-22 20:39	G	30576790.12	30576790.36	30576790.59	0.0509	0.0089	
Moon	79004-04-22 21:08	G	30576790.14	30576790.38	30576790.62	0.0509	0.0110	*
Mercury	79005-01-30 05:17	G	30577072.67	30577072.72	30577072.78	0.0499	0.0455	
Mercury	79005-04-29 13:41	G	30577161.94	30577162.07	30577162.20	0.0496	0.0202	
Venus	79009-03-27 18:44	G	30578590.10	30578590.28	30578590.46	0.0499	0.0231	
Venus	79009-11-19 00:15	G	30578826.32	30578826.51	30578826.71	0.0508	0.0127	
Venus	79010-07-13 15:51	G	30579063.11	30579063.16	30579063.22	0.0517	0.0497	
Mercury	79011-06-30 23:46	G	30579415.33	30579415.49	30579415.66	0.0530	0.0023	
Venus	79014-06-10 20:24	G	30580491.29	30580491.35	30580491.43	0.0533	0.0502	
Venus	79015-02-03 23:46	G	30580729.29	30580729.49	30580729.70	0.0525	0.0077	
Venus	79015-09-29 16:34	G	30580967.03	30580967.19	30580967.35	0.0515	0.0329	
Mercury	79017-02-15 17:17	G	30581472.08	30581472.22	30581472.36	0.0497	0.0041	
Venus	79020-11-30 20:53	G	30582856.22	30582856.37	30582856.52	0.0497	0.0324	
Venus	79021-07-25 00:15	G	30583092.31	30583092.51	30583092.71	0.0505	0.0024	
Venus	79022-03-18 12:44	G	30583328.91	30583329.03	30583329.16	0.0515	0.0395	
Mercury	79023-04-18 22:48	G	30583725.31	30583725.45	30583725.59	0.0530	0.0256	
Venus	79026-10-09 14:39	G	30584994.92	30584995.11	30584995.30	0.0527	0.0193	

Venus	79027-06-04 10:20 G	30585232.74	30585232.93	30585233.11	0.0518	0.0224
Mercury	79028-12-04 20:53 G	30585782.23	30585782.37	30585782.51	0.0497	0.0121
Venus	79032-08-06 00:44 G	30587122.42	30587122.53	30587122.64	0.0496	0.0412
Venus	79033-03-30 01:56 G	30587358.38	30587358.58	30587358.78	0.0503	0.0076
Venus	79033-11-21 12:00 G	30587594.84	30587595.00	30587595.17	0.0512	0.0293
Mercury	79035-02-04 22:05 G	30588035.36	30588035.42	30588035.49	0.0529	0.0484
Mercury	79035-05-06 00:15 G	30588125.44	30588125.51	30588125.59	0.0532	0.0466
Venus	79038-06-14 03:51 G	30589260.50	30589260.66	30589260.83	0.0529	0.0311
Venus	79039-02-07 01:56 G	30589498.38	30589498.58	30589498.79	0.0520	0.0113
Venus	79039-10-02 12:44 G	30589735.98	30589736.03	30589736.09	0.0510	0.0491
Mercury	79040-09-23 00:00 G	30590092.39	30590092.50	30590092.61	0.0498	0.0291
Mercury	79040-12-21 08:24 G	30590181.76	30590181.85	30590181.94	0.0495	0.0367
Venus	79044-12-03 04:05 G	30591624.48	30591624.67	30591624.86	0.0501	0.0173
Venus	79045-07-27 11:46 G	30591860.81	30591860.99	30591861.18	0.0510	0.0191
Mercury	79047-02-21 23:46 G	30592435.35	30592435.49	30592435.63	0.0532	0.0238
Venus	79050-02-16 15:51 G	30593526.04	30593526.16	30593526.28	0.0531	0.0428
Venus	79050-10-12 16:34 G	30593763.98	30593764.19	30593764.40	0.0522	0.0003
Venus	79051-06-07 06:44 G	30594001.65	30594001.78	30594001.91	0.0513	0.0393
Mercury	79052-07-12 03:36 G	30594402.60	30594402.65	30594402.71	0.0499	0.0454
Mercury	79052-10-09 11:46 G	30594491.86	30594491.99	30594492.12	0.0496	0.0200
Venus	79056-08-08 06:29 G	30595890.60	30595890.77	30595890.94	0.0499	0.0269
Venus	79057-04-01 11:17 G	30596126.77	30596126.97	30596127.16	0.0507	0.0086
Venus	79057-11-24 01:12 G	30596363.47	30596363.55	30596363.65	0.0516	0.0457
Mercury	79058-12-10 21:51 G	30596745.25	30596745.41	30596745.57	0.0530	0.0016
Venus	79062-06-17 04:34 G	30598029.49	30598029.69	30598029.89	0.0526	0.0126
Venus	79063-02-09 22:48 G	30598267.29	30598267.45	30598267.63	0.0516	0.0287
Mercury	79064-07-28 15:22 G	30598802.00	30598802.14	30598802.28	0.0497	0.0040
Venus	79068-04-13 09:36 G	30600156.77	30600156.90	30600157.05	0.0496	0.0360
Venus	79068-12-05 12:00 G	30600392.80	30600393.00	30600393.20	0.0504	0.0015
Venus	79069-07-29 23:03 G	30600629.32	30600629.46	30600629.61	0.0513	0.0355

Earth	79069-10-20 13:12 G	30600711.88	30600712.05	30600712.23	0.0516	0.0332
Moon	79069-10-20 15:22 G	30600711.96	30600712.14	30600712.32	0.0516	0.0337 *
Mercury	79070-09-28 20:39 G	30601055.22	30601055.36	30601055.50	0.0530	0.0257
Venus	79074-02-19 18:15 G	30602295.08	30602295.26	30602295.44	0.0528	0.0244
Venus	79074-10-15 15:36 G	30602532.96	30602533.15	30602533.35	0.0519	0.0178
Moon	79075-04-18 04:05 G	30602717.54	30602717.67	30602717.81	0.0512	0.0428
Earth	79075-04-18 03:51 G	30602717.56	30602717.66	30602717.76	0.0512	0.0460 *
Mercury	79076-05-16 18:58 G	30603112.16	30603112.29	30603112.43	0.0498	0.0122
Venus	79079-12-18 12:44 G	30604422.95	30604423.03	30604423.12	0.0495	0.0446
Venus	79080-08-10 12:58 G	30604658.84	30604659.04	30604659.23	0.0502	0.0115
Venus	79081-04-03 21:08 G	30604895.21	30604895.38	30604895.56	0.0511	0.0251
Moon	79081-10-25 00:58 G	30605099.33	30605099.54	30605099.76	0.0519	0.0168
Earth	79081-10-25 04:20 G	30605099.46	30605099.68	30605099.90	0.0519	0.0138 *
Mercury	79082-07-17 19:12 G	30605365.25	30605365.30	30605365.35	0.0529	0.0499
Mercury	79082-10-15 21:08 G	30605455.31	30605455.38	30605455.47	0.0532	0.0452
Venus	79085-10-25 08:10 G	30606560.69	30606560.84	30606560.99	0.0531	0.0360
Venus	79086-06-20 08:24 G	30606798.64	30606798.85	30606799.05	0.0522	0.0067
Venus	79087-02-12 21:36 G	30607036.31	30607036.40	30607036.49	0.0512	0.0454
Moon	79087-04-22 22:48 G	30607105.22	30607105.45	30607105.68	0.0509	0.0036
Earth	79087-04-23 00:44 G	30607105.29	30607105.53	30607105.77	0.0509	0.0019 *
Mercury	79088-03-04 22:48 G	30607422.33	30607422.45	30607422.56	0.0498	0.0281
Mercury	79088-06-02 07:12 G	30607511.71	30607511.80	30607511.89	0.0496	0.0378
Venus	79092-04-15 15:36 G	30608924.97	30608925.15	30608925.33	0.0500	0.0210
Venus	79092-12-07 21:36 G	30609161.21	30609161.40	30609161.59	0.0508	0.0149
Mercury	79094-08-03 21:08 G	30609765.24	30609765.38	30609765.53	0.0532	0.0230
Venus	79097-06-29 20:53 G	30610826.29	30610826.37	30610826.47	0.0532	0.0476
Venus	79098-02-22 23:32 G	30611064.27	30611064.48	30611064.68	0.0524	0.0050
Venus	79098-10-18 15:08 G	30611301.99	30611302.13	30611302.28	0.0514	0.0354
Earth	79099-04-27 17:46 G	30611493.18	30611493.24	30611493.33	0.0507	0.0479
Moon	79099-04-27 21:22 G	30611493.29	30611493.39	30611493.50	0.0507	0.0451 *

Mercury	79099-12-23 02:10 G	30611732.53	30611732.59	30611732.65	0.0499	0.0448
Mercury	79100-03-22 10:05 G	30611821.80	30611821.92	30611822.05	0.0496	0.0207
Venus	79103-12-21 18:29 G	30613191.11	30613191.27	30613191.43	0.0498	0.0304
Venus	79104-08-13 22:34 G	30613427.24	30613427.44	30613427.64	0.0506	0.0048
Venus	79105-04-07 11:46 G	30613663.88	30613663.99	30613664.11	0.0515	0.0420
Mercury	79106-05-23 20:39 G	30614075.20	30614075.36	30614075.52	0.0531	0.0003
Venus	79109-10-29 12:58 G	30615329.85	30615330.04	30615330.24	0.0526	0.0168
Venus	79110-06-24 07:56 G	30615567.65	30615567.83	30615568.01	0.0517	0.0248
Mercury	79112-01-09 13:41 G	30616131.93	30616132.07	30616132.21	0.0497	0.0041
Venus	79115-08-26 22:20 G	30617457.31	30617457.43	30617457.55	0.0496	0.0394
Venus	79116-04-18 23:46 G	30617693.29	30617693.49	30617693.69	0.0503	0.0055
Venus	79116-12-11 09:36 G	30617929.74	30617929.90	30617930.06	0.0512	0.0314
Mercury	79118-03-11 18:44 G	30618385.14	30618385.28	30618385.43	0.0529	0.0251
Venus	79121-07-03 23:17 G	30619595.31	30619595.47	30619595.65	0.0529	0.0293
Venus	79122-02-26 22:05 G	30619833.22	30619833.42	30619833.62	0.0520	0.0133
Venus	79122-10-22 09:36 G	30620070.89	30620070.90	30620070.91	0.0511	0.0510
Mercury	79123-10-28 17:17 G	30620442.08	30620442.22	30620442.35	0.0498	0.0122
Venus	79127-05-02 02:39 G	30621723.57	30621723.61	30621723.66	0.0494	0.0478
Venus	79127-12-24 01:56 G	30621959.39	30621959.58	30621959.77	0.0501	0.0152
Venus	79128-08-16 08:53 G	30622195.69	30622195.87	30622196.06	0.0509	0.0212
Mercury	79129-12-28 17:17 G	30622695.17	30622695.22	30622695.28	0.0529	0.0494
Mercury	79130-03-28 19:27 G	30622785.23	30622785.31	30622785.39	0.0532	0.0454
Venus	79133-03-08 11:46 G	30623860.86	30623860.99	30623861.12	0.0532	0.0410
Venus	79133-11-01 13:27 G	30624098.85	30624099.06	30624099.26	0.0523	0.0020
Venus	79134-06-27 04:20 G	30624336.56	30624336.68	30624336.80	0.0514	0.0414
Mercury	79135-08-16 21:08 G	30624752.26	30624752.38	30624752.49	0.0499	0.0280
Mercury	79135-11-14 05:17 G	30624841.64	30624841.72	30624841.82	0.0496	0.0381
Venus	79139-08-29 03:36 G	30626225.48	30626225.65	30626225.83	0.0498	0.0248
Venus	79140-04-21 08:10 G	30626461.65	30626461.84	30626462.04	0.0507	0.0108
Venus	79140-12-13 22:20 G	30626698.36	30626698.43	30626698.51	0.0516	0.0478

Mercury	79142-01-14 18:29 G	30627095.13	30627095.27	30627095.42	0.0531	0.0220
Venus	79144-11-11 00:29 G	30628126.49	30628126.52	30628126.57	0.0534	0.0524
Venus	79145-07-07 04:48 G	30628364.50	30628364.70	30628364.91	0.0526	0.0099
Venus	79146-03-01 23:03 G	30628602.30	30628602.46	30628602.62	0.0516	0.0313
Mercury	79147-06-05 00:58 G	30629062.48	30629062.54	30629062.60	0.0499	0.0437
Mercury	79147-09-02 09:08 G	30629151.75	30629151.88	30629152.00	0.0496	0.0219
Venus	79151-05-04 07:12 G	30630491.66	30630491.80	30630491.95	0.0497	0.0339
Venus	79151-12-26 09:36 G	30630727.70	30630727.90	30630728.10	0.0504	0.0011
Venus	79152-08-18 21:08 G	30630964.25	30630964.38	30630964.52	0.0514	0.0379
Moon	79152-10-20 13:56 G	30631026.94	30631027.08	30631027.21	0.0516	0.0412
Earth	79152-10-20 17:03 G	30631027.07	30631027.21	30631027.35	0.0516	0.0410 *
Mercury	79153-11-02 18:15 G	30631405.10	30631405.26	30631405.42	0.0531	0.0006
Venus	79157-03-11 19:27 G	30632630.12	30632630.31	30632630.50	0.0528	0.0215
Venus	79157-11-04 15:51 G	30632867.98	30632868.16	30632868.35	0.0518	0.0205
Moon	79158-04-18 06:44 G	30633032.74	30633032.78	30633032.82	0.0512	0.0501
Mercury	79159-06-21 12:29 G	30633461.88	30633462.02	30633462.16	0.0497	0.0053
Venus	79163-01-07 10:48 G	30634757.86	30634757.95	30634758.06	0.0495	0.0427
Venus	79163-08-31 11:32 G	30634993.79	30634993.98	30634994.18	0.0502	0.0092
Venus	79164-04-23 20:39 G	30635230.19	30635230.36	30635230.53	0.0511	0.0276
Earth	79164-10-25 10:34 G	30635414.71	30635414.94	30635415.17	0.0519	0.0071
Moon	79164-10-25 14:10 G	30635414.87	30635415.09	30635415.32	0.0519	0.0106 *
Mercury	79165-08-21 17:32 G	30635715.09	30635715.23	30635715.38	0.0530	0.0234
Venus	79168-11-14 08:10 G	30636895.68	30636895.84	30636896.00	0.0530	0.0334
Venus	79169-07-10 07:41 G	30637133.61	30637133.82	30637134.02	0.0521	0.0093
Venus	79170-03-04 20:10 G	30637371.27	30637371.34	30637371.41	0.0512	0.0477
Earth	79170-04-23 03:22 G	30637420.40	30637420.64	30637420.87	0.0510	0.0058
Moon	79170-04-23 06:44 G	30637420.53	30637420.78	30637421.02	0.0510	0.0048 *
Mercury	79171-04-09 15:51 G	30637772.03	30637772.16	30637772.30	0.0497	0.0114
Mars	79172-07-26 02:10 G	30638245.37	30638245.59	30638245.83	0.0488	0.0241
Venus	79175-05-06 14:24 G	30639259.91	30639260.10	30639260.29	0.0500	0.0190

Venus	79175-12-28 20:24 G	30639496.16	30639496.35	30639496.54	0.0508	0.0171
Mercury	79177-06-09 15:51 G	30640025.10	30640025.16	30640025.23	0.0529	0.0482
Mercury	79177-09-07 17:46 G	30640115.17	30640115.24	30640115.32	0.0532	0.0466
Venus	79180-07-19 17:03 G	30641161.12	30641161.21	30641161.32	0.0533	0.0457
Venus	79181-03-14 19:56 G	30641399.12	30641399.33	30641399.53	0.0524	0.0030
Venus	79181-11-07 12:15 G	30641636.87	30641637.01	30641637.15	0.0515	0.0374
Moon	79182-04-27 15:51 G	30641808.00	30641808.16	30641808.32	0.0508	0.0371
Earth	79182-04-27 19:41 G	30641808.18	30641808.32	30641808.46	0.0508	0.0404 *
Mercury	79183-01-26 19:27 G	30642082.19	30642082.31	30642082.43	0.0499	0.0276
Mercury	79183-04-26 03:51 G	30642171.57	30642171.66	30642171.75	0.0496	0.0385
Venus	79187-01-09 17:46 G	30643526.08	30643526.24	30643526.41	0.0498	0.0282
Venus	79187-09-02 21:22 G	30643762.19	30643762.39	30643762.59	0.0506	0.0070
Venus	79188-04-26 09:51 G	30643998.81	30643998.91	30643999.02	0.0515	0.0440
Mercury	79189-06-26 17:03 G	30644425.07	30644425.21	30644425.36	0.0531	0.0230
Venus	79192-11-17 09:51 G	30645664.71	30645664.91	30645665.11	0.0527	0.0148
Venus	79193-07-13 05:32 G	30645902.55	30645902.73	30645902.91	0.0518	0.0269
Mercury	79194-11-14 23:17 G	30646392.41	30646392.47	30646392.54	0.0499	0.0434
Mercury	79195-02-12 07:27 G	30646481.68	30646481.81	30646481.94	0.0497	0.0223
Venus	79198-09-14 20:39 G	30647792.23	30647792.36	30647792.49	0.0496	0.0372
Venus	79199-05-08 21:36 G	30648028.20	30648028.40	30648028.61	0.0503	0.0033
Venus	79199-12-31 07:27 G	30648264.66	30648264.81	30648264.96	0.0512	0.0337
Mercury	79201-04-14 15:51 G	30648735.00	30648735.16	30648735.33	0.0530	0.0012
Venus	79204-07-23 00:15 G	30649930.34	30649930.51	30649930.69	0.0529	0.0264
Venus	79205-03-17 23:03 G	30650168.26	30650168.46	30650168.65	0.0520	0.0161
Mercury	79206-12-01 11:17 G	30650791.83	30650791.97	30650792.11	0.0497	0.0065
Venus	79210-05-21 00:44 G	30652058.47	30652058.53	30652058.61	0.0494	0.0458
Venus	79211-01-12 00:15 G	30652294.31	30652294.51	30652294.70	0.0501	0.0129
Venus	79211-09-05 07:27 G	30652530.64	30652530.81	30652530.99	0.0510	0.0236
Mercury	79213-01-31 15:22 G	30653045.00	30653045.14	30653045.29	0.0530	0.0236
Venus	79216-03-27 14:10 G	30654195.95	30654196.09	30654196.23	0.0531	0.0381

Venus	79216-11-20 15:08 G	30654433.93	30654434.13	30654434.34	0.0523	0.0048
Venus	79217-07-16 05:17 G	30654671.62	30654671.72	30654671.83	0.0513	0.0440
Mercury	79218-09-19 14:39 G	30655101.97	30655102.11	30655102.25	0.0497	0.0101
Venus	79222-09-17 02:53 G	30656560.45	30656560.62	30656560.81	0.0499	0.0225
Venus	79223-05-11 08:10 G	30656796.64	30656796.84	30656797.03	0.0507	0.0133
Venus	79224-01-02 23:03 G	30657033.42	30657033.46	30657033.50	0.0517	0.0504
Mercury	79224-11-19 14:39 G	30657355.04	30657355.11	30657355.19	0.0529	0.0465
Mercury	79225-02-17 17:03 G	30657445.14	30657445.21	30657445.27	0.0532	0.0486
Mars	79226-01-30 15:51 G	30657791.87	30657792.16	30657792.44	0.0540	0.0039
Venus	79227-12-01 02:24 G	30658461.53	30658461.60	30658461.67	0.0533	0.0497
Venus	79228-07-26 06:00 G	30658699.54	30658699.75	30658699.95	0.0525	0.0070
Venus	79229-03-20 23:03 G	30658937.31	30658937.46	30658937.62	0.0516	0.0339
Mercury	79230-07-08 18:29 G	30659412.15	30659412.27	30659412.38	0.0498	0.0262
Mercury	79230-10-06 02:39 G	30659501.53	30659501.61	30659501.70	0.0496	0.0397
Venus	79234-05-23 07:12 G	30660826.64	30660826.80	30660826.95	0.0497	0.0317
Venus	79235-01-14 09:51 G	30661062.71	30661062.91	30661063.11	0.0505	0.0032
Venus	79235-09-07 21:22 G	30661299.27	30661299.39	30661299.51	0.0514	0.0401
Earth	79235-10-20 23:32 G	30661342.39	30661342.48	30661342.58	0.0515	0.0469
Moon	79235-10-21 03:22 G	30661342.54	30661342.64	30661342.75	0.0515	0.0457 *
Mercury	79236-12-06 15:36 G	30661755.01	30661755.15	30661755.30	0.0531	0.0247
Venus	79240-03-30 16:20 G	30662964.99	30662965.18	30662965.38	0.0528	0.0195
Venus	79240-11-23 13:12 G	30663202.87	30663203.05	30663203.24	0.0519	0.0227
Mercury	79242-04-26 21:51 G	30663722.34	30663722.41	30663722.48	0.0499	0.0427
Mercury	79242-07-25 06:00 G	30663811.63	30663811.75	30663811.88	0.0497	0.0231
Venus	79246-01-26 11:46 G	30665092.87	30665092.99	30665093.10	0.0495	0.0404
Venus	79246-09-19 12:00 G	30665328.80	30665329.00	30665329.20	0.0502	0.0067
Venus	79247-05-13 20:24 G	30665565.19	30665565.35	30665565.52	0.0511	0.0299
Moon	79247-10-25 12:15 G	30665729.78	30665730.01	30665730.25	0.0517	0.0037
Earth	79247-10-25 15:51 G	30665729.93	30665730.16	30665730.39	0.0517	0.0006 *
Mercury	79248-09-24 14:53 G	30666064.95	30666065.12	30666065.28	0.0530	0.0016

Venus	79251-12-04 05:17 G	30667230.55	30667230.72	30667230.88	0.0530	0.0313
Venus	79252-07-29 05:17 G	30667468.52	30667468.72	30667468.92	0.0522	0.0114
Venus	79253-03-23 18:15 G	30667706.22	30667706.26	30667706.31	0.0512	0.0498
Moon	79253-04-22 02:10 G	30667735.37	30667735.59	30667735.82	0.0511	0.0127
Earth	79253-04-22 06:15 G	30667735.53	30667735.76	30667735.99	0.0511	0.0129 *
Mercury	79254-05-13 09:36 G	30668121.77	30668121.90	30668122.04	0.0497	0.0072
Venus	79257-10-01 15:08 G	30669359.11	30669359.13	30669359.16	0.0493	0.0489
Venus	79258-05-25 13:27 G	30669594.87	30669595.06	30669595.25	0.0500	0.0165
Venus	79259-01-16 19:12 G	30669831.12	30669831.30	30669831.49	0.0508	0.0196
Earth	79259-10-30 06:29 G	30670117.69	30670117.77	30670117.86	0.0520	0.0476
Moon	79259-10-30 08:53 G	30670117.80	30670117.87	30670117.96	0.0520	0.0480 *
Mercury	79260-07-13 13:27 G	30670374.91	30670375.06	30670375.21	0.0529	0.0232
Venus	79263-08-08 18:29 G	30671496.16	30671496.27	30671496.40	0.0533	0.0430
Venus	79264-04-02 21:22 G	30671734.19	30671734.39	30671734.60	0.0524	0.0008
Venus	79264-11-26 13:41 G	30671971.94	30671972.07	30671972.20	0.0515	0.0401
Earth	79265-04-27 03:22 G	30672123.48	30672123.64	30672123.82	0.0509	0.0351
Moon	79265-04-27 06:58 G	30672123.62	30672123.79	30672123.98	0.0509	0.0318 *
Mercury	79266-03-01 13:41 G	30672431.93	30672432.07	30672432.20	0.0498	0.0088
Venus	79270-01-28 16:48 G	30673861.03	30673861.20	30673861.37	0.0498	0.0259
Venus	79270-09-21 20:24 G	30674097.15	30674097.35	30674097.55	0.0506	0.0095
Venus	79271-05-16 09:22 G	30674333.81	30674333.89	30674333.98	0.0515	0.0465
Mercury	79272-05-01 12:44 G	30674684.95	30674685.03	30674685.11	0.0529	0.0462
Mercury	79272-07-30 14:53 G	30674775.06	30674775.12	30674775.19	0.0532	0.0488
Venus	79275-12-07 12:58 G	30675999.84	30676000.04	30676000.24	0.0526	0.0116
Venus	79276-08-01 07:56 G	30676237.67	30676237.83	30676238.00	0.0517	0.0298
Mercury	79277-12-18 17:17 G	30676742.10	30676742.22	30676742.34	0.0498	0.0249
Mercury	79278-03-18 01:27 G	30676831.49	30676831.56	30676831.64	0.0496	0.0412
Venus	79281-10-03 20:24 G	30678127.21	30678127.35	30678127.49	0.0496	0.0351
Venus	79282-05-27 22:05 G	30678363.22	30678363.42	30678363.62	0.0504	0.0006
Venus	79283-01-19 08:39 G	30678599.72	30678599.86	30678600.00	0.0513	0.0363

Mercury	79284-05-18 14:39 G	30679084.98	30679085.11	30679085.26	0.0531	0.0268
Venus	79287-08-12 02:53 G	30680265.43	30680265.62	30680265.80	0.0529	0.0235
Venus	79288-04-06 00:29 G	30680503.33	30680503.52	30680503.72	0.0520	0.0190
Mercury	79289-10-06 21:08 G	30681052.30	30681052.38	30681052.46	0.0499	0.0408
Mercury	79290-01-04 05:03 G	30681141.59	30681141.71	30681141.84	0.0496	0.0249
Venus	79293-06-09 01:27 G	30682393.47	30682393.56	30682393.66	0.0494	0.0437
Venus	79294-01-31 01:12 G	30682629.36	30682629.55	30682629.75	0.0501	0.0105
Venus	79294-09-24 08:39 G	30682865.70	30682865.86	30682866.04	0.0510	0.0261
Mercury	79296-03-06 13:41 G	30683394.91	30683395.07	30683395.23	0.0530	0.0031
Venus	79299-04-16 12:00 G	30684530.85	30684531.00	30684531.15	0.0531	0.0359
Venus	79299-12-10 13:12 G	30684768.84	30684769.05	30684769.25	0.0523	0.0070
Venus	79300-08-05 03:36 G	30685006.56	30685006.65	30685006.74	0.0513	0.0460
Mercury	79301-10-24 08:24 G	30685451.71	30685451.85	30685451.99	0.0498	0.0080
Venus	79305-10-07 04:34 G	30686895.51	30686895.69	30686895.88	0.0499	0.0199
Venus	79306-05-31 09:22 G	30687131.70	30687131.89	30687132.09	0.0507	0.0159
Mercury	79307-12-25 12:44 G	30687704.88	30687705.03	30687705.18	0.0529	0.0207
Venus	79310-12-20 23:46 G	30688796.40	30688796.49	30688796.58	0.0533	0.0476
Venus	79311-08-16 03:36 G	30689034.45	30689034.65	30689034.86	0.0525	0.0047
Venus	79312-04-09 21:22 G	30689272.25	30689272.39	30689272.54	0.0516	0.0361
Mercury	79313-08-12 12:15 G	30689761.87	30689762.01	30689762.15	0.0498	0.0080
Venus	79317-06-12 07:12 G	30691161.64	30691161.80	30691161.96	0.0497	0.0292
Venus	79318-02-03 09:36 G	30691397.70	30691397.90	30691398.10	0.0504	0.0057
Venus	79318-09-27 20:53 G	30691634.26	30691634.37	30691634.48	0.0514	0.0426
Mercury	79319-10-13 11:03 G	30692014.88	30692014.96	30692015.05	0.0528	0.0453
Mercury	79320-01-11 13:12 G	30692105.00	30692105.05	30692105.11	0.0531	0.0495
Venus	79323-04-20 18:29 G	30693300.08	30693300.27	30693300.47	0.0528	0.0164
Venus	79323-12-14 15:36 G	30693537.97	30693538.15	30693538.33	0.0519	0.0256
Mercury	79325-05-31 16:05 G	30694072.05	30694072.17	30694072.29	0.0499	0.0236
Mercury	79325-08-29 00:29 G	30694161.45	30694161.52	30694161.59	0.0496	0.0427
Mars	79326-10-21 10:34 G	30694579.70	30694579.94	30694580.18	0.0488	0.0201

Venus	79329-02-15 11:17 G	30695427.84	30695427.97	30695428.09	0.0495	0.0381
Venus	79329-10-09 11:32 G	30695663.78	30695663.98	30695664.18	0.0502	0.0042
Venus	79330-06-02 20:10 G	30695900.19	30695900.34	30695900.50	0.0511	0.0325
Earth	79330-10-25 22:20 G	30696045.20	30696045.43	30696045.66	0.0517	0.0062
Moon	79330-10-26 00:44 G	30696045.31	30696045.53	30696045.76	0.0517	0.0030 *
Mercury	79331-10-30 12:58 G	30696414.90	30696415.04	30696415.18	0.0531	0.0272
Venus	79334-12-24 09:22 G	30697565.71	30697565.89	30697566.06	0.0530	0.0281
Venus	79335-08-19 08:53 G	30697803.67	30697803.87	30697804.07	0.0521	0.0146
Earth	79336-04-22 15:51 G	30698050.94	30698051.16	30698051.38	0.0511	0.0176
Moon	79336-04-22 19:27 G	30698051.09	30698051.31	30698051.53	0.0511	0.0179 *
Mercury	79337-03-19 19:56 G	30698382.25	30698382.33	30698382.42	0.0499	0.0394
Mercury	79337-06-17 04:05 G	30698471.55	30698471.67	30698471.79	0.0496	0.0263
Venus	79340-10-21 15:08 G	30699694.08	30699694.13	30699694.20	0.0493	0.0468
Venus	79341-06-14 14:10 G	30699929.90	30699930.09	30699930.29	0.0500	0.0140
Venus	79342-02-05 20:39 G	30700166.18	30700166.36	30700166.55	0.0509	0.0223
Moon	79342-10-30 15:36 G	30700433.02	30700433.15	30700433.29	0.0519	0.0421
Earth	79342-10-30 16:34 G	30700433.06	30700433.19	30700433.32	0.0519	0.0427 *
Mercury	79343-08-18 12:44 G	30700724.87	30700725.03	30700725.19	0.0530	0.0050
Venus	79346-08-28 22:20 G	30701831.30	30701831.43	30701831.57	0.0532	0.0399
Venus	79347-04-24 00:29 G	30702069.31	30702069.52	30702069.72	0.0524	0.0032
Venus	79347-12-17 15:51 G	30702307.05	30702307.16	30702307.27	0.0514	0.0428
Moon	79348-04-27 08:53 G	30702438.67	30702438.87	30702439.09	0.0509	0.0264
Earth	79348-04-27 11:46 G	30702438.80	30702438.99	30702439.18	0.0509	0.0299 *
Mercury	79349-04-05 07:41 G	30702781.68	30702781.82	30702781.96	0.0497	0.0102
Venus	79353-02-17 18:29 G	30704196.09	30704196.27	30704196.45	0.0498	0.0234
Venus	79353-10-11 22:34 G	30704432.24	30704432.44	30704432.63	0.0506	0.0121
Venus	79354-06-05 11:46 G	30704668.93	30704668.99	30704669.05	0.0515	0.0489
Mercury	79355-06-06 11:46 G	30705034.84	30705034.99	30705035.14	0.0529	0.0184
Venus	79358-05-03 06:44 G	30706096.74	30706096.78	30706096.83	0.0534	0.0519
Venus	79358-12-27 11:32 G	30706334.78	30706334.98	30706335.18	0.0526	0.0092

Venus	79359-08-22 06:29 G	30706572.61	30706572.77	30706572.93	0.0517	0.0321
Mercury	79361-01-22 10:48 G	30707091.82	30707091.95	30707092.09	0.0498	0.0071
Venus	79364-10-23 22:48 G	30708462.30	30708462.45	30708462.60	0.0496	0.0324
Venus	79365-06-17 00:29 G	30708698.32	30708698.52	30708698.72	0.0504	0.0022
Venus	79366-02-08 10:34 G	30708934.82	30708934.94	30708935.08	0.0512	0.0390
Mercury	79367-03-25 10:34 G	30709344.84	30709344.94	30709345.04	0.0528	0.0422
Mercury	79367-06-23 12:29 G	30709435.00	30709435.02	30709435.05	0.0531	0.0524
Venus	79370-09-01 00:29 G	30710600.34	30710600.52	30710600.71	0.0529	0.0212
Venus	79371-04-26 22:48 G	30710838.26	30710838.45	30710838.64	0.0520	0.0212
Mercury	79372-11-10 14:39 G	30711401.99	30711402.11	30711402.24	0.0499	0.0228
Mercury	79373-02-07 23:03 G	30711491.40	30711491.46	30711491.53	0.0496	0.0437
Venus	79376-06-29 02:10 G	30712728.48	30712728.59	30712728.70	0.0494	0.0412
Venus	79377-02-20 01:41 G	30712964.37	30712964.57	30712964.77	0.0501	0.0078
Venus	79377-10-14 08:53 G	30713200.71	30713200.87	30713201.04	0.0510	0.0287
Mercury	79379-04-11 11:32 G	30713744.84	30713744.98	30713745.12	0.0531	0.0285
Mars	79380-04-26 17:32 G	30714126.15	30714126.23	30714126.33	0.0540	0.0512
Venus	79382-05-06 14:10 G	30714865.93	30714866.09	30714866.25	0.0531	0.0329
Venus	79382-12-30 15:36 G	30715103.95	30715104.15	30715104.35	0.0523	0.0101
Venus	79383-08-25 06:00 G	30715341.69	30715341.75	30715341.81	0.0513	0.0489
Mercury	79384-08-29 18:44 G	30715712.20	30715712.28	30715712.37	0.0500	0.0382
Mercury	79384-11-27 02:53 G	30715801.51	30715801.62	30715801.74	0.0497	0.0278
Venus	79388-10-26 04:20 G	30717230.50	30717230.68	30717230.87	0.0499	0.0174
Venus	79389-06-19 09:22 G	30717466.71	30717466.89	30717467.08	0.0507	0.0186
Mercury	79391-01-28 11:03 G	30718054.80	30718054.96	30718055.12	0.0530	0.0058
Venus	79394-01-09 04:05 G	30719131.57	30719131.67	30719131.79	0.0533	0.0446
Venus	79394-09-04 07:56 G	30719369.62	30719369.83	30719370.03	0.0525	0.0016
Venus	79395-04-30 00:58 G	30719607.41	30719607.54	30719607.68	0.0516	0.0390
Mercury	79396-09-15 06:44 G	30720111.64	30720111.78	30720111.91	0.0497	0.0117
Venus	79400-07-02 07:56 G	30721496.66	30721496.83	30721497.00	0.0497	0.0268
Venus	79401-02-23 10:48 G	30721732.76	30721732.95	30721733.15	0.0505	0.0085

Venus	79401-10-17 23:03 G	30721969.37	30721969.46	30721969.55	0.0514	0.0453
Mercury	79402-11-17 10:34 G	30722364.79	30722364.94	30722365.10	0.0530	0.0167
Venus	79406-05-10 22:20 G	30723635.23	30723635.43	30723635.63	0.0527	0.0132
Venus	79407-01-03 18:29 G	30723873.11	30723873.27	30723873.45	0.0518	0.0286
Mercury	79408-07-05 10:20 G	30724421.79	30724421.93	30724422.07	0.0498	0.0045
Venus	79412-03-07 12:58 G	30725762.90	30725763.04	30725763.18	0.0495	0.0357
Venus	79412-10-29 13:56 G	30725998.88	30725999.08	30725999.28	0.0503	0.0016
Venus	79413-06-22 23:17 G	30726235.32	30726235.47	30726235.61	0.0511	0.0352
Moon	79413-10-26 08:53 G	30726360.63	30726360.87	30726361.11	0.0516	0.0072
Earth	79413-10-26 09:51 G	30726360.69	30726360.91	30726361.14	0.0516	0.0101 *
Mercury	79414-09-05 09:51 G	30726674.80	30726674.91	30726675.01	0.0528	0.0398
Venus	79418-01-13 08:24 G	30727900.67	30727900.85	30727901.03	0.0530	0.0256
Venus	79418-09-08 07:41 G	30728138.62	30728138.82	30728139.01	0.0521	0.0170
Moon	79419-04-23 15:36 G	30728365.94	30728366.15	30728366.36	0.0512	0.0253
Earth	79419-04-23 18:44 G	30728366.08	30728366.28	30728366.49	0.0512	0.0249 *
Mercury	79420-04-23 13:27 G	30728731.94	30728732.06	30728732.19	0.0499	0.0216
Mercury	79420-07-21 22:05 G	30728821.36	30728821.42	30728821.47	0.0496	0.0449
Venus	79423-11-11 18:00 G	30730029.16	30730029.25	30730029.34	0.0494	0.0442
Venus	79424-07-04 17:03 G	30730265.02	30730265.21	30730265.41	0.0500	0.0112
Venus	79425-02-25 23:32 G	30730501.31	30730501.48	30730501.66	0.0509	0.0251
Moon	79425-10-31 01:27 G	30730748.41	30730748.56	30730748.72	0.0518	0.0366
Earth	79425-10-31 02:53 G	30730748.46	30730748.62	30730748.78	0.0518	0.0379 *
Mercury	79426-09-22 11:03 G	30731074.83	30731074.96	30731075.09	0.0530	0.0317
Venus	79429-09-17 20:10 G	30732166.20	30732166.34	30732166.49	0.0532	0.0376
Venus	79430-05-13 22:20 G	30732404.23	30732404.43	30732404.64	0.0524	0.0055
Venus	79431-01-06 14:10 G	30732642.00	30732642.09	30732642.19	0.0514	0.0450
Earth	79431-04-28 14:39 G	30732753.90	30732754.11	30732754.33	0.0510	0.0229
Moon	79431-04-28 16:05 G	30732753.96	30732754.17	30732754.38	0.0510	0.0199 *
Mercury	79432-02-10 17:17 G	30733042.14	30733042.22	30733042.32	0.0500	0.0375
Mercury	79432-05-10 01:41 G	30733131.45	30733131.57	30733131.68	0.0497	0.0287

Venus	79436-03-09 19:12 G	30734531.11	30734531.30	30734531.48	0.0498	0.0208
Venus	79436-10-31 22:48 G	30734767.26	30734767.45	30734767.65	0.0506	0.0149
Venus	79437-06-25 12:00 G	30735004.00	30735004.00	30735004.01	0.0515	0.0514
Mercury	79438-07-11 09:36 G	30735384.74	30735384.90	30735385.07	0.0530	0.0075
Venus	79441-05-23 08:39 G	30736431.79	30736431.86	30736431.94	0.0534	0.0491
Venus	79442-01-16 13:41 G	30736669.87	30736670.07	30736670.28	0.0526	0.0062
Venus	79442-09-11 08:53 G	30736907.72	30736907.87	30736908.02	0.0517	0.0350
Mercury	79444-02-27 05:32 G	30737441.59	30737441.73	30737441.86	0.0498	0.0129
Venus	79447-11-13 22:34 G	30738797.28	30738797.44	30738797.60	0.0496	0.0300
Venus	79448-07-07 00:29 G	30739033.32	30739033.52	30739033.72	0.0504	0.0048
Venus	79449-02-28 10:48 G	30739269.84	30739269.95	30739270.07	0.0513	0.0416
Mercury	79450-04-29 09:08 G	30739694.72	30739694.88	30739695.03	0.0529	0.0157
Venus	79453-09-21 04:48 G	30740935.51	30740935.70	30740935.90	0.0529	0.0179
Venus	79454-05-17 02:53 G	30741173.43	30741173.62	30741173.80	0.0520	0.0244
Mercury	79455-12-16 09:08 G	30741751.74	30741751.88	30741752.02	0.0498	0.0034
Venus	79459-07-20 02:39 G	30743063.49	30743063.61	30743063.74	0.0495	0.0389
Venus	79460-03-12 02:39 G	30743299.41	30743299.61	30743299.81	0.0502	0.0052
Venus	79460-11-03 10:34 G	30743535.79	30743535.94	30743536.10	0.0510	0.0314
Mercury	79462-02-15 08:24 G	30744004.74	30744004.85	30744004.96	0.0529	0.0384
Venus	79465-05-26 18:29 G	30745201.10	30745201.27	30745201.44	0.0531	0.0297
Venus	79466-01-19 19:12 G	30745439.10	30745439.30	30745439.50	0.0522	0.0133
Mercury	79467-10-04 12:58 G	30746061.92	30746062.04	30746062.17	0.0499	0.0191
Mercury	79468-01-01 21:22 G	30746151.35	30746151.39	30746151.43	0.0496	0.0473
Venus	79471-03-25 08:10 G	30747329.79	30747329.84	30747329.90	0.0493	0.0473
Venus	79471-11-16 06:29 G	30747565.58	30747565.77	30747565.97	0.0500	0.0148
Venus	79472-07-09 12:15 G	30747801.83	30747802.01	30747802.20	0.0508	0.0214
Mercury	79474-03-04 10:05 G	30748404.80	30748404.92	30748405.05	0.0530	0.0341
Venus	79477-01-29 03:51 G	30749466.54	30749466.66	30749466.79	0.0533	0.0419
Venus	79477-09-24 06:44 G	30749704.58	30749704.78	30749704.99	0.0525	0.0015
Venus	79478-05-19 23:46 G	30749942.37	30749942.49	30749942.61	0.0515	0.0413

Mercury	79479-07-23 16:05 G	30750372.08	30750372.17	30750372.27	0.0500	0.0363
Mercury	79479-10-21 00:15 G	30750461.40	30750461.51	30750461.63	0.0497	0.0298
Venus	79483-07-22 10:34 G	30751831.77	30751831.94	30751832.12	0.0498	0.0240
Venus	79484-03-14 13:56 G	30752067.88	30752068.08	30752068.27	0.0505	0.0114
Venus	79484-11-06 01:56 G	30752304.51	30752304.58	30752304.65	0.0514	0.0479
Mercury	79485-12-21 09:22 G	30752714.73	30752714.89	30752715.05	0.0529	0.0108
Venus	79489-05-29 20:10 G	30753970.14	30753970.34	30753970.54	0.0527	0.0107
Venus	79490-01-22 16:20 G	30754208.02	30754208.18	30754208.35	0.0518	0.0309
Mercury	79491-08-09 04:05 G	30754771.53	30754771.67	30754771.80	0.0498	0.0136
Venus	79495-03-27 13:27 G	30756097.91	30756098.06	30756098.21	0.0495	0.0331
Venus	79495-11-18 14:10 G	30756333.89	30756334.09	30756334.30	0.0503	0.0017
Venus	79496-07-11 23:32 G	30756570.34	30756570.48	30756570.61	0.0511	0.0378
Moon	79496-10-25 15:36 G	30756675.94	30756676.15	30756676.36	0.0515	0.0145
Earth	79496-10-25 16:34 G	30756675.97	30756676.19	30756676.41	0.0515	0.0166 *
Mercury	79497-10-09 07:41 G	30757024.67	30757024.82	30757024.98	0.0529	0.0140
Venus	79501-02-02 10:05 G	30758235.74	30758235.92	30758236.11	0.0530	0.0226
Venus	79501-09-28 09:22 G	30758473.71	30758473.89	30758474.09	0.0521	0.0201
Earth	79502-04-24 02:53 G	30758681.43	30758681.62	30758681.81	0.0513	0.0304
Moon	79502-04-24 04:34 G	30758681.51	30758681.69	30758681.87	0.0513	0.0313 *
Mercury	79503-05-29 07:56 G	30759081.69	30759081.83	30759081.97	0.0498	0.0022
Venus	79506-12-01 17:46 G	30760364.13	30760364.24	30760364.34	0.0494	0.0419
Venus	79507-07-25 16:34 G	30760600.00	30760600.19	30760600.39	0.0500	0.0087
Venus	79508-03-17 23:17 G	30760836.30	30760836.47	30760836.64	0.0509	0.0277
Earth	79508-10-31 08:39 G	30761063.68	30761063.86	30761064.05	0.0518	0.0311
Moon	79508-10-31 11:46 G	30761063.80	30761063.99	30761064.19	0.0518	0.0286 *
Mercury	79509-07-29 06:44 G	30761334.67	30761334.78	30761334.90	0.0528	0.0375
Venus	79512-10-08 00:00 G	30762501.35	30762501.50	30762501.66	0.0532	0.0344
Venus	79513-06-03 02:10 G	30762739.39	30762739.59	30762739.79	0.0523	0.0088
Venus	79514-01-26 17:32 G	30762977.16	30762977.23	30762977.31	0.0514	0.0479
Earth	79514-04-29 01:12 G	30763069.33	30763069.55	30763069.77	0.0510	0.0185

Moon	79514-04-29 02:10 G	30763069.36	30763069.59	30763069.83	0.0510	0.0158 *
Mercury	79515-03-17 11:46 G	30763391.86	30763391.99	30763392.12	0.0499	0.0180
Mercury	79515-06-14 20:10 G	30763481.31	30763481.34	30763481.37	0.0496	0.0484
Venus	79519-03-30 19:27 G	30764866.12	30764866.31	30764866.50	0.0499	0.0182
Venus	79519-11-21 23:46 G	30765102.31	30765102.49	30765102.68	0.0507	0.0176
Mercury	79521-08-15 08:39 G	30765734.75	30765734.86	30765734.99	0.0531	0.0352
Venus	79524-06-12 12:58 G	30766766.95	30766767.04	30766767.15	0.0534	0.0461
Venus	79525-02-05 17:32 G	30767005.02	30767005.23	30767005.43	0.0526	0.0029
Venus	79525-10-01 11:46 G	30767242.85	30767242.99	30767243.13	0.0516	0.0379
Mercury	79527-01-03 15:36 G	30767702.05	30767702.15	30767702.25	0.0499	0.0338
Mercury	79527-04-02 23:46 G	30767791.38	30767791.49	30767791.60	0.0497	0.0322
Venus	79530-12-04 00:15 G	30769132.34	30769132.51	30769132.68	0.0497	0.0274
Venus	79531-07-28 02:39 G	30769368.41	30769368.61	30769368.81	0.0504	0.0076
Venus	79532-03-20 13:56 G	30769604.98	30769605.08	30769605.18	0.0513	0.0442
Mercury	79533-06-03 08:24 G	30770044.69	30770044.85	30770045.01	0.0530	0.0129
Venus	79536-10-11 04:05 G	30771270.47	30771270.67	30771270.87	0.0528	0.0151
Venus	79537-06-06 01:12 G	30771508.38	30771508.55	30771508.73	0.0519	0.0269
Mercury	79539-01-20 02:39 G	30772101.48	30772101.61	30772101.75	0.0498	0.0146
Venus	79542-08-09 04:48 G	30773398.56	30773398.70	30773398.84	0.0495	0.0362
Venus	79543-04-02 05:03 G	30773634.51	30773634.71	30773634.92	0.0502	0.0024
Venus	79543-11-24 13:27 G	30773870.91	30773871.06	30773871.21	0.0510	0.0343
Mercury	79545-03-22 07:27 G	30774354.65	30774354.81	30774354.97	0.0529	0.0106
Venus	79548-06-15 16:20 G	30775536.00	30775536.18	30775536.36	0.0530	0.0272
Venus	79549-02-08 16:34 G	30775773.99	30775774.19	30775774.39	0.0522	0.0156
Mercury	79550-11-08 06:15 G	30776411.62	30776411.76	30776411.90	0.0499	0.0022
Venus	79554-04-14 08:10 G	30777664.77	30777664.84	30777664.93	0.0493	0.0450
Venus	79554-12-06 06:44 G	30777900.58	30777900.78	30777900.97	0.0500	0.0121
Venus	79555-07-30 12:00 G	30778136.83	30778137.00	30778137.18	0.0508	0.0241
Mercury	79557-01-08 05:32 G	30778664.61	30778664.73	30778664.85	0.0528	0.0358
Venus	79560-02-19 04:34 G	30779801.56	30779801.69	30779801.83	0.0533	0.0391

Venus	79560-10-14 07:56 G	30780039.62	30780039.83	30780040.03	0.0525	0.0043
Venus	79561-06-09 00:58 G	30780277.44	30780277.54	30780277.64	0.0515	0.0441
Mercury	79562-08-27 10:20 G	30780721.80	30780721.93	30780722.06	0.0499	0.0174
Mercury	79562-11-24 18:44 G	30780811.26	30780811.28	30780811.30	0.0497	0.0491
Venus	79566-08-11 09:36 G	30782166.72	30782166.90	30782167.09	0.0497	0.0216
Venus	79567-04-04 12:44 G	30782402.84	30782403.03	30782403.23	0.0505	0.0139
Venus	79567-11-27 00:58 G	30782639.50	30782639.54	30782639.58	0.0514	0.0504
Mercury	79569-01-25 06:58 G	30783064.67	30783064.79	30783064.91	0.0530	0.0357
Venus	79571-10-24 17:32 G	30784067.17	30784067.23	30784067.30	0.0535	0.0507
Venus	79572-06-18 23:17 G	30784305.26	30784305.47	30784305.67	0.0527	0.0076
Venus	79573-02-11 19:12 G	30784543.15	30784543.30	30784543.46	0.0518	0.0339
Mercury	79574-06-15 14:10 G	30785031.99	30785032.09	30785032.20	0.0500	0.0331
Mercury	79574-09-12 22:20 G	30785121.33	30785121.43	30785121.54	0.0497	0.0330
Venus	79578-04-16 13:12 G	30786432.89	30786433.05	30786433.20	0.0496	0.0308
Venus	79578-12-08 14:10 G	30786668.89	30786669.09	30786669.30	0.0503	0.0040
Venus	79579-08-02 00:00 G	30786905.38	30786905.50	30786905.63	0.0512	0.0405
Earth	79579-10-27 00:44 G	30786991.33	30786991.53	30786991.74	0.0515	0.0224
Moon	79579-10-27 03:36 G	30786991.44	30786991.65	30786991.87	0.0515	0.0209 *
Mercury	79580-11-13 06:29 G	30787374.62	30787374.77	30787374.93	0.0530	0.0134
Venus	79584-02-22 13:27 G	30788570.87	30788571.06	30788571.25	0.0529	0.0194
Venus	79584-10-17 12:15 G	30788808.82	30788809.01	30788809.19	0.0520	0.0231
Earth	79585-04-23 11:17 G	30788996.80	30788996.97	30788997.14	0.0513	0.0357
Moon	79585-04-23 11:46 G	30788996.82	30788996.99	30788997.16	0.0513	0.0372 *
Mercury	79586-04-03 18:15 G	30789342.23	30789342.26	30789342.28	0.0500	0.0489
Mercury	79586-07-02 01:56 G	30789431.45	30789431.58	30789431.72	0.0498	0.0169
Venus	79589-12-20 18:15 G	30790699.15	30790699.26	30790699.39	0.0494	0.0396
Venus	79590-08-13 18:00 G	30790935.05	30790935.25	30790935.45	0.0501	0.0060
Venus	79591-04-07 01:12 G	30791171.39	30791171.55	30791171.71	0.0509	0.0305
Moon	79591-10-31 15:51 G	30791378.96	30791379.16	30791379.36	0.0517	0.0236
Earth	79591-10-31 19:27 G	30791379.12	30791379.31	30791379.52	0.0517	0.0266 *

Mercury	79592-09-01 06:15 G	30791684.60	30791684.76	30791684.92	0.0529	0.0091
Venus	79595-10-27 23:32 G	30792836.32	30792836.48	30792836.65	0.0531	0.0316
Venus	79596-06-22 00:29 G	30793074.32	30793074.52	30793074.73	0.0523	0.0115
Venus	79597-02-14 15:36 G	30793312.11	30793312.15	30793312.19	0.0514	0.0501
Moon	79597-04-28 00:00 G	30793384.27	30793384.50	30793384.73	0.0511	0.0077
Earth	79597-04-28 02:39 G	30793384.38	30793384.61	30793384.84	0.0511	0.0103 *
Mercury	79598-04-20 05:03 G	30793741.57	30793741.71	30793741.85	0.0499	0.0018
Mars	79599-07-09 23:03 G	30794187.20	30794187.46	30794187.72	0.0489	0.0097
Venus	79601-08-25 23:03 G	30794965.42	30794965.46	30794965.51	0.0493	0.0479
Venus	79602-04-18 21:08 G	30795201.19	30795201.38	30795201.57	0.0499	0.0154
Venus	79602-12-11 01:56 G	30795437.40	30795437.58	30795437.77	0.0507	0.0205
Mercury	79604-06-20 05:03 G	30795994.58	30795994.71	30795994.84	0.0528	0.0327
Venus	79607-07-02 10:34 G	30797101.83	30797101.94	30797102.07	0.0533	0.0437
Venus	79608-02-25 14:24 G	30797339.89	30797340.10	30797340.31	0.0525	0.0004
Venus	79608-10-20 08:24 G	30797577.72	30797577.85	30797577.98	0.0516	0.0401
Mercury	79610-02-06 08:39 G	30798051.73	30798051.86	30798051.99	0.0499	0.0173
Mercury	79610-05-06 17:03 G	30798141.19	30798141.21	30798141.22	0.0497	0.0493
Venus	79613-12-22 23:32 G	30799467.31	30799467.48	30799467.66	0.0497	0.0249
Venus	79614-08-16 01:56 G	30799703.38	30799703.58	30799703.77	0.0504	0.0103
Venus	79615-04-09 12:44 G	30799939.95	30799940.03	30799940.11	0.0513	0.0467
Mercury	79616-07-07 05:32 G	30800394.62	30800394.73	30800394.85	0.0530	0.0369
Venus	79619-10-31 03:51 G	30801605.47	30801605.66	30801605.87	0.0528	0.0124
Venus	79620-06-25 01:27 G	30801843.39	30801843.56	30801843.73	0.0519	0.0296
Mercury	79621-11-25 12:29 G	30802361.92	30802362.02	30802362.13	0.0500	0.0329
Mercury	79622-02-22 20:39 G	30802451.26	30802451.36	30802451.47	0.0497	0.0334
Venus	79625-08-28 03:08 G	30803733.49	30803733.63	30803733.78	0.0495	0.0340
Venus	79626-04-21 03:22 G	30803969.44	30803969.64	30803969.84	0.0502	0.0005
Venus	79626-12-13 11:17 G	30804205.84	30804205.97	30804206.12	0.0510	0.0367
Mercury	79628-04-25 04:34 G	30804704.54	30804704.69	30804704.85	0.0529	0.0136
Venus	79631-07-05 18:00 G	30805871.07	30805871.25	30805871.44	0.0530	0.0243

Venus	79632-02-28 18:29 G	30806109.08	30806109.27	30806109.46	0.0522	0.0187
Mercury	79633-09-13 16:34 G	30806672.16	30806672.19	30806672.22	0.0500	0.0485
Mercury	79633-12-12 00:29 G	30806761.39	30806761.52	30806761.65	0.0498	0.0173
Venus	79637-05-03 06:58 G	30807999.70	30807999.79	30807999.89	0.0493	0.0428
Venus	79637-12-25 05:32 G	30808235.53	30808235.73	30808235.93	0.0500	0.0097
Venus	79638-08-18 11:32 G	30808471.81	30808471.98	30808472.15	0.0508	0.0265
Mercury	79640-02-12 04:05 G	30809014.50	30809014.67	30809014.83	0.0529	0.0094
Venus	79643-03-10 07:27 G	30810136.66	30810136.81	30810136.96	0.0532	0.0361
Venus	79643-11-03 10:05 G	30810374.71	30810374.92	30810375.12	0.0524	0.0073
Venus	79644-06-28 02:24 G	30810612.52	30810612.60	30810612.69	0.0515	0.0468
Mercury	79645-09-30 04:20 G	30811071.54	30811071.68	30811071.82	0.0498	0.0020
Venus	79649-08-30 09:36 G	30812501.72	30812501.90	30812502.09	0.0498	0.0191
Venus	79650-04-23 13:27 G	30812737.87	30812738.06	30812738.25	0.0506	0.0166
Mercury	79651-12-01 03:36 G	30813324.51	30813324.65	30813324.78	0.0528	0.0317
Mars	79653-01-09 21:36 G	30813730.12	30813730.40	30813730.68	0.0539	0.0140
Venus	79654-11-12 17:17 G	30814402.14	30814402.22	30814402.31	0.0534	0.0479
Venus	79655-07-08 21:51 G	30814640.20	30814640.41	30814640.61	0.0526	0.0049
Venus	79656-03-02 16:48 G	30814878.06	30814878.20	30814878.35	0.0517	0.0363
Mercury	79657-07-19 07:12 G	30815381.67	30815381.80	30815381.93	0.0499	0.0167
Venus	79661-05-05 13:27 G	30816767.90	30816768.06	30816768.23	0.0496	0.0283
Venus	79661-12-27 15:08 G	30817003.94	30817004.13	30817004.34	0.0504	0.0068
Venus	79662-08-21 01:27 G	30817240.46	30817240.56	30817240.67	0.0512	0.0432
Moon	79662-10-26 06:15 G	30817306.57	30817306.76	30817306.96	0.0515	0.0267
Earth	79662-10-26 10:05 G	30817306.73	30817306.92	30817307.12	0.0515	0.0278 *
Mercury	79663-12-18 04:48 G	30817724.60	30817724.70	30817724.81	0.0530	0.0397
Venus	79667-03-13 10:05 G	30818905.73	30818905.92	30818906.12	0.0529	0.0170
Venus	79667-11-06 08:10 G	30819143.66	30819143.84	30819144.02	0.0520	0.0254
Moon	79668-04-22 06:58 G	30819311.72	30819311.79	30819311.88	0.0513	0.0480
Earth	79668-04-22 09:22 G	30819311.78	30819311.89	30819311.99	0.0513	0.0455 *
Mercury	79669-05-07 10:48 G	30819691.85	30819691.95	30819692.05	0.0500	0.0331

Mercury	79669-08-04 18:58 G	30819781.18	30819781.29	30819781.39	0.0497	0.0332
Venus	79673-01-08 16:34 G	30821034.07	30821034.19	30821034.33	0.0494	0.0374
Venus	79673-09-01 16:05 G	30821269.97	30821270.17	30821270.38	0.0501	0.0036
Venus	79674-04-25 23:03 G	30821506.32	30821506.46	30821506.62	0.0509	0.0330
Earth	79674-10-30 22:34 G	30821694.22	30821694.44	30821694.65	0.0517	0.0182
Moon	79674-10-31 02:24 G	30821694.38	30821694.60	30821694.82	0.0517	0.0154 *
Mercury	79675-10-06 03:08 G	30822034.47	30822034.63	30822034.78	0.0529	0.0146
Venus	79678-11-15 22:05 G	30823171.25	30823171.42	30823171.59	0.0531	0.0292
Venus	79679-07-11 23:32 G	30823409.28	30823409.48	30823409.68	0.0523	0.0140
Earth	79680-04-27 06:15 G	30823699.53	30823699.76	30823700.00	0.0512	0.0032
Moon	79680-04-27 10:05 G	30823699.68	30823699.92	30823700.16	0.0512	0.0010 *
Mercury	79681-02-23 14:39 G	30824002.09	30824002.11	30824002.15	0.0501	0.0487
Mercury	79681-05-23 22:34 G	30824091.31	30824091.44	30824091.58	0.0498	0.0172
Venus	79684-09-13 20:53 G	30825300.30	30825300.37	30825300.45	0.0493	0.0459
Venus	79685-05-07 18:29 G	30825536.08	30825536.27	30825536.47	0.0499	0.0132
Venus	79685-12-29 23:03 G	30825772.28	30825772.46	30825772.64	0.0507	0.0228
Mercury	79687-07-25 01:56 G	30826344.42	30826344.58	30826344.74	0.0529	0.0094
Venus	79690-07-21 10:48 G	30827436.83	30827436.95	30827437.09	0.0533	0.0411
Venus	79691-03-16 14:53 G	30827674.92	30827675.12	30827675.33	0.0525	0.0027
Venus	79691-11-09 08:53 G	30827912.77	30827912.87	30827912.99	0.0516	0.0429
Mercury	79693-03-12 02:24 G	30828401.46	30828401.60	30828401.74	0.0498	0.0013
Venus	79697-01-10 21:22 G	30829802.21	30829802.39	30829802.57	0.0497	0.0227
Venus	79697-09-03 23:46 G	30830038.30	30830038.49	30830038.69	0.0505	0.0126
Venus	79698-04-28 11:03 G	30830274.91	30830274.96	30830275.02	0.0514	0.0491
Mercury	79699-05-13 00:44 G	30830654.41	30830654.53	30830654.67	0.0528	0.0327
Venus	79702-03-26 23:17 G	30831702.44	30831702.47	30831702.51	0.0535	0.0526
Venus	79702-11-20 05:32 G	30831940.53	30831940.73	30831940.93	0.0528	0.0094
Venus	79703-07-16 02:24 G	30832178.44	30832178.60	30832178.76	0.0519	0.0324
Mercury	79704-12-30 06:15 G	30832711.63	30832711.76	30832711.89	0.0499	0.0150
Venus	79708-09-17 01:56 G	30834068.43	30834068.58	30834068.74	0.0495	0.0318

Venus	79709-05-11 02:39 G	30834304.41	30834304.61	30834304.81	0.0502	0.0027
Venus	79710-01-02 11:32 G	30834540.85	30834540.98	30834541.11	0.0511	0.0393
Mercury	79711-05-31 02:53 G	30835054.52	30835054.62	30835054.73	0.0530	0.0402
Venus	79714-07-25 16:48 G	30836206.01	30836206.20	30836206.39	0.0529	0.0215
Venus	79715-03-20 15:51 G	30836443.98	30836444.16	30836444.35	0.0521	0.0212
Mercury	79716-10-18 09:08 G	30837021.78	30837021.88	30837021.99	0.0500	0.0327
Mercury	79717-01-15 17:17 G	30837111.11	30837111.22	30837111.32	0.0497	0.0335
Venus	79720-05-23 06:00 G	30838334.64	30838334.75	30838334.86	0.0494	0.0406
Venus	79721-01-14 05:03 G	30838570.52	30838570.71	30838570.92	0.0500	0.0072
Venus	79721-09-07 11:46 G	30838806.82	30838806.99	30838807.15	0.0509	0.0293
Mercury	79723-03-19 02:10 G	30839364.43	30839364.59	30839364.74	0.0529	0.0168
Venus	79726-03-30 04:05 G	30840471.51	30840471.67	30840471.83	0.0532	0.0337
Venus	79726-11-23 05:46 G	30840709.54	30840709.74	30840709.95	0.0524	0.0096
Venus	79727-07-18 21:36 G	30840947.34	30840947.40	30840947.47	0.0514	0.0488
Mercury	79728-08-06 12:44 G	30841332.01	30841332.03	30841332.06	0.0501	0.0491
Mercury	79728-11-03 20:39 G	30841421.23	30841421.36	30841421.49	0.0498	0.0167
Venus	79732-01-27 09:51 G	30842600.91	30842600.91	30842600.92	0.0492	0.0491
Venus	79732-09-19 06:58 G	30842836.61	30842836.79	30842836.99	0.0498	0.0169
Venus	79733-05-13 10:48 G	30843072.76	30843072.95	30843073.13	0.0506	0.0189
Mercury	79735-01-05 00:00 G	30843674.34	30843674.50	30843674.66	0.0528	0.0088
Venus	79737-12-02 14:24 G	30844737.00	30844737.10	30844737.21	0.0534	0.0458
Venus	79738-07-28 19:12 G	30844975.10	30844975.30	30844975.51	0.0526	0.0027
Venus	79739-03-23 14:53 G	30845212.98	30845213.12	30845213.25	0.0518	0.0387
Mercury	79740-08-23 00:29 G	30845731.38	30845731.52	30845731.66	0.0499	0.0007
Venus	79744-05-25 10:20 G	30847102.76	30847102.93	30847103.10	0.0496	0.0262
Venus	79745-01-16 11:46 G	30847338.79	30847338.99	30847339.19	0.0503	0.0088
Venus	79745-09-09 21:36 G	30847575.31	30847575.40	30847575.49	0.0512	0.0452
Earth	79745-10-26 10:05 G	30847621.76	30847621.92	30847622.08	0.0514	0.0371
Moon	79745-10-26 13:56 G	30847621.92	30847622.08	30847622.25	0.0514	0.0359 *
Mercury	79746-10-23 22:34 G	30847984.31	30847984.44	30847984.57	0.0528	0.0330

Venus	79750-04-02 09:08 G	30849240.69	30849240.88	30849241.08	0.0529	0.0145
Venus	79750-11-26 07:41 G	30849478.65	30849478.82	30849479.00	0.0520	0.0280
Mercury	79752-06-11 04:20 G	30850041.55	30850041.68	30850041.81	0.0499	0.0152
Mars	79753-10-03 18:44 G	30850521.06	30850521.28	30850521.50	0.0489	0.0276
Venus	79756-01-29 13:41 G	30851368.93	30851369.07	30851369.21	0.0494	0.0353
Venus	79756-09-21 13:12 G	30851604.85	30851605.05	30851605.25	0.0501	0.0015
Venus	79757-05-15 20:24 G	30851841.21	30851841.35	30851841.50	0.0510	0.0352
Moon	79757-10-30 21:36 G	30852009.17	30852009.40	30852009.63	0.0516	0.0069
Earth	79757-10-31 00:58 G	30852009.32	30852009.54	30852009.77	0.0516	0.0099 *
Mercury	79758-11-10 00:15 G	30852384.40	30852384.51	30852384.62	0.0530	0.0387
Venus	79761-12-05 22:48 G	30853506.27	30853506.45	30853506.63	0.0531	0.0263
Venus	79762-07-31 23:46 G	30853744.30	30853744.49	30853744.69	0.0523	0.0169
Moon	79763-04-28 06:44 G	30854014.55	30854014.78	30854015.02	0.0512	0.0067
Earth	79763-04-28 10:48 G	30854014.72	30854014.95	30854015.19	0.0512	0.0040 *
Mercury	79764-03-30 08:10 G	30854351.73	30854351.84	30854351.95	0.0500	0.0313
Mercury	79764-06-27 16:05 G	30854441.07	30854441.17	30854441.27	0.0497	0.0349
Venus	79767-10-04 18:15 G	30855635.18	30855635.26	30855635.36	0.0493	0.0440
Venus	79768-05-27 16:34 G	30855870.99	30855871.19	30855871.39	0.0499	0.0109
Venus	79769-01-18 21:36 G	30856107.23	30856107.40	30856107.58	0.0507	0.0252
Mercury	79770-08-29 00:00 G	30856694.34	30856694.50	30856694.65	0.0530	0.0166
Venus	79773-08-10 09:51 G	30857771.77	30857771.91	30857772.05	0.0533	0.0384
Venus	79774-04-05 12:44 G	30858009.82	30858010.03	30858010.23	0.0525	0.0050
Venus	79774-11-29 05:46 G	30858247.64	30858247.74	30858247.84	0.0515	0.0450
Earth	79775-05-03 02:24 G	30858402.47	30858402.60	30858402.74	0.0510	0.0418
Moon	79775-05-03 06:00 G	30858402.64	30858402.75	30858402.87	0.0510	0.0440 *
Mercury	79776-01-17 11:17 G	30858661.94	30858661.97	30858662.00	0.0501	0.0488
Mercury	79776-04-15 18:58 G	30858751.16	30858751.29	30858751.42	0.0498	0.0169
Venus	79780-01-31 19:41 G	30860137.13	30860137.32	30860137.50	0.0498	0.0204
Venus	79780-09-23 22:48 G	30860373.26	30860373.45	30860373.64	0.0505	0.0152
Mercury	79782-06-16 23:03 G	30861004.29	30861004.46	30861004.62	0.0529	0.0070

Venus	79785-04-14 20:10 G	30862037.28	30862037.34	30862037.41	0.0534	0.0503
Venus	79785-12-09 01:27 G	30862275.36	30862275.56	30862275.76	0.0527	0.0070
Venus	79786-08-03 21:36 G	30862513.25	30862513.40	30862513.55	0.0518	0.0345
Mercury	79788-02-02 22:34 G	30863061.30	30863061.44	30863061.58	0.0499	0.0015
Venus	79791-10-06 22:34 G	30864403.28	30864403.44	30864403.60	0.0495	0.0299
Venus	79792-05-29 23:17 G	30864639.27	30864639.47	30864639.67	0.0502	0.0050
Venus	79793-01-21 07:56 G	30864875.71	30864875.83	30864875.95	0.0511	0.0413
Mercury	79794-04-04 20:39 G	30865314.23	30865314.36	30865314.49	0.0528	0.0328
Venus	79797-08-13 12:58 G	30866540.85	30866541.04	30866541.23	0.0530	0.0194
Venus	79798-04-08 12:29 G	30866778.84	30866779.02	30866779.21	0.0521	0.0235
Mercury	79799-11-22 02:10 G	30867371.46	30867371.59	30867371.73	0.0500	0.0159
Venus	79803-06-13 02:24 G	30868669.48	30868669.60	30868669.73	0.0494	0.0387
Venus	79804-02-04 01:12 G	30868905.35	30868905.55	30868905.75	0.0500	0.0050
Venus	79804-09-27 07:12 G	30869141.64	30869141.80	30869141.96	0.0508	0.0313
Mercury	79806-04-22 21:51 G	30869714.29	30869714.41	30869714.52	0.0530	0.0380
Mars	79807-04-07 03:08 G	30870063.39	30870063.63	30870063.88	0.0539	0.0268
Venus	79809-04-19 01:27 G	30870806.40	30870806.56	30870806.73	0.0532	0.0316
Venus	79809-12-13 04:05 G	30871044.47	30871044.67	30871044.87	0.0524	0.0120
Venus	79810-08-07 20:10 G	30871282.33	30871282.34	30871282.37	0.0515	0.0511
Mercury	79811-09-11 06:15 G	30871681.65	30871681.76	30871681.86	0.0500	0.0317
Mercury	79811-12-09 14:10 G	30871770.99	30871771.09	30871771.19	0.0497	0.0345
Venus	79815-02-16 06:15 G	30872935.71	30872935.76	30872935.81	0.0492	0.0473
Venus	79815-10-10 03:08 G	30873171.44	30873171.63	30873171.83	0.0498	0.0149
Venus	79816-06-02 06:58 G	30873407.61	30873407.79	30873407.97	0.0506	0.0210
Mercury	79818-02-08 20:53 G	30874024.21	30874024.37	30874024.52	0.0529	0.0148
Venus	79820-12-22 14:10 G	30875071.98	30875072.09	30875072.21	0.0534	0.0433
Venus	79821-08-17 18:58 G	30875310.09	30875310.29	30875310.50	0.0526	0.0004
Venus	79822-04-12 13:56 G	30875547.96	30875548.08	30875548.21	0.0517	0.0412
Mercury	79823-06-30 10:05 G	30875991.88	30875991.92	30875991.96	0.0501	0.0477
Mercury	79823-09-27 17:46 G	30876081.11	30876081.24	30876081.37	0.0498	0.0180

Venus	79827-06-15 07:12 G	30877437.62	30877437.80	30877437.98	0.0496	0.0242
Venus	79828-02-06 09:08 G	30877673.68	30877673.88	30877674.07	0.0504	0.0111
Venus	79828-09-29 19:27 G	30877910.24	30877910.31	30877910.39	0.0513	0.0476
Moon	79828-10-26 10:05 G	30877936.81	30877936.92	30877937.05	0.0514	0.0439
Earth	79828-10-26 13:56 G	30877936.97	30877937.08	30877937.19	0.0514	0.0448 *
Mercury	79829-11-27 20:24 G	30878334.19	30878334.35	30878334.51	0.0529	0.0077
Venus	79833-04-22 07:12 G	30879575.61	30879575.80	30879576.01	0.0528	0.0119
Venus	79833-12-16 04:48 G	30879813.53	30879813.70	30879813.87	0.0519	0.0303
Mercury	79835-07-16 20:39 G	30880391.22	30880391.36	30880391.50	0.0498	0.0012
Venus	79839-02-18 10:34 G	30881703.80	30881703.94	30881704.09	0.0495	0.0334
Venus	79839-10-12 10:48 G	30881939.75	30881939.95	30881940.16	0.0502	0.0016
Venus	79840-06-04 18:58 G	30882176.16	30882176.29	30882176.42	0.0510	0.0376
Earth	79840-10-31 05:46 G	30882324.51	30882324.74	30882324.97	0.0516	0.0025
Moon	79840-10-31 07:41 G	30882324.60	30882324.82	30882325.04	0.0516	0.0006 *
Mercury	79841-09-15 19:12 G	30882644.17	30882644.30	30882644.43	0.0528	0.0314
Venus	79844-12-25 19:12 G	30883841.12	30883841.30	30883841.48	0.0530	0.0240
Venus	79845-08-20 19:12 G	30884079.11	30884079.30	30884079.50	0.0522	0.0191
Earth	79846-04-28 06:58 G	30884329.56	30884329.79	30884330.02	0.0512	0.0146
Moon	79846-04-28 10:48 G	30884329.73	30884329.95	30884330.17	0.0512	0.0167 *
Mercury	79847-05-05 00:15 G	30884701.38	30884701.51	30884701.64	0.0499	0.0164
Venus	79850-10-24 14:10 G	30885970.00	30885970.09	30885970.20	0.0493	0.0423
Venus	79851-06-17 12:44 G	30886205.83	30886206.03	30886206.23	0.0499	0.0089
Venus	79852-02-08 17:46 G	30886442.07	30886442.24	30886442.41	0.0507	0.0272
Moon	79852-11-04 18:29 G	30886712.18	30886712.27	30886712.35	0.0518	0.0480
Earth	79852-11-04 18:29 G	30886712.20	30886712.27	30886712.34	0.0518	0.0489 *
Mercury	79853-10-02 19:27 G	30887044.21	30887044.31	30887044.43	0.0530	0.0381
Venus	79856-08-30 04:48 G	30888106.56	30888106.70	30888106.85	0.0533	0.0366
Venus	79857-04-25 08:24 G	30888344.64	30888344.85	30888345.05	0.0525	0.0071
Venus	79857-12-19 01:56 G	30888582.50	30888582.58	30888582.66	0.0516	0.0470
Moon	79858-05-02 23:17 G	30888717.30	30888717.47	30888717.65	0.0511	0.0351

Earth	79858-05-03 01:56 G	30888717.41	30888717.58	30888717.76	0.0511	0.0330 *
Mercury	79859-02-21 04:05 G	30889011.56	30889011.67	30889011.77	0.0500	0.0324
Mercury	79859-05-21 12:00 G	30889100.90	30889101.00	30889101.10	0.0498	0.0338
Venus	79863-02-20 15:36 G	30890471.96	30890472.15	30890472.34	0.0497	0.0186
Venus	79863-10-14 18:15 G	30890708.07	30890708.26	30890708.45	0.0505	0.0171
Mercury	79865-07-21 18:15 G	30891354.11	30891354.26	30891354.42	0.0529	0.0141
Venus	79868-05-04 16:05 G	30892372.09	30892372.17	30892372.26	0.0535	0.0485
Venus	79868-12-28 22:20 G	30892610.22	30892610.43	30892610.63	0.0528	0.0048
Venus	79869-08-23 19:12 G	30892848.16	30892848.30	30892848.44	0.0519	0.0368
Mercury	79870-12-10 07:56 G	30893321.80	30893321.83	30893321.87	0.0501	0.0483
Mercury	79871-03-09 15:51 G	30893411.03	30893411.16	30893411.29	0.0498	0.0176
Venus	79874-10-26 18:15 G	30894738.09	30894738.26	30894738.43	0.0495	0.0279
Venus	79875-06-19 18:58 G	30894974.09	30894974.29	30894974.49	0.0502	0.0069
Venus	79876-02-11 03:36 G	30895210.55	30895210.65	30895210.76	0.0511	0.0434
Mercury	79877-05-09 17:17 G	30895664.05	30895664.22	30895664.38	0.0529	0.0098
Venus	79880-09-02 12:00 G	30896875.81	30896876.00	30896876.20	0.0530	0.0169
Venus	79881-04-28 11:32 G	30897113.81	30897113.98	30897114.16	0.0521	0.0260
Mercury	79882-12-26 19:27 G	30897721.17	30897721.31	30897721.45	0.0499	0.0013
Venus	79886-07-01 22:48 G	30899004.31	30899004.45	30899004.58	0.0494	0.0369
Venus	79887-02-22 21:36 G	30899240.20	30899240.40	30899240.61	0.0500	0.0032
Venus	79887-10-17 04:05 G	30899476.53	30899476.67	30899476.83	0.0509	0.0335
Mercury	79889-02-25 16:34 G	30899974.06	30899974.19	30899974.32	0.0528	0.0325
Venus	79892-05-08 00:15 G	30901141.34	30901141.51	30901141.68	0.0531	0.0289
Venus	79893-01-01 01:56 G	30901379.38	30901379.58	30901379.77	0.0523	0.0145
Mercury	79894-10-14 22:34 G	30902031.31	30902031.44	30902031.57	0.0499	0.0162
Venus	79898-03-07 02:24 G	30903270.53	30903270.60	30903270.67	0.0493	0.0456
Venus	79898-10-29 00:15 G	30903506.31	30903506.51	30903506.70	0.0499	0.0128
Venus	79899-06-22 04:48 G	30903742.52	30903742.70	30903742.88	0.0507	0.0234
Mercury	79901-03-15 18:15 G	30904374.16	30904374.26	30904374.37	0.0530	0.0394
Venus	79904-01-12 11:17 G	30905406.85	30905406.97	30905407.10	0.0533	0.0411

Venus	79904-09-06 15:08 G	30905644.93	30905645.13	30905645.34	0.0526	0.0027
Venus	79905-05-02 09:22 G	30905882.78	30905882.89	30905883.01	0.0517	0.0432
Mercury	79906-08-04 02:10 G	30906341.49	30906341.59	30906341.69	0.0500	0.0328
Mercury	79906-11-01 10:05 G	30906430.82	30906430.92	30906431.02	0.0497	0.0333
Venus	79910-07-05 03:08 G	30907772.46	30907772.63	30907772.82	0.0496	0.0224
Venus	79911-02-26 05:03 G	30908008.52	30908008.71	30908008.91	0.0504	0.0131
Venus	79911-10-20 15:08 G	30908245.09	30908245.13	30908245.19	0.0512	0.0495
Mercury	79913-01-01 16:20 G	30908684.02	30908684.18	30908684.33	0.0529	0.0140
Venus	79915-09-16 19:41 G	30909672.30	30909672.32	30909672.34	0.0535	0.0533
Venus	79916-05-12 02:10 G	30909910.39	30909910.59	30909910.80	0.0528	0.0100
Venus	79917-01-05 00:15 G	30910148.36	30910148.51	30910148.68	0.0520	0.0324
Mercury	79918-05-23 06:00 G	30910651.72	30910651.75	30910651.78	0.0501	0.0489
Mercury	79918-08-20 13:41 G	30910740.94	30910741.07	30910741.20	0.0498	0.0170
Venus	79922-03-10 06:58 G	30912038.64	30912038.79	30912038.95	0.0495	0.0316
Venus	79922-11-01 06:44 G	30912274.58	30912274.78	30912274.98	0.0501	0.0030
Venus	79923-06-25 14:10 G	30912510.97	30912511.09	30912511.22	0.0510	0.0394
Moon	79923-11-01 03:08 G	30912639.40	30912639.63	30912639.87	0.0515	0.0108
Earth	79923-11-01 03:36 G	30912639.42	30912639.65	30912639.88	0.0515	0.0077 *
Mercury	79924-10-20 14:53 G	30912993.95	30912994.12	30912994.28	0.0528	0.0103
Venus	79928-01-15 14:53 G	30914175.94	30914176.12	30914176.31	0.0531	0.0221
Venus	79928-09-09 15:51 G	30914413.98	30914414.16	30914414.35	0.0522	0.0212
Moon	79929-04-28 04:20 G	30914644.47	30914644.68	30914644.89	0.0513	0.0249
Earth	79929-04-28 07:27 G	30914644.60	30914644.81	30914645.02	0.0513	0.0230 *
Mercury	79930-06-08 17:32 G	30915051.09	30915051.23	30915051.37	0.0499	0.0014
Venus	79933-11-13 10:20 G	30916304.82	30916304.93	30916305.05	0.0493	0.0404
Venus	79934-07-07 08:24 G	30916540.65	30916540.85	30916541.05	0.0499	0.0069
Venus	79935-02-28 13:27 G	30916776.90	30916777.06	30916777.22	0.0507	0.0293
Moon	79935-11-05 16:34 G	30917027.05	30917027.19	30917027.34	0.0517	0.0387
Earth	79935-11-05 17:46 G	30917027.09	30917027.24	30917027.39	0.0517	0.0392 *
Mercury	79936-08-08 13:12 G	30917303.93	30917304.05	30917304.18	0.0528	0.0345

Venus	79939-09-20 03:51 G	30918441.50	30918441.66	30918441.82	0.0533	0.0341
Venus	79940-05-15 07:12 G	30918679.60	30918679.80	30918680.01	0.0525	0.0098
Venus	79941-01-08 00:44 G	30918917.48	30918917.53	30918917.59	0.0516	0.0494
Earth	79941-05-03 04:34 G	30919032.49	30919032.69	30919032.90	0.0511	0.0254
Moon	79941-05-03 05:32 G	30919032.54	30919032.73	30919032.92	0.0511	0.0284 *
Mercury	79942-03-27 21:08 G	30919361.25	30919361.38	30919361.52	0.0499	0.0154
Venus	79945-07-19 15:08 G	30920571.12	30920571.13	30920571.15	0.0492	0.0489
Venus	79946-03-12 11:46 G	30920806.80	30920806.99	30920807.18	0.0497	0.0166
Venus	79946-11-03 14:39 G	30921042.93	30921043.11	30921043.30	0.0505	0.0193
Mercury	79948-08-25 15:36 G	30921704.04	30921704.15	30921704.26	0.0530	0.0383
Venus	79951-05-25 15:51 G	30922707.06	30922707.16	30922707.26	0.0534	0.0459
Venus	79952-01-18 21:08 G	30922945.17	30922945.38	30922945.58	0.0527	0.0022
Venus	79952-09-12 17:03 G	30923183.07	30923183.21	30923183.34	0.0518	0.0391
Mercury	79954-01-14 00:29 G	30923671.42	30923671.52	30923671.63	0.0500	0.0325
Mercury	79954-04-13 08:24 G	30923760.75	30923760.85	30923760.95	0.0497	0.0335
Venus	79957-11-15 14:39 G	30925072.95	30925073.11	30925073.29	0.0496	0.0261
Venus	79958-07-09 16:20 G	30925308.98	30925309.18	30925309.38	0.0503	0.0092
Venus	79959-03-03 01:56 G	30925545.49	30925545.58	30925545.67	0.0512	0.0457
Mercury	79960-06-13 14:53 G	30926013.96	30926014.12	30926014.27	0.0529	0.0153
Venus	79963-09-23 09:22 G	30927210.70	30927210.89	30927211.09	0.0529	0.0145
Venus	79964-05-18 07:56 G	30927448.67	30927448.83	30927449.01	0.0520	0.0283
Mercury	79965-11-02 04:05 G	30927981.65	30927981.67	30927981.70	0.0501	0.0489
Mercury	79966-01-30 11:46 G	30928070.86	30928070.99	30928071.13	0.0498	0.0168
Venus	79969-07-21 18:58 G	30929339.15	30929339.29	30929339.43	0.0494	0.0352
Venus	79970-03-14 18:15 G	30929575.05	30929575.26	30929575.46	0.0501	0.0015
Venus	79970-11-06 00:29 G	30929811.38	30929811.52	30929811.67	0.0509	0.0354
Mercury	79972-04-01 12:44 G	30930323.87	30930324.03	30930324.19	0.0528	0.0101
Venus	79975-05-28 18:58 G	30931476.11	30931476.29	30931476.46	0.0532	0.0272
Venus	79976-01-21 21:08 G	30931714.18	30931714.38	30931714.57	0.0524	0.0164
Mercury	79977-11-18 15:22 G	30932381.00	30932381.14	30932381.28	0.0499	0.0015

Venus	79981-03-26 23:32 G	30933605.40	30933605.48	30933605.57	0.0492	0.0439
Venus	79981-11-17 20:53 G	30933841.17	30933841.37	30933841.57	0.0498	0.0108
Venus	79982-07-12 00:58 G	30934077.36	30934077.54	30934077.71	0.0506	0.0253
Mercury	79984-01-19 11:03 G	30934633.84	30934633.96	30934634.09	0.0527	0.0346
Venus	79987-01-31 06:15 G	30935741.63	30935741.76	30935741.91	0.0534	0.0394
Venus	79987-09-26 11:03 G	30935979.76	30935979.96	30935980.17	0.0526	0.0047
Venus	79988-05-21 06:15 G	30936217.67	30936217.76	30936217.86	0.0517	0.0452
Mercury	79989-09-06 19:12 G	30936691.17	30936691.30	30936691.44	0.0500	0.0157
Venus	79993-07-23 23:32 G	30938107.29	30938107.48	30938107.66	0.0496	0.0204
Venus	79994-03-17 01:12 G	30938343.36	30938343.55	30938343.74	0.0504	0.0151
Mercury	79996-02-05 12:29 G	30939033.91	30939034.02	30939034.14	0.0530	0.0367
Venus	79998-10-05 18:29 G	30940007.21	30940007.27	30940007.33	0.0536	0.0510
Venus	79999-06-01 01:27 G	30940245.35	30940245.56	30940245.76	0.0529	0.0073
Venus	80000-01-24 23:32 G	30940483.33	30940483.48	30940483.63	0.0520	0.0349

81ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 81st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	80001-06-25 23:03 G	30941001.36	30941001.46	30941001.57	0.0500	0.0317		
Mercury	80001-09-23 06:58 G	30941090.70	30941090.79	30941090.90	0.0498	0.0346		
Venus	80005-03-29 03:22 G	30942373.48	30942373.64	30942373.80	0.0495	0.0296		
Venus	80005-11-20 03:22 G	30942609.44	30942609.64	30942609.84	0.0502	0.0052		
Venus	80006-07-14 11:17 G	30942845.85	30942845.97	30942846.08	0.0510	0.0416		

Moon	80006-10-31 04:48 G	30942954.50	30942954.70	30942954.91	0.0514	0.0195
Earth	80006-10-31 05:46 G	30942954.52	30942954.74	30942954.96	0.0514	0.0161 *
Mercury	80007-11-24 12:00 G	30943343.85	30943344.00	30943344.16	0.0529	0.0143
Venus	80011-02-03 14:53 G	30944510.93	30944511.12	30944511.31	0.0530	0.0194
Venus	80011-09-29 15:08 G	30944748.95	30944749.13	30944749.31	0.0522	0.0237
Earth	80012-04-27 09:08 G	30944959.69	30944959.88	30944960.07	0.0514	0.0312
Moon	80012-04-27 10:34 G	30944959.76	30944959.94	30944960.12	0.0514	0.0322 *
Mercury	80013-04-14 02:39 G	30945311.58	30945311.61	30945311.65	0.0501	0.0484
Mercury	80013-07-12 10:20 G	30945400.80	30945400.93	30945401.06	0.0498	0.0173
Venus	80016-12-02 06:58 G	30946639.67	30946639.79	30946639.92	0.0493	0.0387
Venus	80017-07-26 05:46 G	30946875.54	30946875.74	30946875.94	0.0500	0.0048
Venus	80018-03-19 11:17 G	30947111.82	30947111.97	30947112.14	0.0508	0.0316
Earth	80018-11-04 22:05 G	30947342.24	30947342.42	30947342.61	0.0517	0.0317
Moon	80018-11-05 00:29 G	30947342.34	30947342.52	30947342.71	0.0517	0.0315 *
Mercury	80019-09-12 11:17 G	30947653.81	30947653.97	30947654.13	0.0529	0.0089
Venus	80022-10-09 02:39 G	30948776.44	30948776.61	30948776.77	0.0532	0.0317
Venus	80023-06-04 05:03 G	30949014.52	30949014.71	30949014.92	0.0524	0.0122
Earth	80024-05-02 04:34 G	30949347.46	30949347.69	30949347.91	0.0511	0.0165
Moon	80024-05-02 04:48 G	30949347.48	30949347.70	30949347.93	0.0511	0.0197 *
Mercury	80025-04-30 13:56 G	30949710.94	30949711.08	30949711.22	0.0499	0.0007
Mars	80026-06-20 15:36 G	30950126.93	30950127.15	30950127.39	0.0489	0.0248
Venus	80028-08-07 12:00 G	30950905.95	30950906.00	30950906.06	0.0492	0.0473
Venus	80029-03-31 08:53 G	30951141.68	30951141.87	30951142.06	0.0498	0.0146
Venus	80029-11-22 12:00 G	30951377.82	30951378.00	30951378.18	0.0505	0.0212
Mercury	80031-07-01 09:08 G	30951963.76	30951963.88	30951964.01	0.0527	0.0341
Venus	80034-06-13 10:48 G	30953041.84	30953041.95	30953042.06	0.0535	0.0443
Venus	80035-02-06 16:20 G	30953279.98	30953280.18	30953280.39	0.0527	0.0005
Venus	80035-10-02 12:44 G	30953517.91	30953518.03	30953518.16	0.0518	0.0410
Mercury	80037-02-16 17:32 G	30954021.10	30954021.23	30954021.36	0.0500	0.0158
Venus	80040-12-04 12:44 G	30955407.86	30955408.03	30955408.21	0.0496	0.0240

Venus	80041-07-28 13:41 G	30955643.88	30955644.07	30955644.27	0.0503	0.0112
Venus	80042-03-21 22:34 G	30955880.37	30955880.44	30955880.52	0.0511	0.0475
Mercury	80043-07-18 10:34 G	30956363.83	30956363.94	30956364.06	0.0529	0.0370
Venus	80046-10-12 05:03 G	30957545.51	30957545.71	30957545.91	0.0530	0.0125
Venus	80047-06-07 04:34 G	30957783.53	30957783.69	30957783.86	0.0521	0.0303
Mercury	80048-12-05 21:22 G	30958331.29	30958331.39	30958331.50	0.0501	0.0317
Mercury	80049-03-05 05:17 G	30958420.62	30958420.72	30958420.82	0.0498	0.0345
Venus	80052-08-09 16:05 G	30959674.03	30959674.17	30959674.32	0.0494	0.0332
Venus	80053-04-02 14:53 G	30959909.92	30959910.12	30959910.32	0.0500	0.0013
Venus	80053-11-24 21:08 G	30960146.25	30960146.38	30960146.52	0.0509	0.0375
Mercury	80055-05-06 09:22 G	30960673.73	30960673.89	30960674.05	0.0529	0.0131
Venus	80058-06-16 18:29 G	30961811.09	30961811.27	30961811.45	0.0532	0.0246
Venus	80059-02-09 20:39 G	30962049.18	30962049.36	30962049.56	0.0524	0.0192
Mercury	80060-09-24 01:27 G	30962641.52	30962641.56	30962641.60	0.0501	0.0475
Mercury	80060-12-22 09:08 G	30962730.75	30962730.88	30962731.01	0.0498	0.0184
Venus	80064-04-14 20:39 G	30963940.26	30963940.36	30963940.47	0.0492	0.0419
Venus	80064-12-06 18:00 G	30964176.05	30964176.25	30964176.45	0.0498	0.0086
Venus	80065-07-30 22:05 G	30964412.26	30964412.42	30964412.59	0.0506	0.0276
Mercury	80067-02-22 08:39 G	30964983.70	30964983.86	30964984.03	0.0528	0.0098
Venus	80070-02-19 07:27 G	30966076.67	30966076.81	30966076.96	0.0534	0.0367
Venus	80070-10-15 11:46 G	30966314.78	30966314.99	30966315.19	0.0526	0.0075
Venus	80071-06-10 06:00 G	30966552.68	30966552.75	30966552.83	0.0516	0.0477
Mercury	80072-10-10 12:29 G	30967040.88	30967041.02	30967041.16	0.0499	0.0015
Venus	80076-08-11 21:08 G	30968442.20	30968442.38	30968442.57	0.0497	0.0183
Venus	80077-04-04 23:32 G	30968678.29	30968678.48	30968678.67	0.0504	0.0174
Mercury	80078-12-11 07:41 G	30969293.70	30969293.82	30969293.95	0.0528	0.0329
Venus	80081-10-24 18:58 G	30970342.20	30970342.29	30970342.37	0.0535	0.0486
Venus	80082-06-20 00:58 G	30970580.34	30970580.54	30970580.75	0.0528	0.0047
Venus	80083-02-12 22:20 G	30970818.29	30970818.43	30970818.57	0.0519	0.0373
Mercury	80084-07-29 16:05 G	30971351.04	30971351.17	30971351.30	0.0499	0.0150

Venus	80088-04-17 01:27 G	30972708.40	30972708.56	30972708.73	0.0495	0.0277
Venus	80088-12-09 01:41 G	30972944.37	30972944.57	30972944.77	0.0502	0.0072
Venus	80089-08-02 09:36 G	30973180.80	30973180.90	30973181.01	0.0510	0.0436
Earth	80089-10-30 09:51 G	30973269.71	30973269.91	30973270.12	0.0514	0.0231
Moon	80089-10-30 12:00 G	30973269.80	30973270.00	30973270.21	0.0514	0.0264 *
Mercury	80090-12-28 08:53 G	30973693.76	30973693.87	30973693.99	0.0529	0.0379
Venus	80094-02-22 10:34 G	30974845.75	30974845.94	30974846.14	0.0530	0.0175
Venus	80094-10-18 11:03 G	30975083.79	30975083.96	30975084.15	0.0522	0.0258
Earth	80095-04-27 08:10 G	30975274.70	30975274.84	30975274.99	0.0515	0.0402
Moon	80095-04-27 08:10 G	30975274.70	30975274.84	30975274.99	0.0515	0.0407 *
Mercury	80096-05-17 19:41 G	30975661.22	30975661.32	30975661.43	0.0501	0.0315
Mercury	80096-08-15 03:36 G	30975750.55	30975750.65	30975750.75	0.0498	0.0348
Venus	80099-12-22 06:15 G	30976974.64	30976974.76	30976974.90	0.0493	0.0366
Venus	80100-08-15 04:34 G	30977210.49	30977210.69	30977210.90	0.0499	0.0029
Venus	80101-04-08 09:51 G	30977446.76	30977446.91	30977447.06	0.0507	0.0336
Moon	80101-11-04 21:51 G	30977657.21	30977657.41	30977657.61	0.0515	0.0238
Earth	80101-11-05 00:58 G	30977657.34	30977657.54	30977657.75	0.0515	0.0238 *
Mercury	80102-10-17 07:56 G	30978003.67	30978003.83	30978003.98	0.0528	0.0142
Venus	80105-10-28 22:20 G	30979111.26	30979111.43	30979111.60	0.0533	0.0298
Venus	80106-06-24 01:41 G	30979349.37	30979349.57	30979349.77	0.0525	0.0142
Moon	80107-05-03 03:51 G	30979662.44	30979662.66	30979662.89	0.0513	0.0118
Earth	80107-05-03 05:32 G	30979662.50	30979662.73	30979662.96	0.0513	0.0086 *
Mercury	80108-03-06 23:46 G	30979971.45	30979971.49	30979971.53	0.0502	0.0474
Mercury	80108-06-04 07:27 G	30980060.68	30980060.81	30980060.94	0.0499	0.0186
Venus	80111-08-28 10:34 G	30981240.86	30981240.94	30981241.01	0.0492	0.0452
Venus	80112-04-20 06:58 G	30981476.59	30981476.79	30981476.98	0.0497	0.0124
Venus	80112-12-12 09:36 G	30981712.72	30981712.90	30981713.08	0.0505	0.0235
Mercury	80114-08-05 06:15 G	30982313.60	30982313.76	30982313.93	0.0528	0.0102
Venus	80117-07-03 10:48 G	30983376.83	30983376.95	30983377.08	0.0535	0.0417
Venus	80118-02-26 16:48 G	30983614.99	30983615.20	30983615.40	0.0527	0.0026

Venus	80118-10-22 13:12 G	30983852.94	30983853.05	30983853.16	0.0518	0.0437
Mercury	80120-03-23 11:17 G	30984370.83	30984370.97	30984371.11	0.0499	0.0027
Venus	80123-12-25 10:34 G	30985742.77	30985742.94	30985743.13	0.0496	0.0219
Venus	80124-08-17 11:32 G	30985978.79	30985978.98	30985979.18	0.0503	0.0136
Venus	80125-04-10 20:53 G	30986215.33	30986215.37	30986215.41	0.0512	0.0498
Mercury	80126-05-24 05:32 G	30986623.60	30986623.73	30986623.86	0.0527	0.0331
Venus	80129-03-07 23:32 G	30987642.47	30987642.48	30987642.51	0.0536	0.0534
Venus	80129-11-01 06:58 G	30987880.59	30987880.79	30987881.00	0.0529	0.0096
Venus	80130-06-27 05:46 G	30988118.59	30988118.74	30988118.91	0.0520	0.0331
Mercury	80132-01-10 14:53 G	30988680.99	30988681.12	30988681.25	0.0500	0.0139
Venus	80135-08-30 14:24 G	30990008.95	30990009.10	30990009.26	0.0494	0.0312
Venus	80136-04-22 13:56 G	30990244.87	30990245.08	30990245.28	0.0501	0.0036
Venus	80136-12-14 20:39 G	30990481.24	30990481.36	30990481.49	0.0509	0.0400
Mercury	80138-06-10 07:41 G	30991023.72	30991023.82	30991023.93	0.0530	0.0396
Venus	80141-07-06 19:41 G	30992146.14	30992146.32	30992146.51	0.0531	0.0219
Venus	80142-03-01 21:22 G	30992384.20	30992384.39	30992384.57	0.0523	0.0218
Mercury	80143-10-29 18:44 G	30992991.17	30992991.28	30992991.39	0.0500	0.0301
Mercury	80144-01-27 02:39 G	30993080.51	30993080.61	30993080.70	0.0498	0.0361
Venus	80147-05-05 19:41 G	30994275.21	30994275.32	30994275.44	0.0493	0.0400
Venus	80147-12-27 17:32 G	30994511.03	30994511.23	30994511.43	0.0499	0.0064
Venus	80148-08-19 21:51 G	30994747.25	30994747.41	30994747.58	0.0507	0.0298
Mercury	80150-03-29 06:29 G	30995333.61	30995333.77	30995333.93	0.0528	0.0156
Venus	80153-03-11 04:20 G	30996411.52	30996411.68	30996411.83	0.0533	0.0345
Venus	80153-11-04 08:24 G	30996649.65	30996649.85	30996650.05	0.0526	0.0095
Venus	80154-06-30 03:08 G	30996887.58	30996887.63	30996887.69	0.0517	0.0496
Mercury	80155-08-17 22:05 G	30997301.38	30997301.42	30997301.47	0.0502	0.0469
Mercury	80155-11-15 05:46 G	30997390.62	30997390.74	30997390.88	0.0499	0.0193
Venus	80159-01-09 01:27 G	30998541.53	30998541.56	30998541.60	0.0491	0.0483
Venus	80159-09-01 21:36 G	30998777.21	30998777.40	30998777.59	0.0497	0.0159
Venus	80160-04-24 23:32 G	30999013.29	30999013.48	30999013.66	0.0504	0.0198

Mercury	80162-01-15 05:17 G	30999643.55	30999643.72	30999643.88	0.0528	0.0083
Venus	80164-11-13 15:08 G	31000677.04	31000677.13	31000677.23	0.0535	0.0466
Venus	80165-07-09 21:51 G	31000915.20	31000915.41	31000915.61	0.0528	0.0028
Venus	80166-03-04 19:41 G	31001153.19	31001153.32	31001153.46	0.0520	0.0394
Mercury	80167-09-03 09:36 G	31001700.77	31001700.90	31001701.04	0.0500	0.0034
Venus	80171-05-08 00:44 G	31003043.36	31003043.53	31003043.70	0.0495	0.0253
Venus	80171-12-30 00:29 G	31003279.32	31003279.52	31003279.72	0.0502	0.0097
Venus	80172-08-22 08:10 G	31003515.76	31003515.84	31003515.93	0.0510	0.0459
Moon	80172-10-30 11:17 G	31003584.81	31003584.97	31003585.14	0.0513	0.0338
Earth	80172-10-30 14:24 G	31003584.92	31003585.10	31003585.29	0.0513	0.0305 *
Mercury	80173-11-03 03:36 G	31003953.52	31003953.65	31003953.78	0.0527	0.0328
Venus	80177-03-14 11:32 G	31005180.79	31005180.98	31005181.18	0.0531	0.0146
Venus	80177-11-07 12:29 G	31005418.84	31005419.02	31005419.19	0.0522	0.0286
Moon	80178-04-27 13:41 G	31005589.97	31005590.07	31005590.16	0.0515	0.0469
Earth	80178-04-27 14:53 G	31005590.02	31005590.12	31005590.22	0.0515	0.0463 *
Mercury	80179-06-22 13:41 G	31006010.94	31006011.07	31006011.20	0.0500	0.0128
Mars	80180-09-14 18:29 G	31006461.03	31006461.27	31006461.53	0.0489	0.0177
Venus	80183-01-11 05:17 G	31007309.57	31007309.72	31007309.86	0.0493	0.0344
Venus	80183-09-04 03:22 G	31007545.44	31007545.64	31007545.84	0.0500	0.0003
Venus	80184-04-27 08:39 G	31007781.72	31007781.86	31007782.00	0.0508	0.0361
Earth	80184-11-04 06:15 G	31007972.54	31007972.76	31007972.98	0.0515	0.0167
Moon	80184-11-04 10:05 G	31007972.70	31007972.92	31007973.13	0.0515	0.0180 *
Mercury	80185-11-20 05:46 G	31008353.63	31008353.74	31008353.85	0.0530	0.0397
Venus	80188-11-17 01:27 G	31009446.38	31009446.56	31009446.74	0.0533	0.0267
Venus	80189-07-13 04:20 G	31009684.49	31009684.68	31009684.88	0.0524	0.0173
Earth	80190-05-02 13:27 G	31009977.82	31009978.06	31009978.29	0.0513	0.0032
Moon	80190-05-02 16:20 G	31009977.94	31009978.18	31009978.42	0.0513	0.0065 *
Mercury	80191-04-10 17:32 G	31010321.12	31010321.23	31010321.34	0.0500	0.0289
Mercury	80191-07-09 01:12 G	31010410.46	31010410.55	31010410.65	0.0498	0.0374
Venus	80194-09-16 09:36 G	31011575.80	31011575.90	31011575.99	0.0492	0.0432

Venus	80195-05-10 06:29 G	31011811.57	31011811.77	31011811.96	0.0498	0.0101
Venus	80196-01-01 09:36 G	31012047.74	31012047.90	31012048.08	0.0506	0.0261
Mercury	80197-09-08 05:17 G	31012663.57	31012663.72	31012663.88	0.0529	0.0173
Venus	80200-07-23 13:41 G	31013711.93	31013712.07	31013712.21	0.0534	0.0388
Venus	80201-03-18 18:44 G	31013950.08	31013950.28	31013950.49	0.0527	0.0055
Venus	80201-11-11 14:24 G	31014188.02	31014188.10	31014188.19	0.0518	0.0463
Mercury	80203-01-28 21:22 G	31014631.33	31014631.39	31014631.45	0.0501	0.0449
Mercury	80203-04-28 05:03 G	31014720.58	31014720.71	31014720.84	0.0498	0.0210
Venus	80207-01-14 11:03 G	31016077.78	31016077.96	31016078.15	0.0496	0.0196
Venus	80207-09-07 12:29 G	31016313.83	31016314.02	31016314.21	0.0503	0.0160
Mercury	80209-06-28 04:05 G	31016973.50	31016973.67	31016973.83	0.0528	0.0064
Venus	80212-03-27 21:36 G	31017977.34	31017977.40	31017977.46	0.0536	0.0511
Venus	80212-11-21 04:48 G	31018215.49	31018215.70	31018215.90	0.0529	0.0073
Venus	80213-07-17 03:36 G	31018453.50	31018453.65	31018453.80	0.0521	0.0352
Mercury	80215-02-14 08:24 G	31019030.71	31019030.85	31019030.99	0.0500	0.0041
Venus	80218-09-19 16:05 G	31020344.01	31020344.17	31020344.34	0.0494	0.0286
Venus	80219-05-13 15:22 G	31020579.94	31020580.14	31020580.34	0.0501	0.0062
Venus	80220-01-04 21:51 G	31020816.30	31020816.41	31020816.52	0.0509	0.0423
Mercury	80221-04-16 02:39 G	31021283.48	31021283.61	31021283.75	0.0527	0.0302
Venus	80224-07-26 17:03 G	31022481.02	31022481.21	31022481.40	0.0531	0.0196
Venus	80225-03-21 18:44 G	31022719.10	31022719.28	31022719.47	0.0523	0.0241
Mercury	80226-12-03 12:15 G	31023340.87	31023341.01	31023341.14	0.0500	0.0121
Venus	80230-05-25 19:56 G	31024610.21	31024610.33	31024610.47	0.0492	0.0376
Venus	80231-01-16 17:17 G	31024846.02	31024846.22	31024846.43	0.0499	0.0039
Venus	80231-09-09 21:22 G	31025082.24	31025082.39	31025082.55	0.0506	0.0323
Mercury	80233-05-03 04:05 G	31025683.57	31025683.67	31025683.77	0.0529	0.0405
Mars	80234-03-15 09:51 G	31025999.64	31025999.91	31026000.18	0.0538	0.0162
Venus	80236-03-31 05:46 G	31026746.58	31026746.74	31026746.91	0.0534	0.0317
Venus	80236-11-24 10:20 G	31026984.73	31026984.93	31026985.13	0.0526	0.0126
Mercury	80238-09-21 16:20 G	31027651.07	31027651.18	31027651.29	0.0501	0.0278

Mercury	80238-12-20 00:15 G	31027740.42	31027740.51	31027740.60	0.0498	0.0387
Venus	80242-01-29 00:58 G	31028876.48	31028876.54	31028876.61	0.0491	0.0461
Venus	80242-09-21 20:53 G	31029112.18	31029112.37	31029112.57	0.0497	0.0135
Venus	80243-05-15 22:48 G	31029348.27	31029348.45	31029348.63	0.0504	0.0224
Mercury	80245-02-19 03:22 G	31029993.49	31029993.64	31029993.80	0.0529	0.0180
Venus	80247-12-04 18:58 G	31031012.18	31031012.29	31031012.41	0.0535	0.0436
Venus	80248-07-30 01:27 G	31031250.36	31031250.56	31031250.77	0.0528	0.0013
Venus	80249-03-24 22:48 G	31031488.34	31031488.45	31031488.58	0.0519	0.0423
Mercury	80250-07-10 20:10 G	31031961.28	31031961.34	31031961.41	0.0501	0.0436
Mercury	80250-10-08 03:51 G	31032050.54	31032050.66	31032050.79	0.0498	0.0224
Venus	80254-05-28 00:44 G	31033378.35	31033378.53	31033378.71	0.0495	0.0230
Venus	80255-01-19 00:58 G	31033614.35	31033614.54	31033614.74	0.0502	0.0123
Venus	80255-09-12 09:36 G	31033850.84	31033850.90	31033850.96	0.0511	0.0485
Earth	80255-10-31 23:46 G	31033900.33	31033900.49	31033900.66	0.0513	0.0356
Moon	80255-11-01 03:36 G	31033900.50	31033900.65	31033900.81	0.0513	0.0380 *
Mercury	80256-12-08 02:53 G	31034303.46	31034303.62	31034303.79	0.0528	0.0046
Venus	80260-04-03 15:08 G	31035515.93	31035516.13	31035516.33	0.0530	0.0114
Venus	80260-11-27 15:08 G	31035753.97	31035754.13	31035754.29	0.0521	0.0315
Moon	80261-04-28 01:41 G	31035905.55	31035905.57	31035905.60	0.0516	0.0512
Mercury	80262-07-27 07:41 G	31036360.68	31036360.82	31036360.96	0.0499	0.0062
Venus	80266-01-31 06:15 G	31037644.61	31037644.76	31037644.92	0.0494	0.0321
Venus	80266-09-24 04:48 G	31037880.50	31037880.70	31037880.91	0.0500	0.0026
Venus	80267-05-18 10:34 G	31038116.81	31038116.94	31038117.07	0.0508	0.0386
Moon	80267-11-05 13:27 G	31038287.84	31038288.06	31038288.29	0.0515	0.0141
Earth	80267-11-05 16:48 G	31038287.98	31038288.20	31038288.43	0.0515	0.0123 *
Mercury	80268-09-26 01:41 G	31038613.43	31038613.57	31038613.71	0.0527	0.0280
Venus	80271-12-08 00:15 G	31039781.33	31039781.51	31039781.69	0.0532	0.0242
Venus	80272-08-02 02:53 G	31040019.43	31040019.62	31040019.81	0.0524	0.0197
Moon	80273-05-02 12:00 G	31040292.77	31040293.00	31040293.23	0.0514	0.0014
Earth	80273-05-02 15:36 G	31040292.92	31040293.15	31040293.39	0.0514	0.0046 *

Mercury	80274-05-15 11:03 G	31040670.82	31040670.96	31040671.09	0.0500	0.0110
Venus	80277-10-06 11:46 G	31041910.88	31041910.99	31041911.10	0.0492	0.0407
Venus	80278-05-30 08:53 G	31042146.67	31042146.87	31042147.07	0.0498	0.0073
Venus	80279-01-21 12:00 G	31042382.84	31042383.00	31042383.17	0.0505	0.0288
Mercury	80280-07-15 00:15 G	31042923.50	31042923.51	31042923.54	0.0526	0.0519
Mercury	80280-10-13 03:36 G	31043013.56	31043013.65	31043013.74	0.0529	0.0435
Venus	80283-08-12 11:32 G	31044046.83	31044046.98	31044047.13	0.0534	0.0365
Venus	80284-04-06 16:34 G	31044284.99	31044285.19	31044285.39	0.0527	0.0078
Venus	80284-11-30 12:44 G	31044522.96	31044523.03	31044523.10	0.0518	0.0484
Earth	80285-05-07 12:29 G	31044680.91	31044681.02	31044681.14	0.0512	0.0440
Moon	80285-05-07 16:05 G	31044681.05	31044681.17	31044681.29	0.0512	0.0436 *
Mercury	80286-03-03 14:53 G	31044981.01	31044981.12	31044981.24	0.0501	0.0270
Mercury	80286-05-31 22:48 G	31045070.37	31045070.45	31045070.54	0.0498	0.0396
Venus	80290-02-02 11:46 G	31046412.80	31046412.99	31046413.18	0.0496	0.0169
Venus	80290-09-26 12:44 G	31046648.85	31046649.03	31046649.22	0.0503	0.0187
Mercury	80292-08-01 02:10 G	31047323.44	31047323.59	31047323.74	0.0528	0.0193
Venus	80295-04-16 23:17 G	31048312.39	31048312.47	31048312.56	0.0536	0.0484
Venus	80295-12-11 06:58 G	31048550.58	31048550.79	31048550.99	0.0529	0.0043
Venus	80296-08-05 06:00 G	31048788.61	31048788.75	31048788.89	0.0521	0.0382
Mercury	80297-12-20 18:58 G	31049291.23	31049291.29	31049291.37	0.0502	0.0426
Mercury	80298-03-20 02:53 G	31049380.49	31049380.62	31049380.74	0.0499	0.0237
Venus	80301-10-09 15:51 G	31050679.00	31050679.16	31050679.34	0.0494	0.0263
Venus	80302-06-02 15:08 G	31050914.93	31050915.13	31050915.33	0.0501	0.0087
Venus	80303-01-24 21:51 G	31051151.32	31051151.41	31051151.51	0.0509	0.0449
Mercury	80304-05-21 01:12 G	31051633.39	31051633.55	31051633.72	0.0528	0.0038
Venus	80307-08-16 21:22 G	31052816.19	31052816.39	31052816.58	0.0531	0.0163
Venus	80308-04-10 22:48 G	31053054.28	31053054.45	31053054.63	0.0523	0.0272
Mercury	80310-01-07 06:44 G	31053690.64	31053690.78	31053690.91	0.0499	0.0078
Venus	80313-06-14 20:24 G	31054945.21	31054945.35	31054945.49	0.0493	0.0353
Venus	80314-02-05 18:15 G	31055181.06	31055181.26	31055181.46	0.0499	0.0014

Venus	80314-09-29 22:48 G	31055417.31	31055417.45	31055417.60	0.0507	0.0350
Mercury	80316-03-09 00:29 G	31055943.38	31055943.52	31055943.67	0.0527	0.0264
Venus	80319-04-21 10:05 G	31057081.75	31057081.92	31057082.10	0.0533	0.0285
Venus	80319-12-15 13:56 G	31057319.89	31057320.08	31057320.28	0.0525	0.0158
Mercury	80321-10-26 10:34 G	31058000.80	31058000.94	31058001.07	0.0500	0.0086
Venus	80325-02-18 02:10 G	31059211.51	31059211.59	31059211.69	0.0492	0.0440
Venus	80325-10-11 22:48 G	31059447.26	31059447.45	31059447.65	0.0497	0.0109
Venus	80326-06-05 01:12 G	31059683.38	31059683.55	31059683.73	0.0505	0.0251
Mercury	80327-12-26 23:32 G	31060253.43	31060253.48	31060253.53	0.0526	0.0495
Mercury	80328-03-26 02:39 G	31060343.53	31060343.61	31060343.69	0.0529	0.0459
Venus	80330-12-24 18:44 G	31061347.16	31061347.28	31061347.42	0.0535	0.0410
Venus	80331-08-20 00:44 G	31061585.32	31061585.53	31061585.73	0.0528	0.0035
Venus	80332-04-13 21:36 G	31061823.30	31061823.40	31061823.51	0.0519	0.0446
Mercury	80333-08-14 13:41 G	31062310.95	31062311.07	31062311.19	0.0501	0.0258
Mercury	80333-11-11 21:36 G	31062400.32	31062400.40	31062400.48	0.0498	0.0408
Venus	80337-06-17 03:36 G	31063713.47	31063713.65	31063713.84	0.0495	0.0201
Venus	80338-02-08 04:05 G	31063949.48	31063949.67	31063949.86	0.0502	0.0152
Moon	80338-11-01 08:39 G	31064215.73	31064215.86	31064216.00	0.0512	0.0416
Earth	80338-11-01 11:46 G	31064215.86	31064215.99	31064216.15	0.0512	0.0395 *
Mercury	80340-01-13 01:41 G	31064653.43	31064653.57	31064653.72	0.0528	0.0227
Venus	80342-08-29 05:32 G	31065612.70	31065612.73	31065612.76	0.0536	0.0528
Venus	80343-04-24 13:12 G	31065850.85	31065851.05	31065851.25	0.0530	0.0090
Venus	80343-12-18 13:12 G	31066088.89	31066089.05	31066089.21	0.0522	0.0339
Mercury	80345-06-02 17:32 G	31066621.16	31066621.23	31066621.31	0.0502	0.0418
Mercury	80345-08-31 01:27 G	31066710.44	31066710.56	31066710.68	0.0499	0.0245
Venus	80349-02-20 07:27 G	31067979.65	31067979.81	31067979.97	0.0494	0.0294
Venus	80349-10-14 05:46 G	31068215.54	31068215.74	31068215.94	0.0500	0.0052
Venus	80350-06-07 11:03 G	31068451.85	31068451.96	31068452.09	0.0508	0.0413
Earth	80350-11-06 00:29 G	31068603.29	31068603.52	31068603.75	0.0514	0.0062
Moon	80350-11-06 02:39 G	31068603.39	31068603.61	31068603.83	0.0514	0.0086 *

Mercury	80351-11-01 00:00 G	31068963.34	31068963.50	31068963.67	0.0527	0.0022
Venus	80354-12-28 02:10 G	31070116.41	31070116.59	31070116.78	0.0532	0.0212
Venus	80355-08-23 05:03 G	31070354.53	31070354.71	31070354.90	0.0524	0.0228
Earth	80356-05-03 00:15 G	31070608.28	31070608.51	31070608.74	0.0515	0.0098
Moon	80356-05-03 03:51 G	31070608.43	31070608.66	31070608.90	0.0515	0.0066 *
Mercury	80357-06-19 05:17 G	31071020.59	31071020.72	31071020.86	0.0500	0.0088
Venus	80360-10-26 12:00 G	31072245.88	31072246.00	31072246.13	0.0492	0.0383
Venus	80361-06-19 08:53 G	31072481.67	31072481.87	31072482.07	0.0498	0.0047
Venus	80362-02-10 12:15 G	31072717.85	31072718.01	31072718.17	0.0506	0.0314
Mercury	80363-08-19 23:03 G	31073273.32	31073273.46	31073273.61	0.0527	0.0252
Venus	80366-09-01 15:51 G	31074382.00	31074382.16	31074382.32	0.0534	0.0333
Venus	80367-04-27 20:53 G	31074620.17	31074620.37	31074620.57	0.0527	0.0111
Venus	80367-12-21 16:34 G	31074858.17	31074858.19	31074858.21	0.0518	0.0514
Moon	80368-05-07 20:39 G	31074996.21	31074996.36	31074996.53	0.0512	0.0388
Earth	80368-05-07 23:32 G	31074996.34	31074996.48	31074996.63	0.0512	0.0399 *
Mercury	80369-04-07 09:22 G	31075330.75	31075330.89	31075331.03	0.0500	0.0072
Venus	80372-07-01 16:48 G	31076512.15	31076512.20	31076512.26	0.0491	0.0469
Venus	80373-02-22 12:29 G	31076747.83	31076748.02	31076748.22	0.0496	0.0144
Venus	80373-10-16 13:56 G	31076983.90	31076984.08	31076984.27	0.0504	0.0214
Mercury	80375-06-07 22:05 G	31077583.36	31077583.42	31077583.49	0.0526	0.0482
Mercury	80375-09-06 01:27 G	31077673.49	31077673.56	31077673.63	0.0529	0.0475
Venus	80378-05-07 04:20 G	31078647.57	31078647.68	31078647.79	0.0536	0.0452
Venus	80378-12-31 11:17 G	31078885.76	31078885.97	31078886.18	0.0529	0.0008
Venus	80379-08-26 09:36 G	31079123.78	31079123.90	31079124.03	0.0520	0.0412
Mercury	80381-01-24 13:12 G	31079640.93	31079641.05	31079641.18	0.0501	0.0232
Mercury	80381-04-23 21:08 G	31079730.32	31079730.38	31079730.45	0.0498	0.0434
Venus	80384-10-28 17:46 G	31081014.06	31081014.24	31081014.42	0.0495	0.0236
Venus	80385-06-21 17:32 G	31081250.04	31081250.23	31081250.43	0.0501	0.0116
Venus	80386-02-13 00:58 G	31081486.47	31081486.54	31081486.61	0.0510	0.0476
Mercury	80387-06-25 00:58 G	31081983.39	31081983.54	31081983.68	0.0528	0.0251

Mars	80388-06-10 12:29 G	31082334.98	31082335.02	31082335.08	0.0537	0.0527
Venus	80390-09-04 21:08 G	31083151.18	31083151.38	31083151.58	0.0531	0.0135
Venus	80391-04-30 21:51 G	31083389.25	31083389.41	31083389.58	0.0522	0.0298
Mercury	80392-11-12 16:34 G	31083951.11	31083951.19	31083951.27	0.0502	0.0406
Mercury	80393-02-10 00:15 G	31084040.39	31084040.51	31084040.63	0.0499	0.0257
Venus	80396-07-03 23:03 G	31085280.31	31085280.46	31085280.61	0.0493	0.0326
Venus	80397-02-24 21:22 G	31085516.18	31085516.39	31085516.59	0.0499	0.0019
Venus	80397-10-19 01:56 G	31085752.46	31085752.58	31085752.72	0.0507	0.0379
Mercury	80399-04-13 00:00 G	31086293.33	31086293.50	31086293.66	0.0527	0.0021
Venus	80402-05-10 08:39 G	31087416.68	31087416.86	31087417.04	0.0533	0.0259
Venus	80403-01-03 12:00 G	31087654.81	31087655.00	31087655.20	0.0525	0.0183
Mercury	80404-11-29 04:05 G	31088350.53	31088350.67	31088350.80	0.0500	0.0095
Venus	80408-03-09 03:22 G	31089546.53	31089546.64	31089546.75	0.0492	0.0414
Venus	80408-10-30 23:46 G	31089782.29	31089782.49	31089782.69	0.0497	0.0081
Venus	80409-06-24 02:10 G	31090018.42	31090018.59	31090018.76	0.0505	0.0278
Mercury	80411-01-29 22:05 G	31090603.27	31090603.42	31090603.56	0.0526	0.0233
Venus	80414-01-12 20:24 G	31091682.21	31091682.35	31091682.50	0.0535	0.0381
Venus	80414-09-08 02:39 G	31091920.40	31091920.61	31091920.81	0.0528	0.0065
Venus	80415-05-03 23:46 G	31092158.41	31092158.49	31092158.57	0.0519	0.0475
Mercury	80416-09-17 07:56 G	31092660.70	31092660.83	31092660.97	0.0501	0.0065
Venus	80420-07-06 03:36 G	31094048.46	31094048.65	31094048.84	0.0495	0.0176
Venus	80421-02-27 04:05 G	31094284.48	31094284.67	31094284.86	0.0502	0.0178
Earth	80421-10-31 18:58 G	31094531.19	31094531.29	31094531.39	0.0511	0.0458
Moon	80421-10-31 21:08 G	31094531.30	31094531.38	31094531.46	0.0511	0.0475 *
Mercury	80422-11-17 20:39 G	31094913.29	31094913.36	31094913.44	0.0526	0.0469
Mercury	80423-02-15 23:46 G	31095003.43	31095003.49	31095003.56	0.0529	0.0485
Venus	80425-09-17 09:08 G	31095947.81	31095947.88	31095947.95	0.0537	0.0499
Venus	80426-05-13 17:03 G	31096186.01	31096186.21	31096186.42	0.0530	0.0058
Venus	80427-01-06 17:03 G	31096424.07	31096424.21	31096424.36	0.0521	0.0371
Mercury	80428-07-06 12:00 G	31096970.88	31096971.00	31096971.13	0.0501	0.0221

Mercury	80428-10-03 19:56 G	31097060.27	31097060.33	31097060.39	0.0498	0.0446
Venus	80432-03-11 07:41 G	31098314.65	31098314.82	31098314.99	0.0494	0.0270
Venus	80432-11-02 06:29 G	31098550.57	31098550.77	31098550.97	0.0500	0.0078
Venus	80433-06-26 12:29 G	31098786.93	31098787.02	31098787.12	0.0509	0.0439
Moon	80433-11-05 09:22 G	31098918.65	31098918.89	31098919.13	0.0514	0.0036
Earth	80433-11-05 10:20 G	31098918.70	31098918.93	31098919.16	0.0514	0.0012 *
Mercury	80434-12-04 23:32 G	31099313.33	31099313.48	31099313.62	0.0528	0.0262
Venus	80438-01-16 06:44 G	31100451.59	31100451.78	31100451.98	0.0532	0.0178
Venus	80438-09-11 09:08 G	31100689.70	31100689.88	31100690.06	0.0524	0.0260
Moon	80439-05-03 06:58 G	31100923.56	31100923.79	31100924.03	0.0515	0.0116
Earth	80439-05-03 10:05 G	31100923.69	31100923.92	31100924.15	0.0515	0.0146 *
Mercury	80440-04-24 16:05 G	31101281.08	31101281.17	31101281.26	0.0502	0.0379
Mercury	80440-07-22 23:46 G	31101370.37	31101370.49	31101370.60	0.0499	0.0283
Venus	80443-11-15 13:12 G	31102580.92	31102581.05	31102581.19	0.0492	0.0359
Venus	80444-07-08 10:48 G	31102816.75	31102816.95	31102817.16	0.0498	0.0022
Venus	80445-03-01 14:53 G	31103052.97	31103053.12	31103053.27	0.0506	0.0342
Earth	80445-11-10 04:05 G	31103306.63	31103306.67	31103306.74	0.0516	0.0499
Mercury	80446-09-22 22:48 G	31103623.29	31103623.45	31103623.62	0.0527	0.0040
Venus	80449-09-20 16:05 G	31104717.01	31104717.17	31104717.34	0.0533	0.0304
Venus	80450-05-16 20:24 G	31104955.15	31104955.35	31104955.54	0.0526	0.0139
Earth	80451-05-08 02:10 G	31105311.40	31105311.59	31105311.77	0.0513	0.0322
Moon	80451-05-08 03:36 G	31105311.47	31105311.65	31105311.83	0.0513	0.0312 *
Mercury	80452-05-11 02:39 G	31105680.48	31105680.61	31105680.75	0.0500	0.0106
Mars	80453-06-03 04:05 G	31106068.42	31106068.67	31106068.93	0.0491	0.0122
Venus	80455-07-21 18:29 G	31106847.20	31106847.27	31106847.36	0.0491	0.0445
Venus	80456-03-13 15:08 G	31107082.93	31107083.13	31107083.32	0.0497	0.0114
Venus	80456-11-04 16:48 G	31107319.03	31107319.20	31107319.38	0.0504	0.0244
Mercury	80458-07-11 21:36 G	31107933.25	31107933.40	31107933.56	0.0526	0.0198
Venus	80461-05-26 02:53 G	31108982.50	31108982.62	31108982.74	0.0535	0.0426
Venus	80462-01-19 09:22 G	31109220.68	31109220.89	31109221.09	0.0528	0.0021

Venus	80462-09-14 07:12 G	31109458.69	31109458.80	31109458.92	0.0520	0.0435
Mercury	80464-02-28 06:29 G	31109990.63	31109990.77	31109990.91	0.0501	0.0058
Venus	80467-11-17 18:15 G	31111349.08	31111349.26	31111349.44	0.0495	0.0210
Venus	80468-07-10 18:00 G	31111585.06	31111585.25	31111585.45	0.0501	0.0143
Venus	80469-03-04 01:12 G	31111821.52	31111821.55	31111821.59	0.0510	0.0502
Mercury	80470-04-29 19:27 G	31112243.23	31112243.31	31112243.40	0.0525	0.0450
Mercury	80470-07-28 22:34 G	31112333.40	31112333.44	31112333.49	0.0529	0.0502
Venus	80473-09-23 22:05 G	31113486.22	31113486.42	31113486.63	0.0531	0.0106
Venus	80474-05-19 23:17 G	31113724.31	31113724.47	31113724.63	0.0523	0.0327
Mercury	80475-12-17 10:34 G	31114300.82	31114300.94	31114301.07	0.0501	0.0215
Mercury	80476-03-15 18:29 G	31114390.21	31114390.27	31114390.33	0.0499	0.0453
Venus	80479-07-23 22:34 G	31115615.29	31115615.44	31115615.61	0.0493	0.0302
Venus	80480-03-15 20:39 G	31115851.16	31115851.36	31115851.56	0.0499	0.0043
Venus	80480-11-07 01:27 G	31116087.44	31116087.56	31116087.68	0.0507	0.0404
Mercury	80482-05-16 21:51 G	31116643.27	31116643.41	31116643.55	0.0528	0.0271
Venus	80485-05-29 11:32 G	31117751.80	31117751.98	31117752.17	0.0533	0.0228
Venus	80486-01-22 15:22 G	31117989.96	31117990.14	31117990.33	0.0525	0.0215
Mercury	80487-10-05 14:39 G	31118611.02	31118611.11	31118611.20	0.0502	0.0371
Mercury	80488-01-02 22:20 G	31118700.32	31118700.43	31118700.54	0.0499	0.0292
Venus	80491-03-29 02:53 G	31119881.51	31119881.62	31119881.75	0.0492	0.0391
Venus	80491-11-19 23:32 G	31120117.28	31120117.48	31120117.69	0.0497	0.0057
Venus	80492-07-13 02:39 G	31120353.45	31120353.61	31120353.77	0.0505	0.0304
Mercury	80494-03-04 21:08 G	31120953.21	31120953.38	31120953.54	0.0528	0.0044
Venus	80497-02-01 00:44 G	31122017.37	31122017.53	31122017.68	0.0535	0.0349
Venus	80497-09-27 06:15 G	31122255.56	31122255.76	31122255.96	0.0527	0.0097
Venus	80498-05-23 02:39 G	31122493.57	31122493.61	31122493.66	0.0518	0.0504
Mercury	80499-10-22 02:10 G	31123010.46	31123010.59	31123010.73	0.0500	0.0130
Venus	80502-12-03 08:53 G	31124147.83	31124147.87	31124147.92	0.0491	0.0476
Venus	80503-07-27 04:34 G	31124383.50	31124383.69	31124383.89	0.0496	0.0151
Venus	80504-03-19 05:46 G	31124619.56	31124619.74	31124619.92	0.0503	0.0206

Earth	80504-11-01 06:15 G	31124846.72	31124846.76	31124846.81	0.0511	0.0501
Mercury	80505-12-22 20:24 G	31125263.20	31125263.35	31125263.51	0.0527	0.0181
Venus	80508-10-07 10:05 G	31126282.82	31126282.92	31126283.01	0.0536	0.0470
Venus	80509-06-02 16:48 G	31126520.99	31126521.20	31126521.41	0.0529	0.0027
Venus	80510-01-26 15:51 G	31126759.03	31126759.16	31126759.30	0.0521	0.0396
Mercury	80511-08-11 05:17 G	31127320.58	31127320.72	31127320.85	0.0501	0.0050
Venus	80515-04-01 09:08 G	31128649.70	31128649.88	31128650.05	0.0494	0.0243
Venus	80515-11-23 08:39 G	31128885.66	31128885.86	31128886.05	0.0501	0.0108
Venus	80516-07-16 15:08 G	31129122.06	31129122.13	31129122.21	0.0509	0.0468
Moon	80516-11-05 20:39 G	31129234.14	31129234.36	31129234.58	0.0513	0.0006
Earth	80516-11-05 21:51 G	31129234.18	31129234.41	31129234.64	0.0513	0.0034 *
Mercury	80517-10-10 19:12 G	31129573.20	31129573.30	31129573.40	0.0526	0.0417
Venus	80521-02-05 04:48 G	31130786.50	31130786.70	31130786.89	0.0531	0.0152
Venus	80521-10-01 06:15 G	31131024.59	31131024.76	31131024.94	0.0523	0.0284
Earth	80522-05-03 09:22 G	31131238.68	31131238.89	31131239.10	0.0515	0.0238
Moon	80522-05-03 11:17 G	31131238.76	31131238.97	31131239.18	0.0515	0.0209 *
Mercury	80523-05-30 08:53 G	31131630.75	31131630.87	31131631.00	0.0501	0.0214
Mercury	80523-08-27 16:48 G	31131720.15	31131720.20	31131720.26	0.0499	0.0455
Venus	80526-12-05 12:58 G	31132915.90	31132916.04	31132916.19	0.0493	0.0335
Venus	80527-07-29 10:34 G	31133151.74	31133151.94	31133152.15	0.0499	0.0012
Venus	80528-03-21 14:24 G	31133387.97	31133388.10	31133388.24	0.0506	0.0368
Earth	80528-11-10 09:51 G	31133621.79	31133621.91	31133622.04	0.0515	0.0427
Moon	80528-11-10 12:58 G	31133621.92	31133622.04	31133622.16	0.0515	0.0438 *
Mercury	80529-10-27 20:24 G	31133973.22	31133973.35	31133973.49	0.0528	0.0287
Venus	80532-10-10 16:05 G	31135052.00	31135052.17	31135052.35	0.0534	0.0277
Venus	80533-06-05 20:39 G	31135290.16	31135290.36	31135290.55	0.0526	0.0168
Earth	80534-05-08 07:56 G	31135626.62	31135626.83	31135627.03	0.0513	0.0258
Moon	80534-05-08 07:56 G	31135626.62	31135626.83	31135627.05	0.0513	0.0242 *
Mercury	80535-03-18 12:58 G	31135940.95	31135941.04	31135941.14	0.0502	0.0370
Mercury	80535-06-15 20:39 G	31136030.25	31136030.36	31136030.48	0.0499	0.0296

Venus	80538-08-10 17:46 G	31137182.14	31137182.24	31137182.34	0.0491	0.0423
Venus	80539-04-03 13:56 G	31137417.88	31137418.08	31137418.28	0.0497	0.0090
Venus	80539-11-25 15:36 G	31137653.98	31137654.15	31137654.32	0.0504	0.0268
Mercury	80541-08-15 19:27 G	31138283.14	31138283.31	31138283.47	0.0527	0.0052
Venus	80544-06-15 04:34 G	31139317.56	31139317.69	31139317.83	0.0535	0.0399
Venus	80545-02-08 11:32 G	31139555.77	31139555.98	31139556.18	0.0528	0.0050
Venus	80545-10-04 09:22 G	31139793.81	31139793.89	31139793.99	0.0520	0.0464
Mercury	80547-04-04 00:44 G	31140340.39	31140340.53	31140340.66	0.0500	0.0135
Venus	80550-12-07 17:17 G	31141684.03	31141684.22	31141684.41	0.0495	0.0186
Venus	80551-07-31 17:17 G	31141920.03	31141920.22	31141920.41	0.0502	0.0168
Mercury	80553-06-03 18:15 G	31142593.11	31142593.26	31142593.42	0.0527	0.0182
Venus	80556-02-18 17:03 G	31143583.16	31143583.21	31143583.26	0.0537	0.0516
Venus	80556-10-14 01:12 G	31143821.35	31143821.55	31143821.75	0.0530	0.0073
Venus	80557-06-09 01:56 G	31144059.43	31144059.58	31144059.73	0.0522	0.0357
Mercury	80559-01-21 04:34 G	31144650.55	31144650.69	31144650.83	0.0500	0.0027
Venus	80562-08-12 22:34 G	31145950.28	31145950.44	31145950.61	0.0494	0.0278
Venus	80563-04-05 21:08 G	31146186.18	31146186.38	31146186.58	0.0500	0.0070
Venus	80563-11-28 02:39 G	31146422.50	31146422.61	31146422.71	0.0508	0.0430
Mercury	80565-03-22 17:32 G	31146903.13	31146903.23	31146903.34	0.0526	0.0407
Venus	80568-06-18 11:32 G	31148086.79	31148086.98	31148087.17	0.0532	0.0199
Venus	80569-02-11 14:10 G	31148324.91	31148325.09	31148325.27	0.0524	0.0241
Mercury	80570-11-09 07:27 G	31148960.69	31148960.81	31148960.94	0.0501	0.0206
Mercury	80571-02-06 15:22 G	31149050.09	31149050.14	31149050.19	0.0499	0.0462
Venus	80574-04-18 03:08 G	31150216.50	31150216.63	31150216.76	0.0492	0.0368
Venus	80574-12-10 00:29 G	31150452.32	31150452.52	31150452.72	0.0498	0.0028
Venus	80575-08-03 04:05 G	31150688.52	31150688.67	31150688.82	0.0506	0.0333
Mercury	80577-04-08 19:56 G	31151303.20	31151303.33	31151303.46	0.0528	0.0315
Venus	80580-02-21 22:34 G	31152352.28	31152352.44	31152352.60	0.0534	0.0323
Venus	80580-10-17 03:08 G	31152590.43	31152590.63	31152590.83	0.0527	0.0122
Mercury	80582-08-28 11:17 G	31153270.88	31153270.97	31153271.06	0.0502	0.0370

Mercury	80582-11-25 18:58 G	31153360.18	31153360.29	31153360.40	0.0499	0.0294
Venus	80585-12-22 07:27 G	31154482.74	31154482.81	31154482.89	0.0491	0.0455
Venus	80586-08-15 03:22 G	31154718.45	31154718.64	31154718.84	0.0496	0.0126
Venus	80587-04-08 04:20 G	31154954.51	31154954.68	31154954.86	0.0503	0.0231
Mercury	80589-01-25 17:46 G	31155613.08	31155613.24	31155613.41	0.0527	0.0064
Venus	80591-10-27 08:24 G	31156617.75	31156617.85	31156617.97	0.0536	0.0448
Venus	80592-06-21 15:51 G	31156855.95	31156856.16	31156856.36	0.0529	0.0008
Venus	80593-02-14 15:08 G	31157094.02	31157094.13	31157094.26	0.0521	0.0422
Mercury	80594-09-13 22:48 G	31157670.32	31157670.45	31157670.59	0.0500	0.0134
Venus	80598-04-20 07:12 G	31158984.62	31158984.80	31158984.98	0.0494	0.0221
Venus	80598-12-12 06:15 G	31159220.57	31159220.76	31159220.96	0.0501	0.0131
Venus	80599-08-05 12:44 G	31159456.98	31159457.03	31159457.08	0.0509	0.0490
Earth	80599-11-06 00:29 G	31159549.29	31159549.52	31159549.74	0.0512	0.0115
Moon	80599-11-06 03:08 G	31159549.40	31159549.63	31159549.87	0.0512	0.0084 *
Mercury	80600-11-14 16:20 G	31159923.03	31159923.18	31159923.34	0.0526	0.0178
Venus	80604-02-26 05:17 G	31161121.52	31161121.72	31161121.92	0.0531	0.0124
Venus	80604-10-21 07:12 G	31161359.64	31161359.80	31161359.97	0.0523	0.0312
Moon	80605-05-03 15:22 G	31161553.94	31161554.14	31161554.35	0.0516	0.0276
Earth	80605-05-03 15:36 G	31161553.96	31161554.15	31161554.35	0.0516	0.0301 *
Mercury	80606-07-04 02:53 G	31161980.48	31161980.62	31161980.76	0.0501	0.0028
Mars	80607-08-30 07:12 G	31162402.59	31162402.80	31162403.01	0.0490	0.0302
Venus	80609-12-25 11:03 G	31163250.81	31163250.96	31163251.12	0.0493	0.0314
Venus	80610-08-18 08:39 G	31163486.66	31163486.86	31163487.07	0.0499	0.0033
Venus	80611-04-11 12:44 G	31163722.91	31163723.03	31163723.17	0.0507	0.0392
Moon	80611-11-11 11:03 G	31163936.80	31163936.96	31163937.13	0.0515	0.0362
Earth	80611-11-11 14:53 G	31163936.96	31163937.12	31163937.29	0.0515	0.0355 *
Mercury	80612-09-02 15:08 G	31164233.03	31164233.13	31164233.23	0.0526	0.0414
Venus	80615-10-31 18:00 G	31165387.08	31165387.25	31165387.44	0.0533	0.0248
Venus	80616-06-25 22:20 G	31165625.24	31165625.43	31165625.62	0.0526	0.0198
Moon	80617-05-08 12:00 G	31165941.78	31165942.00	31165942.21	0.0514	0.0171

Earth	80617-05-08 14:10 G	31165941.87	31165942.09	31165942.31	0.0514	0.0195 *
Mercury	80618-04-22 06:44 G	31166290.65	31166290.78	31166290.91	0.0501	0.0188
Mercury	80618-07-20 14:39 G	31166380.07	31166380.11	31166380.14	0.0498	0.0480
Venus	80621-08-30 16:20 G	31167517.07	31167517.18	31167517.30	0.0492	0.0402
Venus	80622-04-23 12:58 G	31167752.84	31167753.04	31167753.24	0.0497	0.0066
Venus	80622-12-15 15:08 G	31167988.97	31167989.13	31167989.30	0.0504	0.0294
Mercury	80624-09-19 18:00 G	31168633.13	31168633.25	31168633.38	0.0528	0.0321
Venus	80627-07-06 04:34 G	31169652.55	31169652.69	31169652.84	0.0534	0.0371
Venus	80628-02-29 10:05 G	31169890.72	31169890.92	31169891.13	0.0527	0.0076
Venus	80628-10-24 07:12 G	31170128.73	31170128.80	31170128.87	0.0519	0.0487
Mercury	80630-02-08 09:51 G	31170600.82	31170600.91	31170601.00	0.0502	0.0365
Mercury	80630-05-08 17:32 G	31170690.11	31170690.23	31170690.34	0.0499	0.0299
Venus	80633-05-05 20:39 G	31171783.35	31171783.36	31171783.39	0.0491	0.0488
Venus	80633-12-27 16:34 G	31172019.00	31172019.19	31172019.38	0.0496	0.0162
Venus	80634-08-20 17:32 G	31172255.04	31172255.23	31172255.41	0.0502	0.0195
Mercury	80636-07-08 17:03 G	31172943.05	31172943.21	31172943.37	0.0527	0.0086
Venus	80639-03-10 14:53 G	31173918.04	31173918.12	31173918.20	0.0536	0.0492
Venus	80639-11-03 22:05 G	31174156.21	31174156.42	31174156.62	0.0530	0.0049
Venus	80640-06-28 21:51 G	31174394.27	31174394.41	31174394.55	0.0521	0.0380
Mercury	80642-02-24 20:53 G	31175000.24	31175000.37	31175000.51	0.0500	0.0131
Venus	80645-09-01 20:10 G	31176285.17	31176285.34	31176285.52	0.0494	0.0257
Venus	80646-04-25 18:44 G	31176521.09	31176521.28	31176521.48	0.0500	0.0093
Venus	80646-12-18 00:15 G	31176757.42	31176757.51	31176757.60	0.0508	0.0453
Mercury	80648-04-26 14:39 G	31177252.96	31177253.11	31177253.27	0.0526	0.0171
Venus	80651-07-09 09:08 G	31178421.68	31178421.88	31178422.07	0.0532	0.0176
Venus	80652-03-03 12:00 G	31178659.82	31178660.00	31178660.18	0.0524	0.0266
Mercury	80653-12-14 00:58 G	31179310.40	31179310.54	31179310.68	0.0501	0.0032
Venus	80657-05-08 00:29 G	31180551.38	31180551.52	31180551.67	0.0492	0.0348
Venus	80657-12-29 21:36 G	31180787.20	31180787.40	31180787.60	0.0498	0.0008
Venus	80658-08-23 00:44 G	31181023.39	31181023.53	31181023.67	0.0505	0.0354

Mercury	80660-02-13 12:58 G	31181562.94	31181563.04	31181563.14	0.0525	0.0415
Mars	80661-02-23 03:51 G	31181938.42	31181938.66	31181938.91	0.0536	0.0247
Venus	80663-03-13 21:08 G	31182687.22	31182687.38	31182687.55	0.0534	0.0300
Venus	80663-11-07 02:24 G	31182925.41	31182925.60	31182925.80	0.0527	0.0149
Mercury	80665-10-02 04:48 G	31183620.58	31183620.70	31183620.83	0.0501	0.0190
Mercury	80665-12-30 12:44 G	31183709.99	31183710.03	31183710.07	0.0499	0.0478
Venus	80669-01-11 04:48 G	31184817.61	31184817.70	31184817.79	0.0491	0.0436
Venus	80669-09-04 00:29 G	31185053.32	31185053.52	31185053.72	0.0496	0.0104
Venus	80670-04-28 01:27 G	31185289.39	31185289.56	31185289.74	0.0503	0.0254
Mercury	80672-03-01 15:22 G	31185963.01	31185963.14	31185963.27	0.0528	0.0307
Venus	80674-11-16 09:22 G	31186952.77	31186952.89	31186953.02	0.0536	0.0421
Venus	80675-07-12 16:34 G	31187190.99	31187191.19	31187191.40	0.0529	0.0028
Venus	80676-03-06 15:36 G	31187429.05	31187429.15	31187429.26	0.0520	0.0448
Mercury	80677-07-21 08:53 G	31187930.77	31187930.87	31187930.96	0.0502	0.0351
Mercury	80677-10-18 16:20 G	31188020.08	31188020.18	31188020.29	0.0499	0.0313
Venus	80681-05-10 05:03 G	31189319.52	31189319.71	31189319.89	0.0495	0.0199
Venus	80682-01-01 04:34 G	31189555.50	31189555.69	31189555.88	0.0501	0.0155
Moon	80682-11-06 02:24 G	31189864.39	31189864.60	31189864.82	0.0512	0.0152
Earth	80682-11-06 06:15 G	31189864.54	31189864.76	31189864.98	0.0512	0.0184 *
Mercury	80683-12-19 14:53 G	31190272.95	31190273.12	31190273.28	0.0527	0.0085
Venus	80687-03-17 04:05 G	31191456.47	31191456.67	31191456.87	0.0531	0.0097
Venus	80687-11-10 04:48 G	31191694.55	31191694.70	31191694.86	0.0522	0.0337
Moon	80688-05-02 13:12 G	31191868.91	31191869.05	31191869.21	0.0516	0.0380
Earth	80688-05-02 14:39 G	31191868.97	31191869.11	31191869.27	0.0516	0.0396 *
Mercury	80689-08-06 19:12 G	31192330.17	31192330.30	31192330.44	0.0500	0.0134
Venus	80693-01-13 08:53 G	31193585.71	31193585.87	31193586.03	0.0493	0.0293
Venus	80693-09-06 07:12 G	31193821.60	31193821.80	31193822.00	0.0499	0.0056
Venus	80694-04-30 12:00 G	31194057.90	31194058.00	31194058.12	0.0507	0.0418
Earth	80694-11-10 21:22 G	31194252.20	31194252.39	31194252.58	0.0514	0.0288
Moon	80694-11-11 01:12 G	31194252.37	31194252.55	31194252.75	0.0514	0.0295 *

Mercury	80695-10-07 13:41 G	31194582.91	31194583.07	31194583.23	0.0526	0.0152
Venus	80698-11-19 15:08 G	31195721.95	31195722.13	31195722.32	0.0532	0.0223
Venus	80699-07-15 18:15 G	31195960.08	31195960.26	31195960.45	0.0525	0.0220
Earth	80700-05-08 10:20 G	31196256.70	31196256.93	31196257.17	0.0514	0.0090
Moon	80700-05-08 13:56 G	31196256.84	31196257.08	31196257.32	0.0514	0.0061 *
Mercury	80701-05-26 22:48 G	31196640.32	31196640.45	31196640.59	0.0501	0.0038
Venus	80704-09-19 12:58 G	31197851.92	31197852.04	31197852.17	0.0492	0.0384
Venus	80705-05-13 09:36 G	31198087.70	31198087.90	31198088.11	0.0497	0.0046
Venus	80706-01-04 12:00 G	31198323.85	31198324.00	31198324.16	0.0504	0.0315
Mercury	80707-07-27 11:03 G	31198892.86	31198892.96	31198893.06	0.0525	0.0411
Venus	80710-07-26 00:44 G	31199987.38	31199987.53	31199987.68	0.0535	0.0351
Venus	80711-03-21 06:29 G	31200225.57	31200225.77	31200225.98	0.0528	0.0099
Venus	80711-11-14 03:51 G	31200463.64	31200463.66	31200463.71	0.0519	0.0510
Mercury	80713-03-15 02:53 G	31200950.49	31200950.62	31200950.74	0.0502	0.0197
Mercury	80713-06-12 10:34 G	31201039.90	31201039.94	31201039.99	0.0499	0.0472
Venus	80716-05-25 18:00 G	31202118.19	31202118.25	31202118.30	0.0490	0.0470
Venus	80717-01-16 13:12 G	31202353.86	31202354.05	31202354.25	0.0495	0.0142
Venus	80717-09-09 13:27 G	31202589.88	31202590.06	31202590.24	0.0502	0.0215
Mercury	80719-08-13 12:58 G	31203292.91	31203293.04	31203293.17	0.0528	0.0303
Venus	80722-03-30 11:46 G	31204252.90	31204252.99	31204253.09	0.0536	0.0473
Venus	80722-11-23 19:41 G	31204491.12	31204491.32	31204491.53	0.0530	0.0025
Venus	80723-07-19 20:10 G	31204729.21	31204729.34	31204729.47	0.0522	0.0403
Mercury	80725-01-01 06:44 G	31205260.69	31205260.78	31205260.88	0.0502	0.0356
Mercury	80725-03-31 14:24 G	31205349.99	31205350.10	31205350.21	0.0499	0.0309
Venus	80728-09-21 16:34 G	31206620.02	31206620.19	31206620.37	0.0494	0.0237
Venus	80729-05-15 15:08 G	31206855.93	31206856.13	31206856.32	0.0500	0.0114
Venus	80730-01-06 20:24 G	31207092.29	31207092.35	31207092.43	0.0508	0.0474
Mercury	80731-06-01 11:46 G	31207602.82	31207602.99	31207603.15	0.0527	0.0067
Venus	80734-07-29 08:53 G	31208756.68	31208756.87	31208757.07	0.0532	0.0148
Venus	80735-03-24 11:32 G	31208994.82	31208994.98	31208995.16	0.0524	0.0293

Mercury	80737-01-17 18:00 G	31209660.12	31209660.25	31209660.39	0.0500	0.0145
Venus	80740-05-27 21:22 G	31210886.24	31210886.39	31210886.54	0.0492	0.0329
Venus	80741-01-18 18:44 G	31211122.07	31211122.28	31211122.48	0.0498	0.0019
Venus	80741-09-11 22:05 G	31211358.29	31211358.42	31211358.56	0.0506	0.0377
Mercury	80743-03-20 11:03 G	31211912.80	31211912.96	31211913.12	0.0526	0.0160
Venus	80746-04-02 20:10 G	31213022.17	31213022.34	31213022.52	0.0533	0.0274
Venus	80746-11-27 00:29 G	31213260.33	31213260.52	31213260.71	0.0526	0.0174
Mercury	80748-11-05 21:08 G	31213970.25	31213970.38	31213970.52	0.0500	0.0038
Venus	80752-02-01 01:12 G	31215152.45	31215152.55	31215152.66	0.0491	0.0419
Venus	80752-09-23 21:36 G	31215388.21	31215388.40	31215388.60	0.0497	0.0084
Venus	80753-05-17 23:32 G	31215624.31	31215624.48	31215624.65	0.0504	0.0277
Mercury	80755-01-06 09:36 G	31216222.79	31216222.90	31216223.01	0.0526	0.0398
Venus	80757-12-06 06:44 G	31217287.65	31217287.78	31217287.92	0.0535	0.0398
Venus	80758-08-01 12:58 G	31217525.83	31217526.04	31217526.24	0.0528	0.0051
Venus	80759-03-27 10:48 G	31217763.87	31217763.95	31217764.04	0.0520	0.0469
Mercury	80760-08-25 00:44 G	31218280.41	31218280.53	31218280.66	0.0501	0.0203
Mercury	80760-11-22 08:39 G	31218369.81	31218369.86	31218369.91	0.0499	0.0465
Venus	80764-05-30 01:12 G	31219654.36	31219654.55	31219654.73	0.0495	0.0181
Venus	80765-01-21 00:44 G	31219890.34	31219890.53	31219890.72	0.0501	0.0174
Earth	80765-11-06 06:29 G	31220179.59	31220179.77	31220179.97	0.0511	0.0274
Moon	80765-11-06 10:48 G	31220179.74	31220179.95	31220180.15	0.0511	0.0237 *
Mercury	80767-01-23 10:48 G	31220622.82	31220622.95	31220623.09	0.0527	0.0303
Venus	80769-08-10 15:08 G	31221553.09	31221553.13	31221553.18	0.0537	0.0523
Venus	80770-04-05 23:17 G	31221791.27	31221791.47	31221791.68	0.0531	0.0078
Venus	80770-11-30 00:44 G	31222029.38	31222029.53	31222029.68	0.0523	0.0357
Earth	80771-05-03 12:44 G	31222183.97	31222184.03	31222184.10	0.0517	0.0494
Moon	80771-05-03 15:51 G	31222184.07	31222184.16	31222184.25	0.0517	0.0479 *
Mercury	80772-06-13 04:48 G	31222590.60	31222590.70	31222590.79	0.0502	0.0364
Mercury	80772-09-10 12:15 G	31222679.90	31222680.01	31222680.12	0.0500	0.0301
Venus	80776-02-03 05:17 G	31223920.56	31223920.72	31223920.89	0.0493	0.0274

Venus	80776-09-26 03:08 G	31224156.43	31224156.63	31224156.83	0.0499	0.0075
Venus	80777-05-20 07:27 G	31224392.71	31224392.81	31224392.92	0.0507	0.0435
Moon	80777-11-10 16:20 G	31224566.96	31224567.18	31224567.40	0.0513	0.0194
Earth	80777-11-10 19:56 G	31224567.12	31224567.33	31224567.55	0.0513	0.0188 *
Mercury	80778-11-11 09:22 G	31224932.72	31224932.89	31224933.05	0.0527	0.0061
Venus	80781-12-09 11:17 G	31226056.78	31226056.97	31226057.16	0.0533	0.0203
Venus	80782-08-04 15:22 G	31226294.95	31226295.14	31226295.32	0.0525	0.0243
Moon	80783-05-08 07:12 G	31226571.57	31226571.80	31226572.04	0.0515	0.0028
Earth	80783-05-08 11:17 G	31226571.74	31226571.97	31226572.21	0.0515	0.0009 *
Mercury	80784-06-29 16:05 G	31226990.04	31226990.17	31226990.30	0.0500	0.0138
Venus	80787-10-09 09:08 G	31228186.75	31228186.88	31228187.01	0.0492	0.0365
Venus	80788-06-01 05:32 G	31228422.53	31228422.73	31228422.93	0.0497	0.0025
Venus	80789-01-23 07:41 G	31228658.67	31228658.82	31228658.97	0.0504	0.0335
Mercury	80790-08-30 07:41 G	31229242.67	31229242.82	31229242.98	0.0526	0.0181
Venus	80793-08-13 23:46 G	31230322.33	31230322.49	31230322.65	0.0535	0.0326
Venus	80794-04-09 05:32 G	31230560.54	31230560.73	31230560.94	0.0528	0.0126
Earth	80795-05-13 09:08 G	31230959.83	31230959.88	31230959.94	0.0513	0.0496
Moon	80795-05-13 12:58 G	31230959.96	31230960.04	31230960.13	0.0513	0.0477
Mercury	80796-04-17 19:56 G	31231300.19	31231300.33	31231300.47	0.0501	0.0025
Venus	80799-06-14 13:56 G	31232453.01	31232453.08	31232453.16	0.0491	0.0453
Venus	80800-02-05 09:22 G	31232688.70	31232688.89	31232689.09	0.0495	0.0123
Venus	80800-09-28 10:05 G	31232924.74	31232924.92	31232925.10	0.0502	0.0237
Mercury	80802-06-18 06:44 G	31233552.68	31233552.78	31233552.89	0.0526	0.0411
Venus	80805-04-18 11:17 G	31234587.86	31234587.97	31234588.08	0.0536	0.0448
Venus	80805-12-12 18:15 G	31234826.06	31234826.26	31234826.47	0.0529	0.0006
Venus	80806-08-07 17:32 G	31235064.12	31235064.23	31235064.35	0.0521	0.0426
Mercury	80808-02-04 23:03 G	31235610.34	31235610.46	31235610.59	0.0501	0.0201
Mercury	80808-05-04 06:44 G	31235699.74	31235699.78	31235699.83	0.0499	0.0466
Venus	80811-10-11 12:58 G	31236954.86	31236955.04	31236955.22	0.0494	0.0219
Venus	80812-06-03 12:00 G	31237190.81	31237191.00	31237191.20	0.0501	0.0136

Venus	80813-01-25 18:15 G	31237427.23	31237427.26	31237427.31	0.0509	0.0496
Mercury	80814-07-05 09:22 G	31237952.76	31237952.89	31237953.02	0.0528	0.0314
Mars	80815-05-21 01:27 G	31238272.31	31238272.56	31238272.81	0.0536	0.0241
Venus	80817-08-17 05:46 G	31239091.55	31239091.74	31239091.94	0.0531	0.0125
Venus	80818-04-12 07:27 G	31239329.65	31239329.81	31239329.98	0.0523	0.0315
Mercury	80819-11-24 02:53 G	31239920.53	31239920.62	31239920.71	0.0502	0.0367
Mercury	80820-02-21 10:20 G	31240009.82	31240009.93	31240010.04	0.0499	0.0296
Venus	80823-06-16 17:03 G	31241221.06	31241221.21	31241221.37	0.0493	0.0312
Venus	80824-02-07 14:39 G	31241456.91	31241457.11	31241457.31	0.0498	0.0034
Venus	80824-09-30 18:15 G	31241693.13	31241693.26	31241693.38	0.0506	0.0395
Mercury	80826-04-23 07:12 G	31242262.63	31242262.80	31242262.96	0.0527	0.0062
Venus	80829-04-21 14:39 G	31243356.94	31243357.11	31243357.30	0.0534	0.0257
Venus	80829-12-15 19:27 G	31243595.12	31243595.31	31243595.50	0.0526	0.0193
Mercury	80831-12-10 13:56 G	31244319.95	31244320.08	31244320.22	0.0500	0.0132
Venus	80835-02-19 22:05 G	31245487.30	31245487.42	31245487.53	0.0491	0.0401
Venus	80835-10-13 18:00 G	31245723.05	31245723.25	31245723.45	0.0496	0.0065
Venus	80836-06-05 19:12 G	31245959.14	31245959.30	31245959.46	0.0503	0.0295
Mercury	80838-02-09 05:17 G	31246572.57	31246572.72	31246572.88	0.0526	0.0185
Venus	80840-12-25 01:41 G	31247622.43	31247622.57	31247622.72	0.0535	0.0381
Venus	80841-08-20 08:39 G	31247860.66	31247860.86	31247861.07	0.0529	0.0071
Venus	80842-04-15 07:27 G	31248098.75	31248098.81	31248098.88	0.0520	0.0489
Mercury	80843-09-28 17:46 G	31248630.11	31248630.24	31248630.38	0.0501	0.0033
Venus	80846-10-26 02:10 G	31249753.57	31249753.59	31249753.60	0.0490	0.0487
Venus	80847-06-18 20:53 G	31249989.18	31249989.37	31249989.56	0.0494	0.0161
Venus	80848-02-09 20:24 G	31250225.16	31250225.35	31250225.53	0.0501	0.0195
Moon	80848-11-05 02:39 G	31250494.44	31250494.61	31250494.79	0.0511	0.0333
Earth	80848-11-05 06:15 G	31250494.61	31250494.76	31250494.93	0.0511	0.0367 *
Mercury	80849-11-28 03:22 G	31250882.55	31250882.64	31250882.74	0.0525	0.0431
Mercury	80850-02-26 06:58 G	31250972.78	31250972.79	31250972.81	0.0528	0.0526
Venus	80852-08-29 13:27 G	31251887.99	31251888.06	31251888.14	0.0537	0.0501

Venus	80853-04-24 22:05 G	31252126.21	31252126.42	31252126.62	0.0531	0.0052
Venus	80853-12-18 23:17 G	31252364.34	31252364.47	31252364.62	0.0523	0.0383
Mercury	80855-07-17 21:51 G	31252940.28	31252940.41	31252940.53	0.0502	0.0194
Mercury	80855-10-15 05:32 G	31253029.69	31253029.73	31253029.77	0.0499	0.0474
Venus	80859-02-22 01:27 G	31254255.38	31254255.56	31254255.73	0.0493	0.0256
Venus	80859-10-15 23:17 G	31254491.27	31254491.47	31254491.67	0.0499	0.0095
Venus	80860-06-08 03:51 G	31254727.58	31254727.66	31254727.75	0.0507	0.0456
Earth	80860-11-09 21:36 G	31254882.17	31254882.40	31254882.62	0.0513	0.0102
Moon	80860-11-09 23:46 G	31254882.27	31254882.49	31254882.71	0.0513	0.0103 *
Mercury	80861-12-15 06:29 G	31255282.64	31255282.77	31255282.91	0.0528	0.0302
Venus	80864-12-28 10:34 G	31256391.75	31256391.94	31256392.14	0.0532	0.0177
Venus	80865-08-23 13:41 G	31256629.89	31256630.07	31256630.25	0.0525	0.0268
Earth	80866-05-07 11:03 G	31256886.73	31256886.96	31256887.20	0.0515	0.0085
Moon	80866-05-07 15:08 G	31256886.91	31256887.13	31256887.36	0.0515	0.0114 *
Mercury	80867-05-06 01:12 G	31257250.46	31257250.55	31257250.64	0.0502	0.0365
Mercury	80867-08-03 08:39 G	31257339.75	31257339.86	31257339.97	0.0499	0.0297
Venus	80870-10-28 04:48 G	31258521.56	31258521.70	31258521.85	0.0492	0.0349
Venus	80871-06-21 01:56 G	31258757.38	31258757.58	31258757.79	0.0498	0.0009
Venus	80872-02-12 04:48 G	31258993.57	31258993.70	31258993.85	0.0505	0.0357
Mercury	80873-10-03 05:32 G	31259592.56	31259592.73	31259592.89	0.0527	0.0069
Venus	80876-09-01 21:36 G	31260657.23	31260657.40	31260657.57	0.0534	0.0303
Venus	80877-04-28 02:39 G	31260895.41	31260895.61	31260895.81	0.0527	0.0147
Moon	80878-05-12 03:36 G	31261274.49	31261274.65	31261274.81	0.0513	0.0376
Earth	80878-05-12 06:44 G	31261274.64	31261274.78	31261274.93	0.0513	0.0397 *
Mercury	80879-05-22 12:15 G	31261649.87	31261650.01	31261650.14	0.0500	0.0129
Mars	80880-05-14 19:41 G	31262008.09	31262008.32	31262008.55	0.0491	0.0256
Venus	80882-07-03 09:51 G	31262787.82	31262787.91	31262788.00	0.0491	0.0438
Venus	80883-02-24 05:32 G	31263023.54	31263023.73	31263023.93	0.0496	0.0105
Venus	80883-10-18 06:15 G	31263259.59	31263259.76	31263259.93	0.0502	0.0255
Mercury	80885-07-22 03:08 G	31263902.48	31263902.63	31263902.79	0.0526	0.0185

Venus	80888-05-07 05:17 G	31264922.61	31264922.72	31264922.84	0.0536	0.0432
Venus	80888-12-31 12:58 G	31265160.83	31265161.04	31265161.24	0.0530	0.0022
Venus	80889-08-26 12:44 G	31265398.93	31265399.03	31265399.14	0.0521	0.0445
Mercury	80891-03-10 15:51 G	31265960.02	31265960.16	31265960.30	0.0501	0.0037
Venus	80894-10-30 09:51 G	31267289.72	31267289.91	31267290.09	0.0494	0.0200
Venus	80895-06-23 08:24 G	31267525.66	31267525.85	31267526.05	0.0500	0.0155
Mercury	80897-05-10 01:12 G	31268212.46	31268212.55	31268212.65	0.0525	0.0432
Mercury	80897-08-08 04:48 G	31268302.69	31268302.70	31268302.72	0.0528	0.0524
Venus	80900-09-06 00:44 G	31269426.33	31269426.53	31269426.74	0.0532	0.0107
Venus	80901-05-02 03:22 G	31269664.49	31269664.64	31269664.80	0.0524	0.0334
Mercury	80902-12-28 19:41 G	31270270.20	31270270.32	31270270.45	0.0502	0.0199
Mercury	80903-03-28 03:22 G	31270359.60	31270359.64	31270359.69	0.0499	0.0470
Venus	80906-07-06 13:27 G	31271555.90	31271556.06	31271556.22	0.0492	0.0293
Venus	80907-02-27 10:34 G	31271791.74	31271791.94	31271792.14	0.0498	0.0054
Venus	80907-10-21 13:56 G	31272027.97	31272028.08	31272028.19	0.0506	0.0415
Mercury	80909-05-28 03:22 G	31272612.51	31272612.64	31272612.78	0.0527	0.0285
Venus	80912-05-11 13:12 G	31273691.87	31273692.05	31273692.24	0.0534	0.0232
Venus	80913-01-04 18:15 G	31273930.08	31273930.26	31273930.45	0.0526	0.0219
Mercury	80914-10-16 23:46 G	31274580.40	31274580.49	31274580.59	0.0502	0.0359
Mercury	80915-01-14 07:12 G	31274669.69	31274669.80	31274669.91	0.0500	0.0305
Venus	80918-03-11 18:00 G	31275822.13	31275822.25	31275822.38	0.0491	0.0384
Venus	80918-11-02 13:56 G	31276057.88	31276058.08	31276058.29	0.0496	0.0046
Venus	80919-06-26 15:22 G	31276293.99	31276294.14	31276294.30	0.0504	0.0317
Mercury	80921-03-16 02:39 G	31276922.45	31276922.61	31276922.78	0.0527	0.0057
Venus	80924-01-15 01:56 G	31277957.43	31277957.58	31277957.73	0.0535	0.0355
Venus	80924-09-09 08:10 G	31278195.64	31278195.84	31278196.04	0.0528	0.0098
Venus	80925-05-05 06:15 G	31278433.73	31278433.76	31278433.79	0.0520	0.0512
Mercury	80926-11-02 10:34 G	31278979.81	31278979.94	31278980.08	0.0500	0.0133
Venus	80929-11-14 21:51 G	31280088.37	31280088.41	31280088.47	0.0490	0.0472
Venus	80930-07-08 17:17 G	31280324.03	31280324.22	31280324.42	0.0495	0.0143

Venus	80931-03-01 17:32 G	31280560.05	31280560.23	31280560.41	0.0502	0.0216
Earth	80931-11-06 09:51 G	31280809.81	31280809.91	31280810.03	0.0510	0.0443
Moon	80931-11-06 12:29 G	31280809.89	31280810.02	31280810.16	0.0510	0.0412 *
Mercury	80933-01-02 01:27 G	31281232.41	31281232.56	31281232.72	0.0526	0.0178
Venus	80935-09-19 12:29 G	31282222.93	31282223.02	31282223.12	0.0536	0.0478
Venus	80936-05-14 20:24 G	31282461.14	31282461.35	31282461.55	0.0530	0.0028
Venus	80937-01-07 20:53 G	31282699.24	31282699.37	31282699.50	0.0522	0.0405
Mercury	80938-08-21 14:10 G	31283289.96	31283290.09	31283290.23	0.0501	0.0038
Venus	80942-03-13 21:51 G	31284590.24	31284590.41	31284590.59	0.0493	0.0238
Venus	80942-11-04 20:10 G	31284826.14	31284826.34	31284826.53	0.0499	0.0114
Venus	80943-06-29 00:44 G	31285062.47	31285062.53	31285062.61	0.0507	0.0474
Moon	80943-11-10 22:34 G	31285197.20	31285197.44	31285197.68	0.0512	0.0016
Earth	80943-11-10 23:17 G	31285197.24	31285197.47	31285197.70	0.0512	0.0021 *
Mercury	80944-10-20 23:17 G	31285542.38	31285542.47	31285542.57	0.0525	0.0429
Mercury	80945-01-19 02:53 G	31285632.61	31285632.62	31285632.63	0.0528	0.0527
Venus	80948-01-18 05:17 G	31286726.52	31286726.72	31286726.91	0.0533	0.0159
Venus	80948-09-12 08:39 G	31286964.69	31286964.86	31286965.04	0.0525	0.0286
Moon	80949-05-07 04:48 G	31287201.48	31287201.70	31287201.92	0.0516	0.0213
Earth	80949-05-07 08:24 G	31287201.63	31287201.85	31287202.07	0.0516	0.0183 *
Mercury	80950-06-09 17:46 G	31287600.12	31287600.24	31287600.37	0.0502	0.0202
Mercury	80950-09-07 01:41 G	31287689.52	31287689.57	31287689.61	0.0499	0.0467
Venus	80953-11-17 02:53 G	31288856.47	31288856.62	31288856.77	0.0492	0.0329
Venus	80954-07-10 23:32 G	31289092.28	31289092.48	31289092.69	0.0497	0.0019
Venus	80955-03-04 02:10 G	31289328.45	31289328.59	31289328.72	0.0505	0.0376
Moon	80955-11-15 12:00 G	31289584.90	31289585.00	31289585.10	0.0514	0.0458
Earth	80955-11-15 13:27 G	31289584.99	31289585.06	31289585.13	0.0514	0.0488 *
Mercury	80956-11-07 01:27 G	31289942.42	31289942.56	31289942.70	0.0527	0.0288
Venus	80959-09-22 16:20 G	31290992.00	31290992.18	31290992.35	0.0535	0.0286
Venus	80960-05-17 22:05 G	31291230.22	31291230.42	31291230.61	0.0528	0.0167
Earth	80961-05-12 06:00 G	31291589.57	31291589.75	31291589.94	0.0514	0.0311

Moon	80961-05-12 07:41 G	31291589.64	31291589.82	31291590.01	0.0514	0.0302 *
Mercury	80962-03-28 21:51 G	31291910.32	31291910.41	31291910.50	0.0503	0.0362
Mercury	80962-06-26 05:17 G	31291999.61	31291999.72	31291999.83	0.0500	0.0304
Venus	80965-07-23 06:58 G	31293122.69	31293122.79	31293122.90	0.0490	0.0419
Venus	80966-03-16 02:24 G	31293358.40	31293358.60	31293358.80	0.0495	0.0083
Venus	80966-11-07 02:39 G	31293594.45	31293594.61	31293594.78	0.0502	0.0276
Mercury	80968-08-25 23:46 G	31294252.33	31294252.49	31294252.66	0.0526	0.0047
Venus	80971-05-28 04:05 G	31295257.54	31295257.67	31295257.80	0.0536	0.0409
Venus	80972-01-21 12:00 G	31295495.80	31295496.00	31295496.21	0.0530	0.0046
Venus	80972-09-15 12:00 G	31295733.92	31295734.00	31295734.09	0.0521	0.0470
Mercury	80974-04-14 09:08 G	31296309.75	31296309.88	31296310.02	0.0500	0.0141
Venus	80977-11-19 06:29 G	31297624.58	31297624.77	31297624.96	0.0494	0.0179
Venus	80978-07-13 05:17 G	31297860.53	31297860.72	31297860.91	0.0500	0.0176
Mercury	80980-06-13 22:48 G	31298562.30	31298562.45	31298562.61	0.0526	0.0186
Venus	80983-01-30 16:34 G	31299523.16	31299523.19	31299523.23	0.0537	0.0528
Venus	80983-09-26 01:27 G	31299761.36	31299761.56	31299761.76	0.0532	0.0079
Venus	80984-05-21 03:22 G	31299999.50	31299999.64	31299999.79	0.0523	0.0360
Mercury	80986-01-31 12:44 G	31300619.90	31300620.03	31300620.17	0.0501	0.0030
Venus	80989-07-25 10:20 G	31301890.76	31301890.93	31301891.10	0.0493	0.0275
Venus	80990-03-18 07:56 G	31302126.63	31302126.83	31302127.03	0.0499	0.0075
Venus	80990-11-09 12:00 G	31302362.90	31302363.00	31302363.10	0.0506	0.0437
Mercury	80992-04-01 21:36 G	31302872.30	31302872.40	31302872.50	0.0525	0.0421
Venus	80995-05-31 13:12 G	31304026.86	31304027.05	31304027.24	0.0533	0.0205
Venus	80996-01-24 17:32 G	31304265.05	31304265.23	31304265.41	0.0526	0.0244
Mercury	80997-11-19 16:34 G	31304930.06	31304930.19	31304930.32	0.0502	0.0193
Mercury	80998-02-17 00:15 G	31305019.47	31305019.51	31305019.55	0.0499	0.0473

82ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 82nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	81001-03-31 15:22	G	31306157.01	31306157.14	31306157.28	0.0491	0.0366	
Venus	81001-11-22 11:46	G	31306392.79	31306392.99	31306393.19	0.0497	0.0024	
Venus	81002-07-16 13:27	G	31306628.92	31306629.06	31306629.22	0.0504	0.0337	
Mercury	81004-04-19 23:46	G	31307272.35	31307272.49	31307272.62	0.0527	0.0295	
Venus	81007-02-03 21:08	G	31308292.22	31308292.38	31308292.54	0.0535	0.0336	
Venus	81007-09-30 03:36	G	31308530.45	31308530.65	31308530.85	0.0528	0.0117	
Mercury	81009-09-08 20:10	G	31309240.25	31309240.34	31309240.43	0.0503	0.0361	
Mercury	81009-12-07 03:36	G	31309329.54	31309329.65	31309329.76	0.0500	0.0305	
Venus	81012-12-04 21:08	G	31310423.31	31310423.38	31310423.46	0.0490	0.0452	
Venus	81013-07-28 16:20	G	31310658.99	31310659.18	31310659.38	0.0495	0.0120	
Venus	81014-03-21 16:05	G	31310894.99	31310895.17	31310895.35	0.0501	0.0237	
Moon	81014-11-06 13:12	G	31311124.98	31311125.05	31311125.12	0.0509	0.0485	
Mercury	81016-02-06 22:20	G	31311582.26	31311582.43	31311582.59	0.0526	0.0056	
Venus	81018-10-09 07:27	G	31312557.71	31312557.81	31312557.92	0.0537	0.0460	
Venus	81019-06-04 15:51	G	31312795.95	31312796.16	31312796.37	0.0531	0.0007	
Venus	81020-01-28 17:17	G	31313034.10	31313034.22	31313034.34	0.0523	0.0425	
Mercury	81021-09-25 07:27	G	31313639.68	31313639.81	31313639.95	0.0501	0.0142	
Venus	81025-04-02 19:41	G	31314925.15	31314925.32	31314925.51	0.0493	0.0216	
Venus	81025-11-24 17:46	G	31315161.04	31315161.24	31315161.43	0.0499	0.0137	
Venus	81026-07-18 22:20	G	31315397.39	31315397.43	31315397.47	0.0507	0.0495	
Moon	81026-11-11 00:29	G	31315512.31	31315512.52	31315512.75	0.0511	0.0077	
Earth	81026-11-11 01:41	G	31315512.34	31315512.57	31315512.80	0.0511	0.0061	*

Mercury	81027-11-25 20:24 G	31315892.20	31315892.35	31315892.51	0.0526	0.0191
Venus	81031-02-07 04:48 G	31317061.51	31317061.70	31317061.90	0.0533	0.0133
Venus	81031-10-03 08:39 G	31317299.70	31317299.86	31317300.03	0.0525	0.0313
Earth	81032-05-07 12:29 G	31317516.82	31317517.02	31317517.23	0.0517	0.0255
Moon	81032-05-07 14:39 G	31317516.92	31317517.11	31317517.30	0.0517	0.0285 *
Mercury	81033-07-14 11:32 G	31317949.84	31317949.98	31317950.12	0.0501	0.0020
Mars	81034-08-10 16:20 G	31318341.92	31318342.18	31318342.44	0.0491	0.0142
Venus	81036-12-07 00:15 G	31319191.36	31319191.51	31319191.68	0.0492	0.0309
Venus	81037-07-30 21:08 G	31319427.18	31319427.38	31319427.58	0.0497	0.0038
Venus	81038-03-23 23:32 G	31319663.36	31319663.48	31319663.61	0.0505	0.0399
Earth	81038-11-15 16:34 G	31319900.06	31319900.19	31319900.33	0.0514	0.0409
Moon	81038-11-15 19:12 G	31319900.14	31319900.30	31319900.46	0.0514	0.0377 *
Mercury	81039-09-13 19:12 G	31320202.21	31320202.30	31320202.40	0.0525	0.0424
Venus	81042-10-12 18:00 G	31321327.07	31321327.25	31321327.43	0.0534	0.0257
Venus	81043-06-07 23:32 G	31321565.29	31321565.48	31321565.67	0.0527	0.0196
Earth	81044-05-12 11:17 G	31321904.77	31321904.97	31321905.18	0.0514	0.0246
Moon	81044-05-12 11:32 G	31321904.77	31321904.98	31321905.20	0.0514	0.0242 *
Mercury	81045-05-02 15:22 G	31322260.01	31322260.14	31322260.26	0.0502	0.0184
Mercury	81045-07-30 22:48 G	31322349.42	31322349.45	31322349.48	0.0499	0.0483
Venus	81048-08-12 04:34 G	31323457.58	31323457.69	31323457.81	0.0491	0.0400
Venus	81049-04-05 00:15 G	31323693.31	31323693.51	31323693.72	0.0496	0.0063
Venus	81049-11-27 01:12 G	31323929.39	31323929.55	31323929.71	0.0503	0.0298
Mercury	81051-09-30 22:20 G	31324602.30	31324602.43	31324602.56	0.0528	0.0308
Venus	81054-06-17 05:32 G	31325592.59	31325592.73	31325592.88	0.0536	0.0382
Venus	81055-02-10 12:44 G	31325830.83	31325831.03	31325831.24	0.0529	0.0075
Venus	81055-10-06 12:00 G	31326068.94	31326069.00	31326069.07	0.0521	0.0494
Mercury	81057-02-18 19:12 G	31326570.20	31326570.30	31326570.40	0.0502	0.0347
Mercury	81057-05-19 02:39 G	31326659.50	31326659.61	31326659.71	0.0500	0.0317
Venus	81060-04-17 10:20 G	31327723.91	31327723.93	31327723.96	0.0490	0.0486
Venus	81060-12-09 05:17 G	31327959.53	31327959.72	31327959.91	0.0494	0.0158

Venus	81061-08-02 04:20 G	31328195.50	31328195.68	31328195.87	0.0501	0.0199
Mercury	81063-07-19 20:39 G	31328912.20	31328912.36	31328912.53	0.0526	0.0069
Venus	81066-02-19 13:12 G	31329857.99	31329858.05	31329858.11	0.0537	0.0507
Venus	81066-10-15 21:51 G	31330096.20	31330096.41	31330096.61	0.0531	0.0057
Venus	81067-06-10 23:46 G	31330334.36	31330334.49	31330334.64	0.0524	0.0381
Mercury	81069-03-07 06:00 G	31330969.62	31330969.75	31330969.88	0.0501	0.0146
Venus	81072-08-14 10:34 G	31332225.77	31332225.94	31332226.11	0.0493	0.0251
Venus	81073-04-07 07:56 G	31332461.64	31332461.83	31332462.03	0.0498	0.0100
Venus	81073-11-29 11:32 G	31332697.90	31332697.98	31332698.07	0.0506	0.0459
Mercury	81075-05-07 19:12 G	31333222.15	31333222.30	31333222.46	0.0525	0.0172
Venus	81078-06-20 09:08 G	31334361.69	31334361.88	31334362.07	0.0533	0.0185
Venus	81079-02-13 13:56 G	31334599.90	31334600.08	31334600.26	0.0526	0.0265
Mercury	81080-12-24 09:51 G	31335279.77	31335279.91	31335280.05	0.0502	0.0016
Venus	81084-04-19 14:39 G	31336491.97	31336492.11	31336492.26	0.0491	0.0343
Venus	81084-12-11 10:34 G	31336727.74	31336727.94	31336728.15	0.0496	0.0007
Venus	81085-08-04 12:15 G	31336963.87	31336964.01	31336964.15	0.0504	0.0360
Mercury	81087-02-23 17:17 G	31337532.12	31337532.22	31337532.32	0.0525	0.0420
Venus	81090-02-22 21:22 G	31338627.23	31338627.39	31338627.56	0.0535	0.0310
Venus	81090-10-19 04:20 G	31338865.48	31338865.68	31338865.87	0.0529	0.0147
Mercury	81092-10-12 13:56 G	31339589.95	31339590.08	31339590.21	0.0502	0.0175
Mercury	81093-01-09 21:36 G	31339679.39	31339679.40	31339679.42	0.0499	0.0494
Venus	81095-12-24 19:41 G	31340758.23	31340758.32	31340758.42	0.0490	0.0431
Venus	81096-08-16 14:39 G	31340993.92	31340994.11	31340994.31	0.0495	0.0098
Venus	81097-04-09 14:24 G	31341229.93	31341230.10	31341230.27	0.0501	0.0261
Mercury	81099-03-12 20:10 G	31341932.21	31341932.34	31341932.48	0.0527	0.0309
Venus	81101-10-29 10:20 G	31342892.81	31342892.93	31342893.05	0.0537	0.0432
Venus	81102-06-24 18:29 G	31343131.07	31343131.27	31343131.48	0.0531	0.0024
Venus	81103-02-17 19:27 G	31343369.22	31343369.31	31343369.42	0.0522	0.0453
Mercury	81104-08-01 17:46 G	31343900.15	31343900.24	31343900.35	0.0503	0.0337
Mercury	81104-10-30 01:12 G	31343989.45	31343989.55	31343989.66	0.0500	0.0329

Venus	81108-04-22 18:29 G	31345260.09	31345260.27	31345260.46	0.0493	0.0194
Venus	81108-12-14 16:48 G	31345496.01	31345496.20	31345496.40	0.0500	0.0161
Earth	81109-11-11 09:22 G	31345827.66	31345827.89	31345828.11	0.0511	0.0120
Moon	81109-11-11 11:46 G	31345827.77	31345827.99	31345828.22	0.0511	0.0139 *
Mercury	81110-12-30 19:27 G	31346242.15	31346242.31	31346242.47	0.0527	0.0082
Venus	81114-02-27 07:27 G	31347396.60	31347396.81	31347397.01	0.0532	0.0102
Venus	81114-10-23 10:20 G	31347634.78	31347634.93	31347635.09	0.0525	0.0342
Moon	81115-05-08 18:15 G	31347832.08	31347832.26	31347832.45	0.0517	0.0349
Earth	81115-05-08 18:44 G	31347832.09	31347832.28	31347832.46	0.0517	0.0317 *
Mercury	81116-05-20 21:51 G	31348210.40	31348210.41	31348210.43	0.0503	0.0497
Mercury	81116-08-18 05:03 G	31348299.58	31348299.71	31348299.84	0.0500	0.0164
Venus	81119-12-28 00:15 G	31349526.35	31349526.51	31349526.67	0.0492	0.0287
Venus	81120-08-19 21:22 G	31349762.19	31349762.39	31349762.59	0.0498	0.0062
Venus	81121-04-13 00:15 G	31349998.40	31349998.51	31349998.62	0.0505	0.0421
Moon	81121-11-15 21:36 G	31350215.23	31350215.40	31350215.58	0.0513	0.0324
Earth	81121-11-16 00:58 G	31350215.38	31350215.54	31350215.71	0.0513	0.0356 *
Mercury	81122-10-18 18:00 G	31350552.09	31350552.25	31350552.41	0.0525	0.0155
Venus	81125-11-01 15:36 G	31351661.97	31351662.15	31351662.33	0.0534	0.0233
Venus	81126-06-27 20:53 G	31351900.18	31351900.37	31351900.56	0.0527	0.0219
Moon	81127-05-13 10:34 G	31352219.72	31352219.94	31352220.16	0.0515	0.0161
Earth	81127-05-13 12:00 G	31352219.78	31352220.00	31352220.22	0.0515	0.0162 *
Mercury	81128-06-06 08:24 G	31352609.72	31352609.85	31352609.99	0.0502	0.0017
Venus	81131-09-02 06:00 G	31353792.62	31353792.75	31353792.88	0.0491	0.0375
Venus	81132-04-25 01:41 G	31354028.37	31354028.57	31354028.77	0.0496	0.0036
Venus	81132-12-17 02:39 G	31354264.45	31354264.61	31354264.76	0.0503	0.0324
Mercury	81134-08-06 16:34 G	31354862.08	31354862.19	31354862.30	0.0524	0.0394
Venus	81137-07-07 02:24 G	31355927.45	31355927.60	31355927.75	0.0536	0.0360
Venus	81138-03-02 09:51 G	31356165.71	31356165.91	31356166.11	0.0529	0.0097
Venus	81138-10-26 09:22 G	31356403.87	31356403.89	31356403.92	0.0521	0.0516
Mercury	81140-03-25 12:29 G	31356919.89	31356920.02	31356920.15	0.0502	0.0170

Venus	81143-05-08 10:48 G	31358058.89	31358058.95	31358059.01	0.0490	0.0463
Venus	81143-12-30 05:17 G	31358294.53	31358294.72	31358294.92	0.0494	0.0133
Venus	81144-08-22 04:05 G	31358530.49	31358530.67	31358530.85	0.0500	0.0224
Mercury	81146-08-23 18:29 G	31359262.14	31359262.27	31359262.41	0.0527	0.0319
Venus	81149-03-11 13:56 G	31360193.00	31360193.08	31360193.17	0.0537	0.0482
Venus	81149-11-04 23:03 G	31360431.26	31360431.46	31360431.67	0.0532	0.0027
Venus	81150-07-01 01:27 G	31360669.44	31360669.56	31360669.69	0.0524	0.0410
Mercury	81152-01-12 16:34 G	31361230.09	31361230.19	31361230.30	0.0503	0.0327
Mercury	81152-04-11 00:15 G	31361319.40	31361319.51	31361319.61	0.0500	0.0341
Venus	81155-09-04 09:51 G	31362560.73	31362560.91	31362561.09	0.0493	0.0227
Venus	81156-04-27 07:12 G	31362796.60	31362796.80	31362796.99	0.0498	0.0125
Venus	81156-12-19 10:48 G	31363032.90	31363032.95	31363033.01	0.0506	0.0483
Mercury	81158-06-11 17:46 G	31363572.07	31363572.24	31363572.40	0.0526	0.0089
Venus	81161-07-10 12:44 G	31364696.84	31364697.03	31364697.23	0.0533	0.0153
Venus	81162-03-05 17:17 G	31364935.06	31364935.22	31364935.40	0.0526	0.0297
Mercury	81163-10-31 20:53 G	31365540.33	31365540.37	31365540.40	0.0503	0.0484
Mercury	81164-01-29 04:05 G	31365629.54	31365629.67	31365629.80	0.0501	0.0178
Venus	81167-05-10 14:24 G	31366826.94	31366827.10	31366827.25	0.0491	0.0321
Venus	81168-01-01 10:34 G	31367062.74	31367062.94	31367063.14	0.0497	0.0025
Venus	81168-08-24 12:29 G	31367298.90	31367299.02	31367299.15	0.0504	0.0385
Mercury	81170-03-30 16:48 G	31367882.04	31367882.20	31367882.36	0.0526	0.0140
Venus	81173-03-15 01:12 G	31368962.38	31368962.55	31368962.73	0.0535	0.0278
Venus	81173-11-08 07:27 G	31369200.62	31369200.81	31369201.00	0.0528	0.0178
Mercury	81175-11-17 07:56 G	31369939.69	31369939.83	31369939.97	0.0501	0.0015
Venus	81179-01-13 20:24 G	31371093.24	31371093.35	31371093.46	0.0490	0.0409
Venus	81179-09-06 15:36 G	31371328.95	31371329.15	31371329.35	0.0495	0.0073
Venus	81180-04-29 15:51 G	31371564.99	31371565.16	31371565.32	0.0502	0.0287
Mercury	81182-01-16 15:22 G	31372192.03	31372192.14	31372192.26	0.0524	0.0374
Venus	81184-11-17 09:22 G	31373227.76	31373227.89	31373228.02	0.0536	0.0406
Venus	81185-07-13 17:03 G	31373466.01	31373466.21	31373466.42	0.0530	0.0049

Venus	81186-03-08 17:46 G	31373704.16	31373704.24	31373704.33	0.0522	0.0476
Mercury	81187-09-05 11:17 G	31374249.84	31374249.97	31374250.10	0.0502	0.0159
Venus	81191-05-12 20:53 G	31375595.18	31375595.37	31375595.56	0.0494	0.0166
Venus	81192-01-03 19:27 G	31375831.12	31375831.31	31375831.49	0.0500	0.0189
Moon	81192-11-10 17:03 G	31376143.00	31376143.21	31376143.42	0.0510	0.0186
Earth	81192-11-10 20:24 G	31376143.13	31376143.35	31376143.57	0.0510	0.0163 *
Mercury	81194-02-02 18:00 G	31376592.13	31376592.25	31376592.38	0.0527	0.0349
Venus	81196-07-22 19:56 G	31377493.30	31377493.33	31377493.37	0.0537	0.0528
Venus	81197-03-18 05:03 G	31377731.50	31377731.71	31377731.91	0.0532	0.0077
Venus	81197-11-11 08:10 G	31377969.69	31377969.84	31377969.98	0.0525	0.0365
Moon	81198-05-07 18:29 G	31378147.15	31378147.27	31378147.39	0.0518	0.0437
Earth	81198-05-07 19:27 G	31378147.17	31378147.31	31378147.46	0.0518	0.0402 *
Mercury	81199-06-24 15:08 G	31378560.03	31378560.13	31378560.24	0.0503	0.0320
Mercury	81199-09-21 22:34 G	31378649.35	31378649.44	31378649.54	0.0500	0.0349
Venus	81203-01-16 01:12 G	31379861.38	31379861.55	31379861.72	0.0492	0.0261
Venus	81203-09-08 21:51 G	31380097.22	31380097.41	31380097.61	0.0498	0.0090
Venus	81204-05-02 00:29 G	31380333.43	31380333.52	31380333.61	0.0505	0.0447
Earth	81204-11-15 08:24 G	31380530.66	31380530.85	31380531.04	0.0512	0.0294
Moon	81204-11-15 12:00 G	31380530.81	31380531.00	31380531.20	0.0512	0.0270 *
Mercury	81205-11-21 16:20 G	31380902.02	31380902.18	31380902.34	0.0526	0.0104
Venus	81208-11-20 17:17 G	31381997.03	31381997.22	31381997.41	0.0534	0.0204
Venus	81209-07-16 22:48 G	31382235.28	31382235.45	31382235.64	0.0527	0.0250
Earth	81210-05-12 19:56 G	31382535.10	31382535.33	31382535.57	0.0516	0.0107
Moon	81210-05-12 22:48 G	31382535.21	31382535.45	31382535.69	0.0516	0.0111 *
Mercury	81211-04-12 19:27 G	31382870.27	31382870.31	31382870.35	0.0504	0.0476
Mercury	81211-07-11 02:39 G	31382959.49	31382959.61	31382959.74	0.0501	0.0190
Venus	81214-09-21 06:00 G	31384127.62	31384127.75	31384127.90	0.0491	0.0352
Venus	81215-05-15 01:41 G	31384363.37	31384363.57	31384363.77	0.0496	0.0009
Venus	81216-01-06 02:24 G	31384599.46	31384599.60	31384599.74	0.0503	0.0350
Mercury	81217-09-09 15:08 G	31385211.97	31385212.13	31385212.30	0.0525	0.0129

Venus	81220-07-26 06:29 G	31386262.61	31386262.77	31386262.94	0.0536	0.0328
Venus	81221-03-21 13:56 G	31386500.88	31386501.08	31386501.28	0.0529	0.0130
Mercury	81223-04-29 06:44 G	31387269.64	31387269.78	31387269.92	0.0501	0.0029
Venus	81226-05-27 10:48 G	31388393.87	31388393.95	31388394.04	0.0490	0.0441
Venus	81227-01-18 05:46 G	31388629.54	31388629.74	31388629.93	0.0494	0.0108
Venus	81227-09-11 04:48 G	31388865.53	31388865.70	31388865.88	0.0501	0.0251
Mercury	81229-06-28 14:10 G	31389521.97	31389522.09	31389522.21	0.0525	0.0358
Venus	81232-03-30 18:44 G	31390528.17	31390528.28	31390528.39	0.0537	0.0450
Venus	81232-11-24 03:22 G	31390766.44	31390766.64	31390766.85	0.0531	0.0009
Venus	81233-07-20 05:03 G	31391004.61	31391004.71	31391004.83	0.0523	0.0440
Mercury	81235-02-15 10:48 G	31391579.82	31391579.95	31391580.08	0.0502	0.0133
Venus	81238-09-23 11:17 G	31392895.79	31392895.97	31392896.16	0.0493	0.0202
Venus	81239-05-17 09:08 G	31393131.69	31393131.88	31393132.07	0.0499	0.0152
Mercury	81241-07-15 17:03 G	31393922.10	31393922.21	31393922.33	0.0527	0.0373
Mars	81242-04-29 11:17 G	31394209.69	31394209.97	31394210.25	0.0535	0.0061
Venus	81244-07-29 12:29 G	31395031.82	31395032.02	31395032.22	0.0533	0.0125
Venus	81245-03-24 16:20 G	31395270.02	31395270.18	31395270.35	0.0526	0.0323
Mercury	81246-12-04 14:10 G	31395889.98	31395890.09	31395890.19	0.0503	0.0307
Mercury	81247-03-03 21:36 G	31395979.30	31395979.40	31395979.49	0.0500	0.0361
Venus	81250-05-29 17:03 G	31397162.05	31397162.21	31397162.37	0.0492	0.0293
Venus	81251-01-20 13:41 G	31397397.87	31397398.07	31397398.27	0.0497	0.0055
Venus	81251-09-13 15:36 G	31397634.04	31397634.15	31397634.27	0.0504	0.0414
Mercury	81253-05-03 16:05 G	31398232.01	31398232.17	31398232.33	0.0526	0.0139
Venus	81256-04-02 23:46 G	31399297.31	31399297.49	31399297.67	0.0535	0.0252
Venus	81256-11-27 05:32 G	31399535.54	31399535.73	31399535.92	0.0528	0.0203
Mercury	81258-09-22 18:15 G	31400200.21	31400200.26	31400200.30	0.0504	0.0469
Mercury	81258-12-21 01:27 G	31400289.43	31400289.56	31400289.69	0.0501	0.0197
Venus	81262-02-01 21:36 G	31401428.28	31401428.40	31401428.53	0.0491	0.0384
Venus	81262-09-25 17:03 G	31401664.01	31401664.21	31401664.41	0.0495	0.0044
Venus	81263-05-19 16:48 G	31401900.05	31401900.20	31401900.36	0.0502	0.0314

Mercury	81265-02-19 14:10 G	31402541.93	31402542.09	31402542.25	0.0525	0.0108
Venus	81267-12-07 11:17 G	31403562.82	31403562.97	31403563.11	0.0536	0.0377
Venus	81268-08-01 19:12 G	31403801.10	31403801.30	31403801.51	0.0530	0.0081
Venus	81269-03-27 20:10 G	31404039.29	31404039.34	31404039.39	0.0522	0.0505
Mercury	81270-10-09 05:32 G	31404599.59	31404599.73	31404599.87	0.0502	0.0039
Venus	81273-10-08 02:53 G	31405694.58	31405694.62	31405694.68	0.0490	0.0471
Venus	81274-05-31 21:22 G	31405930.20	31405930.39	31405930.58	0.0494	0.0141
Venus	81275-01-22 19:27 G	31406166.13	31406166.31	31406166.50	0.0500	0.0216
Earth	81275-11-11 04:05 G	31406458.47	31406458.67	31406458.88	0.0510	0.0223
Moon	81275-11-11 07:56 G	31406458.63	31406458.83	31406459.03	0.0510	0.0248 *
Mercury	81276-12-08 12:44 G	31406851.91	31406852.03	31406852.16	0.0524	0.0344
Venus	81279-08-11 23:46 G	31407828.42	31407828.49	31407828.57	0.0538	0.0499
Venus	81280-04-06 09:22 G	31408066.69	31408066.89	31408067.09	0.0532	0.0043
Venus	81280-11-30 12:29 G	31408304.89	31408305.02	31408305.15	0.0524	0.0397
Earth	81281-05-07 06:44 G	31408462.66	31408462.78	31408462.90	0.0519	0.0445
Moon	81281-05-07 09:08 G	31408462.79	31408462.88	31408462.98	0.0519	0.0476 *
Mercury	81282-07-28 09:36 G	31408909.77	31408909.90	31408910.04	0.0502	0.0120
Venus	81286-02-04 01:41 G	31410196.40	31410196.57	31410196.75	0.0492	0.0236
Venus	81286-09-27 22:48 G	31410432.25	31410432.45	31410432.65	0.0498	0.0116
Venus	81287-05-22 01:56 G	31410668.51	31410668.58	31410668.65	0.0506	0.0474
Moon	81287-11-15 15:51 G	31410845.95	31410846.16	31410846.37	0.0512	0.0226
Earth	81287-11-15 18:58 G	31410846.09	31410846.29	31410846.49	0.0512	0.0246 *
Mercury	81288-12-25 15:51 G	31411252.05	31411252.16	31411252.28	0.0527	0.0389
Venus	81291-12-10 22:20 G	31412332.24	31412332.43	31412332.63	0.0534	0.0169
Venus	81292-08-05 03:22 G	31412570.47	31412570.64	31412570.82	0.0527	0.0283
Moon	81293-05-12 02:53 G	31412850.39	31412850.62	31412850.85	0.0516	0.0069
Earth	81293-05-12 06:29 G	31412850.53	31412850.77	31412851.00	0.0516	0.0061 *
Mercury	81294-05-16 13:41 G	31413219.96	31413220.07	31413220.19	0.0503	0.0280
Mercury	81294-08-13 21:08 G	31413309.30	31413309.38	31413309.47	0.0500	0.0388
Venus	81297-10-10 07:41 G	31414462.67	31414462.82	31414462.97	0.0491	0.0327

Venus	81298-06-03 03:51 G	31414698.46	31414698.66	31414698.86	0.0496	0.0019
Venus	81299-01-25 05:03 G	31414934.58	31414934.71	31414934.84	0.0503	0.0378
Mercury	81300-10-14 15:22 G	31415561.98	31415562.14	31415562.29	0.0526	0.0164
Venus	81303-08-16 07:27 G	31416597.64	31416597.81	31416597.98	0.0535	0.0298
Venus	81304-04-10 13:41 G	31416835.88	31416836.07	31416836.27	0.0529	0.0159
Mercury	81306-03-05 17:03 G	31417530.16	31417530.21	31417530.27	0.0504	0.0455
Mercury	81306-06-03 00:15 G	31417619.39	31417619.51	31417619.64	0.0501	0.0210
Mars	81307-04-28 15:51 G	31417948.91	31417949.16	31417949.41	0.0493	0.0189
Venus	81309-06-16 13:27 G	31418728.96	31418729.06	31418729.17	0.0490	0.0415
Venus	81310-02-07 08:39 G	31418964.66	31418964.86	31418965.06	0.0495	0.0078
Venus	81310-10-01 08:10 G	31419200.68	31419200.84	31419201.01	0.0501	0.0281
Mercury	81312-08-02 14:10 G	31419871.92	31419872.09	31419872.25	0.0525	0.0072
Venus	81315-04-20 18:00 G	31420863.13	31420863.25	31420863.38	0.0536	0.0423
Venus	81315-12-15 01:56 G	31421101.38	31421101.58	31421101.79	0.0531	0.0035
Venus	81316-08-09 03:22 G	31421339.55	31421339.64	31421339.74	0.0523	0.0464
Mercury	81318-03-22 04:05 G	31421929.54	31421929.67	31421929.81	0.0502	0.0048
Venus	81321-10-13 12:44 G	31423230.84	31423231.03	31423231.22	0.0493	0.0174
Venus	81322-06-06 10:20 G	31423466.75	31423466.93	31423467.12	0.0499	0.0181
Mercury	81324-05-21 11:46 G	31424181.86	31424181.99	31424182.13	0.0524	0.0322
Venus	81327-08-19 14:24 G	31425366.90	31425367.10	31425367.31	0.0533	0.0094
Venus	81328-04-13 18:29 G	31425605.12	31425605.27	31425605.43	0.0526	0.0353
Mercury	81330-01-08 08:24 G	31426239.71	31426239.85	31426239.98	0.0503	0.0112
Venus	81333-06-18 17:32 G	31427497.06	31427497.23	31427497.40	0.0492	0.0268
Venus	81334-02-09 13:56 G	31427732.88	31427733.08	31427733.28	0.0497	0.0081
Venus	81334-10-03 15:51 G	31427969.07	31427969.16	31427969.26	0.0504	0.0440
Mercury	81336-06-07 14:24 G	31428582.00	31428582.10	31428582.21	0.0527	0.0402
Venus	81339-04-24 03:36 G	31429632.47	31429632.65	31429632.84	0.0535	0.0220
Venus	81339-12-18 09:51 G	31429870.73	31429870.91	31429871.09	0.0528	0.0236
Mercury	81341-10-27 12:29 G	31430549.91	31430550.02	31430550.14	0.0503	0.0268
Mercury	81342-01-24 19:56 G	31430639.25	31430639.33	31430639.41	0.0500	0.0400

Venus	81345-02-21 22:20 G	31431763.29	31431763.43	31431763.57	0.0491	0.0360
Venus	81345-10-15 17:32 G	31431999.03	31431999.23	31431999.44	0.0495	0.0020
Venus	81346-06-08 17:46 G	31432235.10	31432235.24	31432235.39	0.0502	0.0341
Mercury	81348-03-26 13:41 G	31432891.92	31432892.07	31432892.23	0.0526	0.0176
Venus	81350-12-27 16:20 G	31433898.03	31433898.18	31433898.34	0.0536	0.0344
Venus	81351-08-23 00:00 G	31434136.30	31434136.50	31434136.70	0.0530	0.0116
Mercury	81353-08-15 16:34 G	31434860.13	31434860.19	31434860.26	0.0504	0.0427
Mercury	81353-11-13 00:00 G	31434949.37	31434949.50	31434949.62	0.0501	0.0238
Venus	81356-10-28 04:20 G	31436029.60	31436029.68	31436029.76	0.0490	0.0447
Venus	81357-06-20 23:03 G	31436265.27	31436265.46	31436265.66	0.0494	0.0114
Venus	81358-02-11 21:51 G	31436501.24	31436501.41	31436501.59	0.0500	0.0244
Moon	81358-11-11 13:56 G	31436773.89	31436774.08	31436774.28	0.0509	0.0290
Earth	81358-11-11 17:03 G	31436774.02	31436774.21	31436774.41	0.0509	0.0259 *
Mercury	81360-01-13 12:58 G	31437201.88	31437202.04	31437202.21	0.0525	0.0051
Venus	81362-09-01 01:41 G	31438163.47	31438163.57	31438163.67	0.0537	0.0468
Venus	81363-04-27 09:51 G	31438401.71	31438401.91	31438402.12	0.0531	0.0016
Venus	81363-12-21 12:00 G	31438639.89	31438640.00	31438640.13	0.0524	0.0424
Mercury	81365-09-01 03:08 G	31439259.49	31439259.63	31439259.76	0.0502	0.0061
Venus	81369-02-24 04:05 G	31440531.49	31440531.67	31440531.86	0.0493	0.0208
Venus	81369-10-18 01:56 G	31440767.38	31440767.58	31440767.77	0.0498	0.0146
Venus	81370-06-11 05:17 G	31441003.71	31441003.72	31441003.74	0.0506	0.0503
Earth	81370-11-16 08:10 G	31441161.63	31441161.84	31441162.05	0.0511	0.0210
Moon	81370-11-16 09:51 G	31441161.70	31441161.91	31441162.12	0.0511	0.0201 *
Mercury	81371-11-01 11:46 G	31441511.85	31441511.99	31441512.13	0.0524	0.0284
Venus	81374-12-30 21:22 G	31442667.19	31442667.39	31442667.59	0.0533	0.0141
Venus	81375-08-26 01:41 G	31442905.41	31442905.57	31442905.74	0.0526	0.0309
Earth	81376-05-12 07:12 G	31443165.57	31443165.80	31443166.04	0.0517	0.0027
Moon	81376-05-12 11:03 G	31443165.73	31443165.96	31443166.19	0.0517	0.0006 *
Mercury	81377-06-20 06:58 G	31443569.65	31443569.79	31443569.92	0.0503	0.0106
Venus	81380-10-30 08:39 G	31444797.70	31444797.86	31444798.02	0.0491	0.0301

Venus	81381-06-23 04:48 G	31445033.50	31445033.70	31445033.90	0.0496	0.0046
Venus	81382-02-14 06:00 G	31445269.63	31445269.75	31445269.87	0.0503	0.0405
Mercury	81383-11-18 13:27 G	31445911.97	31445912.06	31445912.16	0.0526	0.0422
Venus	81386-09-04 08:39 G	31446932.68	31446932.86	31446933.04	0.0535	0.0270
Venus	81387-04-30 15:22 G	31447170.95	31447171.14	31447171.33	0.0529	0.0188
Moon	81388-05-17 04:05 G	31447553.62	31447553.67	31447553.71	0.0515	0.0504
Earth	81388-05-17 06:58 G	31447553.70	31447553.79	31447553.87	0.0515	0.0477 *
Mercury	81389-04-08 11:03 G	31447879.85	31447879.96	31447880.08	0.0503	0.0263
Mercury	81389-07-06 18:29 G	31447969.20	31447969.27	31447969.35	0.0501	0.0408
Venus	81392-07-05 13:56 G	31449063.96	31449064.08	31449064.20	0.0490	0.0391
Venus	81393-02-26 08:53 G	31449299.67	31449299.87	31449300.07	0.0495	0.0052
Venus	81393-10-20 08:10 G	31449535.68	31449535.84	31449536.00	0.0501	0.0307
Mercury	81395-09-06 12:15 G	31450221.86	31450222.01	31450222.17	0.0526	0.0189
Mars	81396-07-25 02:39 G	31450544.58	31450544.61	31450544.64	0.0535	0.0532
Venus	81398-05-09 20:53 G	31451198.24	31451198.37	31451198.51	0.0537	0.0395
Venus	81399-01-03 05:32 G	31451436.53	31451436.73	31451436.94	0.0531	0.0066
Venus	81399-08-29 06:58 G	31451674.74	31451674.79	31451674.86	0.0523	0.0495
Mercury	81401-01-26 15:22 G	31452190.07	31452190.14	31452190.21	0.0504	0.0419
Mercury	81401-04-25 22:34 G	31452279.32	31452279.44	31452279.56	0.0501	0.0248
Venus	81404-03-11 18:29 G	31453330.24	31453330.27	31453330.31	0.0489	0.0479
Venus	81404-11-02 12:44 G	31453565.84	31453566.03	31453566.23	0.0493	0.0150
Venus	81405-06-26 10:48 G	31453801.77	31453801.95	31453802.13	0.0499	0.0207
Mercury	81407-06-26 11:17 G	31454531.81	31454531.97	31454532.14	0.0525	0.0043
Venus	81410-01-13 09:36 G	31455463.84	31455463.90	31455463.96	0.0538	0.0514
Venus	81410-09-08 18:58 G	31455702.09	31455702.29	31455702.50	0.0533	0.0059
Venus	81411-05-04 22:34 G	31455940.30	31455940.44	31455940.58	0.0525	0.0385
Mercury	81413-02-12 02:39 G	31456589.47	31456589.61	31456589.74	0.0502	0.0086
Venus	81416-07-08 18:29 G	31457832.10	31457832.27	31457832.45	0.0492	0.0243
Venus	81417-03-01 15:22 G	31458067.95	31458068.14	31458068.34	0.0498	0.0110
Venus	81417-10-23 18:00 G	31458304.18	31458304.25	31458304.33	0.0505	0.0468

Mercury	81419-04-14 10:34 G	31458841.80	31458841.94	31458842.09	0.0524	0.0266
Venus	81422-05-14 04:48 G	31459967.51	31459967.70	31459967.89	0.0534	0.0188
Venus	81423-01-07 09:51 G	31460205.73	31460205.91	31460206.09	0.0527	0.0265
Mercury	81424-12-01 05:46 G	31460899.60	31460899.74	31460899.87	0.0503	0.0095
Venus	81428-03-13 23:32 G	31462098.33	31462098.48	31462098.63	0.0491	0.0334
Venus	81428-11-04 19:41 G	31462334.12	31462334.32	31462334.52	0.0496	0.0011
Venus	81429-06-28 20:24 G	31462570.23	31462570.35	31462570.49	0.0503	0.0372
Mercury	81431-01-31 09:08 G	31463151.84	31463151.88	31463151.93	0.0523	0.0503
Mercury	81431-05-01 13:12 G	31463241.98	31463242.05	31463242.14	0.0526	0.0457
Venus	81434-01-16 15:36 G	31464232.99	31464233.15	31464233.32	0.0535	0.0316
Venus	81434-09-11 22:20 G	31464471.23	31464471.43	31464471.63	0.0529	0.0142
Mercury	81436-09-19 09:36 G	31465209.78	31465209.90	31465210.01	0.0503	0.0259
Mercury	81436-12-17 17:03 G	31465299.13	31465299.21	31465299.29	0.0501	0.0411
Venus	81439-11-18 04:20 G	31466364.58	31466364.68	31466364.78	0.0490	0.0424
Venus	81440-07-10 23:17 G	31466600.28	31466600.47	31466600.67	0.0494	0.0088
Venus	81441-03-03 22:20 G	31466836.26	31466836.43	31466836.60	0.0500	0.0271
Earth	81441-11-12 00:44 G	31467089.36	31467089.53	31467089.72	0.0509	0.0319
Moon	81441-11-12 02:24 G	31467089.45	31467089.60	31467089.77	0.0509	0.0352 *
Mercury	81443-02-17 11:17 G	31467551.82	31467551.97	31467552.12	0.0525	0.0207
Venus	81445-09-21 01:56 G	31468498.46	31468498.58	31468498.69	0.0537	0.0443
Venus	81446-05-17 10:34 G	31468736.73	31468736.94	31468737.14	0.0532	0.0019
Venus	81447-01-10 12:58 G	31468974.94	31468975.04	31468975.14	0.0524	0.0452
Mercury	81448-07-08 13:41 G	31469520.00	31469520.07	31469520.15	0.0504	0.0417
Mercury	81448-10-05 20:53 G	31469609.26	31469609.37	31469609.50	0.0501	0.0252
Venus	81452-03-16 03:51 G	31470866.47	31470866.66	31470866.85	0.0493	0.0184
Venus	81452-11-07 00:58 G	31471102.36	31471102.54	31471102.74	0.0498	0.0172
Moon	81453-11-16 13:27 G	31471476.83	31471477.06	31471477.29	0.0511	0.0131
Earth	81453-11-16 13:56 G	31471476.85	31471477.08	31471477.30	0.0511	0.0140 *
Mercury	81454-12-06 09:51 G	31471861.74	31471861.91	31471862.08	0.0525	0.0031
Venus	81458-01-19 23:32 G	31473002.28	31473002.48	31473002.68	0.0534	0.0111

Venus	81458-09-15 04:20 G	31473240.53	31473240.68	31473240.84	0.0526	0.0339
Moon	81459-05-13 12:58 G	31473480.80	31473481.04	31473481.28	0.0518	0.0056
Earth	81459-05-13 16:05 G	31473480.94	31473481.17	31473481.40	0.0518	0.0078 *
Mercury	81460-07-25 00:58 G	31473919.41	31473919.54	31473919.68	0.0502	0.0093
Mars	81461-07-24 02:10 G	31474283.37	31474283.59	31474283.80	0.0492	0.0289
Venus	81463-11-20 07:56 G	31475132.67	31475132.83	31475133.00	0.0491	0.0278
Venus	81464-07-13 04:20 G	31475368.48	31475368.68	31475368.88	0.0497	0.0072
Venus	81465-03-06 05:46 G	31475604.64	31475604.74	31475604.85	0.0504	0.0430
Mercury	81466-09-24 08:24 G	31476171.71	31476171.85	31476172.00	0.0524	0.0266
Venus	81469-09-24 12:15 G	31477267.83	31477268.01	31477268.20	0.0535	0.0237
Venus	81470-05-20 18:44 G	31477506.10	31477506.28	31477506.47	0.0528	0.0222
Earth	81471-05-18 15:22 G	31477869.01	31477869.14	31477869.28	0.0515	0.0424
Moon	81471-05-18 16:48 G	31477869.10	31477869.20	31477869.32	0.0515	0.0453 *
Mercury	81472-05-13 05:03 G	31478229.58	31478229.71	31478229.85	0.0502	0.0071
Venus	81475-07-26 13:41 G	31479398.94	31479399.07	31479399.21	0.0491	0.0369
Venus	81476-03-18 09:08 G	31479634.68	31479634.88	31479635.09	0.0495	0.0028
Venus	81476-11-09 09:08 G	31479870.73	31479870.88	31479871.03	0.0502	0.0334
Mercury	81478-07-13 07:27 G	31480481.76	31480481.81	31480481.87	0.0523	0.0492
Mercury	81478-10-11 11:46 G	31480571.92	31480571.99	31480572.07	0.0527	0.0470
Venus	81481-05-29 22:20 G	31481533.29	31481533.43	31481533.58	0.0536	0.0364
Venus	81482-01-23 05:46 G	31481771.54	31481771.74	31481771.94	0.0530	0.0096
Venus	81482-09-18 06:00 G	31482009.75	31482009.75	31482009.77	0.0522	0.0520
Mercury	81484-03-01 08:10 G	31482539.72	31482539.84	31482539.96	0.0503	0.0251
Mercury	81484-05-29 15:36 G	31482629.08	31482629.15	31482629.23	0.0501	0.0419
Venus	81487-03-31 18:15 G	31483665.20	31483665.26	31483665.34	0.0490	0.0458
Venus	81487-11-22 13:27 G	31483900.87	31483901.06	31483901.26	0.0494	0.0123
Venus	81488-07-15 12:15 G	31484136.84	31484137.01	31484137.19	0.0500	0.0236
Mercury	81490-07-30 10:48 G	31484881.80	31484881.95	31484882.10	0.0526	0.0237
Venus	81493-02-01 08:53 G	31485798.79	31485798.87	31485798.96	0.0537	0.0488
Venus	81493-09-27 17:17 G	31486037.01	31486037.22	31486037.42	0.0532	0.0033

Venus	81494-05-23 19:41 G	31486275.20	31486275.32	31486275.46	0.0524	0.0410
Mercury	81495-12-19 12:00 G	31486849.93	31486850.00	31486850.08	0.0504	0.0416
Mercury	81496-03-17 19:12 G	31486939.19	31486939.30	31486939.42	0.0501	0.0251
Venus	81499-07-28 17:46 G	31488167.06	31488167.24	31488167.42	0.0492	0.0219
Venus	81500-03-21 14:53 G	31488402.92	31488403.12	31488403.31	0.0498	0.0134
Venus	81500-11-12 17:17 G	31488639.19	31488639.22	31488639.27	0.0505	0.0492
Mercury	81502-05-19 08:24 G	31489191.69	31489191.85	31489192.02	0.0525	0.0020
Venus	81505-06-03 03:51 G	31490302.47	31490302.66	31490302.86	0.0534	0.0163
Venus	81506-01-27 09:22 G	31490540.72	31490540.89	31490541.06	0.0527	0.0292
Mercury	81508-01-05 23:17 G	31491249.34	31491249.47	31491249.61	0.0502	0.0091
Venus	81511-04-03 22:20 G	31492433.28	31492433.43	31492433.59	0.0491	0.0313
Venus	81511-11-25 18:15 G	31492669.06	31492669.26	31492669.46	0.0496	0.0035
Venus	81512-07-18 18:44 G	31492905.17	31492905.28	31492905.41	0.0503	0.0395
Mercury	81514-03-07 06:44 G	31493501.64	31493501.78	31493501.93	0.0524	0.0258
Venus	81517-02-05 16:05 G	31494568.00	31494568.17	31494568.34	0.0536	0.0290
Venus	81517-10-01 23:17 G	31494806.28	31494806.47	31494806.67	0.0529	0.0172
Mercury	81519-10-25 03:22 G	31495559.51	31495559.64	31495559.78	0.0503	0.0070
Venus	81522-12-08 02:53 G	31496699.51	31496699.62	31496699.73	0.0490	0.0403
Venus	81523-07-31 21:51 G	31496935.21	31496935.41	31496935.61	0.0494	0.0064
Venus	81524-03-23 20:53 G	31497171.21	31497171.37	31497171.53	0.0501	0.0295
Moon	81524-11-12 06:15 G	31497404.63	31497404.76	31497404.90	0.0508	0.0419
Earth	81524-11-12 06:44 G	31497404.63	31497404.78	31497404.93	0.0508	0.0387 *
Mercury	81525-12-24 05:17 G	31497811.67	31497811.72	31497811.77	0.0523	0.0497
Mercury	81526-03-24 09:22 G	31497901.82	31497901.89	31497901.97	0.0527	0.0465
Venus	81528-10-11 04:20 G	31498833.55	31498833.68	31498833.81	0.0537	0.0414
Venus	81529-06-06 12:58 G	31499071.83	31499072.04	31499072.24	0.0531	0.0048
Venus	81530-01-30 15:08 G	31499310.05	31499310.13	31499310.21	0.0524	0.0481
Mercury	81531-08-13 07:27 G	31499869.69	31499869.81	31499869.93	0.0503	0.0231
Mercury	81531-11-10 14:53 G	31499959.06	31499959.12	31499959.19	0.0500	0.0439
Venus	81535-04-06 02:53 G	31501201.43	31501201.62	31501201.81	0.0493	0.0160

Venus	81535-11-28 00:44 G	31501437.34	31501437.53	31501437.71	0.0499	0.0197
Moon	81536-11-16 21:08 G	31501792.16	31501792.38	31501792.60	0.0511	0.0080
Earth	81536-11-16 22:20 G	31501792.20	31501792.43	31501792.66	0.0511	0.0083 *
Mercury	81538-01-10 09:08 G	31502211.73	31502211.88	31502212.02	0.0526	0.0244
Venus	81540-06-15 14:53 G	31503099.11	31503099.12	31503099.14	0.0537	0.0535
Venus	81541-02-08 23:46 G	31503337.29	31503337.49	31503337.70	0.0533	0.0082
Venus	81541-10-05 03:22 G	31503575.50	31503575.64	31503575.79	0.0525	0.0366
Earth	81542-05-13 16:34 G	31503795.97	31503796.19	31503796.42	0.0517	0.0168
Moon	81542-05-13 18:44 G	31503796.06	31503796.28	31503796.50	0.0517	0.0142 *
Mercury	81543-06-01 10:48 G	31504179.87	31504179.95	31504180.02	0.0504	0.0409
Mercury	81543-08-29 17:46 G	31504269.13	31504269.24	31504269.36	0.0501	0.0257
Venus	81546-12-10 06:58 G	31505467.62	31505467.79	31505467.97	0.0492	0.0255
Venus	81547-08-03 04:05 G	31505703.48	31505703.67	31505703.87	0.0497	0.0099
Venus	81548-03-26 06:29 G	31505939.69	31505939.77	31505939.86	0.0504	0.0457
Mercury	81549-10-29 07:41 G	31506521.66	31506521.82	31506521.99	0.0525	0.0013
Venus	81552-10-14 10:34 G	31507602.75	31507602.94	31507603.13	0.0534	0.0211
Venus	81553-06-09 15:51 G	31507840.98	31507841.16	31507841.35	0.0528	0.0246
Moon	81554-05-18 12:44 G	31508183.86	31508184.03	31508184.22	0.0516	0.0347
Earth	81554-05-18 13:12 G	31508183.87	31508184.05	31508184.23	0.0516	0.0324 *
Mercury	81555-06-17 21:36 G	31508579.26	31508579.40	31508579.53	0.0502	0.0088
Venus	81558-08-15 11:32 G	31509733.84	31509733.98	31509734.13	0.0491	0.0349
Venus	81559-04-08 07:12 G	31509969.60	31509969.80	31509970.01	0.0495	0.0013
Venus	81559-11-30 07:27 G	31510205.67	31510205.81	31510205.95	0.0502	0.0357
Mercury	81561-08-17 05:03 G	31510831.57	31510831.71	31510831.87	0.0524	0.0248
Venus	81564-06-18 20:10 G	31511868.18	31511868.34	31511868.50	0.0536	0.0342
Venus	81565-02-12 03:51 G	31512106.46	31512106.66	31512106.86	0.0530	0.0120
Mercury	81567-04-06 01:27 G	31512889.43	31512889.56	31512889.70	0.0503	0.0075
Venus	81570-04-20 16:34 G	31514000.10	31514000.19	31514000.28	0.0490	0.0438
Venus	81570-12-12 11:17 G	31514235.77	31514235.97	31514236.17	0.0494	0.0101
Venus	81571-08-05 09:51 G	31514471.74	31514471.91	31514472.08	0.0500	0.0257

Mercury	81573-06-05 03:08 G	31515141.58	31515141.63	31515141.69	0.0523	0.0494
Mercury	81573-09-03 07:27 G	31515231.74	31515231.81	31515231.89	0.0526	0.0466
Venus	81576-02-22 07:27 G	31516133.71	31516133.81	31516133.91	0.0537	0.0467
Venus	81576-10-17 16:20 G	31516371.98	31516372.18	31516372.39	0.0532	0.0014
Venus	81577-06-12 19:41 G	31516610.21	31516610.32	31516610.44	0.0525	0.0435
Mercury	81579-01-23 05:32 G	31517199.62	31517199.73	31517199.86	0.0503	0.0234
Mercury	81579-04-22 12:58 G	31517288.98	31517289.04	31517289.11	0.0501	0.0438
Venus	81582-08-17 15:08 G	31518501.95	31518502.13	31518502.32	0.0492	0.0198
Venus	81583-04-10 12:15 G	31518737.82	31518738.01	31518738.20	0.0498	0.0157
Mercury	81585-06-22 06:15 G	31519541.61	31519541.76	31519541.91	0.0526	0.0233
Venus	81588-06-22 05:17 G	31520637.52	31520637.72	31520637.92	0.0534	0.0133
Venus	81589-02-15 10:34 G	31520875.78	31520875.94	31520876.10	0.0527	0.0321
Mercury	81590-11-11 09:36 G	31521509.82	31521509.90	31521509.99	0.0504	0.0394
Mercury	81591-02-08 16:48 G	31521599.09	31521599.20	31521599.32	0.0501	0.0273
Venus	81594-04-22 20:10 G	31522768.18	31522768.34	31522768.51	0.0491	0.0292
Venus	81594-12-14 16:20 G	31523003.98	31523004.18	31523004.38	0.0496	0.0058
Venus	81595-08-07 17:32 G	31523240.13	31523240.23	31523240.35	0.0503	0.0419
Mercury	81597-04-10 05:32 G	31523851.56	31523851.73	31523851.90	0.0525	0.0008
Venus	81600-02-25 16:20 G	31524903.00	31524903.18	31524903.36	0.0535	0.0262
Venus	81600-10-20 22:20 G	31525141.24	31525141.43	31525141.62	0.0528	0.0199
Mercury	81602-11-27 19:56 G	31525909.20	31525909.33	31525909.47	0.0502	0.0092
Venus	81605-12-27 00:15 G	31527034.39	31527034.51	31527034.64	0.0491	0.0385
Venus	81606-08-19 19:56 G	31527270.13	31527270.33	31527270.54	0.0495	0.0042
Venus	81607-04-12 19:41 G	31527506.17	31527506.32	31527506.48	0.0501	0.0321
Moon	81607-11-12 12:44 G	31527719.97	31527720.03	31527720.10	0.0508	0.0483
Earth	81607-11-12 13:41 G	31527719.97	31527720.07	31527720.19	0.0508	0.0450 *
Mercury	81609-01-27 04:05 G	31528161.52	31528161.67	31528161.82	0.0524	0.0229
Venus	81611-10-31 02:24 G	31529168.47	31529168.60	31529168.75	0.0536	0.0390
Venus	81612-06-25 10:05 G	31529406.71	31529406.92	31529407.12	0.0530	0.0072
Venus	81613-02-18 11:17 G	31529644.92	31529644.97	31529645.02	0.0523	0.0503

Mercury	81614-09-15 23:32 G	31530219.35	31530219.48	31530219.62	0.0503	0.0079
Venus	81617-09-01 05:03 G	31531300.66	31531300.71	31531300.76	0.0490	0.0474
Venus	81618-04-24 23:46 G	31531536.30	31531536.49	31531536.69	0.0493	0.0140
Venus	81618-12-16 21:51 G	31531772.23	31531772.41	31531772.59	0.0499	0.0218
Earth	81619-11-17 00:44 G	31532107.30	31532107.53	31532107.77	0.0510	0.0009
Moon	81619-11-17 03:36 G	31532107.41	31532107.65	31532107.89	0.0510	0.0009 *
Mercury	81620-11-15 01:12 G	31532471.50	31532471.55	31532471.61	0.0523	0.0488
Mercury	81621-02-13 05:32 G	31532561.67	31532561.73	31532561.81	0.0526	0.0472
Venus	81623-07-05 11:03 G	31533433.92	31533433.96	31533434.02	0.0537	0.0518
Venus	81624-02-28 20:24 G	31533672.14	31533672.35	31533672.55	0.0533	0.0061
Venus	81624-10-24 00:15 G	31533910.37	31533910.51	31533910.65	0.0526	0.0388
Moon	81625-05-12 15:08 G	31534110.92	31534111.13	31534111.35	0.0519	0.0234
Earth	81625-05-12 16:20 G	31534110.97	31534111.18	31534111.38	0.0519	0.0260 *
Mercury	81626-07-05 03:36 G	31534529.53	31534529.65	31534529.77	0.0504	0.0240
Mercury	81626-10-02 11:03 G	31534618.89	31534618.96	31534619.03	0.0501	0.0431
Venus	81629-12-29 04:20 G	31535802.50	31535802.68	31535802.86	0.0492	0.0236
Venus	81630-08-22 00:58 G	31536038.34	31536038.54	31536038.74	0.0497	0.0118
Venus	81631-04-15 02:53 G	31536274.56	31536274.62	31536274.68	0.0504	0.0476
Moon	81631-11-21 09:36 G	31536494.85	31536494.90	31536494.97	0.0512	0.0493
Earth	81631-11-21 13:27 G	31536494.97	31536495.06	31536495.16	0.0512	0.0461 *
Mercury	81632-12-02 04:05 G	31536871.52	31536871.67	31536871.82	0.0525	0.0231
Venus	81635-11-03 07:41 G	31537937.64	31537937.82	31537938.02	0.0535	0.0190
Venus	81636-06-28 13:56 G	31538175.91	31538176.08	31538176.26	0.0528	0.0270
Moon	81637-05-17 14:10 G	31538498.90	31538499.09	31538499.29	0.0517	0.0265
Earth	81637-05-17 15:36 G	31538498.94	31538499.15	31538499.36	0.0517	0.0247 *
Mercury	81638-04-23 07:41 G	31538839.74	31538839.82	31538839.90	0.0504	0.0399
Mercury	81638-07-21 14:53 G	31538929.01	31538929.12	31538929.24	0.0501	0.0268
Venus	81641-09-03 08:24 G	31540068.70	31540068.85	31540069.00	0.0491	0.0329
Venus	81642-04-27 03:51 G	31540304.46	31540304.66	31540304.86	0.0495	0.0018
Venus	81642-12-19 03:51 G	31540540.53	31540540.66	31540540.79	0.0502	0.0378

Mercury	81644-09-20 02:24 G	31541181.43	31541181.60	31541181.77	0.0525	0.0012
Venus	81647-07-08 20:10 G	31542203.17	31542203.34	31542203.50	0.0536	0.0316
Venus	81648-03-03 03:51 G	31542441.46	31542441.66	31542441.86	0.0530	0.0148
Mercury	81650-05-09 18:44 G	31543239.15	31543239.28	31543239.42	0.0502	0.0104
Venus	81653-05-09 13:27 G	31544334.96	31544335.06	31544335.16	0.0490	0.0420
Venus	81653-12-31 08:10 G	31544570.64	31544570.84	31544571.04	0.0494	0.0081
Venus	81654-08-24 06:58 G	31544806.63	31544806.79	31544806.96	0.0500	0.0280
Mercury	81656-07-09 01:27 G	31545491.41	31545491.56	31545491.71	0.0524	0.0238
Venus	81659-03-13 07:27 G	31546468.70	31546468.81	31546468.93	0.0537	0.0441
Venus	81659-11-06 15:36 G	31546706.94	31546707.15	31546707.35	0.0531	0.0022
Venus	81660-07-01 17:46 G	31546945.14	31546945.24	31546945.34	0.0524	0.0459
Mercury	81662-02-25 22:05 G	31547549.28	31547549.42	31547549.55	0.0502	0.0076
Venus	81665-09-05 11:46 G	31548836.81	31548836.99	31548837.19	0.0493	0.0179
Venus	81666-04-29 09:36 G	31549072.71	31549072.90	31549073.09	0.0499	0.0180
Mercury	81668-04-26 23:46 G	31549801.43	31549801.49	31549801.56	0.0523	0.0477
Mercury	81668-07-26 04:20 G	31549891.62	31549891.68	31549891.74	0.0526	0.0486
Mars	81669-04-09 10:20 G	31550148.67	31550148.93	31550149.19	0.0534	0.0167
Venus	81671-07-12 02:39 G	31550972.41	31550972.61	31550972.81	0.0533	0.0110
Venus	81672-03-06 06:44 G	31551210.63	31551210.78	31551210.94	0.0526	0.0343
Mercury	81673-12-15 01:41 G	31551859.45	31551859.57	31551859.69	0.0503	0.0244
Mercury	81674-03-14 09:08 G	31551948.81	31551948.88	31551948.95	0.0501	0.0425
Venus	81677-05-11 16:20 G	31553103.01	31553103.18	31553103.34	0.0492	0.0275
Venus	81678-01-02 12:29 G	31553338.83	31553339.02	31553339.22	0.0496	0.0078
Venus	81678-08-26 13:56 G	31553574.99	31553575.08	31553575.18	0.0503	0.0438
Mercury	81680-05-14 01:56 G	31554201.43	31554201.58	31554201.73	0.0525	0.0233
Venus	81683-03-16 11:32 G	31555237.80	31555237.98	31555238.16	0.0535	0.0243
Venus	81683-11-09 17:46 G	31555476.06	31555476.24	31555476.43	0.0529	0.0219
Mercury	81685-10-03 05:46 G	31556169.66	31556169.74	31556169.81	0.0504	0.0407
Mercury	81685-12-31 12:44 G	31556258.92	31556259.03	31556259.15	0.0502	0.0260
Venus	81689-01-14 21:08 G	31557369.25	31557369.38	31557369.52	0.0490	0.0367

Venus	81689-09-07 16:34 G	31557604.98	31557605.19	31557605.39	0.0495	0.0024
Venus	81690-05-01 15:36 G	31557841.01	31557841.15	31557841.31	0.0501	0.0339
Mercury	81692-03-02 00:00 G	31558511.34	31558511.50	31558511.67	0.0524	0.0020
Venus	81694-11-18 22:05 G	31559503.28	31559503.42	31559503.57	0.0537	0.0372
Venus	81695-07-15 06:29 G	31559741.56	31559741.77	31559741.97	0.0531	0.0093
Mercury	81697-10-19 16:48 G	31560569.06	31560569.20	31560569.33	0.0502	0.0097
Venus	81700-09-21 01:27 G	31561635.49	31561635.56	31561635.63	0.0489	0.0456
Venus	81701-05-14 19:41 G	31561871.13	31561871.32	31561871.52	0.0493	0.0121
Venus	81702-01-05 17:32 G	31562107.05	31562107.23	31562107.41	0.0499	0.0238
Moon	81702-11-16 21:22 G	31562422.17	31562422.39	31562422.62	0.0509	0.0080
Earth	81702-11-17 01:12 G	31562422.32	31562422.55	31562422.77	0.0509	0.0090 *
Mercury	81703-12-20 22:20 G	31562821.28	31562821.43	31562821.57	0.0524	0.0257
Venus	81706-07-25 09:51 G	31563768.84	31563768.91	31563769.00	0.0538	0.0495
Venus	81707-03-20 19:12 G	31564007.10	31564007.30	31564007.51	0.0533	0.0035
Venus	81707-11-13 23:03 G	31564245.34	31564245.46	31564245.59	0.0526	0.0415
Moon	81708-05-12 17:46 G	31564426.06	31564426.24	31564426.42	0.0519	0.0316
Earth	81708-05-12 18:15 G	31564426.09	31564426.26	31564426.44	0.0519	0.0342 *
Mercury	81709-08-08 20:39 G	31564879.23	31564879.36	31564879.50	0.0503	0.0067
Venus	81713-01-18 00:29 G	31566137.34	31566137.52	31566137.70	0.0492	0.0217
Venus	81713-09-10 21:08 G	31566373.19	31566373.38	31566373.58	0.0497	0.0139
Venus	81714-05-04 23:17 G	31566609.45	31566609.47	31566609.50	0.0504	0.0498
Earth	81714-11-21 15:51 G	31566810.01	31566810.16	31566810.32	0.0511	0.0378
Moon	81714-11-21 19:41 G	31566810.19	31566810.32	31566810.46	0.0511	0.0413 *
Mercury	81715-10-08 20:53 G	31567131.32	31567131.37	31567131.43	0.0523	0.0490
Mercury	81716-01-07 01:27 G	31567221.49	31567221.56	31567221.63	0.0526	0.0475
Venus	81718-11-23 07:12 G	31568272.60	31568272.80	31568272.99	0.0534	0.0163
Venus	81719-07-19 12:15 G	31568510.84	31568511.01	31568511.18	0.0527	0.0295
Earth	81720-05-17 14:39 G	31568813.89	31568814.11	31568814.34	0.0516	0.0153
Moon	81720-05-17 17:46 G	31568814.01	31568814.24	31568814.47	0.0516	0.0164 *
Mercury	81721-05-28 00:00 G	31569189.38	31569189.50	31569189.62	0.0503	0.0243

Mercury	81721-08-25 07:12 G	31569278.73	31569278.80	31569278.88	0.0500	0.0425
Venus	81724-09-23 04:05 G	31570403.51	31570403.67	31570403.83	0.0491	0.0313
Venus	81725-05-17 00:00 G	31570639.30	31570639.50	31570639.71	0.0496	0.0039
Venus	81726-01-08 00:58 G	31570875.42	31570875.54	31570875.66	0.0503	0.0400
Mercury	81727-10-26 00:15 G	31571531.37	31571531.51	31571531.66	0.0526	0.0242
Venus	81730-07-28 17:46 G	31572538.07	31572538.24	31572538.41	0.0535	0.0293
Venus	81731-03-24 00:29 G	31572776.33	31572776.52	31572776.71	0.0529	0.0171
Mercury	81733-03-16 03:51 G	31573499.58	31573499.66	31573499.74	0.0504	0.0411
Mercury	81733-06-13 10:48 G	31573588.83	31573588.95	31573589.07	0.0501	0.0255
Mars	81734-04-09 08:10 G	31573888.61	31573888.84	31573889.07	0.0494	0.0274
Venus	81736-05-29 08:53 G	31574669.76	31574669.87	31574669.98	0.0490	0.0405
Venus	81737-01-20 03:51 G	31574905.47	31574905.66	31574905.87	0.0494	0.0065
Venus	81737-09-13 02:53 G	31575141.46	31575141.62	31575141.78	0.0500	0.0298
Mercury	81739-08-13 21:51 G	31575841.24	31575841.41	31575841.58	0.0524	0.0014
Venus	81742-04-02 01:41 G	31576803.45	31576803.57	31576803.69	0.0537	0.0425
Venus	81742-11-26 10:05 G	31577041.71	31577041.92	31577042.12	0.0532	0.0039
Venus	81743-07-22 12:44 G	31577279.95	31577280.03	31577280.11	0.0524	0.0478
Mercury	81745-04-01 14:39 G	31577898.97	31577899.11	31577899.24	0.0502	0.0088
Venus	81748-09-25 08:24 G	31579171.66	31579171.85	31579172.04	0.0493	0.0160
Venus	81749-05-19 05:46 G	31579407.55	31579407.74	31579407.92	0.0498	0.0198
Mercury	81751-06-01 19:56 G	31580151.18	31580151.33	31580151.47	0.0524	0.0261
Venus	81754-07-31 21:36 G	31581307.20	31581307.40	31581307.60	0.0534	0.0091
Venus	81755-03-27 02:24 G	31581545.46	31581545.60	31581545.75	0.0527	0.0364
Mercury	81757-01-18 18:29 G	31582209.14	31582209.27	31582209.41	0.0503	0.0077
Venus	81760-05-31 12:15 G	31583437.84	31583438.01	31583438.18	0.0491	0.0256
Venus	81761-01-22 08:10 G	31583673.64	31583673.84	31583674.04	0.0496	0.0097
Venus	81761-09-15 09:22 G	31583909.81	31583909.89	31583909.97	0.0503	0.0457
Mercury	81763-03-20 17:46 G	31584461.20	31584461.24	31584461.27	0.0523	0.0509
Mercury	81763-06-18 22:20 G	31584551.35	31584551.43	31584551.51	0.0526	0.0454
Venus	81766-04-05 09:36 G	31585572.72	31585572.90	31585573.09	0.0535	0.0219

Venus	81766-11-29 16:20 G	31585811.00	31585811.18	31585811.36	0.0529	0.0244
Mercury	81768-11-06 22:34 G	31586519.32	31586519.44	31586519.56	0.0504	0.0238
Mercury	81769-02-04 05:46 G	31586608.68	31586608.74	31586608.81	0.0501	0.0433
Venus	81772-02-04 17:03 G	31587704.07	31587704.21	31587704.35	0.0490	0.0349
Venus	81772-09-27 12:15 G	31587939.81	31587940.01	31587940.21	0.0495	0.0003
Venus	81773-05-21 11:32 G	31588175.85	31588175.98	31588176.13	0.0501	0.0360
Mercury	81775-04-06 21:22 G	31588861.24	31588861.39	31588861.54	0.0526	0.0227
Venus	81777-12-08 21:36 G	31589838.25	31589838.40	31589838.56	0.0536	0.0347
Venus	81778-08-04 05:17 G	31590076.52	31590076.72	31590076.92	0.0530	0.0119
Mercury	81780-08-26 02:10 G	31590829.51	31590829.59	31590829.67	0.0504	0.0409
Mercury	81780-11-23 09:08 G	31590918.77	31590918.88	31590919.00	0.0501	0.0256
Venus	81783-10-10 20:39 G	31591970.28	31591970.36	31591970.45	0.0490	0.0442
Venus	81784-06-02 15:22 G	31592205.95	31592206.14	31592206.34	0.0494	0.0104
Venus	81785-01-24 13:56 G	31592441.91	31592442.08	31592442.25	0.0500	0.0258
Earth	81785-11-16 04:05 G	31592737.45	31592737.67	31592737.89	0.0509	0.0169
Moon	81785-11-16 07:56 G	31592737.61	31592737.83	31592738.05	0.0509	0.0150 *
Mercury	81787-01-23 20:10 G	31593171.17	31593171.34	31593171.51	0.0525	0.0012
Venus	81789-08-13 08:10 G	31594103.75	31594103.84	31594103.94	0.0537	0.0473
Venus	81790-04-08 16:48 G	31594341.99	31594342.20	31594342.41	0.0532	0.0010
Venus	81790-12-02 19:56 G	31594580.21	31594580.33	31594580.44	0.0525	0.0435
Earth	81791-05-12 15:22 G	31594741.03	31594741.14	31594741.27	0.0519	0.0444
Moon	81791-05-12 18:00 G	31594741.11	31594741.25	31594741.40	0.0519	0.0411 *
Mercury	81792-09-11 12:44 G	31595228.90	31595229.03	31595229.17	0.0502	0.0088
Venus	81796-02-06 20:10 G	31596472.15	31596472.34	31596472.52	0.0492	0.0201
Venus	81796-09-29 17:03 G	31596708.02	31596708.21	31596708.40	0.0497	0.0157
Moon	81797-11-20 12:44 G	31597124.85	31597125.03	31597125.22	0.0511	0.0323
Earth	81797-11-20 16:20 G	31597124.99	31597125.18	31597125.37	0.0511	0.0291 *
Mercury	81798-11-11 17:32 G	31597481.09	31597481.23	31597481.38	0.0524	0.0262
Venus	81801-12-13 01:12 G	31598607.35	31598607.55	31598607.75	0.0534	0.0146
Venus	81802-08-08 06:44 G	31598845.62	31598845.78	31598845.95	0.0528	0.0313

Moon	81803-05-18 07:12 G	31599128.57	31599128.80	31599129.03	0.0518	0.0059
Earth	81803-05-18 10:48 G	31599128.72	31599128.95	31599129.19	0.0518	0.0051 *
Mercury	81804-07-01 16:34 G	31599539.06	31599539.19	31599539.32	0.0503	0.0081
Venus	81807-10-14 00:58 G	31600738.39	31600738.54	31600738.71	0.0491	0.0295
Venus	81808-06-05 20:53 G	31600974.17	31600974.37	31600974.57	0.0496	0.0057
Venus	81809-01-27 20:53 G	31601210.27	31601210.37	31601210.49	0.0502	0.0418
Mercury	81810-08-31 15:22 G	31601791.11	31601791.14	31601791.18	0.0523	0.0510
Mercury	81810-11-29 19:56 G	31601881.25	31601881.33	31601881.42	0.0526	0.0452
Venus	81813-08-17 11:46 G	31602872.82	31602872.99	31602873.17	0.0536	0.0277
Venus	81814-04-12 19:12 G	31603111.11	31603111.30	31603111.50	0.0530	0.0190
Mercury	81816-04-19 20:39 G	31603849.24	31603849.36	31603849.48	0.0504	0.0244
Mercury	81816-07-18 03:51 G	31603938.59	31603938.66	31603938.73	0.0501	0.0426
Venus	81819-06-19 05:17 G	31605004.60	31605004.72	31605004.85	0.0490	0.0386
Venus	81820-02-10 00:00 G	31605240.30	31605240.50	31605240.70	0.0494	0.0043
Venus	81820-10-02 22:20 G	31605476.28	31605476.43	31605476.59	0.0500	0.0318
Mercury	81822-09-17 18:15 G	31606191.11	31606191.26	31606191.41	0.0525	0.0209
Mars	81823-07-05 06:15 G	31606481.50	31606481.76	31606482.03	0.0534	0.0154
Venus	81825-04-21 23:32 G	31607138.35	31607138.48	31607138.61	0.0537	0.0403
Venus	81825-12-16 08:24 G	31607376.64	31607376.85	31607377.05	0.0532	0.0065
Venus	81826-08-11 11:03 G	31607614.91	31607614.96	31607615.02	0.0524	0.0502
Mercury	81828-02-07 00:44 G	31608159.45	31608159.53	31608159.61	0.0505	0.0406
Mercury	81828-05-06 07:41 G	31608248.70	31608248.82	31608248.94	0.0502	0.0261
Venus	81831-02-22 10:05 G	31609270.88	31609270.92	31609270.97	0.0489	0.0476
Venus	81831-10-16 04:20 G	31609506.49	31609506.68	31609506.87	0.0493	0.0141
Venus	81832-06-08 01:27 G	31609742.38	31609742.56	31609742.75	0.0498	0.0218
Mercury	81834-07-06 17:03 G	31610501.05	31610501.21	31610501.38	0.0525	0.0025
Venus	81836-12-25 11:46 G	31611403.95	31611403.99	31611404.03	0.0538	0.0525
Venus	81837-08-20 21:08 G	31611642.18	31611642.38	31611642.58	0.0533	0.0065
Venus	81838-04-16 01:27 G	31611880.42	31611880.56	31611880.70	0.0526	0.0388
Mercury	81840-02-23 11:17 G	31612558.83	31612558.97	31612559.10	0.0502	0.0090

Venus	81843-06-21 07:56 G	31613772.65	31613772.83	31613773.01	0.0492	0.0239
Venus	81844-02-12 04:20 G	31614008.49	31614008.68	31614008.88	0.0497	0.0117
Venus	81844-10-05 06:15 G	31614244.69	31614244.76	31614244.82	0.0504	0.0477
Mercury	81846-04-24 15:36 G	31614811.01	31614811.15	31614811.30	0.0524	0.0258
Venus	81849-04-25 08:10 G	31615907.65	31615907.84	31615908.03	0.0535	0.0196
Venus	81849-12-19 14:10 G	31616145.92	31616146.09	31616146.27	0.0528	0.0267
Mercury	81851-12-12 14:53 G	31616868.99	31616869.12	31616869.26	0.0503	0.0080
Venus	81855-02-24 12:58 G	31618038.89	31618039.04	31618039.19	0.0491	0.0334
Venus	81855-10-18 08:24 G	31618274.65	31618274.85	31618275.06	0.0495	0.0018
Venus	81856-06-10 08:10 G	31618510.71	31618510.84	31618510.97	0.0501	0.0377
Mercury	81858-02-10 13:12 G	31619121.02	31619121.05	31619121.09	0.0523	0.0510
Mercury	81858-05-11 17:46 G	31619211.16	31619211.24	31619211.33	0.0526	0.0454
Venus	81860-12-28 16:05 G	31620173.01	31620173.17	31620173.33	0.0536	0.0330
Venus	81861-08-23 23:46 G	31620411.29	31620411.49	31620411.69	0.0531	0.0137
Mercury	81863-09-30 18:29 G	31621179.16	31621179.27	31621179.39	0.0504	0.0249
Mercury	81863-12-29 01:56 G	31621268.51	31621268.58	31621268.65	0.0501	0.0422
Venus	81866-10-30 18:15 G	31622305.17	31622305.26	31622305.37	0.0490	0.0424
Venus	81867-06-23 13:12 G	31622540.85	31622541.05	31622541.25	0.0493	0.0082
Venus	81868-02-14 11:03 G	31622776.80	31622776.96	31622777.13	0.0499	0.0278
Moon	81868-11-16 02:10 G	31623052.38	31623052.59	31623052.80	0.0508	0.0235
Earth	81868-11-16 05:46 G	31623052.54	31623052.74	31623052.94	0.0508	0.0250 *
Mercury	81870-02-27 16:05 G	31623521.02	31623521.17	31623521.33	0.0525	0.0213
Venus	81872-09-02 02:10 G	31624438.49	31624438.59	31624438.70	0.0537	0.0457
Venus	81873-04-28 11:17 G	31624676.76	31624676.97	31624677.17	0.0533	0.0011
Venus	81873-12-22 15:08 G	31624915.03	31624915.13	31624915.23	0.0525	0.0454
Moon	81874-05-12 09:08 G	31625055.85	31625055.88	31625055.91	0.0520	0.0515
Mercury	81875-07-19 22:34 G	31625489.37	31625489.44	31625489.52	0.0505	0.0411
Mercury	81875-10-17 05:46 G	31625578.62	31625578.74	31625578.86	0.0502	0.0257
Venus	81879-02-26 17:03 G	31626807.02	31626807.21	31626807.40	0.0492	0.0180
Venus	81879-10-20 13:27 G	31627042.87	31627043.06	31627043.25	0.0497	0.0177

Earth	81880-11-20 16:48 G	31627439.99	31627440.20	31627440.41	0.0510	0.0199
Moon	81880-11-20 19:12 G	31627440.10	31627440.30	31627440.50	0.0510	0.0231 *
Mercury	81881-12-16 14:10 G	31627830.93	31627831.09	31627831.26	0.0524	0.0036
Venus	81884-12-31 23:32 G	31628942.28	31628942.48	31628942.68	0.0534	0.0121
Venus	81885-08-27 05:32 G	31629180.57	31629180.73	31629180.89	0.0528	0.0339
Earth	81886-05-17 12:58 G	31629443.80	31629444.04	31629444.28	0.0518	0.0032
Moon	81886-05-17 17:03 G	31629443.98	31629444.21	31629444.45	0.0518	0.0024 *
Mercury	81887-08-05 09:36 G	31629888.77	31629888.90	31629889.04	0.0502	0.0096
Mars	81888-07-03 22:20 G	31630222.17	31630222.43	31630222.70	0.0494	0.0101
Venus	81890-11-01 21:22 G	31631073.23	31631073.39	31631073.56	0.0491	0.0276
Venus	81891-06-25 17:03 G	31631309.01	31631309.21	31631309.41	0.0496	0.0078
Venus	81892-02-16 17:32 G	31631545.13	31631545.23	31631545.32	0.0502	0.0438
Mercury	81893-10-04 12:58 G	31632140.89	31632141.04	31632141.18	0.0524	0.0269
Venus	81896-09-05 12:15 G	31633207.83	31633208.01	31633208.19	0.0536	0.0250
Venus	81897-05-01 19:27 G	31633446.12	31633446.31	31633446.49	0.0529	0.0217
Moon	81898-05-22 07:56 G	31633831.71	31633831.83	31633831.96	0.0516	0.0438
Earth	81898-05-22 11:46 G	31633831.90	31633831.99	31633832.08	0.0516	0.0470 *
Mercury	81899-05-24 13:27 G	31634198.93	31634199.06	31634199.20	0.0503	0.0075
Venus	81902-07-09 01:27 G	31635339.43	31635339.56	31635339.69	0.0490	0.0370
Venus	81903-03-01 20:24 G	31635575.15	31635575.35	31635575.56	0.0494	0.0026
Venus	81903-10-23 19:27 G	31635811.17	31635811.31	31635811.46	0.0501	0.0338
Mercury	81905-07-24 11:17 G	31636450.94	31636450.97	31636451.02	0.0523	0.0506
Mercury	81905-10-22 16:05 G	31636541.10	31636541.17	31636541.25	0.0526	0.0461
Venus	81908-05-11 23:17 G	31637473.33	31637473.47	31637473.62	0.0537	0.0378
Venus	81909-01-05 07:41 G	31637711.62	31637711.82	31637712.02	0.0531	0.0090
Mercury	81911-03-13 17:17 G	31638509.10	31638509.22	31638509.34	0.0504	0.0241
Mercury	81911-06-11 00:29 G	31638598.45	31638598.52	31638598.59	0.0501	0.0427
Venus	81914-03-14 06:44 G	31639605.72	31639605.78	31639605.85	0.0489	0.0460
Venus	81914-11-05 01:12 G	31639841.36	31639841.55	31639841.75	0.0493	0.0123
Venus	81915-06-28 22:48 G	31640077.28	31640077.45	31640077.63	0.0498	0.0238

Mercury	81917-08-10 14:24 G	31640850.94	31640851.10	31640851.25	0.0525	0.0217
Venus	81920-01-15 06:58 G	31641738.73	31641738.79	31641738.85	0.0538	0.0507
Venus	81920-09-09 16:05 G	31641976.97	31641977.17	31641977.38	0.0533	0.0045
Venus	81921-05-05 20:39 G	31642215.23	31642215.36	31642215.49	0.0526	0.0407
Mercury	81922-12-30 20:53 G	31642819.30	31642819.37	31642819.45	0.0505	0.0411
Mercury	81923-03-30 04:05 G	31642908.55	31642908.67	31642908.78	0.0502	0.0257
Venus	81926-07-11 06:44 G	31644107.60	31644107.78	31644107.96	0.0492	0.0217
Venus	81927-03-04 02:53 G	31644343.43	31644343.62	31644343.82	0.0497	0.0139
Venus	81927-10-26 04:20 G	31644579.65	31644579.68	31644579.70	0.0503	0.0497
Mercury	81929-05-29 12:29 G	31645160.86	31645161.02	31645161.19	0.0524	0.0029
Venus	81932-05-15 02:53 G	31646242.43	31646242.62	31646242.81	0.0535	0.0177
Venus	81933-01-08 09:22 G	31646480.72	31646480.89	31646481.07	0.0529	0.0287
Mercury	81935-01-16 07:56 G	31647218.70	31647218.83	31647218.96	0.0503	0.0092
Venus	81938-03-16 10:48 G	31648373.80	31648373.95	31648374.11	0.0490	0.0312
Venus	81938-11-07 06:00 G	31648609.55	31648609.75	31648609.95	0.0495	0.0038
Venus	81939-07-01 05:17 G	31648845.60	31648845.72	31648845.84	0.0501	0.0398
Mercury	81941-03-17 10:20 G	31649470.79	31649470.93	31649471.08	0.0523	0.0274
Venus	81944-01-18 14:39 G	31650507.95	31650508.11	31650508.28	0.0536	0.0305
Venus	81944-09-12 22:48 G	31650746.26	31650746.45	31650746.65	0.0531	0.0164
Mercury	81946-11-04 12:00 G	31651528.86	31651529.00	31651529.13	0.0503	0.0069
Venus	81949-11-19 15:36 G	31652640.05	31652640.15	31652640.27	0.0490	0.0404
Venus	81950-07-13 10:20 G	31652875.73	31652875.93	31652876.13	0.0493	0.0061
Venus	81951-03-06 08:10 G	31653111.68	31653111.84	31653112.00	0.0499	0.0300
Earth	81951-11-17 08:39 G	31653367.69	31653367.86	31653368.04	0.0508	0.0330
Moon	81951-11-17 11:17 G	31653367.79	31653367.97	31653368.15	0.0508	0.0312 *
Mercury	81953-01-03 08:53 G	31653780.84	31653780.87	31653780.90	0.0523	0.0511
Mercury	81953-04-03 13:41 G	31653870.99	31653871.07	31653871.15	0.0526	0.0455
Venus	81955-09-23 03:08 G	31654773.52	31654773.63	31654773.76	0.0538	0.0432
Venus	81956-05-18 12:29 G	31655011.81	31655012.02	31655012.22	0.0532	0.0038
Venus	81957-01-11 15:51 G	31655250.08	31655250.16	31655250.25	0.0525	0.0480

Mercury	81958-08-23 15:51 G	31655839.04	31655839.16	31655839.28	0.0504	0.0234
Mercury	81958-11-20 23:03 G	31655928.40	31655928.46	31655928.53	0.0501	0.0435
Venus	81962-03-18 14:10 G	31657141.90	31657142.09	31657142.28	0.0492	0.0160
Venus	81962-11-09 11:03 G	31657377.78	31657377.96	31657378.15	0.0498	0.0198
Moon	81963-11-21 21:22 G	31657755.16	31657755.39	31657755.61	0.0510	0.0155
Earth	81963-11-21 22:05 G	31657755.19	31657755.42	31657755.64	0.0510	0.0131 *
Mercury	81965-01-20 12:29 G	31658180.88	31658181.02	31658181.18	0.0525	0.0227
Venus	81968-01-22 00:29 G	31659277.32	31659277.52	31659277.72	0.0534	0.0093
Venus	81968-09-16 05:46 G	31659515.59	31659515.74	31659515.89	0.0527	0.0365
Moon	81969-05-17 12:15 G	31659758.78	31659759.01	31659759.24	0.0518	0.0100
Earth	81969-05-17 16:05 G	31659758.94	31659759.17	31659759.40	0.0518	0.0108 *
Mercury	81970-06-11 19:41 G	31660149.25	31660149.32	31660149.41	0.0504	0.0399
Mercury	81970-09-09 02:53 G	31660238.50	31660238.62	31660238.73	0.0502	0.0268
Venus	81973-11-21 19:27 G	31661408.14	31661408.31	31661408.48	0.0491	0.0256
Venus	81974-07-15 15:36 G	31661643.95	31661644.15	31661644.35	0.0496	0.0099
Venus	81975-03-08 16:05 G	31661880.10	31661880.17	31661880.26	0.0503	0.0459
Mercury	81976-11-08 10:48 G	31662490.79	31662490.95	31662491.12	0.0524	0.0019
Venus	81979-09-26 08:24 G	31663542.66	31663542.85	31663543.03	0.0535	0.0228
Venus	81980-05-21 15:22 G	31663780.95	31663781.14	31663781.32	0.0529	0.0238
Earth	81981-05-22 09:51 G	31664146.76	31664146.91	31664147.08	0.0517	0.0378
Moon	81981-05-22 12:15 G	31664146.85	31664147.01	31664147.18	0.0517	0.0349 *
Mercury	81982-06-28 06:15 G	31664548.63	31664548.76	31664548.90	0.0503	0.0096
Venus	81985-07-28 01:12 G	31665674.41	31665674.55	31665674.70	0.0490	0.0348
Venus	81986-03-20 20:24 G	31665910.15	31665910.35	31665910.55	0.0494	0.0001
Venus	81986-11-11 19:12 G	31666146.16	31666146.30	31666146.44	0.0500	0.0361
Mercury	81988-08-27 09:08 G	31666800.73	31666800.88	31666801.03	0.0523	0.0257
Venus	81991-05-31 18:44 G	31667808.13	31667808.28	31667808.43	0.0537	0.0358
Venus	81992-01-25 03:22 G	31668046.44	31668046.64	31668046.84	0.0532	0.0111
Mercury	81994-04-16 10:20 G	31668858.79	31668858.93	31668859.06	0.0504	0.0068
Venus	81997-04-02 06:00 G	31669940.66	31669940.75	31669940.84	0.0489	0.0438

Venus	81997-11-24 00:15 G	31670176.31	31670176.51	31670176.70	0.0493	0.0099
Venus	81998-07-17 21:22 G	31670412.22	31670412.39	31670412.57	0.0498	0.0262
Mercury	82000-06-15 06:44 G	31671110.75	31671110.78	31671110.82	0.0522	0.0508
Mercury	82000-09-13 11:32 G	31671200.90	31671200.98	31671201.06	0.0525	0.0456

83RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 83rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	82003-02-03 06:00 G		31672073.67	31672073.75	31672073.85	0.0538	0.0484	
Venus	82003-09-29 15:51 G		31672311.96	31672312.16	31672312.37	0.0534	0.0018	
Venus	82004-05-24 20:39 G		31672550.25	31672550.36	31672550.48	0.0526	0.0434	
Mercury	82006-02-02 14:24 G		31673168.98	31673169.10	31673169.22	0.0504	0.0228	
Mercury	82006-05-02 21:36 G		31673258.34	31673258.40	31673258.47	0.0501	0.0444	
Venus	82009-07-30 04:48 G		31674442.52	31674442.70	31674442.89	0.0492	0.0196	
Venus	82010-03-23 00:58 G		31674678.35	31674678.54	31674678.73	0.0497	0.0162	
Mercury	82012-07-02 10:34 G		31675510.79	31675510.94	31675511.09	0.0525	0.0226	
Venus	82015-06-04 05:03 G		31676577.51	31676577.71	31676577.91	0.0535	0.0146	
Venus	82016-01-28 11:32 G		31676815.82	31676815.98	31676816.15	0.0528	0.0317	
Mercury	82017-11-21 18:29 G		31677479.19	31677479.27	31677479.36	0.0505	0.0389	
Mercury	82018-02-19 01:27 G		31677568.45	31677568.56	31677568.68	0.0502	0.0279	
Venus	82021-04-04 09:08 G		31678708.72	31678708.88	31678709.04	0.0491	0.0292	
Venus	82021-11-26 04:20 G		31678944.48	31678944.68	31678944.88	0.0495	0.0061	
Venus	82022-07-20 04:20 G		31679180.57	31679180.68	31679180.79	0.0502	0.0422	

Mercury	82024-04-20 09:22 G	31679820.72	31679820.89	31679821.06	0.0524	0.0007
Venus	82027-02-06 17:03 G	31680843.04	31680843.21	31680843.39	0.0536	0.0276
Venus	82027-10-03 00:44 G	31681081.34	31681081.53	31681081.73	0.0530	0.0194
Mercury	82029-12-08 05:32 G	31681878.59	31681878.73	31681878.86	0.0502	0.0113
Venus	82032-12-08 14:39 G	31682974.99	31682975.11	31682975.24	0.0490	0.0384
Venus	82033-08-01 09:51 G	31683210.70	31683210.91	31683211.11	0.0494	0.0039
Venus	82034-03-25 07:56 G	31683446.69	31683446.83	31683446.99	0.0500	0.0324
Moon	82034-11-16 15:51 G	31683683.00	31683683.16	31683683.33	0.0507	0.0360
Earth	82034-11-16 16:34 G	31683683.05	31683683.19	31683683.35	0.0507	0.0383 *
Mercury	82036-02-07 07:41 G	31684130.68	31684130.82	31684130.98	0.0523	0.0242
Venus	82038-10-12 00:58 G	31685108.41	31685108.54	31685108.67	0.0537	0.0407
Venus	82039-06-07 09:36 G	31685346.70	31685346.90	31685347.10	0.0532	0.0061
Venus	82040-01-31 13:12 G	31685584.99	31685585.05	31685585.10	0.0525	0.0502
Mercury	82041-09-26 08:53 G	31686188.74	31686188.87	31686189.01	0.0504	0.0061
Venus	82044-08-13 20:39 G	31687241.31	31687241.36	31687241.42	0.0489	0.0471
Venus	82045-04-06 15:08 G	31687476.94	31687477.13	31687477.33	0.0492	0.0134
Venus	82045-11-28 12:00 G	31687712.83	31687713.00	31687713.19	0.0498	0.0226
Moon	82046-11-21 05:17 G	31688070.50	31688070.72	31688070.94	0.0509	0.0096
Earth	82046-11-21 06:44 G	31688070.55	31688070.78	31688071.01	0.0509	0.0078 *
Mercury	82047-11-26 06:00 G	31688440.69	31688440.75	31688440.81	0.0522	0.0482
Mercury	82048-02-24 10:48 G	31688530.88	31688530.95	31688531.01	0.0525	0.0480
Venus	82050-06-16 11:17 G	31689373.95	31689373.97	31689374.00	0.0538	0.0532
Venus	82051-02-09 20:53 G	31689612.17	31689612.37	31689612.58	0.0534	0.0071
Venus	82051-10-06 02:24 G	31689850.46	31689850.60	31689850.74	0.0527	0.0387
Earth	82052-05-16 15:08 G	31690073.92	31690074.13	31690074.35	0.0520	0.0201
Moon	82052-05-16 18:00 G	31690074.04	31690074.25	31690074.47	0.0520	0.0197 *
Mercury	82053-07-15 12:58 G	31690498.92	31690499.04	31690499.16	0.0505	0.0224
Mercury	82053-10-12 20:10 G	31690588.28	31690588.34	31690588.40	0.0502	0.0449
Venus	82056-12-10 19:27 G	31691743.13	31691743.31	31691743.49	0.0491	0.0230
Venus	82057-08-03 15:22 G	31691978.94	31691979.14	31691979.33	0.0496	0.0125

Venus	82058-03-27 15:36 G	31692215.10	31692215.15	31692215.21	0.0502	0.0483
Moon	82058-11-25 20:53 G	31692458.36	31692458.37	31692458.40	0.0511	0.0509
Mercury	82059-12-13 08:53 G	31692840.72	31692840.87	31692841.02	0.0525	0.0235
Venus	82062-10-15 08:53 G	31693877.68	31693877.87	31693878.06	0.0536	0.0200
Venus	82063-06-10 16:05 G	31694116.00	31694116.17	31694116.35	0.0530	0.0268
Moon	82064-05-21 15:36 G	31694461.95	31694462.15	31694462.36	0.0518	0.0283
Earth	82064-05-21 16:05 G	31694461.99	31694462.17	31694462.36	0.0518	0.0315 *
Mercury	82065-05-03 17:17 G	31694809.13	31694809.22	31694809.30	0.0505	0.0382
Mercury	82065-08-01 00:15 G	31694898.40	31694898.51	31694898.62	0.0502	0.0288
Venus	82068-08-16 00:44 G	31696009.38	31696009.53	31696009.68	0.0490	0.0325
Venus	82069-04-08 19:27 G	31696245.11	31696245.31	31696245.51	0.0494	0.0025
Venus	82069-11-30 18:15 G	31696481.13	31696481.26	31696481.38	0.0500	0.0386
Mercury	82071-10-01 07:41 G	31697150.65	31697150.82	31697150.98	0.0524	0.0013
Venus	82074-06-19 21:51 G	31698143.25	31698143.41	31698143.57	0.0537	0.0328
Venus	82075-02-13 06:29 G	31698381.58	31698381.77	31698381.97	0.0531	0.0143
Mercury	82077-05-20 04:20 G	31699208.55	31699208.68	31699208.81	0.0503	0.0125
Venus	82080-04-21 05:03 G	31700275.61	31700275.71	31700275.82	0.0489	0.0417
Venus	82080-12-12 23:17 G	31700511.27	31700511.47	31700511.67	0.0493	0.0075
Venus	82081-08-05 21:08 G	31700747.22	31700747.38	31700747.55	0.0499	0.0286
Mercury	82083-07-20 06:15 G	31701460.61	31701460.76	31701460.92	0.0523	0.0230
Venus	82086-02-22 09:51 G	31702408.81	31702408.91	31702409.02	0.0538	0.0453
Venus	82086-10-18 19:12 G	31702647.10	31702647.30	31702647.51	0.0533	0.0018
Venus	82087-06-13 23:32 G	31702885.39	31702885.48	31702885.58	0.0526	0.0464
Mercury	82089-03-08 08:10 G	31703518.71	31703518.84	31703518.98	0.0503	0.0042
Venus	82092-08-18 05:17 G	31704777.53	31704777.72	31704777.91	0.0492	0.0171
Venus	82093-04-11 01:41 G	31705013.39	31705013.57	31705013.76	0.0497	0.0187
Mercury	82095-05-08 04:48 G	31705770.63	31705770.70	31705770.78	0.0522	0.0464
Mercury	82095-08-06 09:22 G	31705860.85	31705860.89	31705860.95	0.0525	0.0500
Venus	82098-06-23 03:51 G	31706912.46	31706912.66	31706912.86	0.0534	0.0119
Venus	82099-02-16 09:51 G	31707150.76	31707150.91	31707151.07	0.0528	0.0342

Mercury	82100-12-26 11:32 G	31707828.86	31707828.98	31707829.11	0.0505	0.0215
Mercury	82101-03-25 18:58 G	31707918.24	31707918.29	31707918.34	0.0502	0.0459
Venus	82104-04-24 10:48 G	31709043.78	31709043.95	31709044.12	0.0491	0.0265
Venus	82104-12-16 06:29 G	31709279.57	31709279.77	31709279.97	0.0495	0.0090
Venus	82105-08-09 06:44 G	31709515.69	31709515.78	31709515.86	0.0502	0.0449
Mercury	82107-05-26 08:24 G	31710170.70	31710170.85	31710170.99	0.0524	0.0266
Venus	82110-02-26 14:39 G	31711177.94	31711178.11	31711178.30	0.0536	0.0251
Venus	82110-10-22 22:20 G	31711416.24	31711416.43	31711416.61	0.0530	0.0219
Mercury	82112-10-14 15:51 G	31712139.07	31712139.16	31712139.25	0.0505	0.0376
Mercury	82113-01-11 22:48 G	31712228.34	31712228.45	31712228.56	0.0503	0.0294
Venus	82115-12-29 15:51 G	31713310.02	31713310.16	31713310.30	0.0490	0.0358
Venus	82116-08-21 10:34 G	31713545.74	31713545.94	31713546.14	0.0494	0.0011
Venus	82117-04-14 08:39 G	31713781.72	31713781.86	31713782.00	0.0499	0.0350
Moon	82117-11-16 23:46 G	31713998.37	31713998.49	31713998.62	0.0506	0.0413
Earth	82117-11-17 01:12 G	31713998.44	31713998.55	31713998.66	0.0506	0.0440 *
Mercury	82119-03-14 06:15 G	31714480.59	31714480.76	31714480.93	0.0524	0.0019
Venus	82121-11-01 01:56 G	31715443.44	31715443.58	31715443.73	0.0537	0.0380
Venus	82122-06-27 11:03 G	31715681.76	31715681.96	31715682.16	0.0532	0.0092
Mercury	82124-10-31 02:53 G	31716538.49	31716538.62	31716538.76	0.0503	0.0136
Venus	82127-09-03 20:53 G	31717576.30	31717576.37	31717576.46	0.0489	0.0448
Venus	82128-04-26 15:08 G	31717811.93	31717812.13	31717812.33	0.0492	0.0109
Venus	82128-12-18 11:46 G	31718047.82	31718047.99	31718048.17	0.0498	0.0251
Earth	82129-11-21 13:41 G	31718385.84	31718386.07	31718386.31	0.0508	0.0019
Moon	82129-11-21 16:48 G	31718385.96	31718386.20	31718386.44	0.0508	0.0031 *
Mercury	82130-12-31 04:48 G	31718790.55	31718790.70	31718790.86	0.0523	0.0217
Venus	82133-07-06 14:53 G	31719709.05	31719709.12	31719709.19	0.0538	0.0503
Venus	82134-03-02 00:44 G	31719947.33	31719947.53	31719947.74	0.0534	0.0038
Venus	82134-10-26 06:15 G	31720185.64	31720185.76	31720185.89	0.0527	0.0419
Moon	82135-05-18 00:15 G	31720389.30	31720389.51	31720389.73	0.0520	0.0254
Earth	82135-05-18 01:12 G	31720389.35	31720389.55	31720389.76	0.0520	0.0247 *

Mercury	82136-08-19 07:12 G	31720848.66	31720848.80	31720848.93	0.0503	0.0026
Venus	82139-12-31 19:27 G	31722078.13	31722078.31	31722078.50	0.0491	0.0207
Venus	82140-08-23 15:36 G	31722313.96	31722314.15	31722314.34	0.0496	0.0151
Moon	82141-11-26 00:00 G	31722773.41	31722773.50	31722773.61	0.0511	0.0457
Earth	82141-11-26 03:36 G	31722773.59	31722773.65	31722773.73	0.0511	0.0483 *
Mercury	82142-10-19 03:36 G	31723100.56	31723100.65	31723100.73	0.0523	0.0450
Mercury	82143-01-17 08:24 G	31723190.82	31723190.85	31723190.88	0.0526	0.0515
Venus	82145-11-04 13:12 G	31724212.86	31724213.05	31724213.25	0.0535	0.0167
Venus	82146-06-30 20:10 G	31724451.18	31724451.34	31724451.52	0.0529	0.0301
Moon	82147-05-23 00:00 G	31724777.30	31724777.50	31724777.71	0.0518	0.0234
Earth	82147-05-23 01:27 G	31724777.36	31724777.56	31724777.77	0.0518	0.0265 *
Mercury	82148-06-07 11:17 G	31725158.84	31725158.97	31725159.10	0.0504	0.0187
Mercury	82148-09-04 18:29 G	31725248.24	31725248.27	31725248.30	0.0501	0.0484
Venus	82151-09-06 01:27 G	31726344.41	31726344.56	31726344.73	0.0490	0.0300
Venus	82152-04-28 20:53 G	31726580.16	31726580.37	31726580.57	0.0495	0.0053
Venus	82152-12-20 19:56 G	31726816.23	31726816.33	31726816.45	0.0501	0.0413
Mercury	82154-11-05 07:27 G	31727500.67	31727500.81	31727500.95	0.0524	0.0288
Venus	82157-07-09 22:05 G	31728478.25	31728478.42	31728478.59	0.0536	0.0299
Venus	82158-03-05 06:00 G	31728716.56	31728716.75	31728716.95	0.0531	0.0172
Mercury	82160-03-26 14:39 G	31729469.02	31729469.11	31729469.20	0.0505	0.0364
Mercury	82160-06-23 21:36 G	31729558.30	31729558.40	31729558.51	0.0502	0.0307
Mars	82161-03-21 02:39 G	31729828.40	31729828.61	31729828.83	0.0495	0.0309
Venus	82163-05-12 07:12 G	31730610.68	31730610.80	31730610.92	0.0490	0.0391
Venus	82164-01-03 02:10 G	31730846.39	31730846.59	31730846.79	0.0493	0.0045
Venus	82164-08-26 00:15 G	31731082.35	31731082.51	31731082.66	0.0499	0.0316
Mercury	82166-08-24 06:00 G	31731810.59	31731810.75	31731810.92	0.0523	0.0055
Venus	82169-03-14 08:39 G	31732743.75	31732743.86	31732743.99	0.0537	0.0428
Venus	82169-11-07 17:32 G	31732982.03	31732982.23	31732982.44	0.0533	0.0043
Venus	82170-07-03 21:36 G	31733220.33	31733220.40	31733220.48	0.0526	0.0488
Mercury	82172-04-12 01:41 G	31733868.44	31733868.57	31733868.70	0.0503	0.0142

Venus	82175-01-15 12:29 G	31734876.98	31734877.02	31734877.05	0.0489	0.0480
Venus	82175-09-08 06:44 G	31735112.58	31735112.78	31735112.97	0.0492	0.0143
Venus	82176-05-01 02:53 G	31735348.45	31735348.62	31735348.81	0.0497	0.0216
Mercury	82178-06-12 03:51 G	31736120.50	31736120.66	31736120.82	0.0523	0.0195
Venus	82181-07-13 05:32 G	31737247.53	31737247.73	31737247.94	0.0535	0.0089
Venus	82182-03-08 11:46 G	31737485.86	31737485.99	31737486.14	0.0528	0.0374
Mercury	82184-01-30 06:00 G	31738178.61	31738178.75	31738178.88	0.0504	0.0024
Venus	82187-05-14 11:32 G	31739378.81	31739378.98	31739379.16	0.0491	0.0239
Venus	82188-01-05 06:58 G	31739614.59	31739614.79	31739614.99	0.0495	0.0116
Venus	82188-08-28 06:44 G	31739850.73	31739850.78	31739850.85	0.0502	0.0475
Mercury	82190-03-31 02:10 G	31740430.50	31740430.59	31740430.69	0.0522	0.0434
Venus	82193-03-17 18:44 G	31741513.09	31741513.28	31741513.47	0.0536	0.0218
Venus	82193-11-11 02:39 G	31741751.43	31741751.61	31741751.79	0.0530	0.0253
Mercury	82195-11-18 10:05 G	31742488.80	31742488.92	31742489.05	0.0504	0.0175
Mercury	82196-02-15 17:17 G	31742578.21	31742578.22	31742578.24	0.0501	0.0498
Venus	82199-01-17 16:20 G	31743645.03	31743645.18	31743645.33	0.0490	0.0334
Venus	82199-09-10 11:03 G	31743880.76	31743880.96	31743881.16	0.0494	0.0017
Venus	82200-05-04 09:22 G	31744116.77	31744116.89	31744117.03	0.0500	0.0377
Earth	82200-11-17 11:32 G	31744313.92	31744313.98	31744314.04	0.0506	0.0488
Moon	82200-11-17 14:24 G	31744314.00	31744314.10	31744314.21	0.0506	0.0452 *
Mercury	82202-04-18 06:00 G	31744830.62	31744830.75	31744830.89	0.0525	0.0303
Venus	82204-11-21 07:12 G	31745778.65	31745778.80	31745778.96	0.0537	0.0346
Venus	82205-07-17 16:05 G	31746016.97	31746017.17	31746017.37	0.0532	0.0127
Mercury	82207-09-07 14:24 G	31746799.00	31746799.10	31746799.20	0.0505	0.0335
Mercury	82207-12-05 21:22 G	31746888.29	31746888.39	31746888.49	0.0502	0.0335
Venus	82210-09-23 22:20 G	31747911.33	31747911.43	31747911.53	0.0489	0.0424
Venus	82211-05-17 16:48 G	31748147.00	31748147.20	31748147.40	0.0493	0.0082
Venus	82212-01-08 14:10 G	31748382.92	31748383.09	31748383.25	0.0498	0.0279
Moon	82212-11-21 23:03 G	31748701.23	31748701.46	31748701.69	0.0508	0.0008
Earth	82212-11-22 02:53 G	31748701.38	31748701.62	31748701.85	0.0508	0.0022 *

Mercury	82214-02-04 05:17 G	31749140.55	31749140.72	31749140.88	0.0524	0.0078
Venus	82216-07-26 16:48 G	31750044.10	31750044.20	31750044.29	0.0537	0.0473
Venus	82217-03-22 01:27 G	31750282.36	31750282.56	31750282.77	0.0533	0.0010
Venus	82217-11-15 06:00 G	31750520.65	31750520.75	31750520.86	0.0527	0.0447
Moon	82218-05-18 03:08 G	31750704.46	31750704.63	31750704.80	0.0520	0.0343
Earth	82218-05-18 03:51 G	31750704.49	31750704.66	31750704.85	0.0520	0.0328 *
Mercury	82219-09-24 00:29 G	31751198.39	31751198.52	31751198.65	0.0503	0.0156
Venus	82223-01-20 22:20 G	31752413.24	31752413.43	31752413.62	0.0492	0.0177
Venus	82223-09-13 18:44 G	31752649.09	31752649.28	31752649.47	0.0497	0.0182
Earth	82224-11-26 17:32 G	31753089.12	31753089.23	31753089.34	0.0510	0.0448
Moon	82224-11-26 21:08 G	31753089.26	31753089.38	31753089.52	0.0510	0.0421 *
Mercury	82225-11-23 03:51 G	31753450.50	31753450.66	31753450.82	0.0523	0.0157
Venus	82228-11-24 12:44 G	31754547.83	31754548.03	31754548.22	0.0535	0.0138
Venus	82229-07-20 18:58 G	31754786.13	31754786.29	31754786.45	0.0529	0.0327
Earth	82230-05-23 02:53 G	31755092.40	31755092.62	31755092.84	0.0518	0.0180
Moon	82230-05-23 05:32 G	31755092.50	31755092.73	31755092.96	0.0518	0.0148 *
Mercury	82231-07-13 04:34 G	31755508.55	31755508.69	31755508.82	0.0504	0.0012
Venus	82234-09-26 03:08 G	31756679.46	31756679.63	31756679.80	0.0491	0.0273
Venus	82235-05-19 22:20 G	31756915.23	31756915.43	31756915.63	0.0495	0.0081
Venus	82236-01-10 21:22 G	31757151.31	31757151.39	31757151.49	0.0501	0.0441
Mercury	82237-09-11 01:27 G	31757760.45	31757760.56	31757760.66	0.0522	0.0409
Venus	82240-07-30 00:00 G	31758813.32	31758813.50	31758813.67	0.0536	0.0270
Venus	82241-03-25 08:10 G	31759051.65	31759051.84	31759052.03	0.0531	0.0203
Mercury	82243-05-01 08:53 G	31759818.74	31759818.87	31759818.99	0.0505	0.0168
Venus	82246-06-01 08:10 G	31760945.71	31760945.84	31760945.98	0.0490	0.0367
Venus	82247-01-23 02:53 G	31761181.42	31761181.62	31761181.82	0.0493	0.0019
Venus	82247-09-16 00:29 G	31761417.38	31761417.52	31761417.67	0.0499	0.0343
Mercury	82249-09-28 04:48 G	31762160.57	31762160.70	31762160.83	0.0524	0.0319
Mars	82250-06-15 06:00 G	31762420.48	31762420.75	31762421.03	0.0532	0.0038
Venus	82252-04-03 12:29 G	31763078.88	31763079.02	31763079.15	0.0538	0.0397

Venus	82252-11-27 21:36 G	31763317.20	31763317.40	31763317.61	0.0533	0.0077
Venus	82253-07-24 01:56 G	31763555.56	31763555.58	31763555.61	0.0526	0.0520
Mercury	82255-02-17 13:12 G	31764128.95	31764129.05	31764129.15	0.0505	0.0324
Mercury	82255-05-17 20:10 G	31764218.24	31764218.34	31764218.44	0.0502	0.0347
Venus	82258-02-04 12:58 G	31765211.98	31765212.04	31765212.12	0.0489	0.0458
Venus	82258-09-28 07:12 G	31765447.61	31765447.80	31765448.00	0.0492	0.0117
Venus	82259-05-22 03:51 G	31765683.48	31765683.66	31765683.84	0.0497	0.0243
Mercury	82261-07-17 03:51 G	31766470.49	31766470.66	31766470.82	0.0524	0.0091
Venus	82263-12-08 01:12 G	31767344.50	31767344.55	31767344.60	0.0538	0.0519
Venus	82264-08-02 10:48 G	31767582.75	31767582.95	31767583.16	0.0534	0.0054
Venus	82265-03-28 16:48 G	31767821.07	31767821.20	31767821.33	0.0528	0.0407
Mercury	82266-12-06 17:17 G	31768439.19	31768439.22	31768439.26	0.0506	0.0483
Mercury	82267-03-06 00:15 G	31768528.38	31768528.51	31768528.64	0.0503	0.0185
Venus	82270-06-03 13:12 G	31769713.87	31769714.05	31769714.23	0.0491	0.0213
Venus	82271-01-25 08:53 G	31769949.68	31769949.87	31769950.07	0.0496	0.0145
Mercury	82273-05-05 02:53 G	31770780.46	31770780.62	31770780.78	0.0523	0.0135
Venus	82276-04-06 20:24 G	31771848.16	31771848.35	31771848.55	0.0535	0.0186
Venus	82276-12-01 03:08 G	31772086.46	31772086.63	31772086.81	0.0529	0.0282
Mercury	82278-12-23 03:22 G	31772838.51	31772838.64	31772838.78	0.0504	0.0014
Venus	82282-02-06 18:29 G	31773980.11	31773980.27	31773980.43	0.0491	0.0307
Venus	82282-09-30 13:56 G	31774215.88	31774216.08	31774216.28	0.0495	0.0047
Venus	82283-05-24 12:58 G	31774451.92	31774452.04	31774452.15	0.0500	0.0408
Moon	82283-11-17 21:51 G	31774629.36	31774629.41	31774629.48	0.0506	0.0487
Mercury	82285-02-21 01:27 G	31775090.44	31775090.56	31775090.68	0.0522	0.0370
Venus	82287-12-11 07:12 G	31776113.64	31776113.80	31776113.97	0.0536	0.0317
Venus	82288-08-05 15:08 G	31776351.94	31776352.13	31776352.33	0.0531	0.0155
Mercury	82290-10-11 07:27 G	31777148.68	31777148.81	31777148.94	0.0505	0.0161
Venus	82293-10-12 23:32 G	31778246.36	31778246.48	31778246.59	0.0490	0.0400
Venus	82294-06-05 18:00 G	31778482.05	31778482.25	31778482.46	0.0493	0.0055
Venus	82295-01-27 15:22 G	31778717.99	31778718.14	31778718.30	0.0498	0.0308

Earth	82295-11-22 12:29 G	31779016.79	31779017.02	31779017.25	0.0507	0.0072
Moon	82295-11-22 16:20 G	31779016.95	31779017.18	31779017.41	0.0507	0.0064 *
Mercury	82297-03-10 03:51 G	31779490.54	31779490.66	31779490.79	0.0524	0.0343
Venus	82299-08-15 17:46 G	31780379.14	31780379.24	31780379.36	0.0537	0.0447
Venus	82300-04-11 03:08 G	31780617.42	31780617.63	31780617.83	0.0533	0.0025
Venus	82300-12-05 07:56 G	31780855.75	31780855.83	31780855.92	0.0527	0.0476
Earth	82301-05-18 11:03 G	31781019.81	31781019.96	31781020.12	0.0521	0.0389
Moon	82301-05-18 13:27 G	31781019.91	31781020.06	31781020.21	0.0521	0.0407 *
Mercury	82302-07-31 11:46 G	31781458.89	31781458.99	31781459.09	0.0506	0.0318
Mercury	82302-10-28 18:44 G	31781548.19	31781548.28	31781548.38	0.0503	0.0354
Venus	82306-02-09 23:03 G	31782748.27	31782748.46	31782748.65	0.0492	0.0152
Venus	82306-10-03 18:58 G	31782984.11	31782984.29	31782984.48	0.0496	0.0209
Moon	82307-11-27 22:20 G	31783404.26	31783404.43	31783404.60	0.0509	0.0356
Earth	82307-11-28 01:27 G	31783404.41	31783404.56	31783404.71	0.0509	0.0388 *
Mercury	82308-12-28 02:24 G	31783800.44	31783800.60	31783800.77	0.0523	0.0108
Venus	82311-12-15 16:05 G	31784882.97	31784883.17	31784883.37	0.0535	0.0106
Venus	82312-08-09 22:48 G	31785121.30	31785121.45	31785121.60	0.0529	0.0360
Moon	82313-05-23 09:51 G	31785407.68	31785407.91	31785408.14	0.0519	0.0103
Earth	82313-05-23 13:27 G	31785407.83	31785408.06	31785408.28	0.0519	0.0135 *
Mercury	82314-05-19 16:05 G	31785769.13	31785769.17	31785769.22	0.0506	0.0474
Mercury	82314-08-16 23:03 G	31785858.33	31785858.46	31785858.58	0.0503	0.0195
Mars	82315-06-17 19:27 G	31786163.06	31786163.31	31786163.56	0.0495	0.0213
Venus	82317-10-16 03:22 G	31787014.47	31787014.64	31787014.82	0.0491	0.0249
Venus	82318-06-08 22:48 G	31787250.25	31787250.45	31787250.65	0.0495	0.0107
Venus	82319-01-30 22:20 G	31787486.36	31787486.43	31787486.50	0.0501	0.0467
Mercury	82320-10-16 01:12 G	31788110.39	31788110.55	31788110.72	0.0523	0.0126
Venus	82323-08-20 04:48 G	31789148.52	31789148.70	31789148.89	0.0536	0.0235
Venus	82324-04-14 12:44 G	31789386.85	31789387.03	31789387.22	0.0531	0.0238
Mercury	82326-06-05 03:08 G	31790168.49	31790168.63	31790168.76	0.0504	0.0034
Venus	82329-06-21 09:22 G	31791280.75	31791280.89	31791281.04	0.0490	0.0342

Venus	82330-02-12 04:20 G	31791516.48	31791516.68	31791516.88	0.0494	0.0009
Venus	82330-10-06 02:24 G	31791752.47	31791752.60	31791752.74	0.0499	0.0372
Mercury	82332-08-04 00:15 G	31792420.39	31792420.51	31792420.64	0.0522	0.0352
Venus	82335-04-24 14:53 G	31793413.98	31793414.12	31793414.27	0.0537	0.0365
Venus	82335-12-18 23:03 G	31793652.26	31793652.46	31793652.66	0.0532	0.0108
Mercury	82338-03-24 06:15 G	31794478.63	31794478.76	31794478.89	0.0505	0.0148
Venus	82341-02-24 14:10 G	31795547.00	31795547.09	31795547.19	0.0490	0.0434
Venus	82341-10-18 09:08 G	31795782.68	31795782.88	31795783.08	0.0493	0.0089
Venus	82342-06-11 06:29 G	31796018.60	31796018.77	31796018.94	0.0498	0.0273
Mercury	82344-08-21 03:51 G	31796820.55	31796820.66	31796820.77	0.0524	0.0378
Venus	82346-12-28 01:41 G	31797679.50	31797679.57	31797679.66	0.0537	0.0492
Venus	82347-08-23 10:20 G	31797917.73	31797917.93	31797918.14	0.0533	0.0026
Venus	82348-04-17 15:22 G	31798156.02	31798156.14	31798156.25	0.0527	0.0433
Mercury	82350-01-10 10:05 G	31798788.82	31798788.92	31798789.03	0.0505	0.0315
Mercury	82350-04-09 17:17 G	31798878.13	31798878.22	31798878.32	0.0503	0.0358
Venus	82353-06-23 13:41 G	31800048.89	31800049.07	31800049.26	0.0492	0.0188
Venus	82354-02-14 09:51 G	31800284.72	31800284.91	31800285.10	0.0496	0.0172
Mercury	82356-06-09 01:27 G	31801130.40	31801130.56	31801130.73	0.0523	0.0130
Venus	82359-04-27 21:08 G	31802183.19	31802183.38	31802183.58	0.0535	0.0158
Venus	82359-12-22 04:05 G	31802421.51	31802421.67	31802421.84	0.0530	0.0311
Mercury	82361-10-29 14:39 G	31803099.06	31803099.11	31803099.15	0.0506	0.0472
Mercury	82362-01-26 21:22 G	31803188.27	31803188.39	31803188.52	0.0503	0.0198
Venus	82365-02-26 18:44 G	31804315.12	31804315.28	31804315.45	0.0490	0.0283
Venus	82365-10-20 13:56 G	31804550.88	31804551.08	31804551.28	0.0494	0.0072
Venus	82366-06-13 12:29 G	31804786.93	31804787.02	31804787.13	0.0500	0.0432
Mercury	82368-03-27 23:46 G	31805440.33	31805440.49	31805440.66	0.0523	0.0113
Venus	82370-12-31 09:22 G	31806448.72	31806448.89	31806449.07	0.0537	0.0288
Venus	82371-08-26 17:46 G	31806687.05	31806687.24	31806687.44	0.0532	0.0188
Mercury	82373-11-15 01:41 G	31807498.43	31807498.57	31807498.70	0.0504	0.0039
Venus	82376-11-01 23:17 G	31808581.35	31808581.47	31808581.60	0.0490	0.0377

Venus	82377-06-25 18:00 G	31808817.05	31808817.25	31808817.45	0.0493	0.0029
Venus	82378-02-16 15:22 G	31809052.99	31809053.14	31809053.29	0.0498	0.0333
Moon	82378-11-22 17:46 G	31809332.02	31809332.24	31809332.47	0.0507	0.0131
Earth	82378-11-22 20:53 G	31809332.15	31809332.37	31809332.60	0.0507	0.0129 *
Mercury	82380-01-14 22:20 G	31809750.30	31809750.43	31809750.56	0.0522	0.0348
Venus	82382-09-04 22:05 G	31810714.29	31810714.42	31810714.55	0.0538	0.0415
Venus	82383-05-01 07:12 G	31810952.59	31810952.80	31810953.00	0.0533	0.0059
Venus	82383-12-25 11:32 G	31811190.94	31811190.98	31811191.04	0.0526	0.0509
Moon	82384-05-17 17:17 G	31811335.12	31811335.22	31811335.32	0.0521	0.0466
Earth	82384-05-17 20:24 G	31811335.23	31811335.35	31811335.48	0.0521	0.0442 *
Mercury	82385-09-03 05:46 G	31811808.61	31811808.74	31811808.87	0.0505	0.0123
Venus	82388-07-08 05:03 G	31812847.65	31812847.71	31812847.77	0.0489	0.0467
Venus	82389-02-28 23:32 G	31813083.28	31813083.48	31813083.67	0.0492	0.0126
Venus	82389-10-22 19:56 G	31813319.16	31813319.33	31813319.51	0.0497	0.0236
Earth	82390-11-27 12:15 G	31813719.85	31813720.01	31813720.19	0.0509	0.0342
Moon	82390-11-27 13:27 G	31813719.89	31813720.06	31813720.25	0.0509	0.0313 *
Mercury	82392-02-01 02:24 G	31814150.49	31814150.60	31814150.71	0.0524	0.0393
Venus	82395-01-03 17:46 G	31815218.04	31815218.24	31815218.44	0.0534	0.0073
Venus	82395-08-29 23:03 G	31815456.33	31815456.46	31815456.61	0.0528	0.0389
Earth	82396-05-22 15:36 G	31815722.92	31815723.15	31815723.39	0.0519	0.0053
Moon	82396-05-22 19:27 G	31815723.08	31815723.31	31815723.55	0.0519	0.0030 *
Mercury	82397-06-22 09:08 G	31816118.77	31816118.88	31816118.98	0.0505	0.0304
Mercury	82397-09-19 16:05 G	31816208.08	31816208.17	31816208.26	0.0502	0.0368
Venus	82400-11-04 03:51 G	31817349.48	31817349.66	31817349.84	0.0491	0.0224
Venus	82401-06-28 00:00 G	31817585.31	31817585.50	31817585.70	0.0496	0.0136
Venus	82402-02-19 00:15 G	31817821.49	31817821.51	31817821.54	0.0502	0.0496
Mercury	82403-11-20 01:12 G	31818460.39	31818460.55	31818460.71	0.0523	0.0160
Venus	82406-09-08 04:34 G	31819483.50	31819483.69	31819483.88	0.0535	0.0207
Venus	82407-05-04 11:17 G	31819721.79	31819721.97	31819722.15	0.0530	0.0265
Mercury	82409-04-10 12:58 G	31820429.00	31820429.04	31820429.09	0.0506	0.0469

Mercury	82409-07-08 19:56 G	31820518.20	31820518.33	31820518.45	0.0503	0.0200
Venus	82412-07-10 08:53 G	31821615.71	31821615.87	31821616.02	0.0490	0.0320
Venus	82413-03-03 04:05 G	31821851.47	31821851.67	31821851.87	0.0494	0.0034
Venus	82413-10-25 02:24 G	31822087.48	31822087.60	31822087.72	0.0500	0.0396
Mercury	82415-09-07 22:48 G	31822770.28	31822770.45	31822770.62	0.0522	0.0093
Venus	82418-05-13 14:24 G	31823748.94	31823749.10	31823749.26	0.0537	0.0341
Venus	82419-01-06 22:48 G	31823987.25	31823987.45	31823987.65	0.0532	0.0135
Mercury	82421-04-27 00:00 G	31824828.36	31824828.50	31824828.64	0.0504	0.0039
Venus	82424-03-15 13:41 G	31825881.97	31825882.07	31825882.19	0.0490	0.0413
Venus	82424-11-06 08:24 G	31826117.65	31826117.85	31826118.05	0.0493	0.0066
Venus	82425-06-30 05:32 G	31826353.57	31826353.73	31826353.89	0.0498	0.0297
Mercury	82427-06-26 20:39 G	31827080.24	31827080.36	31827080.50	0.0522	0.0338
Venus	82430-01-16 02:10 G	31828014.49	31828014.59	31828014.69	0.0538	0.0468
Venus	82430-09-11 11:32 G	31828252.77	31828252.98	31828253.18	0.0534	0.0009
Venus	82431-05-07 16:48 G	31828491.11	31828491.20	31828491.30	0.0527	0.0462
Mercury	82433-02-13 04:05 G	31829138.54	31829138.67	31829138.81	0.0505	0.0122
Venus	82436-07-12 12:44 G	31830383.84	31830384.03	31830384.22	0.0491	0.0164
Venus	82437-03-05 08:39 G	31830619.68	31830619.86	31830620.05	0.0496	0.0197
Mercury	82439-07-14 00:15 G	31831480.40	31831480.51	31831480.62	0.0524	0.0390
Venus	82442-05-17 00:15 G	31832518.31	31832518.51	31832518.71	0.0535	0.0126
Venus	82443-01-10 06:58 G	31832756.64	31832756.79	31832756.95	0.0529	0.0344
Mercury	82444-12-02 08:24 G	31833448.74	31833448.85	31833448.96	0.0505	0.0282
Mercury	82445-03-01 15:22 G	31833538.05	31833538.14	31833538.22	0.0502	0.0390
Venus	82448-03-17 18:00 G	31834650.08	31834650.25	31834650.43	0.0491	0.0260
Venus	82448-11-08 13:27 G	31834885.86	31834886.06	31834886.26	0.0495	0.0097
Venus	82449-07-02 12:44 G	31835121.95	31835122.03	31835122.11	0.0501	0.0458
Mercury	82451-05-01 23:32 G	31835790.32	31835790.48	31835790.64	0.0524	0.0168
Venus	82454-01-19 11:03 G	31836783.79	31836783.96	31836784.15	0.0536	0.0258
Venus	82454-09-14 18:15 G	31837022.08	31837022.26	31837022.45	0.0531	0.0217
Mercury	82456-09-20 11:32 G	31837758.93	31837758.98	31837759.04	0.0506	0.0462

Mercury	82456-12-18 18:29 G	31837848.14	31837848.27	31837848.39	0.0503	0.0207
Venus	82459-11-21 22:05 G	31838916.28	31838916.42	31838916.56	0.0490	0.0356
Venus	82460-07-14 17:32 G	31839152.03	31839152.23	31839152.44	0.0494	0.0007
Venus	82461-03-07 15:51 G	31839388.03	31839388.16	31839388.30	0.0499	0.0361
Earth	82461-11-22 06:58 G	31839647.57	31839647.79	31839648.01	0.0507	0.0179
Moon	82461-11-22 08:10 G	31839647.64	31839647.84	31839648.05	0.0507	0.0192 *
Mercury	82463-02-17 22:05 G	31840100.25	31840100.42	31840100.59	0.0523	0.0068
Venus	82465-09-23 21:51 G	31841049.27	31841049.41	31841049.55	0.0536	0.0388
Venus	82466-05-20 05:46 G	31841287.53	31841287.74	31841287.94	0.0532	0.0086
Mercury	82468-10-06 22:20 G	31842158.29	31842158.43	31842158.56	0.0504	0.0041
Venus	82471-07-28 02:53 G	31843182.55	31843182.62	31843182.70	0.0490	0.0449
Venus	82472-03-19 21:51 G	31843418.21	31843418.41	31843418.61	0.0492	0.0104
Venus	82472-11-10 18:44 G	31843654.11	31843654.28	31843654.45	0.0497	0.0259
Moon	82473-11-26 18:00 G	31844035.04	31844035.25	31844035.47	0.0508	0.0240
Earth	82473-11-26 17:46 G	31844035.05	31844035.24	31844035.44	0.0508	0.0274 *
Mercury	82474-12-06 19:27 G	31844410.17	31844410.31	31844410.44	0.0522	0.0324
Venus	82477-05-29 06:44 G	31845314.74	31845314.78	31845314.84	0.0537	0.0519
Venus	82478-01-22 16:05 G	31845552.96	31845553.17	31845553.37	0.0534	0.0050
Venus	82478-09-17 21:51 G	31845791.28	31845791.41	31845791.53	0.0528	0.0413
Moon	82479-05-22 14:24 G	31846037.87	31846038.10	31846038.34	0.0520	0.0052
Earth	82479-05-22 18:00 G	31846038.01	31846038.25	31846038.48	0.0520	0.0030 *
Mercury	82480-07-26 02:24 G	31846468.47	31846468.60	31846468.73	0.0505	0.0125
Venus	82483-11-24 02:24 G	31847684.42	31847684.60	31847684.79	0.0491	0.0202
Venus	82484-07-16 22:20 G	31847920.24	31847920.43	31847920.62	0.0495	0.0158
Mercury	82486-12-23 22:20 G	31848810.32	31848810.43	31848810.54	0.0524	0.0396
Venus	82489-09-27 03:36 G	31849818.46	31849818.65	31849818.84	0.0536	0.0182
Venus	82490-05-23 11:03 G	31850056.79	31850056.96	31850057.13	0.0530	0.0291
Earth	82491-05-27 18:15 G	31850426.18	31850426.26	31850426.34	0.0518	0.0484
Moon	82491-05-27 19:56 G	31850426.31	31850426.33	31850426.36	0.0518	0.0514 *
Mercury	82492-05-14 06:29 G	31850778.66	31850778.77	31850778.88	0.0506	0.0284

Mercury	82492-08-11 13:41 G	31850867.98	31850868.07	31850868.15	0.0503	0.0389
Venus	82495-07-30 06:58 G	31851950.63	31851950.79	31851950.95	0.0490	0.0298
Venus	82496-03-22 01:56 G	31852186.38	31852186.58	31852186.78	0.0494	0.0057
Venus	82496-11-13 00:15 G	31852422.40	31852422.51	31852422.62	0.0500	0.0419
Mercury	82498-10-11 20:53 G	31853120.21	31853120.37	31853120.53	0.0524	0.0159
Venus	82501-06-02 15:51 G	31854084.00	31854084.16	31854084.33	0.0537	0.0312
Venus	82502-01-27 00:29 G	31854322.33	31854322.52	31854322.72	0.0532	0.0166
Mercury	82504-03-03 10:48 G	31855088.89	31855088.95	31855089.01	0.0506	0.0445
Mercury	82504-05-31 17:32 G	31855178.11	31855178.23	31855178.35	0.0503	0.0224
Venus	82507-04-05 12:00 G	31856216.88	31856217.00	31856217.12	0.0490	0.0392
Venus	82507-11-27 06:44 G	31856452.58	31856452.78	31856452.98	0.0493	0.0043
Venus	82508-07-20 04:05 G	31856688.52	31856688.67	31856688.83	0.0498	0.0322
Mercury	82510-07-31 19:56 G	31857430.16	31857430.33	31857430.50	0.0523	0.0068
Venus	82513-02-05 03:22 G	31858349.53	31858349.64	31858349.76	0.0537	0.0440
Venus	82513-10-01 11:46 G	31858587.79	31858587.99	31858588.20	0.0533	0.0035
Venus	82514-05-27 15:51 G	31858826.10	31858826.16	31858826.25	0.0526	0.0488
Mercury	82516-03-19 20:39 G	31859488.23	31859488.36	31859488.50	0.0504	0.0046
Venus	82518-12-09 15:22 G	31860483.12	31860483.14	31860483.17	0.0490	0.0485
Venus	82519-08-02 10:34 G	31860718.75	31860718.94	31860719.14	0.0492	0.0143
Venus	82520-03-25 07:27 G	31860954.63	31860954.81	31860954.99	0.0497	0.0221
Mercury	82522-05-19 18:15 G	31861740.12	31861740.26	31861740.40	0.0522	0.0305
Mars	82523-03-01 20:53 G	31862026.29	31862026.37	31862026.47	0.0531	0.0499
Venus	82525-06-05 22:34 G	31862853.24	31862853.44	31862853.65	0.0534	0.0100
Venus	82526-01-30 04:20 G	31863091.54	31863091.68	31863091.83	0.0528	0.0368
Mercury	82528-01-07 00:29 G	31863798.39	31863798.52	31863798.65	0.0505	0.0127
Venus	82531-04-07 14:53 G	31864984.95	31864985.12	31864985.30	0.0491	0.0242
Venus	82531-11-29 10:48 G	31865220.76	31865220.95	31865221.15	0.0495	0.0118
Venus	82532-07-22 10:20 G	31865456.88	31865456.93	31865456.99	0.0501	0.0479
Mercury	82534-06-05 20:39 G	31866140.26	31866140.36	31866140.47	0.0524	0.0403
Venus	82537-02-08 07:56 G	31867118.65	31867118.83	31867119.01	0.0536	0.0237

Venus	82537-10-04 15:22 G	31867356.96	31867357.14	31867357.32	0.0531	0.0239
Mercury	82539-10-26 04:34 G	31868108.58	31868108.69	31868108.80	0.0506	0.0290
Mercury	82540-01-23 11:32 G	31868197.90	31868197.98	31868198.07	0.0503	0.0383
Venus	82542-12-11 19:56 G	31869251.18	31869251.33	31869251.48	0.0490	0.0337
Venus	82543-08-04 15:08 G	31869486.93	31869487.13	31869487.33	0.0493	0.0017
Venus	82544-03-27 12:58 G	31869722.92	31869723.04	31869723.17	0.0499	0.0381
Earth	82544-11-22 08:53 G	31869962.68	31869962.87	31869963.08	0.0506	0.0260
Moon	82544-11-22 09:08 G	31869962.68	31869962.88	31869963.08	0.0506	0.0275 *
Mercury	82546-03-24 18:44 G	31870450.12	31870450.28	31870450.44	0.0523	0.0160
Venus	82548-10-13 18:44 G	31871384.14	31871384.28	31871384.43	0.0537	0.0369
Venus	82549-06-09 03:22 G	31871622.44	31871622.64	31871622.85	0.0533	0.0110
Mercury	82551-08-14 08:53 G	31872418.81	31872418.87	31872418.93	0.0506	0.0450
Mercury	82551-11-11 15:36 G	31872508.03	31872508.15	31872508.27	0.0503	0.0220
Venus	82554-08-17 00:15 G	31873517.42	31873517.51	31873517.61	0.0489	0.0430
Venus	82555-04-09 18:44 G	31873753.08	31873753.28	31873753.48	0.0492	0.0083
Venus	82555-12-01 15:22 G	31873988.98	31873989.14	31873989.31	0.0497	0.0280
Moon	82556-11-26 18:44 G	31874350.07	31874350.28	31874350.49	0.0508	0.0159
Earth	82556-11-26 20:10 G	31874350.12	31874350.34	31874350.55	0.0508	0.0190 *
Mercury	82558-01-10 16:48 G	31874760.04	31874760.20	31874760.37	0.0523	0.0083
Venus	82560-06-18 06:58 G	31875649.71	31875649.79	31875649.86	0.0538	0.0494
Venus	82561-02-11 16:20 G	31875887.97	31875888.18	31875888.38	0.0534	0.0022
Venus	82561-10-07 22:05 G	31876126.31	31876126.42	31876126.53	0.0528	0.0441
Earth	82562-05-22 21:36 G	31876353.17	31876353.40	31876353.63	0.0520	0.0105
Moon	82562-05-22 23:46 G	31876353.27	31876353.49	31876353.72	0.0520	0.0120 *
Mercury	82563-08-30 19:41 G	31876818.18	31876818.32	31876818.45	0.0504	0.0055
Venus	82566-12-13 23:32 G	31878019.29	31878019.48	31878019.67	0.0491	0.0181
Venus	82567-08-06 19:41 G	31878255.13	31878255.32	31878255.51	0.0496	0.0181
Mercury	82569-10-29 15:36 G	31879070.02	31879070.15	31879070.29	0.0522	0.0313
Venus	82572-10-17 03:51 G	31880153.46	31880153.66	31880153.86	0.0535	0.0154
Venus	82573-06-12 10:20 G	31880391.76	31880391.93	31880392.09	0.0529	0.0318

Moon	82574-05-27 17:17 G	31880741.08	31880741.22	31880741.36	0.0518	0.0418
Earth	82574-05-27 18:00 G	31880741.10	31880741.25	31880741.41	0.0518	0.0392 *
Mercury	82575-06-18 23:03 G	31881128.33	31881128.46	31881128.59	0.0504	0.0125
Venus	82578-08-19 03:08 G	31882285.47	31882285.63	31882285.80	0.0491	0.0281
Venus	82579-04-11 22:48 G	31882521.25	31882521.45	31882521.65	0.0495	0.0079
Venus	82579-12-03 22:05 G	31882757.33	31882757.42	31882757.52	0.0500	0.0441
Mercury	82581-11-15 19:12 G	31883470.20	31883470.30	31883470.40	0.0524	0.0417
Venus	82584-06-21 14:24 G	31884418.93	31884419.10	31884419.27	0.0536	0.0288
Venus	82585-02-14 21:51 G	31884657.22	31884657.41	31884657.60	0.0531	0.0190
Mercury	82587-04-07 02:39 G	31885438.51	31885438.61	31885438.72	0.0505	0.0294
Mercury	82587-07-05 09:36 G	31885527.81	31885527.90	31885527.99	0.0502	0.0377
Mars	82588-03-02 02:10 G	31885768.40	31885768.59	31885768.81	0.0496	0.0326
Venus	82590-04-24 07:41 G	31886551.69	31886551.82	31886551.95	0.0490	0.0377
Venus	82590-12-16 02:53 G	31886787.42	31886787.62	31886787.82	0.0493	0.0024
Venus	82591-08-09 00:44 G	31887023.38	31887023.53	31887023.68	0.0498	0.0340
Mercury	82593-09-03 16:48 G	31887780.04	31887780.20	31887780.36	0.0523	0.0163
Venus	82596-02-24 22:48 G	31888684.33	31888684.45	31888684.58	0.0537	0.0422
Venus	82596-10-20 07:27 G	31888922.60	31888922.81	31888923.01	0.0533	0.0054
Venus	82597-06-15 12:00 G	31889160.95	31889161.00	31889161.05	0.0527	0.0507
Mercury	82599-01-24 06:44 G	31889748.73	31889748.78	31889748.84	0.0506	0.0458
Mercury	82599-04-23 13:27 G	31889837.94	31889838.06	31889838.19	0.0504	0.0212
Venus	82601-12-29 12:44 G	31890817.98	31890818.03	31890818.09	0.0489	0.0468
Venus	82602-08-22 07:41 G	31891053.62	31891053.82	31891054.01	0.0492	0.0124
Venus	82603-04-15 04:05 G	31891289.49	31891289.67	31891289.84	0.0496	0.0240
Mercury	82605-06-23 14:39 G	31892089.94	31892090.11	31892090.28	0.0522	0.0084
Venus	82608-06-25 18:29 G	31893188.07	31893188.27	31893188.47	0.0535	0.0080
Venus	82609-02-19 01:12 G	31893426.41	31893426.55	31893426.69	0.0529	0.0389
Mercury	82611-02-10 17:32 G	31894148.10	31894148.23	31894148.37	0.0504	0.0048
Venus	82614-04-27 11:32 G	31895319.80	31895319.98	31895320.16	0.0491	0.0222
Venus	82614-12-19 06:58 G	31895555.59	31895555.79	31895555.98	0.0495	0.0138

Venus	82615-08-12 06:15 G	31895791.75	31895791.76	31895791.78	0.0501	0.0499
Mercury	82617-04-11 12:15 G	31896399.89	31896400.01	31896400.15	0.0522	0.0332
Venus	82620-02-29 06:44 G	31897453.59	31897453.78	31897453.97	0.0536	0.0212
Venus	82620-10-24 14:24 G	31897691.93	31897692.10	31897692.28	0.0531	0.0266
Mercury	82622-11-29 21:36 G	31898458.27	31898458.40	31898458.53	0.0505	0.0117
Venus	82625-12-31 16:05 G	31899586.02	31899586.17	31899586.33	0.0490	0.0319
Venus	82626-08-24 11:17 G	31899821.77	31899821.97	31899822.17	0.0494	0.0038
Venus	82627-04-17 09:22 G	31900057.78	31900057.89	31900058.01	0.0499	0.0402
Moon	82627-11-23 10:20 G	31900277.77	31900277.93	31900278.09	0.0506	0.0361
Earth	82627-11-23 11:32 G	31900277.81	31900277.98	31900278.15	0.0506	0.0342 *
Mercury	82629-04-28 16:20 G	31900800.08	31900800.18	31900800.29	0.0524	0.0405
Venus	82631-11-03 18:44 G	31901719.12	31901719.28	31901719.43	0.0537	0.0343
Venus	82632-06-29 02:39 G	31901957.41	31901957.61	31901957.81	0.0532	0.0136
Mercury	82634-09-18 00:58 G	31902768.44	31902768.54	31902768.66	0.0505	0.0293
Mercury	82634-12-16 07:56 G	31902857.74	31902857.83	31902857.92	0.0502	0.0378
Venus	82637-09-05 19:27 G	31903852.21	31903852.31	31903852.42	0.0490	0.0415
Venus	82638-04-29 14:24 G	31904087.90	31904088.10	31904088.31	0.0493	0.0066
Venus	82638-12-21 11:46 G	31904323.84	31904323.99	31904324.16	0.0498	0.0301
Earth	82639-11-27 23:46 G	31904665.27	31904665.49	31904665.72	0.0508	0.0114
Moon	82639-11-28 02:24 G	31904665.37	31904665.60	31904665.84	0.0508	0.0088 *
Mercury	82641-02-14 14:53 G	31905109.97	31905110.12	31905110.28	0.0524	0.0171
Venus	82643-07-09 05:17 G	31905984.63	31905984.72	31905984.82	0.0537	0.0473
Venus	82644-03-03 13:56 G	31906222.87	31906223.08	31906223.28	0.0533	0.0006
Venus	82644-10-27 18:44 G	31906461.18	31906461.28	31906461.37	0.0527	0.0462
Moon	82645-05-22 16:48 G	31906667.99	31906668.20	31906668.42	0.0520	0.0226
Earth	82645-05-22 18:15 G	31906668.05	31906668.26	31906668.48	0.0520	0.0210 *
Mercury	82646-07-07 05:03 G	31907078.66	31907078.71	31907078.76	0.0506	0.0461
Mercury	82646-10-04 11:32 G	31907167.86	31907167.98	31907168.11	0.0503	0.0207
Venus	82650-01-02 18:58 G	31908354.10	31908354.29	31908354.48	0.0492	0.0166
Venus	82650-08-26 15:22 G	31908589.96	31908590.14	31908590.33	0.0496	0.0198

Mercury	82652-12-03 12:15 G	31909419.85	31909420.01	31909420.18	0.0522	0.0087
Venus	82655-11-06 22:20 G	31910488.23	31910488.43	31910488.62	0.0535	0.0137
Venus	82656-07-02 04:48 G	31910726.55	31910726.70	31910726.87	0.0530	0.0337
Moon	82657-05-27 13:56 G	31911055.90	31911056.08	31911056.26	0.0519	0.0318
Earth	82657-05-27 14:24 G	31911055.91	31911056.10	31911056.30	0.0519	0.0289 *
Mercury	82658-07-23 15:36 G	31911478.01	31911478.15	31911478.28	0.0504	0.0043
Venus	82661-09-08 00:00 G	31912620.33	31912620.50	31912620.67	0.0491	0.0262
Venus	82662-05-01 19:27 G	31912856.11	31912856.31	31912856.50	0.0494	0.0097
Venus	82662-12-23 18:00 G	31913092.18	31913092.25	31913092.33	0.0500	0.0459
Mercury	82664-09-21 10:05 G	31913729.79	31913729.92	31913730.05	0.0521	0.0334
Venus	82667-07-12 08:53 G	31914753.69	31914753.87	31914754.05	0.0536	0.0271
Venus	82668-03-06 17:03 G	31914992.02	31914992.21	31914992.40	0.0532	0.0209
Mercury	82670-05-11 19:27 G	31915788.18	31915788.31	31915788.45	0.0505	0.0126
Venus	82673-05-14 04:05 G	31916886.53	31916886.67	31916886.81	0.0490	0.0358
Venus	82674-01-04 22:48 G	31917122.25	31917122.45	31917122.65	0.0493	0.0006
Venus	82674-08-28 20:10 G	31917358.20	31917358.34	31917358.48	0.0498	0.0360
Mercury	82676-10-08 13:12 G	31918129.94	31918130.05	31918130.16	0.0524	0.0385
Mars	82677-05-25 21:22 G	31918359.14	31918359.39	31918359.65	0.0531	0.0170
Venus	82679-03-16 20:24 G	31919019.22	31919019.35	31919019.49	0.0537	0.0401
Venus	82679-11-10 05:32 G	31919257.53	31919257.73	31919257.93	0.0533	0.0079
Mercury	82682-02-27 23:32 G	31920098.38	31920098.48	31920098.60	0.0506	0.0289
Mercury	82682-05-28 06:29 G	31920187.69	31920187.77	31920187.86	0.0503	0.0384
Venus	82685-01-17 08:39 G	31921152.79	31921152.86	31921152.94	0.0489	0.0452
Venus	82685-09-10 03:22 G	31921388.44	31921388.64	31921388.83	0.0492	0.0105
Venus	82686-05-03 23:32 G	31921624.31	31921624.48	31921624.66	0.0497	0.0260
Mercury	82688-07-27 12:00 G	31922439.84	31922440.00	31922440.16	0.0523	0.0155
Venus	82690-11-19 08:53 G	31923284.84	31923284.87	31923284.91	0.0538	0.0526
Venus	82691-07-15 17:46 G	31923523.04	31923523.24	31923523.45	0.0534	0.0055
Venus	82692-03-09 23:46 G	31923761.37	31923761.49	31923761.62	0.0528	0.0413
Mercury	82693-12-17 03:22 G	31924408.59	31924408.64	31924408.69	0.0506	0.0460

Mercury	82694-03-16 09:51 G	31924497.79	31924497.91	31924498.04	0.0503	0.0208
Venus	82697-05-16 06:29 G	31925654.59	31925654.77	31925654.96	0.0491	0.0206
Venus	82698-01-07 02:24 G	31925890.41	31925890.60	31925890.80	0.0495	0.0157
Mercury	82700-05-16 10:20 G	31926749.76	31926749.93	31926750.10	0.0523	0.0083
Venus	82703-03-21 04:48 G	31927788.51	31927788.70	31927788.89	0.0535	0.0188
Venus	82703-11-14 11:46 G	31928026.82	31928026.99	31928027.16	0.0530	0.0288
Mercury	82706-01-03 13:41 G	31928807.93	31928808.07	31928808.20	0.0504	0.0037
Venus	82709-01-20 11:17 G	31929920.81	31929920.97	31929921.13	0.0490	0.0304
Venus	82709-09-13 06:44 G	31930156.58	31930156.78	31930156.98	0.0494	0.0054
Venus	82710-05-07 05:03 G	31930392.61	31930392.71	31930392.82	0.0499	0.0418
Earth	82710-11-23 12:29 G	31930592.90	31930593.02	31930593.15	0.0505	0.0424
Moon	82710-11-23 14:53 G	31930593.01	31930593.12	31930593.24	0.0505	0.0443 *
Mercury	82712-03-04 07:41 G	31931059.69	31931059.82	31931059.95	0.0521	0.0336
Venus	82714-11-23 12:29 G	31932053.86	31932054.02	31932054.19	0.0537	0.0327
Venus	82715-07-19 20:39 G	31932292.17	31932292.36	31932292.56	0.0532	0.0154
Mercury	82717-10-22 17:32 G	31933118.10	31933118.23	31933118.36	0.0505	0.0133
Venus	82720-09-25 16:20 G	31934187.07	31934187.18	31934187.31	0.0490	0.0398
Venus	82721-05-19 11:17 G	31934422.77	31934422.97	31934423.17	0.0492	0.0046
Venus	82722-01-10 08:10 G	31934658.69	31934658.84	31934659.00	0.0497	0.0320
Moon	82722-11-27 20:39 G	31934980.13	31934980.36	31934980.59	0.0507	0.0002
Earth	82722-11-28 00:15 G	31934980.28	31934980.51	31934980.74	0.0507	0.0028 *
Mercury	82724-03-21 10:48 G	31935459.84	31935459.95	31935460.07	0.0524	0.0383
Venus	82726-07-28 22:48 G	31936319.36	31936319.45	31936319.57	0.0537	0.0458
Venus	82727-03-24 07:56 G	31936557.62	31936557.83	31936558.03	0.0534	0.0021
Venus	82727-11-17 13:12 G	31936795.98	31936796.05	31936796.14	0.0528	0.0482
Earth	82728-05-22 14:39 G	31936982.92	31936983.11	31936983.30	0.0522	0.0314
Moon	82728-05-22 14:53 G	31936982.94	31936983.12	31936983.29	0.0522	0.0329 *
Mercury	82729-08-10 21:36 G	31937428.29	31937428.40	31937428.50	0.0506	0.0297
Mercury	82729-11-08 04:20 G	31937517.60	31937517.68	31937517.77	0.0503	0.0377
Venus	82732-05-31 20:53 G	31938453.37	31938453.37	31938453.37	0.0489	0.0489

Venus	82733-01-22 15:08 G	31938688.94	31938689.13	31938689.33	0.0491	0.0146
Venus	82733-09-15 11:03 G	31938924.78	31938924.96	31938925.14	0.0496	0.0218
Earth	82734-12-02 10:34 G	31939367.86	31939367.94	31939368.02	0.0509	0.0474
Moon	82734-12-02 14:10 G	31939368.05	31939368.09	31939368.14	0.0509	0.0498
Mercury	82736-01-08 08:53 G	31939769.70	31939769.87	31939770.03	0.0523	0.0137
Venus	82738-11-26 19:41 G	31940823.12	31940823.32	31940823.52	0.0535	0.0113
Venus	82739-07-23 02:53 G	31941061.47	31941061.62	31941061.77	0.0530	0.0361
Earth	82740-05-27 15:08 G	31941370.92	31941371.13	31941371.35	0.0520	0.0202
Moon	82740-05-27 17:32 G	31941371.01	31941371.23	31941371.45	0.0520	0.0233 *
Mercury	82741-05-30 01:41 G	31941738.52	31941738.57	31941738.63	0.0507	0.0458
Mercury	82741-08-27 08:24 G	31941827.73	31941827.85	31941827.97	0.0504	0.0211
Mars	82742-05-28 15:08 G	31942101.86	31942102.13	31942102.41	0.0496	0.0048
Venus	82744-09-27 19:41 G	31942955.15	31942955.32	31942955.50	0.0490	0.0244
Venus	82745-05-21 14:53 G	31943190.93	31943191.12	31943191.32	0.0494	0.0117
Venus	82746-01-12 13:27 G	31943427.02	31943427.06	31943427.13	0.0500	0.0480
Mercury	82747-10-27 07:27 G	31944079.64	31944079.81	31944079.97	0.0523	0.0098
Venus	82750-08-01 08:24 G	31945088.67	31945088.85	31945089.03	0.0536	0.0246
Venus	82751-03-27 16:05 G	31945326.99	31945327.17	31945327.36	0.0531	0.0235
Mercury	82753-06-15 12:00 G	31946137.87	31946138.00	31946138.14	0.0504	0.0038
Venus	82756-06-02 23:03 G	31947221.32	31947221.46	31947221.61	0.0490	0.0343
Venus	82757-01-24 18:15 G	31947457.05	31947457.26	31947457.46	0.0493	0.0016
Venus	82757-09-17 16:05 G	31947693.04	31947693.17	31947693.30	0.0499	0.0379
Mercury	82759-08-15 05:32 G	31948389.60	31948389.73	31948389.86	0.0522	0.0336
Venus	82762-04-05 19:27 G	31949354.17	31949354.31	31949354.45	0.0537	0.0377
Venus	82762-11-30 03:36 G	31949592.45	31949592.65	31949592.86	0.0533	0.0104
Mercury	82765-04-03 15:51 G	31950448.03	31950448.16	31950448.29	0.0505	0.0131
Venus	82768-02-07 03:51 G	31951487.58	31951487.66	31951487.76	0.0490	0.0438
Venus	82768-09-29 22:48 G	31951723.25	31951723.45	31951723.65	0.0492	0.0088
Venus	82769-05-23 19:27 G	31951959.15	31951959.31	31951959.48	0.0497	0.0278
Mercury	82771-09-01 08:39 G	31952789.75	31952789.86	31952789.97	0.0524	0.0382

Venus	82773-12-09 03:08 G	31953619.57	31953619.63	31953619.70	0.0537	0.0509
Venus	82774-08-04 12:00 G	31953857.79	31953858.00	31953858.20	0.0534	0.0036
Venus	82775-03-30 18:00 G	31954096.13	31954096.25	31954096.37	0.0528	0.0431
Mercury	82777-01-20 19:41 G	31954758.21	31954758.32	31954758.42	0.0506	0.0302
Mercury	82777-04-20 02:24 G	31954847.51	31954847.60	31954847.69	0.0503	0.0371
Venus	82780-06-05 04:05 G	31955989.48	31955989.67	31955989.86	0.0491	0.0186
Venus	82781-01-26 23:46 G	31956225.30	31956225.49	31956225.68	0.0495	0.0177
Mercury	82783-06-20 06:44 G	31957099.62	31957099.78	31957099.94	0.0523	0.0139
Venus	82786-04-08 22:34 G	31958123.24	31958123.44	31958123.63	0.0536	0.0171
Venus	82786-12-03 06:00 G	31958361.58	31958361.75	31958361.91	0.0531	0.0307
Mercury	82788-11-08 23:46 G	31959068.44	31959068.49	31959068.54	0.0507	0.0465
Mercury	82789-02-06 06:29 G	31959157.64	31959157.77	31959157.89	0.0504	0.0205
Venus	82792-02-09 08:24 G	31960255.68	31960255.85	31960256.01	0.0490	0.0284
Venus	82792-10-02 03:08 G	31960491.43	31960491.63	31960491.83	0.0494	0.0076
Venus	82793-05-26 01:12 G	31960727.45	31960727.55	31960727.64	0.0499	0.0438
Mercury	82795-04-08 04:20 G	31961409.52	31961409.68	31961409.85	0.0522	0.0111
Venus	82797-12-12 10:05 G	31962388.75	31962388.92	31962389.09	0.0537	0.0304
Venus	82798-08-07 18:44 G	31962627.09	31962627.28	31962627.47	0.0532	0.0179
Mercury	82800-11-25 10:34 G	31963467.80	31963467.94	31963468.07	0.0504	0.0043
Venus	82803-10-15 12:44 G	31964521.91	31964522.03	31964522.17	0.0489	0.0380
Venus	82804-06-07 07:27 G	31964757.61	31964757.81	31964758.01	0.0492	0.0026
Venus	82805-01-29 04:05 G	31964993.53	31964993.67	31964993.82	0.0497	0.0340
Earth	82805-11-27 01:12 G	31965295.32	31965295.55	31965295.78	0.0506	0.0061
Moon	82805-11-27 05:03 G	31965295.48	31965295.71	31965295.94	0.0506	0.0079 *
Mercury	82807-01-25 02:39 G	31965719.49	31965719.61	31965719.74	0.0522	0.0348
Venus	82809-08-16 22:48 G	31966654.33	31966654.45	31966654.57	0.0538	0.0433
Venus	82810-04-12 07:41 G	31966892.62	31966892.82	31966893.03	0.0534	0.0048
Venus	82810-12-06 12:44 G	31967130.99	31967131.03	31967131.10	0.0527	0.0507
Earth	82811-05-22 16:34 G	31967298.05	31967298.19	31967298.35	0.0522	0.0396
Moon	82811-05-22 18:15 G	31967298.11	31967298.26	31967298.42	0.0522	0.0400 *

Mercury	82812-09-13 14:24 G	31967777.97	31967778.10	31967778.23	0.0505	0.0129
Venus	82815-06-20 16:20 G	31968788.14	31968788.18	31968788.23	0.0489	0.0474
Venus	82816-02-11 11:03 G	31969023.76	31969023.96	31969024.15	0.0492	0.0128
Venus	82816-10-04 07:12 G	31969259.62	31969259.80	31969259.98	0.0496	0.0237
Moon	82817-12-01 10:20 G	31969682.80	31969682.93	31969683.06	0.0509	0.0417
Earth	82817-12-01 13:41 G	31969682.93	31969683.07	31969683.22	0.0509	0.0398 *
Mercury	82819-02-11 06:44 G	31970119.67	31970119.78	31970119.89	0.0524	0.0386
Venus	82821-12-15 19:12 G	31971158.10	31971158.30	31971158.51	0.0535	0.0087
Venus	82822-08-11 01:41 G	31971396.44	31971396.57	31971396.71	0.0529	0.0386
Moon	82823-05-27 12:15 G	31971685.78	31971686.01	31971686.23	0.0520	0.0146
Earth	82823-05-27 15:36 G	31971685.92	31971686.15	31971686.38	0.0520	0.0114 *
Mercury	82824-07-02 18:15 G	31972088.15	31972088.26	31972088.37	0.0506	0.0295
Mercury	82824-09-30 00:58 G	31972177.45	31972177.54	31972177.63	0.0503	0.0376
Venus	82827-10-17 16:05 G	31973289.99	31973290.17	31973290.35	0.0491	0.0227
Venus	82828-06-09 11:32 G	31973525.79	31973525.98	31973526.18	0.0495	0.0135
Venus	82829-01-31 10:34 G	31973761.93	31973761.94	31973761.96	0.0500	0.0497
Mercury	82830-11-30 04:34 G	31974429.53	31974429.69	31974429.86	0.0523	0.0142
Mars	82831-08-20 08:53 G	31974692.63	31974692.87	31974693.11	0.0531	0.0233
Venus	82833-08-20 03:08 G	31975423.45	31975423.63	31975423.82	0.0536	0.0226
Venus	82834-04-15 10:48 G	31975661.77	31975661.95	31975662.13	0.0531	0.0254
Mercury	82836-04-20 21:51 G	31976398.36	31976398.41	31976398.46	0.0507	0.0467
Mercury	82836-07-19 04:34 G	31976487.57	31976487.69	31976487.81	0.0504	0.0203
Venus	82839-06-22 21:36 G	31977556.25	31977556.40	31977556.55	0.0490	0.0322
Venus	82840-02-13 16:34 G	31977791.99	31977792.19	31977792.39	0.0493	0.0036
Venus	82840-10-06 14:10 G	31978027.97	31978028.09	31978028.21	0.0498	0.0400
Mercury	82842-09-18 02:39 G	31978739.44	31978739.61	31978739.78	0.0522	0.0102
Venus	82845-04-24 13:27 G	31979688.91	31979689.06	31979689.21	0.0537	0.0360
Venus	82845-12-18 22:05 G	31979927.22	31979927.42	31979927.62	0.0533	0.0123
Mercury	82848-05-07 08:39 G	31980797.72	31980797.86	31980797.99	0.0505	0.0040
Venus	82851-02-26 01:56 G	31981822.48	31981822.58	31981822.69	0.0489	0.0417

Venus	82851-10-19 20:24 G	31982058.15	31982058.35	31982058.56	0.0492	0.0067
Venus	82852-06-11 16:48 G	31982294.04	31982294.20	31982294.36	0.0497	0.0299
Mercury	82854-07-07 00:15 G	31983049.38	31983049.51	31983049.63	0.0521	0.0354
Venus	82856-12-28 00:58 G	31983954.46	31983954.54	31983954.62	0.0538	0.0488
Venus	82857-08-23 10:20 G	31984192.72	31984192.93	31984193.13	0.0535	0.0013
Venus	82858-04-18 16:34 G	31984431.09	31984431.19	31984431.30	0.0529	0.0457
Mercury	82860-02-24 12:44 G	31985107.90	31985108.03	31985108.16	0.0505	0.0125
Venus	82863-06-25 00:58 G	31986324.36	31986324.54	31986324.74	0.0491	0.0166
Venus	82864-02-15 20:39 G	31986560.17	31986560.36	31986560.54	0.0495	0.0199
Mercury	82866-07-24 04:05 G	31987449.56	31987449.67	31987449.79	0.0524	0.0378
Venus	82869-04-27 23:03 G	31988458.27	31988458.46	31988458.66	0.0536	0.0144
Venus	82869-12-22 06:29 G	31988696.62	31988696.77	31988696.93	0.0530	0.0335
Mercury	82871-12-13 16:48 G	31989418.09	31989418.20	31989418.31	0.0506	0.0290
Mercury	82872-03-11 23:32 G	31989507.39	31989507.48	31989507.57	0.0503	0.0382
Venus	82875-02-28 04:48 G	31990590.54	31990590.70	31990590.88	0.0490	0.0265
Venus	82875-10-22 00:00 G	31990826.30	31990826.50	31990826.70	0.0494	0.0096
Venus	82876-06-13 22:20 G	31991062.35	31991062.43	31991062.51	0.0500	0.0459
Mercury	82878-05-12 02:39 G	31991759.45	31991759.61	31991759.78	0.0523	0.0147
Venus	82880-12-31 10:48 G	31992723.78	31992723.95	31992724.13	0.0537	0.0277
Venus	82881-08-26 19:12 G	31992962.11	31992962.30	31992962.49	0.0532	0.0207
Mercury	82883-10-01 20:53 G	31993728.31	31993728.37	31993728.42	0.0506	0.0455
Mercury	82883-12-30 03:22 G	31993817.52	31993817.64	31993817.77	0.0504	0.0214
Venus	82886-11-03 10:05 G	31994856.79	31994856.92	31994857.06	0.0490	0.0361
Venus	82887-06-27 05:03 G	31995092.51	31995092.71	31995092.91	0.0493	0.0005
Venus	82888-02-18 02:24 G	31995328.46	31995328.60	31995328.73	0.0498	0.0360
Moon	82888-11-26 03:08 G	31995610.40	31995610.63	31995610.85	0.0506	0.0146
Earth	82888-11-26 06:29 G	31995610.55	31995610.77	31995610.99	0.0506	0.0126 *
Mercury	82890-02-28 00:44 G	31996069.37	31996069.53	31996069.70	0.0522	0.0096
Venus	82892-09-04 18:58 G	31996989.16	31996989.29	31996989.42	0.0537	0.0411
Venus	82893-05-01 03:22 G	31997227.44	31997227.64	31997227.85	0.0534	0.0070

Venus	82893-12-25 08:24 G	31997465.85	31997465.85	31997465.87	0.0527	0.0527
Moon	82894-05-21 10:20 G	31997612.88	31997612.93	31997612.99	0.0523	0.0504
Earth	82894-05-21 13:12 G	31997612.99	31997613.05	31997613.12	0.0523	0.0501 *
Mercury	82895-10-18 06:58 G	31998127.65	31998127.79	31998127.92	0.0505	0.0039
Mars	82896-08-21 01:27 G	31998435.41	31998435.56	31998435.71	0.0496	0.0415
Venus	82898-07-09 15:36 G	31999123.08	31999123.15	31999123.23	0.0489	0.0453
Venus	82899-03-02 10:34 G	31999358.74	31999358.94	31999359.14	0.0492	0.0104
Venus	82899-10-24 06:44 G	31999594.61	31999594.78	31999594.95	0.0496	0.0262
Earth	82900-12-01 19:27 G	31999998.14	31999998.31	31999998.49	0.0508	0.0333
Moon	82900-12-01 21:51 G	31999998.25	31999998.41	31999998.57	0.0508	0.0357 *
Mercury	82901-12-17 22:48 G	32000379.32	32000379.45	32000379.58	0.0521	0.0338
Venus	82905-01-04 14:24 G	32001492.90	32001493.10	32001493.30	0.0535	0.0066
Venus	82905-08-30 21:08 G	32001731.25	32001731.38	32001731.51	0.0529	0.0406
Earth	82906-05-27 12:44 G	32002000.79	32002001.03	32002001.26	0.0521	0.0013
Moon	82906-05-27 16:48 G	32002000.96	32002001.20	32002001.43	0.0521	0.0050 *
Mercury	82907-08-07 11:03 G	32002437.83	32002437.96	32002438.09	0.0506	0.0126
Venus	82910-11-06 14:53 G	32003624.94	32003625.12	32003625.31	0.0491	0.0203
Venus	82911-06-30 10:05 G	32003860.73	32003860.92	32003861.11	0.0494	0.0160
Mercury	82914-01-04 01:56 G	32004779.47	32004779.58	32004779.70	0.0523	0.0379
Venus	82916-09-09 01:56 G	32005758.40	32005758.58	32005758.77	0.0536	0.0201
Venus	82917-05-05 10:05 G	32005996.75	32005996.92	32005997.10	0.0532	0.0282
Mercury	82919-05-26 15:22 G	32006748.03	32006748.14	32006748.25	0.0506	0.0286
Mercury	82919-08-23 22:05 G	32006837.34	32006837.42	32006837.51	0.0503	0.0388
Venus	82922-07-12 19:41 G	32007891.17	32007891.32	32007891.49	0.0490	0.0301
Venus	82923-03-05 14:24 G	32008126.90	32008127.10	32008127.30	0.0493	0.0059
Venus	82923-10-27 11:46 G	32008362.89	32008362.99	32008363.10	0.0498	0.0423
Mercury	82925-10-23 00:29 G	32009089.36	32009089.52	32009089.69	0.0523	0.0146
Venus	82928-05-14 14:53 G	32010023.96	32010024.12	32010024.28	0.0537	0.0332
Venus	82929-01-07 23:46 G	32010262.30	32010262.49	32010262.69	0.0533	0.0153
Mercury	82931-03-14 19:27 G	32011058.25	32011058.31	32011058.37	0.0507	0.0447

Mercury	82931-06-12 02:10 G	32011147.47	32011147.59	32011147.71	0.0504	0.0222
Venus	82934-03-17 23:32 G	32012157.37	32012157.48	32012157.61	0.0489	0.0398
Venus	82934-11-08 18:15 G	32012393.06	32012393.26	32012393.46	0.0492	0.0044
Venus	82935-07-02 14:53 G	32012628.97	32012629.12	32012629.27	0.0497	0.0322
Mercury	82937-08-10 23:03 G	32013399.29	32013399.46	32013399.63	0.0522	0.0088
Venus	82940-01-18 03:08 G	32014289.53	32014289.63	32014289.73	0.0538	0.0460
Venus	82940-09-12 12:15 G	32014527.80	32014528.01	32014528.21	0.0534	0.0021
Venus	82941-05-08 18:00 G	32014766.18	32014766.25	32014766.33	0.0528	0.0485
Mercury	82943-03-31 06:00 G	32015457.62	32015457.75	32015457.89	0.0504	0.0057
Venus	82945-11-21 05:03 G	32016423.71	32016423.71	32016423.71	0.0489	0.0489
Venus	82946-07-14 23:46 G	32016659.30	32016659.49	32016659.69	0.0491	0.0143
Venus	82947-03-07 19:41 G	32016895.14	32016895.32	32016895.50	0.0495	0.0222
Mercury	82949-05-29 21:22 G	32017709.26	32017709.39	32017709.52	0.0521	0.0326
Venus	82952-05-17 20:24 G	32018793.15	32018793.35	32018793.55	0.0535	0.0119
Venus	82953-01-11 03:22 G	32019031.50	32019031.64	32019031.80	0.0530	0.0359
Mercury	82955-01-17 09:36 G	32019767.77	32019767.90	32019768.03	0.0506	0.0120
Venus	82958-03-20 05:32 G	32020925.55	32020925.73	32020925.91	0.0491	0.0240
Venus	82958-11-11 00:44 G	32021161.34	32021161.53	32021161.73	0.0494	0.0123
Venus	82959-07-04 23:03 G	32021397.42	32021397.46	32021397.51	0.0500	0.0485
Mercury	82961-06-16 00:58 G	32022109.44	32022109.54	32022109.65	0.0523	0.0402
Venus	82964-01-21 07:12 G	32023058.62	32023058.80	32023058.98	0.0536	0.0254
Venus	82964-09-15 15:22 G	32023296.95	32023297.14	32023297.32	0.0532	0.0230
Mercury	82966-11-05 13:41 G	32024077.96	32024078.07	32024078.18	0.0507	0.0284
Mercury	82967-02-02 20:24 G	32024167.27	32024167.35	32024167.44	0.0504	0.0391
Venus	82969-11-23 10:05 G	32025191.78	32025191.92	32025192.07	0.0490	0.0336
Venus	82970-07-17 05:03 G	32025427.50	32025427.71	32025427.91	0.0493	0.0023
Venus	82971-03-10 01:41 G	32025663.45	32025663.57	32025663.71	0.0498	0.0386
Earth	82971-11-27 12:58 G	32025925.82	32025926.04	32025926.25	0.0505	0.0190
Moon	82971-11-27 15:22 G	32025925.93	32025926.14	32025926.34	0.0505	0.0206 *
Mercury	82973-04-03 22:48 G	32026419.29	32026419.45	32026419.61	0.0522	0.0155

Venus	82975-09-25 18:29 G	32027324.13	32027324.27	32027324.41	0.0537	0.0386
Venus	82976-05-21 03:36 G	32027562.45	32027562.65	32027562.85	0.0534	0.0098
Mercury	82978-08-24 18:00 G	32028388.19	32028388.25	32028388.31	0.0507	0.0442
Mercury	82978-11-22 00:44 G	32028477.41	32028477.53	32028477.65	0.0504	0.0229
Venus	82981-07-29 15:08 G	32029458.04	32029458.13	32029458.23	0.0489	0.0431
Venus	82982-03-22 09:36 G	32029693.70	32029693.90	32029694.10	0.0491	0.0080
Venus	82982-11-13 05:32 G	32029929.57	32029929.73	32029929.90	0.0496	0.0286
Moon	82983-12-02 00:29 G	32030313.32	32030313.52	32030313.72	0.0507	0.0286
Earth	82983-12-02 00:58 G	32030313.35	32030313.54	32030313.75	0.0507	0.0264 *
Mercury	82985-01-20 21:22 G	32030729.22	32030729.39	32030729.56	0.0522	0.0082
Venus	82987-05-31 07:27 G	32031589.75	32031589.81	32031589.87	0.0538	0.0512
Venus	82988-01-24 17:03 G	32031828.01	32031828.21	32031828.41	0.0535	0.0034
Venus	82988-09-19 00:00 G	32032066.39	32032066.50	32032066.61	0.0529	0.0437
Moon	82989-05-26 16:48 G	32032315.96	32032316.20	32032316.44	0.0521	0.0008
Earth	82989-05-26 20:53 G	32032316.13	32032316.37	32032316.60	0.0521	0.0043 *
Mercury	82990-09-10 04:48 G	32032787.57	32032787.70	32032787.84	0.0505	0.0067
Venus	82993-11-25 13:41 G	32033959.88	32033960.07	32033960.26	0.0491	0.0180
Venus	82994-07-19 09:08 G	32034195.70	32034195.88	32034196.07	0.0495	0.0184
Mercury	82996-11-08 19:41 G	32035039.19	32035039.32	32035039.46	0.0521	0.0316
Venus	82999-09-29 05:17 G	32036093.53	32036093.72	32036093.92	0.0536	0.0168
Venus	83000-05-25 13:12 G	32036331.89	32036332.05	32036332.22	0.0531	0.0314

84TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 84th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Earth	83001-06-01 20:53 G	32036704.28	32036704.37	32036704.47	0.0519	0.0472
Moon	83001-06-01 23:46 G	32036704.41	32036704.49	32036704.59	0.0519	0.0475 *
Mercury	83002-06-30 08:53 G	32037097.74	32037097.87	32037098.00	0.0505	0.0097
Venus	83005-08-01 19:41 G	32038226.15	32038226.32	32038226.48	0.0490	0.0278
Venus	83006-03-25 14:39 G	32038461.91	32038462.11	32038462.31	0.0493	0.0084
Venus	83006-11-16 12:29 G	32038697.93	32038698.02	32038698.11	0.0499	0.0447
Mercury	83008-11-26 23:46 G	32039439.39	32039439.49	32039439.59	0.0523	0.0420
Venus	83011-06-04 13:56 G	32040358.92	32040359.08	32040359.25	0.0537	0.0304
Venus	83012-01-28 22:20 G	32040597.24	32040597.43	32040597.62	0.0533	0.0180
Mercury	83014-04-18 12:29 G	32041407.90	32041408.02	32041408.13	0.0506	0.0275
Mercury	83014-07-16 19:12 G	32041497.22	32041497.30	32041497.38	0.0504	0.0400
Mars	83015-02-11 19:12 G	32041707.23	32041707.30	32041707.40	0.0498	0.0474
Venus	83017-04-07 00:58 G	32042492.41	32042492.54	32042492.67	0.0490	0.0371
Venus	83017-11-28 19:56 G	32042728.13	32042728.33	32042728.54	0.0492	0.0019
Venus	83018-07-22 17:03 G	32042964.07	32042964.21	32042964.35	0.0497	0.0351
Mercury	83020-09-14 22:20 G	32043749.27	32043749.43	32043749.59	0.0522	0.0185
Venus	83023-02-07 00:58 G	32044624.43	32044624.54	32044624.66	0.0537	0.0436
Venus	83023-10-03 09:36 G	32044862.70	32044862.90	32044863.11	0.0534	0.0046
Venus	83024-05-28 15:22 G	32045101.09	32045101.14	32045101.19	0.0528	0.0508
Mercury	83026-02-04 16:34 G	32045718.13	32045718.19	32045718.26	0.0507	0.0438
Mercury	83026-05-04 23:17 G	32045807.35	32045807.47	32045807.59	0.0504	0.0235
Venus	83028-12-11 05:46 G	32046758.68	32046758.74	32046758.81	0.0489	0.0465
Venus	83029-08-04 00:44 G	32046994.33	32046994.53	32046994.73	0.0491	0.0116
Venus	83030-03-27 20:24 G	32047230.18	32047230.35	32047230.53	0.0495	0.0249
Mercury	83032-07-03 20:10 G	32048059.17	32048059.34	32048059.50	0.0521	0.0066
Venus	83035-06-07 21:22 G	32049128.18	32049128.39	32049128.59	0.0536	0.0090
Venus	83036-02-01 04:48 G	32049366.56	32049366.70	32049366.84	0.0530	0.0388
Mercury	83038-02-21 03:36 G	32050117.51	32050117.65	32050117.78	0.0505	0.0076

Venus	83041-04-09 05:32 G	32051260.55	32051260.73	32051260.92	0.0490	0.0215
Venus	83041-12-01 00:29 G	32051496.33	32051496.52	32051496.72	0.0494	0.0149
Mercury	83044-04-21 18:15 G	32052369.12	32052369.26	32052369.40	0.0521	0.0303
Venus	83047-02-10 10:20 G	32053393.75	32053393.93	32053394.12	0.0537	0.0223
Venus	83047-10-06 18:58 G	32053632.11	32053632.29	32053632.47	0.0532	0.0263
Mercury	83049-12-10 07:41 G	32054427.69	32054427.82	32054427.96	0.0505	0.0087
Venus	83052-12-13 09:51 G	32055526.76	32055526.91	32055527.07	0.0490	0.0313
Venus	83053-08-06 04:48 G	32055762.50	32055762.70	32055762.90	0.0493	0.0047
Venus	83054-03-30 01:56 G	32055998.47	32055998.58	32055998.70	0.0498	0.0411
Moon	83054-11-27 21:08 G	32056241.18	32056241.38	32056241.60	0.0505	0.0252
Earth	83054-11-27 21:51 G	32056241.22	32056241.41	32056241.62	0.0505	0.0243 *
Mercury	83056-05-08 22:34 G	32056769.34	32056769.44	32056769.53	0.0524	0.0434
Venus	83058-10-15 23:03 G	32057659.31	32057659.46	32057659.61	0.0537	0.0353
Venus	83059-06-11 07:56 G	32057897.63	32057897.83	32057898.03	0.0534	0.0133
Mercury	83061-09-28 12:00 G	32058737.88	32058738.00	32058738.12	0.0506	0.0247
Mercury	83061-12-26 18:44 G	32058827.21	32058827.28	32058827.35	0.0503	0.0426
Venus	83064-08-18 15:36 G	32059793.05	32059793.15	32059793.27	0.0489	0.0407
Venus	83065-04-11 10:34 G	32060028.74	32060028.94	32060029.14	0.0492	0.0054
Venus	83065-12-03 06:58 G	32060264.63	32060264.79	32060264.94	0.0496	0.0313
Moon	83066-12-02 11:03 G	32060628.77	32060628.96	32060629.16	0.0507	0.0252
Earth	83066-12-02 12:44 G	32060628.82	32060629.03	32060629.24	0.0507	0.0222 *
Mercury	83068-02-25 21:22 G	32061079.23	32061079.39	32061079.54	0.0522	0.0206
Venus	83070-06-20 08:24 G	32061924.77	32061924.85	32061924.94	0.0537	0.0483
Venus	83071-02-13 17:03 G	32062163.01	32062163.21	32062163.42	0.0534	0.0013
Venus	83071-10-09 23:17 G	32062401.38	32062401.47	32062401.57	0.0529	0.0464
Earth	83072-05-26 22:20 G	32062631.20	32062631.43	32062631.66	0.0522	0.0128
Moon	83072-05-27 01:41 G	32062631.34	32062631.57	32062631.79	0.0522	0.0093 *
Mercury	83073-07-17 15:22 G	32063048.07	32063048.14	32063048.21	0.0507	0.0426
Mercury	83073-10-14 22:05 G	32063137.30	32063137.42	32063137.54	0.0504	0.0247
Venus	83076-12-15 15:51 G	32064294.97	32064295.16	32064295.36	0.0491	0.0152

Venus	83077-08-08 12:00 G	32064530.82	32064531.00	32064531.18	0.0495	0.0215
Mercury	83079-12-14 19:56 G	32065389.16	32065389.33	32065389.50	0.0521	0.0031
Venus	83082-10-19 04:05 G	32066428.48	32066428.67	32066428.87	0.0536	0.0140
Venus	83083-06-14 11:32 G	32066666.82	32066666.98	32066667.13	0.0531	0.0340
Moon	83084-05-31 20:24 G	32067019.19	32067019.35	32067019.52	0.0520	0.0378
Earth	83084-05-31 21:51 G	32067019.25	32067019.41	32067019.56	0.0520	0.0385 *
Mercury	83085-08-03 02:10 G	32067447.45	32067447.59	32067447.72	0.0505	0.0082
Venus	83088-08-20 20:53 G	32068561.20	32068561.37	32068561.55	0.0490	0.0251
Venus	83089-04-13 16:05 G	32068796.97	32068797.17	32068797.37	0.0493	0.0112
Venus	83089-12-05 13:41 G	32069033.02	32069033.07	32069033.14	0.0499	0.0475
Mercury	83091-10-02 17:17 G	32069699.08	32069699.22	32069699.37	0.0521	0.0280
Venus	83094-06-23 15:22 G	32070693.97	32070694.14	32070694.32	0.0537	0.0276
Venus	83095-02-17 00:00 G	32070932.32	32070932.50	32070932.69	0.0533	0.0211
Mercury	83097-05-22 06:29 G	32071757.64	32071757.77	32071757.90	0.0506	0.0078
Venus	83100-04-27 01:56 G	32072827.44	32072827.58	32072827.73	0.0490	0.0347
Venus	83100-12-18 20:39 G	32073063.16	32073063.36	32073063.56	0.0492	0.0011
Venus	83101-08-11 17:17 G	32073299.10	32073299.22	32073299.36	0.0497	0.0377
Mercury	83103-07-22 15:22 G	32074009.14	32074009.14	32074009.15	0.0520	0.0520
Mercury	83103-10-20 21:08 G	32074099.30	32074099.38	32074099.47	0.0523	0.0449
Mars	83104-05-06 15:22 G	32074297.95	32074298.14	32074298.34	0.0529	0.0367
Venus	83106-02-27 04:20 G	32074959.55	32074959.68	32074959.81	0.0538	0.0406
Venus	83106-10-23 13:27 G	32075197.86	32075198.06	32075198.27	0.0534	0.0081
Mercury	83109-03-11 10:48 G	32076067.83	32076067.95	32076068.07	0.0506	0.0235
Mercury	83109-06-08 17:46 G	32076157.17	32076157.24	32076157.30	0.0503	0.0440
Venus	83112-01-01 06:29 G	32077093.69	32077093.77	32077093.86	0.0489	0.0441
Venus	83112-08-24 01:12 G	32077329.35	32077329.55	32077329.75	0.0491	0.0090
Venus	83113-04-16 20:53 G	32077565.21	32077565.37	32077565.54	0.0496	0.0277
Mercury	83115-08-08 19:56 G	32078409.18	32078409.33	32078409.49	0.0523	0.0221
Venus	83117-11-01 17:17 G	32079225.19	32079225.22	32079225.25	0.0538	0.0530
Venus	83118-06-28 02:24 G	32079463.40	32079463.60	32079463.81	0.0535	0.0053

Venus	83119-02-21 09:51 G	32079701.79	32079701.91	32079702.03	0.0530	0.0423
Mercury	83120-12-28 15:08 G	32080378.05	32080378.13	32080378.21	0.0507	0.0396
Mercury	83121-03-27 21:51 G	32080467.29	32080467.41	32080467.52	0.0504	0.0276
Venus	83124-04-29 06:58 G	32081595.60	32081595.79	32081595.98	0.0491	0.0188
Venus	83124-12-21 02:24 G	32081831.41	32081831.60	32081831.79	0.0494	0.0177
Mercury	83127-05-27 18:58 G	32082719.12	32082719.29	32082719.46	0.0522	0.0007
Venus	83130-03-02 12:00 G	32083728.81	32083729.00	32083729.20	0.0536	0.0190
Venus	83130-10-26 19:27 G	32083967.15	32083967.31	32083967.49	0.0531	0.0294
Mercury	83133-01-14 00:58 G	32084777.41	32084777.54	32084777.68	0.0505	0.0097
Venus	83136-01-03 12:15 G	32085861.84	32085862.01	32085862.17	0.0490	0.0285
Venus	83136-08-26 07:41 G	32086097.62	32086097.82	32086098.02	0.0493	0.0077
Venus	83137-04-19 05:32 G	32086333.64	32086333.73	32086333.82	0.0498	0.0442
Moon	83137-11-28 10:48 G	32086556.77	32086556.95	32086557.15	0.0505	0.0272
Earth	83137-11-28 12:29 G	32086556.83	32086557.02	32086557.22	0.0505	0.0274 *
Mercury	83139-03-15 17:17 G	32087029.07	32087029.22	32087029.38	0.0521	0.0241
Venus	83141-11-04 23:03 G	32087994.30	32087994.46	32087994.63	0.0537	0.0324
Venus	83142-07-01 07:12 G	32088232.60	32088232.80	32088232.99	0.0533	0.0162
Mercury	83144-11-02 05:03 G	32089087.58	32089087.71	32089087.85	0.0506	0.0072
Venus	83147-09-08 17:03 G	32090128.09	32090128.21	32090128.35	0.0490	0.0382
Venus	83148-05-01 12:15 G	32090363.81	32090364.01	32090364.21	0.0492	0.0025
Venus	83148-12-23 08:39 G	32090599.72	32090599.86	32090600.01	0.0496	0.0342
Earth	83149-12-02 23:17 G	32090944.25	32090944.47	32090944.69	0.0506	0.0174
Moon	83149-12-03 02:39 G	32090944.39	32090944.61	32090944.82	0.0506	0.0208 *
Mercury	83151-01-01 14:39 G	32091339.06	32091339.11	32091339.17	0.0520	0.0493
Mercury	83151-04-01 20:24 G	32091429.28	32091429.35	32091429.42	0.0523	0.0474
Venus	83153-07-10 10:05 G	32092259.82	32092259.92	32092260.03	0.0537	0.0456
Venus	83154-03-05 18:58 G	32092498.09	32092498.29	32092498.50	0.0535	0.0028
Venus	83154-10-30 01:27 G	32092736.49	32092736.56	32092736.63	0.0529	0.0495
Moon	83155-05-28 04:05 G	32092946.44	32092946.67	32092946.91	0.0522	0.0159
Earth	83155-05-28 06:00 G	32092946.53	32092946.75	32092946.97	0.0522	0.0188 *

Mercury	83156-08-21 09:36 G	32093397.78	32093397.90	32093398.02	0.0507	0.0229
Mercury	83156-11-18 16:20 G	32093487.12	32093487.18	32093487.24	0.0504	0.0448
Venus	83159-05-14 22:20 G	32094394.38	32094394.43	32094394.48	0.0489	0.0475
Venus	83160-01-05 17:03 G	32094630.02	32094630.21	32094630.41	0.0491	0.0125
Venus	83160-08-28 12:44 G	32094865.86	32094866.03	32094866.21	0.0495	0.0242
Mercury	83163-01-18 18:58 G	32095739.14	32095739.29	32095739.44	0.0522	0.0239
Venus	83165-11-08 07:56 G	32096763.63	32096763.83	32096764.03	0.0536	0.0107
Venus	83166-07-04 15:51 G	32097002.01	32097002.16	32097002.30	0.0531	0.0374
Moon	83167-06-02 07:56 G	32097334.65	32097334.83	32097335.00	0.0520	0.0327
Earth	83167-06-02 08:53 G	32097334.70	32097334.87	32097335.05	0.0520	0.0343 *
Mercury	83168-06-09 13:56 G	32097708.00	32097708.08	32097708.17	0.0507	0.0385
Mercury	83168-09-06 20:39 G	32097797.25	32097797.36	32097797.47	0.0504	0.0288
Mars	83169-05-09 14:53 G	32098041.85	32098042.12	32098042.40	0.0497	0.0075
Venus	83171-09-10 21:51 G	32098896.23	32098896.41	32098896.59	0.0490	0.0224
Venus	83172-05-03 16:48 G	32099132.01	32099132.20	32099132.40	0.0494	0.0140
Mercury	83174-11-06 17:32 G	32100049.06	32100049.23	32100049.40	0.0522	0.0008
Venus	83177-07-13 20:53 G	32101029.19	32101029.37	32101029.55	0.0537	0.0240
Venus	83178-03-09 05:17 G	32101267.55	32101267.72	32101267.91	0.0532	0.0249
Mercury	83180-06-26 00:44 G	32102107.40	32102107.53	32102107.67	0.0505	0.0127
Venus	83183-05-17 03:22 G	32103162.49	32103162.64	32103162.80	0.0490	0.0321
Venus	83184-01-07 22:20 G	32103398.23	32103398.43	32103398.64	0.0493	0.0041
Venus	83184-08-30 19:41 G	32103634.21	32103634.32	32103634.44	0.0498	0.0406
Mercury	83186-08-25 16:20 G	32104359.03	32104359.18	32104359.34	0.0521	0.0219
Venus	83189-03-18 07:12 G	32105294.66	32105294.80	32105294.95	0.0537	0.0373
Venus	83189-11-11 15:22 G	32105532.94	32105533.14	32105533.34	0.0533	0.0113
Mercury	83192-04-14 04:05 G	32106417.54	32106417.67	32106417.81	0.0506	0.0056
Venus	83195-01-20 08:10 G	32107428.74	32107428.84	32107428.95	0.0490	0.0417
Venus	83195-09-13 03:36 G	32107664.45	32107664.65	32107664.85	0.0492	0.0060
Venus	83196-05-06 00:15 G	32107900.35	32107900.51	32107900.67	0.0496	0.0308
Mercury	83198-06-13 14:39 G	32108669.04	32108669.11	32108669.20	0.0520	0.0454

Mercury	83198-09-11 20:24 G	32108759.32	32108759.35	32108759.38	0.0523	0.0513
Venus	83200-11-20 18:29 G	32109560.21	32109560.27	32109560.35	0.0537	0.0502
Venus	83201-07-17 02:39 G	32109798.41	32109798.61	32109798.81	0.0535	0.0023
Venus	83202-03-12 08:53 G	32110036.77	32110036.87	32110036.98	0.0529	0.0450
Mercury	83204-02-01 08:10 G	32110727.72	32110727.84	32110727.96	0.0507	0.0221
Mercury	83204-04-30 14:53 G	32110817.07	32110817.12	32110817.18	0.0504	0.0456
Venus	83207-05-19 08:24 G	32111930.66	32111930.85	32111931.04	0.0491	0.0161
Venus	83208-01-10 04:05 G	32112166.49	32112166.67	32112166.85	0.0495	0.0205
Mercury	83210-06-30 18:15 G	32113069.11	32113069.26	32113069.40	0.0522	0.0266
Venus	83213-03-21 13:41 G	32114063.88	32114064.07	32114064.27	0.0536	0.0160
Venus	83213-11-14 21:22 G	32114302.23	32114302.39	32114302.56	0.0531	0.0324
Mercury	83215-11-20 12:29 G	32115037.94	32115038.02	32115038.11	0.0508	0.0380
Mercury	83216-02-17 19:12 G	32115127.19	32115127.30	32115127.41	0.0505	0.0295
Venus	83219-01-22 13:27 G	32116196.89	32116197.06	32116197.24	0.0490	0.0260
Venus	83219-09-15 08:39 G	32116432.66	32116432.86	32116433.06	0.0493	0.0104
Venus	83220-05-08 06:00 G	32116668.69	32116668.75	32116668.82	0.0498	0.0468
Earth	83220-11-27 21:36 G	32116872.22	32116872.40	32116872.57	0.0504	0.0327
Moon	83220-11-28 00:58 G	32116872.35	32116872.54	32116872.72	0.0504	0.0311 *
Mercury	83222-04-18 16:34 G	32117379.02	32117379.19	32117379.36	0.0521	0.0030
Venus	83224-11-24 02:10 G	32118329.42	32118329.59	32118329.76	0.0537	0.0294
Venus	83225-07-20 10:48 G	32118567.76	32118567.95	32118568.14	0.0533	0.0195
Mercury	83227-12-06 23:32 G	32119437.35	32119437.48	32119437.61	0.0505	0.0136
Venus	83230-09-27 18:00 G	32120463.12	32120463.25	32120463.40	0.0490	0.0357
Venus	83231-05-21 12:58 G	32120698.83	32120699.04	32120699.24	0.0492	0.0009
Venus	83232-01-12 09:22 G	32120934.76	32120934.89	32120935.02	0.0497	0.0369
Moon	83232-12-02 05:17 G	32121259.51	32121259.72	32121259.94	0.0506	0.0158
Earth	83232-12-02 09:22 G	32121259.66	32121259.89	32121260.11	0.0506	0.0124 *
Mercury	83234-02-04 14:53 G	32121688.96	32121689.12	32121689.28	0.0521	0.0208
Venus	83236-07-29 15:22 G	32122595.02	32122595.14	32122595.26	0.0538	0.0423
Venus	83237-03-25 00:15 G	32122833.31	32122833.51	32122833.71	0.0534	0.0064

Moon	83238-05-27 16:20 G	32123261.98	32123262.18	32123262.39	0.0522	0.0211
Earth	83238-05-27 17:03 G	32123262.00	32123262.21	32123262.42	0.0522	0.0233 *
Mercury	83239-09-25 03:51 G	32123747.52	32123747.66	32123747.79	0.0506	0.0028
Venus	83242-06-02 23:32 G	32124729.41	32124729.48	32124729.56	0.0489	0.0451
Venus	83243-01-24 18:29 G	32124965.08	32124965.27	32124965.47	0.0491	0.0098
Venus	83243-09-17 14:39 G	32125200.94	32125201.11	32125201.28	0.0495	0.0270
Mercury	83245-11-23 13:41 G	32125998.98	32125999.07	32125999.16	0.0520	0.0434
Venus	83248-11-27 10:34 G	32127098.74	32127098.94	32127099.14	0.0535	0.0073
Venus	83249-07-23 17:03 G	32127337.08	32127337.21	32127337.35	0.0530	0.0405
Earth	83250-06-01 12:29 G	32127649.82	32127650.02	32127650.22	0.0520	0.0266
Moon	83250-06-01 15:08 G	32127649.92	32127650.13	32127650.35	0.0520	0.0243 *
Mercury	83251-07-14 07:12 G	32128057.68	32128057.80	32128057.92	0.0507	0.0208
Mercury	83251-10-11 13:56 G	32128147.03	32128147.08	32128147.13	0.0504	0.0468
Venus	83254-09-29 23:17 G	32129231.29	32129231.47	32129231.66	0.0491	0.0198
Venus	83255-05-23 19:12 G	32129467.11	32129467.30	32129467.49	0.0494	0.0170
Mercury	83257-12-10 18:00 G	32130399.12	32130399.25	32130399.39	0.0522	0.0303
Mars	83258-08-01 19:27 G	32130633.09	32130633.31	32130633.55	0.0529	0.0277
Venus	83260-08-01 21:51 G	32131364.22	32131364.41	32131364.60	0.0536	0.0210
Venus	83261-03-28 05:03 G	32131602.54	32131602.71	32131602.89	0.0532	0.0277
Mercury	83263-05-02 11:03 G	32132367.88	32132367.96	32132368.05	0.0507	0.0374
Mercury	83263-07-30 17:46 G	32132457.14	32132457.24	32132457.35	0.0505	0.0301
Venus	83266-06-05 04:05 G	32133497.51	32133497.67	32133497.84	0.0490	0.0297
Venus	83267-01-26 23:32 G	32133733.28	32133733.48	32133733.68	0.0493	0.0067
Venus	83267-09-19 20:53 G	32133969.28	32133969.37	32133969.47	0.0498	0.0433
Mercury	83269-09-28 15:36 G	32134708.98	32134709.15	32134709.32	0.0521	0.0054
Venus	83272-04-06 08:10 G	32135629.69	32135629.84	32135630.00	0.0537	0.0346
Venus	83272-11-30 16:34 G	32135867.99	32135868.19	32135868.38	0.0533	0.0143
Mercury	83275-05-18 22:05 G	32136767.29	32136767.42	32136767.55	0.0505	0.0140
Venus	83278-02-08 09:22 G	32137763.77	32137763.89	32137764.01	0.0490	0.0393
Venus	83278-10-02 04:20 G	32137999.48	32137999.68	32137999.88	0.0492	0.0035

Venus	83279-05-26 00:29 G	32138235.37	32138235.52	32138235.67	0.0496	0.0333
Mercury	83281-07-17 13:41 G	32139018.91	32139019.07	32139019.23	0.0520	0.0190
Venus	83283-12-10 20:24 G	32139895.26	32139895.35	32139895.45	0.0537	0.0476
Venus	83284-08-05 05:17 G	32140133.51	32140133.72	32140133.92	0.0535	0.0012
Venus	83285-03-31 12:00 G	32140371.92	32140372.00	32140372.09	0.0530	0.0482
Mercury	83287-03-07 02:24 G	32141077.47	32141077.60	32141077.74	0.0506	0.0022
Venus	83289-10-14 13:41 G	32142030.06	32142030.07	32142030.09	0.0489	0.0486
Venus	83290-06-07 08:39 G	32142265.67	32142265.86	32142266.06	0.0491	0.0136
Venus	83291-01-29 04:20 G	32142501.50	32142501.68	32142501.86	0.0495	0.0232
Mercury	83293-05-05 11:46 G	32143328.90	32143328.99	32143329.09	0.0520	0.0429
Venus	83296-04-09 18:15 G	32144399.06	32144399.26	32144399.46	0.0536	0.0125
Venus	83296-12-04 01:56 G	32144637.43	32144637.58	32144637.73	0.0531	0.0359
Mercury	83298-12-24 06:44 G	32145387.65	32145387.78	32145387.91	0.0506	0.0181
Mercury	83299-03-23 13:27 G	32145477.04	32145477.06	32145477.09	0.0504	0.0496
Venus	83302-02-11 14:10 G	32146531.92	32146532.09	32146532.27	0.0490	0.0235
Venus	83302-10-05 09:36 G	32146767.70	32146767.90	32146768.09	0.0494	0.0132
Venus	83303-05-29 07:27 G	32147003.79	32147003.81	32147003.83	0.0499	0.0496
Moon	83303-11-29 05:03 G	32147187.56	32147187.71	32147187.88	0.0504	0.0356
Earth	83303-11-29 09:08 G	32147187.73	32147187.88	32147188.04	0.0504	0.0371 *
Mercury	83305-05-23 16:48 G	32147729.07	32147729.20	32147729.34	0.0522	0.0318
Venus	83307-12-15 05:17 G	32148664.54	32148664.72	32148664.90	0.0536	0.0261
Venus	83308-08-09 12:44 G	32148902.85	32148903.03	32148903.22	0.0532	0.0227
Mercury	83310-10-13 10:05 G	32149697.83	32149697.92	32149698.01	0.0507	0.0362
Mercury	83311-01-10 16:34 G	32149787.09	32149787.19	32149787.30	0.0504	0.0312
Venus	83313-10-17 18:15 G	32150798.11	32150798.26	32150798.41	0.0490	0.0334
Venus	83314-06-10 13:56 G	32151033.88	32151034.08	32151034.28	0.0493	0.0029
Venus	83315-02-01 11:17 G	32151269.85	32151269.97	32151270.09	0.0497	0.0398
Earth	83315-12-03 22:05 G	32151575.19	32151575.42	32151575.65	0.0506	0.0086
Moon	83315-12-04 01:56 G	32151575.36	32151575.58	32151575.81	0.0506	0.0119 *
Mercury	83317-03-11 15:22 G	32152038.97	32152039.14	32152039.31	0.0521	0.0086

Venus	83319-08-19 16:34 G	32152930.06	32152930.19	32152930.33	0.0537	0.0394
Venus	83320-04-14 00:15 G	32153168.31	32153168.51	32153168.71	0.0533	0.0093
Earth	83321-05-27 17:32 G	32153577.04	32153577.23	32153577.41	0.0522	0.0325
Moon	83321-05-27 19:27 G	32153577.12	32153577.31	32153577.52	0.0522	0.0303 *
Mercury	83322-10-29 20:39 G	32154097.23	32154097.36	32154097.49	0.0505	0.0143
Venus	83325-06-22 22:48 G	32155064.37	32155064.45	32155064.56	0.0490	0.0431
Venus	83326-02-13 18:29 G	32155300.07	32155300.27	32155300.47	0.0492	0.0074
Venus	83326-10-07 14:53 G	32155535.96	32155536.12	32155536.28	0.0496	0.0296
Mercury	83328-12-28 12:44 G	32156348.87	32156349.03	32156349.19	0.0520	0.0168
Venus	83331-04-24 02:39 G	32157195.57	32157195.61	32157195.65	0.0537	0.0526
Venus	83331-12-18 10:34 G	32157433.74	32157433.94	32157434.15	0.0535	0.0047
Venus	83332-08-12 17:17 G	32157672.11	32157672.22	32157672.34	0.0530	0.0432
Moon	83333-06-01 13:56 G	32157964.87	32157965.08	32157965.30	0.0521	0.0171
Earth	83333-06-01 17:17 G	32157965.01	32157965.22	32157965.44	0.0521	0.0196 *
Mercury	83334-08-18 00:44 G	32158407.40	32158407.53	32158407.67	0.0506	0.0023
Venus	83337-10-19 23:17 G	32159566.29	32159566.47	32159566.67	0.0491	0.0175
Venus	83338-06-12 18:58 G	32159802.10	32159802.29	32159802.47	0.0494	0.0194
Mercury	83340-10-16 10:34 G	32160658.84	32160658.94	32160659.04	0.0520	0.0413
Venus	83343-08-22 22:48 G	32161699.25	32161699.45	32161699.64	0.0536	0.0182
Venus	83344-04-17 06:29 G	32161937.61	32161937.77	32161937.94	0.0532	0.0307
Mercury	83346-06-06 05:03 G	32162717.59	32162717.71	32162717.84	0.0507	0.0179
Mercury	83346-09-03 12:00 G	32162806.99	32162807.00	32162807.01	0.0504	0.0499
Venus	83349-06-25 03:51 G	32163832.49	32163832.66	32163832.83	0.0490	0.0273
Venus	83350-02-15 22:48 G	32164068.26	32164068.45	32164068.65	0.0493	0.0093
Venus	83350-10-09 20:10 G	32164304.27	32164304.34	32164304.42	0.0498	0.0458
Mercury	83352-11-02 14:39 G	32165058.98	32165059.11	32165059.25	0.0522	0.0318
Venus	83355-04-27 11:32 G	32165964.81	32165964.98	32165965.14	0.0537	0.0315
Venus	83355-12-21 19:56 G	32166203.14	32166203.33	32166203.52	0.0533	0.0177
Mercury	83358-03-25 09:22 G	32167027.80	32167027.89	32167027.99	0.0507	0.0340
Mercury	83358-06-22 16:05 G	32167117.07	32167117.17	32167117.27	0.0504	0.0335

Venus	83361-02-28 09:08 G	32168098.75	32168098.88	32168099.01	0.0490	0.0370
Venus	83361-10-22 04:05 G	32168334.47	32168334.67	32168334.87	0.0492	0.0010
Venus	83362-06-15 00:44 G	32168570.39	32168570.53	32168570.67	0.0496	0.0360
Mercury	83364-08-21 13:41 G	32169368.90	32169369.07	32169369.24	0.0522	0.0094
Venus	83366-12-30 23:17 G	32170230.37	32170230.47	32170230.59	0.0537	0.0446
Venus	83367-08-26 07:12 G	32170468.60	32170468.80	32170469.00	0.0534	0.0040
Venus	83368-04-20 12:44 G	32170706.98	32170707.03	32170707.08	0.0528	0.0510
Mercury	83370-04-10 19:12 G	32171427.17	32171427.30	32171427.43	0.0505	0.0152
Venus	83372-11-03 12:15 G	32172364.95	32172365.01	32172365.07	0.0490	0.0468
Venus	83373-06-27 08:10 G	32172600.64	32172600.84	32172601.03	0.0492	0.0113
Venus	83374-02-18 04:20 G	32172836.52	32172836.68	32172836.86	0.0495	0.0259
Mercury	83376-06-09 12:00 G	32173678.84	32173679.00	32173679.17	0.0521	0.0142
Venus	83379-04-30 18:15 G	32174734.06	32174734.26	32174734.46	0.0535	0.0097
Venus	83379-12-25 00:44 G	32174972.39	32174972.53	32174972.67	0.0530	0.0385
Mercury	83382-01-27 23:17 G	32175737.33	32175737.47	32175737.60	0.0506	0.0024
Venus	83385-03-02 12:44 G	32176866.85	32176867.03	32176867.21	0.0491	0.0214
Venus	83385-10-24 08:24 G	32177102.66	32177102.85	32177103.05	0.0494	0.0155
Earth	83386-11-28 16:20 G	32177503.06	32177503.18	32177503.30	0.0504	0.0430
Moon	83386-11-28 19:56 G	32177503.21	32177503.33	32177503.47	0.0504	0.0410 *
Mercury	83388-03-28 09:22 G	32177988.78	32177988.89	32177989.00	0.0520	0.0397
Venus	83391-01-03 04:05 G	32178999.48	32178999.67	32178999.85	0.0536	0.0237
Venus	83391-08-29 11:32 G	32179237.81	32179237.98	32179238.17	0.0532	0.0253
Mercury	83393-11-16 03:22 G	32180047.52	32180047.64	32180047.77	0.0507	0.0181
Mercury	83394-02-13 10:05 G	32180136.91	32180136.92	32180136.94	0.0504	0.0497
Venus	83396-11-05 17:32 G	32181133.08	32181133.23	32181133.39	0.0490	0.0313
Venus	83397-06-29 12:58 G	32181368.84	32181369.04	32181369.24	0.0493	0.0052
Venus	83398-02-20 09:51 G	32181604.81	32181604.91	32181605.02	0.0497	0.0420
Moon	83398-12-03 00:15 G	32181890.27	32181890.51	32181890.75	0.0505	0.0044
Earth	83398-12-03 03:08 G	32181890.40	32181890.63	32181890.87	0.0505	0.0020 *
Mercury	83400-04-15 12:58 G	32182388.91	32182389.04	32182389.18	0.0522	0.0328

Venus	83402-09-08 15:22 G	32183265.00	32183265.14	32183265.29	0.0537	0.0372
Venus	83403-05-04 23:46 G	32183503.29	32183503.49	32183503.69	0.0534	0.0120
Moon	83404-05-27 18:44 G	32183892.13	32183892.28	32183892.45	0.0523	0.0378
Earth	83404-05-27 22:05 G	32183892.27	32183892.42	32183892.57	0.0523	0.0396 *
Mercury	83405-09-05 07:41 G	32184357.73	32184357.82	32184357.92	0.0507	0.0341
Mercury	83405-12-03 14:24 G	32184447.00	32184447.10	32184447.20	0.0505	0.0334
Venus	83408-07-12 21:51 G	32185399.31	32185399.41	32185399.53	0.0490	0.0409
Venus	83409-03-05 17:03 G	32185635.01	32185635.21	32185635.41	0.0492	0.0050
Venus	83409-10-27 12:58 G	32185870.89	32185871.04	32185871.20	0.0496	0.0320
Earth	83410-12-08 14:10 G	32186278.01	32186278.09	32186278.18	0.0507	0.0467
Moon	83410-12-08 15:22 G	32186278.05	32186278.14	32186278.24	0.0507	0.0454 *
Mercury	83412-02-02 11:17 G	32186698.80	32186698.97	32186699.14	0.0521	0.0088
Venus	83414-05-14 04:05 G	32187530.60	32187530.67	32187530.75	0.0537	0.0500
Venus	83415-01-07 12:44 G	32187768.82	32187769.03	32187769.23	0.0535	0.0016
Venus	83415-09-02 19:27 G	32188007.22	32188007.31	32188007.41	0.0530	0.0463
Earth	83416-06-01 23:46 G	32188280.26	32188280.49	32188280.72	0.0521	0.0131
Moon	83416-06-02 03:36 G	32188280.42	32188280.65	32188280.89	0.0521	0.0106 *
Mercury	83417-06-24 12:00 G	32188667.99	32188668.00	32188668.02	0.0508	0.0502
Mercury	83417-09-21 18:29 G	32188757.14	32188757.27	32188757.40	0.0505	0.0170
Venus	83420-11-08 21:51 G	32189901.22	32189901.41	32189901.61	0.0491	0.0152
Venus	83421-07-02 17:46 G	32190137.06	32190137.24	32190137.42	0.0494	0.0219
Mercury	83423-11-21 10:05 G	32191008.75	32191008.92	32191009.08	0.0521	0.0141
Venus	83426-09-12 00:29 G	32192034.32	32192034.52	32192034.71	0.0535	0.0152
Venus	83427-05-08 07:12 G	32192272.64	32192272.80	32192272.96	0.0531	0.0335
Mercury	83429-07-10 21:51 G	32193067.27	32193067.41	32193067.54	0.0506	0.0013
Venus	83432-07-15 01:27 G	32194167.39	32194167.56	32194167.73	0.0491	0.0254
Venus	83433-03-07 21:22 G	32194403.19	32194403.39	32194403.59	0.0494	0.0115
Venus	83433-10-29 19:12 G	32194639.26	32194639.30	32194639.36	0.0499	0.0483
Mercury	83435-09-09 08:10 G	32195318.73	32195318.84	32195318.96	0.0520	0.0379
Venus	83438-05-17 11:17 G	32196299.80	32196299.97	32196300.15	0.0536	0.0289

Venus	83439-01-10 18:44 G	32196538.09	32196538.28	32196538.47	0.0532	0.0202
Mercury	83441-04-29 01:41 G	32197377.45	32197377.57	32197377.70	0.0506	0.0182
Mercury	83441-07-27 08:24 G	32197466.83	32197466.85	32197466.87	0.0504	0.0494
Mars	83442-01-23 22:20 G	32197647.29	32197647.43	32197647.58	0.0499	0.0429
Venus	83444-03-20 06:00 G	32198433.61	32198433.75	32198433.89	0.0490	0.0354
Venus	83444-11-11 01:27 G	32198669.36	32198669.56	32198669.77	0.0492	0.0015
Venus	83445-07-04 22:20 G	32198905.31	32198905.43	32198905.57	0.0497	0.0381
Mercury	83447-09-26 11:17 G	32199718.85	32199718.97	32199719.10	0.0522	0.0338
Venus	83450-01-19 20:39 G	32200565.24	32200565.36	32200565.48	0.0537	0.0426
Venus	83450-09-15 04:34 G	32200803.48	32200803.69	32200803.89	0.0534	0.0064
Mercury	83453-02-15 05:46 G	32201687.65	32201687.74	32201687.84	0.0508	0.0346
Mercury	83453-05-15 12:29 G	32201776.92	32201777.02	32201777.12	0.0505	0.0329
Venus	83455-11-24 10:34 G	32202699.87	32202699.94	32202700.02	0.0490	0.0449
Venus	83456-07-17 06:15 G	32202935.56	32202935.76	32202935.96	0.0491	0.0091
Venus	83457-03-10 02:24 G	32203171.43	32203171.60	32203171.77	0.0495	0.0280
Mercury	83459-07-15 09:22 G	32204028.72	32204028.89	32204029.06	0.0521	0.0093
Venus	83462-05-20 15:51 G	32205068.96	32205069.16	32205069.36	0.0535	0.0075
Venus	83463-01-13 22:48 G	32205307.33	32205307.45	32205307.59	0.0531	0.0410
Mercury	83464-12-04 10:05 G	32205997.92	32205997.92	32205997.93	0.0508	0.0507
Mercury	83465-03-03 16:34 G	32206087.06	32206087.19	32206087.32	0.0505	0.0165
Venus	83468-03-22 10:20 G	32207201.75	32207201.93	32207202.12	0.0491	0.0193
Venus	83468-11-13 05:46 G	32207437.55	32207437.74	32207437.93	0.0494	0.0177
Moon	83469-11-28 16:20 G	32207818.13	32207818.18	32207818.24	0.0503	0.0488
Mercury	83471-05-03 06:58 G	32208338.63	32208338.79	32208338.96	0.0521	0.0154
Venus	83474-01-23 04:20 G	32209334.49	32209334.68	32209334.87	0.0536	0.0210
Venus	83474-09-18 12:15 G	32209572.84	32209573.01	32209573.18	0.0532	0.0282
Mercury	83476-12-20 20:39 G	32210397.23	32210397.36	32210397.50	0.0506	0.0006
Venus	83479-11-26 14:53 G	32211467.96	32211468.12	32211468.29	0.0490	0.0293
Venus	83480-07-19 10:20 G	32211703.73	32211703.93	32211704.13	0.0493	0.0075
Venus	83481-03-12 07:41 G	32211939.73	32211939.82	32211939.91	0.0498	0.0443

Earth	83481-12-03 08:10 G	32212205.61	32212205.84	32212206.07	0.0505	0.0056
Moon	83481-12-03 09:22 G	32212205.66	32212205.89	32212206.11	0.0505	0.0034 *
Mercury	83483-02-19 05:32 G	32212648.62	32212648.73	32212648.85	0.0520	0.0385
Venus	83485-09-27 16:34 G	32213600.04	32213600.19	32213600.35	0.0537	0.0345
Venus	83486-05-24 00:15 G	32213838.31	32213838.51	32213838.70	0.0533	0.0148
Earth	83487-05-27 22:48 G	32214207.37	32214207.45	32214207.55	0.0523	0.0484
Moon	83487-05-28 02:39 G	32214207.51	32214207.61	32214207.72	0.0523	0.0464 *
Mercury	83488-10-09 00:00 G	32214707.38	32214707.50	32214707.63	0.0506	0.0180
Mercury	83489-01-06 06:44 G	32214796.77	32214796.78	32214796.80	0.0504	0.0497
Venus	83491-08-01 18:00 G	32215734.13	32215734.25	32215734.37	0.0490	0.0394
Venus	83492-03-24 13:41 G	32215969.87	32215970.07	32215970.27	0.0492	0.0031
Venus	83492-11-15 10:20 G	32216205.79	32216205.93	32216206.09	0.0496	0.0342
Earth	83493-12-07 20:10 G	32216593.20	32216593.34	32216593.48	0.0507	0.0401
Moon	83493-12-07 20:39 G	32216593.21	32216593.36	32216593.53	0.0507	0.0379 *
Mercury	83495-03-08 09:51 G	32217048.79	32217048.91	32217049.04	0.0522	0.0350
Venus	83497-06-02 03:51 G	32217865.57	32217865.66	32217865.75	0.0537	0.0476
Venus	83498-01-26 11:17 G	32218103.77	32218103.97	32218104.18	0.0534	0.0011
Venus	83498-09-21 16:48 G	32218342.13	32218342.20	32218342.29	0.0529	0.0486
Moon	83499-06-01 17:46 G	32218595.00	32218595.24	32218595.48	0.0521	0.0001
Earth	83499-06-01 21:22 G	32218595.16	32218595.39	32218595.63	0.0521	0.0029 *
Mercury	83500-07-29 04:05 G	32219017.57	32219017.67	32219017.76	0.0507	0.0349
Mercury	83500-10-26 10:34 G	32219106.84	32219106.94	32219107.04	0.0504	0.0324
Venus	83503-04-07 22:05 G	32220000.42	32220000.42	32220000.42	0.0490	0.0490
Venus	83503-11-29 18:00 G	32220236.05	32220236.25	32220236.45	0.0491	0.0134
Venus	83504-07-22 14:10 G	32220471.92	32220472.09	32220472.27	0.0495	0.0238
Mercury	83506-12-26 07:12 G	32221358.64	32221358.80	32221358.97	0.0521	0.0097
Venus	83509-10-01 20:10 G	32222369.14	32222369.34	32222369.54	0.0536	0.0132
Venus	83510-05-28 03:08 G	32222607.48	32222607.63	32222607.79	0.0531	0.0355
Mercury	83512-08-14 14:24 G	32223416.98	32223417.10	32223417.23	0.0505	0.0158
Venus	83515-08-04 23:03 G	32224502.28	32224502.46	32224502.64	0.0491	0.0235

Venus	83516-03-27 18:29 G	32224738.08	32224738.27	32224738.47	0.0493	0.0135
Mercury	83518-10-14 05:03 G	32225668.54	32225668.71	32225668.87	0.0520	0.0152
Venus	83521-06-06 06:58 G	32226634.62	32226634.79	32226634.97	0.0536	0.0270
Venus	83522-01-30 15:08 G	32226872.94	32226873.13	32226873.31	0.0533	0.0224
Mercury	83524-06-02 18:44 G	32227727.14	32227727.28	32227727.41	0.0506	0.0010
Venus	83527-04-10 02:53 G	32228768.47	32228768.62	32228768.77	0.0490	0.0334
Venus	83527-12-01 22:05 G	32229004.22	32229004.42	32229004.62	0.0492	0.0031
Venus	83528-07-24 18:44 G	32229240.17	32229240.28	32229240.40	0.0497	0.0401
Mercury	83530-08-02 02:24 G	32229978.50	32229978.60	32229978.71	0.0520	0.0402
Mars	83531-04-18 14:39 G	32230237.95	32230238.11	32230238.28	0.0528	0.0412
Venus	83533-02-08 19:12 G	32230900.17	32230900.30	32230900.43	0.0537	0.0403
Venus	83533-10-05 03:36 G	32231138.44	32231138.65	32231138.85	0.0534	0.0090
Mercury	83536-03-21 22:48 G	32232037.33	32232037.45	32232037.58	0.0507	0.0171
Venus	83538-12-14 07:12 G	32233034.71	32233034.80	32233034.90	0.0490	0.0431
Venus	83539-08-07 02:39 G	32233270.41	32233270.61	32233270.81	0.0491	0.0071
Venus	83540-03-29 22:48 G	32233506.29	32233506.45	32233506.61	0.0495	0.0301
Mercury	83542-08-19 07:12 G	32234378.67	32234378.80	32234378.93	0.0522	0.0338
Venus	83544-10-14 07:56 G	32235165.81	32235165.83	32235165.87	0.0537	0.0531
Venus	83545-06-09 15:51 G	32235403.95	32235404.16	32235404.36	0.0535	0.0049
Venus	83546-02-02 22:05 G	32235642.31	32235642.42	32235642.54	0.0530	0.0435
Mercury	83548-01-09 02:24 G	32236347.51	32236347.60	32236347.70	0.0507	0.0347
Mercury	83548-04-07 08:53 G	32236436.77	32236436.87	32236436.97	0.0504	0.0325
Venus	83551-04-12 05:32 G	32237536.54	32237536.73	32237536.92	0.0491	0.0177
Venus	83551-12-04 01:41 G	32237772.38	32237772.57	32237772.76	0.0494	0.0195
Mercury	83554-06-07 05:32 G	32238688.56	32238688.73	32238688.90	0.0522	0.0102
Venus	83557-02-12 02:53 G	32239669.43	32239669.62	32239669.81	0.0536	0.0186
Venus	83557-10-08 09:51 G	32239907.74	32239907.91	32239908.08	0.0531	0.0305
Mercury	83560-01-25 12:44 G	32240746.90	32240747.03	32240747.16	0.0505	0.0153
Venus	83562-12-16 10:05 G	32241802.75	32241802.92	32241803.08	0.0490	0.0278
Venus	83563-08-09 05:46 G	32242038.55	32242038.74	32242038.94	0.0493	0.0092

Venus	83564-04-01 03:22 G	32242274.57	32242274.64	32242274.72	0.0498	0.0460
Earth	83564-12-03 09:22 G	32242520.67	32242520.89	32242521.12	0.0504	0.0136
Moon	83564-12-03 09:51 G	32242520.68	32242520.91	32242521.15	0.0504	0.0118 *
Mercury	83566-03-26 02:39 G	32242998.45	32242998.61	32242998.78	0.0520	0.0153
Venus	83568-10-17 11:03 G	32243934.81	32243934.96	32243935.13	0.0536	0.0327
Venus	83569-06-12 18:44 G	32244173.09	32244173.28	32244173.48	0.0533	0.0167
Mercury	83571-11-13 16:34 G	32245057.06	32245057.19	32245057.32	0.0506	0.0016
Venus	83574-08-21 14:53 G	32246069.00	32246069.12	32246069.25	0.0490	0.0376
Venus	83575-04-14 10:34 G	32246304.73	32246304.94	32246305.14	0.0492	0.0014
Venus	83575-12-06 06:58 G	32246540.65	32246540.79	32246540.93	0.0496	0.0360
Moon	83576-12-07 18:58 G	32246908.11	32246908.29	32246908.48	0.0506	0.0291
Earth	83576-12-07 20:39 G	32246908.18	32246908.36	32246908.55	0.0506	0.0314 *
Mercury	83578-01-12 00:15 G	32247308.40	32247308.51	32247308.62	0.0519	0.0403
Venus	83580-06-21 21:51 G	32248200.31	32248200.41	32248200.52	0.0537	0.0461
Venus	83581-02-15 06:00 G	32248438.54	32248438.75	32248438.95	0.0535	0.0030
Venus	83581-10-11 12:15 G	32248676.96	32248677.01	32248677.07	0.0530	0.0505
Earth	83582-06-01 18:29 G	32248910.04	32248910.27	32248910.51	0.0522	0.0073
Moon	83582-06-01 21:22 G	32248910.16	32248910.39	32248910.61	0.0522	0.0104 *
Mercury	83583-09-01 20:39 G	32249367.24	32249367.36	32249367.49	0.0507	0.0180
Mercury	83583-11-30 03:22 G	32249456.62	32249456.64	32249456.66	0.0504	0.0497
Venus	83586-04-26 18:44 G	32250335.23	32250335.28	32250335.34	0.0490	0.0471
Venus	83586-12-18 14:10 G	32250570.90	32250571.09	32250571.29	0.0491	0.0115
Venus	83587-08-11 10:05 G	32250806.75	32250806.92	32250807.09	0.0494	0.0258
Mercury	83590-01-29 03:51 G	32251708.53	32251708.66	32251708.80	0.0522	0.0319
Venus	83592-10-20 17:46 G	32252704.04	32252704.24	32252704.44	0.0536	0.0109
Venus	83593-06-16 01:12 G	32252942.41	32252942.55	32252942.70	0.0531	0.0381
Moon	83594-06-06 18:15 G	32253298.13	32253298.26	32253298.40	0.0521	0.0433
Earth	83594-06-06 19:27 G	32253298.19	32253298.31	32253298.43	0.0521	0.0447 *
Mercury	83595-06-21 00:58 G	32253677.44	32253677.54	32253677.63	0.0508	0.0344
Mercury	83595-09-18 07:27 G	32253766.71	32253766.81	32253766.91	0.0505	0.0330

Mars	83596-04-19 12:44 G	32253980.75	32253981.03	32253981.31	0.0499	0.0034
Venus	83598-08-23 18:44 G	32254837.10	32254837.28	32254837.46	0.0490	0.0216
Venus	83599-04-16 14:10 G	32255072.90	32255073.09	32255073.28	0.0493	0.0155
Mercury	83601-11-17 02:24 G	32256018.43	32256018.60	32256018.77	0.0521	0.0086
Venus	83604-06-25 06:15 G	32256969.59	32256969.76	32256969.95	0.0536	0.0246
Venus	83605-02-18 14:10 G	32257207.91	32257208.09	32257208.27	0.0532	0.0249
Mercury	83607-07-07 11:03 G	32258076.83	32258076.96	32258077.09	0.0505	0.0154
Venus	83610-04-28 21:22 G	32259103.24	32259103.39	32259103.55	0.0490	0.0319
Venus	83610-12-20 17:03 G	32259339.01	32259339.21	32259339.41	0.0493	0.0048
Venus	83611-08-13 14:24 G	32259575.00	32259575.10	32259575.21	0.0497	0.0420
Mercury	83613-09-05 00:29 G	32260328.36	32260328.52	32260328.69	0.0521	0.0153
Venus	83616-02-28 17:46 G	32261235.10	32261235.24	32261235.39	0.0537	0.0380
Venus	83616-10-24 01:27 G	32261473.36	32261473.56	32261473.76	0.0534	0.0113
Mercury	83619-04-25 14:53 G	32262386.98	32262387.12	32262387.25	0.0506	0.0025
Venus	83622-01-02 01:41 G	32263369.47	32263369.57	32263369.68	0.0490	0.0418
Venus	83622-08-25 21:36 G	32263605.20	32263605.40	32263605.60	0.0492	0.0056
Venus	83623-04-18 18:00 G	32263841.10	32263841.25	32263841.41	0.0496	0.0317
Mercury	83625-06-23 21:36 G	32264638.30	32264638.40	32264638.51	0.0519	0.0407
Venus	83627-11-03 01:56 G	32265500.54	32265500.58	32265500.64	0.0537	0.0515
Venus	83628-06-28 09:36 G	32265738.70	32265738.90	32265739.11	0.0535	0.0030
Venus	83629-02-21 16:20 G	32265977.08	32265977.18	32265977.29	0.0530	0.0453
Mercury	83631-02-11 18:29 G	32266697.15	32266697.27	32266697.40	0.0507	0.0190
Mercury	83631-05-12 01:12 G	32266786.52	32266786.55	32266786.59	0.0504	0.0488
Venus	83634-05-01 02:24 G	32267871.41	32267871.60	32267871.80	0.0491	0.0157
Venus	83634-12-22 22:20 G	32268107.25	32268107.43	32268107.61	0.0494	0.0215
Mercury	83637-07-11 01:41 G	32269038.43	32269038.57	32269038.70	0.0522	0.0318
Venus	83640-03-02 20:24 G	32270004.15	32270004.35	32270004.54	0.0536	0.0169
Venus	83640-10-27 03:51 G	32270242.50	32270242.66	32270242.82	0.0532	0.0323
Mercury	83642-11-30 22:48 G	32271007.35	32271007.45	32271007.54	0.0508	0.0354
Mercury	83643-02-28 05:17 G	32271096.62	32271096.72	32271096.82	0.0505	0.0321

Venus	83646-01-04 06:29 G	32272137.60	32272137.77	32272137.94	0.0490	0.0258
Venus	83646-08-28 01:56 G	32272373.38	32272373.58	32272373.77	0.0493	0.0112
Venus	83647-04-20 23:03 G	32272609.41	32272609.46	32272609.51	0.0497	0.0479
Moon	83647-12-03 07:41 G	32272835.62	32272835.82	32272836.03	0.0504	0.0212
Earth	83647-12-03 09:22 G	32272835.68	32272835.89	32272836.10	0.0504	0.0228 *
Mercury	83649-04-28 23:17 G	32273348.30	32273348.47	32273348.64	0.0521	0.0069
Venus	83651-11-06 07:56 G	32274269.66	32274269.83	32274270.00	0.0537	0.0305
Venus	83652-07-01 16:05 G	32274507.98	32274508.17	32274508.36	0.0534	0.0191
Mercury	83654-12-17 09:22 G	32275406.76	32275406.89	32275407.02	0.0505	0.0155
Venus	83657-09-09 10:34 G	32276403.81	32276403.94	32276404.09	0.0490	0.0358
Venus	83658-05-03 06:00 G	32276639.54	32276639.75	32276639.95	0.0492	0.0010
Venus	83658-12-25 02:24 G	32276875.47	32276875.60	32276875.73	0.0496	0.0379
Earth	83659-12-07 20:53 G	32277223.17	32277223.37	32277223.58	0.0506	0.0223
Moon	83659-12-07 23:46 G	32277223.27	32277223.49	32277223.71	0.0506	0.0199 *
Mercury	83661-02-14 21:22 G	32277658.23	32277658.39	32277658.56	0.0520	0.0170
Venus	83663-07-11 20:53 G	32278535.26	32278535.37	32278535.49	0.0537	0.0438
Venus	83664-03-06 05:03 G	32278773.51	32278773.71	32278773.92	0.0535	0.0055
Venus	83664-10-30 11:03 G	32279011.96	32279011.96	32279011.97	0.0529	0.0529
Moon	83665-05-31 17:17 G	32279225.00	32279225.22	32279225.45	0.0522	0.0195
Earth	83665-05-31 18:58 G	32279225.07	32279225.29	32279225.52	0.0522	0.0162 *
Mercury	83666-10-05 13:12 G	32279716.91	32279717.05	32279717.18	0.0506	0.0021
Venus	83669-05-15 13:12 G	32280669.99	32280670.05	32280670.13	0.0490	0.0458
Venus	83670-01-06 08:53 G	32280905.67	32280905.87	32280906.07	0.0491	0.0098
Venus	83670-08-30 05:17 G	32281141.55	32281141.72	32281141.88	0.0495	0.0275
Mercury	83672-12-03 19:27 G	32281968.20	32281968.31	32281968.41	0.0520	0.0410
Venus	83675-11-09 16:20 G	32283038.98	32283039.18	32283039.38	0.0535	0.0084
Venus	83676-07-04 23:03 G	32283277.33	32283277.46	32283277.60	0.0531	0.0404
Earth	83677-06-05 17:17 G	32283613.06	32283613.22	32283613.41	0.0521	0.0350
Moon	83677-06-05 17:17 G	32283613.06	32283613.22	32283613.40	0.0521	0.0340 *
Mercury	83678-07-24 17:03 G	32284027.09	32284027.21	32284027.33	0.0506	0.0188

Mercury	83678-10-21 23:46 G	32284116.45	32284116.49	32284116.52	0.0504	0.0487
Venus	83681-09-11 13:41 G	32285171.88	32285172.07	32285172.25	0.0491	0.0201
Venus	83682-05-05 09:22 G	32285407.70	32285407.89	32285408.08	0.0494	0.0172
Mercury	83684-12-20 23:03 G	32286368.33	32286368.46	32286368.60	0.0522	0.0315
Mars	83685-07-11 22:48 G	32286571.18	32286571.45	32286571.71	0.0528	0.0044
Venus	83687-07-15 00:15 G	32287304.33	32287304.51	32287304.70	0.0536	0.0227
Venus	83688-03-09 07:56 G	32287542.66	32287542.83	32287543.01	0.0532	0.0268
Mercury	83690-05-12 20:39 G	32288337.27	32288337.36	32288337.46	0.0508	0.0361
Mercury	83690-08-10 03:22 G	32288426.53	32288426.64	32288426.74	0.0505	0.0314
Venus	83693-05-17 18:44 G	32289438.12	32289438.28	32289438.44	0.0490	0.0299
Venus	83694-01-08 14:10 G	32289673.89	32289674.09	32289674.29	0.0493	0.0070
Venus	83694-09-01 11:17 G	32289909.88	32289909.97	32289910.07	0.0497	0.0439
Mercury	83696-10-08 21:08 G	32290678.21	32290678.38	32290678.55	0.0521	0.0070
Venus	83699-03-19 11:03 G	32291569.81	32291569.96	32291570.11	0.0537	0.0363
Venus	83699-11-12 18:44 G	32291808.09	32291808.28	32291808.48	0.0534	0.0132
Mercury	83702-05-30 07:12 G	32292736.67	32292736.80	32292736.93	0.0506	0.0147
Venus	83705-01-21 22:48 G	32293704.34	32293704.45	32293704.57	0.0490	0.0398
Venus	83705-09-14 18:15 G	32293940.05	32293940.26	32293940.46	0.0491	0.0035
Venus	83706-05-08 14:10 G	32294175.94	32294176.09	32294176.24	0.0495	0.0337
Mercury	83708-07-28 18:15 G	32294988.10	32294988.26	32294988.43	0.0520	0.0184
Venus	83710-11-22 22:34 G	32295835.37	32295835.44	32295835.52	0.0537	0.0496
Venus	83711-07-19 06:44 G	32296073.57	32296073.78	32296073.98	0.0535	0.0007
Venus	83712-03-13 13:56 G	32296311.99	32296312.08	32296312.17	0.0530	0.0477
Mercury	83714-03-18 11:32 G	32297046.84	32297046.98	32297047.11	0.0506	0.0022
Venus	83717-05-20 22:20 G	32298206.24	32298206.43	32298206.63	0.0491	0.0138
Venus	83718-01-11 18:00 G	32298442.07	32298442.25	32298442.42	0.0494	0.0235
Mercury	83720-05-16 16:20 G	32299298.09	32299298.18	32299298.28	0.0520	0.0424
Venus	83723-03-23 19:41 G	32300339.12	32300339.32	32300339.52	0.0536	0.0143
Venus	83723-11-17 03:08 G	32300577.48	32300577.63	32300577.79	0.0532	0.0350
Mercury	83726-01-04 15:22 G	32301357.02	32301357.14	32301357.26	0.0507	0.0186

Mercury	83726-04-03 21:51 G	32301446.39	32301446.41	32301446.45	0.0504	0.0489
Venus	83729-01-24 01:27 G	32302472.39	32302472.56	32302472.74	0.0490	0.0242
Venus	83729-09-16 21:08 G	32302708.18	32302708.38	32302708.57	0.0493	0.0130
Venus	83730-05-10 18:44 G	32302944.27	32302944.28	32302944.28	0.0498	0.0497
Earth	83730-12-03 11:03 G	32303150.78	32303150.96	32303151.15	0.0504	0.0309
Moon	83730-12-03 13:56 G	32303150.89	32303151.08	32303151.27	0.0504	0.0292 *
Mercury	83732-06-02 20:53 G	32303698.24	32303698.37	32303698.51	0.0522	0.0314
Venus	83734-11-26 07:12 G	32304604.63	32304604.80	32304604.98	0.0537	0.0281
Venus	83735-07-22 15:08 G	32304842.94	32304843.13	32304843.32	0.0533	0.0216
Mercury	83737-10-23 19:27 G	32305667.21	32305667.31	32305667.40	0.0507	0.0354
Mercury	83738-01-21 01:41 G	32305756.47	32305756.57	32305756.68	0.0505	0.0318
Venus	83740-09-29 06:15 G	32306738.62	32306738.76	32306738.91	0.0490	0.0342
Venus	83741-05-23 01:41 G	32306974.37	32306974.57	32306974.78	0.0492	0.0027
Venus	83742-01-13 22:34 G	32307210.32	32307210.44	32307210.56	0.0496	0.0397
Moon	83742-12-07 19:56 G	32307538.10	32307538.33	32307538.55	0.0505	0.0119
Earth	83742-12-07 23:17 G	32307538.25	32307538.47	32307538.69	0.0505	0.0147 *
Mercury	83744-03-21 18:44 G	32308008.11	32308008.28	32308008.45	0.0521	0.0069
Venus	83746-07-31 15:36 G	32308870.03	32308870.15	32308870.28	0.0537	0.0419
Venus	83747-03-26 23:32 G	32309108.27	32309108.48	32309108.68	0.0534	0.0076
Earth	83748-05-31 13:27 G	32309539.86	32309540.06	32309540.26	0.0523	0.0276
Moon	83748-05-31 14:10 G	32309539.91	32309540.09	32309540.27	0.0523	0.0311 *
Mercury	83749-11-09 05:17 G	32310066.60	32310066.72	32310066.85	0.0506	0.0144
Mars	83750-07-14 13:27 G	32310313.84	32310314.06	32310314.29	0.0499	0.0296
Venus	83752-06-04 11:03 G	32311004.88	32311004.96	32311005.06	0.0490	0.0438
Venus	83753-01-26 06:58 G	32311240.59	32311240.79	32311240.99	0.0491	0.0076
Venus	83753-09-19 03:08 G	32311476.47	32311476.63	32311476.79	0.0495	0.0297
Mercury	83756-01-08 16:34 G	32312318.03	32312318.19	32312318.35	0.0520	0.0176
Venus	83758-11-29 10:05 G	32313373.71	32313373.92	32313374.12	0.0535	0.0065
Venus	83759-07-25 17:03 G	32313612.09	32313612.21	32313612.34	0.0531	0.0423
Earth	83760-06-05 12:44 G	32313927.82	32313928.03	32313928.24	0.0522	0.0240

Moon	83760-06-05 14:10 G	32313927.87	32313928.09	32313928.31	0.0522	0.0232 *
Mercury	83761-08-28 09:22 G	32314376.76	32314376.89	32314377.03	0.0507	0.0027
Venus	83764-10-01 11:17 G	32315506.78	32315506.97	32315507.16	0.0490	0.0178
Venus	83765-05-25 06:29 G	32315742.59	32315742.77	32315742.96	0.0493	0.0194
Mercury	83767-10-27 13:41 G	32316627.98	32316628.07	32316628.17	0.0519	0.0431
Venus	83770-08-03 21:36 G	32317639.21	32317639.40	32317639.59	0.0537	0.0204
Venus	83771-03-30 05:46 G	32317877.57	32317877.74	32317877.91	0.0533	0.0293
Mercury	83773-06-16 13:41 G	32318686.95	32318687.07	32318687.20	0.0507	0.0186
Mercury	83773-09-13 20:24 G	32318776.32	32318776.35	32318776.38	0.0504	0.0491
Venus	83776-06-06 15:36 G	32319772.98	32319773.15	32319773.32	0.0490	0.0280
Venus	83777-01-28 10:48 G	32320008.75	32320008.95	32320009.15	0.0492	0.0090
Venus	83777-09-21 07:27 G	32320244.74	32320244.81	32320244.89	0.0497	0.0460
Mercury	83779-11-13 18:15 G	32321028.13	32321028.26	32321028.40	0.0522	0.0305
Venus	83782-04-08 10:34 G	32321904.79	32321904.94	32321905.10	0.0537	0.0339
Venus	83782-12-02 18:58 G	32322143.09	32322143.29	32322143.48	0.0534	0.0159
Mercury	83785-04-04 17:46 G	32322997.15	32322997.24	32322997.34	0.0508	0.0351
Mercury	83785-07-03 00:15 G	32323086.41	32323086.51	32323086.62	0.0505	0.0322
Venus	83788-02-10 18:44 G	32324039.16	32324039.28	32324039.42	0.0490	0.0381
Venus	83788-10-03 14:10 G	32324274.89	32324275.09	32324275.30	0.0492	0.0016
Venus	83789-05-27 10:20 G	32324510.80	32324510.93	32324511.07	0.0496	0.0358
Mercury	83791-09-01 16:34 G	32325338.02	32325338.19	32325338.36	0.0521	0.0070
Venus	83793-12-11 23:03 G	32326170.36	32326170.46	32326170.56	0.0537	0.0470
Venus	83794-08-07 06:58 G	32326408.59	32326408.79	32326409.00	0.0535	0.0022
Venus	83795-04-02 13:41 G	32326647.01	32326647.07	32326647.13	0.0530	0.0503
Mercury	83797-04-21 04:20 G	32327396.55	32327396.68	32327396.81	0.0505	0.0154
Venus	83799-10-16 23:17 G	32328305.44	32328305.47	32328305.52	0.0490	0.0478
Venus	83800-06-09 19:12 G	32328541.10	32328541.30	32328541.50	0.0491	0.0118
Venus	83801-01-31 15:08 G	32328776.96	32328777.13	32328777.30	0.0494	0.0255
Mercury	83803-06-21 14:39 G	32329647.94	32329648.11	32329648.27	0.0520	0.0173
Venus	83806-04-12 15:22 G	32330673.94	32330674.14	32330674.33	0.0536	0.0121

Venus	83806-12-06 22:34 G	32330912.29	32330912.44	32330912.58	0.0532	0.0371
Mercury	83809-02-08 07:41 G	32331706.69	32331706.82	32331706.96	0.0507	0.0029
Venus	83812-02-14 00:29 G	32332807.35	32332807.52	32332807.71	0.0491	0.0219
Venus	83812-10-06 20:10 G	32333043.15	32333043.34	32333043.54	0.0493	0.0155
Moon	83813-12-03 14:10 G	32333465.93	32333466.09	32333466.25	0.0503	0.0362
Earth	83813-12-03 17:46 G	32333466.08	32333466.24	32333466.39	0.0503	0.0370 *
Mercury	83815-04-09 12:29 G	32333957.91	32333958.02	32333958.12	0.0519	0.0416
Venus	83817-12-16 01:56 G	32334939.41	32334939.58	32334939.76	0.0536	0.0260
Venus	83818-08-11 09:51 G	32335177.72	32335177.91	32335178.09	0.0533	0.0237
Mercury	83820-11-27 12:00 G	32336016.87	32336017.00	32336017.12	0.0508	0.0190
Mercury	83821-02-24 18:29 G	32336106.24	32336106.27	32336106.30	0.0505	0.0489
Venus	83823-10-20 04:48 G	32337073.56	32337073.70	32337073.86	0.0490	0.0319
Venus	83824-06-12 00:15 G	32337309.31	32337309.51	32337309.71	0.0492	0.0050
Venus	83825-02-02 20:39 G	32337545.25	32337545.36	32337545.46	0.0496	0.0420
Earth	83825-12-08 03:08 G	32337853.40	32337853.63	32337853.86	0.0504	0.0071
Moon	83825-12-08 06:44 G	32337853.55	32337853.78	32337854.01	0.0504	0.0041 *
Mercury	83827-04-26 16:05 G	32338358.03	32338358.17	32338358.31	0.0521	0.0305
Venus	83829-08-20 13:27 G	32339204.93	32339205.06	32339205.20	0.0537	0.0396
Venus	83830-04-15 21:51 G	32339443.21	32339443.41	32339443.61	0.0535	0.0102
Earth	83831-06-01 15:22 G	32339854.97	32339855.14	32339855.31	0.0524	0.0361
Moon	83831-06-01 16:05 G	32339855.01	32339855.17	32339855.33	0.0524	0.0392 *
Mercury	83832-09-15 16:20 G	32340327.08	32340327.18	32340327.27	0.0508	0.0350
Mercury	83832-12-13 22:48 G	32340416.34	32340416.45	32340416.55	0.0505	0.0325
Venus	83835-06-25 09:22 G	32341339.79	32341339.89	32341340.00	0.0490	0.0417
Venus	83836-02-16 04:48 G	32341575.50	32341575.70	32341575.90	0.0491	0.0053
Venus	83836-10-09 00:29 G	32341811.37	32341811.52	32341811.67	0.0495	0.0320
Moon	83837-12-12 11:46 G	32342240.99	32342240.99	32342241.00	0.0506	0.0506
Mercury	83839-02-12 14:24 G	32342667.93	32342668.10	32342668.27	0.0521	0.0068
Mars	83839-10-07 11:32 G	32342904.79	32342904.98	32342905.19	0.0528	0.0352
Venus	83841-04-25 02:39 G	32343470.58	32343470.61	32343470.66	0.0537	0.0526

Venus	83841-12-19 10:48 G	32343708.75	32343708.95	32343709.16	0.0536	0.0037
Venus	83842-08-14 18:15 G	32343947.16	32343947.26	32343947.37	0.0531	0.0452
Moon	83843-06-06 15:08 G	32344242.92	32344243.13	32344243.35	0.0522	0.0172
Earth	83843-06-06 18:00 G	32344243.03	32344243.25	32344243.47	0.0522	0.0172 *
Mercury	83844-10-02 02:53 G	32344726.49	32344726.62	32344726.74	0.0506	0.0160
Venus	83847-10-22 08:24 G	32345841.66	32345841.85	32345842.05	0.0490	0.0158
Venus	83848-06-14 03:51 G	32346077.48	32346077.66	32346077.84	0.0494	0.0216
Mercury	83850-12-01 12:29 G	32346977.86	32346978.02	32346978.19	0.0520	0.0170
Venus	83853-08-23 23:17 G	32347974.28	32347974.47	32347974.66	0.0536	0.0173
Venus	83854-04-19 06:58 G	32348212.63	32348212.79	32348212.96	0.0532	0.0324
Mercury	83856-07-21 06:58 G	32349036.65	32349036.79	32349036.92	0.0506	0.0014
Venus	83859-06-27 13:41 G	32350107.90	32350108.07	32350108.24	0.0490	0.0259
Venus	83860-02-18 09:08 G	32350343.68	32350343.88	32350344.08	0.0493	0.0113
Venus	83860-10-11 06:00 G	32350579.72	32350579.75	32350579.81	0.0497	0.0483
Mercury	83862-09-19 10:34 G	32351287.84	32351287.94	32351288.05	0.0519	0.0408
Venus	83865-04-28 08:10 G	32352239.67	32352239.84	32352240.00	0.0537	0.0314
Venus	83865-12-22 15:36 G	32352477.96	32352478.15	32352478.35	0.0534	0.0185
Mercury	83868-05-09 10:20 G	32353346.81	32353346.93	32353347.06	0.0507	0.0185
Mercury	83868-08-06 17:03 G	32353436.19	32353436.21	32353436.24	0.0505	0.0493
Venus	83871-03-02 18:44 G	32354374.15	32354374.28	32354374.42	0.0490	0.0357
Venus	83871-10-24 14:24 G	32354609.90	32354610.10	32354610.31	0.0492	0.0017
Venus	83872-06-16 10:48 G	32354845.83	32354845.95	32354846.08	0.0496	0.0384
Mercury	83874-10-06 15:08 G	32355688.00	32355688.13	32355688.26	0.0521	0.0326
Venus	83876-12-31 19:27 G	32356505.20	32356505.31	32356505.42	0.0537	0.0448
Venus	83877-08-27 02:53 G	32356743.42	32356743.62	32356743.82	0.0535	0.0046
Venus	83878-04-22 09:22 G	32356981.87	32356981.89	32356981.92	0.0530	0.0525
Mercury	83880-02-26 14:39 G	32357657.01	32357657.11	32357657.20	0.0508	0.0350
Mercury	83880-05-25 21:08 G	32357746.27	32357746.38	32357746.48	0.0506	0.0326
Venus	83882-11-05 23:03 G	32358640.39	32358640.46	32358640.54	0.0490	0.0455
Venus	83883-06-29 18:58 G	32358876.09	32358876.29	32358876.49	0.0491	0.0092

Venus	83884-02-20 14:39 G	32359111.94	32359112.11	32359112.28	0.0494	0.0281
Mercury	83886-07-25 12:44 G	32359997.86	32359998.03	32359998.20	0.0520	0.0077
Venus	83889-05-01 14:24 G	32361008.90	32361009.10	32361009.30	0.0536	0.0094
Venus	83889-12-25 22:05 G	32361247.29	32361247.42	32361247.56	0.0532	0.0399
Mercury	83892-03-14 01:12 G	32362056.43	32362056.55	32362056.68	0.0506	0.0165
Venus	83895-03-04 23:46 G	32363142.30	32363142.49	32363142.67	0.0490	0.0195
Venus	83895-10-26 18:58 G	32363378.10	32363378.29	32363378.48	0.0493	0.0179
Earth	83896-12-02 23:03 G	32363781.35	32363781.46	32363781.57	0.0502	0.0438
Moon	83896-12-03 02:39 G	32363781.50	32363781.61	32363781.72	0.0502	0.0438 *
Mercury	83898-05-13 10:48 G	32364307.78	32364307.95	32364308.11	0.0520	0.0163
Venus	83901-01-05 03:36 G	32365274.47	32365274.65	32365274.84	0.0537	0.0231
Venus	83901-08-31 11:46 G	32365512.82	32365512.99	32365513.18	0.0533	0.0270
Mercury	83904-01-02 05:32 G	32366366.60	32366366.73	32366366.87	0.0506	0.0016
Venus	83906-11-09 03:22 G	32367408.49	32367408.64	32367408.81	0.0490	0.0297
Venus	83907-07-02 22:48 G	32367644.25	32367644.45	32367644.65	0.0492	0.0074
Venus	83908-02-23 19:12 G	32367880.22	32367880.30	32367880.39	0.0496	0.0444
Moon	83908-12-08 06:58 G	32368168.55	32368168.79	32368169.03	0.0504	0.0025
Earth	83908-12-08 10:05 G	32368168.69	32368168.92	32368169.15	0.0504	0.0010 *
Mercury	83910-03-02 08:53 G	32368617.76	32368617.87	32368617.98	0.0519	0.0401
Venus	83912-09-09 16:34 G	32369540.04	32369540.19	32369540.34	0.0537	0.0365
Venus	83913-05-06 00:44 G	32369778.33	32369778.53	32369778.73	0.0535	0.0134
Moon	83914-06-01 19:56 G	32370170.22	32370170.33	32370170.44	0.0524	0.0457
Earth	83914-06-01 22:20 G	32370170.30	32370170.43	32370170.57	0.0524	0.0423 *
Mercury	83915-10-21 09:51 G	32370676.78	32370676.91	32370677.03	0.0507	0.0163
Venus	83918-07-15 08:39 G	32371674.75	32371674.86	32371674.98	0.0490	0.0395
Venus	83919-03-08 04:20 G	32371910.48	32371910.68	32371910.88	0.0491	0.0029
Venus	83919-10-30 00:15 G	32372146.37	32372146.51	32372146.66	0.0495	0.0345
Earth	83920-12-12 23:46 G	32372556.42	32372556.49	32372556.58	0.0506	0.0472
Moon	83920-12-13 01:41 G	32372556.49	32372556.57	32372556.67	0.0506	0.0464 *
Mercury	83922-03-19 13:41 G	32373017.94	32373018.07	32373018.20	0.0521	0.0341

Venus	83924-05-15 02:24 G	32373805.53	32373805.60	32373805.67	0.0537	0.0498
Venus	83925-01-08 09:36 G	32374043.70	32374043.90	32374044.11	0.0535	0.0009
Venus	83925-09-03 16:20 G	32374282.10	32374282.18	32374282.27	0.0531	0.0477
Earth	83926-06-06 17:32 G	32374558.00	32374558.23	32374558.46	0.0523	0.0078
Moon	83926-06-06 21:22 G	32374558.16	32374558.39	32374558.62	0.0523	0.0088 *
Mercury	83927-08-09 13:12 G	32374986.96	32374987.05	32374987.15	0.0508	0.0342
Mercury	83927-11-06 19:41 G	32375076.22	32375076.32	32375076.42	0.0505	0.0335
Venus	83930-11-11 09:36 G	32376176.71	32376176.90	32376177.10	0.0491	0.0130
Venus	83931-07-05 05:32 G	32376412.55	32376412.73	32376412.91	0.0494	0.0245
Mercury	83934-01-05 12:00 G	32377327.83	32377328.00	32377328.17	0.0520	0.0106
Venus	83936-09-12 20:53 G	32378309.17	32378309.37	32378309.57	0.0536	0.0147
Venus	83937-05-09 04:05 G	32378547.52	32378547.67	32378547.83	0.0532	0.0348
Mercury	83939-05-28 17:32 G	32379297.22	32379297.23	32379297.24	0.0509	0.0506
Mercury	83939-08-25 23:46 G	32379386.37	32379386.49	32379386.62	0.0506	0.0169
Venus	83942-07-17 14:24 G	32380442.92	32380443.10	32380443.28	0.0490	0.0232
Venus	83943-03-10 09:51 G	32380678.72	32380678.91	32380679.10	0.0493	0.0141
Mercury	83945-10-24 09:22 G	32381637.73	32381637.89	32381638.06	0.0519	0.0146
Venus	83948-05-18 08:10 G	32382574.67	32382574.84	32382575.01	0.0537	0.0287
Venus	83949-01-11 16:20 G	32382812.99	32382813.18	32382813.37	0.0534	0.0214
Mercury	83951-06-14 04:05 G	32383696.54	32383696.67	32383696.81	0.0507	0.0018
Venus	83954-03-22 18:58 G	32384709.15	32384709.29	32384709.44	0.0490	0.0333
Venus	83954-11-13 14:24 G	32384944.90	32384945.10	32384945.30	0.0492	0.0037
Venus	83955-07-07 10:34 G	32385180.83	32385180.94	32385181.05	0.0496	0.0409
Mercury	83957-08-12 07:27 G	32385947.70	32385947.81	32385947.93	0.0519	0.0387
Venus	83960-01-21 21:36 G	32386840.27	32386840.40	32386840.52	0.0537	0.0420
Venus	83960-09-16 05:46 G	32387078.54	32387078.74	32387078.94	0.0535	0.0078
Mercury	83963-04-02 08:39 G	32388006.73	32388006.86	32388006.99	0.0507	0.0152
Venus	83965-11-25 23:03 G	32388975.36	32388975.46	32388975.55	0.0490	0.0431
Venus	83966-07-19 18:44 G	32389211.08	32389211.28	32389211.48	0.0491	0.0067
Venus	83967-03-12 14:10 G	32389446.94	32389447.09	32389447.25	0.0494	0.0308

Mercury	83969-08-29 12:15 G	32390347.89	32390348.01	32390348.13	0.0521	0.0353
Venus	83972-05-21 18:44 G	32391344.07	32391344.28	32391344.48	0.0536	0.0060
Venus	83973-01-15 02:10 G	32391582.48	32391582.59	32391582.71	0.0532	0.0433
Mercury	83975-01-19 12:58 G	32392316.93	32392317.04	32392317.14	0.0508	0.0315
Mercury	83975-04-18 19:12 G	32392406.21	32392406.30	32392406.40	0.0505	0.0361
Venus	83978-03-25 00:15 G	32393477.32	32393477.51	32393477.70	0.0490	0.0169
Venus	83978-11-15 19:41 G	32393713.14	32393713.32	32393713.50	0.0493	0.0206
Moon	83979-12-04 06:58 G	32394096.75	32394096.79	32394096.85	0.0502	0.0488
Earth	83979-12-04 10:05 G	32394096.86	32394096.92	32394096.99	0.0502	0.0481
Mercury	83981-06-17 10:48 G	32394657.79	32394657.95	32394658.12	0.0520	0.0125
Venus	83984-01-25 04:20 G	32395609.50	32395609.68	32395609.87	0.0536	0.0200
Venus	83984-09-19 11:46 G	32395847.82	32395847.99	32395848.16	0.0533	0.0299
Mercury	83986-11-07 16:20 G	32396627.15	32396627.18	32396627.21	0.0509	0.0494
Mercury	83987-02-04 22:34 G	32396716.32	32396716.44	32396716.57	0.0506	0.0181
Venus	83989-11-28 05:03 G	32397743.54	32397743.71	32397743.88	0.0491	0.0270
Venus	83990-07-22 00:58 G	32397979.35	32397979.54	32397979.74	0.0493	0.0105
Venus	83991-03-14 22:05 G	32398215.37	32398215.42	32398215.48	0.0497	0.0474
Earth	83991-12-08 23:17 G	32398484.24	32398484.47	32398484.71	0.0504	0.0028
Moon	83991-12-09 01:12 G	32398484.32	32398484.55	32398484.77	0.0504	0.0059 *
Mercury	83993-04-05 09:22 G	32398967.72	32398967.89	32398968.05	0.0519	0.0112
Venus	83995-09-29 15:51 G	32399875.01	32399875.16	32399875.32	0.0536	0.0337
Venus	83996-05-24 23:17 G	32400113.27	32400113.47	32400113.66	0.0534	0.0162
Earth	83997-05-31 21:51 G	32400485.39	32400485.41	32400485.45	0.0525	0.0519
Mercury	83998-11-24 02:53 G	32401026.48	32401026.62	32401026.75	0.0507	0.0021

85TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 85th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	84001-08-03 09:51	G	32402009.78	32402009.91	32402010.05	0.0490	0.0370	
Venus	84002-03-27 05:46	G	32402245.54	32402245.74	32402245.94	0.0492	0.0001	
Venus	84002-11-18 01:41	G	32402481.45	32402481.57	32402481.71	0.0495	0.0374	
Moon	84003-12-13 09:36	G	32402871.77	32402871.90	32402872.04	0.0505	0.0415	
Earth	84003-12-13 09:51	G	32402871.79	32402871.91	32402872.05	0.0505	0.0421	*
Mercury	84005-01-22 06:29	G	32403277.65	32403277.77	32403277.90	0.0519	0.0363	
Venus	84007-06-04 03:08	G	32404140.54	32404140.63	32404140.73	0.0537	0.0472	
Venus	84008-01-28 11:03	G	32404378.75	32404378.96	32404379.16	0.0535	0.0025	
Venus	84008-09-22 18:00	G	32404617.20	32404617.25	32404617.31	0.0531	0.0508	
Moon	84009-06-05 20:10	G	32404873.11	32404873.34	32404873.58	0.0523	0.0024	
Earth	84009-06-06 00:15	G	32404873.28	32404873.51	32404873.75	0.0523	0.0015	*
Mercury	84010-09-12 07:12	G	32405336.67	32405336.80	32405336.93	0.0508	0.0146	
Venus	84013-04-08 14:24	G	32406276.05	32406276.10	32406276.16	0.0490	0.0467	
Venus	84013-11-30 10:34	G	32406511.74	32406511.94	32406512.14	0.0491	0.0104	
Venus	84014-07-24 06:00	G	32406747.59	32406747.75	32406747.93	0.0494	0.0272	
Mercury	84017-02-08 11:03	G	32407677.84	32407677.96	32407678.08	0.0521	0.0370	
Venus	84019-10-03 00:00	G	32408644.30	32408644.50	32408644.70	0.0536	0.0115	
Venus	84020-05-28 07:56	G	32408882.69	32408882.83	32408882.97	0.0532	0.0382	
Mercury	84022-07-01 11:46	G	32409646.88	32409646.99	32409647.10	0.0508	0.0303	
Mercury	84022-09-28 18:15	G	32409736.17	32409736.26	32409736.35	0.0505	0.0373	
Mars	84023-03-31 05:17	G	32409919.45	32409919.72	32409919.99	0.0500	0.0138	
Venus	84025-08-05 14:53	G	32410777.94	32410778.12	32410778.31	0.0490	0.0206	
Venus	84026-03-29 10:20	G	32411013.74	32411013.93	32411014.12	0.0493	0.0168	
Mercury	84028-11-27 09:36	G	32411987.73	32411987.90	32411988.06	0.0521	0.0138	
Venus	84031-06-07 13:12	G	32412909.87	32412910.05	32412910.23	0.0537	0.0251	

Venus	84032-01-31 21:22 G	32413148.21	32413148.39	32413148.57	0.0534	0.0251
Mercury	84034-04-19 16:05 G	32413957.12	32413957.17	32413957.22	0.0509	0.0464
Mercury	84034-07-17 22:20 G	32414046.31	32414046.43	32414046.56	0.0506	0.0210
Venus	84037-04-10 20:10 G	32415044.19	32415044.34	32415044.50	0.0490	0.0307
Venus	84037-12-02 15:51 G	32415279.96	32415280.16	32415280.36	0.0492	0.0065
Venus	84038-07-26 12:15 G	32415515.92	32415516.01	32415516.11	0.0496	0.0438
Mercury	84040-09-15 08:24 G	32416297.68	32416297.85	32416298.02	0.0520	0.0090
Venus	84043-02-10 00:00 G	32417175.37	32417175.50	32417175.65	0.0536	0.0388
Venus	84043-10-06 07:12 G	32417413.60	32417413.80	32417414.00	0.0534	0.0111
Mercury	84046-05-06 01:41 G	32418356.44	32418356.57	32418356.71	0.0507	0.0033
Venus	84048-12-15 00:29 G	32419310.41	32419310.52	32419310.64	0.0490	0.0406
Venus	84049-08-07 21:08 G	32419546.18	32419546.38	32419546.58	0.0492	0.0037
Venus	84050-03-31 17:17 G	32419782.08	32419782.22	32419782.37	0.0495	0.0339
Mercury	84052-07-04 06:29 G	32420607.64	32420607.77	32420607.91	0.0519	0.0324
Venus	84054-10-15 12:00 G	32421440.96	32421441.00	32421441.06	0.0536	0.0519
Venus	84055-06-10 18:44 G	32421679.07	32421679.28	32421679.48	0.0535	0.0029
Venus	84056-02-04 01:27 G	32421917.46	32421917.56	32421917.66	0.0531	0.0461
Mercury	84058-02-22 06:00 G	32422666.62	32422666.75	32422666.88	0.0508	0.0139
Venus	84061-04-13 01:41 G	32423812.38	32423812.57	32423812.77	0.0491	0.0142
Venus	84061-12-04 21:36 G	32424048.22	32424048.40	32424048.58	0.0494	0.0235
Mercury	84064-07-21 10:20 G	32425007.83	32425007.93	32425008.04	0.0521	0.0397
Venus	84067-02-13 06:00 G	32425944.56	32425944.75	32425944.95	0.0536	0.0170
Venus	84067-10-09 13:41 G	32426182.91	32426183.07	32426183.23	0.0533	0.0330
Mercury	84069-12-11 10:20 G	32426976.83	32426976.93	32426977.04	0.0509	0.0297
Mercury	84070-03-10 16:48 G	32427066.12	32427066.20	32427066.29	0.0506	0.0381
Venus	84072-12-17 06:44 G	32428078.60	32428078.78	32428078.95	0.0490	0.0243
Venus	84073-08-10 02:24 G	32428314.40	32428314.60	32428314.79	0.0492	0.0132
Moon	84074-12-08 08:39 G	32428799.63	32428799.86	32428800.10	0.0503	0.0108
Earth	84074-12-08 08:53 G	32428799.64	32428799.87	32428800.10	0.0503	0.0078 *
Mercury	84076-05-09 08:39 G	32429317.70	32429317.86	32429318.02	0.0520	0.0160

Venus	84078-10-18 18:58 G	32430210.13	32430210.29	32430210.46	0.0537	0.0307
Venus	84079-06-14 03:08 G	32430448.44	32430448.63	32430448.82	0.0534	0.0197
Mercury	84081-09-29 14:53 G	32431287.07	32431287.12	32431287.18	0.0509	0.0454
Mercury	84081-12-27 21:22 G	32431376.27	32431376.39	32431376.51	0.0506	0.0222
Venus	84084-08-22 11:03 G	32432344.82	32432344.96	32432345.11	0.0490	0.0344
Venus	84085-04-15 06:44 G	32432580.58	32432580.78	32432580.98	0.0492	0.0028
Venus	84085-12-07 02:39 G	32432816.50	32432816.61	32432816.73	0.0495	0.0401
Moon	84086-12-12 18:44 G	32433187.14	32433187.28	32433187.43	0.0505	0.0379
Earth	84086-12-12 20:24 G	32433187.20	32433187.35	32433187.51	0.0505	0.0373 *
Mercury	84088-02-26 06:58 G	32433627.62	32433627.79	32433627.96	0.0520	0.0076
Venus	84090-06-23 08:39 G	32434475.74	32434475.86	32434475.98	0.0537	0.0438
Venus	84091-02-16 16:34 G	32434713.98	32434714.19	32434714.39	0.0535	0.0061
Earth	84092-06-05 11:46 G	32435188.76	32435188.99	32435189.23	0.0524	0.0030
Moon	84092-06-05 15:08 G	32435188.90	32435189.13	32435189.36	0.0524	0.0015 *
Mercury	84093-10-16 01:27 G	32435686.43	32435686.56	32435686.70	0.0507	0.0062
Venus	84096-04-27 15:51 G	32436611.09	32436611.16	32436611.26	0.0490	0.0443
Venus	84096-12-19 12:15 G	32436846.81	32436847.01	32436847.21	0.0491	0.0076
Venus	84097-08-12 08:10 G	32437082.68	32437082.84	32437083.00	0.0494	0.0301
Mercury	84099-12-15 05:32 G	32437937.59	32437937.73	32437937.88	0.0519	0.0302
Venus	84102-10-23 02:53 G	32438979.42	32438979.62	32438979.83	0.0535	0.0082
Venus	84103-06-18 09:51 G	32439217.78	32439217.91	32439218.04	0.0531	0.0414
Moon	84104-06-11 05:46 G	32439576.68	32439576.74	32439576.81	0.0521	0.0499
Earth	84104-06-11 07:41 G	32439576.72	32439576.82	32439576.92	0.0521	0.0471 *
Mercury	84105-08-05 04:48 G	32439996.58	32439996.70	32439996.83	0.0508	0.0125
Venus	84108-08-25 16:48 G	32441113.02	32441113.20	32441113.40	0.0491	0.0179
Venus	84109-04-18 13:12 G	32441348.86	32441349.05	32441349.23	0.0493	0.0199
Mercury	84112-01-02 10:20 G	32442337.85	32442337.93	32442338.03	0.0521	0.0437
Mars	84112-06-24 03:36 G	32442511.39	32442511.65	32442511.91	0.0526	0.0075
Venus	84114-06-27 14:39 G	32443244.92	32443245.11	32443245.29	0.0536	0.0220
Venus	84115-02-20 21:36 G	32443483.23	32443483.40	32443483.58	0.0533	0.0281

Mercury	84117-05-24 09:08 G	32444306.77	32444306.88	32444306.99	0.0508	0.0289
Mercury	84117-08-21 15:36 G	32444396.06	32444396.15	32444396.23	0.0506	0.0389
Venus	84120-04-30 21:36 G	32445379.24	32445379.40	32445379.57	0.0491	0.0281
Venus	84120-12-22 17:32 G	32445615.04	32445615.23	32445615.43	0.0492	0.0095
Venus	84121-08-15 14:24 G	32445851.04	32445851.10	32445851.17	0.0496	0.0466
Mercury	84123-10-21 07:56 G	32446647.68	32446647.83	32446648.00	0.0520	0.0189
Venus	84126-03-02 01:41 G	32447510.43	32447510.57	32447510.73	0.0536	0.0360
Venus	84126-10-26 09:08 G	32447748.68	32447748.88	32447749.08	0.0534	0.0142
Mercury	84129-03-12 13:27 G	32448617.01	32448617.06	32448617.13	0.0509	0.0449
Mercury	84129-06-09 19:56 G	32448706.21	32448706.33	32448706.45	0.0507	0.0228
Venus	84132-01-05 02:24 G	32449645.48	32449645.60	32449645.73	0.0490	0.0381
Venus	84132-08-27 22:34 G	32449881.24	32449881.44	32449881.64	0.0491	0.0010
Venus	84133-04-20 18:29 G	32450117.14	32450117.27	32450117.41	0.0495	0.0366
Mercury	84135-08-09 06:00 G	32450957.58	32450957.75	32450957.93	0.0519	0.0052
Venus	84137-11-04 14:53 G	32451776.04	32451776.12	32451776.19	0.0537	0.0491
Venus	84138-06-30 22:05 G	32452014.21	32452014.42	32452014.62	0.0536	0.0006
Venus	84139-02-24 05:32 G	32452252.66	32452252.73	32452252.80	0.0531	0.0494
Mercury	84141-03-29 00:15 G	32453016.38	32453016.51	32453016.65	0.0507	0.0072
Venus	84143-09-10 06:44 G	32453911.74	32453911.78	32453911.82	0.0490	0.0478
Venus	84144-05-03 02:53 G	32454147.42	32454147.62	32454147.82	0.0491	0.0114
Venus	84144-12-24 22:34 G	32454383.27	32454383.44	32454383.61	0.0494	0.0263
Mercury	84147-05-28 04:05 G	32455267.53	32455267.67	32455267.82	0.0519	0.0290
Venus	84150-03-05 11:32 G	32456279.78	32456279.98	32456280.18	0.0536	0.0133
Venus	84150-10-29 18:58 G	32456518.15	32456518.29	32456518.45	0.0533	0.0368
Mercury	84153-01-15 04:48 G	32457326.57	32457326.70	32457326.83	0.0508	0.0093
Venus	84156-01-07 08:10 G	32458413.66	32458413.84	32458414.03	0.0490	0.0216
Venus	84156-08-30 04:05 G	32458649.48	32458649.67	32458649.86	0.0493	0.0161
Moon	84157-12-08 20:10 G	32459115.13	32459115.34	32459115.56	0.0503	0.0141
Earth	84157-12-08 21:51 G	32459115.19	32459115.41	32459115.64	0.0503	0.0115 *
Mercury	84159-03-16 02:39 G	32459577.61	32459577.61	32459577.63	0.0518	0.0518

Mercury	84159-06-14 09:22 G	32459667.82	32459667.89	32459667.98	0.0521	0.0458
Venus	84161-11-07 22:48 G	32460545.28	32460545.45	32460545.63	0.0536	0.0272
Venus	84162-07-04 05:46 G	32460783.56	32460783.74	32460783.93	0.0533	0.0231
Mercury	84164-11-03 08:10 G	32461636.73	32461636.84	32461636.95	0.0508	0.0274
Mercury	84165-01-31 14:39 G	32461726.03	32461726.11	32461726.19	0.0506	0.0403
Venus	84167-09-12 12:15 G	32462679.86	32462680.01	32462680.16	0.0491	0.0319
Venus	84168-05-05 08:39 G	32462915.66	32462915.86	32462916.06	0.0492	0.0056
Venus	84168-12-27 05:32 G	32463151.64	32463151.73	32463151.83	0.0496	0.0431
Earth	84169-12-13 11:17 G	32463502.80	32463502.97	32463503.14	0.0505	0.0343
Moon	84169-12-13 14:39 G	32463502.95	32463503.11	32463503.28	0.0505	0.0363 *
Mercury	84171-04-02 08:10 G	32463977.68	32463977.84	32463977.99	0.0520	0.0227
Venus	84173-07-13 11:03 G	32464810.83	32464810.96	32464811.09	0.0536	0.0408
Venus	84174-03-08 17:32 G	32465049.03	32465049.23	32465049.44	0.0534	0.0092
Moon	84175-06-06 11:17 G	32465503.74	32465503.97	32465504.21	0.0524	0.0101
Earth	84175-06-06 13:41 G	32465503.84	32465504.07	32465504.30	0.0524	0.0116 *
Mercury	84176-08-22 12:15 G	32465946.95	32465947.01	32465947.08	0.0509	0.0441
Mercury	84176-11-19 18:44 G	32466036.16	32466036.28	32466036.39	0.0506	0.0236
Mars	84177-06-25 13:12 G	32466253.86	32466254.05	32466254.25	0.0500	0.0357
Venus	84179-05-18 16:34 G	32466946.09	32466946.19	32466946.30	0.0491	0.0420
Venus	84180-01-09 13:12 G	32467181.85	32467182.05	32467182.26	0.0491	0.0050
Venus	84180-09-01 09:51 G	32467417.76	32467417.91	32467418.06	0.0495	0.0329
Mercury	84183-01-19 05:32 G	32468287.56	32468287.73	32468287.90	0.0519	0.0024
Venus	84185-11-11 04:20 G	32469314.48	32469314.68	32469314.89	0.0535	0.0052
Venus	84186-07-07 11:17 G	32469552.86	32469552.97	32469553.09	0.0532	0.0444
Earth	84187-06-11 14:24 G	32469891.96	32469892.10	32469892.25	0.0522	0.0410
Moon	84187-06-11 14:10 G	32469891.97	32469892.09	32469892.21	0.0522	0.0434 *
Mercury	84188-09-07 23:03 G	32470346.32	32470346.46	32470346.59	0.0507	0.0076
Venus	84191-09-14 18:15 G	32471448.07	32471448.26	32471448.46	0.0491	0.0153
Venus	84192-05-07 14:10 G	32471683.91	32471684.09	32471684.27	0.0493	0.0226
Mercury	84194-11-07 03:22 G	32472597.49	32472597.64	32472597.79	0.0519	0.0267

Venus	84197-07-16 17:03 G	32473580.02	32473580.21	32473580.40	0.0536	0.0191
Venus	84198-03-12 00:44 G	32473818.37	32473818.53	32473818.70	0.0533	0.0313
Mercury	84200-06-28 03:22 G	32474656.51	32474656.64	32474656.77	0.0508	0.0085
Venus	84203-05-21 22:34 G	32475714.27	32475714.44	32475714.61	0.0490	0.0255
Venus	84204-01-12 18:15 G	32475950.06	32475950.26	32475950.46	0.0492	0.0121
Venus	84204-09-04 15:08 G	32476186.11	32476186.13	32476186.15	0.0496	0.0493
Mercury	84206-08-27 01:12 G	32476907.52	32476907.55	32476907.58	0.0518	0.0508
Mercury	84206-11-25 07:41 G	32476997.75	32476997.82	32476997.90	0.0521	0.0467
Venus	84209-03-22 06:29 G	32477845.61	32477845.77	32477845.93	0.0537	0.0325
Venus	84209-11-15 14:10 G	32478083.89	32478084.09	32478084.28	0.0534	0.0180
Mercury	84212-04-16 07:41 G	32478966.71	32478966.82	32478966.94	0.0508	0.0247
Mercury	84212-07-14 14:10 G	32479056.03	32479056.09	32479056.16	0.0505	0.0432
Venus	84215-01-25 03:36 G	32479980.51	32479980.65	32479980.79	0.0490	0.0356
Venus	84215-09-17 23:46 G	32480216.28	32480216.49	32480216.69	0.0492	0.0019
Venus	84216-05-10 19:56 G	32480452.21	32480452.33	32480452.46	0.0495	0.0394
Mercury	84218-09-13 06:44 G	32481307.63	32481307.78	32481307.94	0.0520	0.0244
Venus	84220-11-24 18:58 G	32482111.19	32482111.29	32482111.40	0.0536	0.0459
Venus	84221-07-21 01:27 G	32482349.35	32482349.56	32482349.76	0.0535	0.0039
Venus	84222-03-16 07:41 G	32482587.79	32482587.82	32482587.84	0.0530	0.0525
Mercury	84224-02-03 11:17 G	32483276.90	32483276.97	32483277.04	0.0509	0.0427
Mercury	84224-05-02 17:32 G	32483366.11	32483366.23	32483366.35	0.0506	0.0248
Venus	84226-09-30 06:29 G	32484246.71	32484246.77	32484246.85	0.0491	0.0458
Venus	84227-05-24 03:36 G	32484482.45	32484482.65	32484482.85	0.0492	0.0088
Venus	84228-01-15 00:15 G	32484718.34	32484718.51	32484718.67	0.0494	0.0292
Mercury	84230-07-02 05:17 G	32485617.55	32485617.72	32485617.89	0.0520	0.0011
Venus	84233-03-25 12:58 G	32486614.85	32486615.04	32486615.25	0.0535	0.0103
Venus	84233-11-18 19:27 G	32486853.18	32486853.31	32486853.45	0.0532	0.0396
Mercury	84236-02-19 21:36 G	32487676.26	32487676.40	32487676.53	0.0507	0.0080
Venus	84239-01-27 08:10 G	32488748.66	32488748.84	32488749.03	0.0491	0.0194
Venus	84239-09-20 04:34 G	32488984.50	32488984.69	32488984.88	0.0493	0.0186

Earth	84240-12-09 07:56 G	32489430.61	32489430.83	32489431.05	0.0503	0.0162
Moon	84240-12-09 11:32 G	32489430.76	32489430.98	32489431.20	0.0503	0.0179 *
Mercury	84242-04-20 02:24 G	32489927.45	32489927.60	32489927.76	0.0519	0.0242
Venus	84244-11-27 23:17 G	32490880.30	32490880.47	32490880.66	0.0536	0.0246
Venus	84245-07-24 06:29 G	32491118.59	32491118.77	32491118.95	0.0533	0.0259
Mercury	84247-12-09 01:56 G	32491986.44	32491986.58	32491986.71	0.0508	0.0084
Venus	84250-10-02 12:58 G	32493014.88	32493015.04	32493015.21	0.0491	0.0295
Venus	84251-05-26 09:08 G	32493250.68	32493250.88	32493251.08	0.0492	0.0082
Venus	84252-01-17 05:46 G	32493486.67	32493486.74	32493486.82	0.0496	0.0456
Moon	84252-12-13 14:53 G	32493817.95	32493818.12	32493818.31	0.0504	0.0307
Earth	84252-12-13 19:12 G	32493818.11	32493818.30	32493818.49	0.0504	0.0285 *
Mercury	84254-02-06 00:00 G	32494237.45	32494237.50	32494237.56	0.0518	0.0488
Mercury	84254-05-07 06:44 G	32494327.72	32494327.78	32494327.84	0.0521	0.0484
Venus	84256-08-02 11:46 G	32495145.86	32495145.99	32495146.14	0.0536	0.0383
Venus	84257-03-28 19:12 G	32495384.10	32495384.30	32495384.50	0.0535	0.0122
Earth	84258-06-06 21:22 G	32495819.17	32495819.39	32495819.61	0.0524	0.0174
Moon	84258-06-06 21:36 G	32495819.18	32495819.40	32495819.61	0.0524	0.0152 *
Mercury	84259-09-27 06:15 G	32496296.65	32496296.76	32496296.88	0.0509	0.0242
Mercury	84259-12-25 12:44 G	32496385.97	32496386.03	32496386.10	0.0506	0.0437
Venus	84262-06-07 17:17 G	32497281.10	32497281.22	32497281.34	0.0490	0.0396
Venus	84263-01-29 13:27 G	32497516.86	32497517.06	32497517.26	0.0491	0.0023
Venus	84263-09-22 09:36 G	32497752.76	32497752.90	32497753.04	0.0495	0.0355
Mercury	84266-02-23 04:48 G	32498637.55	32498637.70	32498637.85	0.0520	0.0247
Mars	84266-09-19 15:36 G	32498846.03	32498846.15	32498846.30	0.0527	0.0451
Venus	84268-04-07 01:12 G	32499411.50	32499411.55	32499411.62	0.0537	0.0513
Venus	84268-12-01 08:10 G	32499649.64	32499649.84	32499650.05	0.0536	0.0017
Venus	84269-07-27 15:22 G	32499888.05	32499888.14	32499888.23	0.0531	0.0478
Earth	84270-06-11 23:46 G	32500207.32	32500207.49	32500207.66	0.0522	0.0357
Moon	84270-06-12 02:10 G	32500207.42	32500207.59	32500207.76	0.0522	0.0374 *
Mercury	84271-07-16 10:48 G	32500606.87	32500606.95	32500607.03	0.0509	0.0403

Mercury	84271-10-13 17:03 G	32500696.10	32500696.21	32500696.32	0.0506	0.0273
Venus	84274-10-04 18:29 G	32501783.07	32501783.27	32501783.47	0.0491	0.0127
Venus	84275-05-28 14:24 G	32502018.93	32502019.10	32502019.28	0.0494	0.0253
Mercury	84277-12-12 03:36 G	32502947.48	32502947.65	32502947.83	0.0520	0.0024
Venus	84280-08-05 20:24 G	32503915.15	32503915.35	32503915.54	0.0536	0.0158
Venus	84281-04-01 02:53 G	32504153.47	32504153.62	32504153.78	0.0532	0.0345
Mercury	84283-08-01 20:24 G	32505006.22	32505006.35	32505006.48	0.0507	0.0090
Venus	84286-06-09 21:36 G	32506049.23	32506049.40	32506049.59	0.0491	0.0234
Venus	84287-01-31 18:15 G	32506285.07	32506285.26	32506285.45	0.0493	0.0147
Mercury	84289-09-30 01:56 G	32507257.42	32507257.58	32507257.74	0.0519	0.0214
Venus	84292-04-10 08:10 G	32508180.67	32508180.84	32508181.01	0.0536	0.0297
Venus	84292-12-04 14:24 G	32508418.92	32508419.10	32508419.29	0.0533	0.0208
Mercury	84295-05-21 00:15 G	32509316.38	32509316.51	32509316.65	0.0508	0.0082
Venus	84298-02-13 02:10 G	32510315.44	32510315.59	32510315.74	0.0491	0.0337
Venus	84298-10-06 22:48 G	32510551.25	32510551.45	32510551.65	0.0492	0.0041
Venus	84299-05-30 19:27 G	32510787.21	32510787.31	32510787.42	0.0496	0.0418
Mercury	84301-07-19 23:03 G	32511567.39	32511567.46	32511567.53	0.0518	0.0469
Mercury	84301-10-18 05:32 G	32511657.69	32511657.73	32511657.77	0.0521	0.0503
Venus	84303-12-15 18:15 G	32512446.15	32512446.26	32512446.38	0.0536	0.0436
Venus	84304-08-10 00:44 G	32512684.33	32512684.53	32512684.74	0.0535	0.0065
Mercury	84307-03-10 04:34 G	32513626.58	32513626.69	32513626.81	0.0509	0.0243
Mercury	84307-06-07 11:03 G	32513715.90	32513715.96	32513716.03	0.0506	0.0436
Venus	84309-10-20 06:29 G	32514581.69	32514581.77	32514581.87	0.0491	0.0437
Venus	84310-06-13 03:22 G	32514817.44	32514817.64	32514817.85	0.0491	0.0065
Venus	84311-02-03 23:32 G	32515053.33	32515053.48	32515053.64	0.0494	0.0315
Mercury	84313-08-06 03:22 G	32515967.50	32515967.64	32515967.79	0.0520	0.0261
Venus	84316-04-14 12:44 G	32516949.83	32516950.03	32516950.23	0.0536	0.0076
Venus	84316-12-08 19:41 G	32517188.20	32517188.32	32517188.45	0.0532	0.0424
Mercury	84318-12-27 09:08 G	32517936.80	32517936.88	32517936.96	0.0509	0.0403
Mercury	84319-03-26 15:22 G	32518026.03	32518026.14	32518026.25	0.0506	0.0274

Venus	84322-02-16 07:41 G	32519083.63	32519083.82	32519084.01	0.0491	0.0169
Venus	84322-10-10 03:36 G	32519319.46	32519319.65	32519319.83	0.0493	0.0211
Moon	84323-12-10 10:20 G	32519745.73	32519745.93	32519746.13	0.0502	0.0247
Earth	84323-12-10 14:10 G	32519745.89	32519746.09	32519746.30	0.0502	0.0227 *
Mercury	84325-05-25 01:12 G	32520277.38	32520277.55	32520277.73	0.0519	0.0023
Venus	84327-12-19 01:41 G	32521215.38	32521215.57	32521215.76	0.0536	0.0215
Venus	84328-08-13 09:08 G	32521453.71	32521453.88	32521454.05	0.0533	0.0292
Mercury	84331-01-12 19:41 G	32522336.19	32522336.32	32522336.45	0.0507	0.0110
Venus	84333-10-22 12:15 G	32523349.84	32523350.01	32523350.18	0.0490	0.0272
Venus	84334-06-15 08:10 G	32523585.65	32523585.84	32523586.04	0.0492	0.0107
Venus	84335-02-06 05:03 G	32523821.67	32523821.71	32523821.76	0.0496	0.0481
Earth	84335-12-15 02:53 G	32524133.42	32524133.62	32524133.83	0.0504	0.0227
Moon	84335-12-15 06:44 G	32524133.59	32524133.78	32524133.98	0.0504	0.0253 *
Mercury	84337-03-12 23:46 G	32524587.34	32524587.49	32524587.65	0.0519	0.0212
Venus	84339-08-23 14:39 G	32525480.96	32525481.11	32525481.27	0.0536	0.0352
Venus	84340-04-17 21:08 G	32525719.18	32525719.38	32525719.58	0.0534	0.0153
Earth	84341-06-07 00:29 G	32526134.32	32526134.52	32526134.73	0.0524	0.0253
Moon	84341-06-07 02:10 G	32526134.37	32526134.59	32526134.81	0.0524	0.0222 *
Mercury	84342-10-31 23:03 G	32526646.33	32526646.46	32526646.59	0.0507	0.0072
Venus	84345-06-27 14:39 G	32527615.99	32527616.11	32527616.24	0.0491	0.0378
Venus	84346-02-18 11:32 G	32527851.78	32527851.98	32527852.19	0.0492	0.0010
Venus	84346-10-12 08:39 G	32528087.73	32528087.86	32528087.98	0.0495	0.0379
Mercury	84348-12-29 21:51 G	32528897.33	32528897.41	32528897.50	0.0518	0.0450
Venus	84351-04-28 02:39 G	32529746.54	32529746.61	32529746.70	0.0536	0.0487
Venus	84351-12-22 08:39 G	32529984.65	32529984.86	32529985.06	0.0535	0.0017
Venus	84352-08-16 14:24 G	32530223.04	32530223.10	32530223.16	0.0530	0.0502
Moon	84353-06-11 19:56 G	32530522.15	32530522.33	32530522.53	0.0522	0.0281
Earth	84353-06-11 23:17 G	32530522.27	32530522.47	32530522.68	0.0522	0.0263 *
Mercury	84354-08-20 02:53 G	32530956.51	32530956.62	32530956.74	0.0508	0.0243
Mercury	84354-11-17 09:22 G	32531045.83	32531045.89	32531045.96	0.0505	0.0435

Venus	84357-03-02 18:29 G	32531882.24	32531882.27	32531882.32	0.0491	0.0479
Venus	84357-10-24 16:05 G	32532117.97	32532118.17	32532118.37	0.0491	0.0108
Venus	84358-06-17 12:29 G	32532353.85	32532354.02	32532354.19	0.0494	0.0274
Mercury	84361-01-16 01:56 G	32533297.44	32533297.58	32533297.73	0.0520	0.0273
Venus	84363-08-26 18:15 G	32534250.06	32534250.26	32534250.46	0.0536	0.0134
Venus	84364-04-21 00:58 G	32534488.39	32534488.54	32534488.68	0.0532	0.0369
Mercury	84366-06-08 07:12 G	32535266.72	32535266.80	32535266.88	0.0509	0.0407
Mercury	84366-09-05 13:27 G	32535355.95	32535356.06	32535356.17	0.0506	0.0269
Venus	84369-06-29 20:39 G	32536384.18	32536384.36	32536384.55	0.0491	0.0212
Venus	84370-02-20 16:48 G	32536620.01	32536620.20	32536620.40	0.0493	0.0169
Mercury	84372-11-03 23:32 G	32537607.31	32537607.48	32537607.66	0.0519	0.0029
Venus	84375-05-01 05:46 G	32538515.57	32538515.74	32538515.92	0.0536	0.0275
Venus	84375-12-25 12:44 G	32538753.85	32538754.03	32538754.22	0.0534	0.0232
Mercury	84378-06-24 17:46 G	32539666.11	32539666.24	32539666.37	0.0507	0.0106
Venus	84381-03-05 00:44 G	32540650.37	32540650.53	32540650.69	0.0490	0.0315
Venus	84381-10-26 20:53 G	32540886.16	32540886.37	32540886.57	0.0492	0.0064
Venus	84382-06-19 17:03 G	32541122.13	32541122.21	32541122.31	0.0495	0.0440
Mercury	84384-08-22 21:08 G	32541917.22	32541917.38	32541917.54	0.0519	0.0221
Venus	84387-01-03 18:44 G	32542781.15	32542781.28	32542781.41	0.0536	0.0410
Venus	84387-08-30 01:41 G	32543019.37	32543019.57	32543019.77	0.0535	0.0095
Mercury	84390-04-12 22:05 G	32543976.28	32543976.42	32543976.55	0.0508	0.0060
Venus	84392-11-08 04:34 G	32544916.59	32544916.69	32544916.80	0.0490	0.0417
Venus	84393-07-02 01:27 G	32545152.35	32545152.56	32545152.76	0.0491	0.0043
Venus	84394-02-22 21:22 G	32545388.25	32545388.39	32545388.55	0.0494	0.0339
Mercury	84396-06-10 19:27 G	32546227.23	32546227.31	32546227.39	0.0518	0.0455
Mercury	84396-09-09 02:10 G	32546317.59	32546317.59	32546317.60	0.0521	0.0521
Venus	84399-05-04 14:10 G	32547284.88	32547285.09	32547285.29	0.0535	0.0047
Venus	84399-12-28 20:24 G	32547523.24	32547523.35	32547523.46	0.0531	0.0451
Mercury	84402-01-30 01:27 G	32548286.45	32548286.56	32548286.68	0.0508	0.0238
Mercury	84402-04-29 07:56 G	32548375.77	32548375.83	32548375.90	0.0505	0.0439

Venus	84405-03-07 04:05 G	32549418.48	32549418.67	32549418.87	0.0491	0.0151
Venus	84405-10-29 00:44 G	32549654.35	32549654.53	32549654.71	0.0494	0.0232
Earth	84406-12-09 20:10 G	32550061.16	32550061.34	32550061.54	0.0503	0.0291
Moon	84406-12-10 00:00 G	32550061.33	32550061.50	32550061.69	0.0503	0.0305 *
Mercury	84408-06-28 00:29 G	32550627.38	32550627.52	32550627.67	0.0520	0.0286
Venus	84411-01-07 01:41 G	32551550.38	32551550.57	32551550.76	0.0535	0.0189
Venus	84411-09-02 07:56 G	32551788.67	32551788.83	32551789.00	0.0532	0.0317
Mercury	84413-11-18 05:32 G	32552596.66	32552596.73	32552596.81	0.0509	0.0408
Mercury	84414-02-15 11:46 G	32552685.88	32552685.99	32552686.10	0.0506	0.0266
Venus	84416-11-10 08:10 G	32553684.67	32553684.84	32553685.02	0.0491	0.0257
Venus	84417-07-04 04:48 G	32553920.50	32553920.70	32553920.90	0.0493	0.0125
Moon	84418-12-14 03:51 G	32554448.44	32554448.66	32554448.88	0.0504	0.0178
Earth	84418-12-14 06:44 G	32554448.57	32554448.78	32554449.01	0.0504	0.0156 *
Mercury	84420-04-15 21:51 G	32554937.23	32554937.41	32554937.58	0.0519	0.0035
Venus	84422-09-11 11:03 G	32555815.80	32555815.96	32555816.12	0.0536	0.0332
Venus	84423-05-07 17:32 G	32556054.03	32556054.23	32556054.42	0.0534	0.0174
Moon	84424-06-05 19:41 G	32556449.14	32556449.32	32556449.50	0.0525	0.0322
Earth	84424-06-05 22:20 G	32556449.27	32556449.43	32556449.61	0.0525	0.0353 *
Mercury	84425-12-04 15:51 G	32556996.03	32556996.16	32556996.29	0.0507	0.0099
Venus	84428-07-16 12:44 G	32557950.90	32557951.03	32557951.17	0.0491	0.0358
Venus	84429-03-09 09:36 G	32558186.69	32558186.90	32558187.10	0.0492	0.0022
Venus	84429-10-31 06:00 G	32558422.63	32558422.75	32558422.87	0.0495	0.0399
Mercury	84432-02-02 19:12 G	32559247.14	32559247.30	32559247.46	0.0518	0.0217
Venus	84434-05-16 22:34 G	32560081.34	32560081.44	32560081.54	0.0536	0.0469
Venus	84435-01-10 04:48 G	32560319.50	32560319.70	32560319.90	0.0535	0.0033
Venus	84435-09-05 11:17 G	32560557.95	32560557.97	32560558.00	0.0531	0.0525
Earth	84436-06-10 23:03 G	32560837.24	32560837.46	32560837.68	0.0523	0.0173
Moon	84436-06-11 02:53 G	32560837.40	32560837.62	32560837.84	0.0523	0.0191 *
Mercury	84437-09-22 19:56 G	32561306.20	32561306.33	32561306.47	0.0508	0.0068
Venus	84440-03-21 16:20 G	32562217.12	32562217.18	32562217.26	0.0491	0.0459

Venus	84440-11-12 13:12 G	32562452.85	32562453.05	32562453.25	0.0491	0.0087
Venus	84441-07-06 09:22 G	32562688.73	32562688.89	32562689.05	0.0494	0.0295
Mercury	84443-11-21 16:20 G	32563557.11	32563557.18	32563557.26	0.0518	0.0469
Mercury	84444-02-19 23:03 G	32563647.43	32563647.46	32563647.50	0.0521	0.0506
Venus	84446-09-14 17:17 G	32564585.02	32564585.22	32564585.42	0.0536	0.0108
Venus	84447-05-11 00:15 G	32564823.38	32564823.51	32564823.65	0.0532	0.0396
Mercury	84449-07-12 00:15 G	32565616.39	32565616.51	32565616.63	0.0508	0.0230
Mercury	84449-10-09 06:44 G	32565705.72	32565705.78	32565705.84	0.0506	0.0448
Mars	84450-03-11 13:41 G	32565858.80	32565859.07	32565859.34	0.0501	0.0162
Venus	84452-07-18 17:32 G	32566719.05	32566719.23	32566719.42	0.0491	0.0192
Venus	84453-03-11 13:41 G	32566954.88	32566955.07	32566955.26	0.0493	0.0190
Mercury	84455-12-08 21:51 G	32567957.26	32567957.41	32567957.55	0.0520	0.0275
Venus	84458-05-20 06:15 G	32568850.58	32568850.76	32568850.94	0.0536	0.0249
Venus	84459-01-13 12:58 G	32569088.86	32569089.04	32569089.22	0.0533	0.0260
Mercury	84461-04-30 04:05 G	32569926.59	32569926.67	32569926.74	0.0509	0.0406
Mercury	84461-07-28 10:05 G	32570015.81	32570015.92	32570016.04	0.0506	0.0268
Venus	84464-03-23 19:41 G	32570985.16	32570985.32	32570985.49	0.0491	0.0300
Venus	84464-11-14 16:20 G	32571220.98	32571221.18	32571221.38	0.0492	0.0081
Venus	84465-07-08 13:27 G	32571456.99	32571457.06	32571457.14	0.0496	0.0459
Mercury	84467-09-26 19:56 G	32572267.15	32572267.33	32572267.50	0.0520	0.0039
Venus	84470-01-22 18:15 G	32573116.12	32573116.26	32573116.40	0.0536	0.0386
Venus	84470-09-18 00:15 G	32573354.32	32573354.51	32573354.72	0.0534	0.0121
Mercury	84473-05-16 13:56 G	32574325.95	32574326.08	32574326.21	0.0507	0.0096
Venus	84475-11-27 23:32 G	32575251.36	32575251.48	32575251.59	0.0491	0.0403
Venus	84476-07-20 20:39 G	32575487.16	32575487.36	32575487.56	0.0492	0.0026
Venus	84477-03-13 17:17 G	32575723.09	32575723.22	32575723.36	0.0495	0.0356
Mercury	84479-07-15 16:48 G	32576577.05	32576577.20	32576577.36	0.0519	0.0217
Venus	84481-09-27 03:36 G	32577381.61	32577381.65	32577381.69	0.0536	0.0524
Venus	84482-05-23 09:08 G	32577619.68	32577619.88	32577620.08	0.0535	0.0028
Venus	84483-01-16 15:22 G	32577858.05	32577858.14	32577858.24	0.0531	0.0470

Mercury	84485-03-04 18:00 G	32578636.11	32578636.25	32578636.38	0.0508	0.0076
Venus	84488-03-26 01:27 G	32579753.36	32579753.56	32579753.75	0.0491	0.0131
Venus	84488-11-16 21:36 G	32579989.23	32579989.40	32579989.58	0.0493	0.0252
Moon	84489-12-08 19:12 G	32580376.15	32580376.30	32580376.46	0.0502	0.0384
Earth	84489-12-08 22:20 G	32580376.28	32580376.43	32580376.59	0.0502	0.0369 *
Mercury	84491-05-03 14:10 G	32580887.02	32580887.09	32580887.16	0.0518	0.0468
Mercury	84491-08-01 20:53 G	32580977.34	32580977.37	32580977.41	0.0521	0.0506
Venus	84494-01-25 20:10 G	32581885.15	32581885.34	32581885.54	0.0536	0.0171
Venus	84494-09-21 03:08 G	32582123.47	32582123.63	32582123.79	0.0533	0.0337
Mercury	84496-12-21 22:05 G	32582946.31	32582946.42	32582946.54	0.0509	0.0240
Mercury	84497-03-21 04:34 G	32583035.62	32583035.69	32583035.75	0.0506	0.0439
Venus	84499-11-30 05:03 G	32584019.53	32584019.71	32584019.89	0.0491	0.0236
Venus	84500-07-24 01:12 G	32584255.36	32584255.55	32584255.74	0.0492	0.0146
Earth	84501-12-14 07:27 G	32584763.58	32584763.81	32584764.04	0.0503	0.0067
Moon	84501-12-14 08:39 G	32584763.64	32584763.86	32584764.08	0.0503	0.0094 *
Mercury	84503-05-21 18:29 G	32585287.12	32585287.27	32585287.42	0.0520	0.0257
Venus	84505-10-01 08:24 G	32586150.68	32586150.85	32586151.02	0.0536	0.0310
Venus	84506-05-27 15:22 G	32586388.95	32586389.14	32586389.33	0.0534	0.0199
Earth	84507-06-06 23:03 G	32586764.33	32586764.46	32586764.58	0.0525	0.0444
Moon	84507-06-07 02:39 G	32586764.46	32586764.61	32586764.76	0.0525	0.0407 *
Mercury	84508-10-11 02:24 G	32587256.52	32587256.60	32587256.68	0.0509	0.0404
Mercury	84509-01-08 08:39 G	32587345.75	32587345.86	32587345.97	0.0506	0.0272
Venus	84511-08-06 08:53 G	32588285.73	32588285.87	32588286.02	0.0490	0.0340
Venus	84512-03-29 05:17 G	32588521.52	32588521.72	32588521.93	0.0492	0.0041
Venus	84512-11-20 01:41 G	32588757.47	32588757.57	32588757.68	0.0495	0.0419
Mercury	84515-03-09 16:48 G	32589597.03	32589597.20	32589597.37	0.0519	0.0022
Venus	84517-06-05 21:51 G	32590416.30	32590416.41	32590416.52	0.0536	0.0446
Venus	84518-01-30 04:20 G	32590654.48	32590654.68	32590654.88	0.0535	0.0059
Moon	84519-06-11 19:41 G	32591152.09	32591152.32	32591152.55	0.0523	0.0098
Earth	84519-06-11 23:32 G	32591152.25	32591152.48	32591152.71	0.0523	0.0084 *

Mercury	84520-10-27 12:15 G	32591655.88	32591656.01	32591656.14	0.0507	0.0096
Venus	84523-04-11 10:34 G	32592551.86	32592551.94	32592552.03	0.0491	0.0446
Venus	84523-12-03 07:56 G	32592787.63	32592787.83	32592788.03	0.0491	0.0071
Venus	84524-07-26 04:20 G	32593023.53	32593023.68	32593023.84	0.0494	0.0313
Mercury	84526-12-26 14:39 G	32593906.95	32593907.11	32593907.27	0.0519	0.0219
Venus	84529-10-04 15:51 G	32594919.96	32594920.16	32594920.36	0.0535	0.0084
Venus	84530-05-30 22:05 G	32595158.30	32595158.42	32595158.55	0.0532	0.0419
Mercury	84532-08-15 16:20 G	32595966.04	32595966.18	32595966.31	0.0507	0.0078
Venus	84535-08-08 12:00 G	32597053.82	32597054.00	32597054.19	0.0491	0.0177
Venus	84536-03-31 08:39 G	32597289.68	32597289.86	32597290.04	0.0493	0.0207
Mercury	84538-10-14 11:46 G	32598216.92	32598216.99	32598217.06	0.0518	0.0473
Mercury	84539-01-12 18:29 G	32598307.23	32598307.27	32598307.32	0.0521	0.0502
Mars	84539-06-05 17:46 G	32598451.00	32598451.24	32598451.48	0.0525	0.0228
Venus	84541-06-09 00:29 G	32599185.33	32599185.52	32599185.70	0.0536	0.0230
Venus	84542-02-02 06:58 G	32599423.62	32599423.79	32599423.97	0.0533	0.0279
Mercury	84544-06-03 20:10 G	32600276.22	32600276.34	32600276.45	0.0509	0.0249
Mercury	84544-09-01 02:24 G	32600365.53	32600365.60	32600365.67	0.0506	0.0430
Venus	84547-04-13 16:34 G	32601320.03	32601320.19	32601320.36	0.0491	0.0280
Venus	84547-12-05 13:12 G	32601555.85	32601556.05	32601556.25	0.0492	0.0101
Venus	84548-07-28 09:51 G	32601791.87	32601791.91	32601791.97	0.0496	0.0479
Mercury	84550-10-31 16:05 G	32602617.03	32602617.17	32602617.33	0.0520	0.0257
Venus	84553-02-11 11:32 G	32603450.84	32603450.98	32603451.13	0.0536	0.0371
Venus	84553-10-07 18:00 G	32603689.05	32603689.25	32603689.45	0.0534	0.0138
Mercury	84556-03-23 00:15 G	32604586.44	32604586.51	32604586.59	0.0510	0.0415
Mercury	84556-06-20 06:29 G	32604675.66	32604675.77	32604675.89	0.0507	0.0262
Venus	84558-12-17 20:10 G	32605586.22	32605586.34	32605586.47	0.0490	0.0383
Venus	84559-08-10 17:03 G	32605822.01	32605822.21	32605822.41	0.0491	0.0006
Venus	84560-04-02 13:12 G	32606057.92	32606058.05	32606058.18	0.0494	0.0375
Mercury	84562-08-19 13:27 G	32606926.89	32606927.06	32606927.24	0.0519	0.0009
Venus	84564-10-16 23:46 G	32607716.43	32607716.49	32607716.56	0.0536	0.0505

Venus	84565-06-12 06:00 G	32607954.54	32607954.75	32607954.95	0.0535	0.0012
Venus	84566-02-05 12:44 G	32608192.96	32608193.03	32608193.11	0.0532	0.0495
Mercury	84568-04-08 10:34 G	32608985.81	32608985.94	32608986.08	0.0507	0.0097
Venus	84570-08-22 23:46 G	32609852.46	32609852.49	32609852.52	0.0491	0.0484
Venus	84571-04-15 20:53 G	32610088.17	32610088.37	32610088.57	0.0491	0.0112
Venus	84571-12-07 16:48 G	32610324.04	32610324.20	32610324.38	0.0493	0.0272
Earth	84572-12-08 22:34 G	32610691.35	32610691.44	32610691.54	0.0501	0.0458
Moon	84572-12-09 00:15 G	32610691.43	32610691.51	32610691.59	0.0501	0.0465 *
Mercury	84574-06-07 11:32 G	32611236.82	32611236.98	32611237.13	0.0519	0.0236
Venus	84577-02-14 19:12 G	32612220.10	32612220.30	32612220.49	0.0536	0.0146
Venus	84577-10-11 01:56 G	32612458.44	32612458.58	32612458.73	0.0533	0.0362
Mercury	84580-01-26 14:39 G	32613295.97	32613296.11	32613296.24	0.0507	0.0079
Venus	84582-12-19 23:17 G	32614354.29	32614354.47	32614354.65	0.0491	0.0221
Venus	84583-08-12 19:41 G	32614590.13	32614590.32	32614590.51	0.0493	0.0163
Earth	84584-12-13 08:24 G	32615078.61	32615078.85	32615079.08	0.0503	0.0019
Moon	84584-12-13 08:39 G	32615078.62	32615078.86	32615079.11	0.0503	0.0016 *
Mercury	84586-03-26 09:08 G	32615546.82	32615546.88	32615546.94	0.0518	0.0480
Mercury	84586-06-24 16:05 G	32615637.13	32615637.17	32615637.22	0.0521	0.0499
Venus	84588-10-20 07:12 G	32616485.62	32616485.80	32616485.97	0.0536	0.0286
Venus	84589-06-15 13:41 G	32616723.88	32616724.07	32616724.25	0.0534	0.0224
Moon	84590-06-05 17:17 G	32617079.18	32617079.22	32617079.28	0.0525	0.0511
Mercury	84591-11-14 18:29 G	32617606.16	32617606.27	32617606.39	0.0508	0.0247
Mercury	84592-02-12 00:44 G	32617695.46	32617695.53	32617695.60	0.0505	0.0428
Venus	84594-08-25 03:22 G	32618620.49	32618620.64	32618620.79	0.0491	0.0325
Venus	84595-04-18 00:00 G	32618856.30	32618856.50	32618856.71	0.0492	0.0056
Venus	84595-12-09 20:53 G	32619092.28	32619092.37	32619092.47	0.0495	0.0435
Moon	84596-12-17 17:46 G	32619466.14	32619466.24	32619466.34	0.0504	0.0447
Earth	84596-12-17 19:41 G	32619466.21	32619466.32	32619466.44	0.0504	0.0435 *
Mercury	84598-04-12 13:41 G	32619946.92	32619947.07	32619947.22	0.0520	0.0251
Venus	84600-06-25 16:05 G	32620751.05	32620751.17	32620751.29	0.0536	0.0427

Venus	84601-02-18 22:05 G	32620989.22	32620989.42	32620989.62	0.0535	0.0078
Earth	84602-06-11 17:03 G	32621466.97	32621467.21	32621467.44	0.0524	0.0035
Moon	84602-06-11 20:24 G	32621467.12	32621467.35	32621467.58	0.0524	0.0027 *
Mercury	84603-09-03 22:20 G	32621916.36	32621916.43	32621916.50	0.0509	0.0422
Mercury	84603-12-02 04:20 G	32622005.57	32622005.68	32622005.80	0.0507	0.0254
Mars	84604-06-05 11:03 G	32622191.69	32622191.96	32622192.23	0.0501	0.0156
Venus	84606-05-01 07:41 G	32622886.72	32622886.82	32622886.92	0.0491	0.0426
Venus	84606-12-23 04:48 G	32623122.50	32623122.70	32623122.90	0.0491	0.0050
Venus	84607-08-16 01:27 G	32623358.41	32623358.56	32623358.71	0.0494	0.0333
Mercury	84610-01-30 11:17 G	32624256.80	32624256.97	32624257.14	0.0519	0.0005
Venus	84612-10-24 08:53 G	32625254.67	32625254.87	32625255.07	0.0535	0.0066
Venus	84613-06-19 15:22 G	32625493.03	32625493.14	32625493.26	0.0532	0.0437
Moon	84614-06-16 14:39 G	32625854.99	32625855.11	32625855.24	0.0523	0.0448
Earth	84614-06-16 16:20 G	32625855.10	32625855.18	32625855.27	0.0523	0.0483 *
Mercury	84615-09-20 08:24 G	32626315.72	32626315.85	32626315.99	0.0508	0.0087
Venus	84618-08-28 08:53 G	32627388.67	32627388.87	32627389.06	0.0491	0.0156
Venus	84619-04-21 04:48 G	32627624.52	32627624.70	32627624.88	0.0493	0.0228
Mercury	84621-11-18 08:24 G	32628566.70	32628566.85	32628567.00	0.0518	0.0251
Venus	84624-06-28 20:39 G	32629520.17	32629520.36	32629520.55	0.0536	0.0209
Venus	84625-02-22 03:51 G	32629758.49	32629758.66	32629758.83	0.0534	0.0302
Mercury	84627-07-09 12:44 G	32630625.90	32630626.03	32630626.16	0.0508	0.0079
Venus	84630-05-03 12:29 G	32631654.85	32631655.02	32631655.20	0.0490	0.0262
Venus	84630-12-25 08:39 G	32631890.67	32631890.86	32631891.06	0.0492	0.0122
Mercury	84633-09-06 06:00 G	32632876.71	32632876.75	32632876.80	0.0518	0.0494
Mercury	84633-12-05 13:12 G	32632966.99	32632967.05	32632967.11	0.0521	0.0484
Venus	84636-03-03 10:05 G	32633785.77	32633785.92	32633786.08	0.0536	0.0347
Venus	84636-10-27 17:03 G	32634024.01	32634024.21	32634024.40	0.0535	0.0164
Mercury	84639-04-27 16:48 G	32634936.08	32634936.20	32634936.32	0.0508	0.0248
Mercury	84639-07-25 23:03 G	32635025.39	32635025.46	32635025.53	0.0506	0.0429
Venus	84642-01-06 14:53 G	32635920.99	32635921.12	32635921.26	0.0490	0.0368

Venus	84642-08-30 11:46 G	32636156.78	32636156.99	32636157.19	0.0491	0.0014
Venus	84643-04-23 08:10 G	32636392.72	32636392.84	32636392.96	0.0495	0.0393
Mercury	84645-09-23 11:17 G	32637276.82	32637276.97	32637277.12	0.0520	0.0247
Venus	84647-11-06 22:48 G	32638051.36	32638051.45	32638051.54	0.0536	0.0481
Venus	84648-07-02 04:48 G	32638289.50	32638289.70	32638289.91	0.0535	0.0022
Venus	84649-02-25 11:17 G	32638527.93	32638527.97	32638528.02	0.0531	0.0519
Mercury	84651-02-13 20:53 G	32639246.30	32639246.37	32639246.45	0.0509	0.0416
Mercury	84651-05-14 02:53 G	32639335.51	32639335.62	32639335.74	0.0506	0.0258
Venus	84653-09-11 18:29 G	32640187.22	32640187.27	32640187.34	0.0491	0.0470
Venus	84654-05-05 16:05 G	32640422.97	32640423.17	32640423.37	0.0491	0.0095
Venus	84654-12-27 12:29 G	32640658.85	32640659.02	32640659.18	0.0494	0.0289
Mercury	84657-07-12 08:53 G	32641586.69	32641586.87	32641587.04	0.0519	0.0003
Venus	84660-03-06 13:27 G	32642554.86	32642555.06	32642555.26	0.0536	0.0125
Venus	84660-10-30 19:56 G	32642793.19	32642793.33	32642793.48	0.0533	0.0382
Mercury	84663-03-02 06:44 G	32643645.64	32643645.78	32643645.91	0.0508	0.0082
Venus	84666-01-08 20:53 G	32644689.18	32644689.37	32644689.56	0.0491	0.0199
Venus	84666-09-01 17:17 G	32644925.04	32644925.22	32644925.41	0.0493	0.0186
Moon	84667-12-14 09:51 G	32645393.69	32645393.91	32645394.14	0.0502	0.0060
Earth	84667-12-14 11:46 G	32645393.76	32645393.99	32645394.22	0.0502	0.0092 *
Mercury	84669-04-30 06:29 G	32645896.61	32645896.77	32645896.92	0.0518	0.0246
Venus	84671-11-10 00:29 G	32646820.34	32646820.52	32646820.70	0.0536	0.0268
Venus	84672-07-05 06:58 G	32647058.61	32647058.79	32647058.97	0.0534	0.0243
Mercury	84674-12-19 10:48 G	32647955.82	32647955.95	32647956.08	0.0508	0.0088
Venus	84677-09-14 00:44 G	32648955.38	32648955.53	32648955.69	0.0491	0.0304
Venus	84678-05-07 21:08 G	32649191.18	32649191.38	32649191.58	0.0492	0.0079
Venus	84678-12-29 17:32 G	32649427.16	32649427.23	32649427.31	0.0495	0.0456
Earth	84679-12-18 20:53 G	32649781.21	32649781.37	32649781.54	0.0504	0.0349
Moon	84679-12-19 00:15 G	32649781.34	32649781.51	32649781.67	0.0504	0.0359 *
Mercury	84681-02-16 03:22 G	32650206.60	32650206.64	32650206.68	0.0517	0.0502
Mercury	84681-05-17 10:20 G	32650296.87	32650296.93	32650297.00	0.0520	0.0474

Venus	84683-07-15 12:15 G	32651085.88	32651086.01	32651086.14	0.0536	0.0408
Venus	84684-03-09 18:58 G	32651324.09	32651324.29	32651324.49	0.0535	0.0102
Moon	84685-06-10 14:10 G	32651781.86	32651782.09	32651782.33	0.0525	0.0128
Earth	84685-06-10 16:34 G	32651781.96	32651782.19	32651782.42	0.0525	0.0130 *
Mercury	84686-10-07 15:08 G	32652266.01	32652266.13	32652266.24	0.0509	0.0251
Mercury	84687-01-04 21:22 G	32652355.32	32652355.39	32652355.46	0.0506	0.0428
Venus	84689-05-20 04:20 G	32653221.57	32653221.68	32653221.80	0.0490	0.0407
Venus	84690-01-11 01:12 G	32653457.35	32653457.55	32653457.75	0.0491	0.0029
Venus	84690-09-03 21:22 G	32653693.26	32653693.39	32653693.54	0.0494	0.0354
Mercury	84693-03-05 08:24 G	32654606.70	32654606.85	32654607.01	0.0520	0.0237
Mars	84693-08-30 00:15 G	32654784.25	32654784.51	32654784.77	0.0525	0.0107
Venus	84695-11-13 08:10 G	32655589.63	32655589.84	32655590.04	0.0536	0.0040
Venus	84696-07-08 15:08 G	32655828.03	32655828.13	32655828.23	0.0532	0.0464
Earth	84697-06-15 18:44 G	32656170.13	32656170.28	32656170.43	0.0523	0.0404
Moon	84697-06-15 18:58 G	32656170.14	32656170.29	32656170.45	0.0523	0.0371 *
Mercury	84698-07-26 19:12 G	32656576.23	32656576.30	32656576.38	0.0509	0.0415
Mercury	84698-10-24 01:27 G	32656665.44	32656665.56	32656665.67	0.0506	0.0260
Venus	84701-09-17 04:20 G	32657723.48	32657723.68	32657723.87	0.0491	0.0137
Venus	84702-05-11 00:15 G	32657959.34	32657959.51	32657959.69	0.0493	0.0247
Mercury	84704-12-23 06:29 G	32658916.60	32658916.77	32658916.94	0.0519	0.0003
Venus	84707-07-19 20:24 G	32659855.16	32659855.35	32659855.55	0.0536	0.0182
Venus	84708-03-14 03:22 G	32660093.49	32660093.64	32660093.81	0.0533	0.0331
Mercury	84710-08-13 05:17 G	32660975.59	32660975.72	32660975.86	0.0507	0.0091
Venus	84713-05-23 08:39 G	32661989.68	32661989.86	32661990.04	0.0491	0.0243
Venus	84714-01-14 05:03 G	32662225.52	32662225.71	32662225.90	0.0492	0.0141
Mercury	84716-10-11 04:05 G	32663226.52	32663226.67	32663226.83	0.0518	0.0246
Venus	84719-03-24 05:46 G	32664120.58	32664120.74	32664120.90	0.0536	0.0325
Venus	84719-11-17 12:00 G	32664358.81	32664359.00	32664359.19	0.0534	0.0186
Mercury	84722-06-01 08:53 G	32665285.74	32665285.87	32665286.00	0.0508	0.0090
Venus	84725-01-26 13:12 G	32666255.91	32666256.05	32666256.20	0.0491	0.0346

Venus	84725-09-19 10:20 G	32666491.73	32666491.93	32666492.13	0.0492	0.0037
Venus	84726-05-13 06:44 G	32666727.68	32666727.78	32666727.89	0.0495	0.0418
Mercury	84728-07-30 01:41 G	32667536.52	32667536.57	32667536.63	0.0517	0.0490
Mercury	84728-10-28 08:53 G	32667626.81	32667626.87	32667626.93	0.0520	0.0485
Venus	84730-11-26 17:32 G	32668386.13	32668386.23	32668386.33	0.0536	0.0462
Venus	84731-07-22 23:03 G	32668624.26	32668624.46	32668624.66	0.0535	0.0043
Mercury	84734-03-20 13:12 G	32669595.93	32669596.05	32669596.16	0.0509	0.0256
Mercury	84734-06-17 19:27 G	32669685.24	32669685.31	32669685.38	0.0506	0.0424
Venus	84736-10-01 17:03 G	32670522.13	32670522.21	32670522.29	0.0491	0.0448
Venus	84737-05-25 14:24 G	32670757.89	32670758.10	32670758.30	0.0491	0.0071
Venus	84738-01-16 10:20 G	32670993.78	32670993.93	32670994.09	0.0493	0.0313
Mercury	84740-08-16 06:15 G	32671936.60	32671936.76	32671936.91	0.0519	0.0235
Venus	84743-03-27 10:48 G	32672889.75	32672889.95	32672890.15	0.0536	0.0101
Venus	84743-11-20 17:46 G	32673128.11	32673128.24	32673128.38	0.0533	0.0408
Mercury	84746-01-06 17:32 G	32673906.16	32673906.23	32673906.30	0.0510	0.0418
Mercury	84746-04-05 23:32 G	32673995.37	32673995.48	32673995.60	0.0507	0.0260
Venus	84749-01-28 18:29 G	32675024.08	32675024.27	32675024.46	0.0491	0.0177
Venus	84749-09-21 14:39 G	32675259.93	32675260.11	32675260.29	0.0492	0.0207
Earth	84750-12-14 14:24 G	32675708.89	32675709.10	32675709.32	0.0502	0.0171
Moon	84750-12-14 17:32 G	32675709.00	32675709.23	32675709.46	0.0502	0.0135 *
Mercury	84752-06-04 04:05 G	32676246.50	32676246.67	32676246.85	0.0519	0.0007
Venus	84754-11-30 00:00 G	32677155.32	32677155.50	32677155.69	0.0536	0.0242
Venus	84755-07-26 07:12 G	32677393.63	32677393.80	32677393.98	0.0534	0.0272
Mercury	84758-01-23 03:51 G	32678305.53	32678305.66	32678305.79	0.0507	0.0095
Venus	84760-10-03 21:36 G	32679290.23	32679290.40	32679290.57	0.0490	0.0284
Venus	84761-05-27 17:46 G	32679526.04	32679526.24	32679526.44	0.0492	0.0100
Venus	84762-01-18 14:24 G	32679762.05	32679762.10	32679762.15	0.0495	0.0478
Moon	84762-12-18 21:08 G	32680096.19	32680096.38	32680096.57	0.0504	0.0282
Earth	84762-12-19 00:44 G	32680096.34	32680096.53	32680096.73	0.0504	0.0275 *
Mercury	84764-03-23 01:56 G	32680556.43	32680556.58	32680556.74	0.0518	0.0246

Venus	84766-08-04 13:12 G	32681420.91	32681421.05	32681421.20	0.0536	0.0380
Venus	84767-03-30 19:56 G	32681659.13	32681659.33	32681659.53	0.0535	0.0133
Earth	84768-06-10 20:10 G	32682097.13	32682097.34	32682097.56	0.0525	0.0206
Moon	84768-06-10 21:08 G	32682097.18	32682097.38	32682097.59	0.0525	0.0209 *
Mercury	84769-11-11 08:10 G	32682615.70	32682615.84	32682615.97	0.0508	0.0075
Venus	84772-06-09 01:41 G	32683556.46	32683556.57	32683556.70	0.0491	0.0388
Venus	84773-01-30 22:48 G	32683792.25	32683792.45	32683792.65	0.0491	0.0007
Venus	84773-09-23 19:12 G	32684028.17	32684028.30	32684028.43	0.0494	0.0376
Mercury	84776-01-09 23:46 G	32684866.44	32684866.49	32684866.55	0.0517	0.0486
Mercury	84776-04-09 06:58 G	32684956.74	32684956.79	32684956.84	0.0520	0.0491
Venus	84778-04-08 23:46 G	32685686.44	32685686.49	32685686.55	0.0536	0.0515
Venus	84778-12-03 04:48 G	32685924.50	32685924.70	32685924.91	0.0535	0.0018
Venus	84779-07-29 11:17 G	32686162.89	32686162.97	32686163.05	0.0532	0.0488
Earth	84780-06-15 15:22 G	32686484.95	32686485.14	32686485.34	0.0523	0.0297
Moon	84780-06-15 16:05 G	32686484.97	32686485.17	32686485.39	0.0523	0.0263 *
Mercury	84781-08-30 11:32 G	32686925.87	32686925.98	32686926.10	0.0509	0.0253
Mercury	84781-11-27 17:46 G	32687015.18	32687015.24	32687015.32	0.0506	0.0427
Venus	84784-02-13 06:00 G	32687822.73	32687822.75	32687822.77	0.0491	0.0487
Venus	84784-10-06 03:51 G	32688058.46	32688058.66	32688058.86	0.0491	0.0111
Venus	84785-05-30 00:15 G	32688294.34	32688294.51	32688294.68	0.0493	0.0274
Mercury	84788-01-27 05:03 G	32689266.56	32689266.71	32689266.86	0.0519	0.0254
Venus	84790-08-07 16:20 G	32690189.99	32690190.18	32690190.37	0.0536	0.0158
Venus	84791-04-02 22:48 G	32690428.30	32690428.45	32690428.61	0.0533	0.0353
Mercury	84793-06-18 15:51 G	32691236.09	32691236.16	32691236.23	0.0510	0.0419
Mercury	84793-09-15 22:05 G	32691325.30	32691325.42	32691325.53	0.0507	0.0259
Venus	84796-06-11 07:56 G	32692324.65	32692324.83	32692325.02	0.0491	0.0219
Venus	84797-02-02 04:20 G	32692560.49	32692560.68	32692560.87	0.0492	0.0167
Mercury	84799-11-15 02:24 G	32693576.42	32693576.60	32693576.77	0.0518	0.0010
Venus	84802-04-12 04:05 G	32694455.50	32694455.67	32694455.84	0.0536	0.0301
Venus	84802-12-06 10:48 G	32694693.76	32694693.95	32694694.13	0.0534	0.0213

Mercury	84805-07-05 02:24 G	32695635.47	32695635.60	32695635.73	0.0508	0.0096
Venus	84808-02-15 12:15 G	32696590.86	32696591.01	32696591.16	0.0491	0.0323
Venus	84808-10-08 08:53 G	32696826.66	32696826.87	32696827.07	0.0491	0.0061
Venus	84809-06-01 05:03 G	32697062.62	32697062.71	32697062.80	0.0495	0.0441
Mercury	84811-09-03 00:00 G	32697886.35	32697886.50	32697886.66	0.0518	0.0241
Venus	84813-12-15 17:32 G	32698721.13	32698721.23	32698721.36	0.0536	0.0438
Venus	84814-08-11 00:15 G	32698959.30	32698959.51	32698959.71	0.0535	0.0073
Mercury	84817-04-23 06:44 G	32699945.65	32699945.78	32699945.91	0.0508	0.0066
Venus	84819-10-21 15:22 G	32700857.04	32700857.14	32700857.24	0.0490	0.0426
Venus	84820-06-13 12:15 G	32701092.81	32701093.01	32701093.22	0.0491	0.0049
Venus	84821-02-04 08:24 G	32701328.70	32701328.85	32701329.00	0.0494	0.0336
Mercury	84823-06-21 21:51 G	32702196.35	32702196.41	32702196.47	0.0518	0.0481
Mercury	84823-09-20 05:03 G	32702286.67	32702286.71	32702286.76	0.0521	0.0497
Venus	84826-04-15 13:12 G	32703224.85	32703225.05	32703225.25	0.0536	0.0068
Venus	84826-12-09 20:10 G	32703463.23	32703463.34	32703463.46	0.0533	0.0440
Mercury	84829-02-09 11:03 G	32704255.84	32704255.96	32704256.07	0.0509	0.0232
Mercury	84829-05-09 17:03 G	32704345.16	32704345.21	32704345.28	0.0506	0.0447
Venus	84832-02-17 17:17 G	32705359.03	32705359.22	32705359.42	0.0491	0.0154
Venus	84832-10-10 13:27 G	32705594.89	32705595.06	32705595.25	0.0493	0.0233
Moon	84833-12-13 18:58 G	32706024.09	32706024.29	32706024.51	0.0502	0.0195
Earth	84833-12-13 22:34 G	32706024.24	32706024.44	32706024.65	0.0502	0.0226 *
Mercury	84835-07-09 03:22 G	32706596.50	32706596.64	32706596.79	0.0519	0.0266
Venus	84837-12-18 23:03 G	32707490.28	32707490.46	32707490.65	0.0536	0.0214
Venus	84838-08-14 05:17 G	32707728.56	32707728.72	32707728.90	0.0533	0.0300
Mercury	84840-11-28 14:24 G	32708566.03	32708566.10	32708566.18	0.0510	0.0413
Mercury	84841-02-25 20:39 G	32708655.25	32708655.36	32708655.47	0.0507	0.0265
Venus	84843-10-23 21:51 G	32709625.24	32709625.41	32709625.59	0.0491	0.0258
Venus	84844-06-15 18:44 G	32709861.09	32709861.28	32709861.48	0.0492	0.0128
Earth	84845-12-18 11:32 G	32710411.77	32710411.98	32710412.19	0.0503	0.0229
Moon	84845-12-18 14:53 G	32710411.92	32710412.12	32710412.33	0.0503	0.0227 *

Mercury	84847-04-27 01:41 G	32710906.39	32710906.57	32710906.74	0.0518	0.0030
Venus	84849-08-23 11:03 G	32711755.81	32711755.96	32711756.12	0.0536	0.0354
Venus	84850-04-18 17:03 G	32711994.01	32711994.21	32711994.40	0.0534	0.0159
Earth	84851-06-10 17:46 G	32712412.06	32712412.24	32712412.43	0.0526	0.0311
Moon	84851-06-10 17:46 G	32712412.06	32712412.24	32712412.45	0.0526	0.0314 *
Mercury	84852-12-15 00:44 G	32712965.40	32712965.53	32712965.66	0.0508	0.0098
Venus	84855-06-29 02:10 G	32713891.45	32713891.59	32713891.73	0.0491	0.0363
Venus	84856-02-19 23:17 G	32714127.27	32714127.47	32714127.67	0.0491	0.0020
Venus	84856-10-12 19:27 G	32714363.20	32714363.31	32714363.43	0.0494	0.0404
Mercury	84859-02-12 22:48 G	32715216.29	32715216.45	32715216.61	0.0518	0.0224
Venus	84861-04-27 23:03 G	32716021.39	32716021.46	32716021.54	0.0536	0.0492
Venus	84861-12-22 04:34 G	32716259.49	32716259.69	32716259.90	0.0535	0.0015
Venus	84862-08-17 11:17 G	32716497.93	32716497.97	32716498.02	0.0532	0.0516
Moon	84863-06-15 17:46 G	32716800.02	32716800.24	32716800.45	0.0524	0.0191
Earth	84863-06-15 19:56 G	32716800.12	32716800.33	32716800.54	0.0524	0.0223 *
Mercury	84864-10-03 05:03 G	32717275.58	32717275.71	32717275.85	0.0509	0.0066
Venus	84867-03-04 06:00 G	32718157.70	32718157.75	32718157.82	0.0491	0.0465
Venus	84867-10-26 03:36 G	32718393.46	32718393.65	32718393.86	0.0491	0.0087
Venus	84868-06-17 23:46 G	32718629.33	32718629.49	32718629.65	0.0493	0.0299
Mercury	84870-12-01 20:24 G	32719526.28	32719526.35	32719526.43	0.0517	0.0467
Mercury	84871-03-02 03:36 G	32719616.62	32719616.65	32719616.68	0.0520	0.0508
Venus	84873-08-26 18:00 G	32720525.06	32720525.25	32720525.45	0.0536	0.0128
Venus	84874-04-22 01:12 G	32720763.41	32720763.55	32720763.70	0.0533	0.0386
Mercury	84876-07-22 09:36 G	32721585.78	32721585.90	32721586.02	0.0509	0.0223
Mercury	84876-10-19 15:51 G	32721675.11	32721675.16	32721675.22	0.0506	0.0456
Mars	84877-02-17 22:34 G	32721796.28	32721796.44	32721796.61	0.0503	0.0411
Venus	84879-07-01 07:27 G	32722659.63	32722659.81	32722660.00	0.0491	0.0193
Venus	84880-02-22 03:36 G	32722895.47	32722895.65	32722895.84	0.0492	0.0193
Mercury	84882-12-19 01:56 G	32723926.43	32723926.58	32723926.72	0.0520	0.0275
Venus	84885-05-01 07:41 G	32724790.64	32724790.82	32724790.99	0.0536	0.0267

Venus	84885-12-25 14:24 G	32725028.92	32725029.10	32725029.28	0.0534	0.0249
Mercury	84888-05-10 13:56 G	32725896.00	32725896.08	32725896.17	0.0510	0.0387
Mercury	84888-08-07 20:10 G	32725985.23	32725985.34	32725985.45	0.0507	0.0291
Venus	84891-03-06 12:15 G	32726925.85	32726926.01	32726926.18	0.0491	0.0298
Venus	84891-10-28 08:53 G	32727161.67	32727161.87	32727162.07	0.0492	0.0088
Venus	84892-06-20 05:17 G	32727397.67	32727397.72	32727397.79	0.0495	0.0468
Mercury	84894-10-07 00:15 G	32728236.34	32728236.51	32728236.69	0.0519	0.0046
Venus	84897-01-03 18:58 G	32729056.16	32729056.29	32729056.42	0.0536	0.0406
Venus	84897-08-30 00:29 G	32729294.32	32729294.52	32729294.72	0.0535	0.0104
Mercury	84900-05-27 23:32 G	32730295.35	32730295.48	32730295.61	0.0508	0.0109
Venus	84902-11-10 16:05 G	32731192.06	32731192.17	32731192.29	0.0491	0.0402
Venus	84903-07-04 13:56 G	32731427.88	32731428.08	32731428.28	0.0492	0.0019
Venus	84904-02-25 10:34 G	32731663.81	32731663.94	32731664.08	0.0494	0.0367
Mercury	84906-07-26 22:34 G	32732546.28	32732546.44	32732546.60	0.0518	0.0191
Venus	84909-05-05 12:00 G	32733559.80	32733560.00	32733560.21	0.0535	0.0042
Venus	84909-12-29 18:15 G	32733798.17	32733798.26	32733798.36	0.0532	0.0466
Mercury	84912-03-16 03:51 G	32734605.53	32734605.66	32734605.79	0.0509	0.0059
Venus	84915-03-09 18:29 G	32735694.08	32735694.27	32735694.47	0.0491	0.0126
Venus	84915-10-31 14:53 G	32735929.95	32735930.12	32735930.30	0.0493	0.0261
Earth	84916-12-14 09:22 G	32736339.69	32736339.89	32736340.08	0.0501	0.0271
Moon	84916-12-14 12:44 G	32736339.84	32736340.03	32736340.24	0.0501	0.0242 *
Mercury	84918-05-14 19:27 G	32736856.23	32736856.31	32736856.41	0.0517	0.0444
Venus	84921-01-07 23:46 G	32737825.30	32737825.49	32737825.68	0.0536	0.0185
Venus	84921-09-03 06:29 G	32738063.61	32738063.77	32738063.93	0.0534	0.0330
Mercury	84924-01-03 08:10 G	32738915.73	32738915.84	32738915.96	0.0510	0.0220
Mercury	84924-04-01 14:24 G	32739005.06	32739005.10	32739005.16	0.0507	0.0463
Venus	84926-11-12 22:48 G	32739960.28	32739960.45	32739960.64	0.0491	0.0233
Venus	84927-07-06 19:27 G	32740196.12	32740196.31	32740196.50	0.0492	0.0155
Moon	84928-12-18 17:17 G	32740727.00	32740727.22	32740727.45	0.0502	0.0162
Earth	84928-12-18 20:10 G	32740727.12	32740727.34	32740727.56	0.0502	0.0173 *

Mercury	84930-06-01 00:44 G	32741256.39	32741256.53	32741256.67	0.0519	0.0293
Venus	84932-09-12 13:27 G	32742090.90	32742091.06	32742091.22	0.0536	0.0324
Venus	84933-05-08 19:56 G	32742329.14	32742329.33	32742329.52	0.0535	0.0192
Moon	84934-06-11 01:27 G	32742727.40	32742727.56	32742727.72	0.0526	0.0373
Earth	84934-06-11 03:08 G	32742727.47	32742727.63	32742727.81	0.0526	0.0363 *
Mercury	84935-10-22 12:58 G	32743225.95	32743226.04	32743226.13	0.0510	0.0376
Mercury	84936-01-19 18:58 G	32743315.19	32743315.29	32743315.40	0.0507	0.0302
Venus	84938-07-19 02:53 G	32744226.47	32744226.62	32744226.77	0.0491	0.0337
Venus	84939-03-11 23:32 G	32744462.28	32744462.48	32744462.69	0.0491	0.0049
Venus	84939-11-02 19:41 G	32744698.23	32744698.32	32744698.42	0.0494	0.0431
Mercury	84942-03-19 22:48 G	32745566.28	32745566.45	32745566.63	0.0519	0.0058
Venus	84944-05-18 03:22 G	32746356.54	32746356.64	32746356.75	0.0536	0.0459
Venus	84945-01-11 09:22 G	32746594.69	32746594.89	32746595.10	0.0536	0.0052
Earth	84946-06-16 06:15 G	32747115.54	32747115.76	32747115.98	0.0524	0.0175
Moon	84946-06-16 09:51 G	32747115.68	32747115.91	32747116.14	0.0524	0.0147 *
Mercury	84947-11-07 23:17 G	32747625.34	32747625.47	32747625.60	0.0508	0.0138
Venus	84950-03-24 07:12 G	32748492.72	32748492.80	32748492.89	0.0491	0.0440
Venus	84950-11-15 04:48 G	32748728.50	32748728.70	32748728.90	0.0491	0.0059
Venus	84951-07-09 01:12 G	32748964.40	32748964.55	32748964.70	0.0493	0.0328
Mercury	84954-01-05 21:22 G	32749876.23	32749876.39	32749876.56	0.0518	0.0171
Venus	84956-09-15 20:24 G	32750860.15	32750860.35	32750860.55	0.0535	0.0094
Venus	84957-05-12 02:24 G	32751098.48	32751098.60	32751098.73	0.0533	0.0417
Mercury	84959-08-27 02:39 G	32751935.48	32751935.61	32751935.75	0.0509	0.0048
Venus	84962-07-21 09:22 G	32752994.69	32752994.89	32752995.08	0.0491	0.0166
Venus	84963-03-14 06:15 G	32753230.58	32753230.76	32753230.94	0.0493	0.0224
Mercury	84965-10-24 19:27 G	32754186.21	32754186.31	32754186.42	0.0517	0.0406
Mars	84966-05-17 11:32 G	32754390.80	32754390.98	32754391.17	0.0523	0.0370
Venus	84968-05-21 08:24 G	32755125.67	32755125.85	32755126.03	0.0535	0.0237
Venus	84969-01-14 14:10 G	32755363.92	32755364.09	32755364.27	0.0534	0.0279
Mercury	84971-06-15 06:58 G	32756245.67	32756245.79	32756245.91	0.0509	0.0212

Mercury	84971-09-12 13:12 G	32756335.00	32756335.05	32756335.10	0.0507	0.0470
Venus	84974-03-26 13:41 G	32757260.90	32757261.07	32757261.24	0.0491	0.0272
Venus	84974-11-17 10:48 G	32757496.75	32757496.95	32757497.15	0.0492	0.0116
Mercury	84977-11-11 00:00 G	32758586.37	32758586.50	32758586.64	0.0519	0.0321
Venus	84980-01-24 20:24 G	32759391.21	32759391.35	32759391.49	0.0536	0.0379
Venus	84980-09-19 01:56 G	32759629.39	32759629.58	32759629.78	0.0535	0.0136
Mercury	84983-04-03 11:32 G	32760555.89	32760555.98	32760556.07	0.0510	0.0371
Mercury	84983-07-01 17:32 G	32760645.13	32760645.23	32760645.34	0.0508	0.0309
Venus	84985-11-29 18:00 G	32761527.12	32761527.25	32761527.38	0.0491	0.0376
Venus	84986-07-23 15:36 G	32761762.94	32761763.15	32761763.35	0.0491	0.0015
Venus	84987-03-16 11:46 G	32761998.87	32761998.99	32761999.12	0.0494	0.0394
Mercury	84989-08-29 22:05 G	32762896.25	32762896.42	32762896.59	0.0518	0.0081
Venus	84991-09-29 10:05 G	32763656.87	32763656.92	32763656.98	0.0536	0.0513
Venus	84992-05-24 15:08 G	32763894.93	32763895.13	32763895.34	0.0536	0.0014
Venus	84993-01-17 22:05 G	32764133.36	32764133.42	32764133.49	0.0532	0.0500
Mercury	84995-04-19 22:05 G	32764955.29	32764955.42	32764955.55	0.0508	0.0149
Venus	84997-08-04 21:36 G	32765793.36	32765793.40	32765793.45	0.0491	0.0478
Venus	84998-03-28 19:41 G	32766029.12	32766029.32	32766029.52	0.0491	0.0098
Venus	84998-11-19 15:51 G	32766265.00	32766265.16	32766265.33	0.0493	0.0289
Moon	84999-12-14 17:03 G	32766655.02	32766655.21	32766655.40	0.0501	0.0295
Earth	84999-12-14 19:27 G	32766655.14	32766655.31	32766655.50	0.0501	0.0320 *

86TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 86th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	85001-06-18 19:56 G	32767206.17	32767206.33	32767206.50	0.0518	0.0158
Venus	85004-01-29 05:03 G	32768160.52	32768160.71	32768160.91	0.0536	0.0148
Venus	85004-09-23 11:46 G	32768398.85	32768398.99	32768399.15	0.0534	0.0369
Mercury	85007-02-07 02:39 G	32769265.47	32769265.61	32769265.74	0.0509	0.0022
Venus	85009-12-03 00:29 G	32770295.34	32770295.52	32770295.71	0.0491	0.0205
Venus	85010-07-26 21:08 G	32770531.20	32770531.38	32770531.57	0.0492	0.0185
Earth	85011-12-20 09:08 G	32771042.65	32771042.88	32771043.10	0.0502	0.0136
Moon	85011-12-20 10:05 G	32771042.71	32771042.92	32771043.14	0.0502	0.0120 *
Mercury	85013-04-06 18:29 G	32771516.16	32771516.27	32771516.39	0.0517	0.0385
Venus	85015-10-03 17:03 G	32772426.04	32772426.21	32772426.38	0.0535	0.0291
Venus	85016-05-28 22:34 G	32772664.26	32772664.44	32772664.63	0.0534	0.0226
Earth	85017-06-11 07:56 G	32773042.70	32773042.83	32773042.96	0.0526	0.0437
Moon	85017-06-11 11:03 G	32773042.85	32773042.96	32773043.08	0.0526	0.0454 *
Mercury	85018-11-26 06:00 G	32773575.63	32773575.75	32773575.87	0.0509	0.0196
Mercury	85019-02-23 12:15 G	32773664.98	32773665.01	32773665.05	0.0507	0.0484
Venus	85021-08-08 04:20 G	32774561.52	32774561.68	32774561.83	0.0491	0.0312
Venus	85022-04-01 01:56 G	32774797.38	32774797.58	32774797.78	0.0492	0.0077
Venus	85022-11-22 22:48 G	32775033.39	32775033.45	32775033.53	0.0495	0.0461
Mercury	85025-04-24 00:15 G	32775916.39	32775916.51	32775916.63	0.0519	0.0360
Venus	85027-06-08 06:00 G	32776691.63	32776691.75	32776691.87	0.0535	0.0428
Venus	85028-02-01 10:48 G	32776929.75	32776929.95	32776930.15	0.0534	0.0083
Moon	85029-06-16 04:20 G	32777430.45	32777430.68	32777430.92	0.0524	0.0060
Earth	85029-06-16 08:24 G	32777430.62	32777430.85	32777431.08	0.0524	0.0089 *
Mercury	85030-09-14 10:20 G	32777885.84	32777885.93	32777886.02	0.0510	0.0363
Mercury	85030-12-12 16:20 G	32777975.08	32777975.18	32777975.29	0.0507	0.0317
Mars	85031-05-17 07:27 G	32778130.52	32778130.81	32778131.09	0.0503	0.0098
Venus	85033-04-13 08:10 G	32778827.74	32778827.84	32778827.95	0.0491	0.0417
Venus	85033-12-05 06:29 G	32779063.57	32779063.77	32779063.97	0.0492	0.0031

Venus	85034-07-29 03:08 G	32779299.50	32779299.63	32779299.78	0.0494	0.0357
Mercury	85037-02-09 21:36 G	32780226.23	32780226.40	32780226.57	0.0518	0.0111
Venus	85039-10-06 22:05 G	32781195.22	32781195.42	32781195.62	0.0535	0.0064
Venus	85040-06-01 04:20 G	32781433.58	32781433.68	32781433.79	0.0533	0.0448
Mercury	85042-09-30 20:53 G	32782285.24	32782285.37	32782285.49	0.0508	0.0156
Venus	85045-08-10 11:17 G	32783329.77	32783329.97	32783330.16	0.0491	0.0138
Venus	85046-04-03 07:56 G	32783565.65	32783565.83	32783566.00	0.0493	0.0252
Mercury	85048-11-28 19:27 G	32784536.14	32784536.31	32784536.48	0.0518	0.0131
Venus	85051-06-11 11:17 G	32785460.78	32785460.97	32785461.16	0.0536	0.0206
Venus	85052-02-04 17:46 G	32785699.08	32785699.24	32785699.41	0.0534	0.0313
Mercury	85054-07-20 01:27 G	32786595.42	32786595.56	32786595.69	0.0509	0.0010
Venus	85057-04-15 15:08 G	32787595.96	32787596.13	32787596.31	0.0491	0.0245
Venus	85057-12-07 12:00 G	32787831.81	32787832.00	32787832.19	0.0492	0.0144
Mercury	85060-09-16 17:17 G	32788846.10	32788846.22	32788846.34	0.0517	0.0372
Venus	85063-02-14 01:27 G	32789726.41	32789726.56	32789726.72	0.0536	0.0344
Venus	85063-10-10 07:27 G	32789964.62	32789964.81	32789965.01	0.0535	0.0174
Mercury	85066-05-08 05:46 G	32790905.62	32790905.74	32790905.87	0.0509	0.0165
Venus	85068-12-19 19:41 G	32791862.18	32791862.32	32791862.47	0.0491	0.0350
Venus	85069-08-12 17:17 G	32792098.02	32792098.22	32792098.42	0.0492	0.0038
Venus	85070-04-05 13:56 G	32792333.98	32792334.08	32792334.18	0.0494	0.0424
Mercury	85072-10-03 23:17 G	32793246.35	32793246.47	32793246.58	0.0519	0.0381
Venus	85074-10-19 14:39 G	32793992.03	32793992.11	32793992.21	0.0535	0.0480
Venus	85075-06-14 19:12 G	32794230.09	32794230.30	32794230.50	0.0535	0.0030
Mercury	85078-02-24 09:22 G	32795215.79	32795215.89	32795215.99	0.0510	0.0347
Mercury	85078-05-24 15:22 G	32795305.04	32795305.14	32795305.24	0.0507	0.0332
Venus	85080-08-24 22:20 G	32796128.36	32796128.43	32796128.51	0.0492	0.0456
Venus	85081-04-17 21:08 G	32796364.18	32796364.38	32796364.58	0.0492	0.0071
Venus	85081-12-09 18:15 G	32796600.11	32796600.26	32796600.42	0.0494	0.0319
Earth	85082-12-15 10:20 G	32796970.77	32796970.93	32796971.11	0.0501	0.0348
Moon	85082-12-15 11:17 G	32796970.81	32796970.97	32796971.14	0.0501	0.0330 *

Mercury	85084-07-22 21:36 G	32797556.24	32797556.40	32797556.57	0.0518	0.0150
Venus	85087-02-17 07:27 G	32798495.61	32798495.81	32798496.01	0.0535	0.0116
Venus	85087-10-13 12:58 G	32798733.91	32798734.04	32798734.18	0.0533	0.0398
Mercury	85090-03-12 19:27 G	32799615.19	32799615.31	32799615.44	0.0508	0.0164
Venus	85092-12-22 01:27 G	32800630.37	32800630.56	32800630.75	0.0491	0.0180
Venus	85093-08-14 22:48 G	32800866.27	32800866.45	32800866.64	0.0493	0.0212
Earth	85094-12-19 21:08 G	32801358.16	32801358.38	32801358.61	0.0502	0.0098
Moon	85094-12-19 21:36 G	32801358.16	32801358.40	32801358.64	0.0502	0.0076 *
Mercury	85096-05-10 18:58 G	32801866.12	32801866.29	32801866.46	0.0517	0.0101
Venus	85098-10-22 18:44 G	32802761.10	32802761.28	32802761.46	0.0535	0.0262
Venus	85099-06-18 00:15 G	32802999.34	32802999.51	32802999.70	0.0534	0.0257
Earth	85100-06-11 14:24 G	32803358.03	32803358.10	32803358.17	0.0527	0.0502
Mercury	85101-12-31 00:00 G	32803925.36	32803925.50	32803925.63	0.0509	0.0009
Venus	85104-08-28 06:00 G	32804896.59	32804896.75	32804896.92	0.0491	0.0286
Venus	85105-04-21 03:36 G	32805132.45	32805132.65	32805132.84	0.0492	0.0105
Venus	85105-12-13 00:15 G	32805368.48	32805368.51	32805368.54	0.0495	0.0487
Mercury	85108-02-28 16:20 G	32806176.06	32806176.18	32806176.32	0.0517	0.0346
Venus	85110-06-28 07:56 G	32807026.70	32807026.83	32807026.97	0.0536	0.0400
Venus	85111-02-21 13:27 G	32807264.86	32807265.06	32807265.26	0.0535	0.0115
Earth	85112-06-16 18:00 G	32807746.01	32807746.25	32807746.48	0.0525	0.0040
Moon	85112-06-16 21:22 G	32807746.16	32807746.39	32807746.62	0.0525	0.0019 *
Mercury	85113-10-19 04:34 G	32808235.56	32808235.69	32808235.81	0.0509	0.0157
Venus	85116-05-03 09:51 G	32809162.79	32809162.91	32809163.04	0.0491	0.0390
Venus	85116-12-25 07:41 G	32809398.61	32809398.82	32809399.02	0.0491	0.0008
Venus	85117-08-18 04:05 G	32809634.55	32809634.67	32809634.80	0.0494	0.0385
Mercury	85120-03-16 21:36 G	32810576.29	32810576.40	32810576.51	0.0519	0.0392
Mars	85120-08-13 03:51 G	32810725.41	32810725.66	32810725.91	0.0524	0.0166
Venus	85122-03-02 22:34 G	32811292.43	32811292.44	32811292.46	0.0535	0.0533
Venus	85122-10-27 03:08 G	32811530.42	32811530.63	32811530.83	0.0536	0.0028
Venus	85123-06-22 09:36 G	32811768.82	32811768.90	32811768.98	0.0533	0.0484

Mercury	85125-08-07 08:53 G	32812545.77	32812545.87	32812545.98	0.0510	0.0319
Mercury	85125-11-04 15:08 G	32812635.04	32812635.13	32812635.22	0.0507	0.0361
Venus	85128-08-30 12:29 G	32813664.83	32813665.02	32813665.23	0.0491	0.0112
Venus	85129-04-23 09:22 G	32813900.72	32813900.89	32813901.06	0.0493	0.0280
Mercury	85132-01-03 20:24 G	32814886.19	32814886.35	32814886.52	0.0519	0.0167
Venus	85134-07-01 15:36 G	32815795.96	32815796.15	32815796.35	0.0535	0.0171
Venus	85135-02-24 21:22 G	32816034.23	32816034.39	32816034.54	0.0533	0.0346
Mercury	85137-05-26 12:44 G	32816856.00	32816856.03	32816856.05	0.0511	0.0499
Mercury	85137-08-23 18:29 G	32816945.15	32816945.27	32816945.40	0.0508	0.0177
Venus	85140-05-05 15:36 G	32817930.97	32817931.15	32817931.33	0.0492	0.0221
Venus	85140-12-27 13:12 G	32818166.86	32818167.05	32818167.24	0.0493	0.0172
Mercury	85143-10-22 18:44 G	32819196.11	32819196.28	32819196.45	0.0518	0.0066
Venus	85146-03-06 04:34 G	32820061.52	32820061.69	32820061.85	0.0535	0.0313
Venus	85146-10-30 09:22 G	32820299.70	32820299.89	32820300.08	0.0534	0.0205
Mercury	85149-06-11 22:34 G	32821255.31	32821255.44	32821255.58	0.0509	0.0016
Venus	85152-01-09 19:27 G	32822197.17	32822197.31	32822197.47	0.0492	0.0329
Venus	85152-09-01 17:46 G	32822433.04	32822433.24	32822433.44	0.0492	0.0063
Venus	85153-04-25 14:53 G	32822669.04	32822669.12	32822669.21	0.0495	0.0449
Mercury	85155-08-10 15:51 G	32823506.02	32823506.16	32823506.30	0.0517	0.0318
Venus	85157-11-08 15:36 G	32824327.05	32824327.15	32824327.26	0.0535	0.0454
Venus	85158-07-04 20:10 G	32824565.14	32824565.34	32824565.54	0.0535	0.0058
Mercury	85161-03-31 03:08 G	32825565.50	32825565.63	32825565.75	0.0510	0.0154
Venus	85163-09-14 23:46 G	32826463.40	32826463.49	32826463.59	0.0492	0.0432
Venus	85164-05-07 22:20 G	32826699.23	32826699.43	32826699.63	0.0492	0.0045
Venus	85164-12-29 19:12 G	32826935.16	32826935.30	32826935.44	0.0494	0.0345
Earth	85165-12-15 19:41 G	32827286.19	32827286.32	32827286.47	0.0500	0.0397
Moon	85165-12-15 20:10 G	32827286.20	32827286.34	32827286.51	0.0500	0.0380 *
Mercury	85167-08-27 20:39 G	32827906.26	32827906.36	32827906.47	0.0519	0.0414
Venus	85170-03-09 08:53 G	32828830.67	32828830.87	32828831.07	0.0535	0.0087
Venus	85170-11-02 15:08 G	32829069.01	32829069.13	32829069.25	0.0533	0.0429

Mercury	85173-01-17 07:41 G	32829875.72	32829875.82	32829875.92	0.0510	0.0313
Mercury	85173-04-16 13:41 G	32829964.98	32829965.07	32829965.16	0.0507	0.0367
Venus	85176-01-12 02:24 G	32830965.40	32830965.60	32830965.79	0.0491	0.0153
Venus	85176-09-03 23:17 G	32831201.29	32831201.47	32831201.65	0.0493	0.0239
Moon	85177-12-20 03:51 G	32831673.44	32831673.66	32831673.89	0.0502	0.0020
Earth	85177-12-20 06:00 G	32831673.51	32831673.75	32831673.98	0.0502	0.0044 *
Mercury	85179-06-15 18:44 G	32832216.11	32832216.28	32832216.44	0.0518	0.0174
Venus	85181-11-11 22:34 G	32833096.26	32833096.44	32833096.62	0.0536	0.0228
Venus	85182-07-08 04:34 G	32833334.52	32833334.69	32833334.86	0.0534	0.0293
Mercury	85184-11-05 12:15 G	32834185.96	32834186.01	32834186.05	0.0511	0.0474
Mercury	85185-02-02 18:00 G	32834275.13	32834275.25	32834275.38	0.0508	0.0204
Venus	85187-09-17 06:44 G	32835231.61	32835231.78	32835231.96	0.0491	0.0260
Venus	85188-05-10 04:05 G	32835467.48	32835467.67	32835467.87	0.0492	0.0132
Earth	85189-12-24 18:58 G	32836061.27	32836061.29	32836061.32	0.0503	0.0498
Moon	85189-12-24 22:20 G	32836061.38	32836061.43	32836061.50	0.0503	0.0483
Mercury	85191-04-03 17:17 G	32836526.04	32836526.22	32836526.39	0.0518	0.0054
Venus	85193-07-17 12:15 G	32837361.87	32837362.01	32837362.16	0.0535	0.0368
Venus	85194-03-12 17:03 G	32837600.01	32837600.21	32837600.41	0.0534	0.0149
Moon	85195-06-16 20:39 G	32838061.12	32838061.36	32838061.60	0.0525	0.0056
Earth	85195-06-16 23:17 G	32838061.24	32838061.47	32838061.71	0.0525	0.0031 *
Mercury	85196-11-21 21:36 G	32838585.27	32838585.40	32838585.53	0.0508	0.0021
Venus	85199-05-23 08:39 G	32839497.74	32839497.86	32839498.00	0.0492	0.0371
Venus	85200-01-14 07:12 G	32839733.60	32839733.80	32839734.01	0.0492	0.0022
Venus	85200-09-06 04:48 G	32839969.59	32839969.70	32839969.81	0.0495	0.0411
Mercury	85203-01-20 15:22 G	32840835.99	32840836.14	32840836.28	0.0517	0.0289
Venus	85205-03-22 01:41 G	32841627.51	32841627.57	32841627.63	0.0535	0.0504
Venus	85205-11-15 05:03 G	32841865.51	32841865.71	32841865.91	0.0534	0.0004
Venus	85206-07-11 10:20 G	32842103.88	32842103.93	32842103.98	0.0531	0.0512
Earth	85207-06-21 22:34 G	32842449.37	32842449.44	32842449.53	0.0523	0.0488
Moon	85207-06-21 23:03 G	32842449.42	32842449.46	32842449.50	0.0523	0.0513 *

Mercury	85208-09-10 01:41 G	32842895.44	32842895.57	32842895.69	0.0509	0.0149
Venus	85211-01-26 12:15 G	32843763.97	32843764.01	32843764.06	0.0492	0.0476
Venus	85211-09-19 11:32 G	32843999.78	32843999.98	32844000.19	0.0492	0.0090
Venus	85212-05-12 08:53 G	32844235.72	32844235.87	32844236.03	0.0494	0.0304
Mercury	85215-02-06 19:41 G	32845236.23	32845236.32	32845236.42	0.0519	0.0435
Venus	85217-07-20 15:36 G	32846130.95	32846131.15	32846131.35	0.0535	0.0145
Venus	85218-03-15 21:22 G	32846369.24	32846369.39	32846369.53	0.0533	0.0373
Mercury	85220-06-29 06:00 G	32847205.65	32847205.75	32847205.85	0.0510	0.0313
Mercury	85220-09-26 12:00 G	32847294.91	32847295.00	32847295.09	0.0507	0.0367
Venus	85223-05-25 16:05 G	32848265.98	32848266.17	32848266.35	0.0491	0.0196
Venus	85224-01-16 13:27 G	32848501.87	32848502.06	32848502.24	0.0493	0.0197
Mercury	85226-11-25 17:32 G	32849546.06	32849546.23	32849546.39	0.0518	0.0192
Venus	85229-03-25 04:20 G	32850396.51	32850396.68	32850396.85	0.0535	0.0288
Venus	85229-11-18 09:36 G	32850634.72	32850634.90	32850635.08	0.0534	0.0233
Mercury	85232-04-17 10:34 G	32851515.89	32851515.94	32851515.99	0.0511	0.0473
Mercury	85232-07-15 16:34 G	32851605.07	32851605.19	32851605.31	0.0508	0.0205
Venus	85235-01-28 19:41 G	32852532.17	32852532.32	32852532.49	0.0491	0.0304
Venus	85235-09-21 17:32 G	32852768.03	32852768.23	32852768.43	0.0492	0.0089
Venus	85236-05-14 14:10 G	32853004.04	32853004.09	32853004.15	0.0495	0.0474
Mercury	85238-09-13 15:08 G	32853855.95	32853856.13	32853856.30	0.0518	0.0055
Venus	85240-11-27 18:00 G	32854662.13	32854662.25	32854662.37	0.0535	0.0426
Venus	85241-07-23 22:48 G	32854900.25	32854900.45	32854900.65	0.0535	0.0091
Mercury	85244-05-03 20:53 G	32855915.23	32855915.37	32855915.50	0.0509	0.0043
Venus	85246-10-03 23:32 G	32856798.37	32856798.48	32856798.60	0.0491	0.0409
Venus	85247-05-27 21:51 G	32857034.21	32857034.41	32857034.61	0.0491	0.0020
Venus	85248-01-18 18:44 G	32857270.15	32857270.28	32857270.41	0.0494	0.0371
Moon	85248-12-15 02:10 G	32857601.49	32857601.59	32857601.70	0.0500	0.0444
Earth	85248-12-15 04:20 G	32857601.58	32857601.68	32857601.78	0.0500	0.0451 *
Mercury	85250-07-02 13:12 G	32858165.91	32858166.05	32858166.20	0.0517	0.0286
Venus	85253-03-28 12:00 G	32859165.80	32859166.00	32859166.20	0.0535	0.0054

Venus	85253-11-21 17:17 G	32859404.13	32859404.22	32859404.33	0.0532	0.0459
Mercury	85256-02-21 00:29 G	32860225.39	32860225.52	32860225.64	0.0509	0.0140
Venus	85259-01-31 00:15 G	32861300.32	32861300.51	32861300.71	0.0492	0.0133
Venus	85259-09-23 21:51 G	32861536.24	32861536.41	32861536.59	0.0493	0.0263
Earth	85260-12-19 15:08 G	32861988.90	32861989.13	32861989.36	0.0502	0.0008
Moon	85260-12-19 18:44 G	32861989.04	32861989.28	32861989.51	0.0502	0.0037 *
Mercury	85262-07-19 18:44 G	32862566.21	32862566.28	32862566.37	0.0519	0.0458
Venus	85264-12-01 00:15 G	32863431.32	32863431.51	32863431.70	0.0535	0.0199
Venus	85265-07-27 05:03 G	32863669.56	32863669.71	32863669.88	0.0533	0.0321
Mercury	85267-12-10 04:34 G	32864535.58	32864535.69	32864535.79	0.0510	0.0310
Mercury	85268-03-08 10:34 G	32864624.85	32864624.94	32864625.03	0.0507	0.0368
Venus	85270-10-06 04:20 G	32865566.50	32865566.68	32865566.85	0.0492	0.0242
Venus	85271-05-30 02:10 G	32865802.39	32865802.59	32865802.78	0.0493	0.0153
Moon	85272-12-23 22:05 G	32866376.30	32866376.42	32866376.54	0.0503	0.0426
Earth	85272-12-24 01:56 G	32866376.47	32866376.58	32866376.69	0.0503	0.0441 *
Mercury	85274-05-07 16:05 G	32866876.01	32866876.17	32866876.33	0.0518	0.0206
Venus	85276-08-05 10:48 G	32867696.80	32867696.95	32867697.11	0.0535	0.0345
Venus	85277-03-31 15:22 G	32867934.95	32867935.14	32867935.34	0.0534	0.0175
Earth	85278-06-16 00:29 G	32868376.29	32868376.52	32868376.75	0.0525	0.0117
Moon	85278-06-16 01:27 G	32868376.35	32868376.56	32868376.78	0.0525	0.0135 *
Mercury	85279-09-28 08:39 G	32868845.82	32868845.86	32868845.91	0.0511	0.0476
Mercury	85279-12-26 14:39 G	32868934.99	32868935.11	32868935.23	0.0508	0.0202
Venus	85282-06-11 08:10 G	32869832.71	32869832.84	32869832.99	0.0492	0.0349
Venus	85283-02-02 06:44 G	32870068.57	32870068.78	32870068.98	0.0492	0.0046
Venus	85283-09-26 03:51 G	32870304.57	32870304.66	32870304.76	0.0494	0.0434
Mercury	85286-02-23 13:27 G	32871185.89	32871186.06	32871186.24	0.0517	0.0043
Venus	85288-04-09 23:32 G	32871962.40	32871962.48	32871962.56	0.0535	0.0483
Venus	85288-12-04 03:22 G	32872200.43	32872200.64	32872200.84	0.0535	0.0029
Earth	85290-06-21 01:41 G	32872764.43	32872764.57	32872764.72	0.0524	0.0412
Moon	85290-06-21 03:22 G	32872764.51	32872764.64	32872764.77	0.0524	0.0441 *

Mercury	85291-10-14 18:58 G	32873245.16	32873245.29	32873245.43	0.0509	0.0043
Venus	85294-02-14 11:46 G	32874098.92	32874098.99	32874099.07	0.0492	0.0453
Venus	85294-10-08 10:34 G	32874334.73	32874334.94	32874335.14	0.0491	0.0065
Venus	85295-06-01 07:12 G	32874570.65	32874570.80	32874570.96	0.0493	0.0328
Mercury	85297-12-12 10:48 G	32875495.81	32875495.95	32875496.10	0.0517	0.0291
Venus	85300-08-09 16:20 G	32876465.99	32876466.18	32876466.38	0.0535	0.0116
Venus	85301-04-04 22:34 G	32876704.31	32876704.44	32876704.57	0.0533	0.0404
Mercury	85303-08-03 23:32 G	32877555.35	32877555.48	32877555.61	0.0509	0.0126
Mars	85304-01-31 11:32 G	32877735.79	32877735.98	32877736.18	0.0504	0.0374
Venus	85306-06-14 14:24 G	32878600.91	32878601.10	32878601.29	0.0491	0.0174
Venus	85307-02-05 11:46 G	32878836.80	32878836.99	32878837.17	0.0493	0.0221
Mercury	85309-12-30 16:34 G	32879896.11	32879896.19	32879896.27	0.0519	0.0455
Venus	85312-04-14 06:15 G	32880731.59	32880731.76	32880731.94	0.0535	0.0259
Venus	85312-12-08 11:17 G	32880969.79	32880969.97	32880970.15	0.0534	0.0263
Mercury	85315-05-23 03:08 G	32881865.53	32881865.63	32881865.74	0.0510	0.0304
Mercury	85315-08-20 09:08 G	32881954.79	32881954.88	32881954.97	0.0507	0.0374
Venus	85318-02-17 16:05 G	32882867.01	32882867.17	32882867.34	0.0492	0.0287
Venus	85318-10-11 14:10 G	32883102.90	32883103.09	32883103.29	0.0492	0.0110
Mercury	85321-10-18 14:39 G	32884205.95	32884206.11	32884206.27	0.0519	0.0219
Venus	85323-12-18 19:12 G	32884997.17	32884997.30	32884997.43	0.0535	0.0399
Venus	85324-08-12 23:03 G	32885235.27	32885235.46	32885235.66	0.0534	0.0119
Mercury	85327-03-11 07:12 G	32886175.76	32886175.80	32886175.85	0.0510	0.0474
Mercury	85327-06-08 12:58 G	32886264.92	32886265.04	32886265.17	0.0508	0.0202
Venus	85329-10-23 19:27 G	32887133.19	32887133.31	32887133.43	0.0492	0.0394
Venus	85330-06-16 18:15 G	32887369.06	32887369.26	32887369.47	0.0492	0.0005
Venus	85331-02-07 15:36 G	32887605.03	32887605.15	32887605.28	0.0494	0.0390
Mercury	85333-08-06 11:46 G	32888515.81	32888515.99	32888516.16	0.0518	0.0034
Venus	85336-04-17 08:53 G	32889500.67	32889500.87	32889501.07	0.0535	0.0031
Venus	85336-12-11 14:10 G	32889739.01	32889739.09	32889739.18	0.0532	0.0482
Mercury	85339-03-27 17:03 G	32890575.08	32890575.21	32890575.35	0.0509	0.0037

Venus	85342-02-19 22:48 G	32891635.25	32891635.45	32891635.65	0.0492	0.0111
Venus	85342-10-13 20:10 G	32891871.17	32891871.34	32891871.50	0.0493	0.0284
Moon	85343-12-20 15:36 G	32892303.92	32892304.15	32892304.38	0.0501	0.0111
Earth	85343-12-20 19:27 G	32892304.08	32892304.31	32892304.54	0.0501	0.0077 *
Mercury	85345-05-25 08:53 G	32892825.73	32892825.87	32892826.02	0.0517	0.0284
Venus	85347-12-21 20:39 G	32893766.17	32893766.36	32893766.55	0.0535	0.0178
Venus	85348-08-16 01:56 G	32894004.43	32894004.58	32894004.74	0.0533	0.0344
Mercury	85351-01-13 21:22 G	32894885.27	32894885.39	32894885.52	0.0510	0.0133
Venus	85353-10-26 02:10 G	32895901.41	32895901.59	32895901.78	0.0491	0.0220
Venus	85354-06-18 23:32 G	32896137.30	32896137.48	32896137.67	0.0492	0.0176
Earth	85355-12-25 04:34 G	32896691.53	32896691.69	32896691.85	0.0503	0.0361
Moon	85355-12-25 08:10 G	32896691.68	32896691.84	32896692.00	0.0503	0.0352 *
Mercury	85357-06-11 13:27 G	32897225.98	32897226.06	32897226.16	0.0519	0.0443
Venus	85359-08-26 09:36 G	32898031.74	32898031.90	32898032.07	0.0535	0.0321
Venus	85360-04-20 14:53 G	32898269.93	32898270.12	32898270.31	0.0534	0.0202
Earth	85361-06-16 03:22 G	32898691.43	32898691.64	32898691.86	0.0526	0.0197
Moon	85361-06-16 04:20 G	32898691.46	32898691.68	32898691.91	0.0526	0.0205 *
Mercury	85362-11-02 01:41 G	32899195.47	32899195.57	32899195.68	0.0510	0.0297
Mercury	85363-01-30 07:56 G	32899284.74	32899284.83	32899284.91	0.0507	0.0383
Venus	85365-07-01 05:46 G	32900167.59	32900167.74	32900167.89	0.0491	0.0328
Venus	85366-02-22 03:51 G	32900403.45	32900403.66	32900403.86	0.0492	0.0067
Venus	85366-10-16 00:44 G	32900639.46	32900639.53	32900639.61	0.0494	0.0455
Mercury	85369-03-30 11:46 G	32901535.84	32901535.99	32901536.16	0.0519	0.0211
Venus	85371-05-01 00:00 G	32902297.40	32902297.50	32902297.61	0.0535	0.0459
Venus	85371-12-25 04:05 G	32902535.47	32902535.67	32902535.87	0.0535	0.0057
Moon	85373-06-21 00:29 G	32903079.36	32903079.52	32903079.69	0.0524	0.0362
Earth	85373-06-21 03:36 G	32903079.47	32903079.65	32903079.83	0.0524	0.0329 *
Mercury	85374-08-21 05:46 G	32903505.69	32903505.74	32903505.78	0.0510	0.0471
Mercury	85374-11-18 11:32 G	32903594.86	32903594.98	32903595.10	0.0508	0.0204
Venus	85377-03-06 06:44 G	32904433.70	32904433.78	32904433.88	0.0492	0.0439

Venus	85377-10-28 05:46 G	32904669.54	32904669.74	32904669.95	0.0492	0.0048
Venus	85378-06-21 03:08 G	32904905.49	32904905.63	32904905.78	0.0494	0.0347
Mercury	85381-01-16 09:51 G	32905845.73	32905845.91	32905846.08	0.0518	0.0031
Venus	85383-08-29 16:20 G	32906800.98	32906801.18	32906801.38	0.0535	0.0089
Venus	85384-04-23 21:22 G	32907039.28	32907039.39	32907039.51	0.0532	0.0429
Mercury	85386-09-06 15:22 G	32907905.01	32907905.14	32907905.28	0.0508	0.0035
Venus	85389-07-03 09:36 G	32908935.71	32908935.90	32908936.09	0.0492	0.0158
Venus	85390-02-24 07:12 G	32909171.63	32909171.80	32909171.98	0.0493	0.0238
Mercury	85392-11-04 06:44 G	32910155.63	32910155.78	32910155.93	0.0517	0.0284
Mars	85393-04-29 07:27 G	32910331.63	32910331.81	32910331.99	0.0522	0.0372
Venus	85395-05-04 01:56 G	32911066.40	32911066.58	32911066.76	0.0535	0.0238
Venus	85395-12-28 06:44 G	32911304.61	32911304.78	32911304.95	0.0533	0.0284
Mercury	85398-06-25 19:27 G	32912215.18	32912215.31	32912215.44	0.0509	0.0140
Venus	85401-03-09 13:56 G	32913201.91	32913202.08	32913202.25	0.0492	0.0266
Venus	85401-10-31 11:46 G	32913437.79	32913437.99	32913438.19	0.0492	0.0130
Mercury	85404-11-22 11:32 G	32914555.89	32914555.98	32914556.07	0.0519	0.0444
Venus	85407-01-07 13:56 G	32915331.94	32915332.08	32915332.22	0.0535	0.0381
Venus	85407-09-02 18:00 G	32915570.06	32915570.25	32915570.45	0.0534	0.0139
Mercury	85410-04-14 23:46 G	32916525.39	32916525.49	32916525.60	0.0510	0.0306
Mercury	85410-07-13 05:46 G	32916614.65	32916614.74	32916614.83	0.0508	0.0374
Venus	85412-11-12 17:03 G	32917468.08	32917468.21	32917468.34	0.0491	0.0374
Venus	85413-07-06 15:22 G	32917703.93	32917704.14	32917704.34	0.0492	0.0021
Venus	85414-02-27 12:00 G	32917939.90	32917940.00	32917940.12	0.0494	0.0411
Mercury	85416-09-10 08:39 G	32918865.71	32918865.86	32918866.03	0.0518	0.0195
Venus	85418-09-12 02:53 G	32919597.58	32919597.62	32919597.67	0.0535	0.0519
Venus	85419-05-08 06:29 G	32919835.57	32919835.77	32919835.98	0.0535	0.0008
Venus	85420-01-01 12:15 G	32920073.96	32920074.01	32920074.08	0.0532	0.0508
Mercury	85422-02-01 04:05 G	32920835.63	32920835.67	32920835.72	0.0511	0.0470
Mercury	85422-05-01 10:05 G	32920924.80	32920924.92	32920925.04	0.0508	0.0207
Venus	85424-07-18 19:56 G	32921734.29	32921734.33	32921734.37	0.0492	0.0480

Venus	85425-03-11 18:58 G	32921970.09	32921970.29	32921970.50	0.0491	0.0091
Venus	85425-11-02 16:05 G	32922206.01	32922206.17	32922206.33	0.0493	0.0305
Earth	85426-12-20 20:53 G	32922619.15	32922619.37	32922619.59	0.0501	0.0160
Moon	85426-12-21 00:29 G	32922619.31	32922619.52	32922619.73	0.0501	0.0193 *
Mercury	85428-06-29 06:44 G	32923175.61	32923175.78	32923175.96	0.0518	0.0044
Venus	85431-01-10 20:10 G	32924101.15	32924101.34	32924101.54	0.0535	0.0153
Venus	85431-09-06 01:27 G	32924339.42	32924339.56	32924339.72	0.0533	0.0370
Mercury	85434-02-17 13:56 G	32925234.94	32925235.08	32925235.21	0.0508	0.0035
Venus	85436-11-14 20:39 G	32926236.18	32926236.36	32926236.55	0.0491	0.0205
Venus	85437-07-08 18:15 G	32926472.08	32926472.26	32926472.45	0.0493	0.0193
Moon	85438-12-25 03:22 G	32927006.44	32927006.64	32927006.85	0.0503	0.0269
Earth	85438-12-25 06:29 G	32927006.58	32927006.77	32927006.96	0.0503	0.0281 *
Mercury	85440-04-17 04:20 G	32927485.54	32927485.68	32927485.83	0.0517	0.0287
Venus	85442-09-15 08:53 G	32928366.70	32928366.87	32928367.04	0.0535	0.0296
Venus	85443-05-11 13:27 G	32928604.88	32928605.06	32928605.25	0.0534	0.0228
Moon	85444-06-15 23:32 G	32929006.30	32929006.48	32929006.67	0.0526	0.0300
Earth	85444-06-16 02:10 G	32929006.39	32929006.59	32929006.78	0.0526	0.0294 *
Mercury	85445-12-06 17:46 G	32929545.12	32929545.24	32929545.37	0.0509	0.0141
Venus	85448-07-21 00:00 G	32930502.35	32930502.50	32930502.66	0.0492	0.0314
Venus	85449-03-13 22:20 G	32930738.23	32930738.43	32930738.63	0.0492	0.0083
Venus	85449-11-04 19:41 G	32930974.27	32930974.32	32930974.38	0.0495	0.0472
Mercury	85452-05-04 08:53 G	32931885.79	32931885.87	32931885.97	0.0519	0.0441
Venus	85454-05-20 18:44 G	32932632.17	32932632.28	32932632.40	0.0535	0.0440
Venus	85455-01-13 22:34 G	32932870.24	32932870.44	32932870.64	0.0534	0.0077
Earth	85456-06-20 22:05 G	32933394.21	32933394.42	32933394.63	0.0524	0.0215
Moon	85456-06-21 01:41 G	32933394.37	32933394.57	32933394.78	0.0524	0.0251 *
Mercury	85457-09-24 21:36 G	32933855.30	32933855.40	32933855.51	0.0510	0.0315
Mercury	85457-12-23 03:36 G	32933944.56	32933944.65	32933944.75	0.0508	0.0365
Mars	85458-04-26 10:05 G	32934068.63	32934068.92	32934069.21	0.0504	0.0037
Venus	85460-03-26 03:36 G	32934768.56	32934768.65	32934768.77	0.0492	0.0420

Venus	85460-11-17 02:53 G	32935004.42	32935004.62	32935004.82	0.0492	0.0027
Venus	85461-07-11 00:00 G	32935240.37	32935240.50	32935240.64	0.0494	0.0367
Mercury	85464-02-21 06:29 G	32936195.61	32936195.77	32936195.93	0.0518	0.0193
Venus	85466-09-18 09:51 G	32937135.71	32937135.91	32937136.11	0.0535	0.0071
Venus	85467-05-14 15:22 G	32937374.03	32937374.14	32937374.25	0.0533	0.0448
Mercury	85469-07-14 01:56 G	32938165.54	32938165.58	32938165.62	0.0511	0.0481
Mercury	85469-10-11 07:56 G	32938254.70	32938254.83	32938254.95	0.0508	0.0196
Venus	85472-07-23 06:15 G	32939270.57	32939270.76	32939270.96	0.0491	0.0138
Venus	85473-03-16 03:36 G	32939506.48	32939506.65	32939506.82	0.0493	0.0259
Mercury	85475-12-10 03:36 G	32940505.47	32940505.65	32940505.82	0.0517	0.0063
Venus	85478-05-23 22:05 G	32941401.24	32941401.42	32941401.61	0.0535	0.0218
Venus	85479-01-17 03:36 G	32941639.48	32941639.65	32941639.81	0.0534	0.0308
Mercury	85481-07-30 12:00 G	32942564.87	32942565.00	32942565.14	0.0509	0.0033
Venus	85484-03-28 09:36 G	32943536.73	32943536.90	32943537.08	0.0491	0.0248
Venus	85484-11-19 07:12 G	32943772.61	32943772.80	32943773.00	0.0492	0.0150
Mercury	85487-09-28 01:12 G	32944815.41	32944815.55	32944815.69	0.0517	0.0304
Venus	85490-01-26 12:15 G	32945666.86	32945667.01	32945667.16	0.0535	0.0359
Venus	85490-09-21 17:03 G	32945905.01	32945905.21	32945905.40	0.0534	0.0165
Mercury	85493-05-18 16:05 G	32946875.04	32946875.17	32946875.30	0.0509	0.0142
Venus	85495-12-02 10:48 G	32947802.82	32947802.95	32947803.10	0.0491	0.0360
Venus	85496-07-25 09:22 G	32948038.69	32948038.89	32948039.10	0.0492	0.0037
Venus	85497-03-18 06:29 G	32948274.68	32948274.77	32948274.88	0.0494	0.0428
Mercury	85499-10-15 06:29 G	32949215.68	32949215.77	32949215.86	0.0519	0.0435
Venus	85501-10-02 01:41 G	32949932.50	32949932.57	32949932.64	0.0535	0.0496
Venus	85502-05-28 05:03 G	32950170.51	32950170.71	32950170.92	0.0535	0.0020
Venus	85503-01-21 10:34 G	32950408.93	32950408.94	32950408.95	0.0532	0.0531
Mercury	85505-03-07 20:10 G	32951185.24	32951185.34	32951185.44	0.0510	0.0313
Mercury	85505-06-05 01:56 G	32951274.49	32951274.58	32951274.68	0.0507	0.0364
Venus	85507-08-08 13:56 G	32952069.02	32952069.08	32952069.15	0.0492	0.0466
Venus	85508-03-31 13:27 G	32952304.85	32952305.06	32952305.26	0.0492	0.0076

Venus	85508-11-22 10:34 G	32952540.79	32952540.94	32952541.10	0.0493	0.0321
Moon	85509-12-20 18:15 G	32952934.07	32952934.26	32952934.46	0.0501	0.0277
Earth	85509-12-20 21:22 G	32952934.19	32952934.39	32952934.59	0.0501	0.0244 *
Mercury	85511-08-04 03:51 G	32953525.50	32953525.66	32953525.82	0.0518	0.0186
Venus	85514-01-30 14:24 G	32954435.90	32954436.10	32954436.30	0.0535	0.0132
Venus	85514-09-25 19:27 G	32954674.18	32954674.31	32954674.45	0.0533	0.0389
Mercury	85516-12-25 00:00 G	32955495.47	32955495.50	32955495.53	0.0511	0.0489
Mercury	85517-03-24 05:46 G	32955584.62	32955584.74	32955584.86	0.0508	0.0188
Venus	85519-12-05 17:32 G	32956571.04	32956571.23	32956571.42	0.0492	0.0184
Venus	85520-07-28 15:22 G	32956806.96	32956807.14	32956807.32	0.0493	0.0214
Earth	85521-12-25 08:24 G	32957321.64	32957321.85	32957322.07	0.0502	0.0201
Moon	85521-12-25 09:51 G	32957321.71	32957321.91	32957322.12	0.0502	0.0197 *
Mercury	85523-05-23 01:12 G	32957835.38	32957835.55	32957835.73	0.0517	0.0062
Venus	85525-10-05 01:56 G	32958701.41	32958701.58	32958701.75	0.0535	0.0279
Venus	85526-05-31 06:29 G	32958939.59	32958939.77	32958939.95	0.0534	0.0246
Earth	85527-06-16 18:58 G	32959321.15	32959321.29	32959321.43	0.0527	0.0418
Moon	85527-06-16 22:20 G	32959321.29	32959321.43	32959321.58	0.0527	0.0420 *
Mercury	85529-01-10 09:51 G	32959894.78	32959894.91	32959895.05	0.0509	0.0026
Venus	85531-08-10 20:53 G	32960837.21	32960837.37	32960837.54	0.0491	0.0293
Venus	85532-04-02 18:58 G	32961073.09	32961073.29	32961073.49	0.0492	0.0104
Venus	85532-11-24 15:51 G	32961309.14	32961309.16	32961309.18	0.0494	0.0492
Mercury	85535-03-10 22:05 G	32962145.28	32962145.42	32962145.56	0.0517	0.0319
Venus	85537-06-09 14:10 G	32962966.97	32962967.09	32962967.22	0.0535	0.0422
Venus	85538-02-02 18:29 G	32963205.07	32963205.27	32963205.48	0.0535	0.0100
Moon	85539-06-21 16:34 G	32963708.97	32963709.19	32963709.42	0.0525	0.0148
Earth	85539-06-21 20:39 G	32963709.13	32963709.36	32963709.59	0.0525	0.0115 *
Mercury	85540-10-29 14:10 G	32964204.97	32964205.09	32964205.22	0.0510	0.0148
Venus	85543-04-15 23:46 G	32965103.38	32965103.49	32965103.61	0.0492	0.0402
Venus	85543-12-07 22:34 G	32965339.23	32965339.44	32965339.64	0.0491	0.0010
Venus	85544-07-30 19:27 G	32965575.19	32965575.31	32965575.43	0.0493	0.0386

Mercury	85547-03-28 03:22 G	32966545.54	32966545.64	32966545.75	0.0519	0.0419
Mars	85547-07-25 11:46 G	32966664.73	32966664.99	32966665.25	0.0523	0.0062
Venus	85549-10-08 08:10 G	32967470.64	32967470.84	32967471.04	0.0535	0.0046
Venus	85550-06-03 13:56 G	32967708.99	32967709.08	32967709.18	0.0533	0.0473
Mercury	85552-08-17 18:29 G	32968515.17	32968515.27	32968515.37	0.0510	0.0315
Mercury	85552-11-15 00:15 G	32968604.42	32968604.51	32968604.61	0.0507	0.0363
Venus	85555-08-13 00:44 G	32969605.33	32969605.53	32969605.73	0.0491	0.0120
Venus	85556-04-04 21:51 G	32969841.25	32969841.41	32969841.58	0.0493	0.0277
Mercury	85559-01-14 01:12 G	32970855.39	32970855.55	32970855.72	0.0519	0.0179
Venus	85561-06-12 20:53 G	32971736.18	32971736.37	32971736.56	0.0535	0.0191
Venus	85562-02-06 02:10 G	32971974.43	32971974.59	32971974.75	0.0534	0.0334
Mercury	85564-06-05 22:34 G	32972825.40	32972825.44	32972825.48	0.0511	0.0484
Mercury	85564-09-03 04:20 G	32972914.56	32972914.68	32972914.80	0.0508	0.0191
Venus	85567-04-18 04:05 G	32973871.50	32973871.67	32973871.86	0.0491	0.0232
Venus	85567-12-10 02:10 G	32974107.40	32974107.59	32974107.78	0.0492	0.0167
Mercury	85570-11-01 22:34 G	32975165.27	32975165.44	32975165.62	0.0517	0.0069
Venus	85573-02-15 06:58 G	32976001.63	32976001.79	32976001.94	0.0535	0.0338
Venus	85573-10-11 11:03 G	32976239.77	32976239.96	32976240.15	0.0534	0.0185
Mercury	85576-06-22 07:56 G	32977224.70	32977224.83	32977224.97	0.0509	0.0020
Venus	85578-12-22 07:56 G	32978137.69	32978137.83	32978137.98	0.0492	0.0338
Venus	85579-08-15 06:44 G	32978373.58	32978373.78	32978373.99	0.0492	0.0060
Venus	85580-04-07 04:05 G	32978609.59	32978609.67	32978609.75	0.0494	0.0450
Mercury	85582-08-20 19:56 G	32979475.19	32979475.33	32979475.47	0.0516	0.0315
Venus	85584-10-20 18:58 G	32980267.21	32980267.29	32980267.38	0.0535	0.0479
Venus	85585-06-15 22:20 G	32980505.22	32980505.43	32980505.63	0.0535	0.0039
Mercury	85588-04-10 12:15 G	32981534.88	32981535.01	32981535.13	0.0510	0.0157
Venus	85590-08-27 11:03 G	32982403.88	32982403.96	32982404.05	0.0492	0.0446
Venus	85591-04-20 10:34 G	32982639.73	32982639.94	32982640.14	0.0491	0.0053
Venus	85591-12-12 07:27 G	32982875.67	32982875.81	32982875.96	0.0493	0.0343
Earth	85592-12-19 23:03 G	32983249.29	32983249.46	32983249.64	0.0500	0.0326

Moon	85592-12-20 00:44 G	32983249.38	32983249.53	32983249.69	0.0500	0.0356 *
Mercury	85594-09-07 00:29 G	32983875.42	32983875.52	32983875.63	0.0519	0.0408
Venus	85597-02-18 10:20 G	32984770.73	32984770.93	32984771.13	0.0535	0.0111
Venus	85597-10-14 15:51 G	32985009.04	32985009.16	32985009.29	0.0533	0.0413
Mercury	85600-01-28 16:34 G	32985845.09	32985845.19	32985845.29	0.0511	0.0321
Mercury	85600-04-26 22:34 G	32985934.34	32985934.44	32985934.53	0.0508	0.0359
Venus	85602-12-24 13:56 G	32986905.89	32986906.08	32986906.27	0.0491	0.0163
Venus	85603-08-17 11:17 G	32987141.79	32987141.97	32987142.15	0.0492	0.0235
Earth	85604-12-24 09:08 G	32987636.65	32987636.88	32987637.11	0.0501	0.0113
Moon	85604-12-24 09:36 G	32987636.66	32987636.90	32987637.13	0.0501	0.0117 *
Mercury	85606-06-25 22:20 G	32988185.27	32988185.43	32988185.60	0.0518	0.0167
Venus	85608-10-24 00:00 G	32989036.33	32989036.50	32989036.68	0.0536	0.0255
Venus	85609-06-19 05:17 G	32989274.55	32989274.72	32989274.90	0.0534	0.0272
Moon	85610-06-15 16:48 G	32989636.15	32989636.20	32989636.26	0.0527	0.0510
Earth	85610-06-15 20:39 G	32989636.29	32989636.36	32989636.43	0.0527	0.0502
Mercury	85611-11-16 20:53 G	32990155.33	32990155.37	32990155.41	0.0511	0.0485
Mercury	85612-02-14 02:39 G	32990244.49	32990244.61	32990244.73	0.0508	0.0191
Mars	85612-07-20 17:03 G	32990402.02	32990402.21	32990402.43	0.0503	0.0353
Venus	85614-08-29 16:05 G	32991172.00	32991172.17	32991172.34	0.0491	0.0275
Venus	85615-04-22 13:56 G	32991407.88	32991408.08	32991408.28	0.0492	0.0123
Mercury	85618-04-13 19:56 G	32992495.16	32992495.33	32992495.51	0.0518	0.0076
Venus	85620-06-28 13:41 G	32993301.93	32993302.07	32993302.20	0.0535	0.0396
Venus	85621-02-21 18:00 G	32993540.05	32993540.25	32993540.45	0.0535	0.0128
Earth	85622-06-20 21:36 G	32994024.17	32994024.40	32994024.63	0.0525	0.0027
Moon	85622-06-21 01:12 G	32994024.32	32994024.55	32994024.78	0.0525	0.0063 *
Mercury	85623-12-03 06:44 G	32994554.65	32994554.78	32994554.91	0.0509	0.0021
Venus	85626-05-04 19:12 G	32995438.18	32995438.30	32995438.43	0.0492	0.0384
Venus	85626-12-26 18:00 G	32995674.05	32995674.25	32995674.46	0.0492	0.0015
Venus	85627-08-19 15:22 G	32995910.03	32995910.14	32995910.25	0.0494	0.0406
Mercury	85630-01-30 17:32 G	32996805.09	32996805.23	32996805.37	0.0517	0.0319

Venus	85632-03-03 00:44 G	32997567.53	32997567.53	32997567.54	0.0534	0.0534
Venus	85632-10-27 03:22 G	32997805.44	32997805.64	32997805.84	0.0535	0.0023
Venus	85633-06-22 08:39 G	32998043.79	32998043.86	32998043.93	0.0532	0.0494
Mercury	85635-09-21 10:20 G	32998864.81	32998864.93	32998865.06	0.0510	0.0160
Venus	85638-01-07 22:20 G	32999704.42	32999704.43	32999704.46	0.0492	0.0490
Venus	85638-08-31 22:34 G	32999940.25	32999940.44	32999940.65	0.0492	0.0098
Venus	85639-04-24 20:10 G	33000176.18	33000176.34	33000176.50	0.0493	0.0301
Mercury	85642-02-16 22:48 G	33001205.35	33001205.45	33001205.56	0.0518	0.0417
Venus	85644-07-01 14:53 G	33002070.93	33002071.12	33002071.32	0.0535	0.0171
Venus	85645-02-24 19:56 G	33002309.18	33002309.33	33002309.49	0.0533	0.0355
Mercury	85647-07-10 14:39 G	33003175.01	33003175.11	33003175.21	0.0511	0.0328
Mercury	85647-10-07 20:39 G	33003264.26	33003264.36	33003264.45	0.0508	0.0352
Venus	85650-05-07 02:10 G	33004206.41	33004206.59	33004206.78	0.0491	0.0208
Venus	85650-12-29 00:00 G	33004442.31	33004442.50	33004442.69	0.0492	0.0191
Mercury	85653-12-05 19:56 G	33005515.17	33005515.33	33005515.50	0.0518	0.0164
Venus	85656-03-06 03:22 G	33006336.47	33006336.64	33006336.80	0.0535	0.0317
Venus	85656-10-30 07:56 G	33006574.64	33006574.83	33006575.02	0.0535	0.0209
Mercury	85659-04-28 18:58 G	33007485.26	33007485.29	33007485.33	0.0511	0.0491
Mercury	85659-07-27 00:58 G	33007574.41	33007574.54	33007574.66	0.0509	0.0188
Venus	85662-01-10 05:32 G	33008472.58	33008472.73	33008472.89	0.0491	0.0317
Venus	85662-09-03 03:51 G	33008708.46	33008708.66	33008708.86	0.0492	0.0081
Venus	85663-04-27 00:44 G	33008944.48	33008944.53	33008944.59	0.0494	0.0472
Mercury	85665-09-23 17:32 G	33009825.06	33009825.23	33009825.41	0.0517	0.0080
Venus	85667-11-09 17:32 G	33010602.13	33010602.23	33010602.33	0.0535	0.0456
Venus	85668-07-04 21:22 G	33010840.19	33010840.39	33010840.60	0.0535	0.0065
Mercury	85671-05-15 05:17 G	33011884.58	33011884.72	33011884.85	0.0509	0.0025
Venus	85673-09-15 07:41 G	33012738.72	33012738.82	33012738.92	0.0492	0.0426
Venus	85674-05-09 06:44 G	33012974.57	33012974.78	33012974.98	0.0491	0.0032
Venus	85674-12-31 03:36 G	33013210.52	33013210.65	33013210.79	0.0493	0.0364
Earth	85675-12-20 01:27 G	33013564.43	33013564.56	33013564.70	0.0500	0.0404

Moon	85675-12-20 01:56 G	33013564.46	33013564.58	33013564.70	0.0500	0.0429 *
Mercury	85677-07-12 15:08 G	33014134.99	33014135.13	33014135.27	0.0517	0.0323
Venus	85680-03-09 10:48 G	33015105.75	33015105.95	33015106.15	0.0535	0.0081
Venus	85680-11-02 16:20 G	33015344.08	33015344.18	33015344.30	0.0533	0.0443
Mercury	85683-03-03 09:22 G	33016194.77	33016194.89	33016195.02	0.0510	0.0146
Venus	85686-01-12 10:48 G	33017240.75	33017240.95	33017241.14	0.0491	0.0142
Venus	85686-09-05 08:24 G	33017476.68	33017476.85	33017477.02	0.0493	0.0257
Moon	85687-12-24 11:32 G	33017951.76	33017951.98	33017952.21	0.0501	0.0054
Earth	85687-12-24 13:41 G	33017951.84	33017952.07	33017952.30	0.0501	0.0043 *
Mercury	85689-07-29 20:39 G	33018535.27	33018535.36	33018535.47	0.0519	0.0420
Venus	85691-11-12 20:53 G	33019371.19	33019371.37	33019371.56	0.0535	0.0230
Venus	85692-07-08 01:41 G	33019609.40	33019609.57	33019609.74	0.0534	0.0297
Mercury	85694-12-20 12:58 G	33020504.94	33020505.04	33020505.14	0.0511	0.0327
Mercury	85695-03-19 18:58 G	33020594.20	33020594.29	33020594.39	0.0508	0.0353
Venus	85697-09-17 14:53 G	33021506.94	33021507.12	33021507.29	0.0492	0.0251
Venus	85698-05-11 13:12 G	33021742.85	33021743.05	33021743.24	0.0492	0.0149
Earth	85699-12-29 02:10 G	33022339.56	33022339.59	33022339.63	0.0502	0.0495
Mercury	85701-05-18 18:44 G	33022845.12	33022845.28	33022845.44	0.0518	0.0180
Mars	85701-10-19 02:53 G	33022998.42	33022998.62	33022998.82	0.0522	0.0324
Venus	85703-07-19 09:22 G	33023636.75	33023636.89	33023637.04	0.0535	0.0374
Venus	85704-03-13 13:12 G	33023874.86	33023875.05	33023875.25	0.0534	0.0151
Moon	85705-06-20 13:41 G	33024338.83	33024339.07	33024339.30	0.0526	0.0059
Earth	85705-06-20 16:34 G	33024338.96	33024339.19	33024339.42	0.0526	0.0090 *
Mercury	85706-10-09 17:17 G	33024815.19	33024815.22	33024815.25	0.0512	0.0494
Mercury	85707-01-06 23:03 G	33024904.34	33024904.46	33024904.59	0.0509	0.0185
Venus	85709-05-24 18:15 G	33025773.12	33025773.26	33025773.40	0.0492	0.0361
Venus	85710-01-15 17:03 G	33026009.01	33026009.21	33026009.42	0.0492	0.0039
Venus	85710-09-08 14:10 G	33026245.00	33026245.09	33026245.20	0.0494	0.0432
Mercury	85713-03-06 15:36 G	33027154.98	33027155.15	33027155.33	0.0517	0.0074
Venus	85715-03-23 22:05 G	33027902.38	33027902.42	33027902.48	0.0534	0.0514

Venus	85715-11-17 01:12 G	33028140.34	33028140.55	33028140.75	0.0535	0.0010
Venus	85716-07-12 06:44 G	33028378.75	33028378.78	33028378.83	0.0533	0.0521
Earth	85717-06-25 18:15 G	33028727.13	33028727.26	33028727.38	0.0525	0.0444
Moon	85717-06-25 18:58 G	33028727.17	33028727.29	33028727.41	0.0525	0.0441 *
Mercury	85718-10-26 03:36 G	33029214.51	33029214.65	33029214.78	0.0509	0.0026
Venus	85721-01-27 21:22 G	33030039.33	33030039.39	33030039.45	0.0492	0.0468
Venus	85721-09-20 21:08 G	33030275.18	33030275.38	33030275.58	0.0491	0.0073
Venus	85722-05-14 18:15 G	33030511.11	33030511.26	33030511.41	0.0493	0.0325
Mercury	85724-12-23 13:12 G	33031464.91	33031465.05	33031465.19	0.0516	0.0318
Venus	85727-07-22 14:53 G	33032405.92	33032406.12	33032406.32	0.0536	0.0144
Venus	85728-03-16 20:39 G	33032644.22	33032644.36	33032644.50	0.0534	0.0384
Mercury	85730-08-14 07:56 G	33033524.71	33033524.83	33033524.96	0.0510	0.0141
Venus	85733-05-27 00:00 G	33034541.31	33034541.50	33034541.69	0.0491	0.0185
Venus	85734-01-17 21:22 G	33034777.21	33034777.39	33034777.58	0.0492	0.0215
Mercury	85737-01-09 18:44 G	33035865.18	33035865.28	33035865.38	0.0519	0.0422
Venus	85739-03-27 04:48 G	33036671.53	33036671.70	33036671.88	0.0535	0.0287
Venus	85739-11-20 09:51 G	33036909.73	33036909.91	33036910.09	0.0535	0.0243
Mercury	85742-06-02 12:15 G	33037834.91	33037835.01	33037835.12	0.0510	0.0306
Mercury	85742-08-30 18:15 G	33037924.17	33037924.26	33037924.35	0.0508	0.0373
Venus	85745-01-30 03:51 G	33038807.50	33038807.66	33038807.83	0.0491	0.0295
Venus	85745-09-23 02:24 G	33039043.40	33039043.60	33039043.79	0.0492	0.0106
Mercury	85748-10-28 16:48 G	33040175.04	33040175.20	33040175.37	0.0518	0.0189
Venus	85750-11-29 16:34 G	33040937.08	33040937.19	33040937.31	0.0534	0.0429
Venus	85751-07-25 19:41 G	33041175.12	33041175.32	33041175.53	0.0535	0.0094
Mercury	85754-03-21 15:51 G	33042145.13	33042145.16	33042145.20	0.0511	0.0488
Mercury	85754-06-18 21:36 G	33042234.28	33042234.40	33042234.53	0.0509	0.0191
Venus	85756-10-05 06:58 G	33043073.68	33043073.79	33043073.91	0.0492	0.0403
Venus	85757-05-29 06:44 G	33043309.58	33043309.78	33043309.98	0.0492	0.0004
Venus	85758-01-20 04:20 G	33043545.56	33043545.68	33043545.80	0.0494	0.0393
Moon	85758-12-20 09:51 G	33043879.85	33043879.91	33043879.98	0.0499	0.0476

Earth	85758-12-20 12:00 G	33043879.91	33043880.00	33043880.10	0.0499	0.0450	*
Mercury	85760-08-16 14:53 G	33044484.94	33044485.12	33044485.29	0.0517	0.0049	
Venus	85763-03-30 07:56 G	33045440.63	33045440.83	33045441.03	0.0535	0.0055	
Venus	85763-11-23 12:44 G	33045678.95	33045679.03	33045679.14	0.0533	0.0468	
Mercury	85766-04-07 01:56 G	33046544.45	33046544.58	33046544.71	0.0510	0.0022	
Venus	85769-02-01 10:48 G	33047575.75	33047575.95	33047576.15	0.0492	0.0116	
Venus	85769-09-25 08:39 G	33047811.69	33047811.86	33047812.02	0.0493	0.0284	
Earth	85770-12-24 21:51 G	33048267.18	33048267.41	33048267.65	0.0500	0.0015	
Moon	85770-12-25 01:27 G	33048267.32	33048267.56	33048267.80	0.0501	0.0006	*
Mercury	85772-06-04 11:46 G	33048794.85	33048794.99	33048795.13	0.0516	0.0303	
Venus	85774-12-02 19:56 G	33049706.15	33049706.33	33049706.52	0.0535	0.0204	
Venus	85775-07-29 00:58 G	33049944.38	33049944.54	33049944.70	0.0534	0.0325	
Mercury	85778-01-24 06:29 G	33050854.64	33050854.77	33050854.89	0.0510	0.0141	
Venus	85780-10-07 14:39 G	33051841.93	33051842.11	33051842.29	0.0491	0.0226	
Venus	85781-05-31 12:44 G	33052077.84	33052078.03	33052078.22	0.0492	0.0175	
Moon	85782-12-29 04:48 G	33052654.61	33052654.70	33052654.79	0.0502	0.0462	
Earth	85782-12-29 08:39 G	33052654.74	33052654.86	33052654.97	0.0502	0.0430	*
Mercury	85784-06-21 17:17 G	33053195.13	33053195.22	33053195.31	0.0518	0.0433	
Venus	85786-08-07 10:05 G	33053971.77	33053971.92	33053972.08	0.0535	0.0347	
Venus	85787-04-02 14:39 G	33054209.92	33054210.11	33054210.30	0.0535	0.0182	
Earth	85788-06-19 23:32 G	33054654.26	33054654.48	33054654.71	0.0527	0.0152	
Moon	85788-06-20 00:58 G	33054654.32	33054654.54	33054654.76	0.0527	0.0120	*
Mercury	85789-11-12 11:03 G	33055164.85	33055164.96	33055165.06	0.0511	0.0299	
Mercury	85790-02-09 16:48 G	33055254.12	33055254.20	33055254.29	0.0508	0.0381	
Venus	85792-06-12 17:32 G	33056108.09	33056108.23	33056108.38	0.0491	0.0336	
Venus	85793-02-03 16:05 G	33056343.97	33056344.17	33056344.37	0.0492	0.0064	
Venus	85793-09-27 13:12 G	33056579.98	33056580.05	33056580.13	0.0494	0.0456	
Mercury	85796-04-09 15:08 G	33057504.97	33057505.13	33057505.29	0.0518	0.0196	
Venus	85798-04-12 00:58 G	33058237.46	33058237.54	33058237.63	0.0535	0.0483	
Venus	85798-12-06 04:20 G	33058475.47	33058475.68	33058475.88	0.0535	0.0038	

Earth	85800-06-26 02:10 G	33059042.44	33059042.59	33059042.75	0.0525	0.0386
Moon	85800-06-26 02:53 G	33059042.46	33059042.62	33059042.79	0.0525	0.0376 *
Mercury	85801-09-01 15:22 G	33059475.09	33059475.14	33059475.20	0.0511	0.0463
Mercury	85801-11-29 21:08 G	33059564.26	33059564.38	33059564.50	0.0509	0.0216
Venus	85804-02-17 21:08 G	33060374.30	33060374.38	33060374.47	0.0492	0.0444
Venus	85804-10-10 20:53 G	33060610.17	33060610.37	33060610.57	0.0491	0.0047
Venus	85805-06-03 18:00 G	33060846.11	33060846.25	33060846.40	0.0493	0.0352
Mercury	85808-01-28 13:27 G	33061814.88	33061815.06	33061815.24	0.0517	0.0036
Venus	85810-08-11 15:36 G	33062740.95	33062741.15	33062741.35	0.0535	0.0112
Venus	85811-04-06 20:24 G	33062979.22	33062979.35	33062979.48	0.0533	0.0414
Mercury	85813-09-18 00:44 G	33063874.40	33063874.53	33063874.66	0.0509	0.0032
Venus	85816-06-16 00:44 G	33064876.34	33064876.53	33064876.72	0.0492	0.0158
Venus	85817-02-06 22:48 G	33065112.28	33065112.45	33065112.63	0.0493	0.0245
Mercury	85819-11-16 11:17 G	33066124.83	33066124.97	33066125.13	0.0516	0.0272
Venus	85822-04-16 04:20 G	33067006.51	33067006.68	33067006.86	0.0535	0.0258
Venus	85822-12-10 08:10 G	33067244.67	33067244.84	33067245.02	0.0534	0.0271
Mercury	85825-07-07 05:03 G	33068184.58	33068184.71	33068184.83	0.0510	0.0136
Venus	85828-02-20 04:34 G	33069142.52	33069142.69	33069142.86	0.0492	0.0269
Venus	85828-10-13 03:22 G	33069378.44	33069378.64	33069378.83	0.0492	0.0134
Mercury	85831-12-03 16:20 G	33070525.10	33070525.18	33070525.26	0.0518	0.0456
Venus	85833-12-19 16:48 G	33071272.07	33071272.20	33071272.33	0.0535	0.0403
Venus	85834-08-14 20:10 G	33071510.14	33071510.34	33071510.54	0.0535	0.0123
Mercury	85837-04-25 09:36 G	33072494.79	33072494.90	33072495.00	0.0511	0.0297
Mercury	85837-07-23 15:22 G	33072584.06	33072584.14	33072584.23	0.0508	0.0385
Venus	85839-10-26 08:10 G	33073408.72	33073408.84	33073408.98	0.0492	0.0378
Venus	85840-06-18 07:27 G	33073644.61	33073644.81	33073645.02	0.0492	0.0024
Venus	85841-02-09 04:34 G	33073880.59	33073880.69	33073880.80	0.0493	0.0420
Mercury	85843-09-21 14:10 G	33074834.93	33074835.09	33074835.25	0.0517	0.0215
Venus	85846-04-19 10:05 G	33075775.71	33075775.92	33075776.12	0.0535	0.0025
Venus	85846-12-13 15:36 G	33076014.09	33076014.15	33076014.22	0.0533	0.0501

Mercury	85849-02-11 14:10 G	33076805.04	33076805.09	33076805.15	0.0512	0.0454
Mercury	85849-05-11 19:56 G	33076894.21	33076894.33	33076894.45	0.0509	0.0225
Venus	85851-07-01 11:17 G	33077674.94	33077674.97	33077675.00	0.0492	0.0485
Venus	85852-02-22 11:17 G	33077910.77	33077910.97	33077911.17	0.0491	0.0089
Venus	85852-10-15 08:39 G	33078146.70	33078146.86	33078147.01	0.0493	0.0312
Moon	85853-12-25 02:53 G	33078582.39	33078582.62	33078582.85	0.0500	0.0051
Earth	85853-12-25 06:44 G	33078582.55	33078582.78	33078583.01	0.0500	0.0067 *
Mercury	85855-07-10 12:00 G	33079144.82	33079145.00	33079145.17	0.0517	0.0026
Venus	85857-12-23 00:15 G	33080041.31	33080041.51	33080041.70	0.0535	0.0168
Venus	85858-08-18 05:17 G	33080279.58	33080279.72	33080279.87	0.0534	0.0363
Mercury	85861-02-28 00:29 G	33081204.39	33081204.52	33081204.65	0.0509	0.0062
Venus	85863-10-28 15:36 G	33082176.96	33082177.15	33082177.34	0.0491	0.0199
Venus	85864-06-20 13:27 G	33082412.88	33082413.06	33082413.25	0.0492	0.0204
Earth	85865-12-29 19:56 G	33082970.18	33082970.33	33082970.48	0.0502	0.0387
Moon	85865-12-29 23:17 G	33082970.35	33082970.47	33082970.60	0.0502	0.0417 *
Mercury	85867-04-28 10:05 G	33083454.77	33083454.92	33083455.08	0.0516	0.0255
Venus	85869-08-27 12:58 G	33084306.88	33084307.04	33084307.20	0.0535	0.0313
Venus	85870-04-22 16:20 G	33084545.00	33084545.18	33084545.37	0.0534	0.0216
Moon	85871-06-21 02:53 G	33084969.39	33084969.62	33084969.84	0.0526	0.0200
Earth	85871-06-21 02:39 G	33084969.41	33084969.61	33084969.82	0.0526	0.0233 *
Mercury	85872-12-17 03:51 G	33085514.54	33085514.66	33085514.79	0.0510	0.0123
Venus	85875-07-03 18:29 G	33086443.12	33086443.27	33086443.43	0.0492	0.0311
Venus	85876-02-24 18:00 G	33086679.05	33086679.25	33086679.45	0.0492	0.0093
Venus	85876-10-17 15:36 G	33086915.13	33086915.15	33086915.19	0.0494	0.0488
Mercury	85879-02-14 08:10 G	33087764.79	33087764.84	33087764.90	0.0515	0.0489
Mercury	85879-05-15 16:05 G	33087855.13	33087855.17	33087855.23	0.0518	0.0492
Venus	85881-05-02 02:39 G	33088572.51	33088572.61	33088572.72	0.0534	0.0454
Venus	85881-12-26 04:48 G	33088810.50	33088810.70	33088810.90	0.0534	0.0068
Moon	85883-06-26 01:27 G	33089357.37	33089357.56	33089357.75	0.0525	0.0285
Earth	85883-06-26 03:08 G	33089357.44	33089357.63	33089357.83	0.0525	0.0295 *

Mercury	85884-10-05 08:10 G	33089824.74	33089824.84	33089824.95	0.0511	0.0290
Mercury	85885-01-02 14:10 G	33089914.01	33089914.09	33089914.17	0.0508	0.0392
Mars	85885-04-04 19:41 G	33090006.07	33090006.32	33090006.58	0.0506	0.0250
Venus	85887-03-08 22:05 G	33090709.32	33090709.42	33090709.53	0.0493	0.0421
Venus	85887-10-30 22:20 G	33090945.23	33090945.43	33090945.63	0.0492	0.0019
Venus	85888-06-22 19:56 G	33091181.21	33091181.33	33091181.46	0.0493	0.0381
Mercury	85891-03-03 13:27 G	33092164.91	33092165.06	33092165.22	0.0517	0.0244
Venus	85893-08-30 16:48 G	33093076.00	33093076.20	33093076.40	0.0535	0.0083
Venus	85894-04-25 21:51 G	33093314.30	33093314.41	33093314.52	0.0533	0.0445
Mercury	85896-07-24 12:44 G	33094134.97	33094135.03	33094135.09	0.0512	0.0450
Mercury	85896-10-21 18:29 G	33094224.16	33094224.27	33094224.39	0.0509	0.0231
Venus	85899-07-06 02:24 G	33095211.41	33095211.60	33095211.80	0.0492	0.0131
Venus	85900-02-27 00:15 G	33095447.35	33095447.51	33095447.69	0.0493	0.0273
Mercury	85902-12-21 11:17 G	33096474.79	33096474.97	33096475.14	0.0517	0.0007
Venus	85905-05-06 06:44 G	33097341.60	33097341.78	33097341.97	0.0535	0.0228
Venus	85905-12-30 11:17 G	33097579.81	33097579.97	33097580.14	0.0534	0.0305
Mercury	85908-08-10 23:17 G	33098534.34	33098534.47	33098534.60	0.0510	0.0071
Venus	85911-03-12 06:15 G	33099477.58	33099477.76	33099477.94	0.0492	0.0241
Venus	85911-11-03 04:20 G	33099713.49	33099713.68	33099713.87	0.0492	0.0163
Mercury	85914-10-09 08:53 G	33100784.71	33100784.87	33100785.03	0.0516	0.0239
Venus	85917-01-08 21:36 G	33101607.26	33101607.40	33101607.55	0.0535	0.0369
Venus	85917-09-04 01:27 G	33101845.37	33101845.56	33101845.76	0.0535	0.0161
Mercury	85920-05-30 03:51 G	33102844.53	33102844.66	33102844.79	0.0510	0.0092
Venus	85922-11-15 10:05 G	33103743.78	33103743.92	33103744.06	0.0492	0.0351
Venus	85923-07-09 09:08 G	33103979.68	33103979.88	33103980.09	0.0492	0.0054
Venus	85924-03-01 06:29 G	33104215.69	33104215.77	33104215.86	0.0494	0.0449
Mercury	85926-07-28 07:12 G	33105094.73	33105094.80	33105094.87	0.0516	0.0469
Mercury	85926-10-26 15:22 G	33105185.12	33105185.14	33105185.16	0.0518	0.0513
Venus	85928-09-13 12:00 G	33105872.94	33105873.00	33105873.06	0.0534	0.0506
Venus	85929-05-09 13:41 G	33106110.86	33106111.07	33106111.27	0.0534	0.0017

Mercury	85932-03-18 07:12 G	33107154.70	33107154.80	33107154.92	0.0511	0.0275
Mercury	85932-06-15 13:12 G	33107243.97	33107244.05	33107244.13	0.0508	0.0407
Venus	85934-07-21 12:00 G	33108009.94	33108010.00	33108010.07	0.0493	0.0462
Venus	85935-03-14 12:58 G	33108245.84	33108246.04	33108246.24	0.0492	0.0061
Venus	85935-11-05 11:03 G	33108481.82	33108481.96	33108482.11	0.0493	0.0342
Earth	85936-12-25 22:05 G	33108898.19	33108898.42	33108898.64	0.0500	0.0094
Moon	85936-12-26 01:27 G	33108898.34	33108898.56	33108898.79	0.0500	0.0069 *
Mercury	85938-08-14 13:41 G	33109494.92	33109495.07	33109495.21	0.0517	0.0283
Venus	85941-01-12 02:39 G	33110376.41	33110376.61	33110376.80	0.0534	0.0136
Venus	85941-09-07 06:44 G	33110614.64	33110614.78	33110614.91	0.0533	0.0393
Mercury	85944-01-05 11:46 G	33111464.92	33111464.99	33111465.05	0.0512	0.0441
Mercury	85944-04-03 17:32 G	33111554.11	33111554.23	33111554.34	0.0509	0.0239
Venus	85946-11-17 17:03 G	33112512.02	33112512.21	33112512.40	0.0492	0.0173
Venus	85947-07-11 15:36 G	33112747.97	33112748.15	33112748.33	0.0493	0.0232
Moon	85948-12-30 06:15 G	33113285.61	33113285.76	33113285.93	0.0501	0.0372
Earth	85948-12-30 08:39 G	33113285.70	33113285.86	33113286.03	0.0501	0.0352 *
Mercury	85950-06-02 10:48 G	33113804.78	33113804.95	33113805.13	0.0517	0.0034
Venus	85952-09-16 14:39 G	33114641.95	33114642.11	33114642.29	0.0534	0.0285
Venus	85953-05-12 18:29 G	33114880.09	33114880.27	33114880.45	0.0534	0.0247
Moon	85954-06-21 08:10 G	33115284.65	33115284.84	33115285.04	0.0527	0.0267
Earth	85954-06-21 09:36 G	33115284.71	33115284.90	33115285.10	0.0527	0.0296 *
Mercury	85956-01-21 21:51 G	33115864.28	33115864.41	33115864.54	0.0510	0.0079
Venus	85958-07-23 20:53 G	33116778.21	33116778.37	33116778.54	0.0492	0.0284
Venus	85959-03-16 20:10 G	33117014.14	33117014.34	33117014.53	0.0492	0.0122
Mercury	85962-03-21 08:24 G	33118114.69	33118114.85	33118115.01	0.0516	0.0210
Venus	85964-05-22 05:03 G	33118907.59	33118907.71	33118907.83	0.0534	0.0426
Venus	85965-01-15 07:56 G	33119145.63	33119145.83	33119146.03	0.0535	0.0101
Earth	85966-06-26 13:41 G	33119672.86	33119673.07	33119673.27	0.0526	0.0249
Moon	85966-06-26 16:48 G	33119672.99	33119673.20	33119673.42	0.0526	0.0231 *
Mercury	85967-11-10 02:39 G	33120174.48	33120174.61	33120174.74	0.0510	0.0081

Venus	85970-03-29 00:15 G	33121044.40	33121044.51	33121044.64	0.0492	0.0393
Venus	85970-11-20 00:00 G	33121280.30	33121280.50	33121280.70	0.0492	0.0010
Venus	85971-07-13 21:22 G	33121516.28	33121516.39	33121516.50	0.0493	0.0409
Mercury	85974-01-07 05:46 G	33122424.66	33122424.74	33122424.83	0.0515	0.0454
Mars	85974-07-07 05:46 G	33122605.49	33122605.74	33122606.00	0.0521	0.0095
Venus	85976-09-19 22:20 G	33123411.22	33123411.43	33123411.63	0.0535	0.0045
Venus	85977-05-16 03:22 G	33123649.56	33123649.64	33123649.73	0.0533	0.0484
Mercury	85979-08-29 07:12 G	33124484.68	33124484.80	33124484.91	0.0511	0.0243
Mercury	85979-11-26 12:58 G	33124573.98	33124574.04	33124574.11	0.0508	0.0439
Venus	85982-07-26 04:34 G	33125546.49	33125546.69	33125546.89	0.0492	0.0101
Venus	85983-03-19 02:24 G	33125782.44	33125782.60	33125782.76	0.0493	0.0303
Mercury	85986-01-24 12:44 G	33126824.89	33126825.03	33126825.17	0.0518	0.0304
Venus	85988-05-25 11:32 G	33127676.79	33127676.98	33127677.17	0.0534	0.0192
Venus	85989-01-18 15:22 G	33127914.98	33127915.14	33127915.29	0.0533	0.0340
Mercury	85991-06-17 10:48 G	33128794.88	33128794.95	33128795.02	0.0511	0.0424
Mercury	85991-09-14 16:34 G	33128884.07	33128884.19	33128884.30	0.0509	0.0255
Venus	85994-03-31 07:12 G	33129812.62	33129812.80	33129812.99	0.0492	0.0216
Venus	85994-11-22 06:15 G	33130048.58	33130048.76	33130048.95	0.0493	0.0192
Mercury	85997-11-12 10:48 G	33131134.78	33131134.95	33131135.13	0.0517	0.0074
Venus	86000-01-29 01:12 G	33131942.40	33131942.55	33131942.71	0.0534	0.0336
Venus	86000-09-23 04:05 G	33132180.48	33132180.67	33132180.86	0.0534	0.0194

87TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 87th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	86003-07-03 20:39 G	33133194.23	33133194.36	33133194.49	0.0510	0.0087
Venus	86005-12-04 10:48 G	33134078.80	33134078.95	33134079.10	0.0493	0.0328
Venus	86006-07-28 10:48 G	33134314.75	33134314.95	33134315.15	0.0492	0.0080
Venus	86007-03-21 08:39 G	33134550.81	33134550.86	33134550.91	0.0494	0.0476
Mercury	86009-08-31 07:56 G	33135444.67	33135444.83	33135445.00	0.0516	0.0178
Venus	86011-10-03 13:56 G	33136207.99	33136208.08	33136208.17	0.0534	0.0479
Venus	86012-05-28 15:36 G	33136445.94	33136446.15	33136446.35	0.0534	0.0044
Mercury	86015-04-22 01:12 G	33137504.42	33137504.55	33137504.68	0.0510	0.0075
Venus	86017-08-09 14:39 G	33138345.02	33138345.11	33138345.20	0.0493	0.0436
Venus	86018-04-02 15:08 G	33138580.93	33138581.13	33138581.34	0.0492	0.0033
Venus	86018-11-24 12:58 G	33138816.91	33138817.04	33138817.18	0.0493	0.0370
Moon	86019-12-26 06:58 G	33139213.55	33139213.79	33139214.02	0.0500	0.0109
Earth	86019-12-26 09:08 G	33139213.66	33139213.88	33139214.11	0.0500	0.0136 *
Mercury	86021-06-19 05:17 G	33139754.63	33139754.72	33139754.82	0.0515	0.0424
Venus	86024-02-01 05:03 G	33140711.51	33140711.71	33140711.91	0.0535	0.0104
Venus	86024-09-26 09:51 G	33140949.79	33140949.91	33140950.03	0.0533	0.0427
Mercury	86027-02-08 06:00 G	33141814.63	33141814.75	33141814.86	0.0511	0.0234
Mercury	86027-05-08 11:46 G	33141903.93	33141903.99	33141904.05	0.0508	0.0449
Venus	86029-12-06 18:58 G	33142847.09	33142847.29	33142847.48	0.0492	0.0145
Venus	86030-07-30 17:03 G	33143083.04	33143083.21	33143083.38	0.0493	0.0261
Earth	86031-12-30 19:27 G	33143601.12	33143601.31	33143601.49	0.0501	0.0305
Moon	86031-12-30 19:41 G	33143601.15	33143601.32	33143601.50	0.0501	0.0320 *
Mercury	86033-07-06 11:17 G	33144154.83	33144154.97	33144155.11	0.0518	0.0317
Venus	86035-10-06 19:41 G	33144977.14	33144977.32	33144977.50	0.0535	0.0249
Venus	86036-05-31 23:46 G	33145215.32	33145215.49	33145215.66	0.0534	0.0286
Earth	86037-06-20 21:36 G	33145600.23	33145600.40	33145600.58	0.0527	0.0338
Moon	86037-06-21 00:44 G	33145600.34	33145600.53	33145600.72	0.0527	0.0313 *
Mercury	86038-11-27 10:34 G	33146124.86	33146124.94	33146125.02	0.0512	0.0394

Mercury	86039-02-24 16:20 G	33146214.07	33146214.18	33146214.29	0.0509	0.0286
Mars	86039-07-02 01:27 G	33146341.38	33146341.56	33146341.75	0.0505	0.0391
Venus	86041-08-11 23:03 G	33147113.29	33147113.46	33147113.63	0.0492	0.0256
Venus	86042-04-04 21:51 G	33147349.22	33147349.41	33147349.61	0.0492	0.0151
Mercury	86045-04-24 09:51 G	33148464.74	33148464.91	33148465.08	0.0517	0.0091
Venus	86047-06-11 10:05 G	33149242.79	33149242.92	33149243.06	0.0534	0.0392
Venus	86048-02-04 12:29 G	33149480.83	33149481.02	33149481.22	0.0534	0.0138
Moon	86049-06-25 16:34 G	33149987.97	33149988.19	33149988.42	0.0525	0.0158
Earth	86049-06-25 20:24 G	33149988.13	33149988.35	33149988.57	0.0525	0.0185 *
Mercury	86050-12-13 19:56 G	33150524.20	33150524.33	33150524.46	0.0509	0.0103
Venus	86053-04-17 00:29 G	33151379.39	33151379.52	33151379.66	0.0493	0.0371
Venus	86053-12-09 00:58 G	33151615.33	33151615.54	33151615.74	0.0492	0.0037
Venus	86054-08-01 23:03 G	33151851.37	33151851.46	33151851.56	0.0494	0.0438
Mercury	86057-02-10 07:56 G	33152774.66	33152774.83	33152775.00	0.0516	0.0142
Venus	86059-02-14 00:44 G	33153508.51	33153508.53	33153508.56	0.0533	0.0529
Venus	86059-10-10 01:27 G	33153746.36	33153746.56	33153746.77	0.0534	0.0015
Venus	86060-06-04 05:32 G	33153984.68	33153984.73	33153984.78	0.0532	0.0513
Mercury	86062-10-02 00:00 G	33154834.37	33154834.50	33154834.63	0.0510	0.0067
Venus	86064-12-21 03:22 G	33155645.60	33155645.64	33155645.69	0.0493	0.0481
Venus	86065-08-14 05:03 G	33155881.51	33155881.71	33155881.91	0.0492	0.0077
Venus	86066-04-07 03:22 G	33156117.50	33156117.64	33156117.80	0.0493	0.0330
Mercury	86068-11-29 04:48 G	33157084.59	33157084.70	33157084.82	0.0515	0.0394
Venus	86071-06-14 12:58 G	33158011.85	33158012.04	33158012.24	0.0534	0.0163
Venus	86072-02-07 16:48 G	33158250.06	33158250.20	33158250.35	0.0533	0.0370
Mercury	86074-07-21 04:34 G	33159144.57	33159144.69	33159144.80	0.0511	0.0230
Mercury	86074-10-18 10:20 G	33159233.88	33159233.93	33159233.99	0.0508	0.0454
Venus	86077-04-19 09:08 G	33160147.69	33160147.88	33160148.07	0.0492	0.0189
Venus	86077-12-11 07:56 G	33160383.65	33160383.83	33160384.01	0.0493	0.0219
Mercury	86080-12-16 10:34 G	33161484.81	33161484.94	33161485.07	0.0517	0.0343
Venus	86083-02-17 02:39 G	33162277.45	33162277.61	33162277.78	0.0534	0.0308

Venus	86083-10-13 06:00 G	33162515.56	33162515.75	33162515.93	0.0534	0.0226
Mercury	86086-05-09 09:08 G	33163454.80	33163454.88	33163454.97	0.0512	0.0388
Mercury	86086-08-06 14:53 G	33163544.02	33163544.12	33163544.23	0.0509	0.0293
Venus	86088-12-23 12:29 G	33164413.86	33164414.02	33164414.18	0.0492	0.0300
Venus	86089-08-16 12:00 G	33164649.80	33164650.00	33164650.20	0.0492	0.0108
Mercury	86092-10-04 08:10 G	33165794.67	33165794.84	33165795.01	0.0517	0.0101
Venus	86094-10-22 17:32 G	33166543.13	33166543.23	33166543.34	0.0534	0.0448
Venus	86095-06-17 19:56 G	33166781.13	33166781.33	33166781.53	0.0535	0.0080
Mercury	86098-05-25 19:27 G	33167854.18	33167854.31	33167854.44	0.0510	0.0130
Venus	86100-08-29 15:51 G	33168680.06	33168680.16	33168680.28	0.0493	0.0411
Venus	86101-04-22 16:20 G	33168915.98	33168916.18	33168916.38	0.0492	0.0005
Venus	86101-12-14 14:10 G	33169151.97	33169152.09	33169152.21	0.0493	0.0398
Earth	86102-12-26 20:10 G	33169529.13	33169529.34	33169529.56	0.0500	0.0180
Moon	86102-12-26 20:39 G	33169529.15	33169529.36	33169529.58	0.0500	0.0149 *
Mercury	86104-07-24 06:29 G	33170104.60	33170104.77	33170104.94	0.0516	0.0128
Venus	86107-02-21 09:51 G	33171046.70	33171046.91	33171047.11	0.0534	0.0070
Venus	86107-10-17 13:41 G	33171284.97	33171285.07	33171285.17	0.0533	0.0460
Mercury	86110-03-14 23:03 G	33172164.33	33172164.46	33172164.59	0.0510	0.0053
Venus	86112-12-26 18:15 G	33173182.07	33173182.26	33173182.46	0.0492	0.0122
Venus	86113-08-19 17:17 G	33173418.06	33173418.22	33173418.39	0.0493	0.0287
Earth	86114-12-31 07:41 G	33173916.63	33173916.82	33173917.02	0.0502	0.0269
Moon	86114-12-31 08:53 G	33173916.67	33173916.87	33173917.07	0.0502	0.0277 *
Mercury	86116-05-12 04:34 G	33174414.56	33174414.69	33174414.81	0.0516	0.0364
Venus	86118-10-26 23:03 G	33175312.28	33175312.46	33175312.65	0.0534	0.0217
Venus	86119-06-22 02:10 G	33175550.42	33175550.59	33175550.75	0.0533	0.0316
Moon	86120-06-20 21:22 G	33175915.25	33175915.39	33175915.55	0.0527	0.0398
Earth	86120-06-21 01:12 G	33175915.42	33175915.55	33175915.70	0.0527	0.0414 *
Mercury	86122-01-01 03:08 G	33176474.52	33176474.63	33176474.75	0.0511	0.0222
Mercury	86122-03-31 09:08 G	33176563.82	33176563.88	33176563.93	0.0508	0.0459
Venus	86124-08-31 21:51 G	33177448.24	33177448.41	33177448.60	0.0493	0.0236

Venus	86125-04-24 21:36 G	33177684.21	33177684.40	33177684.59	0.0493	0.0175
Mercury	86128-05-29 09:36 G	33178814.79	33178814.90	33178815.03	0.0517	0.0368
Mars	86128-10-02 02:24 G	33178940.49	33178940.60	33178940.73	0.0521	0.0460
Venus	86130-07-01 10:48 G	33179577.81	33179577.95	33179578.10	0.0534	0.0364
Venus	86131-02-24 13:12 G	33179815.86	33179816.05	33179816.24	0.0534	0.0167
Earth	86132-06-26 00:58 G	33180303.31	33180303.54	33180303.77	0.0526	0.0114
Moon	86132-06-26 04:20 G	33180303.46	33180303.68	33180303.91	0.0526	0.0085 *
Mercury	86133-10-20 07:41 G	33180784.73	33180784.82	33180784.90	0.0512	0.0386
Mercury	86134-01-17 13:27 G	33180873.95	33180874.06	33180874.17	0.0509	0.0294
Venus	86136-05-07 01:41 G	33181714.42	33181714.57	33181714.71	0.0493	0.0346
Venus	86136-12-29 01:56 G	33181950.37	33181950.58	33181950.78	0.0492	0.0063
Venus	86137-08-22 00:00 G	33182186.43	33182186.50	33182186.57	0.0494	0.0464
Mercury	86140-03-17 07:12 G	33183124.63	33183124.80	33183124.97	0.0517	0.0123
Venus	86142-03-06 00:44 G	33183843.47	33183843.53	33183843.60	0.0533	0.0505
Venus	86142-10-30 01:56 G	33184081.38	33184081.58	33184081.78	0.0534	0.0017
Mercury	86145-11-05 18:00 G	33185184.12	33185184.25	33185184.37	0.0510	0.0133
Venus	86148-01-11 04:20 G	33185980.62	33185980.68	33185980.77	0.0493	0.0456
Venus	86148-09-03 05:46 G	33186216.53	33186216.74	33186216.94	0.0492	0.0051
Venus	86149-04-27 03:36 G	33186452.52	33186452.65	33186452.80	0.0493	0.0356
Mercury	86152-01-04 04:34 G	33187434.52	33187434.69	33187434.86	0.0516	0.0124
Venus	86154-07-04 15:51 G	33188346.96	33188347.16	33188347.36	0.0535	0.0130
Venus	86155-02-27 20:10 G	33188585.21	33188585.34	33188585.48	0.0533	0.0405
Mercury	86157-08-24 22:20 G	33189494.30	33189494.43	33189494.56	0.0510	0.0032
Venus	86160-05-09 09:22 G	33190482.70	33190482.89	33190483.08	0.0492	0.0163
Venus	86160-12-31 07:56 G	33190718.66	33190718.83	33190719.01	0.0493	0.0246
Mercury	86163-10-23 02:39 G	33191744.49	33191744.61	33191744.74	0.0516	0.0357
Venus	86166-03-09 06:44 G	33192612.61	33192612.78	33192612.95	0.0534	0.0276
Venus	86166-11-02 09:22 G	33192850.72	33192850.89	33192851.07	0.0533	0.0259
Mercury	86169-06-13 02:10 G	33193804.47	33193804.59	33193804.71	0.0510	0.0211
Mercury	86169-09-10 07:56 G	33193893.78	33193893.83	33193893.88	0.0508	0.0469

Venus	86172-01-13 10:34 G	33194748.77	33194748.94	33194749.11	0.0493	0.0281
Venus	86172-09-05 10:34 G	33194984.74	33194984.94	33194985.14	0.0493	0.0130
Mercury	86175-11-09 08:53 G	33196144.76	33196144.87	33196144.99	0.0518	0.0391
Venus	86177-11-11 20:39 G	33196878.24	33196878.36	33196878.49	0.0533	0.0418
Venus	86178-07-07 22:05 G	33197116.22	33197116.42	33197116.62	0.0534	0.0111
Mercury	86181-04-01 06:15 G	33198114.68	33198114.76	33198114.85	0.0511	0.0381
Mercury	86181-06-29 12:00 G	33198203.89	33198204.00	33198204.11	0.0509	0.0298
Venus	86183-09-18 13:27 G	33199014.94	33199015.06	33199015.18	0.0493	0.0393
Venus	86184-05-11 14:24 G	33199250.89	33199251.10	33199251.30	0.0492	0.0017
Venus	86185-01-02 12:58 G	33199486.93	33199487.04	33199487.14	0.0494	0.0420
Earth	86185-12-26 04:05 G	33199844.46	33199844.67	33199844.87	0.0500	0.0231
Moon	86185-12-26 05:03 G	33199844.50	33199844.71	33199844.94	0.0500	0.0198 *
Mercury	86187-08-28 06:00 G	33200454.58	33200454.75	33200454.92	0.0517	0.0141
Venus	86190-03-12 09:08 G	33201381.67	33201381.88	33201382.08	0.0534	0.0044
Venus	86190-11-05 12:44 G	33201619.96	33201620.03	33201620.12	0.0532	0.0487
Mercury	86193-04-17 16:20 G	33202514.05	33202514.18	33202514.30	0.0510	0.0132
Venus	86196-01-15 18:15 G	33203517.07	33203517.26	33203517.47	0.0492	0.0098
Venus	86196-09-07 17:17 G	33203753.06	33203753.22	33203753.38	0.0493	0.0312
Moon	86197-12-30 12:29 G	33204231.82	33204232.02	33204232.23	0.0501	0.0216
Earth	86197-12-30 14:53 G	33204231.91	33204232.12	33204232.33	0.0501	0.0211 *
Mercury	86199-06-16 03:22 G	33204764.46	33204764.64	33204764.81	0.0516	0.0108
Venus	86201-11-15 21:36 G	33205647.22	33205647.40	33205647.59	0.0534	0.0192
Venus	86202-07-12 01:12 G	33205885.39	33205885.55	33205885.70	0.0533	0.0344
Earth	86203-06-22 04:05 G	33206230.60	33206230.67	33206230.76	0.0528	0.0493
Moon	86203-06-22 07:56 G	33206230.74	33206230.83	33206230.93	0.0528	0.0480 *
Mercury	86205-02-04 20:39 G	33206824.23	33206824.36	33206824.49	0.0510	0.0033
Venus	86207-09-21 21:51 G	33207783.22	33207783.41	33207783.59	0.0492	0.0210
Venus	86208-05-14 20:53 G	33208019.18	33208019.37	33208019.55	0.0492	0.0200
Mercury	86211-04-05 00:15 G	33209074.39	33209074.51	33209074.64	0.0515	0.0359
Venus	86213-07-21 11:46 G	33209912.83	33209912.99	33209913.15	0.0534	0.0337

Venus	86214-03-16 14:39 G	33210150.92	33210151.11	33210151.30	0.0534	0.0198
Moon	86215-06-27 04:34 G	33210618.45	33210618.69	33210618.93	0.0526	0.0015
Earth	86215-06-27 07:27 G	33210618.58	33210618.81	33210619.04	0.0526	0.0048 *
Mercury	86216-11-24 01:12 G	33211134.43	33211134.55	33211134.67	0.0511	0.0196
Mercury	86217-02-21 06:58 G	33211223.76	33211223.79	33211223.83	0.0508	0.0486
Venus	86219-05-28 00:58 G	33212049.38	33212049.54	33212049.69	0.0492	0.0323
Venus	86220-01-19 00:44 G	33212285.33	33212285.53	33212285.73	0.0492	0.0088
Venus	86220-09-10 22:34 G	33212521.42	33212521.44	33212521.48	0.0494	0.0488
Mercury	86223-04-22 06:44 G	33213474.67	33213474.78	33213474.89	0.0518	0.0391
Venus	86225-03-26 03:22 G	33214178.55	33214178.64	33214178.73	0.0533	0.0477
Venus	86225-11-19 04:34 G	33214416.48	33214416.69	33214416.89	0.0534	0.0049
Mercury	86228-09-12 05:03 G	33215444.62	33215444.71	33215444.79	0.0511	0.0373
Mercury	86228-12-10 10:34 G	33215533.84	33215533.94	33215534.05	0.0508	0.0305
Venus	86231-01-31 01:12 G	33216315.46	33216315.55	33216315.64	0.0493	0.0439
Venus	86231-09-24 02:24 G	33216551.40	33216551.60	33216551.81	0.0492	0.0032
Venus	86232-05-17 00:58 G	33216787.42	33216787.54	33216787.68	0.0494	0.0377
Mercury	86235-02-08 04:34 G	33217784.53	33217784.69	33217784.86	0.0517	0.0155
Venus	86237-07-24 17:32 G	33218682.03	33218682.23	33218682.43	0.0534	0.0100
Venus	86238-03-19 20:53 G	33218920.26	33218920.37	33218920.49	0.0532	0.0432
Mercury	86240-09-28 14:39 G	33219843.98	33219844.11	33219844.24	0.0509	0.0133
Venus	86243-05-30 05:46 G	33220817.54	33220817.74	33220817.93	0.0492	0.0145
Venus	86244-01-21 05:03 G	33221053.54	33221053.71	33221053.88	0.0493	0.0265
Mercury	86246-11-27 01:41 G	33222094.39	33222094.57	33222094.74	0.0516	0.0098
Mars	86247-03-25 12:58 G	33222212.96	33222213.04	33222213.12	0.0520	0.0492
Venus	86249-03-29 04:34 G	33222947.51	33222947.69	33222947.87	0.0534	0.0252
Venus	86249-11-22 06:58 G	33223185.62	33223185.79	33223185.97	0.0533	0.0284
Mercury	86252-07-17 18:58 G	33224154.15	33224154.29	33224154.42	0.0510	0.0040
Venus	86255-02-02 09:22 G	33225083.72	33225083.89	33225084.07	0.0493	0.0258
Venus	86255-09-26 09:22 G	33225319.70	33225319.89	33225320.08	0.0493	0.0154
Mercury	86258-09-14 22:34 G	33226404.31	33226404.44	33226404.57	0.0515	0.0349

Venus	86260-12-01 17:17 G	33227213.09	33227213.22	33227213.36	0.0534	0.0398
Venus	86261-07-27 18:58 G	33227451.10	33227451.29	33227451.49	0.0534	0.0135
Mercury	86264-05-05 23:17 G	33228464.35	33228464.47	33228464.59	0.0511	0.0201
Mercury	86264-08-03 05:03 G	33228553.67	33228553.71	33228553.75	0.0508	0.0481
Venus	86266-10-08 12:15 G	33229349.88	33229350.01	33229350.15	0.0493	0.0370
Venus	86267-06-01 12:44 G	33229585.83	33229586.03	33229586.23	0.0492	0.0040
Venus	86268-01-23 10:48 G	33229821.86	33229821.95	33229822.04	0.0494	0.0443
Moon	86268-12-26 05:46 G	33230159.55	33230159.74	33230159.93	0.0499	0.0273
Earth	86268-12-26 07:56 G	33230159.65	33230159.83	33230160.02	0.0499	0.0303 *
Mercury	86270-10-02 03:51 G	33230804.55	33230804.66	33230804.78	0.0517	0.0382
Venus	86273-04-01 08:24 G	33231716.65	33231716.85	33231717.05	0.0534	0.0015
Venus	86273-11-25 12:44 G	33231954.99	33231955.03	33231955.08	0.0533	0.0515
Mercury	86276-02-23 03:36 G	33232774.57	33232774.65	33232774.75	0.0512	0.0366
Mercury	86276-05-22 09:22 G	33232863.79	33232863.89	33232864.00	0.0509	0.0315
Venus	86278-06-13 14:39 G	33233616.07	33233616.11	33233616.16	0.0493	0.0481
Venus	86279-02-04 16:05 G	33233851.97	33233852.17	33233852.38	0.0492	0.0075
Venus	86279-09-28 14:39 G	33234087.97	33234088.11	33234088.26	0.0493	0.0334
Earth	86280-12-30 18:58 G	33234547.07	33234547.29	33234547.51	0.0501	0.0138
Moon	86280-12-30 22:20 G	33234547.21	33234547.43	33234547.66	0.0501	0.0137 *
Mercury	86282-07-21 01:56 G	33235114.42	33235114.58	33235114.75	0.0517	0.0148
Venus	86284-12-04 22:48 G	33235982.26	33235982.45	33235982.65	0.0534	0.0164
Venus	86285-07-31 02:10 G	33236220.45	33236220.59	33236220.74	0.0533	0.0372
Mercury	86288-03-10 13:12 G	33237173.92	33237174.05	33237174.18	0.0509	0.0136
Venus	86290-10-10 17:03 G	33238118.03	33238118.21	33238118.40	0.0492	0.0194
Venus	86291-06-03 16:34 G	33238354.01	33238354.19	33238354.37	0.0493	0.0219
Mercury	86294-05-08 23:46 G	33239424.31	33239424.49	33239424.66	0.0517	0.0095
Venus	86296-08-09 12:29 G	33240247.86	33240248.02	33240248.19	0.0534	0.0310
Venus	86297-04-04 14:53 G	33240485.93	33240486.12	33240486.30	0.0533	0.0226
Earth	86298-06-26 07:41 G	33240933.58	33240933.82	33240934.05	0.0526	0.0042
Moon	86298-06-26 09:08 G	33240933.66	33240933.88	33240934.11	0.0526	0.0072 *

Mercury	86299-12-28 17:17 G	33241484.09	33241484.22	33241484.35	0.0510	0.0036
Venus	86302-06-16 19:56 G	33242384.17	33242384.33	33242384.49	0.0493	0.0308
Venus	86303-02-07 20:10 G	33242620.14	33242620.34	33242620.54	0.0493	0.0105
Mercury	86306-02-25 20:24 G	33243734.22	33243734.35	33243734.48	0.0515	0.0347
Venus	86308-04-14 23:46 G	33244513.39	33244513.49	33244513.60	0.0533	0.0456
Venus	86308-12-09 00:44 G	33244751.33	33244751.53	33244751.73	0.0534	0.0072
Earth	86310-07-02 04:05 G	33245321.58	33245321.67	33245321.78	0.0525	0.0471
Moon	86310-07-02 05:03 G	33245321.60	33245321.71	33245321.83	0.0525	0.0460 *
Mercury	86311-10-17 21:22 G	33245794.27	33245794.39	33245794.51	0.0511	0.0208
Mercury	86312-01-15 03:08 G	33245883.59	33245883.63	33245883.68	0.0508	0.0474
Mars	86312-03-16 11:32 G	33245944.75	33245944.98	33245945.23	0.0507	0.0290
Venus	86314-02-19 23:03 G	33246650.36	33246650.46	33246650.57	0.0493	0.0418
Venus	86314-10-14 00:15 G	33246886.31	33246886.51	33246886.72	0.0492	0.0012
Venus	86315-06-06 22:48 G	33247122.34	33247122.45	33247122.57	0.0494	0.0399
Mercury	86318-03-15 01:56 G	33248134.47	33248134.58	33248134.70	0.0517	0.0386
Venus	86320-08-13 12:44 G	33249016.83	33249017.03	33249017.23	0.0534	0.0080
Venus	86321-04-08 16:20 G	33249255.08	33249255.18	33249255.29	0.0533	0.0454
Mercury	86323-08-06 01:41 G	33250104.48	33250104.57	33250104.66	0.0512	0.0374
Mercury	86323-11-03 07:27 G	33250193.70	33250193.81	33250193.91	0.0509	0.0306
Venus	86326-06-19 03:22 G	33251152.44	33251152.64	33251152.84	0.0492	0.0123
Venus	86327-02-10 02:10 G	33251388.43	33251388.59	33251388.76	0.0493	0.0287
Mercury	86329-12-31 23:03 G	33252444.29	33252444.46	33252444.63	0.0517	0.0134
Venus	86332-04-18 01:56 G	33253282.40	33253282.58	33253282.76	0.0534	0.0229
Venus	86332-12-12 05:03 G	33253520.55	33253520.71	33253520.88	0.0534	0.0309
Mercury	86335-08-22 11:46 G	33254503.86	33254503.99	33254504.12	0.0510	0.0140
Venus	86338-02-22 06:15 G	33255418.59	33255418.76	33255418.94	0.0492	0.0238
Venus	86338-10-16 05:46 G	33255654.55	33255654.74	33255654.93	0.0492	0.0175
Mercury	86341-10-19 20:39 G	33256754.19	33256754.36	33256754.54	0.0516	0.0107
Venus	86343-12-22 17:03 G	33257548.06	33257548.21	33257548.35	0.0534	0.0373
Venus	86344-08-16 18:58 G	33257786.10	33257786.29	33257786.49	0.0534	0.0161

Mercury	86347-06-10 15:36 G	33258814.02	33258814.15	33258814.28	0.0510	0.0036
Venus	86349-10-28 06:44 G	33259684.64	33259684.78	33259684.93	0.0493	0.0355
Venus	86350-06-21 07:12 G	33259920.60	33259920.80	33259921.00	0.0492	0.0057
Venus	86351-02-12 05:32 G	33260156.66	33260156.73	33260156.80	0.0494	0.0461
Earth	86351-12-27 09:08 G	33260474.74	33260474.88	33260475.03	0.0500	0.0384
Moon	86351-12-27 12:29 G	33260474.86	33260475.02	33260475.19	0.0500	0.0353 *
Mercury	86353-08-07 18:00 G	33261064.12	33261064.25	33261064.38	0.0516	0.0352
Venus	86355-08-27 07:27 G	33261813.76	33261813.81	33261813.86	0.0533	0.0513
Venus	86356-04-21 07:56 G	33262051.62	33262051.83	33262052.03	0.0534	0.0013
Mercury	86359-03-29 19:41 G	33263124.20	33263124.32	33263124.44	0.0510	0.0208
Mercury	86359-06-27 01:27 G	33263213.52	33263213.56	33263213.61	0.0508	0.0471
Venus	86361-07-03 08:53 G	33263950.81	33263950.87	33263950.93	0.0493	0.0467
Venus	86362-02-24 10:34 G	33264186.74	33264186.94	33264187.14	0.0492	0.0059
Venus	86362-10-18 09:22 G	33264422.75	33264422.89	33264423.04	0.0493	0.0351
Moon	86363-12-31 16:20 G	33264861.95	33264862.18	33264862.41	0.0501	0.0049
Earth	86363-12-31 20:10 G	33264862.11	33264862.34	33264862.57	0.0501	0.0059 *
Mercury	86365-08-24 23:32 G	33265464.36	33265464.48	33265464.60	0.0517	0.0382
Venus	86367-12-25 18:00 G	33266317.05	33266317.25	33266317.44	0.0534	0.0143
Venus	86368-08-19 21:08 G	33266555.24	33266555.38	33266555.51	0.0533	0.0393
Mercury	86371-01-15 23:46 G	33267434.40	33267434.49	33267434.57	0.0512	0.0382
Mercury	86371-04-15 05:17 G	33267523.62	33267523.72	33267523.83	0.0509	0.0297
Venus	86373-10-30 14:24 G	33268452.90	33268453.10	33268453.29	0.0492	0.0172
Venus	86374-06-23 13:41 G	33268688.89	33268689.07	33268689.25	0.0493	0.0241
Moon	86376-01-05 10:20 G	33269249.85	33269249.93	33269250.00	0.0502	0.0471
Mercury	86377-06-12 20:39 G	33269774.19	33269774.36	33269774.53	0.0517	0.0134
Venus	86379-08-30 06:29 G	33270582.60	33270582.77	33270582.94	0.0534	0.0292
Venus	86380-04-24 08:39 G	33270820.68	33270820.86	33270821.04	0.0534	0.0245
Moon	86381-06-26 01:41 G	33271248.35	33271248.57	33271248.81	0.0527	0.0188
Earth	86381-06-26 02:10 G	33271248.36	33271248.59	33271248.81	0.0527	0.0158 *
Mercury	86383-02-01 09:36 G	33271833.77	33271833.90	33271834.03	0.0510	0.0128

Venus	86385-07-05 17:03 G	33272719.05	33272719.21	33272719.38	0.0492	0.0286
Venus	86386-02-26 17:03 G	33272955.01	33272955.21	33272955.40	0.0492	0.0127
Mercury	86389-03-31 17:32 G	33274084.06	33274084.23	33274084.40	0.0516	0.0123
Venus	86391-05-04 19:41 G	33274848.21	33274848.32	33274848.43	0.0534	0.0437
Venus	86391-12-28 21:08 G	33275086.18	33275086.38	33275086.58	0.0534	0.0095
Moon	86393-07-01 01:12 G	33275636.39	33275636.55	33275636.71	0.0525	0.0372
Earth	86393-07-01 03:36 G	33275636.49	33275636.65	33275636.81	0.0525	0.0375 *
Mercury	86394-11-20 13:56 G	33276143.95	33276144.08	33276144.21	0.0510	0.0038
Venus	86397-03-10 19:27 G	33276985.19	33276985.31	33276985.43	0.0493	0.0399
Venus	86397-11-01 20:10 G	33277221.14	33277221.34	33277221.55	0.0492	0.0013
Venus	86398-06-25 18:15 G	33277457.16	33277457.26	33277457.37	0.0493	0.0418
Mercury	86401-01-17 14:53 G	33278394.00	33278394.12	33278394.24	0.0515	0.0367
Mars	86401-06-18 21:51 G	33278546.16	33278546.41	33278546.65	0.0520	0.0168
Venus	86403-09-02 11:17 G	33279351.77	33279351.97	33279352.18	0.0534	0.0055
Venus	86404-04-27 15:08 G	33279590.05	33279590.13	33279590.23	0.0533	0.0480
Mercury	86406-09-08 18:00 G	33280454.13	33280454.25	33280454.37	0.0510	0.0209
Mercury	86406-12-06 23:46 G	33280543.44	33280543.49	33280543.54	0.0508	0.0469
Venus	86409-07-07 21:22 G	33281487.19	33281487.39	33281487.59	0.0492	0.0107
Venus	86410-02-28 20:10 G	33281723.18	33281723.34	33281723.50	0.0493	0.0304
Mercury	86413-02-03 20:53 G	33282794.25	33282794.37	33282794.49	0.0518	0.0374
Venus	86415-05-08 00:44 G	33283617.34	33283617.53	33283617.72	0.0534	0.0203
Venus	86416-01-01 03:36 G	33283855.50	33283855.65	33283855.81	0.0533	0.0335
Mercury	86418-06-27 22:05 G	33284764.34	33284764.42	33284764.51	0.0511	0.0381
Mercury	86418-09-25 03:51 G	33284853.55	33284853.66	33284853.76	0.0508	0.0297
Venus	86421-03-13 00:15 G	33285753.33	33285753.51	33285753.70	0.0492	0.0222
Venus	86421-11-04 00:00 G	33285989.31	33285989.50	33285989.69	0.0493	0.0192
Mercury	86424-11-22 18:00 G	33287104.08	33287104.25	33287104.42	0.0517	0.0125
Venus	86427-01-10 11:32 G	33287882.83	33287882.98	33287883.13	0.0534	0.0353
Venus	86427-09-05 13:12 G	33288120.86	33288121.05	33288121.24	0.0534	0.0182
Mercury	86430-07-14 07:27 G	33289163.69	33289163.81	33289163.94	0.0510	0.0121

Venus	86432-11-16 03:22 G	33290019.50	33290019.64	33290019.79	0.0493	0.0335
Venus	86433-07-10 04:05 G	33290255.47	33290255.67	33290255.87	0.0492	0.0079
Venus	86434-03-03 02:24 G	33290491.56	33290491.60	33290491.64	0.0494	0.0482
Moon	86434-12-26 08:10 G	33290789.73	33290789.84	33290789.96	0.0499	0.0434
Earth	86434-12-26 12:00 G	33290789.91	33290790.00	33290790.09	0.0499	0.0460 *
Mercury	86436-09-10 15:08 G	33291413.96	33291414.13	33291414.30	0.0516	0.0124
Venus	86438-09-15 00:29 G	33292148.46	33292148.52	33292148.60	0.0533	0.0496
Venus	86439-05-11 00:58 G	33292386.33	33292386.54	33292386.74	0.0534	0.0032
Mercury	86442-05-02 11:46 G	33293473.86	33293473.99	33293474.12	0.0510	0.0050
Venus	86444-07-22 05:46 G	33294285.66	33294285.74	33294285.83	0.0493	0.0447
Venus	86445-03-15 07:27 G	33294521.60	33294521.81	33294522.01	0.0492	0.0038
Venus	86445-11-06 05:46 G	33294757.61	33294757.74	33294757.87	0.0493	0.0372
Earth	86446-12-30 20:39 G	33295177.13	33295177.36	33295177.59	0.0500	0.0028
Moon	86446-12-31 00:00 G	33295177.28	33295177.50	33295177.73	0.0500	0.0042 *
Mercury	86448-06-29 11:46 G	33295723.87	33295723.99	33295724.11	0.0515	0.0383
Venus	86451-01-13 13:27 G	33296651.86	33296652.06	33296652.25	0.0534	0.0123
Venus	86451-09-08 17:03 G	33296890.08	33296890.21	33296890.34	0.0533	0.0416
Mercury	86454-02-18 16:05 G	33297784.05	33297784.17	33297784.29	0.0511	0.0216
Mercury	86454-05-18 21:51 G	33297873.36	33297873.41	33297873.46	0.0508	0.0466
Venus	86456-11-18 10:05 G	33298787.73	33298787.92	33298788.12	0.0492	0.0153
Venus	86457-07-12 09:08 G	33299023.71	33299023.88	33299024.05	0.0493	0.0260
Moon	86459-01-04 03:36 G	33299564.51	33299564.65	33299564.82	0.0501	0.0377
Earth	86459-01-04 06:44 G	33299564.65	33299564.78	33299564.91	0.0501	0.0411 *
Mercury	86460-07-16 17:32 G	33300124.11	33300124.23	33300124.36	0.0517	0.0359
Venus	86462-09-18 03:51 G	33300917.49	33300917.66	33300917.84	0.0534	0.0270
Venus	86463-05-14 06:44 G	33301155.61	33301155.78	33301155.96	0.0534	0.0271
Moon	86464-06-25 00:58 G	33301563.35	33301563.54	33301563.73	0.0527	0.0279
Earth	86464-06-25 02:39 G	33301563.40	33301563.61	33301563.82	0.0527	0.0247 *
Mercury	86465-12-07 20:24 G	33302094.27	33302094.35	33302094.43	0.0511	0.0384
Mercury	86466-03-07 01:56 G	33302183.48	33302183.58	33302183.69	0.0509	0.0294

Mars	86466-06-09 17:03 G	33302277.92	33302278.21	33302278.50	0.0506	0.0096
Venus	86468-07-24 11:17 G	33303053.80	33303053.97	33303054.14	0.0492	0.0270
Venus	86469-03-17 11:03 G	33303289.76	33303289.96	33303290.15	0.0492	0.0144
Mercury	86472-05-04 15:08 G	33304433.96	33304434.13	33304434.30	0.0517	0.0114
Venus	86474-05-23 18:00 G	33305183.13	33305183.25	33305183.38	0.0534	0.0413
Venus	86475-01-16 19:41 G	33305421.12	33305421.32	33305421.52	0.0534	0.0122
Earth	86476-06-30 02:53 G	33305951.42	33305951.62	33305951.81	0.0525	0.0280
Moon	86476-06-30 06:15 G	33305951.57	33305951.76	33305951.97	0.0525	0.0284 *
Mercury	86477-12-24 06:00 G	33306493.62	33306493.75	33306493.88	0.0509	0.0122
Venus	86480-03-29 13:41 G	33307319.94	33307320.07	33307320.20	0.0493	0.0384
Venus	86480-11-20 14:24 G	33307555.90	33307556.10	33307556.31	0.0492	0.0030
Venus	86481-07-14 12:44 G	33307791.94	33307792.03	33307792.13	0.0494	0.0436
Mercury	86484-02-21 12:15 G	33308743.84	33308744.01	33308744.19	0.0516	0.0134
Venus	86486-09-21 05:46 G	33309686.53	33309686.74	33309686.94	0.0534	0.0034
Venus	86487-05-17 09:08 G	33309924.82	33309924.88	33309924.95	0.0533	0.0500
Mercury	86489-10-12 09:51 G	33310803.78	33310803.91	33310804.04	0.0510	0.0059
Venus	86492-07-26 18:15 G	33311822.06	33311822.26	33311822.47	0.0492	0.0085
Venus	86493-03-19 17:17 G	33312058.07	33312058.22	33312058.38	0.0493	0.0327
Mercury	86495-12-10 09:22 G	33313053.78	33313053.89	33313054.01	0.0515	0.0382
Venus	86498-05-26 17:46 G	33313952.05	33313952.24	33313952.43	0.0534	0.0185
Venus	86499-01-19 20:24 G	33314190.21	33314190.35	33314190.51	0.0533	0.0354
Mercury	86501-08-01 13:56 G	33315113.97	33315114.08	33315114.20	0.0511	0.0228
Mercury	86501-10-29 19:41 G	33315203.27	33315203.32	33315203.38	0.0509	0.0454
Venus	86504-04-01 21:22 G	33316088.20	33316088.39	33316088.58	0.0492	0.0200
Venus	86504-11-23 20:39 G	33316324.18	33316324.36	33316324.55	0.0492	0.0214
Mercury	86507-12-28 14:39 G	33317453.99	33317454.11	33317454.24	0.0517	0.0346
Venus	86510-01-30 06:44 G	33318217.62	33318217.78	33318217.93	0.0534	0.0334
Venus	86510-09-25 08:39 G	33318455.68	33318455.86	33318456.05	0.0534	0.0205
Mercury	86513-05-20 18:29 G	33319424.19	33319424.27	33319424.35	0.0512	0.0392
Mercury	86513-08-18 00:00 G	33319513.39	33319513.50	33319513.61	0.0509	0.0288

Venus	86515-12-06 23:46 G	33320354.33	33320354.49	33320354.65	0.0493	0.0315
Venus	86516-07-30 00:00 G	33320590.30	33320590.50	33320590.70	0.0492	0.0099
Mercury	86519-10-16 12:15 G	33321763.84	33321764.01	33321764.18	0.0517	0.0102
Venus	86521-10-04 21:36 G	33322483.32	33322483.40	33322483.49	0.0534	0.0476
Venus	86522-05-30 22:34 G	33322721.24	33322721.44	33322721.65	0.0535	0.0056
Mercury	86525-06-06 04:20 G	33323823.55	33323823.68	33323823.81	0.0509	0.0120
Venus	86527-08-12 00:44 G	33324620.44	33324620.53	33324620.63	0.0493	0.0430
Venus	86528-04-04 01:56 G	33324856.38	33324856.58	33324856.79	0.0492	0.0019
Venus	86528-11-26 00:15 G	33325092.39	33325092.51	33325092.64	0.0493	0.0391
Moon	86529-12-30 17:46 G	33325492.01	33325492.24	33325492.47	0.0500	0.0131
Earth	86529-12-30 20:39 G	33325492.13	33325492.36	33325492.59	0.0500	0.0117 *
Mercury	86531-08-04 09:36 G	33326073.73	33326073.90	33326074.07	0.0516	0.0146
Venus	86534-02-02 12:15 G	33326986.81	33326987.01	33326987.21	0.0535	0.0094
Venus	86534-09-28 15:51 G	33327225.06	33327225.16	33327225.28	0.0533	0.0444
Mercury	86537-03-25 08:24 G	33328133.72	33328133.85	33328133.98	0.0510	0.0052
Venus	86539-12-09 05:03 G	33329122.52	33329122.71	33329122.91	0.0492	0.0134
Venus	86540-08-01 04:20 G	33329358.51	33329358.68	33329358.85	0.0493	0.0280
Earth	86542-01-04 07:56 G	33329879.66	33329879.83	33329880.01	0.0501	0.0329
Moon	86542-01-04 09:22 G	33329879.72	33329879.89	33329880.07	0.0501	0.0300 *
Mercury	86543-05-23 06:44 G	33330383.67	33330383.78	33330383.90	0.0515	0.0390
Venus	86545-10-07 23:17 G	33331252.29	33331252.47	33331252.65	0.0534	0.0247
Venus	86546-06-03 01:27 G	33331490.39	33331490.56	33331490.73	0.0534	0.0293
Earth	86547-06-25 19:56 G	33331878.17	33331878.33	33331878.50	0.0527	0.0371
Moon	86547-06-25 22:48 G	33331878.31	33331878.45	33331878.61	0.0527	0.0404 *
Mercury	86549-01-11 12:15 G	33332443.89	33332444.01	33332444.12	0.0511	0.0232
Mercury	86549-04-10 18:00 G	33332533.19	33332533.25	33332533.31	0.0509	0.0449
Venus	86551-08-14 08:24 G	33333388.68	33333388.85	33333389.03	0.0493	0.0248
Venus	86552-04-06 08:39 G	33333624.67	33333624.86	33333625.05	0.0493	0.0168
Mercury	86555-06-09 12:58 G	33334783.91	33334784.04	33334784.17	0.0517	0.0352
Mars	86555-09-13 05:17 G	33334879.48	33334879.72	33334879.97	0.0520	0.0158

Venus	86557-06-12 12:15 G	33335517.88	33335518.01	33335518.15	0.0533	0.0394
Venus	86558-02-05 13:12 G	33335755.86	33335756.05	33335756.25	0.0534	0.0143
Moon	86559-06-30 15:36 G	33336265.93	33336266.15	33336266.37	0.0526	0.0150
Earth	86559-06-30 19:27 G	33336266.09	33336266.31	33336266.54	0.0526	0.0154 *
Mercury	86560-10-30 16:20 G	33336754.11	33336754.18	33336754.26	0.0512	0.0402
Mercury	86561-01-27 22:05 G	33336843.31	33336843.42	33336843.53	0.0509	0.0279
Venus	86563-04-19 11:03 G	33337654.82	33337654.96	33337655.10	0.0493	0.0363
Venus	86563-12-11 12:00 G	33337890.80	33337891.00	33337891.21	0.0492	0.0053
Venus	86564-08-03 10:20 G	33338126.86	33338126.93	33338127.00	0.0494	0.0459
Mercury	86567-03-28 09:36 G	33339093.73	33339093.90	33339094.08	0.0516	0.0097
Venus	86569-10-11 01:27 G	33340021.36	33340021.56	33340021.77	0.0534	0.0015
Venus	86570-06-06 05:32 G	33340259.70	33340259.73	33340259.77	0.0533	0.0523
Mercury	86572-11-16 02:24 G	33341153.47	33341153.60	33341153.73	0.0510	0.0114
Venus	86574-12-23 13:12 G	33341921.00	33341921.05	33341921.10	0.0493	0.0475
Venus	86575-08-16 15:22 G	33342156.94	33342157.14	33342157.34	0.0492	0.0063
Venus	86576-04-08 13:56 G	33342392.94	33342393.08	33342393.22	0.0493	0.0349
Mercury	86579-01-14 06:58 G	33343403.62	33343403.79	33343403.96	0.0516	0.0150
Venus	86581-06-15 15:36 G	33344286.96	33344287.15	33344287.35	0.0534	0.0161
Venus	86582-02-08 19:12 G	33344525.16	33344525.30	33344525.45	0.0534	0.0382
Mercury	86584-09-04 06:58 G	33345463.65	33345463.79	33345463.92	0.0510	0.0054
Venus	86587-04-21 17:17 G	33346423.03	33346423.22	33346423.41	0.0492	0.0180
Venus	86587-12-13 16:20 G	33346659.00	33346659.18	33346659.36	0.0492	0.0235
Mercury	86590-11-02 04:05 G	33347713.56	33347713.67	33347713.78	0.0515	0.0398
Venus	86593-02-18 06:15 G	33348552.60	33348552.76	33348552.93	0.0534	0.0307
Venus	86593-10-14 08:39 G	33348790.68	33348790.86	33348791.04	0.0534	0.0235
Mercury	86596-06-23 11:03 G	33349773.85	33349773.96	33349774.08	0.0511	0.0220
Mercury	86596-09-20 16:48 G	33349863.15	33349863.20	33349863.25	0.0508	0.0461
Venus	86598-12-25 19:56 G	33350689.17	33350689.33	33350689.50	0.0492	0.0295
Venus	86599-08-18 20:24 G	33350925.15	33350925.35	33350925.55	0.0492	0.0121
Mercury	86602-11-20 10:20 G	33352113.81	33352113.93	33352114.07	0.0517	0.0350

Venus	86604-10-24 18:29 G	33352818.17	33352818.27	33352818.38	0.0533	0.0453
Venus	86605-06-19 18:58 G	33353056.09	33353056.29	33353056.49	0.0534	0.0080
Mercury	86608-04-12 14:39 G	33354084.04	33354084.11	33354084.19	0.0512	0.0402
Mercury	86608-07-10 20:24 G	33354173.24	33354173.35	33354173.46	0.0509	0.0278
Venus	86610-08-31 22:34 G	33354955.33	33354955.44	33354955.55	0.0493	0.0409
Venus	86611-04-25 00:15 G	33355191.31	33355191.51	33355191.72	0.0492	0.0012
Venus	86611-12-16 23:03 G	33355427.36	33355427.46	33355427.57	0.0494	0.0417
Earth	86612-12-31 03:36 G	33355807.43	33355807.65	33355807.87	0.0499	0.0177
Moon	86612-12-31 05:03 G	33355807.50	33355807.71	33355807.92	0.0499	0.0194 *
Mercury	86614-09-08 08:10 G	33356423.67	33356423.84	33356424.01	0.0516	0.0109
Venus	86617-02-22 07:27 G	33357321.61	33357321.81	33357322.01	0.0534	0.0072
Venus	86617-10-18 10:34 G	33357559.85	33357559.94	33357560.04	0.0533	0.0466
Mercury	86620-04-29 00:29 G	33358483.39	33358483.52	33358483.65	0.0510	0.0109
Mars	86620-09-03 20:53 G	33358611.26	33358611.37	33358611.48	0.0507	0.0469
Venus	86622-12-29 03:36 G	33359457.45	33359457.65	33359457.85	0.0492	0.0110
Venus	86623-08-22 02:53 G	33359693.46	33359693.62	33359693.78	0.0493	0.0305
Earth	86625-01-04 13:12 G	33360194.85	33360195.05	33360195.25	0.0500	0.0260
Moon	86625-01-04 13:41 G	33360194.86	33360195.07	33360195.28	0.0500	0.0235 *
Mercury	86626-06-27 05:03 G	33360733.54	33360733.71	33360733.88	0.0515	0.0147
Venus	86628-10-27 19:56 G	33361587.15	33361587.33	33361587.52	0.0534	0.0225
Venus	86629-06-22 22:34 G	33361825.28	33361825.44	33361825.61	0.0534	0.0318
Moon	86630-06-25 15:51 G	33362193.10	33362193.16	33362193.22	0.0528	0.0506
Earth	86630-06-25 19:27 G	33362193.21	33362193.31	33362193.42	0.0528	0.0468 *
Mercury	86632-02-16 05:03 G	33362793.58	33362793.71	33362793.84	0.0511	0.0056
Venus	86634-09-03 06:44 G	33363723.60	33363723.78	33363723.96	0.0492	0.0225
Venus	86635-04-27 06:29 G	33363959.59	33363959.77	33363959.96	0.0492	0.0192
Mercury	86638-04-15 02:10 G	33365043.48	33365043.59	33365043.70	0.0515	0.0394
Venus	86640-07-02 10:48 G	33365852.80	33365852.95	33365853.09	0.0534	0.0370
Venus	86641-02-25 12:44 G	33366090.83	33366091.03	33366091.22	0.0534	0.0171
Earth	86642-06-30 23:17 G	33366581.24	33366581.47	33366581.71	0.0527	0.0079

Moon	86642-07-01 03:22 G	33366581.41	33366581.64	33366581.87	0.0527	0.0081 *
Mercury	86643-12-05 09:36 G	33367103.78	33367103.90	33367104.02	0.0511	0.0217
Mercury	86644-03-03 15:22 G	33367193.09	33367193.14	33367193.19	0.0509	0.0464
Venus	86646-05-09 08:24 G	33367989.71	33367989.85	33367990.01	0.0493	0.0341
Venus	86646-12-31 09:08 G	33368225.68	33368225.88	33368226.08	0.0492	0.0076
Venus	86647-08-24 07:12 G	33368461.77	33368461.80	33368461.85	0.0493	0.0482
Mercury	86650-05-02 08:10 G	33369443.72	33369443.84	33369443.97	0.0517	0.0349
Venus	86652-03-07 02:10 G	33370118.54	33370118.59	33370118.65	0.0533	0.0509
Venus	86652-10-31 02:39 G	33370356.40	33370356.61	33370356.81	0.0535	0.0024
Mercury	86655-09-23 13:56 G	33371414.00	33371414.08	33371414.17	0.0512	0.0384
Mercury	86655-12-21 19:27 G	33371503.21	33371503.31	33371503.42	0.0509	0.0296
Venus	86658-01-12 11:03 G	33372255.89	33372255.96	33372256.04	0.0493	0.0453
Venus	86658-09-05 13:12 G	33372491.84	33372492.05	33372492.25	0.0492	0.0040
Venus	86659-04-29 11:46 G	33372727.86	33372727.99	33372728.12	0.0493	0.0373
Mercury	86662-02-18 06:15 G	33373753.59	33373753.76	33373753.93	0.0516	0.0113
Venus	86664-07-05 14:10 G	33374621.89	33374622.09	33374622.29	0.0534	0.0133
Venus	86665-02-28 17:03 G	33374860.08	33374860.21	33374860.34	0.0533	0.0408
Mercury	86667-10-09 23:03 G	33375813.34	33375813.46	33375813.59	0.0510	0.0113
Venus	86670-05-11 16:05 G	33376757.98	33376758.17	33376758.37	0.0493	0.0156
Venus	86671-01-02 16:05 G	33376994.00	33376994.17	33376994.34	0.0493	0.0262
Mercury	86673-12-07 03:51 G	33378063.49	33378063.66	33378063.84	0.0515	0.0127
Venus	86676-03-10 03:36 G	33378887.48	33378887.65	33378887.82	0.0533	0.0282
Venus	86676-11-03 05:03 G	33379125.54	33379125.71	33379125.89	0.0534	0.0260
Mercury	86679-07-29 03:22 G	33380123.51	33380123.64	33380123.77	0.0511	0.0057
Venus	86682-01-14 19:12 G	33381024.13	33381024.30	33381024.47	0.0493	0.0271
Venus	86682-09-07 20:10 G	33381260.14	33381260.34	33381260.53	0.0492	0.0148
Mercury	86685-09-25 00:44 G	33382373.41	33382373.53	33382373.65	0.0515	0.0381
Venus	86687-11-13 16:48 G	33383153.08	33383153.20	33383153.32	0.0533	0.0429
Venus	86688-07-08 17:17 G	33383391.02	33383391.22	33383391.42	0.0534	0.0107
Mercury	86691-05-17 07:56 G	33384433.71	33384433.83	33384433.95	0.0512	0.0220

Mercury	86691-08-14 13:41 G	33384523.02	33384523.07	33384523.12	0.0509	0.0463
Venus	86693-09-19 22:05 G	33385290.30	33385290.42	33385290.55	0.0493	0.0385
Venus	86694-05-13 23:32 G	33385526.28	33385526.48	33385526.69	0.0492	0.0034
Venus	86695-01-04 22:05 G	33385762.33	33385762.42	33385762.51	0.0493	0.0441
Earth	86695-12-31 09:36 G	33386122.70	33386122.90	33386123.10	0.0499	0.0241
Moon	86695-12-31 09:51 G	33386122.71	33386122.91	33386123.12	0.0499	0.0261 *
Mercury	86697-10-12 06:44 G	33386773.66	33386773.78	33386773.91	0.0517	0.0359
Venus	86700-03-14 07:27 G	33387656.61	33387656.81	33387657.02	0.0534	0.0046
Venus	86700-11-07 11:17 G	33387894.91	33387894.97	33387895.05	0.0533	0.0497
Mercury	86703-03-06 12:44 G	33388743.94	33388744.03	33388744.11	0.0512	0.0379
Mercury	86703-06-03 18:15 G	33388833.15	33388833.26	33388833.36	0.0509	0.0301
Venus	86706-01-18 02:24 G	33389792.40	33389792.60	33389792.80	0.0492	0.0084
Venus	86706-09-11 01:12 G	33390028.41	33390028.55	33390028.71	0.0493	0.0331
Moon	86708-01-05 16:34 G	33390509.98	33390510.19	33390510.40	0.0500	0.0173
Earth	86708-01-05 18:58 G	33390510.08	33390510.29	33390510.50	0.0500	0.0194 *
Mercury	86709-08-01 04:20 G	33391083.51	33391083.68	33391083.85	0.0516	0.0117
Venus	86711-11-17 22:05 G	33391922.24	33391922.42	33391922.61	0.0534	0.0192
Venus	86712-07-13 01:12 G	33392160.40	33392160.55	33392160.70	0.0534	0.0353
Mercury	86715-03-22 22:34 G	33393143.31	33393143.44	33393143.57	0.0510	0.0135
Venus	86717-09-23 06:00 G	33394058.56	33394058.75	33394058.94	0.0492	0.0200
Venus	86718-05-17 05:46 G	33394294.56	33394294.74	33394294.92	0.0492	0.0218
Mercury	86721-05-20 02:24 G	33395393.42	33395393.60	33395393.77	0.0516	0.0117
Venus	86723-07-23 11:17 G	33396187.82	33396187.97	33396188.13	0.0533	0.0341
Venus	86724-03-17 12:29 G	33396425.83	33396426.02	33396426.21	0.0534	0.0201
Moon	86725-06-30 20:10 G	33396896.11	33396896.34	33396896.58	0.0527	0.0017
Earth	86725-06-30 23:46 G	33396896.25	33396896.49	33396896.72	0.0527	0.0019 *
Mercury	86727-01-09 02:10 G	33397453.46	33397453.59	33397453.72	0.0511	0.0049
Venus	86729-05-29 08:10 G	33398324.69	33398324.84	33398325.00	0.0493	0.0316
Venus	86730-01-20 09:36 G	33398560.70	33398560.90	33398561.10	0.0493	0.0104
Mercury	86733-03-08 00:00 G	33399703.38	33399703.50	33399703.63	0.0515	0.0353

Venus	86735-03-28 01:56 G	33400453.50	33400453.58	33400453.67	0.0532	0.0483
Venus	86735-11-21 01:27 G	33400691.35	33400691.56	33400691.76	0.0534	0.0050
Earth	86737-07-05 23:46 G	33401284.44	33401284.49	33401284.55	0.0525	0.0508
Mercury	86738-10-28 06:29 G	33401763.65	33401763.77	33401763.89	0.0512	0.0217
Mercury	86739-01-25 12:00 G	33401852.96	33401853.00	33401853.06	0.0509	0.0466
Venus	86741-02-01 10:48 G	33402590.86	33402590.95	33402591.05	0.0494	0.0431
Venus	86741-09-25 13:27 G	33402826.86	33402827.06	33402827.27	0.0493	0.0013
Venus	86742-05-19 12:29 G	33403062.91	33403063.02	33403063.14	0.0493	0.0401
Mercury	86745-03-25 05:46 G	33404103.62	33404103.74	33404103.86	0.0517	0.0380
Venus	86747-07-26 13:41 G	33404956.88	33404957.07	33404957.27	0.0534	0.0106
Venus	86748-03-20 16:48 G	33405195.09	33405195.20	33405195.32	0.0533	0.0437
Mercury	86750-08-16 11:03 G	33406073.87	33406073.96	33406074.05	0.0512	0.0379
Mercury	86750-11-13 16:34 G	33406163.09	33406163.19	33406163.30	0.0510	0.0303
Venus	86753-05-31 16:48 G	33407093.01	33407093.20	33407093.40	0.0493	0.0129
Venus	86754-01-22 16:34 G	33407329.02	33407329.19	33407329.35	0.0493	0.0289
Mercury	86757-01-11 03:08 G	33408413.46	33408413.63	33408413.80	0.0516	0.0137
Venus	86759-03-31 04:20 G	33409222.51	33409222.68	33409222.87	0.0534	0.0254
Venus	86759-11-24 06:44 G	33409460.61	33409460.78	33409460.95	0.0534	0.0292
Mercury	86762-09-01 21:22 G	33410473.26	33410473.39	33410473.51	0.0510	0.0144
Venus	86765-02-03 19:41 G	33411359.14	33411359.32	33411359.50	0.0493	0.0244
Venus	86765-09-27 19:56 G	33411595.14	33411595.33	33411595.52	0.0492	0.0175
Mercury	86768-10-30 00:44 G	33412723.35	33412723.53	33412723.70	0.0516	0.0106
Venus	86770-12-03 19:56 G	33413488.20	33413488.33	33413488.46	0.0534	0.0397
Venus	86771-07-29 20:53 G	33413726.18	33413726.37	33413726.57	0.0534	0.0144
Mercury	86774-06-21 01:41 G	33414783.44	33414783.57	33414783.70	0.0511	0.0025
Venus	86776-10-09 22:48 G	33415625.31	33415625.45	33415625.59	0.0493	0.0359
Venus	86777-06-03 00:15 G	33415861.30	33415861.51	33415861.71	0.0492	0.0061
Venus	86778-01-24 22:34 G	33416097.39	33416097.44	33416097.50	0.0493	0.0470
Moon	86778-12-31 17:32 G	33416438.06	33416438.23	33416438.41	0.0499	0.0317
Earth	86778-12-31 19:56 G	33416438.14	33416438.33	33416438.52	0.0499	0.0288 *

Mercury	86780-08-17 22:48 G	33417033.32	33417033.45	33417033.58	0.0515	0.0338
Venus	86783-04-03 09:36 G	33417991.70	33417991.90	33417992.11	0.0534	0.0012
Venus	86783-11-27 12:29 G	33418230.00	33418230.02	33418230.05	0.0533	0.0528
Mercury	86786-04-09 05:17 G	33419093.61	33419093.72	33419093.84	0.0512	0.0205
Mercury	86786-07-07 11:03 G	33419182.92	33419182.96	33419183.01	0.0509	0.0478
Venus	86788-06-15 00:00 G	33419891.45	33419891.50	33419891.55	0.0494	0.0475
Venus	86789-02-06 03:08 G	33420127.43	33420127.63	33420127.84	0.0493	0.0058
Venus	86789-09-30 02:53 G	33420363.49	33420363.62	33420363.76	0.0493	0.0360
Earth	86791-01-05 08:39 G	33420825.64	33420825.86	33420826.08	0.0500	0.0161
Moon	86791-01-05 12:29 G	33420825.79	33420826.02	33420826.24	0.0500	0.0146 *
Mercury	86792-09-04 05:32 G	33421433.63	33421433.73	33421433.83	0.0517	0.0414
Venus	86794-12-06 23:17 G	33422257.28	33422257.47	33422257.67	0.0533	0.0161
Venus	86795-08-02 01:12 G	33422495.41	33422495.55	33422495.69	0.0533	0.0383
Mercury	86798-01-26 09:51 G	33423403.82	33423403.91	33423403.99	0.0512	0.0372
Mercury	86798-04-25 15:22 G	33423493.04	33423493.14	33423493.24	0.0510	0.0309
Venus	86800-10-12 06:44 G	33424393.59	33424393.78	33424393.97	0.0493	0.0174
Venus	86801-06-05 06:58 G	33424629.62	33424629.79	33424629.97	0.0493	0.0247
Mercury	86804-06-23 02:39 G	33425743.44	33425743.61	33425743.78	0.0516	0.0165
Venus	86806-08-11 12:15 G	33426522.85	33426523.01	33426523.18	0.0533	0.0313
Venus	86807-04-06 13:27 G	33426760.88	33426761.06	33426761.25	0.0534	0.0232
Earth	86808-06-30 05:03 G	33427211.48	33427211.71	33427211.95	0.0527	0.0087
Moon	86808-06-30 06:58 G	33427211.57	33427211.79	33427212.01	0.0527	0.0071 *
Mercury	86810-02-11 19:56 G	33427803.20	33427803.33	33427803.45	0.0511	0.0147
Venus	86812-06-17 10:05 G	33428659.75	33428659.92	33428660.08	0.0493	0.0289
Venus	86813-02-08 11:03 G	33428895.77	33428895.96	33428896.16	0.0493	0.0132
Mercury	86816-04-11 00:00 G	33430053.33	33430053.50	33430053.68	0.0515	0.0080
Venus	86818-04-16 03:36 G	33430788.55	33430788.65	33430788.75	0.0533	0.0455
Venus	86818-12-10 03:22 G	33431026.44	33431026.64	33431026.85	0.0534	0.0083
Earth	86820-07-05 08:53 G	33431599.77	33431599.87	33431599.99	0.0526	0.0458
Moon	86820-07-05 09:36 G	33431599.81	33431599.90	33431599.99	0.0526	0.0486 *

Mercury	86821-12-01 00:44 G	33432113.39	33432113.53	33432113.66	0.0511	0.0021
Venus	86824-02-21 12:44 G	33432925.92	33432926.03	33432926.15	0.0493	0.0403
Venus	86824-10-14 14:39 G	33433161.91	33433162.11	33433162.31	0.0492	0.0017
Venus	86825-06-07 13:12 G	33433397.96	33433398.05	33433398.15	0.0493	0.0429
Mercury	86828-01-28 21:22 G	33434363.25	33434363.39	33434363.53	0.0515	0.0324
Mars	86828-05-31 00:58 G	33434486.35	33434486.54	33434486.74	0.0519	0.0327
Venus	86830-08-14 18:15 G	33435292.06	33435292.26	33435292.47	0.0534	0.0069
Venus	86831-04-09 21:51 G	33435530.32	33435530.41	33435530.50	0.0533	0.0476
Mercury	86833-09-19 05:17 G	33436423.59	33436423.72	33436423.84	0.0512	0.0175
Mercury	86833-12-17 10:48 G	33436512.95	33436512.95	33436512.95	0.0509	0.0509
Venus	86836-06-19 18:29 G	33437428.07	33437428.27	33437428.47	0.0492	0.0099
Venus	86837-02-10 18:00 G	33437664.10	33437664.25	33437664.40	0.0493	0.0319
Mercury	86840-02-15 04:34 G	33438763.59	33438763.69	33438763.78	0.0517	0.0433
Venus	86842-04-19 08:24 G	33439557.67	33439557.85	33439558.04	0.0533	0.0219
Venus	86842-12-13 09:51 G	33439795.75	33439795.91	33439796.07	0.0533	0.0326
Mercury	86845-07-08 08:53 G	33440733.78	33440733.87	33440733.96	0.0512	0.0357
Mercury	86845-10-05 14:24 G	33440823.00	33440823.10	33440823.20	0.0510	0.0324
Venus	86848-02-23 20:39 G	33441694.18	33441694.36	33441694.54	0.0493	0.0219
Venus	86848-10-16 21:36 G	33441930.22	33441930.40	33441930.59	0.0493	0.0204
Mercury	86851-12-04 02:39 G	33443073.45	33443073.61	33443073.77	0.0516	0.0202
Venus	86853-12-22 23:03 G	33443823.32	33443823.46	33443823.61	0.0533	0.0366
Venus	86854-08-17 23:03 G	33444061.27	33444061.46	33444061.65	0.0533	0.0176
Mercury	86857-07-24 18:44 G	33445133.15	33445133.28	33445133.40	0.0510	0.0156
Venus	86859-10-29 23:32 G	33445960.34	33445960.48	33445960.63	0.0494	0.0335
Venus	86860-06-22 01:27 G	33446196.37	33446196.56	33446196.77	0.0493	0.0089
Earth	86861-12-31 08:53 G	33446753.69	33446753.87	33446754.05	0.0499	0.0320
Moon	86861-12-31 12:44 G	33446753.86	33446754.03	33446754.20	0.0499	0.0352 *
Mercury	86863-09-21 23:46 G	33447383.31	33447383.49	33447383.66	0.0515	0.0048
Venus	86865-08-27 12:44 G	33448088.98	33448089.03	33448089.09	0.0532	0.0510
Venus	86866-04-22 11:32 G	33448326.78	33448326.98	33448327.18	0.0534	0.0022

Mercury	86869-05-12 23:17 G	33449443.34	33449443.47	33449443.60	0.0511	0.0012
Venus	86871-07-05 02:24 G	33450226.53	33450226.60	33450226.69	0.0494	0.0449
Venus	86872-02-26 05:32 G	33450462.53	33450462.73	33450462.94	0.0493	0.0028
Venus	86872-10-19 05:03 G	33450698.59	33450698.71	33450698.83	0.0493	0.0389
Moon	86874-01-04 15:51 G	33451140.93	33451141.16	33451141.39	0.0500	0.0102
Earth	86874-01-04 19:56 G	33451141.10	33451141.33	33451141.56	0.0500	0.0119 *
Mercury	86875-07-10 20:53 G	33451693.23	33451693.37	33451693.52	0.0514	0.0293
Venus	86877-12-26 01:41 G	33452592.37	33452592.57	33452592.77	0.0534	0.0129
Venus	86878-08-21 04:05 G	33452830.55	33452830.67	33452830.80	0.0533	0.0417
Mercury	86881-03-01 04:05 G	33453753.54	33453753.67	33453753.79	0.0512	0.0165
Venus	86883-11-01 08:53 G	33454728.68	33454728.87	33454729.07	0.0493	0.0144
Venus	86884-06-24 08:39 G	33454964.70	33454964.86	33454965.03	0.0493	0.0277
Mercury	86887-07-28 03:08 G	33456093.55	33456093.63	33456093.72	0.0517	0.0449
Venus	86889-08-30 17:17 G	33456858.04	33456858.22	33456858.39	0.0534	0.0277
Venus	86890-04-25 18:44 G	33457096.11	33457096.28	33457096.46	0.0534	0.0271
Moon	86891-06-30 17:32 G	33457526.99	33457527.23	33457527.47	0.0528	0.0104
Earth	86891-06-30 17:17 G	33457527.00	33457527.22	33457527.45	0.0528	0.0128 *
Mercury	86892-12-18 08:39 G	33458063.76	33458063.86	33458063.96	0.0512	0.0325
Mercury	86893-03-17 14:10 G	33458153.00	33458153.09	33458153.19	0.0510	0.0356
Mars	86893-05-19 18:00 G	33458215.96	33458216.25	33458216.55	0.0508	0.0014
Venus	86895-07-07 12:15 G	33458994.84	33458995.01	33458995.19	0.0493	0.0261
Venus	86896-02-28 13:12 G	33459230.86	33459231.05	33459231.24	0.0493	0.0162
Mercury	86899-05-16 01:41 G	33460403.41	33460403.57	33460403.73	0.0516	0.0223
Venus	86901-05-06 08:39 G	33461123.74	33461123.86	33461123.98	0.0532	0.0422
Venus	86901-12-30 08:10 G	33461361.64	33461361.84	33461362.04	0.0533	0.0118
Moon	86903-07-06 13:56 G	33461914.95	33461915.08	33461915.22	0.0526	0.0422
Earth	86903-07-06 15:51 G	33461915.01	33461915.16	33461915.31	0.0526	0.0393 *
Mercury	86904-10-07 12:15 G	33462374.00	33462374.01	33462374.03	0.0513	0.0507
Mercury	86905-01-04 17:46 G	33462463.12	33462463.24	33462463.37	0.0510	0.0172
Venus	86907-03-13 13:27 G	33463260.93	33463261.06	33463261.19	0.0494	0.0380

Venus	86907-11-04 15:51 G	33463496.96	33463497.16	33463497.37	0.0493	0.0045
Venus	86908-06-27 15:22 G	33463733.07	33463733.14	33463733.22	0.0494	0.0459
Mercury	86911-03-04 23:46 G	33464713.31	33464713.49	33464713.67	0.0515	0.0009
Venus	86913-09-03 22:05 G	33465627.21	33465627.42	33465627.62	0.0533	0.0035
Venus	86914-04-30 00:15 G	33465865.45	33465865.51	33465865.57	0.0532	0.0507
Mercury	86916-10-23 22:05 G	33466773.29	33466773.42	33466773.55	0.0511	0.0005
Venus	86919-07-10 19:27 G	33467763.11	33467763.31	33467763.52	0.0493	0.0075
Venus	86920-03-02 19:41 G	33467999.18	33467999.32	33467999.47	0.0493	0.0347
Mercury	86922-12-21 20:39 G	33469023.21	33469023.36	33469023.52	0.0515	0.0259
Venus	86925-05-09 10:34 G	33469892.75	33469892.94	33469893.13	0.0533	0.0188
Venus	86926-01-02 12:00 G	33470130.85	33470131.00	33470131.15	0.0533	0.0359
Mercury	86928-08-12 02:39 G	33471083.49	33471083.61	33471083.74	0.0512	0.0158
Venus	86931-03-15 23:17 G	33472029.28	33472029.47	33472029.66	0.0493	0.0190
Venus	86931-11-07 00:00 G	33472265.32	33472265.50	33472265.68	0.0493	0.0234
Mercury	86934-10-09 17:46 G	33473333.22	33473333.24	33473333.28	0.0514	0.0506
Mercury	86935-01-08 02:39 G	33473423.55	33473423.61	33473423.68	0.0517	0.0480
Venus	86937-01-12 01:12 G	33474158.40	33474158.55	33474158.71	0.0533	0.0336
Venus	86937-09-07 01:41 G	33474396.39	33474396.57	33474396.76	0.0534	0.0210
Mercury	86940-05-31 07:27 G	33475393.71	33475393.81	33475393.91	0.0512	0.0316
Mercury	86940-08-28 12:58 G	33475482.95	33475483.04	33475483.14	0.0510	0.0366
Venus	86942-11-19 02:10 G	33476295.44	33476295.59	33476295.76	0.0493	0.0307
Venus	86943-07-13 03:36 G	33476531.46	33476531.65	33476531.85	0.0493	0.0118
Moon	86944-12-31 15:51 G	33477069.02	33477069.16	33477069.30	0.0498	0.0399
Earth	86944-12-31 19:56 G	33477069.17	33477069.33	33477069.49	0.0498	0.0364 *
Mercury	86946-10-27 00:15 G	33477733.36	33477733.51	33477733.67	0.0516	0.0238
Venus	86948-09-16 17:17 G	33478424.13	33478424.22	33478424.31	0.0533	0.0478
Venus	86949-05-12 16:34 G	33478661.99	33478662.19	33478662.39	0.0534	0.0060
Mercury	86952-03-19 12:00 G	33479703.96	33479704.00	33479704.05	0.0513	0.0477
Mercury	86952-06-16 17:32 G	33479793.11	33479793.23	33479793.35	0.0510	0.0204
Venus	86954-07-25 05:03 G	33480561.61	33480561.71	33480561.82	0.0494	0.0421

Venus	86955-03-18 07:41 G	33480797.62	33480797.82	33480798.03	0.0493	0.0009
Venus	86955-11-09 06:58 G	33481033.69	33481033.79	33481033.90	0.0493	0.0419
Earth	86957-01-05 08:24 G	33481456.62	33481456.85	33481457.08	0.0500	0.0082
Moon	86957-01-05 12:00 G	33481456.77	33481457.00	33481457.23	0.0500	0.0075 *
Mercury	86958-08-14 22:48 G	33482043.27	33482043.45	33482043.62	0.0516	0.0015
Venus	86961-01-15 07:12 G	33482927.60	33482927.80	33482928.00	0.0533	0.0094
Venus	86961-09-10 08:53 G	33483165.77	33483165.87	33483165.98	0.0533	0.0451
Mercury	86964-04-04 21:08 G	33484103.25	33484103.38	33484103.52	0.0511	0.0028
Venus	86966-11-21 09:22 G	33485063.69	33485063.89	33485064.09	0.0493	0.0120
Venus	86967-07-15 10:05 G	33485299.76	33485299.92	33485300.08	0.0493	0.0304
Mercury	86970-06-02 20:39 G	33486353.20	33486353.36	33486353.52	0.0515	0.0223
Venus	86972-09-19 21:36 G	33487193.23	33487193.40	33487193.59	0.0533	0.0243
Venus	86973-05-15 22:20 G	33487431.26	33487431.43	33487431.59	0.0533	0.0304
Moon	86974-06-30 21:08 G	33487842.17	33487842.38	33487842.59	0.0527	0.0172
Earth	86974-06-30 22:34 G	33487842.22	33487842.44	33487842.66	0.0527	0.0197 *
Mercury	86976-01-23 01:27 G	33488413.44	33488413.56	33488413.69	0.0511	0.0149
Venus	86978-07-27 12:29 G	33489329.84	33489330.02	33489330.20	0.0494	0.0238
Venus	86979-03-20 14:10 G	33489565.90	33489566.09	33489566.28	0.0493	0.0189
Mercury	86982-03-21 17:32 G	33490663.16	33490663.23	33490663.30	0.0514	0.0473
Mercury	86982-06-20 02:10 G	33490753.58	33490753.59	33490753.62	0.0517	0.0512
Mars	86982-08-27 01:27 G	33490821.34	33490821.56	33490821.79	0.0519	0.0240
Venus	86984-05-25 10:48 G	33491458.81	33491458.95	33491459.08	0.0532	0.0392
Venus	86985-01-18 10:05 G	33491696.73	33491696.92	33491697.12	0.0533	0.0150
Earth	86986-07-05 22:34 G	33492230.26	33492230.44	33492230.62	0.0526	0.0331
Moon	86986-07-06 01:41 G	33492230.39	33492230.57	33492230.74	0.0526	0.0355 *
Mercury	86987-11-11 06:00 G	33492723.65	33492723.75	33492723.85	0.0512	0.0311
Mercury	86988-02-08 11:32 G	33492812.90	33492812.98	33492813.08	0.0510	0.0372
Venus	86990-04-01 15:51 G	33493596.02	33493596.16	33493596.30	0.0494	0.0353
Venus	86990-11-23 18:15 G	33493832.06	33493832.26	33493832.46	0.0493	0.0073
Venus	86991-07-17 17:17 G	33494068.20	33494068.22	33494068.26	0.0494	0.0487

Mercury	86994-04-07 23:46 G	33495063.34	33495063.49	33495063.64	0.0516	0.0268
Venus	86996-09-23 00:00 G	33495962.29	33495962.50	33495962.70	0.0534	0.0008
Mercury	86999-08-30 10:48 G	33497033.90	33497033.95	33497034.00	0.0513	0.0470
Mercury	86999-11-27 16:20 G	33497123.06	33497123.18	33497123.30	0.0510	0.0211

88TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 88th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	87001-12-06 18:15 G		33497862.20	33497862.26	33497862.32	0.0494	0.0467	
Venus	87002-07-30 21:36 G		33498098.20	33498098.40	33498098.61	0.0493	0.0045	
Venus	87003-03-23 21:22 G		33498334.26	33498334.39	33498334.52	0.0493	0.0375	
Mercury	87006-01-25 21:08 G		33499373.21	33499373.38	33499373.56	0.0515	0.0025	
Venus	87008-05-29 14:39 G		33500227.92	33500228.11	33500228.31	0.0534	0.0154	
Venus	87009-01-22 16:48 G		33500466.07	33500466.20	33500466.34	0.0533	0.0396	
Mercury	87011-09-16 20:53 G		33501433.24	33501433.37	33501433.50	0.0511	0.0049	
Venus	87014-04-05 01:12 G		33502364.35	33502364.55	33502364.74	0.0493	0.0162	
Venus	87014-11-27 01:27 G		33502600.40	33502600.56	33502600.74	0.0493	0.0263	
Mercury	87017-11-13 19:27 G		33503683.14	33503683.31	33503683.47	0.0515	0.0207	
Venus	87020-02-02 06:29 G		33504493.61	33504493.77	33504493.94	0.0533	0.0302	
Venus	87020-09-27 06:44 G		33504731.60	33504731.78	33504731.96	0.0533	0.0245	
Mercury	87023-07-06 00:29 G		33505743.40	33505743.52	33505743.65	0.0511	0.0133	
Venus	87025-12-09 01:41 G		33506630.40	33506630.57	33506630.74	0.0494	0.0285	
Venus	87026-08-02 03:51 G		33506866.46	33506866.66	33506866.85	0.0493	0.0143	

Earth	87028-01-02 08:10 G	33507384.70	33507384.84	33507384.98	0.0499	0.0400
Moon	87028-01-02 11:17 G	33507384.87	33507384.97	33507385.10	0.0499	0.0432 *
Mercury	87029-09-01 17:03 G	33507993.13	33507993.21	33507993.30	0.0514	0.0443
Venus	87031-10-07 21:51 G	33508759.31	33508759.41	33508759.52	0.0532	0.0446
Venus	87032-06-01 20:24 G	33508997.15	33508997.35	33508997.55	0.0533	0.0093
Mercury	87035-04-24 04:48 G	33510053.60	33510053.70	33510053.81	0.0512	0.0302
Mercury	87035-07-22 10:34 G	33510142.85	33510142.94	33510143.02	0.0509	0.0380
Venus	87037-08-14 04:05 G	33510896.55	33510896.67	33510896.79	0.0494	0.0401
Venus	87038-04-07 07:27 G	33511132.60	33511132.81	33511133.01	0.0493	0.0026
Venus	87038-11-29 07:12 G	33511368.72	33511368.80	33511368.90	0.0494	0.0444
Moon	87040-01-06 17:32 G	33511771.99	33511772.23	33511772.47	0.0500	0.0042
Earth	87040-01-06 19:27 G	33511772.08	33511772.31	33511772.55	0.0500	0.0044 *
Mercury	87041-09-18 23:17 G	33512393.32	33512393.47	33512393.61	0.0516	0.0296
Venus	87044-02-05 08:24 G	33513262.65	33513262.85	33513263.05	0.0533	0.0062
Venus	87044-09-30 10:05 G	33513500.84	33513500.92	33513501.01	0.0532	0.0482
Mercury	87047-02-10 09:22 G	33514363.84	33514363.89	33514363.94	0.0513	0.0466
Mercury	87047-05-10 14:53 G	33514453.00	33514453.12	33514453.24	0.0510	0.0215
Venus	87049-12-11 11:03 G	33515398.76	33515398.96	33515399.16	0.0493	0.0092
Venus	87050-08-04 11:32 G	33515634.83	33515634.98	33515635.13	0.0493	0.0332
Earth	87052-01-11 06:44 G	33516159.72	33516159.78	33516159.83	0.0501	0.0484
Mercury	87053-07-07 20:24 G	33516703.18	33516703.35	33516703.53	0.0515	0.0051
Venus	87055-10-10 22:20 G	33517528.25	33517528.43	33517528.62	0.0533	0.0214
Venus	87056-06-04 23:17 G	33517766.31	33517766.47	33517766.63	0.0533	0.0335
Earth	87057-07-01 05:03 G	33518157.51	33518157.71	33518157.91	0.0528	0.0261
Moon	87057-07-01 07:41 G	33518157.61	33518157.82	33518158.04	0.0528	0.0231 *
Mercury	87059-02-26 19:27 G	33518763.18	33518763.31	33518763.44	0.0511	0.0053
Venus	87061-08-16 14:10 G	33519664.91	33519665.09	33519665.28	0.0493	0.0209
Venus	87062-04-09 15:08 G	33519900.95	33519901.13	33519901.32	0.0493	0.0217
Mercury	87065-04-25 17:32 G	33521013.07	33521013.23	33521013.40	0.0515	0.0200
Venus	87067-06-15 13:27 G	33521793.91	33521794.06	33521794.21	0.0533	0.0362

Venus	87068-02-08 13:27 G	33522031.87	33522032.06	33522032.25	0.0534	0.0185
Moon	87069-07-06 04:34 G	33522545.51	33522545.69	33522545.89	0.0526	0.0297
Earth	87069-07-06 08:24 G	33522545.66	33522545.85	33522546.05	0.0526	0.0281 *
Mercury	87070-12-16 00:00 G	33523073.37	33523073.50	33523073.63	0.0512	0.0110
Venus	87073-04-21 16:48 G	33523931.05	33523931.20	33523931.36	0.0494	0.0327
Venus	87073-12-13 18:58 G	33524167.09	33524167.29	33524167.49	0.0493	0.0100
Mercury	87077-02-11 15:22 G	33525323.05	33525323.14	33525323.24	0.0514	0.0434
Venus	87079-02-18 06:15 G	33526059.70	33526059.76	33526059.83	0.0532	0.0503
Venus	87079-10-14 04:20 G	33526297.48	33526297.68	33526297.88	0.0533	0.0032
Mercury	87082-10-04 03:51 G	33527383.56	33527383.66	33527383.77	0.0512	0.0288
Mercury	87083-01-01 09:22 G	33527472.81	33527472.89	33527472.97	0.0509	0.0392
Venus	87084-12-25 16:20 G	33528197.10	33528197.18	33528197.27	0.0495	0.0448
Venus	87085-08-18 20:10 G	33528433.14	33528433.34	33528433.55	0.0493	0.0024
Venus	87086-04-11 20:24 G	33528669.24	33528669.35	33528669.48	0.0494	0.0400
Mercury	87089-02-28 22:20 G	33529723.30	33529723.43	33529723.57	0.0516	0.0321
Venus	87091-06-18 18:29 G	33530563.07	33530563.27	33530563.47	0.0533	0.0120
Venus	87092-02-11 19:27 G	33530801.20	33530801.31	33530801.44	0.0532	0.0427
Mercury	87094-07-23 08:10 G	33531693.78	33531693.84	33531693.90	0.0512	0.0457
Mercury	87094-10-20 13:27 G	33531782.95	33531783.06	33531783.18	0.0510	0.0222
Venus	87097-04-23 23:17 G	33532699.27	33532699.47	33532699.66	0.0493	0.0142
Venus	87097-12-16 00:15 G	33532935.35	33532935.51	33532935.68	0.0494	0.0285
Mercury	87100-12-18 19:27 G	33534033.14	33534033.31	33534033.49	0.0515	0.0070
Venus	87103-02-22 06:44 G	33534828.61	33534828.78	33534828.96	0.0533	0.0274
Venus	87103-10-18 06:44 G	33535066.61	33535066.78	33535066.96	0.0533	0.0274
Mercury	87106-08-09 17:46 G	33536093.11	33536093.24	33536093.37	0.0511	0.0056
Venus	87108-12-29 02:10 G	33536965.42	33536965.59	33536965.77	0.0494	0.0259
Venus	87109-08-22 04:20 G	33537201.49	33537201.68	33537201.88	0.0493	0.0171
Moon	87111-01-02 14:53 G	33537700.06	33537700.12	33537700.19	0.0498	0.0477
Earth	87111-01-02 16:48 G	33537700.11	33537700.20	33537700.31	0.0498	0.0450 *
Mercury	87112-10-06 16:34 G	33538343.02	33538343.19	33538343.36	0.0515	0.0179

Venus	87114-10-27 20:53 G	33539094.25	33539094.37	33539094.50	0.0532	0.0421
Venus	87115-06-22 19:41 G	33539332.12	33539332.32	33539332.52	0.0533	0.0121
Mercury	87118-05-28 22:20 G	33540403.31	33540403.43	33540403.56	0.0512	0.0110
Venus	87120-09-03 05:03 G	33541231.58	33541231.71	33541231.84	0.0494	0.0376
Venus	87121-04-27 07:41 G	33541467.62	33541467.82	33541468.03	0.0493	0.0052
Venus	87121-12-19 07:12 G	33541703.74	33541703.80	33541703.86	0.0494	0.0469
Earth	87123-01-07 02:39 G	33542087.38	33542087.61	33542087.84	0.0499	0.0017
Moon	87123-01-07 02:39 G	33542087.38	33542087.61	33542087.83	0.0499	0.0006 *
Mercury	87124-07-25 13:12 G	33542652.96	33542653.05	33542653.15	0.0514	0.0431
Venus	87127-02-25 10:05 G	33543597.71	33543597.92	33543598.12	0.0534	0.0032
Venus	87127-10-21 12:15 G	33543835.97	33543836.01	33543836.06	0.0533	0.0514
Mercury	87130-03-17 02:53 G	33544713.52	33544713.62	33544713.73	0.0512	0.0273
Mercury	87130-06-14 08:39 G	33544802.78	33544802.86	33544802.93	0.0510	0.0410
Venus	87132-05-09 06:29 G	33545497.76	33545497.77	33545497.80	0.0495	0.0492
Venus	87132-12-31 10:48 G	33545733.75	33545733.95	33545734.15	0.0493	0.0066
Venus	87133-08-24 11:03 G	33545969.82	33545969.96	33545970.10	0.0493	0.0358
Earth	87135-01-11 14:10 G	33546474.97	33546475.09	33546475.21	0.0501	0.0427
Moon	87135-01-11 15:51 G	33546475.07	33546475.16	33546475.26	0.0501	0.0458 *
Mercury	87136-08-11 20:24 G	33547053.22	33547053.35	33547053.49	0.0516	0.0323
Venus	87138-10-31 01:27 G	33547863.37	33547863.56	33547863.75	0.0533	0.0183
Venus	87139-06-26 02:24 G	33548101.45	33548101.60	33548101.75	0.0533	0.0367
Moon	87140-07-01 07:41 G	33548472.64	33548472.82	33548473.02	0.0527	0.0295
Earth	87140-07-01 11:17 G	33548472.79	33548472.97	33548473.16	0.0527	0.0323 *
Mercury	87142-01-03 06:58 G	33549023.73	33549023.79	33549023.85	0.0512	0.0448
Mercury	87142-04-02 12:15 G	33549112.90	33549113.01	33549113.13	0.0510	0.0230
Venus	87144-09-05 11:17 G	33549999.78	33549999.97	33550000.16	0.0493	0.0190
Venus	87145-04-29 12:44 G	33550235.85	33550236.03	33550236.21	0.0493	0.0238
Mercury	87148-05-30 18:15 G	33551363.08	33551363.26	33551363.43	0.0516	0.0086
Venus	87150-07-05 16:05 G	33552129.02	33552129.17	33552129.34	0.0532	0.0332
Venus	87151-02-28 15:51 G	33552366.97	33552367.16	33552367.34	0.0533	0.0216

Earth	87152-07-06 11:17 G	33552860.76	33552860.97	33552861.19	0.0526	0.0204
Moon	87152-07-06 14:53 G	33552860.91	33552861.12	33552861.33	0.0526	0.0213 *
Mercury	87154-01-19 16:34 G	33553423.06	33553423.19	33553423.32	0.0510	0.0060
Venus	87156-05-11 13:27 G	33554265.90	33554266.06	33554266.22	0.0494	0.0309
Venus	87157-01-02 16:05 G	33554501.97	33554502.17	33554502.36	0.0493	0.0121
Mercury	87160-03-18 14:53 G	33555672.96	33555673.12	33555673.30	0.0515	0.0167
Venus	87162-03-10 05:03 G	33556394.63	33556394.71	33556394.80	0.0532	0.0479
Venus	87162-11-03 02:53 G	33556632.42	33556632.62	33556632.82	0.0533	0.0059
Mercury	87165-11-07 20:39 G	33557733.24	33557733.36	33557733.49	0.0511	0.0112
Venus	87168-01-15 15:51 G	33558532.06	33558532.16	33558532.27	0.0495	0.0425
Venus	87168-09-07 19:41 G	33558768.12	33558768.32	33558768.53	0.0493	0.0012
Venus	87169-05-01 19:56 G	33559004.23	33559004.33	33559004.44	0.0494	0.0425
Mercury	87172-01-05 12:00 G	33559982.89	33559983.00	33559983.10	0.0514	0.0417
Venus	87174-07-08 15:51 G	33560897.96	33560898.16	33560898.36	0.0533	0.0096
Venus	87175-03-03 17:17 G	33561136.12	33561136.22	33561136.33	0.0533	0.0453
Mercury	87177-08-27 01:12 G	33562043.44	33562043.55	33562043.66	0.0512	0.0276
Mercury	87177-11-24 06:44 G	33562132.71	33562132.78	33562132.86	0.0510	0.0406
Venus	87180-05-13 22:34 G	33563034.24	33563034.44	33563034.64	0.0493	0.0116
Venus	87181-01-04 23:03 G	33563270.31	33563270.46	33563270.62	0.0493	0.0310
Mercury	87184-01-22 17:46 G	33564383.11	33564383.24	33564383.38	0.0516	0.0318
Venus	87186-03-13 06:15 G	33565163.58	33565163.76	33565163.94	0.0533	0.0248
Venus	87186-11-06 06:58 G	33565401.62	33565401.79	33565401.95	0.0533	0.0304
Mercury	87189-06-15 05:46 G	33566353.68	33566353.74	33566353.81	0.0513	0.0439
Mercury	87189-09-12 11:17 G	33566442.85	33566442.97	33566443.08	0.0510	0.0241
Venus	87192-01-18 00:58 G	33567300.36	33567300.54	33567300.72	0.0493	0.0235
Venus	87192-09-10 02:39 G	33567536.43	33567536.61	33567536.80	0.0493	0.0194
Mercury	87195-11-10 15:51 G	33568692.98	33568693.16	33568693.33	0.0516	0.0082
Venus	87197-11-15 22:20 G	33569429.30	33569429.43	33569429.57	0.0532	0.0394
Venus	87198-07-11 21:22 G	33569667.20	33569667.39	33569667.59	0.0533	0.0152
Mercury	87201-07-01 15:08 G	33570753.00	33570753.13	33570753.26	0.0510	0.0064

Venus	87203-09-23 00:44 G	33571566.39	33571566.53	33571566.67	0.0494	0.0358
Venus	87204-05-16 03:36 G	33571802.45	33571802.65	33571802.85	0.0493	0.0071
Venus	87205-01-07 03:22 G	33572038.62	33572038.64	33572038.67	0.0494	0.0489
Earth	87206-01-06 06:44 G	33572402.55	33572402.78	33572403.01	0.0500	0.0085
Moon	87206-01-06 08:24 G	33572402.61	33572402.85	33572403.09	0.0500	0.0068 *
Mercury	87207-08-29 12:58 G	33573002.88	33573003.04	33573003.21	0.0515	0.0162
Venus	87210-03-16 11:17 G	33573932.77	33573932.97	33573933.17	0.0533	0.0002
Mercury	87213-04-19 19:12 G	33575063.17	33575063.30	33575063.43	0.0511	0.0109
Venus	87215-05-29 01:56 G	33575832.53	33575832.58	33575832.64	0.0495	0.0476
Venus	87216-01-20 06:15 G	33576068.56	33576068.76	33576068.96	0.0493	0.0049
Venus	87216-09-12 06:58 G	33576304.67	33576304.79	33576304.93	0.0494	0.0377
Moon	87218-01-10 15:08 G	33576789.99	33576790.13	33576790.27	0.0501	0.0391
Earth	87218-01-10 17:46 G	33576790.08	33576790.24	33576790.41	0.0501	0.0358 *
Mercury	87219-06-17 09:51 G	33577312.81	33577312.91	33577313.02	0.0514	0.0414
Venus	87221-11-18 22:34 G	33578198.25	33578198.44	33578198.64	0.0533	0.0158
Venus	87222-07-14 23:17 G	33578436.33	33578436.47	33578436.61	0.0533	0.0391
Earth	87223-07-01 09:08 G	33578787.75	33578787.88	33578788.02	0.0528	0.0425
Moon	87223-07-01 12:58 G	33578787.88	33578788.04	33578788.19	0.0528	0.0390 *
Mercury	87225-02-05 23:17 G	33579373.37	33579373.47	33579373.58	0.0512	0.0281
Mercury	87225-05-06 04:48 G	33579462.62	33579462.70	33579462.78	0.0510	0.0400
Venus	87227-09-25 09:36 G	33580334.71	33580334.90	33580335.09	0.0494	0.0166
Venus	87228-05-18 11:03 G	33580570.79	33580570.96	33580571.13	0.0493	0.0262
Mercury	87231-07-04 15:51 G	33581713.03	33581713.16	33581713.31	0.0516	0.0325
Venus	87233-07-24 12:00 G	33582463.84	33582464.00	33582464.17	0.0532	0.0310
Venus	87234-03-19 11:32 G	33582701.80	33582701.98	33582702.17	0.0533	0.0239
Moon	87235-07-06 06:15 G	33583175.53	33583175.76	33583176.00	0.0527	0.0109
Earth	87235-07-06 09:22 G	33583175.66	33583175.89	33583176.12	0.0527	0.0102 *
Mercury	87236-11-25 03:51 G	33583683.60	33583683.66	33583683.72	0.0513	0.0447
Mercury	87237-02-22 09:08 G	33583772.77	33583772.88	33583773.00	0.0510	0.0233
Venus	87239-05-31 11:46 G	33584600.83	33584600.99	33584601.16	0.0494	0.0286

Venus	87240-01-22 13:56 G	33584836.89	33584837.08	33584837.28	0.0493	0.0144
Mercury	87243-04-22 12:44 G	33586022.86	33586023.03	33586023.21	0.0515	0.0070
Venus	87245-03-29 02:39 G	33586729.51	33586729.61	33586729.71	0.0532	0.0457
Venus	87245-11-22 00:58 G	33586967.34	33586967.54	33586967.74	0.0533	0.0085
Mercury	87248-12-11 13:41 G	33588082.94	33588083.07	33588083.20	0.0511	0.0067
Venus	87251-02-03 13:27 G	33588866.95	33588867.06	33588867.18	0.0494	0.0404
Venus	87251-09-27 16:48 G	33589103.00	33589103.20	33589103.41	0.0493	0.0028
Venus	87252-05-20 16:48 G	33589339.12	33589339.20	33589339.28	0.0494	0.0446
Mercury	87255-02-08 10:20 G	33590332.76	33590332.93	33590333.10	0.0515	0.0172
Mars	87255-05-14 20:24 G	33590428.13	33590428.35	33590428.57	0.0518	0.0254
Venus	87257-07-27 15:51 G	33591232.96	33591233.16	33591233.37	0.0533	0.0069
Venus	87258-03-22 17:32 G	33591471.15	33591471.23	33591471.32	0.0533	0.0481
Mercury	87260-09-29 17:46 G	33592393.11	33592393.24	33592393.36	0.0511	0.0108
Venus	87263-06-02 17:17 G	33593369.02	33593369.22	33593369.42	0.0493	0.0099
Venus	87264-01-24 17:46 G	33593605.10	33593605.24	33593605.40	0.0493	0.0329
Mercury	87266-11-27 07:12 G	33594642.70	33594642.80	33594642.91	0.0515	0.0419
Venus	87269-04-01 06:15 G	33595498.58	33595498.76	33595498.95	0.0533	0.0220
Venus	87269-11-25 06:44 G	33595736.62	33595736.78	33595736.94	0.0533	0.0332
Mercury	87272-07-18 21:51 G	33596703.30	33596703.41	33596703.52	0.0512	0.0279
Mercury	87272-10-16 03:22 G	33596792.56	33596792.64	33596792.72	0.0509	0.0400
Venus	87275-02-05 19:12 G	33597635.12	33597635.30	33597635.49	0.0494	0.0220
Venus	87275-09-29 21:22 G	33597871.20	33597871.39	33597871.57	0.0493	0.0211
Mercury	87278-12-14 13:41 G	33599042.93	33599043.07	33599043.20	0.0516	0.0321
Venus	87280-12-04 18:15 G	33599764.12	33599764.26	33599764.41	0.0532	0.0372
Venus	87281-07-30 17:03 G	33600002.02	33600002.21	33600002.40	0.0533	0.0175
Mercury	87284-05-07 01:56 G	33601013.52	33601013.58	33601013.64	0.0513	0.0454
Mercury	87284-08-04 07:12 G	33601102.69	33601102.80	33601102.92	0.0510	0.0225
Venus	87286-10-11 21:51 G	33601901.26	33601901.41	33601901.56	0.0494	0.0337
Venus	87287-06-05 00:58 G	33602137.34	33602137.54	33602137.74	0.0493	0.0095
Moon	87289-01-05 07:41 G	33602717.60	33602717.82	33602718.03	0.0499	0.0141

Earth	87289-01-05 10:05 G	33602717.70	33602717.92	33602718.15	0.0499	0.0158 *
Mercury	87290-10-02 10:34 G	33603352.77	33603352.94	33603353.12	0.0515	0.0072
Venus	87292-08-09 08:24 G	33604029.81	33604029.85	33604029.90	0.0531	0.0517
Venus	87293-04-04 05:32 G	33604267.53	33604267.73	33604267.93	0.0533	0.0019
Mercury	87296-05-23 11:32 G	33605412.85	33605412.98	33605413.11	0.0511	0.0056
Venus	87298-06-16 23:32 G	33606167.40	33606167.48	33606167.56	0.0495	0.0455
Venus	87299-02-08 03:36 G	33606403.45	33606403.65	33606403.85	0.0493	0.0026
Venus	87299-10-02 03:51 G	33606639.55	33606639.66	33606639.79	0.0493	0.0399
Earth	87301-01-10 19:12 G	33607105.11	33607105.30	33607105.49	0.0500	0.0275
Moon	87301-01-10 22:34 G	33607105.26	33607105.44	33607105.63	0.0500	0.0306 *
Mercury	87302-07-22 07:12 G	33607662.63	33607662.80	33607662.96	0.0515	0.0187
Venus	87304-12-08 18:44 G	33608533.09	33608533.28	33608533.48	0.0533	0.0137
Venus	87305-08-03 19:56 G	33608771.21	33608771.33	33608771.46	0.0533	0.0416
Moon	87306-07-01 04:34 G	33609102.61	33609102.69	33609102.79	0.0528	0.0489
Earth	87306-07-01 08:10 G	33609102.82	33609102.84	33609102.87	0.0528	0.0523
Mercury	87308-03-12 16:05 G	33609723.04	33609723.17	33609723.29	0.0512	0.0111
Venus	87310-10-15 06:00 G	33610669.55	33610669.75	33610669.94	0.0493	0.0146
Venus	87311-06-08 06:58 G	33610905.62	33610905.79	33610905.96	0.0493	0.0283
Mercury	87314-05-10 04:20 G	33611972.59	33611972.68	33611972.78	0.0514	0.0433
Venus	87316-08-13 10:20 G	33612798.76	33612798.93	33612799.10	0.0533	0.0287
Venus	87317-04-08 10:34 G	33613036.76	33613036.94	33613037.11	0.0533	0.0266
Earth	87318-07-06 10:48 G	33613490.71	33613490.95	33613491.18	0.0527	0.0020
Moon	87318-07-06 12:44 G	33613490.80	33613491.03	33613491.25	0.0527	0.0024 *
Mercury	87319-12-30 20:10 G	33614033.23	33614033.34	33614033.45	0.0512	0.0281
Mercury	87320-03-29 01:41 G	33614122.49	33614122.57	33614122.65	0.0509	0.0398
Mars	87320-04-28 21:08 G	33614153.11	33614153.38	33614153.66	0.0508	0.0215
Venus	87322-06-20 05:46 G	33614935.58	33614935.74	33614935.92	0.0493	0.0270
Venus	87323-02-11 07:56 G	33615171.64	33615171.83	33615172.02	0.0493	0.0161
Mercury	87326-05-27 10:48 G	33616372.81	33616372.95	33616373.09	0.0517	0.0312
Venus	87328-04-18 01:27 G	33617064.45	33617064.56	33617064.68	0.0532	0.0432

Venus	87328-12-11 23:46 G	33617302.30	33617302.49	33617302.69	0.0533	0.0114
Moon	87330-07-11 10:20 G	33617878.88	33617878.93	33617879.00	0.0525	0.0509
Mercury	87331-10-19 00:29 G	33618343.46	33618343.52	33618343.58	0.0512	0.0452
Mercury	87332-01-16 05:46 G	33618432.62	33618432.74	33618432.85	0.0510	0.0226
Venus	87334-02-23 07:27 G	33619201.69	33619201.81	33619201.94	0.0494	0.0389
Venus	87334-10-17 10:48 G	33619437.75	33619437.95	33619438.16	0.0493	0.0042
Venus	87335-06-10 10:48 G	33619673.89	33619673.95	33619674.03	0.0494	0.0463
Mercury	87338-03-15 07:56 G	33620682.65	33620682.83	33620683.00	0.0515	0.0063
Venus	87340-08-16 10:48 G	33621567.75	33621567.95	33621568.15	0.0533	0.0046
Venus	87341-04-11 12:00 G	33621805.94	33621806.00	33621806.07	0.0532	0.0502
Mercury	87343-11-04 09:36 G	33622742.77	33622742.90	33622743.03	0.0511	0.0048
Venus	87346-06-22 13:56 G	33623703.88	33623704.08	33623704.28	0.0493	0.0076
Venus	87347-02-13 14:53 G	33623939.98	33623940.12	33623940.26	0.0493	0.0351
Mercury	87350-01-01 04:48 G	33624992.53	33624992.70	33624992.87	0.0515	0.0188
Venus	87352-04-20 23:46 G	33625833.30	33625833.49	33625833.68	0.0533	0.0201
Venus	87352-12-14 23:46 G	33626071.34	33626071.49	33626071.65	0.0533	0.0352
Mercury	87355-08-23 13:56 G	33627052.95	33627053.08	33627053.20	0.0512	0.0124
Venus	87358-02-25 16:20 G	33627969.99	33627970.18	33627970.37	0.0493	0.0197
Venus	87358-10-19 18:00 G	33628206.07	33628206.25	33628206.43	0.0493	0.0234
Mercury	87361-10-20 01:12 G	33629302.46	33629302.55	33629302.63	0.0514	0.0448
Venus	87363-12-25 13:12 G	33630098.91	33630099.05	33630099.21	0.0532	0.0354
Venus	87364-08-19 12:29 G	33630336.83	33630337.02	33630337.21	0.0533	0.0197
Mercury	87367-06-11 18:15 G	33631363.15	33631363.26	33631363.37	0.0512	0.0288
Mercury	87367-09-08 23:46 G	33631452.41	33631452.49	33631452.57	0.0510	0.0393
Venus	87369-10-31 18:00 G	33632236.10	33632236.25	33632236.41	0.0494	0.0317
Venus	87370-06-24 20:39 G	33632472.16	33632472.36	33632472.56	0.0493	0.0115
Earth	87372-01-06 09:51 G	33633032.71	33633032.91	33633033.12	0.0498	0.0246
Moon	87372-01-06 13:12 G	33633032.85	33633033.05	33633033.27	0.0498	0.0225 *
Mercury	87373-11-06 07:41 G	33633702.68	33633702.82	33633702.97	0.0516	0.0296
Venus	87375-08-30 05:17 G	33634364.66	33634364.72	33634364.79	0.0532	0.0497

Venus	87376-04-24 03:08 G	33634602.43	33634602.63	33634602.84	0.0534	0.0045
Mercury	87379-03-30 22:34 G	33635673.39	33635673.44	33635673.50	0.0512	0.0455
Mercury	87379-06-28 03:51 G	33635762.54	33635762.66	33635762.78	0.0510	0.0222
Venus	87381-07-06 17:46 G	33636502.15	33636502.24	33636502.34	0.0494	0.0438
Venus	87382-02-27 21:36 G	33636738.19	33636738.40	33636738.60	0.0493	0.0010
Venus	87382-10-21 21:36 G	33636974.30	33636974.40	33636974.51	0.0493	0.0416
Moon	87384-01-10 14:10 G	33637419.88	33637420.09	33637420.31	0.0500	0.0209
Earth	87384-01-10 18:00 G	33637420.03	33637420.25	33637420.47	0.0500	0.0183 *
Mercury	87385-08-25 04:48 G	33638012.52	33638012.70	33638012.88	0.0516	0.0049
Venus	87387-12-28 17:17 G	33638868.02	33638868.22	33638868.42	0.0533	0.0110
Venus	87388-08-22 18:29 G	33639106.16	33639106.27	33639106.38	0.0533	0.0443
Mercury	87391-04-16 07:56 G	33640072.70	33640072.83	33640072.97	0.0510	0.0054
Venus	87393-11-03 00:00 G	33641004.30	33641004.50	33641004.70	0.0493	0.0129
Venus	87394-06-27 00:58 G	33641240.38	33641240.54	33641240.70	0.0493	0.0301
Mercury	87397-06-13 01:56 G	33642322.41	33642322.58	33642322.74	0.0515	0.0200
Venus	87399-09-02 05:03 G	33643133.54	33643133.71	33643133.89	0.0532	0.0265
Venus	87400-04-28 04:34 G	33643371.53	33643371.69	33643371.87	0.0533	0.0288
Moon	87401-07-06 02:39 G	33643805.37	33643805.61	33643805.84	0.0527	0.0103
Earth	87401-07-06 03:36 G	33643805.42	33643805.65	33643805.88	0.0527	0.0108 *
Mercury	87403-02-03 11:46 G	33644382.87	33644382.99	33644383.12	0.0512	0.0131
Venus	87405-07-10 02:24 G	33645270.42	33645270.60	33645270.78	0.0494	0.0248
Venus	87406-03-03 04:48 G	33645506.51	33645506.70	33645506.89	0.0493	0.0185
Mercury	87409-04-01 22:48 G	33646632.37	33646632.45	33646632.54	0.0514	0.0449
Mars	87409-08-09 01:41 G	33646761.32	33646761.57	33646761.82	0.0518	0.0049
Venus	87411-05-08 18:58 G	33647399.17	33647399.29	33647399.42	0.0532	0.0414
Venus	87412-01-01 16:48 G	33647637.01	33647637.20	33647637.40	0.0533	0.0132
Moon	87413-07-11 00:58 G	33648193.39	33648193.54	33648193.70	0.0526	0.0383
Earth	87413-07-11 02:24 G	33648193.46	33648193.60	33648193.75	0.0526	0.0414 *
Mercury	87414-11-22 16:05 G	33648693.07	33648693.17	33648693.28	0.0512	0.0301
Mercury	87415-02-19 21:36 G	33648782.31	33648782.40	33648782.48	0.0510	0.0380

Venus	87417-03-15 04:20 G	33649536.54	33649536.68	33649536.81	0.0494	0.0368
Venus	87417-11-06 07:41 G	33649772.62	33649772.82	33649773.02	0.0493	0.0065
Venus	87418-06-30 07:27 G	33650008.78	33650008.81	33650008.85	0.0494	0.0485
Mercury	87421-04-19 04:48 G	33651032.55	33651032.70	33651032.84	0.0516	0.0283
Venus	87423-09-06 05:46 G	33651902.53	33651902.74	33651902.94	0.0533	0.0028
Venus	87424-05-01 07:27 G	33652140.78	33652140.81	33652140.84	0.0533	0.0524
Mercury	87426-09-10 20:39 G	33653003.31	33653003.36	33653003.41	0.0513	0.0466
Mercury	87426-12-09 01:56 G	33653092.46	33653092.58	33653092.70	0.0510	0.0214
Venus	87428-11-18 05:32 G	33653802.69	33653802.73	33653802.76	0.0495	0.0486
Venus	87429-07-12 10:05 G	33654038.71	33654038.92	33654039.12	0.0493	0.0056
Venus	87430-03-05 10:20 G	33654274.81	33654274.93	33654275.07	0.0493	0.0371
Mercury	87433-02-05 01:56 G	33655342.40	33655342.58	33655342.76	0.0515	0.0036
Venus	87435-05-11 20:39 G	33656168.17	33656168.36	33656168.55	0.0533	0.0178
Venus	87436-01-04 21:22 G	33656406.25	33656406.39	33656406.54	0.0533	0.0377
Mercury	87438-09-27 06:15 G	33657402.63	33657402.76	33657402.89	0.0511	0.0047
Venus	87441-03-17 10:48 G	33658304.76	33658304.95	33658305.15	0.0493	0.0179
Venus	87441-11-08 12:00 G	33658540.83	33658541.00	33658541.18	0.0493	0.0253
Mercury	87444-11-23 22:48 G	33659652.29	33659652.45	33659652.61	0.0515	0.0214
Venus	87447-01-14 11:32 G	33660433.83	33660433.98	33660434.14	0.0533	0.0328
Venus	87447-09-09 11:03 G	33660671.78	33660671.96	33660672.15	0.0533	0.0226
Mercury	87450-07-16 10:34 G	33661712.81	33661712.94	33661713.07	0.0511	0.0124
Venus	87452-11-20 12:44 G	33662570.87	33662571.03	33662571.20	0.0494	0.0299
Venus	87453-07-14 15:22 G	33662806.94	33662807.14	33662807.33	0.0493	0.0134
Moon	87455-01-06 06:44 G	33663347.60	33663347.78	33663347.96	0.0498	0.0311
Earth	87455-01-06 10:20 G	33663347.76	33663347.93	33663348.11	0.0498	0.0332 *
Mercury	87456-09-11 19:56 G	33663962.25	33663962.33	33663962.41	0.0514	0.0460
Venus	87458-09-19 00:58 G	33664699.45	33664699.54	33664699.63	0.0531	0.0476
Venus	87459-05-14 22:05 G	33664937.22	33664937.42	33664937.62	0.0533	0.0067
Mercury	87462-05-04 14:10 G	33666022.99	33666023.09	33666023.20	0.0512	0.0307
Mercury	87462-08-01 19:41 G	33666112.23	33666112.32	33666112.41	0.0510	0.0374

Venus	87464-07-26 14:10 G	33666836.99	33666837.09	33666837.21	0.0495	0.0419
Venus	87465-03-19 18:29 G	33667073.07	33667073.27	33667073.48	0.0493	0.0018
Venus	87465-11-10 19:12 G	33667309.21	33667309.30	33667309.39	0.0494	0.0440
Earth	87467-01-10 22:20 G	33667735.20	33667735.43	33667735.65	0.0499	0.0111
Moon	87467-01-11 01:27 G	33667735.34	33667735.56	33667735.78	0.0499	0.0134 *
Mercury	87468-09-29 02:39 G	33668362.46	33668362.61	33668362.76	0.0516	0.0286
Venus	87471-01-17 11:03 G	33669202.76	33669202.96	33669203.16	0.0533	0.0090
Venus	87471-09-12 11:46 G	33669440.89	33669440.99	33669441.09	0.0533	0.0462
Mercury	87474-02-20 18:29 G	33670333.23	33670333.27	33670333.32	0.0513	0.0477
Mercury	87474-05-20 23:46 G	33670422.37	33670422.49	33670422.61	0.0511	0.0204
Mars	87474-07-23 16:20 G	33670485.89	33670486.18	33670486.47	0.0509	0.0124
Venus	87476-11-22 21:08 G	33671339.18	33671339.38	33671339.58	0.0493	0.0106
Venus	87477-07-16 22:05 G	33671575.27	33671575.42	33671575.58	0.0493	0.0324
Mercury	87480-07-17 23:17 G	33672672.29	33672672.47	33672672.64	0.0515	0.0030
Venus	87482-09-22 00:15 G	33673468.33	33673468.51	33673468.69	0.0533	0.0245
Venus	87483-05-18 00:00 G	33673706.34	33673706.50	33673706.67	0.0533	0.0310
Moon	87484-07-05 00:00 G	33674120.30	33674120.50	33674120.71	0.0528	0.0217
Earth	87484-07-05 00:44 G	33674120.32	33674120.53	33674120.74	0.0528	0.0215 *
Mercury	87486-03-09 04:20 G	33674732.55	33674732.68	33674732.81	0.0511	0.0038
Venus	87488-07-28 23:17 G	33675605.29	33675605.47	33675605.65	0.0494	0.0227
Venus	87489-03-22 01:12 G	33675841.37	33675841.55	33675841.74	0.0493	0.0206
Mercury	87492-05-05 20:10 G	33676982.18	33676982.34	33676982.50	0.0514	0.0220
Venus	87494-05-27 15:36 G	33677734.02	33677734.15	33677734.29	0.0532	0.0394
Venus	87495-01-20 14:24 G	33677971.91	33677972.10	33677972.30	0.0534	0.0157
Earth	87496-07-10 03:51 G	33678508.48	33678508.66	33678508.84	0.0527	0.0328
Moon	87496-07-10 06:58 G	33678508.60	33678508.79	33678508.99	0.0527	0.0296 *
Mercury	87497-12-26 08:53 G	33679042.74	33679042.87	33679042.99	0.0512	0.0128
Venus	87500-04-04 00:00 G	33679871.36	33679871.50	33679871.65	0.0494	0.0348
Venus	87500-11-26 02:53 G	33680107.42	33680107.62	33680107.83	0.0493	0.0086
Mercury	87504-02-23 16:48 G	33681292.14	33681292.20	33681292.28	0.0514	0.0472

Venus	87506-09-26 04:48 G	33682237.50	33682237.70	33682237.90	0.0534	0.0005
Mercury	87509-10-15 13:12 G	33683352.94	33683353.05	33683353.15	0.0512	0.0296
Mercury	87510-01-12 18:29 G	33683442.19	33683442.27	33683442.36	0.0510	0.0384
Venus	87511-12-09 01:27 G	33684137.50	33684137.56	33684137.63	0.0495	0.0467
Venus	87512-08-01 05:46 G	33684373.54	33684373.74	33684373.95	0.0493	0.0036
Venus	87513-03-25 06:15 G	33684609.64	33684609.76	33684609.89	0.0493	0.0392
Mercury	87516-03-12 00:00 G	33685692.35	33685692.50	33685692.65	0.0516	0.0280
Venus	87518-05-31 17:03 G	33686503.02	33686503.21	33686503.40	0.0533	0.0154
Venus	87519-01-24 17:03 G	33686741.09	33686741.21	33686741.35	0.0533	0.0401
Mercury	87521-08-03 16:48 G	33687663.16	33687663.20	33687663.25	0.0513	0.0479
Mercury	87521-10-31 22:05 G	33687752.30	33687752.42	33687752.54	0.0511	0.0201
Venus	87524-04-06 08:24 G	33688639.65	33688639.85	33688640.04	0.0494	0.0156
Venus	87524-11-28 10:05 G	33688875.76	33688875.92	33688876.09	0.0493	0.0278
Mercury	87527-12-29 21:36 G	33690002.22	33690002.40	33690002.58	0.0515	0.0039
Venus	87530-02-03 06:58 G	33690768.63	33690768.79	33690768.96	0.0532	0.0306
Venus	87530-09-29 05:46 G	33691006.56	33691006.74	33691006.92	0.0533	0.0247
Mercury	87533-08-20 02:24 G	33692062.47	33692062.60	33692062.73	0.0511	0.0030
Venus	87535-12-11 10:34 G	33692905.77	33692905.94	33692906.11	0.0494	0.0278
Venus	87536-08-03 13:27 G	33693141.86	33693142.06	33693142.25	0.0493	0.0158
Earth	87538-01-06 15:08 G	33693663.00	33693663.13	33693663.28	0.0498	0.0399
Moon	87538-01-06 18:29 G	33693663.13	33693663.27	33693663.43	0.0498	0.0370 *
Mercury	87539-10-17 18:00 G	33694312.09	33694312.25	33694312.41	0.0514	0.0219
Venus	87541-10-08 20:53 G	33695034.27	33695034.37	33695034.47	0.0531	0.0456
Venus	87542-06-03 18:15 G	33695272.06	33695272.26	33695272.46	0.0533	0.0090
Mercury	87545-06-08 06:58 G	33696372.66	33696372.79	33696372.91	0.0512	0.0135
Venus	87547-08-16 12:29 G	33697171.90	33697172.02	33697172.14	0.0495	0.0397
Venus	87548-04-08 16:20 G	33697407.98	33697408.18	33697408.38	0.0493	0.0038
Venus	87548-11-30 16:20 G	33697644.12	33697644.18	33697644.25	0.0493	0.0463
Moon	87550-01-10 22:48 G	33698050.21	33698050.45	33698050.69	0.0499	0.0054
Earth	87550-01-11 01:12 G	33698050.32	33698050.55	33698050.79	0.0499	0.0035 *

Mercury	87551-08-05 14:53 G	33698622.05	33698622.12	33698622.19	0.0514	0.0469
Venus	87554-02-06 09:08 G	33699537.68	33699537.88	33699538.08	0.0533	0.0065
Venus	87554-10-02 10:34 G	33699775.86	33699775.94	33699776.02	0.0533	0.0490
Mercury	87557-03-27 11:32 G	33700682.88	33700682.98	33700683.09	0.0512	0.0296
Mercury	87557-06-24 16:48 G	33700772.12	33700772.20	33700772.29	0.0510	0.0385
Venus	87559-12-13 18:00 G	33701674.05	33701674.25	33701674.46	0.0493	0.0084
Venus	87560-08-05 18:44 G	33701910.14	33701910.28	33701910.43	0.0493	0.0347
Earth	87562-01-15 09:36 G	33702437.83	33702437.90	33702437.99	0.0500	0.0467
Moon	87562-01-15 11:03 G	33702437.87	33702437.96	33702438.06	0.0500	0.0448 *
Mercury	87563-08-22 21:36 G	33703022.25	33703022.40	33703022.55	0.0516	0.0275
Mars	87563-11-03 10:48 G	33703094.78	33703094.95	33703095.13	0.0518	0.0370
Venus	87565-10-12 00:15 G	33703803.33	33703803.51	33703803.70	0.0533	0.0216
Venus	87566-06-07 00:29 G	33704041.37	33704041.52	33704041.68	0.0533	0.0342
Earth	87567-07-06 04:34 G	33704435.50	33704435.69	33704435.89	0.0528	0.0293
Moon	87567-07-06 07:12 G	33704435.61	33704435.80	33704436.00	0.0528	0.0303 *
Mercury	87569-01-13 16:05 G	33704993.11	33704993.17	33704993.22	0.0513	0.0462
Mercury	87569-04-12 21:22 G	33705082.27	33705082.39	33705082.50	0.0510	0.0217
Venus	87571-08-18 20:39 G	33705940.18	33705940.36	33705940.55	0.0493	0.0204
Venus	87572-04-10 22:34 G	33706176.26	33706176.44	33706176.62	0.0493	0.0230
Mercury	87575-06-10 19:12 G	33707332.13	33707332.30	33707332.48	0.0515	0.0040
Venus	87577-06-16 13:56 G	33708068.94	33708069.08	33708069.23	0.0532	0.0368
Venus	87578-02-09 12:15 G	33708306.82	33708307.01	33708307.20	0.0533	0.0184
Moon	87579-07-10 20:53 G	33708823.16	33708823.37	33708823.59	0.0527	0.0183
Earth	87579-07-11 00:44 G	33708823.32	33708823.53	33708823.75	0.0527	0.0219 *
Mercury	87581-01-30 00:58 G	33709392.41	33709392.54	33709392.67	0.0511	0.0034
Venus	87583-04-23 22:05 G	33710206.27	33710206.42	33710206.57	0.0495	0.0327
Venus	87583-12-16 01:41 G	33710442.37	33710442.57	33710442.77	0.0493	0.0111
Mercury	87587-03-29 16:48 G	33711642.04	33711642.20	33711642.37	0.0514	0.0202
Venus	87589-02-19 05:17 G	33712334.68	33712334.72	33712334.78	0.0531	0.0513
Venus	87589-10-15 01:27 G	33712572.36	33712572.56	33712572.77	0.0533	0.0031

Mercury	87592-11-18 05:03 G	33713702.59	33713702.71	33713702.84	0.0512	0.0140
Venus	87594-12-27 23:46 G	33714472.40	33714472.49	33714472.57	0.0495	0.0446
Venus	87595-08-21 04:48 G	33714708.50	33714708.70	33714708.91	0.0493	0.0010
Venus	87596-04-13 05:32 G	33714944.63	33714944.73	33714944.84	0.0494	0.0419
Mercury	87599-01-15 13:12 G	33715951.98	33715952.05	33715952.14	0.0513	0.0458
Venus	87601-06-19 14:24 G	33716837.91	33716838.10	33716838.30	0.0533	0.0131
Venus	87602-02-12 14:53 G	33717076.01	33717076.12	33717076.25	0.0533	0.0427
Mercury	87604-09-06 09:36 G	33718012.80	33718012.90	33718013.01	0.0513	0.0302
Mercury	87604-12-04 15:08 G	33718102.05	33718102.13	33718102.22	0.0510	0.0381
Venus	87607-04-26 07:27 G	33718974.61	33718974.81	33718975.01	0.0494	0.0131
Venus	87607-12-18 09:08 G	33719210.72	33719210.88	33719211.04	0.0493	0.0303
Mercury	87611-02-01 19:56 G	33720352.18	33720352.33	33720352.48	0.0515	0.0285
Venus	87613-02-22 05:46 G	33721103.58	33721103.74	33721103.92	0.0532	0.0282
Venus	87613-10-18 05:17 G	33721341.55	33721341.72	33721341.90	0.0533	0.0277
Mercury	87616-06-25 14:24 G	33722323.05	33722323.10	33722323.16	0.0513	0.0461
Mercury	87616-09-22 19:41 G	33722412.21	33722412.32	33722412.44	0.0511	0.0220
Venus	87618-12-30 09:08 G	33723240.71	33723240.88	33723241.06	0.0494	0.0253
Venus	87619-08-23 11:32 G	33723476.80	33723476.98	33723477.17	0.0493	0.0184
Moon	87621-01-05 17:46 G	33723978.13	33723978.24	33723978.35	0.0498	0.0437
Earth	87621-01-05 20:10 G	33723978.27	33723978.34	33723978.42	0.0498	0.0468 *
Mercury	87622-11-20 17:03 G	33724662.04	33724662.21	33724662.39	0.0515	0.0040
Venus	87624-10-27 21:51 G	33725369.29	33725369.41	33725369.53	0.0532	0.0428
Venus	87625-06-22 19:56 G	33725607.13	33725607.33	33725607.53	0.0534	0.0123
Mercury	87628-07-12 00:15 G	33726722.38	33726722.51	33726722.64	0.0511	0.0054
Venus	87630-09-04 11:32 G	33727506.84	33727506.98	33727507.11	0.0494	0.0373
Venus	87631-04-28 15:08 G	33727742.93	33727743.13	33727743.33	0.0493	0.0064
Venus	87631-12-20 15:08 G	33727979.11	33727979.13	33727979.16	0.0494	0.0488
Earth	87633-01-10 08:10 G	33728365.61	33728365.84	33728366.08	0.0499	0.0027
Moon	87633-01-10 09:22 G	33728365.66	33728365.89	33728366.11	0.0499	0.0010 *
Mercury	87634-09-08 14:53 G	33728971.96	33728972.12	33728972.29	0.0514	0.0197

Venus	87637-02-25 09:08 G	33729872.67	33729872.88	33729873.08	0.0533	0.0035
Venus	87637-10-21 09:51 G	33730110.87	33730110.91	33730110.95	0.0532	0.0519
Mercury	87640-04-30 03:51 G	33731032.53	33731032.66	33731032.79	0.0512	0.0131
Venus	87642-05-10 11:32 G	33731772.97	33731772.98	33731772.99	0.0496	0.0495
Venus	87643-01-01 17:17 G	33732009.02	33732009.22	33732009.43	0.0494	0.0059
Venus	87643-08-25 18:58 G	33732245.16	33732245.29	33732245.42	0.0494	0.0375
Earth	87645-01-14 20:53 G	33732753.25	33732753.37	33732753.50	0.0500	0.0423
Moon	87645-01-14 21:36 G	33732753.26	33732753.40	33732753.55	0.0500	0.0398 *
Mercury	87646-06-27 12:29 G	33733281.93	33733282.02	33733282.12	0.0514	0.0434
Venus	87648-10-30 23:17 G	33734138.29	33734138.47	33734138.66	0.0532	0.0190
Venus	87649-06-25 22:34 G	33734376.30	33734376.44	33734376.59	0.0533	0.0368
Moon	87650-07-04 23:03 G	33734750.33	33734750.46	33734750.61	0.0528	0.0413
Earth	87650-07-05 02:39 G	33734750.46	33734750.61	33734750.77	0.0528	0.0397 *
Mercury	87652-02-17 08:10 G	33735342.74	33735342.84	33735342.95	0.0513	0.0300
Mercury	87652-05-16 13:41 G	33735431.98	33735432.07	33735432.15	0.0510	0.0382
Venus	87654-09-06 20:10 G	33736275.15	33736275.34	33736275.53	0.0494	0.0180
Venus	87655-04-30 22:34 G	33736511.27	33736511.44	33736511.62	0.0493	0.0257
Mercury	87658-07-14 18:44 G	33737682.14	33737682.28	33737682.43	0.0515	0.0304
Venus	87660-07-05 12:58 G	33738403.89	33738404.04	33738404.20	0.0532	0.0343
Venus	87661-02-28 11:17 G	33738641.79	33738641.97	33738642.16	0.0533	0.0213
Earth	87662-07-10 03:36 G	33739138.42	33739138.65	33739138.87	0.0527	0.0138
Moon	87662-07-10 07:41 G	33739138.59	33739138.82	33739139.05	0.0527	0.0104 *
Mercury	87663-12-06 12:44 G	33739652.98	33739653.03	33739653.09	0.0514	0.0463
Mercury	87664-03-04 18:15 G	33739742.14	33739742.26	33739742.38	0.0511	0.0219
Venus	87666-05-12 22:34 G	33740541.28	33740541.44	33740541.60	0.0494	0.0301
Venus	87667-01-04 01:56 G	33740777.39	33740777.58	33740777.78	0.0493	0.0138
Mercury	87670-05-02 16:05 G	33741991.99	33741992.17	33741992.35	0.0515	0.0058
Venus	87672-03-10 05:03 G	33742669.64	33742669.71	33742669.79	0.0531	0.0488
Venus	87672-11-03 01:56 G	33742907.38	33742907.58	33742907.78	0.0533	0.0058
Mercury	87675-12-22 22:48 G	33744052.32	33744052.45	33744052.58	0.0511	0.0061

Venus	87678-01-16 00:15 G	33744807.40	33744807.51	33744807.62	0.0495	0.0420
Venus	87678-09-09 04:48 G	33745043.49	33745043.70	33745043.90	0.0493	0.0018
Venus	87679-05-03 05:03 G	33745279.63	33745279.71	33745279.80	0.0493	0.0445
Mercury	87682-02-18 13:12 G	33746301.88	33746302.05	33746302.22	0.0514	0.0189
Venus	87684-07-08 17:17 G	33747173.02	33747173.22	33747173.42	0.0533	0.0095
Venus	87685-03-03 18:15 G	33747411.17	33747411.26	33747411.36	0.0533	0.0463
Mercury	87687-10-11 03:22 G	33748362.52	33748362.64	33748362.77	0.0512	0.0106
Venus	87690-05-15 07:41 G	33749309.62	33749309.82	33749310.02	0.0493	0.0104
Venus	87691-01-06 09:08 G	33749545.73	33749545.88	33749546.03	0.0493	0.0331
Mercury	87693-12-07 11:03 G	33750611.86	33750611.96	33750612.06	0.0514	0.0422
Venus	87696-03-13 07:56 G	33751438.66	33751438.83	33751439.01	0.0532	0.0250
Venus	87696-11-06 06:44 G	33751676.62	33751676.78	33751676.95	0.0533	0.0309
Mercury	87699-07-30 07:12 G	33752672.69	33752672.80	33752672.90	0.0513	0.0289
Mercury	87699-10-27 12:29 G	33752761.94	33752762.02	33752762.11	0.0510	0.0393
Venus	87702-01-19 08:53 G	33753575.69	33753575.87	33753576.06	0.0494	0.0229
Venus	87702-09-12 12:15 G	33753811.83	33753812.01	33753812.20	0.0494	0.0212
Moon	87704-01-07 09:36 G	33754293.84	33754293.90	33754293.97	0.0498	0.0474
Mercury	87705-12-25 18:29 G	33755012.14	33755012.27	33755012.41	0.0515	0.0335
Venus	87707-11-17 23:32 G	33755704.35	33755704.48	33755704.61	0.0531	0.0398
Venus	87708-07-12 20:24 G	33755942.16	33755942.35	33755942.55	0.0533	0.0154
Mercury	87711-05-19 11:32 G	33756982.93	33756982.98	33756983.04	0.0513	0.0456
Mercury	87711-08-16 16:48 G	33757072.08	33757072.20	33757072.32	0.0511	0.0224
Venus	87713-09-24 11:17 G	33757841.83	33757841.97	33757842.12	0.0495	0.0350
Venus	87714-05-18 15:36 G	33758077.95	33758078.15	33758078.36	0.0494	0.0092
Earth	87716-01-11 19:41 G	33758681.09	33758681.32	33758681.55	0.0499	0.0065
Moon	87716-01-11 20:24 G	33758681.11	33758681.35	33758681.60	0.0499	0.0056 *
Mercury	87717-10-13 15:22 G	33759321.97	33759322.14	33759322.32	0.0515	0.0086
Venus	87720-03-17 09:36 G	33760207.70	33760207.90	33760208.10	0.0533	0.0005
Mercury	87723-06-04 21:22 G	33761382.26	33761382.39	33761382.52	0.0512	0.0062
Venus	87725-05-30 13:12 G	33762107.99	33762108.05	33762108.12	0.0496	0.0468

Venus	87726-01-21 18:58 G	33762344.08	33762344.29	33762344.49	0.0494	0.0030
Venus	87726-09-14 20:10 G	33762580.23	33762580.34	33762580.46	0.0494	0.0403
Moon	87728-01-16 04:05 G	33763068.51	33763068.67	33763068.83	0.0499	0.0346
Earth	87728-01-16 06:29 G	33763068.62	33763068.77	33763068.93	0.0500	0.0375 *
Mercury	87729-08-01 12:29 G	33763631.85	33763632.02	33763632.19	0.0514	0.0162
Venus	87731-11-21 00:29 G	33764473.33	33764473.52	33764473.72	0.0533	0.0159
Venus	87732-07-16 00:29 G	33764711.39	33764711.52	33764711.65	0.0533	0.0401
Earth	87733-07-05 10:20 G	33765065.82	33765065.93	33765066.05	0.0529	0.0456
Moon	87733-07-05 14:24 G	33765066.01	33765066.10	33765066.21	0.0529	0.0473 *
Mercury	87735-03-24 02:10 G	33765692.46	33765692.59	33765692.72	0.0512	0.0097
Venus	87737-09-26 21:36 G	33766610.21	33766610.40	33766610.60	0.0494	0.0151
Venus	87738-05-20 23:32 G	33766846.31	33766846.48	33766846.64	0.0493	0.0286
Mercury	87741-05-20 09:36 G	33767941.79	33767941.90	33767942.01	0.0514	0.0409
Venus	87743-07-26 16:34 G	33768739.03	33768739.19	33768739.36	0.0532	0.0309
Venus	87744-03-20 15:36 G	33768976.97	33768977.15	33768977.33	0.0533	0.0250
Moon	87745-07-10 10:48 G	33769453.71	33769453.95	33769454.19	0.0528	0.0056
Earth	87745-07-10 14:24 G	33769453.87	33769454.10	33769454.33	0.0528	0.0090 *
Mercury	87747-01-10 06:44 G	33770002.67	33770002.78	33770002.90	0.0513	0.0260
Mars	87747-04-07 08:39 G	33770089.82	33770089.86	33770089.91	0.0510	0.0504
Mercury	87747-04-09 12:15 G	33770091.94	33770092.01	33770092.08	0.0510	0.0423
Venus	87749-06-02 00:00 G	33770876.33	33770876.50	33770876.68	0.0494	0.0273
Venus	87750-01-24 03:08 G	33771112.44	33771112.63	33771112.83	0.0493	0.0169
Mercury	87753-06-06 17:17 G	33772342.09	33772342.22	33772342.35	0.0516	0.0352
Venus	87755-03-31 09:08 G	33773004.78	33773004.88	33773004.98	0.0531	0.0456
Venus	87755-11-24 05:17 G	33773242.52	33773242.72	33773242.92	0.0533	0.0094
Mercury	87758-10-29 10:34 G	33774312.88	33774312.94	33774313.00	0.0513	0.0442
Mercury	87759-01-26 15:51 G	33774402.05	33774402.16	33774402.28	0.0511	0.0238
Venus	87761-02-05 00:15 G	33775142.39	33775142.51	33775142.63	0.0495	0.0398
Venus	87761-09-29 05:32 G	33775378.53	33775378.73	33775378.93	0.0494	0.0044
Venus	87762-05-23 06:44 G	33775614.73	33775614.78	33775614.84	0.0494	0.0474

Mercury	87765-03-25 15:22 G	33776651.97	33776652.14	33776652.31	0.0515	0.0120
Venus	87767-07-29 19:56 G	33777508.13	33777508.33	33777508.54	0.0532	0.0063
Venus	87768-03-23 19:56 G	33777746.26	33777746.33	33777746.40	0.0532	0.0494
Mercury	87770-11-14 20:10 G	33778712.21	33778712.34	33778712.47	0.0511	0.0071
Venus	87773-06-04 08:24 G	33779644.65	33779644.85	33779645.06	0.0494	0.0078
Venus	87774-01-26 10:34 G	33779880.80	33779880.94	33779881.08	0.0494	0.0359
Mercury	87777-01-11 12:15 G	33780961.84	33780962.01	33780962.18	0.0514	0.0129
Venus	87779-04-03 09:36 G	33781773.72	33781773.90	33781774.09	0.0532	0.0219
Venus	87779-11-27 08:24 G	33782011.70	33782011.85	33782012.01	0.0533	0.0340
Mercury	87782-09-03 00:44 G	33783022.41	33783022.53	33783022.66	0.0512	0.0094
Venus	87785-02-07 11:17 G	33783910.79	33783910.97	33783911.16	0.0494	0.0200
Venus	87785-10-01 14:24 G	33784146.93	33784147.10	33784147.28	0.0493	0.0242
Mercury	87788-10-30 09:22 G	33785271.77	33785271.89	33785272.01	0.0513	0.0376
Venus	87790-12-07 01:12 G	33786039.41	33786039.55	33786039.70	0.0531	0.0369
Venus	87791-08-01 22:48 G	33786277.26	33786277.45	33786277.64	0.0533	0.0187
Mercury	87794-06-22 05:46 G	33787332.62	33787332.74	33787332.85	0.0513	0.0251
Mercury	87794-09-19 11:03 G	33787421.90	33787421.96	33787422.03	0.0510	0.0433
Venus	87796-10-13 13:56 G	33788176.92	33788177.08	33788177.23	0.0495	0.0320
Venus	87797-06-06 17:32 G	33788413.04	33788413.23	33788413.43	0.0493	0.0122
Moon	87799-01-11 03:36 G	33788996.43	33788996.65	33788996.87	0.0498	0.0112
Earth	87799-01-11 06:15 G	33788996.53	33788996.76	33788996.99	0.0498	0.0110 *
Mercury	87800-11-17 16:05 G	33789672.05	33789672.17	33789672.29	0.0516	0.0368
Venus	87802-08-12 18:00 G	33790305.21	33790305.25	33790305.30	0.0531	0.0513
Venus	87803-04-07 14:10 G	33790542.89	33790543.09	33790543.29	0.0533	0.0034
Mercury	87806-04-11 10:20 G	33791642.86	33791642.93	33791643.01	0.0513	0.0411
Mercury	87806-07-09 15:36 G	33791732.04	33791732.15	33791732.27	0.0511	0.0270
Venus	87808-06-19 15:51 G	33792443.07	33792443.16	33792443.25	0.0495	0.0440
Venus	87809-02-10 21:08 G	33792679.17	33792679.38	33792679.58	0.0493	0.0007
Venus	87809-10-04 22:05 G	33792915.33	33792915.42	33792915.52	0.0494	0.0434
Earth	87811-01-16 18:44 G	33793384.12	33793384.28	33793384.46	0.0500	0.0337

Moon	87811-01-16 22:34 G	33793384.26	33793384.44	33793384.63	0.0500	0.0305 *
Mercury	87812-09-05 14:24 G	33793981.93	33793982.10	33793982.27	0.0515	0.0140
Venus	87814-12-11 05:32 G	33794808.53	33794808.73	33794808.93	0.0532	0.0123
Venus	87815-08-06 04:48 G	33795046.59	33795046.70	33795046.82	0.0532	0.0436
Earth	87816-07-05 18:15 G	33795381.21	33795381.26	33795381.32	0.0528	0.0513
Mercury	87818-04-27 19:27 G	33796042.18	33796042.31	33796042.44	0.0511	0.0087
Venus	87820-10-16 22:05 G	33796945.23	33796945.42	33796945.62	0.0494	0.0126
Venus	87821-06-10 00:44 G	33797181.38	33797181.53	33797181.69	0.0494	0.0315
Mercury	87824-06-24 12:15 G	33798291.84	33798292.01	33798292.19	0.0514	0.0092
Venus	87826-08-15 21:08 G	33799074.21	33799074.38	33799074.55	0.0531	0.0275
Venus	87827-04-10 18:58 G	33799312.12	33799312.29	33799312.46	0.0532	0.0284
Earth	87828-07-10 19:12 G	33799769.07	33799769.30	33799769.54	0.0527	0.0019
Moon	87828-07-10 21:22 G	33799769.17	33799769.39	33799769.62	0.0527	0.0010 *
Mercury	87830-02-13 23:46 G	33800352.36	33800352.49	33800352.62	0.0512	0.0081
Venus	87832-06-22 00:29 G	33801211.35	33801211.52	33801211.70	0.0495	0.0249
Venus	87833-02-13 04:34 G	33801447.50	33801447.69	33801447.87	0.0494	0.0195
Mercury	87836-04-12 09:08 G	33802601.75	33802601.88	33802602.01	0.0513	0.0342
Mars	87836-07-22 08:24 G	33802702.60	33802702.85	33802703.10	0.0516	0.0024
Venus	87838-04-20 11:32 G	33803339.86	33803339.98	33803340.10	0.0531	0.0425
Venus	87838-12-14 07:41 G	33803577.62	33803577.82	33803578.02	0.0533	0.0126
Mercury	87841-12-03 04:20 G	33804662.57	33804662.68	33804662.80	0.0513	0.0244
Mercury	87842-03-02 09:51 G	33804751.84	33804751.91	33804751.97	0.0510	0.0439
Venus	87844-02-26 03:08 G	33805477.50	33805477.63	33805477.77	0.0495	0.0369
Venus	87844-10-19 08:10 G	33805713.64	33805713.84	33805714.04	0.0494	0.0075
Mercury	87848-04-29 15:51 G	33807002.05	33807002.16	33807002.27	0.0515	0.0401
Venus	87850-08-18 22:20 G	33807843.23	33807843.43	33807843.63	0.0533	0.0030
Venus	87851-04-13 22:48 G	33808081.43	33808081.45	33808081.47	0.0532	0.0528
Mercury	87853-09-21 09:08 G	33808972.80	33808972.88	33808972.96	0.0514	0.0402
Mercury	87853-12-19 14:24 G	33809062.00	33809062.10	33809062.21	0.0511	0.0280
Venus	87855-11-01 05:03 G	33809743.68	33809743.71	33809743.75	0.0496	0.0488

Venus	87856-06-24 11:03 G	33809979.76	33809979.96	33809980.17	0.0494	0.0047
Venus	87857-02-15 12:29 G	33810215.91	33810216.02	33810216.15	0.0493	0.0390
Mercury	87860-02-16 12:58 G	33811311.88	33811312.04	33811312.21	0.0515	0.0158
Venus	87862-04-23 14:10 G	33812108.90	33812109.09	33812109.28	0.0532	0.0183
Venus	87862-12-17 13:27 G	33812346.92	33812347.06	33812347.21	0.0533	0.0380
Mercury	87865-10-07 19:12 G	33813372.17	33813372.30	33813372.42	0.0511	0.0118
Venus	87868-02-28 14:10 G	33814245.89	33814246.09	33814246.28	0.0494	0.0170
Venus	87868-10-21 16:48 G	33814482.03	33814482.20	33814482.37	0.0493	0.0272
Mercury	87871-12-05 11:17 G	33815621.79	33815621.97	33815622.14	0.0514	0.0073
Venus	87873-12-27 06:44 G	33816374.63	33816374.78	33816374.94	0.0531	0.0334
Venus	87874-08-22 04:05 G	33816612.49	33816612.67	33816612.85	0.0532	0.0224
Mercury	87877-07-26 22:48 G	33817682.33	33817682.45	33817682.58	0.0512	0.0066
Venus	87879-11-03 13:56 G	33818511.92	33818512.08	33818512.25	0.0495	0.0297
Venus	87880-06-26 18:29 G	33818748.07	33818748.27	33818748.46	0.0494	0.0149
Earth	87882-01-11 19:56 G	33819312.11	33819312.33	33819312.56	0.0499	0.0139
Moon	87882-01-11 23:46 G	33819312.27	33819312.49	33819312.72	0.0499	0.0150 *
Mercury	87883-09-23 08:53 G	33819931.73	33819931.87	33819932.02	0.0514	0.0307
Venus	87885-08-31 23:32 G	33820640.40	33820640.48	33820640.57	0.0530	0.0479
Venus	87886-04-26 18:44 G	33820878.08	33820878.28	33820878.48	0.0532	0.0070
Mercury	87889-05-15 03:22 G	33821992.52	33821992.64	33821992.75	0.0513	0.0232
Mercury	87889-08-12 08:39 G	33822081.80	33822081.86	33822081.92	0.0510	0.0450
Venus	87891-07-09 15:36 G	33822778.05	33822778.15	33822778.26	0.0496	0.0419
Venus	87892-03-01 21:36 G	33823014.20	33823014.40	33823014.61	0.0494	0.0026
Venus	87892-10-23 23:32 G	33823250.41	33823250.48	33823250.55	0.0494	0.0460
Moon	87894-01-16 03:51 G	33823699.46	33823699.66	33823699.86	0.0500	0.0270
Earth	87894-01-16 07:41 G	33823699.64	33823699.82	33823700.01	0.0500	0.0306 *
Mercury	87895-10-10 15:36 G	33824332.06	33824332.15	33824332.24	0.0515	0.0435
Venus	87897-12-30 07:56 G	33825143.63	33825143.83	33825144.03	0.0532	0.0090
Venus	87898-08-25 06:58 G	33825381.71	33825381.79	33825381.89	0.0532	0.0469
Mercury	87901-03-04 07:56 G	33826302.75	33826302.83	33826302.91	0.0513	0.0396

Mercury	87901-06-01 13:12 G	33826391.94	33826392.05	33826392.16	0.0511	0.0286
Mars	87901-07-03 21:36 G	33826424.10	33826424.40	33826424.70	0.0510	0.0065
Venus	87903-11-07 00:58 G	33827280.34	33827280.54	33827280.74	0.0494	0.0095
Venus	87904-06-30 03:22 G	33827516.50	33827516.64	33827516.79	0.0494	0.0345
Mercury	87907-07-30 12:44 G	33828641.87	33828642.03	33828642.20	0.0515	0.0190
Venus	87909-09-04 23:03 G	33829409.28	33829409.46	33829409.64	0.0532	0.0244
Venus	87910-04-30 21:08 G	33829647.22	33829647.38	33829647.55	0.0533	0.0318
Moon	87911-07-12 03:36 G	33830084.41	33830084.65	33830084.89	0.0528	0.0054
Earth	87911-07-12 03:51 G	33830084.43	33830084.66	33830084.90	0.0528	0.0037 *
Mercury	87913-03-20 18:00 G	33830702.12	33830702.25	33830702.37	0.0512	0.0126
Venus	87915-07-13 03:22 G	33831546.46	33831546.64	33831546.83	0.0494	0.0218
Venus	87916-03-05 06:44 G	33831782.60	33831782.78	33831782.96	0.0493	0.0226
Mercury	87919-05-18 09:51 G	33832951.73	33832951.91	33832952.09	0.0514	0.0058
Venus	87921-05-10 15:22 G	33833675.00	33833675.14	33833675.27	0.0531	0.0394
Venus	87922-01-03 12:00 G	33833912.81	33833913.00	33833913.20	0.0533	0.0164
Earth	87923-07-17 07:12 G	33834472.75	33834472.80	33834472.88	0.0527	0.0506
Mercury	87925-01-06 22:34 G	33835012.31	33835012.44	33835012.57	0.0512	0.0037
Venus	87927-03-18 05:46 G	33835812.59	33835812.74	33835812.89	0.0495	0.0340
Venus	87927-11-09 10:20 G	33836048.73	33836048.93	33836049.13	0.0494	0.0106
Mercury	87931-03-06 07:56 G	33837261.68	33837261.83	33837261.98	0.0514	0.0289
Venus	87933-09-08 03:51 G	33838178.46	33838178.66	33838178.86	0.0532	0.0007
Mercury	87936-10-26 02:24 G	33839322.49	33839322.60	33839322.72	0.0512	0.0216
Mercury	87937-01-23 07:41 G	33839411.78	33839411.82	33839411.88	0.0510	0.0466
Venus	87938-11-21 04:34 G	33840078.62	33840078.69	33840078.76	0.0496	0.0467
Venus	87939-07-15 11:03 G	33840314.75	33840314.96	33840315.16	0.0494	0.0024
Venus	87940-03-07 13:12 G	33840550.94	33840551.05	33840551.16	0.0494	0.0415
Mercury	87943-03-23 15:22 G	33841662.07	33841662.14	33841662.21	0.0516	0.0467
Venus	87945-05-13 19:12 G	33842444.11	33842444.30	33842444.50	0.0532	0.0147
Venus	87946-01-06 17:32 G	33842682.11	33842682.23	33842682.36	0.0532	0.0414
Mercury	87948-08-14 06:44 G	33843632.70	33843632.78	33843632.87	0.0513	0.0384

Mercury	87948-11-11 12:00 G	33843721.90	33843722.00	33843722.11	0.0511	0.0297
Venus	87951-03-20 13:27 G	33844580.87	33844581.06	33844581.26	0.0495	0.0146
Venus	87951-11-11 16:48 G	33844817.04	33844817.20	33844817.36	0.0494	0.0298
Mercury	87955-01-09 12:15 G	33845971.85	33845972.01	33845972.18	0.0515	0.0220
Venus	87957-01-16 08:53 G	33846709.71	33846709.87	33846710.04	0.0531	0.0303
Venus	87957-09-11 06:00 G	33846947.57	33846947.75	33846947.92	0.0532	0.0257
Mercury	87960-08-30 16:34 G	33848032.06	33848032.19	33848032.32	0.0512	0.0131
Venus	87962-11-23 16:05 G	33848847.00	33848847.17	33848847.35	0.0495	0.0268
Venus	87963-07-17 20:24 G	33849083.16	33849083.35	33849083.54	0.0494	0.0179
Moon	87965-01-12 03:22 G	33849627.42	33849627.64	33849627.86	0.0498	0.0194
Earth	87965-01-12 07:12 G	33849627.59	33849627.80	33849628.02	0.0498	0.0178 *
Mercury	87966-10-28 09:22 G	33850281.71	33850281.89	33850282.07	0.0514	0.0028
Venus	87968-09-21 00:29 G	33850975.42	33850975.52	33850975.63	0.0530	0.0451
Venus	87969-05-16 19:56 G	33851213.13	33851213.33	33851213.53	0.0532	0.0101
Mercury	87972-06-18 21:22 G	33852342.26	33852342.39	33852342.52	0.0512	0.0035
Venus	87974-07-29 18:15 G	33853113.14	33853113.26	33853113.39	0.0495	0.0390
Venus	87975-03-22 23:32 G	33853349.28	33853349.48	33853349.69	0.0494	0.0057
Venus	87975-11-14 00:44 G	33853585.51	33853585.53	33853585.56	0.0494	0.0489
Earth	87977-01-16 17:32 G	33854015.03	33854015.23	33854015.43	0.0499	0.0258
Moon	87977-01-16 20:53 G	33854015.16	33854015.37	33854015.57	0.0499	0.0227 *
Mercury	87978-08-16 06:15 G	33854591.61	33854591.76	33854591.91	0.0514	0.0277
Venus	87981-01-19 11:17 G	33855478.76	33855478.97	33855479.17	0.0532	0.0057
Venus	87981-09-14 11:03 G	33855716.90	33855716.96	33855717.02	0.0532	0.0505
Mercury	87984-04-07 01:56 G	33856652.46	33856652.58	33856652.70	0.0513	0.0192
Mercury	87984-07-05 07:12 G	33856741.77	33856741.80	33856741.84	0.0510	0.0491
Venus	87986-11-26 02:24 G	33857615.40	33857615.60	33857615.80	0.0494	0.0067
Venus	87987-07-20 04:20 G	33857851.56	33857851.68	33857851.82	0.0494	0.0374
Mercury	87990-06-04 04:05 G	33858901.66	33858901.67	33858901.67	0.0513	0.0513
Mercury	87990-09-02 13:41 G	33858992.01	33858992.07	33858992.14	0.0516	0.0480
Venus	87992-09-24 03:51 G	33859744.48	33859744.66	33859744.85	0.0532	0.0209

Venus	87993-05-20 01:56 G	33859982.43	33859982.58	33859982.73	0.0532	0.0353
Moon	87994-07-11 11:17 G	33860399.75	33860399.97	33860400.19	0.0527	0.0100
Earth	87994-07-11 12:44 G	33860399.80	33860400.03	33860400.26	0.0527	0.0087 *
Mercury	87996-01-25 05:46 G	33860962.66	33860962.74	33860962.83	0.0513	0.0369
Mercury	87996-04-23 11:03 G	33861051.86	33861051.96	33861052.07	0.0510	0.0310
Venus	87998-08-01 02:10 G	33861881.40	33861881.59	33861881.78	0.0495	0.0196
Venus	87999-03-25 05:46 G	33862117.57	33862117.74	33862117.92	0.0494	0.0250

89TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 89th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	88002-06-21 11:32 G		33863301.83	33863301.98	33863302.14	0.0515	0.0245	
Venus	88004-05-29 19:56 G		33864010.19	33864010.33	33864010.48	0.0531	0.0360	
Venus	88005-01-22 16:20 G		33864247.99	33864248.18	33864248.37	0.0532	0.0198	
Earth	88006-07-16 12:58 G		33864787.92	33864788.04	33864788.17	0.0526	0.0439	
Moon	88006-07-16 16:05 G		33864788.07	33864788.17	33864788.28	0.0526	0.0471 *	
Mercury	88008-02-10 15:22 G		33865362.01	33865362.14	33865362.27	0.0511	0.0140	
Venus	88010-04-06 03:51 G		33866147.51	33866147.66	33866147.82	0.0495	0.0320	
Venus	88010-11-28 08:53 G		33866383.67	33866383.87	33866384.07	0.0494	0.0128	
Mercury	88014-04-09 08:24 G		33867611.68	33867611.85	33867612.03	0.0514	0.0015	
Venus	88016-02-02 10:20 G		33868275.88	33868275.93	33868275.99	0.0530	0.0508	
Venus	88016-09-27 04:48 G		33868513.50	33868513.70	33868513.90	0.0532	0.0039	
Mercury	88019-11-29 19:41 G		33869672.19	33869672.32	33869672.45	0.0512	0.0029	

Venus	88021-12-10 05:46 G	33870413.65	33870413.74	33870413.83	0.0496	0.0441
Venus	88022-08-03 12:15 G	33870649.80	33870650.01	33870650.21	0.0494	0.0006
Venus	88023-03-27 14:24 G	33870886.01	33870886.10	33870886.19	0.0494	0.0443
Mercury	88026-01-26 05:17 G	33871921.57	33871921.72	33871921.88	0.0514	0.0254
Venus	88028-06-01 18:58 G	33872779.09	33872779.29	33872779.49	0.0532	0.0119
Venus	88029-01-25 17:32 G	33873017.13	33873017.23	33873017.35	0.0532	0.0444
Mercury	88031-09-18 00:29 G	33873982.40	33873982.52	33873982.64	0.0513	0.0190
Mercury	88031-12-16 05:46 G	33874071.71	33874071.74	33874071.77	0.0510	0.0493
Venus	88034-04-08 14:53 G	33874915.92	33874916.12	33874916.32	0.0494	0.0117
Venus	88034-11-30 17:32 G	33875152.08	33875152.23	33875152.39	0.0494	0.0326
Mercury	88037-11-14 01:56 G	33876231.56	33876231.58	33876231.61	0.0513	0.0507
Mercury	88038-02-12 11:46 G	33876321.94	33876321.99	33876322.05	0.0516	0.0484
Venus	88040-02-05 10:20 G	33877044.76	33877044.93	33877045.11	0.0531	0.0274
Venus	88040-09-30 08:10 G	33877282.67	33877282.84	33877283.01	0.0533	0.0290
Mercury	88043-07-07 05:03 G	33878292.62	33878292.71	33878292.80	0.0513	0.0352
Mercury	88043-10-04 10:20 G	33878381.83	33878381.93	33878382.03	0.0511	0.0329
Venus	88045-12-12 16:48 G	33879182.02	33879182.20	33879182.38	0.0495	0.0242
Venus	88046-08-05 20:39 G	33879418.18	33879418.36	33879418.55	0.0494	0.0206
Earth	88048-01-12 15:36 G	33879942.94	33879943.15	33879943.36	0.0498	0.0230
Moon	88048-01-12 18:44 G	33879943.09	33879943.28	33879943.48	0.0498	0.0248 *
Mercury	88049-12-01 09:51 G	33880631.75	33880631.91	33880632.06	0.0515	0.0251
Venus	88051-10-11 03:51 G	33881310.54	33881310.66	33881310.78	0.0531	0.0421
Venus	88052-06-04 23:46 G	33881548.29	33881548.49	33881548.68	0.0532	0.0135
Mercury	88055-07-23 14:10 G	33882691.97	33882692.09	33882692.22	0.0511	0.0151
Venus	88057-08-17 15:51 G	33883448.02	33883448.16	33883448.29	0.0495	0.0370
Venus	88058-04-10 21:08 G	33883684.18	33883684.38	33883684.59	0.0494	0.0079
Moon	88060-01-16 23:17 G	33884330.24	33884330.47	33884330.70	0.0500	0.0176
Earth	88060-01-17 01:12 G	33884330.34	33884330.55	33884330.76	0.0500	0.0205 *
Mercury	88061-09-19 07:12 G	33884941.62	33884941.80	33884941.98	0.0515	0.0015
Venus	88064-02-08 14:39 G	33885813.91	33885814.11	33885814.31	0.0532	0.0022

Mercury	88067-05-11 18:29 G	33887002.14	33887002.27	33887002.40	0.0511	0.0021
Venus	88069-04-22 16:20 G	33887714.17	33887714.18	33887714.21	0.0496	0.0493
Venus	88069-12-14 23:32 G	33887950.28	33887950.48	33887950.69	0.0494	0.0047
Venus	88070-08-08 02:10 G	33888186.47	33888186.59	33888186.72	0.0494	0.0395
Mercury	88073-07-08 04:05 G	33889251.51	33889251.67	33889251.83	0.0514	0.0239
Venus	88075-10-14 03:36 G	33890079.46	33890079.65	33890079.84	0.0531	0.0181
Venus	88076-06-08 01:12 G	33890317.41	33890317.55	33890317.69	0.0532	0.0382
Earth	88077-07-10 14:39 G	33890714.89	33890715.11	33890715.33	0.0528	0.0171
Moon	88077-07-10 17:17 G	33890715.00	33890715.22	33890715.45	0.0528	0.0180 *
Mercury	88079-02-27 22:48 G	33891312.33	33891312.45	33891312.57	0.0513	0.0190
Mercury	88079-05-28 04:05 G	33891401.64	33891401.67	33891401.71	0.0510	0.0492
Venus	88081-08-20 02:10 G	33892216.40	33892216.59	33892216.79	0.0495	0.0170
Venus	88082-04-13 06:00 G	33892452.58	33892452.75	33892452.92	0.0494	0.0277
Mercury	88085-04-26 00:44 G	33893561.48	33893561.53	33893561.59	0.0513	0.0490
Mercury	88085-07-25 10:34 G	33893651.90	33893651.94	33893651.98	0.0515	0.0501
Venus	88087-06-18 18:00 G	33894345.10	33894345.25	33894345.41	0.0531	0.0335
Venus	88088-02-11 14:24 G	33894582.92	33894583.10	33894583.29	0.0532	0.0226
Moon	88089-07-15 11:32 G	33895102.82	33895102.98	33895103.13	0.0527	0.0387
Earth	88089-07-15 14:53 G	33895102.96	33895103.12	33895103.30	0.0527	0.0357 *
Mercury	88090-12-17 03:22 G	33895622.55	33895622.64	33895622.73	0.0513	0.0354
Mercury	88091-03-16 08:39 G	33895711.76	33895711.86	33895711.96	0.0511	0.0327
Venus	88093-04-25 04:05 G	33896482.51	33896482.67	33896482.84	0.0495	0.0294
Venus	88093-12-17 08:53 G	33896718.67	33896718.87	33896719.06	0.0494	0.0155
Mercury	88097-05-13 07:27 G	33897961.65	33897961.81	33897961.96	0.0515	0.0249
Venus	88099-02-21 09:36 G	33898610.83	33898610.90	33898610.99	0.0530	0.0485
Venus	88099-10-17 05:03 G	33898848.50	33898848.71	33898848.91	0.0532	0.0069
Mercury	88103-01-03 13:12 G	33900021.92	33900022.05	33900022.17	0.0511	0.0162
Venus	88104-12-30 05:17 G	33900748.61	33900748.72	33900748.83	0.0496	0.0417
Venus	88105-08-23 11:17 G	33900984.77	33900984.97	33900985.18	0.0494	0.0033
Venus	88106-04-16 12:58 G	33901220.99	33901221.04	33901221.11	0.0494	0.0468

Mercury	88109-03-02 05:03 G	33902271.53	33902271.71	33902271.89	0.0515	0.0013
Mars	88109-04-10 02:10 G	33902310.41	33902310.59	33902310.78	0.0516	0.0348
Venus	88111-06-22 20:53 G	33903114.18	33903114.37	33903114.58	0.0532	0.0089
Venus	88112-02-15 19:56 G	33903352.25	33903352.33	33903352.43	0.0532	0.0475
Mercury	88114-10-22 17:17 G	33904332.09	33904332.22	33904332.35	0.0511	0.0021
Venus	88117-04-28 11:03 G	33905250.76	33905250.96	33905251.16	0.0494	0.0098
Venus	88117-12-20 13:56 G	33905486.94	33905487.08	33905487.23	0.0494	0.0346
Mercury	88120-12-19 02:10 G	33906581.43	33906581.59	33906581.75	0.0514	0.0233
Venus	88123-02-25 12:44 G	33907379.85	33907380.03	33907380.21	0.0531	0.0242
Venus	88123-10-21 09:51 G	33907617.76	33907617.91	33907618.08	0.0532	0.0322
Mercury	88126-08-10 21:22 G	33908642.27	33908642.39	33908642.51	0.0512	0.0185
Mercury	88126-11-08 02:39 G	33908731.59	33908731.61	33908731.64	0.0510	0.0495
Venus	88129-01-01 12:29 G	33909516.84	33909517.02	33909517.20	0.0495	0.0223
Venus	88129-08-25 16:48 G	33909753.02	33909753.20	33909753.38	0.0494	0.0225
Moon	88131-01-12 17:17 G	33910258.04	33910258.22	33910258.41	0.0498	0.0316
Earth	88131-01-12 19:27 G	33910258.13	33910258.31	33910258.50	0.0498	0.0298 *
Mercury	88132-10-06 22:48 G	33910891.39	33910891.45	33910891.51	0.0513	0.0485
Mercury	88133-01-05 08:39 G	33910981.84	33910981.86	33910981.89	0.0516	0.0508
Venus	88134-10-31 02:10 G	33911645.45	33911645.59	33911645.72	0.0530	0.0396
Venus	88135-06-25 21:36 G	33911883.20	33911883.40	33911883.59	0.0532	0.0161
Mercury	88138-05-30 01:41 G	33912952.48	33912952.57	33912952.66	0.0513	0.0357
Mercury	88138-08-27 06:44 G	33913041.68	33913041.78	33913041.89	0.0511	0.0323
Venus	88140-09-06 14:24 G	33913782.96	33913783.10	33913783.25	0.0496	0.0346
Venus	88141-04-30 20:10 G	33914019.14	33914019.34	33914019.54	0.0494	0.0104
Earth	88143-01-17 06:58 G	33914645.57	33914645.79	33914646.01	0.0499	0.0142
Moon	88143-01-17 06:44 G	33914645.57	33914645.78	33914646.00	0.0499	0.0122 *
Mercury	88144-10-24 05:46 G	33915291.58	33915291.74	33915291.89	0.0515	0.0259
Venus	88147-02-28 11:03 G	33916148.76	33916148.96	33916149.16	0.0532	0.0006
Mercury	88150-06-15 11:17 G	33917351.84	33917351.97	33917352.09	0.0511	0.0156
Venus	88152-05-12 15:22 G	33918049.08	33918049.14	33918049.21	0.0496	0.0470

Venus	88153-01-03 22:20 G	33918285.23	33918285.43	33918285.64	0.0494	0.0021
Venus	88153-08-28 00:44 G	33918521.43	33918521.53	33918521.64	0.0494	0.0419
Mercury	88156-08-12 02:10 G	33919601.41	33919601.59	33919601.77	0.0514	0.0010
Venus	88158-11-03 01:27 G	33920414.37	33920414.56	33920414.75	0.0532	0.0156
Venus	88159-06-28 23:46 G	33920652.37	33920652.49	33920652.62	0.0532	0.0409
Moon	88160-07-10 13:27 G	33921029.87	33921030.06	33921030.26	0.0528	0.0265
Earth	88160-07-10 17:03 G	33921030.00	33921030.21	33921030.41	0.0528	0.0254 *
Mercury	88162-04-03 15:51 G	33921662.03	33921662.16	33921662.29	0.0512	0.0015
Venus	88164-09-09 00:15 G	33922551.32	33922551.51	33922551.71	0.0494	0.0146
Venus	88165-05-03 03:36 G	33922787.49	33922787.65	33922787.81	0.0494	0.0300
Mercury	88168-05-30 23:32 G	33923911.32	33923911.48	33923911.64	0.0514	0.0240
Venus	88170-07-08 18:00 G	33924680.09	33924680.25	33924680.42	0.0531	0.0308
Venus	88171-03-03 15:08 G	33924917.95	33924918.13	33924918.31	0.0532	0.0255
Earth	88172-07-15 18:44 G	33925418.09	33925418.28	33925418.48	0.0527	0.0284
Moon	88172-07-15 22:34 G	33925418.26	33925418.44	33925418.62	0.0527	0.0319 *
Mercury	88174-01-20 19:56 G	33925972.21	33925972.33	33925972.45	0.0512	0.0182
Mercury	88174-04-20 01:12 G	33926061.53	33926061.55	33926061.58	0.0510	0.0497
Venus	88176-05-14 23:17 G	33926817.30	33926817.47	33926817.64	0.0495	0.0275
Venus	88177-01-06 03:51 G	33927053.47	33927053.66	33927053.85	0.0494	0.0174
Mercury	88180-03-18 20:10 G	33928221.30	33928221.34	33928221.40	0.0514	0.0490
Mercury	88180-06-17 06:15 G	33928311.74	33928311.76	33928311.80	0.0516	0.0506
Venus	88182-03-13 10:20 G	33928945.83	33928945.93	33928946.03	0.0530	0.0456
Venus	88182-11-06 05:32 G	33929183.53	33929183.73	33929183.93	0.0532	0.0098
Mercury	88185-11-09 00:15 G	33930282.42	33930282.51	33930282.60	0.0513	0.0353
Mercury	88186-02-06 05:17 G	33930371.62	33930371.72	33930371.82	0.0510	0.0325
Venus	88188-01-19 00:00 G	33931083.38	33931083.50	33931083.62	0.0496	0.0400
Venus	88188-09-11 06:00 G	33931319.55	33931319.75	33931319.96	0.0494	0.0051
Venus	88189-05-05 08:10 G	33931555.81	33931555.84	33931555.88	0.0494	0.0486
Mercury	88192-04-05 03:22 G	33932621.48	33932621.64	33932621.79	0.0515	0.0257
Venus	88194-07-11 17:32 G	33933449.03	33933449.23	33933449.43	0.0532	0.0063

Venus	88195-03-06 16:05 G	33933687.11	33933687.17	33933687.24	0.0532	0.0499
Mercury	88197-11-25 09:22 G	33934681.77	33934681.89	33934682.02	0.0511	0.0149
Venus	88200-05-18 08:39 G	33935585.66	33935585.86	33935586.06	0.0494	0.0074
Venus	88201-01-09 11:46 G	33935821.86	33935821.99	33935822.12	0.0494	0.0370
Mercury	88204-01-24 00:15 G	33936931.33	33936931.51	33936931.69	0.0514	0.0009
Venus	88206-03-17 07:27 G	33937714.63	33937714.81	33937715.00	0.0531	0.0221
Venus	88206-11-10 04:48 G	33937952.55	33937952.70	33937952.85	0.0532	0.0344
Mercury	88209-09-14 13:41 G	33938991.94	33938992.07	33938992.20	0.0512	0.0022
Venus	88212-01-22 10:20 G	33939851.74	33939851.93	33939852.12	0.0495	0.0200
Venus	88212-09-14 14:24 G	33940087.93	33940088.10	33940088.28	0.0494	0.0249
Earth	88214-01-12 22:05 G	33940573.27	33940573.42	33940573.58	0.0498	0.0373
Moon	88214-01-12 22:20 G	33940573.30	33940573.43	33940573.56	0.0498	0.0398 *
Mercury	88215-11-11 20:24 G	33941241.20	33941241.35	33941241.51	0.0514	0.0253
Venus	88217-11-19 22:05 G	33941980.28	33941980.42	33941980.56	0.0531	0.0376
Venus	88218-07-15 18:00 G	33942218.06	33942218.25	33942218.44	0.0532	0.0186
Mercury	88221-07-03 18:15 G	33943302.14	33943302.26	33943302.38	0.0513	0.0185
Mercury	88221-09-30 23:32 G	33943391.46	33943391.48	33943391.51	0.0510	0.0496
Venus	88223-09-27 11:32 G	33944117.83	33944117.98	33944118.14	0.0495	0.0325
Venus	88224-05-20 16:34 G	33944354.00	33944354.19	33944354.39	0.0494	0.0126
Earth	88226-01-17 08:10 G	33944960.61	33944960.84	33944961.07	0.0499	0.0060
Moon	88226-01-17 10:05 G	33944960.68	33944960.92	33944961.16	0.0499	0.0043 *
Mercury	88227-08-30 17:17 G	33945551.19	33945551.22	33945551.26	0.0513	0.0501
Mercury	88227-11-29 03:22 G	33945641.59	33945641.64	33945641.69	0.0516	0.0493
Venus	88229-07-25 15:08 G	33946246.10	33946246.13	33946246.17	0.0530	0.0521
Venus	88230-03-20 09:51 G	33946483.70	33946483.91	33946484.11	0.0532	0.0030
Mercury	88233-04-21 22:34 G	33947612.35	33947612.44	33947612.53	0.0513	0.0355
Mercury	88233-07-20 03:36 G	33947701.55	33947701.65	33947701.75	0.0510	0.0323
Venus	88235-06-02 10:05 G	33948383.84	33948383.92	33948384.00	0.0496	0.0452
Venus	88236-01-24 16:34 G	33948619.98	33948620.19	33948620.39	0.0494	0.0006
Venus	88236-09-16 18:44 G	33948856.19	33948856.28	33948856.38	0.0494	0.0437

Earth	88238-01-21 16:05 G	33949348.13	33949348.17	33949348.22	0.0500	0.0488
Mercury	88239-09-17 00:29 G	33949951.36	33949951.52	33949951.68	0.0515	0.0246
Venus	88241-11-23 00:44 G	33950749.33	33950749.53	33950749.73	0.0532	0.0128
Venus	88242-07-18 23:03 G	33950987.35	33950987.46	33950987.58	0.0532	0.0438
Earth	88243-07-11 17:32 G	33951345.06	33951345.23	33951345.41	0.0528	0.0343
Moon	88243-07-11 21:22 G	33951345.22	33951345.39	33951345.57	0.0528	0.0341 *
Mercury	88245-05-08 07:56 G	33952011.70	33952011.83	33952011.95	0.0511	0.0151
Venus	88247-09-29 18:15 G	33952886.06	33952886.26	33952886.46	0.0494	0.0129
Venus	88248-05-22 21:36 G	33953122.24	33953122.40	33953122.56	0.0494	0.0318
Mercury	88251-07-05 21:22 G	33954261.21	33954261.39	33954261.57	0.0514	0.0005
Venus	88253-07-28 13:27 G	33955014.90	33955015.06	33955015.24	0.0531	0.0286
Venus	88254-03-23 10:20 G	33955252.75	33955252.93	33955253.10	0.0532	0.0278
Moon	88255-07-16 10:05 G	33955732.70	33955732.92	33955733.14	0.0527	0.0197
Earth	88255-07-16 13:12 G	33955732.83	33955733.05	33955733.28	0.0527	0.0165 *
Mercury	88257-02-24 11:46 G	33956321.86	33956321.99	33956322.12	0.0512	0.0028
Venus	88259-06-04 19:56 G	33957152.15	33957152.33	33957152.50	0.0495	0.0253
Venus	88260-01-27 00:44 G	33957388.34	33957388.53	33957388.72	0.0494	0.0197
Mercury	88263-04-23 18:00 G	33958571.10	33958571.25	33958571.41	0.0514	0.0255
Mars	88263-07-05 12:15 G	33958643.76	33958644.01	33958644.27	0.0516	0.0027
Venus	88265-04-02 04:20 G	33959280.57	33959280.68	33959280.79	0.0530	0.0438
Venus	88265-11-25 23:03 G	33959518.27	33959518.46	33959518.66	0.0532	0.0119
Mercury	88268-12-13 16:05 G	33960632.05	33960632.17	33960632.29	0.0513	0.0198
Mercury	88269-03-12 21:22 G	33960721.35	33960721.39	33960721.43	0.0510	0.0483
Venus	88271-02-07 20:53 G	33961418.24	33961418.37	33961418.50	0.0496	0.0379
Venus	88271-10-02 03:08 G	33961654.43	33961654.63	33961654.83	0.0494	0.0073
Mercury	88275-05-11 00:15 G	33962971.45	33962971.51	33962971.58	0.0515	0.0477
Venus	88277-07-31 12:44 G	33963783.82	33963784.03	33963784.23	0.0532	0.0044
Venus	88278-03-26 11:46 G	33964021.96	33964021.99	33964022.03	0.0532	0.0521
Mercury	88280-10-01 20:39 G	33964942.27	33964942.36	33964942.45	0.0513	0.0364
Mercury	88280-12-30 01:41 G	33965031.47	33965031.57	33965031.68	0.0511	0.0317

Venus	88283-06-07 04:48 G	33965920.49	33965920.70	33965920.90	0.0494	0.0054
Venus	88284-01-29 07:12 G	33966156.69	33966156.80	33966156.93	0.0494	0.0391
Mercury	88287-02-26 21:22 G	33967281.23	33967281.39	33967281.55	0.0515	0.0231
Venus	88289-04-05 04:34 G	33968049.50	33968049.69	33968049.88	0.0532	0.0198
Venus	88289-11-29 02:24 G	33968287.46	33968287.60	33968287.75	0.0533	0.0370
Mercury	88292-10-18 06:00 G	33969341.63	33969341.75	33969341.88	0.0511	0.0147
Venus	88295-02-10 04:20 G	33970186.49	33970186.68	33970186.87	0.0494	0.0182
Venus	88295-10-04 08:10 G	33970422.67	33970422.84	33970423.01	0.0494	0.0267
Earth	88297-01-11 19:56 G	33970888.26	33970888.33	33970888.42	0.0498	0.0468
Moon	88297-01-11 21:36 G	33970888.38	33970888.40	33970888.43	0.0498	0.0495 *
Mercury	88298-12-15 18:15 G	33971591.08	33971591.26	33971591.44	0.0515	0.0021
Venus	88300-12-09 20:10 G	33972315.20	33972315.34	33972315.50	0.0531	0.0350
Venus	88301-08-04 16:34 G	33972553.01	33972553.19	33972553.38	0.0533	0.0214
Mercury	88304-08-07 10:20 G	33973651.80	33973651.93	33973652.06	0.0511	0.0025
Venus	88306-10-17 05:17 G	33974452.57	33974452.72	33974452.89	0.0495	0.0308
Venus	88307-06-10 10:20 G	33974688.74	33974688.93	33974689.13	0.0494	0.0144
Moon	88309-01-17 04:20 G	33975275.45	33975275.68	33975275.91	0.0499	0.0050
Earth	88309-01-17 07:12 G	33975275.57	33975275.80	33975276.03	0.0499	0.0031 *
Mercury	88310-10-04 15:08 G	33975900.97	33975901.13	33975901.28	0.0514	0.0269
Venus	88312-08-14 10:20 G	33976580.87	33976580.93	33976581.00	0.0530	0.0501
Venus	88313-04-09 04:34 G	33976818.49	33976818.69	33976818.89	0.0532	0.0052
Mercury	88316-05-26 14:10 G	33977961.97	33977962.09	33977962.21	0.0513	0.0206
Mercury	88316-08-23 19:27 G	33978051.26	33978051.31	33978051.36	0.0510	0.0474
Venus	88318-06-22 06:00 G	33978718.66	33978718.75	33978718.85	0.0496	0.0433
Venus	88319-02-13 12:58 G	33978954.83	33978955.04	33978955.24	0.0494	0.0020
Venus	88319-10-07 15:36 G	33979191.08	33979191.15	33979191.22	0.0494	0.0460
Earth	88321-01-21 18:44 G	33979663.16	33979663.28	33979663.42	0.0500	0.0411
Moon	88321-01-21 22:34 G	33979663.33	33979663.44	33979663.56	0.0500	0.0435 *
Mercury	88322-10-21 21:51 G	33980301.35	33980301.41	33980301.48	0.0515	0.0475
Venus	88324-12-12 18:00 G	33981084.05	33981084.25	33981084.45	0.0531	0.0109

Venus	88325-08-07 16:05 G	33981322.07	33981322.17	33981322.27	0.0532	0.0457
Moon	88326-07-11 05:32 G	33981659.63	33981659.73	33981659.84	0.0528	0.0474
Earth	88326-07-11 09:08 G	33981659.79	33981659.88	33981659.98	0.0528	0.0475 *
Mercury	88328-03-14 18:29 G	33982272.18	33982272.27	33982272.36	0.0513	0.0377
Mars	88328-06-11 00:15 G	33982360.26	33982360.51	33982360.78	0.0511	0.0255
Mercury	88328-06-11 23:32 G	33982361.38	33982361.48	33982361.59	0.0511	0.0304
Venus	88330-10-19 14:53 G	33983220.92	33983221.12	33983221.32	0.0495	0.0107
Venus	88331-06-12 18:15 G	33983457.11	33983457.26	33983457.41	0.0494	0.0340
Mercury	88334-08-09 18:15 G	33984611.10	33984611.26	33984611.43	0.0515	0.0217
Venus	88336-08-17 07:56 G	33985349.66	33985349.83	33985350.01	0.0531	0.0268
Venus	88337-04-12 05:03 G	33985587.54	33985587.71	33985587.88	0.0532	0.0299
Earth	88338-07-16 09:36 G	33986047.66	33986047.90	33986048.13	0.0528	0.0055
Moon	88338-07-16 11:46 G	33986047.77	33986047.99	33986048.22	0.0528	0.0091 *
Mercury	88340-03-31 04:05 G	33986671.54	33986671.67	33986671.79	0.0512	0.0136
Venus	88342-06-24 16:05 G	33987486.99	33987487.17	33987487.35	0.0495	0.0233
Venus	88343-02-15 20:24 G	33987723.17	33987723.35	33987723.53	0.0494	0.0218
Mercury	88346-05-28 15:08 G	33988920.95	33988921.13	33988921.31	0.0514	0.0034
Venus	88348-04-22 00:15 G	33989615.39	33989615.51	33989615.64	0.0531	0.0418
Venus	88348-12-15 19:56 G	33989853.13	33989853.33	33989853.52	0.0533	0.0143
Mercury	88352-01-18 08:24 G	33990981.72	33990981.85	33990981.98	0.0512	0.0033
Venus	88354-02-27 15:36 G	33991753.01	33991753.15	33991753.29	0.0495	0.0361
Venus	88354-10-21 21:08 G	33991989.18	33991989.38	33991989.58	0.0494	0.0092
Mercury	88358-03-16 11:46 G	33993230.84	33993230.99	33993231.14	0.0514	0.0286
Venus	88360-08-20 10:48 G	33994118.74	33994118.95	33994119.15	0.0532	0.0016
Mercury	88363-11-06 12:44 G	33995291.91	33995292.03	33995292.15	0.0512	0.0201
Mercury	88364-02-03 18:00 G	33995381.21	33995381.25	33995381.29	0.0510	0.0478
Venus	88365-11-02 15:51 G	33996019.13	33996019.16	33996019.21	0.0496	0.0485
Venus	88366-06-26 23:03 G	33996255.25	33996255.46	33996255.66	0.0494	0.0035
Venus	88367-02-18 01:27 G	33996491.45	33996491.56	33996491.68	0.0494	0.0410
Mercury	88370-04-02 18:44 G	33997631.21	33997631.28	33997631.36	0.0516	0.0463

Venus	88372-04-24 23:46 G	33998384.30	33998384.49	33998384.68	0.0531	0.0175
Venus	88372-12-18 21:08 G	33998622.24	33998622.38	33998622.52	0.0532	0.0392
Mercury	88375-08-25 16:34 G	33999602.11	33999602.19	33999602.27	0.0513	0.0383
Mercury	88375-11-22 21:36 G	33999691.30	33999691.40	33999691.51	0.0511	0.0296
Venus	88378-03-02 00:44 G	34000521.34	34000521.53	34000521.72	0.0495	0.0161
Venus	88378-10-24 04:48 G	34000757.54	34000757.70	34000757.87	0.0494	0.0291
Mercury	88382-01-19 16:05 G	34001941.01	34001941.17	34001941.33	0.0515	0.0218
Venus	88383-12-29 14:10 G	34002649.94	34002650.09	34002650.25	0.0530	0.0332
Venus	88384-08-23 10:05 G	34002887.73	34002887.92	34002888.10	0.0532	0.0234
Mercury	88387-09-11 01:56 G	34004001.45	34004001.58	34004001.71	0.0512	0.0124
Venus	88389-11-05 01:56 G	34004787.42	34004787.58	34004787.75	0.0495	0.0287
Venus	88390-06-29 07:12 G	34005023.61	34005023.80	34005024.00	0.0494	0.0167
Earth	88392-01-17 09:36 G	34005590.67	34005590.90	34005591.12	0.0498	0.0108
Moon	88392-01-17 13:12 G	34005590.82	34005591.05	34005591.28	0.0498	0.0123 *
Mercury	88393-11-07 12:29 G	34006250.84	34006251.02	34006251.20	0.0514	0.0042
Venus	88395-09-03 04:48 G	34006915.63	34006915.70	34006915.79	0.0530	0.0484
Venus	88396-04-27 23:03 G	34007153.26	34007153.46	34007153.67	0.0532	0.0073
Mercury	88399-06-30 06:29 G	34008311.64	34008311.77	34008311.90	0.0512	0.0044
Venus	88401-07-11 02:39 G	34009053.51	34009053.61	34009053.73	0.0496	0.0413
Venus	88402-03-04 09:22 G	34009289.68	34009289.89	34009290.09	0.0494	0.0041
Venus	88402-10-26 11:32 G	34009525.94	34009525.98	34009526.03	0.0494	0.0481
Moon	88404-01-21 15:22 G	34009977.98	34009978.14	34009978.31	0.0499	0.0346
Earth	88404-01-21 19:12 G	34009978.13	34009978.30	34009978.48	0.0499	0.0324 *
Mercury	88405-08-26 09:08 G	34010560.73	34010560.88	34010561.03	0.0513	0.0293
Venus	88408-01-01 14:24 G	34011418.90	34011419.10	34011419.30	0.0532	0.0086
Venus	88408-08-26 13:12 G	34011656.97	34011657.05	34011657.14	0.0533	0.0482
Mercury	88411-04-18 11:03 G	34012621.84	34012621.96	34012622.08	0.0513	0.0206
Mercury	88411-07-16 16:05 G	34012711.13	34012711.17	34012711.22	0.0510	0.0475
Venus	88413-11-07 10:05 G	34013555.72	34013555.92	34013556.12	0.0494	0.0086
Venus	88414-07-01 12:58 G	34013791.90	34013792.04	34013792.18	0.0494	0.0361

Mercury	88417-09-12 15:51 G	34014961.08	34014961.16	34014961.25	0.0516	0.0449
Mars	88417-09-28 15:22 G	34014976.92	34014977.14	34014977.36	0.0516	0.0245
Venus	88419-09-06 06:15 G	34015684.58	34015684.76	34015684.94	0.0532	0.0241
Venus	88420-05-01 03:36 G	34015922.49	34015922.65	34015922.81	0.0533	0.0329
Moon	88421-07-15 09:36 G	34016362.65	34016362.90	34016363.14	0.0528	0.0009
Earth	88421-07-15 10:48 G	34016362.72	34016362.95	34016363.18	0.0528	0.0035 *
Mercury	88423-02-04 15:22 G	34016932.06	34016932.14	34016932.23	0.0513	0.0374
Mercury	88423-05-04 20:24 G	34017021.25	34017021.35	34017021.46	0.0511	0.0305
Venus	88425-07-13 11:17 G	34017821.79	34017821.97	34017822.16	0.0495	0.0214
Venus	88426-03-06 15:36 G	34018057.97	34018058.15	34018058.33	0.0494	0.0239
Mercury	88429-07-01 13:12 G	34019270.89	34019271.05	34019271.22	0.0515	0.0207
Venus	88431-05-11 20:39 G	34019950.23	34019950.36	34019950.50	0.0530	0.0396
Venus	88432-01-04 15:36 G	34020187.96	34020188.15	34020188.34	0.0532	0.0167
Moon	88433-07-20 05:32 G	34020750.63	34020750.73	34020750.83	0.0527	0.0470
Earth	88433-07-20 06:00 G	34020750.66	34020750.75	34020750.86	0.0527	0.0472 *
Mercury	88435-02-21 00:15 G	34021331.38	34021331.51	34021331.63	0.0512	0.0120
Venus	88437-03-18 12:00 G	34022087.86	34022088.00	34022088.15	0.0496	0.0341
Venus	88437-11-09 18:15 G	34022324.06	34022324.26	34022324.46	0.0494	0.0115
Mercury	88441-04-19 10:34 G	34023580.76	34023580.94	34023581.12	0.0514	0.0036
Venus	88443-09-09 05:32 G	34024453.53	34024453.73	34024453.93	0.0532	0.0006
Mercury	88446-12-10 04:34 G	34025641.56	34025641.69	34025641.82	0.0512	0.0053
Venus	88448-11-21 12:44 G	34026353.97	34026354.03	34026354.10	0.0497	0.0466
Venus	88449-07-15 20:24 G	34026590.14	34026590.35	34026590.55	0.0494	0.0012
Venus	88450-03-08 23:17 G	34026826.38	34026826.47	34026826.57	0.0494	0.0433
Mercury	88453-02-05 06:44 G	34027890.64	34027890.78	34027890.93	0.0513	0.0295
Venus	88455-05-14 19:12 G	34028719.11	34028719.30	34028719.49	0.0531	0.0155
Venus	88456-01-07 16:48 G	34028957.07	34028957.20	34028957.33	0.0532	0.0415
Mercury	88458-09-28 08:53 G	34029951.76	34029951.87	34029951.99	0.0513	0.0217
Mercury	88458-12-26 14:10 G	34030041.04	34030041.09	34030041.15	0.0511	0.0466
Venus	88461-03-20 22:05 G	34030856.23	34030856.42	34030856.62	0.0495	0.0138

Venus	88461-11-12 01:56 G	34031092.43	34031092.58	34031092.74	0.0494	0.0313
Mercury	88465-02-22 13:41 G	34032290.98	34032291.07	34032291.16	0.0515	0.0447
Venus	88467-01-17 11:03 G	34032984.80	34032984.96	34032985.13	0.0531	0.0310
Venus	88467-09-12 07:27 G	34033222.64	34033222.81	34033222.99	0.0533	0.0259
Mercury	88470-07-17 13:41 G	34034261.98	34034262.07	34034262.16	0.0513	0.0378
Mercury	88470-10-14 18:44 G	34034351.18	34034351.28	34034351.39	0.0511	0.0302
Venus	88472-11-23 22:48 G	34035122.28	34035122.45	34035122.63	0.0495	0.0265
Venus	88473-07-18 03:22 G	34035358.46	34035358.64	34035358.84	0.0494	0.0190
Moon	88475-01-16 06:44 G	34035905.57	34035905.78	34035906.00	0.0498	0.0208
Earth	88475-01-16 10:34 G	34035905.73	34035905.94	34035906.16	0.0498	0.0192 *
Mercury	88476-12-11 10:34 G	34036600.77	34036600.94	34036601.10	0.0515	0.0198
Venus	88478-09-22 03:51 G	34037250.56	34037250.66	34037250.76	0.0530	0.0459
Venus	88479-05-17 22:34 G	34037488.24	34037488.44	34037488.64	0.0533	0.0102
Mercury	88482-08-02 23:17 G	34038661.34	34038661.47	34038661.59	0.0511	0.0134
Mars	88482-09-04 14:24 G	34038693.82	34038694.10	34038694.38	0.0511	0.0192
Venus	88484-07-29 23:46 G	34039388.37	34039388.49	34039388.62	0.0496	0.0391
Venus	88485-03-23 06:00 G	34039624.55	34039624.75	34039624.96	0.0494	0.0065
Earth	88487-01-20 22:20 G	34040293.23	34040293.43	34040293.63	0.0499	0.0247
Moon	88487-01-21 01:27 G	34040293.37	34040293.56	34040293.75	0.0499	0.0277 *
Mercury	88488-09-29 07:56 G	34040910.65	34040910.83	34040911.01	0.0514	0.0042
Venus	88491-01-20 12:00 G	34041753.80	34041754.00	34041754.20	0.0532	0.0060
Venus	88491-09-15 10:05 G	34041991.87	34041991.92	34041991.98	0.0532	0.0508
Mercury	88494-05-22 02:53 G	34042971.49	34042971.62	34042971.75	0.0512	0.0051
Venus	88496-11-26 07:41 G	34043890.62	34043890.82	34043891.02	0.0495	0.0063
Venus	88497-07-20 11:03 G	34044126.84	34044126.96	34044127.09	0.0494	0.0387
Mercury	88500-07-19 05:17 G	34045220.57	34045220.72	34045220.87	0.0513	0.0282
Venus	88502-09-26 03:08 G	34046019.45	34046019.63	34046019.82	0.0531	0.0218
Venus	88503-05-21 23:32 G	34046257.33	34046257.48	34046257.63	0.0532	0.0352
Earth	88504-07-15 05:32 G	34046677.50	34046677.73	34046677.95	0.0528	0.0154
Moon	88504-07-15 05:32 G	34046677.51	34046677.73	34046677.95	0.0528	0.0122 *

Mercury	88506-03-11 07:12 G	34047281.68	34047281.80	34047281.92	0.0513	0.0221
Mercury	88506-06-08 12:29 G	34047370.96	34047371.02	34047371.07	0.0511	0.0460
Venus	88508-08-02 09:22 G	34048156.70	34048156.89	34048157.08	0.0495	0.0191
Venus	88509-03-26 14:10 G	34048392.92	34048393.09	34048393.26	0.0494	0.0264
Mercury	88512-08-05 11:46 G	34049620.91	34049620.99	34049621.08	0.0515	0.0455
Venus	88514-05-31 17:32 G	34050285.09	34050285.23	34050285.37	0.0530	0.0374
Venus	88515-01-24 12:29 G	34050522.83	34050523.02	34050523.21	0.0532	0.0191
Earth	88516-07-20 05:17 G	34051065.57	34051065.72	34051065.89	0.0527	0.0377
Moon	88516-07-20 07:56 G	34051065.66	34051065.83	34051066.01	0.0527	0.0365 *
Mercury	88517-12-28 11:46 G	34051591.91	34051591.99	34051592.07	0.0514	0.0386
Mercury	88518-03-27 17:03 G	34051681.10	34051681.21	34051681.31	0.0511	0.0296
Venus	88520-04-07 11:03 G	34052422.80	34052422.96	34052423.11	0.0496	0.0317
Venus	88520-11-29 16:48 G	34052659.00	34052659.20	34052659.39	0.0494	0.0140
Mercury	88524-05-24 08:53 G	34053930.71	34053930.87	34053931.03	0.0514	0.0207
Venus	88526-02-03 10:20 G	34054550.90	34054550.93	34054550.96	0.0529	0.0522
Venus	88526-09-29 03:51 G	34054788.46	34054788.66	34054788.86	0.0532	0.0034
Mercury	88530-01-13 21:36 G	34055991.28	34055991.40	34055991.53	0.0512	0.0134
Venus	88531-12-12 11:32 G	34056688.89	34056688.98	34056689.07	0.0496	0.0442
Venus	88532-08-04 18:29 G	34056925.06	34056925.27	34056925.47	0.0494	0.0014
Venus	88533-03-28 20:39 G	34057161.30	34057161.36	34057161.44	0.0494	0.0458
Mercury	88536-03-12 05:46 G	34058240.56	34058240.74	34058240.92	0.0514	0.0045
Venus	88538-06-03 19:27 G	34059054.12	34059054.31	34059054.51	0.0532	0.0125
Venus	88539-01-27 17:46 G	34059292.13	34059292.24	34059292.35	0.0533	0.0448
Mercury	88541-11-02 02:10 G	34060301.46	34060301.59	34060301.72	0.0512	0.0032
Venus	88544-04-09 20:39 G	34061191.16	34061191.36	34061191.56	0.0494	0.0113
Venus	88544-12-02 00:15 G	34061427.36	34061427.51	34061427.65	0.0494	0.0339
Mercury	88547-12-30 03:08 G	34062550.48	34062550.63	34062550.79	0.0513	0.0281
Venus	88550-02-06 10:48 G	34063319.78	34063319.95	34063320.12	0.0531	0.0282
Venus	88550-10-02 06:44 G	34063557.61	34063557.78	34063557.95	0.0532	0.0288
Mercury	88553-08-21 05:46 G	34064611.63	34064611.74	34064611.86	0.0513	0.0217

Mercury	88553-11-18 11:03 G	34064700.91	34064700.96	34064701.01	0.0511	0.0465
Venus	88555-12-14 21:08 G	34065457.20	34065457.38	34065457.56	0.0496	0.0243
Venus	88556-08-07 02:24 G	34065693.42	34065693.60	34065693.79	0.0494	0.0216
Earth	88558-01-16 20:10 G	34066221.14	34066221.34	34066221.55	0.0498	0.0241
Moon	88558-01-16 23:17 G	34066221.28	34066221.47	34066221.67	0.0498	0.0243 *
Mercury	88560-01-16 11:03 G	34066950.89	34066950.96	34066951.02	0.0515	0.0475
Venus	88561-10-12 03:08 G	34067585.52	34067585.63	34067585.75	0.0529	0.0433
Venus	88562-06-06 20:53 G	34067823.18	34067823.37	34067823.57	0.0532	0.0129
Mercury	88565-06-09 10:20 G	34068921.84	34068921.93	34068922.01	0.0514	0.0386
Mercury	88565-09-06 15:22 G	34069011.04	34069011.14	34069011.25	0.0511	0.0295
Venus	88567-08-19 22:20 G	34069723.30	34069723.43	34069723.57	0.0496	0.0370
Venus	88568-04-12 05:17 G	34069959.52	34069959.72	34069959.92	0.0494	0.0090
Moon	88570-01-21 05:17 G	34070608.51	34070608.72	34070608.93	0.0499	0.0228
Earth	88570-01-21 07:12 G	34070608.59	34070608.80	34070609.02	0.0499	0.0198 *
Mercury	88571-11-04 07:41 G	34071260.66	34071260.82	34071260.98	0.0514	0.0224
Venus	88574-02-09 10:34 G	34072088.74	34072088.94	34072089.15	0.0531	0.0035
Mercury	88577-06-25 19:56 G	34073321.21	34073321.33	34073321.46	0.0512	0.0131
Venus	88579-04-24 23:17 G	34073989.46	34073989.47	34073989.49	0.0497	0.0495
Venus	88579-12-17 07:41 G	34074225.62	34074225.82	34074226.03	0.0495	0.0037
Venus	88580-08-09 10:48 G	34074461.85	34074461.95	34074462.07	0.0494	0.0413
Mercury	88583-08-23 04:34 G	34075570.51	34075570.69	34075570.87	0.0514	0.0025
Venus	88585-10-15 02:24 G	34076354.41	34076354.60	34076354.79	0.0531	0.0191
Venus	88586-06-09 23:17 G	34076592.34	34076592.47	34076592.62	0.0532	0.0383
Earth	88587-07-15 10:20 G	34076992.73	34076992.93	34076993.15	0.0529	0.0226
Moon	88587-07-15 12:15 G	34076992.79	34076993.01	34076993.24	0.0529	0.0197 *
Mercury	88589-04-14 00:44 G	34077631.40	34077631.53	34077631.66	0.0513	0.0029
Venus	88591-08-22 09:22 G	34078491.70	34078491.89	34078492.09	0.0495	0.0164
Venus	88592-04-14 13:41 G	34078727.90	34078728.07	34078728.23	0.0494	0.0291
Mercury	88595-06-11 01:12 G	34079880.40	34079880.55	34079880.71	0.0513	0.0276
Venus	88597-06-19 18:58 G	34080620.14	34080620.29	34080620.44	0.0531	0.0344

Venus	88598-02-12 14:39 G	34080857.93	34080858.11	34080858.30	0.0533	0.0227
Moon	88599-07-20 09:51 G	34081380.72	34081380.91	34081381.10	0.0528	0.0296
Earth	88599-07-20 13:27 G	34081380.88	34081381.06	34081381.25	0.0528	0.0316 *
Mercury	88601-02-01 05:17 G	34081941.60	34081941.72	34081941.84	0.0513	0.0193
Mercury	88601-05-01 10:34 G	34082030.91	34082030.94	34082030.97	0.0511	0.0489
Venus	88603-04-28 11:03 G	34082757.80	34082757.96	34082758.13	0.0495	0.0291
Venus	88603-12-20 16:34 G	34082994.00	34082994.19	34082994.38	0.0494	0.0168
Mercury	88607-03-30 22:48 G	34084190.45	34084190.45	34084190.47	0.0513	0.0511
Mercury	88607-06-29 09:08 G	34084280.83	34084280.88	34084280.94	0.0515	0.0485
Venus	88609-02-23 12:00 G	34084885.94	34084886.00	34084886.08	0.0529	0.0493
Venus	88609-10-19 05:17 G	34085123.52	34085123.72	34085123.92	0.0532	0.0065
Mercury	88612-11-20 09:08 G	34086251.79	34086251.88	34086251.97	0.0514	0.0376
Mercury	88613-02-17 14:10 G	34086340.99	34086341.09	34086341.20	0.0511	0.0304
Venus	88615-01-01 10:05 G	34087023.82	34087023.92	34087024.03	0.0497	0.0422
Venus	88615-08-25 18:00 G	34087260.05	34087260.25	34087260.46	0.0495	0.0041
Venus	88616-04-17 21:22 G	34087496.36	34087496.39	34087496.42	0.0494	0.0486
Mercury	88619-04-17 07:12 G	34088590.64	34088590.80	34088590.95	0.0514	0.0252
Venus	88621-06-23 20:39 G	34089389.16	34089389.36	34089389.56	0.0531	0.0095
Venus	88622-02-16 17:32 G	34089627.15	34089627.23	34089627.33	0.0532	0.0477
Mercury	88624-12-06 18:29 G	34090651.15	34090651.27	34090651.40	0.0512	0.0136
Venus	88627-04-30 20:24 G	34091526.15	34091526.35	34091526.55	0.0495	0.0088
Venus	88627-12-23 00:44 G	34091762.39	34091762.53	34091762.66	0.0494	0.0366
Mercury	88631-02-03 03:51 G	34092900.48	34092900.66	34092900.84	0.0514	0.0001
Venus	88633-02-26 11:03 G	34093654.79	34093654.96	34093655.14	0.0530	0.0253
Venus	88633-10-22 06:58 G	34093892.62	34093892.79	34093892.95	0.0532	0.0318
Mercury	88636-09-24 23:17 G	34094961.34	34094961.47	34094961.59	0.0513	0.0033
Venus	88639-01-03 22:20 G	34095792.25	34095792.43	34095792.62	0.0496	0.0215
Venus	88639-08-28 03:51 G	34096028.48	34096028.66	34096028.84	0.0494	0.0244
Moon	88641-01-17 03:51 G	34096536.47	34096536.66	34096536.86	0.0498	0.0283
Earth	88641-01-17 05:46 G	34096536.55	34096536.74	34096536.93	0.0498	0.0288 *

Mercury	88642-11-22 00:44 G	34097210.37	34097210.53	34097210.69	0.0513	0.0248
Venus	88644-11-01 03:22 G	34097920.52	34097920.64	34097920.77	0.0530	0.0406
Venus	88645-06-26 21:51 G	34098158.21	34098158.41	34098158.60	0.0532	0.0160
Mercury	88648-07-14 04:05 G	34099271.55	34099271.67	34099271.79	0.0513	0.0187
Mercury	88648-10-11 09:22 G	34099360.86	34099360.89	34099360.91	0.0511	0.0496
Venus	88650-09-09 00:00 G	34100058.35	34100058.50	34100058.65	0.0496	0.0341
Venus	88651-05-03 06:29 G	34100294.57	34100294.77	34100294.96	0.0494	0.0119
Earth	88653-01-21 15:51 G	34100923.93	34100924.16	34100924.38	0.0498	0.0144
Moon	88653-01-21 16:20 G	34100923.97	34100924.18	34100924.39	0.0498	0.0177 *
Mercury	88654-09-09 21:22 G	34101520.36	34101520.39	34101520.43	0.0513	0.0498
Mercury	88654-12-09 07:41 G	34101610.78	34101610.82	34101610.87	0.0515	0.0496
Venus	88657-03-01 13:56 G	34102423.87	34102424.08	34102424.28	0.0532	0.0010
Mercury	88660-05-02 08:39 G	34103581.77	34103581.86	34103581.96	0.0514	0.0349
Mercury	88660-07-30 13:56 G	34103670.98	34103671.08	34103671.18	0.0511	0.0333
Venus	88662-05-15 00:58 G	34104324.48	34104324.54	34104324.61	0.0497	0.0467
Venus	88663-01-06 08:53 G	34104560.67	34104560.87	34104561.08	0.0494	0.0008
Venus	88663-08-30 12:00 G	34104796.92	34104797.00	34104797.09	0.0494	0.0442
Mercury	88666-09-27 05:46 G	34105920.59	34105920.74	34105920.89	0.0514	0.0266
Venus	88668-11-04 05:46 G	34106689.55	34106689.74	34106689.94	0.0531	0.0157
Venus	88669-06-30 02:10 G	34106927.48	34106927.59	34106927.73	0.0532	0.0416
Moon	88670-07-15 12:58 G	34107307.84	34107308.04	34107308.23	0.0528	0.0270
Earth	88670-07-15 16:05 G	34107307.98	34107308.17	34107308.37	0.0528	0.0293 *
Mercury	88672-05-18 17:32 G	34107981.11	34107981.23	34107981.36	0.0512	0.0149
Venus	88674-09-11 09:22 G	34108826.69	34108826.89	34108827.09	0.0495	0.0139
Venus	88675-05-05 14:24 G	34109062.94	34109063.10	34109063.25	0.0494	0.0319
Mercury	88678-07-16 03:36 G	34110230.47	34110230.65	34110230.83	0.0514	0.0034
Venus	88680-07-09 22:20 G	34110955.27	34110955.43	34110955.59	0.0530	0.0311
Venus	88681-03-04 17:03 G	34111193.04	34111193.21	34111193.39	0.0532	0.0259
Earth	88682-07-20 16:34 G	34111695.98	34111696.19	34111696.40	0.0527	0.0237
Moon	88682-07-20 20:39 G	34111696.15	34111696.36	34111696.58	0.0527	0.0215 *

Mercury	88684-03-06 22:05 G	34112291.29	34112291.42	34112291.55	0.0512	0.0021
Venus	88686-05-17 11:03 G	34113092.79	34113092.96	34113093.13	0.0496	0.0267
Venus	88687-01-08 17:17 G	34113329.04	34113329.22	34113329.41	0.0495	0.0195
Mercury	88690-05-04 00:29 G	34114540.35	34114540.52	34114540.68	0.0513	0.0216
Mars	88690-06-17 02:39 G	34114584.38	34114584.61	34114584.85	0.0514	0.0178
Venus	88692-03-14 13:41 G	34115220.98	34115221.07	34115221.17	0.0529	0.0464
Venus	88692-11-07 06:43 G	34115458.58	34115458.78	34115458.98	0.0531	0.0097
Mercury	88695-12-25 02:39 G	34116601.49	34116601.61	34116601.73	0.0513	0.0182
Mercury	88696-03-23 07:55 G	34116690.81	34116690.83	34116690.85	0.0511	0.0500
Venus	88698-01-20 12:29 G	34117358.90	34117359.02	34117359.15	0.0497	0.0393
Venus	88698-09-13 20:24 G	34117595.15	34117595.35	34117595.55	0.0495	0.0070
Mercury	88702-02-20 21:07 G	34118850.31	34118850.38	34118850.46	0.0512	0.0465
Venus	88704-07-13 22:05 G	34119724.22	34119724.42	34119724.62	0.0531	0.0063
Venus	88705-03-08 19:41 G	34119962.27	34119962.32	34119962.38	0.0532	0.0510
Mercury	88707-10-14 07:27 G	34120911.72	34120911.81	34120911.91	0.0514	0.0341
Mercury	88708-01-11 12:43 G	34121000.93	34121001.03	34121001.13	0.0511	0.0342
Venus	88710-05-20 22:48 G	34121861.24	34121861.45	34121861.65	0.0495	0.0058
Venus	88711-01-12 02:24 G	34122097.48	34122097.60	34122097.72	0.0494	0.0396
Mercury	88714-03-10 04:34 G	34123250.54	34123250.69	34123250.84	0.0514	0.0282
Venus	88716-03-18 14:53 G	34123989.94	34123990.12	34123990.30	0.0531	0.0219
Venus	88716-11-11 11:17 G	34124227.82	34124227.97	34124228.12	0.0532	0.0356
Mercury	88719-08-02 12:15 G	34125221.99	34125222.01	34125222.04	0.0514	0.0501
Mercury	88719-10-30 17:17 G	34125311.10	34125311.22	34125311.35	0.0512	0.0180
Venus	88722-01-24 00:43 G	34126127.34	34126127.53	34126127.72	0.0495	0.0185
Venus	88722-09-17 05:46 G	34126363.58	34126363.74	34126363.91	0.0494	0.0275
Earth	88724-01-18 17:31 G	34126852.06	34126852.23	34126852.42	0.0498	0.0327
Moon	88724-01-18 18:00 G	34126852.08	34126852.25	34126852.42	0.0498	0.0316 *
Mercury	88725-12-27 02:24 G	34127560.43	34127560.60	34127560.78	0.0514	0.0054
Venus	88727-11-22 08:24 G	34128255.70	34128255.85	34128255.99	0.0530	0.0372
Venus	88728-07-17 02:24 G	34128493.41	34128493.60	34128493.79	0.0532	0.0196

Mercury	88731-08-18 21:07 G	34129621.25	34129621.38	34129621.51	0.0512	0.0006
Venus	88733-09-29 00:00 G	34130393.35	34130393.50	34130393.66	0.0496	0.0318
Venus	88734-05-23 06:58 G	34130629.60	34130629.79	34130629.99	0.0495	0.0146
Earth	88736-01-23 05:31 G	34131239.51	34131239.73	34131239.96	0.0499	0.0116
Moon	88736-01-23 06:43 G	34131239.55	34131239.78	34131240.02	0.0499	0.0147 *
Mercury	88737-10-15 00:15 G	34131870.34	34131870.51	34131870.68	0.0513	0.0181
Venus	88739-07-28 01:55 G	34132521.55	34132521.58	34132521.62	0.0528	0.0519
Venus	88740-03-21 18:00 G	34132759.05	34132759.25	34132759.46	0.0531	0.0040
Mercury	88743-06-07 01:41 G	34133931.45	34133931.57	34133931.69	0.0513	0.0171
Venus	88745-06-04 00:43 G	34134659.45	34134659.53	34134659.63	0.0497	0.0445
Venus	88746-01-26 09:36 G	34134895.69	34134895.90	34134896.10	0.0495	0.0019
Venus	88746-09-19 13:41 G	34135132.01	34135132.07	34135132.13	0.0495	0.0470
Mercury	88749-08-02 21:07 G	34136180.28	34136180.38	34136180.47	0.0512	0.0430
Venus	88751-11-25 08:10 G	34137024.65	34137024.84	34137025.04	0.0531	0.0124
Venus	88752-07-20 04:48 G	34137262.59	34137262.70	34137262.80	0.0532	0.0449
Earth	88753-07-15 23:03 G	34137623.29	34137623.46	34137623.64	0.0528	0.0354
Moon	88753-07-16 03:07 G	34137623.45	34137623.63	34137623.82	0.0528	0.0330 *
Mercury	88755-03-26 06:15 G	34138241.66	34138241.76	34138241.86	0.0514	0.0334
Mars	88755-05-20 19:41 G	34138297.24	34138297.32	34138297.42	0.0512	0.0488
Mercury	88755-06-23 11:17 G	34138330.88	34138330.97	34138331.07	0.0511	0.0348
Venus	88757-10-01 12:15 G	34139161.81	34139162.01	34139162.21	0.0495	0.0108
Venus	88758-05-25 17:03 G	34139398.07	34139398.21	34139398.36	0.0494	0.0350
Mercury	88761-08-20 04:19 G	34140580.54	34140580.68	34140580.82	0.0514	0.0318
Venus	88763-07-31 00:15 G	34141290.34	34141290.51	34141290.68	0.0530	0.0280
Venus	88764-03-24 19:27 G	34141528.15	34141528.31	34141528.48	0.0532	0.0293
Moon	88765-07-20 22:05 G	34142011.19	34142011.42	34142011.64	0.0528	0.0160
Earth	88765-07-21 01:55 G	34142011.36	34142011.58	34142011.80	0.0528	0.0185 *
Mercury	88767-01-12 11:03 G	34142551.93	34142551.96	34142552.00	0.0515	0.0492
Mercury	88767-04-11 16:05 G	34142641.05	34142641.17	34142641.30	0.0512	0.0190
Venus	88769-06-06 14:10 G	34143427.91	34143428.09	34143428.27	0.0496	0.0235

Venus	88770-01-28 19:55 G	34143664.15	34143664.33	34143664.51	0.0494	0.0227
Mercury	88773-06-08 01:27 G	34144890.38	34144890.56	34144890.74	0.0514	0.0071
Venus	88775-04-04 17:31 G	34145556.12	34145556.23	34145556.35	0.0530	0.0432
Venus	88775-11-28 11:17 G	34145793.77	34145793.97	34145794.17	0.0532	0.0135
Mercury	88779-01-28 20:53 G	34146951.24	34146951.37	34146951.50	0.0513	0.0029
Venus	88781-02-09 15:36 G	34147694.01	34147694.15	34147694.29	0.0496	0.0363
Venus	88781-10-03 23:03 G	34147930.26	34147930.46	34147930.66	0.0494	0.0101
Mercury	88785-03-26 23:17 G	34149200.30	34149200.47	34149200.64	0.0513	0.0161
Venus	88787-08-03 03:51 G	34150059.45	34150059.66	34150059.86	0.0531	0.0027
Mercury	88790-11-17 00:43 G	34151261.41	34151261.53	34151261.66	0.0513	0.0153
Venus	88792-10-15 13:41 G	34151960.06	34151960.07	34151960.09	0.0498	0.0495
Venus	88793-06-08 23:03 G	34152196.26	34152196.46	34152196.67	0.0495	0.0031
Venus	88794-01-31 03:22 G	34152432.54	34152432.64	34152432.75	0.0495	0.0424
Mercury	88797-01-12 20:53 G	34153510.26	34153510.37	34153510.49	0.0513	0.0395
Venus	88799-04-07 20:24 G	34154325.16	34154325.35	34154325.54	0.0530	0.0182
Venus	88799-12-01 15:51 G	34154563.03	34154563.16	34154563.30	0.0531	0.0392
Mercury	88802-09-05 05:17 G	34155571.62	34155571.72	34155571.82	0.0513	0.0320
Mercury	88802-12-03 10:19 G	34155660.84	34155660.93	34155661.03	0.0511	0.0361
Venus	88805-02-12 00:58 G	34156462.34	34156462.54	34156462.73	0.0496	0.0160
Venus	88805-10-06 06:43 G	34156698.62	34156698.78	34156698.95	0.0495	0.0302
Earth	88807-01-18 06:15 G	34157167.60	34157167.76	34157167.93	0.0498	0.0357
Moon	88807-01-18 07:41 G	34157167.65	34157167.82	34157168.00	0.0498	0.0339 *
Mercury	88809-01-30 04:19 G	34157910.55	34157910.68	34157910.81	0.0514	0.0353
Venus	88810-12-11 11:17 G	34158590.82	34158590.97	34158591.12	0.0529	0.0339
Venus	88811-08-06 05:03 G	34158828.53	34158828.71	34158828.90	0.0531	0.0232
Mercury	88814-06-24 09:51 G	34159881.87	34159881.91	34159881.96	0.0514	0.0484
Mercury	88814-09-21 14:53 G	34159971.00	34159971.12	34159971.24	0.0512	0.0197
Venus	88816-10-18 03:07 G	34160728.46	34160728.63	34160728.80	0.0496	0.0287
Venus	88817-06-11 10:05 G	34160964.73	34160964.92	34160965.11	0.0495	0.0178
Moon	88819-01-22 15:22 G	34161554.92	34161555.14	34161555.37	0.0498	0.0110

Earth	88819-01-22 18:15 G	34161555.03	34161555.26	34161555.49	0.0498	0.0082	*
Mercury	88820-11-18 01:12 G	34162220.38	34162220.55	34162220.73	0.0514	0.0108	
Venus	88822-08-16 03:51 G	34162856.59	34162856.66	34162856.74	0.0529	0.0490	
Venus	88823-04-10 20:24 G	34163094.15	34163094.35	34163094.55	0.0531	0.0072	
Mercury	88826-07-10 19:41 G	34164281.19	34164281.32	34164281.45	0.0513	0.0040	
Venus	88828-06-23 04:19 G	34164994.58	34164994.68	34164994.80	0.0497	0.0414	
Venus	88829-02-14 12:29 G	34165230.82	34165231.02	34165231.23	0.0495	0.0053	
Mercury	88832-09-05 22:05 G	34166530.25	34166530.42	34166530.60	0.0513	0.0142	
Venus	88834-12-14 12:29 G	34167359.82	34167360.02	34167360.22	0.0531	0.0088	
Venus	88835-08-09 09:22 G	34167597.82	34167597.89	34167597.98	0.0532	0.0488	
Moon	88836-07-15 07:27 G	34167938.64	34167938.81	34167938.97	0.0529	0.0373	
Earth	88836-07-15 11:17 G	34167938.82	34167938.97	34167939.13	0.0529	0.0394	*
Mercury	88838-04-29 00:29 G	34168591.40	34168591.52	34168591.65	0.0513	0.0124	
Venus	88840-10-20 14:53 G	34169496.92	34169497.12	34169497.33	0.0495	0.0077	
Venus	88841-06-13 19:27 G	34169733.18	34169733.31	34169733.44	0.0494	0.0381	
Mercury	88844-06-24 19:55 G	34170840.21	34170840.33	34170840.45	0.0513	0.0376	
Mars	88844-09-12 00:15 G	34170919.33	34170919.51	34170919.70	0.0515	0.0351	
Venus	88846-08-19 06:00 G	34171625.57	34171625.75	34171625.93	0.0530	0.0244	
Venus	88847-04-14 01:12 G	34171863.39	34171863.55	34171863.71	0.0531	0.0331	
Earth	88848-07-20 12:00 G	34172326.78	34172327.00	34172327.23	0.0527	0.0141	
Moon	88848-07-20 14:39 G	34172326.89	34172327.11	34172327.33	0.0527	0.0116	*
Mercury	88850-02-15 04:34 G	34172901.58	34172901.69	34172901.79	0.0513	0.0302	
Mercury	88850-05-15 09:36 G	34172990.81	34172990.90	34172990.99	0.0511	0.0378	
Venus	88852-06-25 13:55 G	34173762.90	34173763.08	34173763.27	0.0496	0.0211	
Venus	88853-02-16 20:10 G	34173999.17	34173999.34	34173999.52	0.0495	0.0253	
Mercury	88856-07-12 04:05 G	34175240.55	34175240.67	34175240.78	0.0515	0.0386	
Venus	88858-04-23 23:31 G	34175891.35	34175891.48	34175891.62	0.0529	0.0395	
Venus	88858-12-17 16:34 G	34176129.00	34176129.19	34176129.39	0.0531	0.0173	
Mercury	88861-12-04 08:53 G	34177211.83	34177211.87	34177211.93	0.0514	0.0469	
Mercury	88862-03-03 13:55 G	34177300.96	34177301.08	34177301.20	0.0512	0.0209	

Venus	88864-02-29 15:07 G	34178028.98	34178029.13	34178029.28	0.0497	0.0340
Venus	88864-10-22 23:03 G	34178265.26	34178265.46	34178265.66	0.0495	0.0127
Mercury	88868-04-30 00:58 G	34179550.37	34179550.54	34179550.71	0.0514	0.0139
Venus	88870-08-22 06:15 G	34180394.56	34180394.76	34180394.97	0.0531	0.0015
Mercury	88873-12-20 18:29 G	34181611.14	34181611.27	34181611.40	0.0512	0.0044
Venus	88875-11-04 16:19 G	34182295.12	34182295.18	34182295.26	0.0498	0.0466
Venus	88876-06-28 01:41 G	34182531.37	34182531.57	34182531.78	0.0495	0.0001
Venus	88877-02-19 06:00 G	34182767.68	34182767.75	34182767.83	0.0495	0.0455
Mercury	88880-02-16 21:51 G	34183860.23	34183860.41	34183860.59	0.0513	0.0109
Venus	88882-04-26 21:51 G	34184660.22	34184660.41	34184660.61	0.0530	0.0150
Venus	88882-12-20 17:31 G	34184898.12	34184898.23	34184898.36	0.0532	0.0426
Mercury	88885-10-08 23:17 G	34185921.34	34185921.47	34185921.59	0.0513	0.0117
Venus	88888-03-03 03:51 G	34186797.46	34186797.66	34186797.86	0.0496	0.0129
Venus	88888-10-25 09:07 G	34187033.73	34187033.88	34187034.03	0.0494	0.0333
Moon	88890-01-17 14:24 G	34187482.96	34187483.10	34187483.25	0.0497	0.0378
Earth	88890-01-17 17:17 G	34187483.09	34187483.22	34187483.36	0.0497	0.0398 *
Mercury	88891-12-05 18:29 G	34188170.14	34188170.27	34188170.40	0.0513	0.0360
Venus	88893-12-30 14:24 G	34188925.94	34188926.10	34188926.26	0.0530	0.0306
Venus	88894-08-25 08:53 G	34189163.70	34189163.87	34189164.05	0.0532	0.0268
Mercury	88897-07-28 04:05 G	34190231.56	34190231.67	34190231.77	0.0514	0.0277
Mercury	88897-10-25 09:07 G	34190320.80	34190320.88	34190320.96	0.0511	0.0404
Venus	88899-11-07 05:31 G	34191063.55	34191063.73	34191063.91	0.0496	0.0257
Venus	88900-07-01 12:00 G	34191299.81	34191300.00	34191300.18	0.0495	0.0209
Earth	88902-01-23 05:17 G	34191870.49	34191870.72	34191870.96	0.0498	0.0043
Moon	88902-01-23 09:07 G	34191870.65	34191870.88	34191871.11	0.0498	0.0064 *
Mercury	88903-12-24 02:39 G	34192570.50	34192570.61	34192570.72	0.0515	0.0401
Venus	88905-09-05 08:53 G	34193191.78	34193191.87	34193191.98	0.0529	0.0456
Venus	88906-05-01 01:41 G	34193429.37	34193429.57	34193429.77	0.0531	0.0109
Mercury	88909-05-17 08:10 G	34194541.78	34194541.84	34194541.90	0.0514	0.0453
Mercury	88909-08-14 12:58 G	34194630.93	34194631.04	34194631.16	0.0511	0.0225

Mars	88909-08-15 19:55 G	34194632.04	34194632.33	34194632.62	0.0511	0.0155
Venus	88911-07-14 03:36 G	34195329.52	34195329.65	34195329.77	0.0497	0.0391
Venus	88912-03-06 11:46 G	34195565.79	34195565.99	34195566.20	0.0495	0.0076
Moon	88914-01-27 11:46 G	34196257.91	34196257.99	34196258.09	0.0500	0.0459
Earth	88914-01-27 15:51 G	34196258.10	34196258.16	34196258.22	0.0500	0.0480
Mercury	88915-10-12 00:15 G	34196880.34	34196880.51	34196880.68	0.0514	0.0166
Venus	88918-01-03 17:46 G	34197695.04	34197695.24	34197695.44	0.0531	0.0050
Venus	88918-08-29 14:10 G	34197933.06	34197933.09	34197933.12	0.0531	0.0523
Earth	88919-07-16 19:27 G	34198254.19	34198254.31	34198254.44	0.0528	0.0446
Moon	88919-07-16 22:19 G	34198254.31	34198254.43	34198254.56	0.0528	0.0431 *
Mercury	88921-06-02 17:31 G	34198941.10	34198941.23	34198941.36	0.0512	0.0057
Venus	88923-11-10 13:41 G	34199831.87	34199832.07	34199832.28	0.0496	0.0053
Venus	88924-07-03 18:43 G	34200068.17	34200068.28	34200068.40	0.0495	0.0406
Mercury	88927-07-30 21:07 G	34201190.20	34201190.38	34201190.56	0.0513	0.0083
Venus	88929-09-08 07:55 G	34201960.65	34201960.83	34201961.02	0.0530	0.0211
Venus	88930-05-04 02:53 G	34202198.47	34202198.62	34202198.77	0.0531	0.0364
Moon	88931-07-21 17:17 G	34202641.97	34202642.22	34202642.46	0.0527	0.0045
Earth	88931-07-21 17:46 G	34202642.01	34202642.24	34202642.47	0.0527	0.0074 *
Mercury	88933-03-21 21:51 G	34203251.29	34203251.41	34203251.54	0.0513	0.0112
Venus	88935-07-16 15:51 G	34204097.97	34204098.16	34204098.35	0.0496	0.0181
Venus	88936-03-08 22:05 G	34204334.25	34204334.42	34204334.59	0.0495	0.0284
Mercury	88939-05-18 18:00 G	34205500.11	34205500.25	34205500.39	0.0513	0.0332
Venus	88941-05-14 00:00 G	34206226.36	34206226.50	34206226.64	0.0529	0.0366
Venus	88942-01-06 17:17 G	34206464.03	34206464.22	34206464.40	0.0531	0.0205
Mercury	88945-01-08 02:39 G	34207561.50	34207561.61	34207561.72	0.0514	0.0273
Mercury	88945-04-07 07:41 G	34207650.75	34207650.82	34207650.90	0.0511	0.0408
Venus	88947-03-21 17:31 G	34208364.07	34208364.23	34208364.39	0.0497	0.0310
Venus	88947-11-13 00:43 G	34208600.34	34208600.53	34208600.73	0.0495	0.0158
Mercury	88951-06-05 00:58 G	34209900.44	34209900.54	34209900.65	0.0515	0.0410
Venus	88953-01-16 16:48 G	34210492.17	34210492.20	34210492.24	0.0528	0.0517

Venus	88953-09-11 08:39 G	34210729.66	34210729.86	34210730.06	0.0531	0.0043
Mercury	88956-10-27 07:27 G	34211871.74	34211871.81	34211871.87	0.0514	0.0434
Mercury	88957-01-24 12:29 G	34211960.90	34211961.02	34211961.13	0.0512	0.0246
Venus	88958-11-24 18:00 G	34212630.16	34212630.25	34212630.35	0.0497	0.0439
Venus	88959-07-19 02:53 G	34212866.42	34212866.62	34212866.83	0.0495	0.0029
Venus	88960-03-11 06:43 G	34213102.74	34213102.78	34213102.83	0.0495	0.0483
Mars	88963-03-06 12:15 G	34214192.91	34214193.01	34214193.12	0.0514	0.0463
Mercury	88963-03-23 22:34 G	34214210.28	34214210.44	34214210.62	0.0514	0.0176
Venus	88965-05-17 01:55 G	34214995.39	34214995.58	34214995.78	0.0531	0.0115
Venus	88966-01-09 22:05 G	34215233.32	34215233.42	34215233.52	0.0531	0.0461
Mercury	88968-11-12 16:19 G	34216271.06	34216271.18	34216271.31	0.0512	0.0070
Venus	88971-03-24 01:55 G	34217132.38	34217132.58	34217132.78	0.0496	0.0106
Venus	88971-11-15 07:12 G	34217368.67	34217368.80	34217368.95	0.0495	0.0357
Earth	88973-01-18 00:43 G	34217798.44	34217798.53	34217798.64	0.0498	0.0450
Moon	88973-01-18 04:34 G	34217798.57	34217798.69	34217798.82	0.0498	0.0420 *
Mercury	88975-01-09 19:55 G	34218520.15	34218520.33	34218520.51	0.0514	0.0066
Venus	88977-01-19 18:43 G	34219261.11	34219261.28	34219261.46	0.0530	0.0271
Venus	88977-09-14 12:58 G	34219498.88	34219499.04	34219499.21	0.0531	0.0304
Mercury	88980-08-31 20:53 G	34220581.24	34220581.37	34220581.49	0.0512	0.0101
Venus	88982-11-27 02:53 G	34221398.44	34221398.62	34221398.81	0.0496	0.0236
Venus	88983-07-21 09:51 G	34221634.73	34221634.91	34221635.09	0.0495	0.0231
Moon	88985-01-22 09:07 G	34222185.64	34222185.88	34222186.12	0.0499	0.0008
Earth	88985-01-22 12:58 G	34222185.80	34222186.04	34222186.27	0.0499	0.0012 *
Mercury	88986-10-28 16:48 G	34222830.05	34222830.20	34222830.34	0.0513	0.0314
Venus	88988-09-24 09:51 G	34223526.79	34223526.91	34223527.03	0.0529	0.0426
Venus	88989-05-20 02:10 G	34223764.39	34223764.59	34223764.78	0.0531	0.0141
Mercury	88992-06-20 01:12 G	34224891.44	34224891.55	34224891.66	0.0513	0.0270
Mercury	88992-09-17 06:15 G	34224980.68	34224980.76	34224980.84	0.0511	0.0410
Venus	88994-08-02 04:19 G	34225664.54	34225664.68	34225664.82	0.0497	0.0364
Venus	88995-03-26 12:43 G	34225900.83	34225901.03	34225901.23	0.0495	0.0106

Earth	88997-01-27 00:43 G	34226573.42	34226573.53	34226573.65	0.0499	0.0431
Moon	88997-01-27 03:36 G	34226573.53	34226573.65	34226573.79	0.0499	0.0411 *
Mercury	88998-11-15 00:00 G	34227230.40	34227230.50	34227230.60	0.0515	0.0431

90TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 90th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	89001-01-23 16:48 G		34228029.99	34228030.20	34228030.40	0.0531	0.0023	
Moon	89002-07-16 20:39 G		34228569.33	34228569.36	34228569.41	0.0529	0.0520	
Earth	89002-07-16 22:05 G		34228569.42	34228569.42	34228569.44	0.0529	0.0528	
Mercury	89004-04-09 05:46 G		34229201.67	34229201.74	34229201.81	0.0514	0.0434	
Mercury	89004-07-07 10:48 G		34229290.83	34229290.95	34229291.06	0.0512	0.0245	
Venus	89006-04-08 05:03 G		34229930.68	34229930.71	34229930.74	0.0498	0.0492	
Venus	89006-11-30 14:39 G		34230166.91	34230167.11	34230167.32	0.0495	0.0024	
Venus	89007-07-24 19:12 G		34230403.21	34230403.30	34230403.40	0.0495	0.0434	
Mercury	89010-09-03 20:39 G		34231540.19	34231540.36	34231540.53	0.0514	0.0178	
Venus	89012-09-28 08:24 G		34232295.66	34232295.85	34232296.04	0.0530	0.0182	
Venus	89013-05-24 03:51 G		34232533.53	34232533.66	34232533.79	0.0532	0.0396	
Moon	89014-07-21 23:03 G		34232957.23	34232957.46	34232957.68	0.0528	0.0025	
Earth	89014-07-22 00:15 G		34232957.28	34232957.51	34232957.74	0.0528	0.0009 *	
Mercury	89016-04-25 15:22 G		34233601.01	34233601.14	34233601.27	0.0512	0.0082	
Venus	89018-08-05 16:05 G		34234432.98	34234433.17	34234433.37	0.0496	0.0154	
Venus	89019-03-29 21:36 G		34234669.25	34234669.40	34234669.57	0.0495	0.0311	

Mercury	89022-06-22 18:00 G	34235850.07	34235850.25	34235850.43	0.0514	0.0061
Venus	89024-06-03 02:10 G	34236561.44	34236561.59	34236561.75	0.0530	0.0336
Venus	89025-01-26 19:55 G	34236799.15	34236799.33	34236799.51	0.0531	0.0238
Mercury	89028-02-12 19:27 G	34237911.19	34237911.31	34237911.44	0.0512	0.0094
Venus	89030-04-10 14:24 G	34238698.93	34238699.10	34238699.27	0.0496	0.0289
Venus	89030-12-02 21:22 G	34238935.21	34238935.39	34238935.59	0.0495	0.0180
Mercury	89034-04-10 14:53 G	34240159.98	34240160.12	34240160.27	0.0513	0.0307
Venus	89036-02-06 19:41 G	34240827.25	34240827.32	34240827.40	0.0529	0.0486
Venus	89036-10-01 11:46 G	34241064.78	34241064.99	34241065.19	0.0531	0.0079
Mercury	89039-12-02 00:00 G	34242221.39	34242221.50	34242221.61	0.0513	0.0262
Mercury	89040-02-29 04:48 G	34242310.63	34242310.70	34242310.78	0.0510	0.0416
Venus	89041-12-14 14:24 G	34242964.99	34242965.10	34242965.21	0.0497	0.0419
Venus	89042-08-07 23:17 G	34243201.27	34243201.47	34243201.67	0.0495	0.0050
Mercury	89046-04-27 22:05 G	34244560.34	34244560.42	34244560.52	0.0515	0.0441
Venus	89048-06-06 00:58 G	34245330.35	34245330.54	34245330.74	0.0530	0.0086
Venus	89049-01-29 20:39 G	34245568.29	34245568.36	34245568.44	0.0531	0.0490
Mercury	89051-09-20 04:05 G	34246531.61	34246531.67	34246531.74	0.0514	0.0435
Mercury	89051-12-18 09:07 G	34246620.77	34246620.88	34246621.00	0.0512	0.0244
Venus	89054-04-13 01:27 G	34247467.36	34247467.56	34247467.76	0.0496	0.0078
Venus	89054-12-05 06:43 G	34247703.66	34247703.78	34247703.91	0.0495	0.0384
Moon	89056-01-19 04:19 G	34248113.62	34248113.68	34248113.76	0.0498	0.0475
Mercury	89058-02-13 19:12 G	34248870.13	34248870.30	34248870.46	0.0514	0.0192
Venus	89060-02-09 16:05 G	34249596.00	34249596.17	34249596.35	0.0530	0.0246
Venus	89060-10-04 10:19 G	34249833.78	34249833.93	34249834.09	0.0531	0.0331
Mercury	89063-10-06 13:41 G	34250930.94	34250931.07	34250931.20	0.0512	0.0077
Venus	89065-12-17 02:39 G	34251733.43	34251733.61	34251733.80	0.0496	0.0209
Venus	89066-08-10 09:07 G	34251969.71	34251969.88	34251970.06	0.0495	0.0258
Earth	89068-01-23 18:15 G	34252501.03	34252501.26	34252501.50	0.0498	0.0074
Moon	89068-01-23 21:22 G	34252501.16	34252501.39	34252501.62	0.0498	0.0057 *
Mercury	89069-12-02 15:22 G	34253179.97	34253180.14	34253180.32	0.0513	0.0067

Venus	89071-10-15 08:10 G	34253861.71	34253861.84	34253861.97	0.0529	0.0402
Venus	89072-06-09 00:43 G	34254099.34	34254099.53	34254099.73	0.0531	0.0170
Mercury	89075-07-25 18:15 G	34255241.13	34255241.26	34255241.39	0.0513	0.0087
Venus	89077-08-22 03:22 G	34255999.49	34255999.64	34255999.79	0.0497	0.0339
Venus	89078-04-15 11:03 G	34256235.77	34256235.96	34256236.16	0.0495	0.0131
Moon	89080-01-28 03:22 G	34256888.47	34256888.64	34256888.82	0.0499	0.0338
Earth	89080-01-28 05:17 G	34256888.56	34256888.72	34256888.88	0.0499	0.0362 *
Mercury	89081-09-20 12:29 G	34257489.88	34257490.02	34257490.17	0.0513	0.0310
Venus	89084-02-12 17:31 G	34258365.03	34258365.23	34258365.43	0.0531	0.0009
Mercury	89087-05-13 22:34 G	34259551.33	34259551.44	34259551.55	0.0513	0.0258
Mercury	89087-08-11 03:36 G	34259640.57	34259640.65	34259640.72	0.0510	0.0420
Venus	89089-04-27 00:58 G	34260265.48	34260265.54	34260265.61	0.0497	0.0472
Venus	89089-12-19 10:19 G	34260501.72	34260501.93	34260502.13	0.0495	0.0008
Venus	89090-08-12 14:39 G	34260738.04	34260738.11	34260738.19	0.0495	0.0453
Mercury	89093-10-07 19:55 G	34261890.24	34261890.33	34261890.42	0.0515	0.0440
Venus	89095-10-18 09:36 G	34262630.71	34262630.90	34262631.10	0.0530	0.0150
Venus	89096-06-12 05:03 G	34262868.60	34262868.71	34262868.83	0.0531	0.0428
Earth	89097-07-21 04:05 G	34263272.44	34263272.67	34263272.90	0.0527	0.0066
Moon	89097-07-21 06:43 G	34263272.55	34263272.78	34263273.02	0.0527	0.0100 *
Mercury	89099-03-02 02:53 G	34263861.55	34263861.62	34263861.69	0.0513	0.0428
Mercury	89099-05-30 07:41 G	34263950.71	34263950.82	34263950.94	0.0511	0.0248
Venus	89101-08-25 11:17 G	34264767.77	34264767.97	34264768.17	0.0496	0.0135
Venus	89102-04-18 17:03 G	34265004.06	34265004.21	34265004.36	0.0495	0.0330
Mercury	89105-07-27 16:48 G	34266200.03	34266200.20	34266200.37	0.0514	0.0191
Venus	89107-06-23 23:46 G	34266896.33	34266896.49	34266896.66	0.0529	0.0310
Venus	89108-02-16 17:17 G	34267134.05	34267134.22	34267134.40	0.0531	0.0265
Moon	89109-07-26 20:24 G	34267660.22	34267660.35	34267660.48	0.0527	0.0435
Earth	89109-07-27 00:00 G	34267660.37	34267660.50	34267660.62	0.0527	0.0441 *
Mercury	89111-03-19 11:46 G	34268260.87	34268260.99	34268261.12	0.0512	0.0074
Venus	89113-04-30 12:29 G	34269033.85	34269034.02	34269034.19	0.0497	0.0265

Venus	89113-12-22 19:41 G	34269270.14	34269270.32	34269270.51	0.0495	0.0205
Mercury	89117-05-15 13:27 G	34270509.88	34270510.06	34270510.24	0.0513	0.0061
Mars	89117-06-01 07:12 G	34270526.55	34270526.80	34270527.05	0.0514	0.0088
Venus	89119-02-26 15:36 G	34271162.06	34271162.15	34271162.25	0.0528	0.0464
Venus	89119-10-22 07:12 G	34271399.60	34271399.80	34271400.00	0.0531	0.0102
Mercury	89123-01-05 16:19 G	34272571.05	34272571.18	34272571.30	0.0513	0.0096
Venus	89125-01-03 12:43 G	34273299.91	34273300.03	34273300.16	0.0497	0.0396
Venus	89125-08-27 21:36 G	34273536.20	34273536.40	34273536.60	0.0495	0.0076
Mercury	89129-03-03 09:36 G	34274819.76	34274819.90	34274820.04	0.0513	0.0320
Venus	89131-06-26 21:51 G	34275665.21	34275665.41	34275665.61	0.0531	0.0063
Venus	89132-02-19 18:00 G	34275903.21	34275903.25	34275903.30	0.0532	0.0515
Mercury	89134-10-24 20:53 G	34276881.26	34276881.37	34276881.48	0.0513	0.0261
Mercury	89135-01-22 01:55 G	34276970.51	34276970.58	34276970.65	0.0511	0.0419
Venus	89137-05-02 22:48 G	34277802.25	34277802.45	34277802.66	0.0495	0.0056
Venus	89137-12-25 03:36 G	34278038.55	34278038.65	34278038.77	0.0495	0.0407
Mercury	89141-03-20 17:03 G	34279220.12	34279220.21	34279220.31	0.0515	0.0430
Venus	89143-03-01 14:53 G	34279930.93	34279931.12	34279931.30	0.0530	0.0220
Venus	89143-10-25 09:36 G	34280168.76	34280168.90	34280169.05	0.0532	0.0360
Mercury	89146-08-13 01:12 G	34281191.48	34281191.55	34281191.62	0.0513	0.0429
Mercury	89146-11-10 06:00 G	34281280.64	34281280.75	34281280.87	0.0511	0.0248
Venus	89149-01-05 21:36 G	34282068.21	34282068.40	34282068.59	0.0496	0.0190
Venus	89149-08-30 03:36 G	34282304.48	34282304.65	34282304.82	0.0495	0.0277
Moon	89151-01-23 15:36 G	34282815.93	34282816.15	34282816.39	0.0498	0.0147
Earth	89151-01-23 17:46 G	34282816.02	34282816.24	34282816.47	0.0498	0.0161 *
Mercury	89153-01-06 13:55 G	34283529.91	34283530.08	34283530.25	0.0515	0.0180
Venus	89154-11-04 07:41 G	34284196.68	34284196.82	34284196.96	0.0529	0.0375
Venus	89155-06-30 00:43 G	34284434.34	34284434.53	34284434.72	0.0531	0.0200
Mercury	89158-08-29 10:19 G	34285590.81	34285590.93	34285591.06	0.0512	0.0077
Venus	89160-09-10 21:36 G	34286334.25	34286334.40	34286334.56	0.0496	0.0322
Venus	89161-05-05 05:17 G	34286570.53	34286570.72	34286570.92	0.0495	0.0150

Earth	89163-01-28 05:17 G	34287203.53	34287203.72	34287203.91	0.0499	0.0277
Moon	89163-01-28 05:17 G	34287203.53	34287203.72	34287203.92	0.0499	0.0253 *
Mercury	89164-10-25 10:48 G	34287839.77	34287839.95	34287840.13	0.0514	0.0070
Venus	89166-07-09 22:34 G	34288462.44	34288462.44	34288462.46	0.0528	0.0527
Venus	89167-03-04 13:41 G	34288699.87	34288700.07	34288700.27	0.0531	0.0035
Mercury	89170-06-17 14:24 G	34289900.97	34289901.10	34289901.23	0.0513	0.0102
Venus	89172-05-16 21:36 G	34290600.32	34290600.40	34290600.49	0.0498	0.0452
Venus	89173-01-08 07:12 G	34290836.60	34290836.80	34290837.01	0.0495	0.0022
Venus	89173-09-01 12:00 G	34291072.95	34291073.00	34291073.05	0.0495	0.0478
Mercury	89176-08-13 07:27 G	34292149.67	34292149.81	34292149.95	0.0513	0.0321
Venus	89178-11-07 04:05 G	34292965.47	34292965.67	34292965.87	0.0530	0.0129
Venus	89179-07-02 23:03 G	34293203.36	34293203.46	34293203.57	0.0531	0.0449
Moon	89180-07-20 18:43 G	34293587.07	34293587.28	34293587.48	0.0528	0.0225
Earth	89180-07-20 21:51 G	34293587.20	34293587.41	34293587.63	0.0528	0.0188 *
Mercury	89182-04-05 18:43 G	34294211.17	34294211.28	34294211.39	0.0513	0.0273
Mercury	89182-07-03 23:46 G	34294300.42	34294300.49	34294300.57	0.0511	0.0407
Venus	89184-09-13 08:39 G	34295102.66	34295102.86	34295103.06	0.0496	0.0112
Venus	89185-05-07 14:24 G	34295338.96	34295339.10	34295339.24	0.0495	0.0354
Mercury	89188-08-30 13:55 G	34296549.98	34296550.08	34296550.19	0.0514	0.0416
Venus	89190-07-12 18:58 G	34297231.12	34297231.29	34297231.46	0.0530	0.0291
Venus	89191-03-07 12:43 G	34297468.86	34297469.03	34297469.20	0.0531	0.0288
Earth	89192-07-25 21:36 G	34297975.23	34297975.40	34297975.58	0.0527	0.0340
Moon	89192-07-26 01:27 G	34297975.39	34297975.56	34297975.74	0.0527	0.0342 *
Mercury	89194-01-22 23:17 G	34298521.41	34298521.47	34298521.54	0.0514	0.0438
Mercury	89194-04-22 04:19 G	34298610.56	34298610.68	34298610.79	0.0512	0.0241
Venus	89196-05-19 09:07 G	34299368.70	34299368.88	34299369.06	0.0496	0.0243
Venus	89197-01-10 16:05 G	34299604.98	34299605.17	34299605.35	0.0495	0.0227
Mercury	89200-06-18 11:03 G	34300859.79	34300859.96	34300860.13	0.0514	0.0168
Venus	89202-03-17 12:15 G	34301496.91	34301497.01	34301497.12	0.0529	0.0444
Venus	89202-11-10 04:34 G	34301734.50	34301734.69	34301734.89	0.0531	0.0128

Mercury	89206-02-08 08:39 G	34302920.73	34302920.86	34302920.99	0.0512	0.0072
Venus	89208-01-23 07:12 G	34303634.68	34303634.80	34303634.94	0.0497	0.0377
Venus	89208-09-15 15:36 G	34303870.95	34303871.15	34303871.36	0.0495	0.0095
Mercury	89212-04-06 07:27 G	34305169.63	34305169.81	34305169.99	0.0514	0.0087
Venus	89214-07-15 20:10 G	34306000.14	34306000.34	34306000.54	0.0531	0.0034
Mercury	89217-11-27 12:58 G	34307230.91	34307231.04	34307231.17	0.0512	0.0099
Venus	89220-05-21 16:48 G	34308136.99	34308137.20	34308137.40	0.0495	0.0038
Venus	89221-01-12 21:36 G	34308373.30	34308373.40	34308373.50	0.0495	0.0425
Mercury	89224-01-24 04:05 G	34309479.54	34309479.67	34309479.81	0.0513	0.0337
Venus	89226-03-20 10:05 G	34310265.74	34310265.92	34310266.11	0.0530	0.0198
Venus	89226-11-13 04:34 G	34310503.55	34310503.69	34310503.83	0.0531	0.0382
Mercury	89229-09-15 16:48 G	34311541.10	34311541.20	34311541.31	0.0513	0.0280
Mercury	89229-12-13 21:51 G	34311630.33	34311630.41	34311630.49	0.0511	0.0398
Venus	89232-01-25 17:31 G	34312403.04	34312403.23	34312403.43	0.0496	0.0169
Venus	89232-09-18 00:15 G	34312639.35	34312639.51	34312639.67	0.0495	0.0301
Earth	89234-01-22 20:53 G	34313131.17	34313131.37	34313131.58	0.0498	0.0236
Moon	89234-01-22 21:07 G	34313131.18	34313131.38	34313131.58	0.0498	0.0229 *
Mercury	89236-02-10 11:46 G	34313879.88	34313879.99	34313880.09	0.0514	0.0413
Venus	89237-11-23 01:27 G	34314531.42	34314531.56	34314531.71	0.0529	0.0356
Venus	89238-07-18 18:00 G	34314769.07	34314769.25	34314769.44	0.0531	0.0219
Mercury	89241-07-04 21:07 G	34315851.32	34315851.38	34315851.44	0.0514	0.0452
Mercury	89241-10-02 02:10 G	34315940.47	34315940.59	34315940.70	0.0512	0.0227
Venus	89243-09-30 18:15 G	34316669.10	34316669.26	34316669.42	0.0497	0.0301
Venus	89244-05-24 02:10 G	34316905.40	34316905.59	34316905.78	0.0495	0.0172
Earth	89246-01-27 06:43 G	34317518.57	34317518.78	34317519.00	0.0498	0.0197
Moon	89246-01-27 08:39 G	34317518.63	34317518.86	34317519.09	0.0498	0.0167 *
Mercury	89247-11-29 07:55 G	34318189.66	34318189.83	34318190.00	0.0514	0.0153
Venus	89249-07-28 17:03 G	34318797.16	34318797.21	34318797.26	0.0528	0.0510
Venus	89250-03-23 07:55 G	34319034.63	34319034.83	34319035.04	0.0531	0.0055
Mercury	89253-07-21 06:29 G	34320250.65	34320250.77	34320250.90	0.0512	0.0062

Venus	89255-06-05 18:00 G	34320935.15	34320935.25	34320935.35	0.0497	0.0431
Venus	89256-01-28 03:22 G	34321171.43	34321171.64	34321171.84	0.0495	0.0042
Mercury	89259-09-17 04:34 G	34322499.51	34322499.69	34322499.87	0.0513	0.0099
Venus	89261-11-26 00:00 G	34323300.31	34323300.50	34323300.70	0.0531	0.0108
Venus	89262-07-21 19:55 G	34323538.24	34323538.33	34323538.42	0.0532	0.0474
Earth	89263-07-20 21:22 G	34323902.20	34323902.39	34323902.59	0.0528	0.0282
Moon	89263-07-21 01:12 G	34323902.36	34323902.55	34323902.74	0.0528	0.0315 *
Mercury	89265-05-09 11:03 G	34324560.84	34324560.96	34324561.09	0.0513	0.0106
Venus	89267-10-03 02:53 G	34325437.42	34325437.62	34325437.82	0.0495	0.0092
Venus	89268-05-26 08:10 G	34325673.71	34325673.84	34325673.97	0.0494	0.0372
Mercury	89271-07-06 00:43 G	34326809.40	34326809.53	34326809.66	0.0513	0.0356
Mars	89271-08-25 09:07 G	34326859.65	34326859.88	34326860.12	0.0514	0.0174
Venus	89273-07-31 16:19 G	34327566.01	34327566.18	34327566.36	0.0530	0.0265
Venus	89274-03-26 10:48 G	34327803.79	34327803.95	34327804.12	0.0532	0.0317
Moon	89275-07-25 18:43 G	34328290.07	34328290.28	34328290.49	0.0527	0.0251
Earth	89275-07-25 22:05 G	34328290.22	34328290.42	34328290.63	0.0527	0.0246 *
Mercury	89277-02-25 15:22 G	34328871.04	34328871.14	34328871.25	0.0513	0.0276
Mercury	89277-05-25 20:24 G	34328960.27	34328960.35	34328960.43	0.0511	0.0402
Venus	89279-06-08 03:07 G	34329703.45	34329703.63	34329703.82	0.0496	0.0225
Venus	89280-01-30 09:51 G	34329939.74	34329939.91	34329940.09	0.0494	0.0246
Mercury	89283-07-23 08:24 G	34331209.74	34331209.85	34331209.97	0.0515	0.0397
Venus	89285-04-05 07:41 G	34331831.71	34331831.82	34331831.94	0.0529	0.0423
Venus	89285-11-28 23:31 G	34332069.29	34332069.48	34332069.68	0.0531	0.0150
Mercury	89288-12-14 19:12 G	34333181.25	34333181.30	34333181.36	0.0514	0.0459
Mercury	89289-03-14 00:15 G	34333270.39	34333270.51	34333270.62	0.0512	0.0219
Venus	89291-02-11 02:53 G	34333969.48	34333969.62	34333969.77	0.0497	0.0358
Venus	89291-10-05 12:00 G	34334205.80	34334206.00	34334206.20	0.0495	0.0117
Mercury	89295-05-11 05:31 G	34335519.56	34335519.73	34335519.90	0.0514	0.0150
Venus	89297-08-03 13:55 G	34336334.88	34336335.08	34336335.28	0.0530	0.0014
Mercury	89301-01-01 04:34 G	34337580.56	34337580.69	34337580.81	0.0512	0.0050

Venus	89302-10-18 02:39 G	34338235.58	34338235.61	34338235.65	0.0498	0.0489
Venus	89303-06-11 13:12 G	34338471.84	34338472.05	34338472.25	0.0495	0.0016
Venus	89304-02-02 18:15 G	34338708.18	34338708.26	34338708.35	0.0495	0.0447
Mercury	89307-02-28 01:41 G	34339829.39	34339829.57	34339829.75	0.0513	0.0110
Venus	89309-04-09 04:19 G	34340600.49	34340600.68	34340600.87	0.0530	0.0179
Venus	89309-12-02 23:03 G	34340838.33	34340838.46	34340838.59	0.0531	0.0403
Mercury	89312-10-20 08:53 G	34341890.75	34341890.87	34341891.00	0.0513	0.0121
Venus	89315-02-14 13:55 G	34342737.88	34342738.08	34342738.28	0.0496	0.0147
Venus	89315-10-08 20:10 G	34342974.19	34342974.34	34342974.50	0.0495	0.0323
Earth	89317-01-22 21:07 G	34343446.20	34343446.38	34343446.56	0.0497	0.0321
Moon	89317-01-22 22:34 G	34343446.26	34343446.44	34343446.63	0.0497	0.0322 *
Mercury	89318-12-16 22:05 G	34344139.29	34344139.42	34344139.55	0.0513	0.0364
Venus	89320-12-12 20:53 G	34344866.22	34344866.37	34344866.53	0.0529	0.0336
Venus	89321-08-07 14:10 G	34345103.91	34345104.09	34345104.27	0.0532	0.0244
Mercury	89324-08-08 13:41 G	34346200.96	34346201.07	34346201.18	0.0513	0.0283
Mercury	89324-11-05 18:29 G	34346290.19	34346290.27	34346290.36	0.0511	0.0396
Venus	89326-10-20 13:27 G	34347003.89	34347004.06	34347004.23	0.0496	0.0280
Venus	89327-06-13 20:39 G	34347240.17	34347240.36	34347240.55	0.0494	0.0192
Moon	89329-01-27 01:55 G	34347833.35	34347833.58	34347833.81	0.0498	0.0068
Earth	89329-01-27 04:48 G	34347833.48	34347833.70	34347833.93	0.0498	0.0101 *
Mercury	89331-01-03 05:17 G	34348539.60	34348539.72	34348539.84	0.0515	0.0379
Venus	89332-08-17 13:55 G	34349132.02	34349132.08	34349132.16	0.0529	0.0489
Venus	89333-04-12 05:46 G	34349369.54	34349369.74	34349369.94	0.0531	0.0082
Mercury	89336-05-27 18:00 G	34350511.20	34350511.25	34350511.31	0.0514	0.0451
Mars	89336-07-23 02:53 G	34350567.36	34350567.62	34350567.89	0.0512	0.0251
Mercury	89336-08-24 22:48 G	34350600.34	34350600.45	34350600.57	0.0511	0.0227
Venus	89338-06-25 13:12 G	34351269.94	34351270.05	34351270.17	0.0497	0.0412
Venus	89339-02-16 22:05 G	34351506.22	34351506.42	34351506.63	0.0495	0.0062
Mercury	89342-10-22 02:24 G	34352849.43	34352849.60	34352849.78	0.0514	0.0136
Venus	89344-12-15 19:55 G	34353635.13	34353635.33	34353635.53	0.0530	0.0084

Venus	89345-08-10 15:07 G	34353873.07	34353873.13	34353873.20	0.0531	0.0497
Moon	89346-07-20 11:46 G	34354216.87	34354216.99	34354217.12	0.0528	0.0438
Earth	89346-07-20 15:36 G	34354217.00	34354217.15	34354217.30	0.0528	0.0404 *
Mercury	89348-06-13 02:39 G	34354910.48	34354910.61	34354910.74	0.0512	0.0042
Venus	89350-10-22 23:03 G	34355772.26	34355772.46	34355772.66	0.0496	0.0071
Venus	89351-06-16 04:48 G	34356008.58	34356008.70	34356008.83	0.0495	0.0396
Mercury	89354-08-09 23:31 G	34357159.30	34357159.48	34357159.66	0.0513	0.0108
Venus	89356-08-20 11:17 G	34357900.80	34357900.97	34357901.16	0.0529	0.0246
Venus	89357-04-15 05:03 G	34358138.55	34358138.71	34358138.87	0.0531	0.0336
Earth	89358-07-25 14:10 G	34358604.86	34358605.09	34358605.32	0.0528	0.0115
Moon	89358-07-25 16:34 G	34358604.98	34358605.19	34358605.41	0.0528	0.0129 *
Mercury	89360-04-01 06:58 G	34359220.67	34359220.79	34359220.91	0.0513	0.0130
Venus	89362-06-27 23:46 G	34360038.30	34360038.49	34360038.68	0.0496	0.0204
Venus	89363-02-19 06:58 G	34360274.62	34360274.79	34360274.96	0.0495	0.0269
Mercury	89366-05-28 19:27 G	34361469.19	34361469.31	34361469.44	0.0512	0.0368
Venus	89368-04-25 02:39 G	34362166.48	34362166.61	34362166.74	0.0529	0.0404
Venus	89368-12-18 18:29 G	34362404.08	34362404.27	34362404.46	0.0531	0.0171
Mercury	89372-01-19 11:31 G	34363530.87	34363530.98	34363531.08	0.0514	0.0296
Mercury	89372-04-17 16:34 G	34363620.10	34363620.19	34363620.27	0.0511	0.0384
Venus	89374-03-03 00:00 G	34364304.36	34364304.50	34364304.66	0.0497	0.0337
Venus	89374-10-25 08:39 G	34364540.67	34364540.86	34364541.06	0.0495	0.0140
Mercury	89378-06-15 02:53 G	34365869.50	34365869.62	34365869.74	0.0514	0.0377
Venus	89380-08-23 10:05 G	34366669.72	34366669.92	34366670.13	0.0531	0.0013
Mercury	89383-11-07 16:19 G	34367841.12	34367841.18	34367841.23	0.0514	0.0457
Mercury	89384-02-04 21:07 G	34367930.26	34367930.38	34367930.50	0.0512	0.0221
Venus	89385-11-05 23:31 G	34368570.42	34368570.48	34368570.55	0.0498	0.0467
Venus	89386-06-30 09:07 G	34368806.68	34368806.88	34368807.09	0.0495	0.0010
Venus	89387-02-21 13:41 G	34369043.01	34369043.07	34369043.14	0.0494	0.0469
Mercury	89390-04-02 23:31 G	34370179.30	34370179.48	34370179.65	0.0514	0.0123
Venus	89392-04-28 02:24 G	34370935.41	34370935.60	34370935.80	0.0530	0.0152

Venus	89392-12-21 21:51 G	34371173.29	34371173.41	34371173.52	0.0532	0.0433
Mercury	89395-11-24 01:27 G	34372240.44	34372240.56	34372240.69	0.0512	0.0056
Venus	89398-03-05 10:05 G	34373072.73	34373072.92	34373073.13	0.0496	0.0126
Venus	89398-10-27 16:19 G	34373309.03	34373309.18	34373309.32	0.0494	0.0345
Moon	89400-01-22 19:41 G	34373761.19	34373761.32	34373761.45	0.0497	0.0410
Earth	89400-01-22 22:34 G	34373761.31	34373761.44	34373761.58	0.0497	0.0403 *
Mercury	89402-01-20 20:39 G	34374489.18	34374489.36	34374489.54	0.0513	0.0119
Venus	89404-01-02 18:15 G	34375201.10	34375201.26	34375201.42	0.0529	0.0312
Venus	89404-08-27 11:03 G	34375438.79	34375438.96	34375439.13	0.0531	0.0268
Mercury	89407-09-13 05:17 G	34376550.60	34376550.72	34376550.85	0.0513	0.0132
Venus	89409-11-09 09:51 G	34377338.74	34377338.91	34377339.09	0.0497	0.0261
Venus	89410-07-03 17:46 G	34377575.06	34377575.24	34377575.43	0.0495	0.0216
Earth	89412-01-28 11:03 G	34378148.72	34378148.96	34378149.19	0.0498	0.0039
Moon	89412-01-28 14:53 G	34378148.88	34378149.12	34378149.35	0.0498	0.0007 *
Mercury	89413-11-08 17:46 G	34378799.12	34378799.24	34378799.37	0.0512	0.0361
Venus	89415-09-07 11:03 G	34379466.88	34379466.96	34379467.06	0.0528	0.0467
Venus	89416-05-02 01:55 G	34379704.38	34379704.58	34379704.78	0.0531	0.0105
Mercury	89419-07-02 09:36 G	34380860.80	34380860.90	34380861.01	0.0514	0.0303
Mercury	89419-09-29 14:39 G	34380950.02	34380950.11	34380950.20	0.0511	0.0376
Venus	89421-07-15 09:51 G	34381604.79	34381604.91	34381605.04	0.0498	0.0394
Venus	89422-03-08 19:41 G	34381841.12	34381841.32	34381841.52	0.0495	0.0085
Moon	89424-02-01 17:46 G	34382536.16	34382536.24	34382536.33	0.0499	0.0462
Earth	89424-02-01 21:51 G	34382536.34	34382536.41	34382536.48	0.0499	0.0474
Mars	89425-11-19 20:53 G	34383193.31	34383193.37	34383193.44	0.0514	0.0492
Mercury	89425-11-26 00:58 G	34383199.42	34383199.54	34383199.66	0.0514	0.0380
Venus	89428-01-05 16:05 G	34383969.97	34383970.17	34383970.37	0.0530	0.0062
Venus	89428-08-30 11:17 G	34384207.94	34384207.97	34384208.01	0.0531	0.0521
Earth	89429-07-20 12:58 G	34384531.99	34384532.04	34384532.11	0.0529	0.0508
Mercury	89431-04-20 14:10 G	34385171.04	34385171.09	34385171.15	0.0515	0.0468
Mercury	89431-07-18 19:12 G	34385260.18	34385260.30	34385260.42	0.0512	0.0211

Venus	89433-11-11 21:07 G	34386107.17	34386107.38	34386107.58	0.0496	0.0047
Venus	89434-07-06 02:39 G	34386343.51	34386343.61	34386343.72	0.0495	0.0420
Mercury	89437-09-13 21:36 G	34387509.23	34387509.40	34387509.58	0.0513	0.0130
Venus	89439-09-10 08:24 G	34388235.67	34388235.85	34388236.03	0.0530	0.0222
Venus	89440-05-05 02:39 G	34388473.46	34388473.61	34388473.75	0.0532	0.0363
Moon	89441-07-25 14:10 G	34388919.85	34388920.09	34388920.33	0.0528	0.0042
Earth	89441-07-25 15:51 G	34388919.93	34388920.16	34388920.39	0.0528	0.0030 *
Mercury	89443-05-07 00:00 G	34389570.37	34389570.50	34389570.63	0.0513	0.0051
Venus	89445-07-17 21:36 G	34390373.21	34390373.40	34390373.59	0.0496	0.0180
Venus	89446-03-11 04:05 G	34390609.51	34390609.67	34390609.84	0.0494	0.0293
Mercury	89449-07-02 18:00 G	34391819.08	34391819.25	34391819.43	0.0513	0.0125
Venus	89451-05-16 01:27 G	34392501.43	34392501.56	34392501.71	0.0529	0.0379
Venus	89452-01-08 18:00 G	34392739.07	34392739.25	34392739.44	0.0532	0.0203
Mercury	89455-02-23 04:34 G	34393880.56	34393880.69	34393880.81	0.0513	0.0116
Venus	89457-03-22 22:05 G	34394639.27	34394639.42	34394639.59	0.0497	0.0313
Venus	89457-11-14 06:15 G	34394875.57	34394875.76	34394875.96	0.0495	0.0165
Mercury	89461-04-20 15:22 G	34396129.02	34396129.14	34396129.27	0.0513	0.0364
Venus	89463-09-13 09:07 G	34397004.67	34397004.88	34397005.08	0.0530	0.0037
Mercury	89466-12-12 08:10 G	34398190.74	34398190.84	34398190.95	0.0514	0.0301
Mercury	89467-03-11 13:12 G	34398279.96	34398280.05	34398280.13	0.0511	0.0379
Venus	89468-11-25 20:24 G	34398905.27	34398905.35	34398905.45	0.0498	0.0449
Venus	89469-07-20 06:58 G	34399141.58	34399141.79	34399141.99	0.0496	0.0030
Venus	89470-03-13 12:15 G	34399378.01	34399378.01	34399378.02	0.0495	0.0494
Mercury	89473-05-07 23:46 G	34400529.38	34400529.49	34400529.60	0.0514	0.0396
Venus	89475-05-19 00:58 G	34401270.35	34401270.54	34401270.74	0.0530	0.0126
Venus	89476-01-11 19:12 G	34401508.20	34401508.30	34401508.40	0.0531	0.0458
Mercury	89478-09-30 12:43 G	34402500.98	34402501.03	34402501.08	0.0514	0.0470
Mercury	89478-12-28 17:31 G	34402590.11	34402590.23	34402590.35	0.0512	0.0209
Venus	89481-03-25 08:24 G	34403407.65	34403407.85	34403408.05	0.0496	0.0103
Venus	89481-11-16 14:53 G	34403643.99	34403644.12	34403644.26	0.0495	0.0370

Earth	89483-01-23 06:15 G	34404076.67	34404076.76	34404076.86	0.0497	0.0455
Moon	89483-01-23 10:19 G	34404076.84	34404076.93	34404077.01	0.0497	0.0463 *
Mercury	89485-02-23 20:10 G	34404839.17	34404839.34	34404839.52	0.0513	0.0143
Venus	89487-01-21 16:05 G	34405536.00	34405536.17	34405536.34	0.0529	0.0288
Venus	89487-09-16 08:53 G	34405773.70	34405773.87	34405774.04	0.0531	0.0294
Mercury	89490-10-16 22:05 G	34406900.29	34406900.42	34406900.55	0.0513	0.0044
Mars	89490-10-17 07:41 G	34406900.53	34406900.82	34406901.11	0.0513	0.0148 *
Venus	89492-11-28 09:22 G	34407673.71	34407673.89	34407674.07	0.0497	0.0235
Venus	89493-07-22 17:03 G	34407910.04	34407910.21	34407910.39	0.0495	0.0243
Moon	89495-01-27 13:12 G	34408463.82	34408464.05	34408464.29	0.0498	0.0057
Earth	89495-01-27 17:17 G	34408463.98	34408464.22	34408464.45	0.0498	0.0024 *
Mercury	89496-12-12 16:48 G	34409149.03	34409149.20	34409149.38	0.0513	0.0108
Venus	89498-09-26 09:22 G	34409801.78	34409801.89	34409802.00	0.0528	0.0443
Venus	89499-05-22 00:29 G	34410039.32	34410039.52	34410039.71	0.0531	0.0133
Mercury	89502-08-06 02:53 G	34411210.50	34411210.62	34411210.75	0.0513	0.0116
Venus	89504-08-04 09:51 G	34411939.77	34411939.91	34411940.05	0.0497	0.0367
Venus	89505-03-28 18:43 G	34412176.08	34412176.28	34412176.48	0.0495	0.0112
Earth	89507-02-02 02:39 G	34412851.48	34412851.61	34412851.75	0.0499	0.0405
Moon	89507-02-02 05:46 G	34412851.61	34412851.74	34412851.87	0.0499	0.0405 *
Mercury	89508-10-01 13:12 G	34413458.93	34413459.05	34413459.18	0.0512	0.0362
Venus	89511-01-25 16:48 G	34414305.00	34414305.20	34414305.40	0.0531	0.0030
Mercury	89514-05-25 07:41 G	34415520.71	34415520.82	34415520.92	0.0514	0.0279
Mercury	89514-08-22 12:29 G	34415609.94	34415610.02	34415610.10	0.0511	0.0400
Venus	89516-12-01 20:24 G	34416442.15	34416442.35	34416442.56	0.0495	0.0022
Venus	89517-07-26 01:41 G	34416678.49	34416678.57	34416678.66	0.0495	0.0447
Mercury	89520-10-18 21:51 G	34417859.30	34417859.41	34417859.52	0.0514	0.0401
Venus	89522-09-30 09:22 G	34418570.71	34418570.89	34418571.08	0.0529	0.0193
Venus	89523-05-26 03:07 G	34418808.50	34418808.63	34418808.77	0.0531	0.0393
Earth	89524-07-25 17:46 G	34419235.00	34419235.24	34419235.47	0.0528	0.0056
Moon	89524-07-25 18:00 G	34419235.02	34419235.25	34419235.47	0.0528	0.0041 *

Mercury	89526-03-13 11:17 G	34419830.92	34419830.97	34419831.03	0.0514	0.0462
Mercury	89526-06-10 16:19 G	34419920.06	34419920.18	34419920.29	0.0512	0.0216
Venus	89528-08-06 19:55 G	34420708.14	34420708.33	34420708.53	0.0497	0.0158
Venus	89529-03-31 03:22 G	34420944.49	34420944.64	34420944.80	0.0495	0.0319
Mercury	89532-08-06 19:27 G	34422169.14	34422169.31	34422169.48	0.0514	0.0166
Venus	89534-06-05 02:39 G	34422836.46	34422836.61	34422836.76	0.0528	0.0349
Venus	89535-01-28 18:15 G	34423074.08	34423074.26	34423074.44	0.0531	0.0231
Earth	89536-07-30 17:17 G	34423623.12	34423623.22	34423623.33	0.0527	0.0468
Moon	89536-07-30 19:12 G	34423623.23	34423623.30	34423623.39	0.0527	0.0495 *
Mercury	89538-03-29 20:39 G	34424230.23	34424230.36	34424230.49	0.0513	0.0047
Venus	89540-04-11 20:39 G	34424974.20	34424974.36	34424974.53	0.0497	0.0292
Venus	89540-12-04 05:31 G	34425210.55	34425210.73	34425210.93	0.0495	0.0191
Mars	89544-05-13 04:19 G	34426466.51	34426466.68	34426466.87	0.0512	0.0355
Mercury	89544-05-25 16:05 G	34426478.99	34426479.17	34426479.35	0.0513	0.0086
Venus	89546-02-07 18:58 G	34427102.23	34427102.29	34427102.35	0.0527	0.0504
Venus	89546-10-03 08:39 G	34427339.66	34427339.86	34427340.06	0.0530	0.0065
Mercury	89550-01-16 01:12 G	34428540.43	34428540.55	34428540.68	0.0514	0.0119
Venus	89551-12-16 21:22 G	34429240.29	34429240.39	34429240.50	0.0498	0.0423
Venus	89552-08-09 07:41 G	34429476.62	34429476.82	34429477.03	0.0496	0.0060
Mercury	89556-03-13 12:29 G	34430788.89	34430789.02	34430789.16	0.0512	0.0336
Venus	89558-06-08 00:43 G	34431605.34	34431605.53	34431605.73	0.0530	0.0097
Venus	89559-01-31 19:27 G	34431843.24	34431843.31	34431843.39	0.0531	0.0489
Mercury	89561-11-04 06:15 G	34432850.65	34432850.76	34432850.87	0.0514	0.0275
Mercury	89562-02-01 11:17 G	34432939.89	34432939.97	34432940.04	0.0512	0.0405
Venus	89564-04-14 09:22 G	34433742.69	34433742.89	34433743.09	0.0496	0.0073
Venus	89564-12-06 15:07 G	34433979.02	34433979.13	34433979.26	0.0495	0.0399
Mercury	89568-03-30 20:10 G	34435189.23	34435189.34	34435189.45	0.0514	0.0410
Venus	89570-02-10 18:00 G	34435871.07	34435871.25	34435871.43	0.0529	0.0257
Venus	89570-10-06 11:17 G	34436108.82	34436108.97	34436109.13	0.0531	0.0330
Mercury	89573-08-23 11:03 G	34437160.89	34437160.96	34437161.02	0.0515	0.0437

Mercury	89573-11-20 15:51 G	34437250.05	34437250.16	34437250.27	0.0512	0.0242
Venus	89575-12-19 10:34 G	34438008.75	34438008.94	34438009.12	0.0497	0.0207
Venus	89576-08-11 17:46 G	34438245.08	34438245.24	34438245.42	0.0495	0.0272
Earth	89578-01-28 02:24 G	34438779.37	34438779.60	34438779.83	0.0498	0.0072
Moon	89578-01-28 05:31 G	34438779.50	34438779.73	34438779.95	0.0498	0.0101 *
Mercury	89580-01-17 18:00 G	34439499.08	34439499.25	34439499.42	0.0514	0.0177
Venus	89581-10-16 12:15 G	34440136.89	34440137.01	34440137.13	0.0528	0.0412
Venus	89582-06-11 03:07 G	34440374.44	34440374.63	34440374.82	0.0531	0.0166
Mercury	89585-09-08 19:41 G	34441560.19	34441560.32	34441560.45	0.0513	0.0059
Venus	89587-08-24 08:53 G	34442274.72	34442274.87	34442275.02	0.0498	0.0345
Venus	89588-04-16 18:29 G	34442511.08	34442511.27	34442511.47	0.0496	0.0138
Moon	89590-02-01 12:58 G	34443166.89	34443167.04	34443167.21	0.0499	0.0377
Earth	89590-02-01 14:53 G	34443166.96	34443167.12	34443167.27	0.0499	0.0370 *
Mercury	89591-11-05 15:36 G	34443808.97	34443809.15	34443809.33	0.0513	0.0056
Venus	89594-02-13 19:27 G	34444640.11	34444640.31	34444640.51	0.0530	0.0008
Mercury	89597-06-28 00:15 G	34445870.38	34445870.51	34445870.63	0.0513	0.0111
Venus	89599-04-29 08:53 G	34446540.82	34446540.87	34446540.93	0.0499	0.0478
Venus	89599-12-21 20:10 G	34446777.14	34446777.34	34446777.55	0.0496	0.0012
Venus	89600-08-14 02:10 G	34447013.54	34447013.59	34447013.66	0.0495	0.0475
Mercury	89603-08-24 12:15 G	34448118.86	34448119.01	34448119.15	0.0512	0.0306
Venus	89605-10-19 10:34 G	34448905.75	34448905.94	34448906.14	0.0529	0.0161
Venus	89606-06-14 04:05 G	34449143.55	34449143.67	34449143.79	0.0531	0.0425
Earth	89607-07-25 22:48 G	34449550.22	34449550.45	34449550.67	0.0528	0.0125
Moon	89607-07-26 00:15 G	34449550.27	34449550.51	34449550.74	0.0528	0.0104 *
Mercury	89609-04-16 04:48 G	34450180.59	34450180.70	34450180.81	0.0514	0.0273
Mercury	89609-07-14 09:36 G	34450269.83	34450269.90	34450269.98	0.0512	0.0408
Venus	89611-08-26 22:05 G	34451043.22	34451043.42	34451043.62	0.0497	0.0127
Venus	89612-04-19 05:17 G	34451279.58	34451279.72	34451279.87	0.0495	0.0349
Mercury	89615-09-10 19:41 G	34452519.24	34452519.32	34452519.42	0.0514	0.0442
Venus	89617-06-24 03:22 G	34453171.49	34453171.64	34453171.81	0.0529	0.0321

Venus	89618-02-16 19:27 G	34453409.14	34453409.31	34453409.49	0.0531	0.0264
Moon	89619-07-30 21:36 G	34453938.27	34453938.40	34453938.53	0.0528	0.0431
Earth	89619-07-31 00:58 G	34453938.40	34453938.54	34453938.69	0.0528	0.0409 *
Mercury	89621-02-02 09:36 G	34454490.84	34454490.90	34454490.97	0.0515	0.0431
Mercury	89621-05-02 14:39 G	34454579.99	34454580.11	34454580.22	0.0512	0.0249
Venus	89623-05-01 23:17 G	34455309.30	34455309.47	34455309.65	0.0497	0.0260
Venus	89623-12-24 07:27 G	34455545.63	34455545.81	34455546.00	0.0495	0.0221
Mercury	89627-06-29 16:34 G	34456829.02	34456829.19	34456829.36	0.0513	0.0193
Venus	89629-02-26 21:22 G	34457437.31	34457437.39	34457437.49	0.0528	0.0474
Venus	89629-10-22 12:00 G	34457674.80	34457675.00	34457675.20	0.0531	0.0102
Mercury	89633-02-18 19:12 G	34458890.18	34458890.30	34458890.43	0.0513	0.0090
Venus	89635-01-04 23:46 G	34459575.37	34459575.49	34459575.62	0.0498	0.0393
Venus	89635-08-29 09:51 G	34459811.71	34459811.91	34459812.11	0.0495	0.0090
Mercury	89639-04-17 14:24 G	34461138.92	34461139.10	34461139.28	0.0513	0.0041
Venus	89641-06-27 05:03 G	34461940.51	34461940.71	34461940.91	0.0530	0.0062
Venus	89642-02-19 23:31 G	34462178.45	34462178.48	34462178.51	0.0531	0.0523
Mercury	89644-12-07 23:17 G	34463200.34	34463200.47	34463200.59	0.0513	0.0095
Venus	89647-05-04 09:22 G	34464077.68	34464077.89	34464078.09	0.0496	0.0049
Venus	89647-12-26 15:51 G	34464314.06	34464314.16	34464314.27	0.0495	0.0426
Mercury	89651-02-03 12:00 G	34465448.84	34465449.00	34465449.15	0.0513	0.0274
Venus	89653-03-01 22:48 G	34466206.26	34466206.45	34466206.63	0.0529	0.0221
Venus	89653-10-25 15:07 G	34466443.99	34466444.13	34466444.28	0.0531	0.0365
Mercury	89656-09-26 03:36 G	34467510.55	34467510.65	34467510.77	0.0514	0.0262
Mercury	89656-12-24 08:39 G	34467599.79	34467599.86	34467599.93	0.0511	0.0418
Venus	89659-01-07 10:19 G	34468343.74	34468343.93	34468344.12	0.0497	0.0182
Venus	89659-08-31 18:29 G	34468580.11	34468580.27	34468580.44	0.0496	0.0299
Moon	89661-01-27 13:27 G	34469094.82	34469095.06	34469095.29	0.0498	0.0128
Earth	89661-01-27 14:53 G	34469094.89	34469095.12	34469095.35	0.0498	0.0103 *
Mercury	89663-02-20 19:27 G	34469849.25	34469849.31	34469849.38	0.0514	0.0475
Venus	89664-11-04 14:39 G	34470471.98	34470472.11	34470472.25	0.0528	0.0380

Venus	89665-06-30 05:17 G	34470709.54	34470709.72	34470709.91	0.0530	0.0200
Mercury	89668-07-15 08:24 G	34471820.78	34471820.85	34471820.92	0.0515	0.0424
Mercury	89668-10-12 13:12 G	34471909.94	34471910.05	34471910.17	0.0512	0.0255
Venus	89670-09-12 11:31 G	34472609.83	34472609.98	34472610.15	0.0498	0.0315
Venus	89671-05-06 21:22 G	34472846.19	34472846.39	34472846.58	0.0496	0.0170
Earth	89673-02-01 02:53 G	34473482.45	34473482.62	34473482.80	0.0499	0.0335
Moon	89673-02-01 02:39 G	34473482.46	34473482.61	34473482.77	0.0499	0.0352 *
Mercury	89674-12-09 16:34 G	34474159.03	34474159.19	34474159.35	0.0513	0.0229
Venus	89677-03-04 21:22 G	34474975.19	34474975.39	34474975.59	0.0530	0.0037
Mercury	89680-07-31 18:15 G	34476220.13	34476220.26	34476220.38	0.0513	0.0097
Venus	89682-05-18 12:15 G	34476875.93	34476876.01	34476876.11	0.0498	0.0447
Venus	89683-01-09 23:17 G	34477112.26	34477112.47	34477112.67	0.0496	0.0038
Mercury	89686-09-27 13:12 G	34478468.87	34478469.05	34478469.23	0.0513	0.0022
Venus	89688-11-07 14:24 G	34479240.90	34479241.10	34479241.29	0.0530	0.0126
Venus	89689-07-03 08:24 G	34479478.76	34479478.85	34479478.95	0.0531	0.0463
Moon	89690-07-25 07:41 G	34479865.60	34479865.82	34479866.04	0.0529	0.0140
Earth	89690-07-25 10:48 G	34479865.73	34479865.95	34479866.17	0.0529	0.0166 *
Mercury	89692-05-19 23:03 G	34480530.33	34480530.46	34480530.59	0.0513	0.0065
Venus	89694-09-15 00:58 G	34481378.34	34481378.54	34481378.74	0.0496	0.0095
Venus	89695-05-09 07:55 G	34481614.70	34481614.83	34481614.96	0.0495	0.0381
Mercury	89698-07-16 10:48 G	34482778.80	34482778.95	34482779.11	0.0512	0.0255
Mars	89698-08-07 22:48 G	34482801.21	34482801.45	34482801.69	0.0513	0.0146
Venus	89700-07-14 08:39 G	34483506.70	34483506.86	34483507.04	0.0529	0.0285
Venus	89701-03-09 00:58 G	34483744.37	34483744.54	34483744.70	0.0531	0.0302
Earth	89702-07-31 10:34 G	34484253.78	34484253.94	34484254.12	0.0527	0.0363
Moon	89702-07-31 14:39 G	34484253.96	34484254.11	34484254.28	0.0527	0.0381 *
Mercury	89704-03-09 02:53 G	34484840.51	34484840.62	34484840.74	0.0514	0.0243
Mercury	89704-06-06 07:55 G	34484929.76	34484929.83	34484929.89	0.0511	0.0435
Venus	89706-05-21 23:17 G	34485644.29	34485644.47	34485644.65	0.0497	0.0235
Venus	89707-01-13 07:55 G	34485880.66	34485880.83	34485881.01	0.0496	0.0248

Mercury	89710-05-05 08:24 G	34487088.80	34487088.85	34487088.90	0.0512	0.0489
Mercury	89710-08-03 19:27 G	34487179.29	34487179.31	34487179.33	0.0514	0.0510
Venus	89712-03-19 03:22 G	34487772.54	34487772.64	34487772.76	0.0527	0.0438
Venus	89712-11-11 17:17 G	34488010.03	34488010.22	34488010.42	0.0530	0.0140
Mercury	89715-12-27 07:27 G	34489150.74	34489150.81	34489150.89	0.0514	0.0410
Mercury	89716-03-25 12:15 G	34489239.90	34489240.01	34489240.12	0.0512	0.0269
Venus	89718-01-24 23:31 G	34489910.34	34489910.48	34489910.62	0.0498	0.0370
Venus	89718-09-18 10:05 G	34490146.72	34490146.92	34490147.12	0.0496	0.0117
Mercury	89722-05-22 16:19 G	34491489.03	34491489.18	34491489.34	0.0514	0.0264
Venus	89724-07-17 08:10 G	34492275.64	34492275.84	34492276.04	0.0529	0.0026
Mercury	89728-01-12 16:48 G	34493550.08	34493550.20	34493550.33	0.0513	0.0106
Venus	89730-05-24 12:15 G	34494412.81	34494413.01	34494413.22	0.0496	0.0019
Venus	89731-01-15 18:43 G	34494649.22	34494649.28	34494649.37	0.0495	0.0459
Mercury	89734-03-10 13:12 G	34495798.87	34495799.05	34495799.23	0.0513	0.0019
Venus	89736-03-22 00:43 G	34496541.34	34496541.53	34496541.72	0.0529	0.0188
Venus	89736-11-14 17:31 G	34496779.10	34496779.23	34496779.36	0.0531	0.0400
Mercury	89739-10-31 21:51 G	34497860.28	34497860.41	34497860.54	0.0513	0.0055
Venus	89742-01-27 13:55 G	34498678.88	34498679.08	34498679.28	0.0497	0.0149
Venus	89742-09-20 21:36 G	34498915.25	34498915.40	34498915.56	0.0495	0.0332
Moon	89744-01-29 02:24 G	34499410.39	34499410.60	34499410.81	0.0498	0.0161
Earth	89744-01-29 02:39 G	34499410.39	34499410.61	34499410.84	0.0498	0.0140 *
Mercury	89745-12-27 09:51 G	34500108.75	34500108.91	34500109.07	0.0512	0.0234
Venus	89747-11-25 18:15 G	34500807.11	34500807.26	34500807.41	0.0528	0.0347
Venus	89748-07-20 09:36 G	34501044.72	34501044.90	34501045.08	0.0531	0.0238
Mercury	89751-08-20 02:39 G	34502170.49	34502170.61	34502170.73	0.0514	0.0215
Mercury	89751-11-17 07:27 G	34502259.76	34502259.81	34502259.87	0.0512	0.0466
Venus	89753-10-02 14:53 G	34502944.96	34502945.12	34502945.29	0.0497	0.0283
Venus	89754-05-27 00:00 G	34503181.32	34503181.50	34503181.69	0.0495	0.0202
Earth	89756-02-02 15:07 G	34503797.95	34503798.13	34503798.33	0.0499	0.0300
Moon	89756-02-02 17:03 G	34503798.03	34503798.21	34503798.40	0.0499	0.0320 *

Mercury	89757-10-15 07:12 G	34504418.74	34504418.80	34504418.88	0.0512	0.0469
Venus	89759-07-31 13:41 G	34505073.01	34505073.07	34505073.14	0.0527	0.0498
Venus	89760-03-25 03:07 G	34505310.43	34505310.63	34505310.83	0.0530	0.0076
Mercury	89763-06-08 06:43 G	34506480.70	34506480.78	34506480.86	0.0514	0.0391
Mars	89763-07-02 05:03 G	34506504.55	34506504.71	34506504.88	0.0513	0.0430
Mercury	89763-09-05 11:31 G	34506569.87	34506569.98	34506570.09	0.0512	0.0286
Venus	89765-06-07 12:00 G	34507210.90	34507211.00	34507211.12	0.0499	0.0423
Venus	89766-01-29 23:17 G	34507447.27	34507447.47	34507447.67	0.0496	0.0064
Mercury	89769-11-01 16:05 G	34508819.03	34508819.17	34508819.32	0.0514	0.0297
Venus	89771-11-28 20:24 G	34509576.15	34509576.35	34509576.55	0.0529	0.0086
Venus	89772-07-23 13:55 G	34509814.02	34509814.08	34509814.15	0.0530	0.0500
Earth	89773-07-25 20:10 G	34510181.12	34510181.34	34510181.55	0.0528	0.0214
Moon	89773-07-26 00:00 G	34510181.28	34510181.50	34510181.72	0.0528	0.0178 *
Mercury	89775-06-24 16:05 G	34510880.04	34510880.17	34510880.29	0.0512	0.0119
Venus	89777-10-05 00:43 G	34511713.33	34511713.53	34511713.73	0.0497	0.0070
Venus	89778-05-29 08:10 G	34511949.73	34511949.84	34511949.96	0.0496	0.0408
Mercury	89781-08-20 12:58 G	34513128.86	34513129.04	34513129.22	0.0513	0.0051
Venus	89783-08-03 12:00 G	34513841.82	34513842.00	34513842.18	0.0528	0.0248
Venus	89784-03-28 03:51 G	34514079.51	34514079.66	34514079.82	0.0530	0.0338
Moon	89785-07-30 14:39 G	34514568.93	34514569.11	34514569.30	0.0527	0.0320
Earth	89785-07-30 18:29 G	34514569.09	34514569.27	34514569.46	0.0527	0.0305 *
Mercury	89787-04-12 20:39 G	34515190.23	34515190.36	34515190.49	0.0513	0.0047
Venus	89789-06-10 02:10 G	34515979.40	34515979.59	34515979.78	0.0497	0.0203
Venus	89790-02-01 11:03 G	34516215.79	34516215.96	34516216.13	0.0496	0.0281
Mercury	89793-06-08 09:51 G	34517438.74	34517438.91	34517439.07	0.0512	0.0198
Venus	89795-04-08 05:17 G	34518107.59	34518107.72	34518107.85	0.0527	0.0406
Venus	89795-12-01 19:12 G	34518345.11	34518345.30	34518345.49	0.0530	0.0174
Mercury	89799-01-30 01:27 G	34519500.44	34519500.56	34519500.68	0.0514	0.0207
Mercury	89799-04-29 06:15 G	34519589.72	34519589.76	34519589.81	0.0512	0.0474
Venus	89801-02-14 03:07 G	34520245.48	34520245.63	34520245.78	0.0498	0.0337

Venus	89801-10-08 13:27 G	34520481.86	34520482.06	34520482.25	0.0496	0.0150
Mercury	89805-03-28 06:15 G	34521748.67	34521748.76	34521748.84	0.0512	0.0450
Venus	89807-08-07 11:31 G	34522610.78	34522610.98	34522611.19	0.0530	0.0014
Mercury	89810-11-19 06:15 G	34523810.67	34523810.76	34523810.85	0.0514	0.0366
Mercury	89811-02-16 11:03 G	34523899.86	34523899.96	34523900.07	0.0512	0.0313
Venus	89812-10-20 03:22 G	34524511.58	34524511.64	34524511.71	0.0499	0.0470
Venus	89813-06-13 14:53 G	34524747.92	34524748.12	34524748.33	0.0496	0.0020
Venus	89814-02-04 21:07 G	34524984.36	34524984.38	34524984.41	0.0495	0.0489
Mercury	89817-04-14 14:53 G	34526148.98	34526149.12	34526149.27	0.0514	0.0315
Venus	89819-04-12 06:00 G	34526876.56	34526876.75	34526876.95	0.0529	0.0151
Venus	89819-12-05 23:03 G	34527114.35	34527114.46	34527114.58	0.0531	0.0438
Mercury	89822-12-05 15:07 G	34528210.01	34528210.13	34528210.26	0.0512	0.0136
Venus	89825-02-16 13:12 G	34529013.85	34529014.05	34529014.25	0.0497	0.0123
Venus	89825-10-10 21:22 G	34529250.25	34529250.39	34529250.53	0.0496	0.0358
Earth	89827-01-29 12:43 G	34529725.82	34529726.03	34529726.26	0.0498	0.0182
Moon	89827-01-29 14:53 G	34529725.90	34529726.12	34529726.34	0.0498	0.0197 *
Mercury	89829-01-31 12:29 G	34530458.84	34530459.02	34530459.20	0.0514	0.0078
Venus	89830-12-16 00:00 G	34531142.34	34531142.50	34531142.67	0.0528	0.0308
Venus	89831-08-10 15:07 G	34531379.96	34531380.13	34531380.31	0.0530	0.0278
Mercury	89834-09-23 19:41 G	34532520.19	34532520.32	34532520.45	0.0513	0.0032
Venus	89836-10-22 13:55 G	34533279.90	34533280.08	34533280.25	0.0498	0.0259
Venus	89837-06-15 23:17 G	34533516.29	34533516.47	34533516.65	0.0496	0.0228
Moon	89839-02-02 22:34 G	34534113.26	34534113.44	34534113.63	0.0499	0.0284
Earth	89839-02-03 01:41 G	34534113.37	34534113.57	34534113.77	0.0499	0.0261 *
Mercury	89840-11-19 09:07 G	34534768.71	34534768.88	34534769.06	0.0513	0.0170
Venus	89842-08-20 16:34 G	34535408.10	34535408.19	34535408.28	0.0527	0.0464
Venus	89843-04-15 05:46 G	34535645.54	34535645.74	34535645.93	0.0530	0.0112
Mercury	89846-07-13 00:15 G	34536830.39	34536830.51	34536830.63	0.0514	0.0199
Mercury	89846-10-10 05:03 G	34536919.67	34536919.71	34536919.75	0.0511	0.0480
Venus	89848-06-27 14:24 G	34537545.98	34537546.10	34537546.23	0.0499	0.0392

Venus	89849-02-19 01:41 G	34537782.36	34537782.57	34537782.77	0.0496	0.0097
Mercury	89852-09-07 05:46 G	34539078.64	34539078.74	34539078.85	0.0512	0.0419
Venus	89854-12-18 21:22 G	34539911.19	34539911.39	34539911.59	0.0529	0.0054
Moon	89856-07-25 22:19 G	34540496.23	34540496.43	34540496.64	0.0528	0.0245
Earth	89856-07-26 02:10 G	34540496.40	34540496.59	34540496.79	0.0528	0.0279 *
Mercury	89858-05-01 05:03 G	34541140.62	34541140.71	34541140.80	0.0514	0.0361
Mercury	89858-07-29 09:51 G	34541229.81	34541229.91	34541230.01	0.0512	0.0318
Venus	89860-10-25 03:22 G	34542048.44	34542048.64	34542048.85	0.0497	0.0037
Venus	89861-06-18 10:19 G	34542284.84	34542284.93	34542285.03	0.0495	0.0439
Mercury	89864-09-24 13:27 G	34543478.92	34543479.06	34543479.20	0.0514	0.0328
Venus	89866-08-23 14:10 G	34544176.91	34544177.09	34544177.27	0.0529	0.0216
Venus	89867-04-18 06:29 G	34544414.64	34544414.77	34544414.92	0.0531	0.0374
Earth	89868-07-31 04:19 G	34544884.48	34544884.68	34544884.88	0.0528	0.0256
Moon	89868-07-31 06:58 G	34544884.60	34544884.79	34544884.99	0.0528	0.0268 *
Mercury	89870-05-17 14:24 G	34545539.98	34545540.10	34545540.23	0.0513	0.0158
Venus	89872-06-30 04:19 G	34546314.48	34546314.68	34546314.87	0.0497	0.0172
Venus	89873-02-21 12:29 G	34546550.87	34546551.02	34546551.18	0.0495	0.0312
Mercury	89876-07-13 11:03 G	34547788.78	34547788.96	34547789.14	0.0513	0.0091
Venus	89878-04-28 09:22 G	34548442.75	34548442.89	34548443.03	0.0528	0.0372
Venus	89878-12-21 23:46 G	34548680.31	34548680.49	34548680.68	0.0530	0.0212
Mercury	89882-03-05 18:43 G	34549850.15	34549850.28	34549850.41	0.0513	0.0018
Venus	89884-03-05 01:41 G	34550580.41	34550580.57	34550580.73	0.0498	0.0313
Venus	89884-10-27 11:46 G	34550816.80	34550816.99	34550817.18	0.0496	0.0175
Mercury	89888-05-01 08:10 G	34552098.66	34552098.84	34552099.01	0.0513	0.0151
Venus	89890-01-01 04:05 G	34552708.65	34552708.67	34552708.70	0.0527	0.0523
Venus	89890-08-26 16:34 G	34552945.99	34552946.19	34552946.39	0.0530	0.0050
Mercury	89893-12-22 23:17 G	34554160.35	34554160.47	34554160.59	0.0513	0.0186
Mercury	89894-03-22 04:05 G	34554249.64	34554249.67	34554249.70	0.0511	0.0491
Venus	89895-11-09 01:12 G	34554846.47	34554846.55	34554846.64	0.0499	0.0448
Venus	89896-07-02 12:58 G	34555082.84	34555083.04	34555083.25	0.0496	0.0041

Mercury	89900-02-18 04:34 G	34556408.58	34556408.69	34556408.81	0.0512	0.0400
Venus	89902-05-02 07:41 G	34557211.62	34557211.82	34557212.01	0.0529	0.0116
Venus	89902-12-26 00:15 G	34557449.43	34557449.51	34557449.61	0.0530	0.0472
Mercury	89905-10-12 03:36 G	34558470.56	34558470.65	34558470.74	0.0514	0.0355
Mercury	89906-01-09 08:24 G	34558559.75	34558559.85	34558559.95	0.0512	0.0322
Venus	89908-03-08 14:39 G	34559348.91	34559349.11	34559349.31	0.0497	0.0093
Venus	89908-10-30 22:34 G	34559585.32	34559585.44	34559585.57	0.0496	0.0389
Moon	89910-01-29 20:10 G	34560041.14	34560041.34	34560041.54	0.0498	0.0238
Earth	89910-01-29 23:17 G	34560041.26	34560041.47	34560041.68	0.0498	0.0224 *
Mercury	89912-03-07 12:43 G	34560808.90	34560809.03	34560809.16	0.0514	0.0352
Venus	89914-01-05 00:00 G	34561477.33	34561477.50	34561477.67	0.0528	0.0278
Venus	89914-08-30 14:53 G	34561714.96	34561715.12	34561715.29	0.0530	0.0309
Mars	89917-09-28 01:41 G	34562839.29	34562839.57	34562839.85	0.0513	0.0197
Mercury	89917-10-28 12:58 G	34562869.92	34562870.04	34562870.17	0.0513	0.0159
Venus	89919-11-12 15:36 G	34563614.97	34563615.15	34563615.33	0.0498	0.0228
Venus	89920-07-06 00:43 G	34563851.36	34563851.53	34563851.70	0.0496	0.0259
Earth	89922-02-03 10:19 G	34564428.72	34564428.93	34564429.14	0.0498	0.0211
Moon	89922-02-03 13:55 G	34564428.88	34564429.08	34564429.29	0.0498	0.0241 *
Mercury	89923-12-25 09:07 G	34565118.70	34565118.88	34565119.06	0.0513	0.0098
Venus	89925-09-09 17:03 G	34565743.10	34565743.21	34565743.32	0.0527	0.0437
Venus	89926-05-05 06:43 G	34565980.58	34565980.78	34565980.97	0.0530	0.0144
Mercury	89929-08-16 17:46 G	34567180.11	34567180.24	34567180.37	0.0513	0.0006
Venus	89931-07-18 15:36 G	34567881.01	34567881.15	34567881.29	0.0498	0.0364
Venus	89932-03-11 02:10 G	34568117.39	34568117.59	34568117.79	0.0496	0.0126
Mercury	89935-10-13 06:15 G	34569428.59	34569428.76	34569428.94	0.0513	0.0144
Venus	89938-01-08 00:29 G	34570246.32	34570246.52	34570246.72	0.0530	0.0020
Earth	89939-07-27 11:17 G	34570811.79	34570811.97	34570812.15	0.0528	0.0328
Moon	89939-07-27 14:10 G	34570811.91	34570812.09	34570812.28	0.0528	0.0293 *
Mercury	89941-06-04 22:05 G	34571490.30	34571490.42	34571490.54	0.0513	0.0175
Mercury	89941-09-02 02:53 G	34571579.60	34571579.62	34571579.64	0.0511	0.0501

Venus	89943-11-15 00:43 G	34572383.32	34572383.53	34572383.73	0.0496	0.0014
Venus	89944-07-08 07:27 G	34572619.75	34572619.81	34572619.89	0.0495	0.0463
Mercury	89947-08-01 02:53 G	34573738.51	34573738.62	34573738.74	0.0513	0.0391
Venus	89949-09-12 17:46 G	34574512.06	34574512.24	34574512.43	0.0529	0.0180
Venus	89950-05-08 10:19 G	34574749.80	34574749.93	34574750.06	0.0530	0.0410
Moon	89951-08-01 10:34 G	34575199.72	34575199.94	34575200.17	0.0527	0.0199
Earth	89951-08-01 11:31 G	34575199.77	34575199.98	34575200.20	0.0527	0.0198 *
Mercury	89953-03-24 02:39 G	34575800.51	34575800.61	34575800.70	0.0513	0.0344
Mercury	89953-06-21 07:12 G	34575889.71	34575889.80	34575889.90	0.0511	0.0332
Venus	89955-07-21 00:58 G	34576649.35	34576649.54	34576649.74	0.0497	0.0150
Venus	89956-03-13 09:22 G	34576885.75	34576885.89	34576886.05	0.0496	0.0334
Mercury	89959-08-18 11:03 G	34578138.84	34578138.96	34578139.09	0.0514	0.0364
Venus	89961-05-18 09:36 G	34578777.75	34578777.90	34578778.05	0.0528	0.0341
Venus	89962-01-10 23:46 G	34579015.31	34579015.49	34579015.67	0.0530	0.0244
Mercury	89965-04-09 11:31 G	34580199.86	34580199.98	34580200.10	0.0512	0.0160
Venus	89967-03-26 01:41 G	34580915.41	34580915.57	34580915.74	0.0498	0.0285
Venus	89967-11-17 11:46 G	34581151.81	34581151.99	34581152.18	0.0496	0.0205
Mars	89971-04-28 01:55 G	34582409.35	34582409.58	34582409.82	0.0512	0.0178
Mercury	89971-06-06 07:55 G	34582448.65	34582448.83	34582449.00	0.0513	0.0114
Venus	89973-01-21 02:39 G	34583043.54	34583043.61	34583043.67	0.0527	0.0497
Venus	89973-09-15 14:53 G	34583280.92	34583281.12	34583281.32	0.0530	0.0078
Mercury	89977-01-26 16:05 G	34584510.04	34584510.17	34584510.30	0.0513	0.0008
Venus	89978-11-29 01:41 G	34585181.47	34585181.57	34585181.69	0.0499	0.0421
Venus	89979-07-23 13:12 G	34585417.85	34585418.05	34585418.26	0.0496	0.0071
Mercury	89983-03-25 04:05 G	34586758.49	34586758.67	34586758.84	0.0513	0.0144
Venus	89985-05-21 06:29 G	34587546.58	34587546.77	34587546.97	0.0529	0.0090
Venus	89986-01-13 23:46 G	34587784.43	34587784.49	34587784.56	0.0531	0.0502
Mercury	89988-11-14 20:53 G	34588820.25	34588820.37	34588820.49	0.0514	0.0170
Mercury	89989-02-12 01:41 G	34588909.56	34588909.57	34588909.58	0.0511	0.0509
Venus	89991-03-28 14:10 G	34589683.89	34589684.09	34589684.29	0.0497	0.0066

Venus	89991-11-19 21:36 G	34589920.29	34589920.40	34589920.51	0.0495	0.0415
Earth	89993-01-29 04:34 G	34590356.50	34590356.69	34590356.89	0.0498	0.0287
Moon	89993-01-29 08:24 G	34590356.66	34590356.85	34590357.04	0.0498	0.0288 *
Mercury	89995-01-11 00:43 G	34591068.42	34591068.53	34591068.65	0.0512	0.0390
Venus	89997-01-24 00:43 G	34591812.35	34591812.53	34591812.71	0.0529	0.0249
Venus	89997-09-18 16:34 G	34592050.04	34592050.19	34592050.34	0.0531	0.0342
Mercury	90000-09-03 01:12 G	34593130.45	34593130.55	34593130.65	0.0514	0.0338
Mercury	90000-12-01 05:46 G	34593219.65	34593219.74	34593219.84	0.0511	0.0338

91ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 91st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	90002-12-01 12:00 G	34593949.81	34593950.00	34593950.19	0.0497	0.0206		
Venus	90003-07-25 20:39 G	34594186.19	34594186.36	34594186.53	0.0495	0.0280		
Moon	90005-02-02 09:07 G	34594743.66	34594743.88	34594744.10	0.0499	0.0167		
Earth	90005-02-02 12:43 G	34594743.80	34594744.03	34594744.25	0.0499	0.0136 *		
Mercury	90007-01-28 08:53 G	34595468.74	34595468.87	34595469.00	0.0514	0.0364		
Venus	90008-09-28 18:43 G	34596078.16	34596078.28	34596078.41	0.0528	0.0405		
Venus	90009-05-24 08:53 G	34596315.68	34596315.87	34596316.06	0.0530	0.0180		
Mercury	90012-06-22 05:31 G	34597440.72	34597440.73	34597440.75	0.0514	0.0507		
Mercury	90012-09-19 10:19 G	34597529.81	34597529.93	34597530.05	0.0512	0.0167		
Venus	90014-08-06 11:31 G	34598215.83	34598215.98	34598216.13	0.0498	0.0343		
Venus	90015-03-30 21:51 G	34598452.22	34598452.41	34598452.61	0.0496	0.0147		

Mercury	90018-11-16 05:31 G	34599778.56	34599778.73	34599778.91	0.0514	0.0116
Venus	90021-01-26 22:48 G	34600581.25	34600581.45	34600581.65	0.0529	0.0012
Moon	90022-07-26 08:53 G	34601126.72	34601126.87	34601127.04	0.0528	0.0392
Earth	90022-07-26 10:48 G	34601126.82	34601126.95	34601127.09	0.0528	0.0424 *
Mercury	90024-07-08 14:24 G	34601839.97	34601840.10	34601840.23	0.0513	0.0009
Venus	90026-04-11 10:48 G	34602481.90	34602481.95	34602482.02	0.0499	0.0478
Venus	90026-12-03 23:17 G	34602718.27	34602718.47	34602718.68	0.0497	0.0015
Venus	90027-07-28 06:15 G	34602954.74	34602954.76	34602954.80	0.0496	0.0490
Mercury	90030-09-04 02:10 G	34604088.42	34604088.59	34604088.77	0.0513	0.0136
Venus	90032-10-01 14:24 G	34604846.91	34604847.10	34604847.30	0.0529	0.0155
Venus	90033-05-27 06:43 G	34605084.66	34605084.78	34605084.89	0.0530	0.0436
Moon	90034-07-31 08:39 G	34605514.64	34605514.86	34605515.08	0.0527	0.0088
Earth	90034-07-31 09:22 G	34605514.66	34605514.89	34605515.12	0.0527	0.0094 *
Mercury	90036-04-26 18:58 G	34606150.17	34606150.29	34606150.41	0.0514	0.0176
Mercury	90036-07-24 23:46 G	34606239.47	34606239.49	34606239.51	0.0511	0.0502
Venus	90038-08-09 00:00 G	34606984.30	34606984.50	34606984.70	0.0497	0.0124
Venus	90039-04-02 08:24 G	34607220.71	34607220.85	34607220.99	0.0495	0.0360
Mercury	90042-06-22 22:05 G	34608398.31	34608398.42	34608398.54	0.0512	0.0396
Venus	90044-06-06 06:29 G	34609112.61	34609112.77	34609112.93	0.0528	0.0319
Venus	90045-01-29 21:07 G	34609350.21	34609350.38	34609350.56	0.0530	0.0270
Mercury	90048-02-13 23:31 G	34610460.39	34610460.48	34610460.58	0.0514	0.0340
Mercury	90048-05-13 04:19 G	34610549.59	34610549.68	34610549.78	0.0512	0.0337
Venus	90050-04-14 00:00 G	34611250.33	34611250.50	34611250.68	0.0498	0.0261
Venus	90050-12-06 09:36 G	34611486.72	34611486.90	34611487.09	0.0496	0.0230
Mercury	90054-07-10 06:15 G	34612798.64	34612798.76	34612798.89	0.0514	0.0358
Venus	90056-02-10 00:58 G	34613378.46	34613378.54	34613378.63	0.0527	0.0473
Venus	90056-10-04 14:10 G	34613615.89	34613616.09	34613616.29	0.0530	0.0107
Mercury	90059-12-03 04:05 G	34614770.65	34614770.67	34614770.69	0.0514	0.0507
Mercury	90060-03-01 08:39 G	34614859.74	34614859.86	34614859.99	0.0512	0.0168
Venus	90061-12-17 21:36 G	34615516.28	34615516.40	34615516.52	0.0498	0.0400

Venus	90062-08-11 08:24 G	34615752.65	34615752.85	34615753.05	0.0496	0.0091
Mercury	90066-04-28 02:53 G	34617108.44	34617108.62	34617108.80	0.0514	0.0105
Venus	90068-06-09 06:43 G	34617881.58	34617881.78	34617881.98	0.0530	0.0058
Mercury	90071-12-19 13:12 G	34619169.92	34619170.05	34619170.18	0.0512	0.0011
Venus	90074-04-16 08:53 G	34620018.66	34620018.87	34620019.07	0.0496	0.0046
Venus	90074-12-08 16:19 G	34620255.08	34620255.18	34620255.27	0.0495	0.0435
Moon	90076-01-29 00:58 G	34620671.39	34620671.54	34620671.70	0.0498	0.0371
Earth	90076-01-29 04:34 G	34620671.54	34620671.69	34620671.85	0.0498	0.0372 *
Mercury	90078-02-13 23:31 G	34621418.30	34621418.48	34621418.65	0.0513	0.0144
Venus	90080-02-12 21:51 G	34622147.23	34622147.41	34622147.59	0.0528	0.0223
Venus	90080-10-07 13:12 G	34622384.91	34622385.05	34622385.20	0.0530	0.0368
Mercury	90083-10-07 17:17 G	34623480.10	34623480.22	34623480.34	0.0513	0.0181
Mercury	90084-01-04 22:05 G	34623569.39	34623569.42	34623569.45	0.0511	0.0496
Venus	90085-12-20 09:07 G	34624284.69	34624284.88	34624285.08	0.0497	0.0183
Venus	90086-08-13 18:15 G	34624521.10	34624521.26	34624521.42	0.0496	0.0306
Earth	90088-02-02 17:03 G	34625058.98	34625059.21	34625059.44	0.0498	0.0067
Moon	90088-02-02 19:55 G	34625059.10	34625059.33	34625059.55	0.0498	0.0102 *
Mercury	90089-12-02 19:55 G	34625728.22	34625728.33	34625728.45	0.0512	0.0396
Venus	90091-10-18 14:10 G	34626412.96	34626413.09	34626413.23	0.0527	0.0384
Venus	90092-06-12 03:36 G	34626650.47	34626650.65	34626650.84	0.0530	0.0202
Mercury	90095-07-26 21:36 G	34627790.31	34627790.40	34627790.49	0.0514	0.0351
Mercury	90095-10-24 02:24 G	34627879.50	34627879.60	34627879.70	0.0512	0.0326
Venus	90097-08-25 09:07 G	34628550.72	34628550.88	34628551.04	0.0498	0.0320
Venus	90098-04-18 19:41 G	34628787.13	34628787.32	34628787.51	0.0496	0.0172
Mercury	90101-12-21 03:22 G	34630128.51	34630128.64	34630128.77	0.0514	0.0345
Venus	90104-02-16 18:29 G	34630916.07	34630916.27	34630916.47	0.0530	0.0033
Moon	90105-07-26 08:53 G	34631441.80	34631441.87	34631441.94	0.0529	0.0498
Earth	90105-07-26 08:39 G	34631441.85	34631441.86	34631441.89	0.0529	0.0527 *
Mercury	90107-08-13 06:58 G	34632189.66	34632189.79	34632189.91	0.0512	0.0161
Venus	90109-05-01 08:10 G	34632816.77	34632816.84	34632816.93	0.0499	0.0456

Venus	90109-12-23 20:10 G	34633053.14	34633053.34	34633053.55	0.0496	0.0038
Mercury	90113-10-09 00:00 G	34634438.32	34634438.50	34634438.68	0.0513	0.0095
Venus	90115-10-22 11:46 G	34635181.79	34635181.99	34635182.18	0.0529	0.0131
Venus	90116-06-16 04:34 G	34635419.59	34635419.69	34635419.79	0.0531	0.0463
Earth	90117-07-31 11:03 G	34635829.73	34635829.96	34635830.19	0.0528	0.0010
Moon	90117-07-31 13:27 G	34635829.82	34635830.06	34635830.30	0.0528	0.0010 *
Mercury	90119-06-01 11:17 G	34636499.85	34636499.97	34636500.10	0.0512	0.0017
Venus	90121-08-28 18:43 G	34637319.08	34637319.28	34637319.48	0.0496	0.0103
Venus	90122-04-22 02:24 G	34637555.48	34637555.60	34637555.73	0.0495	0.0380
Mars	90125-07-22 10:19 G	34638742.69	34638742.93	34638743.18	0.0513	0.0117
Mercury	90125-07-27 20:10 G	34638748.17	34638748.34	34638748.51	0.0513	0.0162
Venus	90127-06-27 04:48 G	34639447.54	34639447.70	34639447.87	0.0529	0.0292
Venus	90128-02-19 20:10 G	34639685.17	34639685.34	34639685.50	0.0531	0.0301
Moon	90129-08-05 07:27 G	34640217.74	34640217.81	34640217.89	0.0527	0.0496
Mercury	90131-03-20 15:51 G	34640810.04	34640810.16	34640810.28	0.0513	0.0177
Mercury	90131-06-17 20:24 G	34640899.33	34640899.35	34640899.38	0.0511	0.0499
Venus	90133-05-03 18:29 G	34641585.09	34641585.27	34641585.45	0.0497	0.0241
Venus	90133-12-26 03:36 G	34641821.48	34641821.65	34641821.83	0.0495	0.0248
Mercury	90137-05-15 16:34 G	34643058.09	34643058.19	34643058.31	0.0512	0.0413
Venus	90139-03-01 20:53 G	34643713.28	34643713.37	34643713.48	0.0527	0.0452
Venus	90139-10-25 09:51 G	34643950.72	34643950.91	34643951.11	0.0530	0.0131
Mercury	90143-01-06 19:41 G	34645120.23	34645120.32	34645120.41	0.0514	0.0357
Mercury	90143-04-06 00:29 G	34645209.42	34645209.52	34645209.62	0.0512	0.0319
Venus	90145-01-06 17:31 G	34645851.10	34645851.23	34645851.36	0.0499	0.0380
Venus	90145-08-31 04:48 G	34646087.50	34646087.70	34646087.90	0.0496	0.0115
Mercury	90149-06-02 00:58 G	34647458.41	34647458.54	34647458.67	0.0514	0.0342
Venus	90151-06-30 00:58 G	34648216.34	34648216.54	34648216.74	0.0529	0.0037
Mercury	90155-01-23 04:48 G	34649519.57	34649519.70	34649519.82	0.0512	0.0148
Venus	90157-05-06 05:31 G	34650353.53	34650353.73	34650353.94	0.0497	0.0025
Venus	90157-12-28 12:58 G	34650589.97	34650590.04	34650590.12	0.0495	0.0458

Earth	90159-01-29 06:43 G	34650986.69	34650986.78	34650986.89	0.0497	0.0448
Moon	90159-01-29 09:51 G	34650986.81	34650986.91	34650987.02	0.0497	0.0440 *
Mercury	90161-03-20 20:53 G	34651768.19	34651768.37	34651768.55	0.0513	0.0081
Venus	90163-03-04 16:05 G	34652481.99	34652482.17	34652482.36	0.0529	0.0204
Venus	90163-10-28 07:55 G	34652719.69	34652719.83	34652719.97	0.0530	0.0389
Mercury	90166-11-11 09:22 G	34653829.76	34653829.89	34653830.02	0.0513	0.0021
Venus	90169-01-09 05:31 G	34654619.54	34654619.73	34654619.93	0.0497	0.0161
Venus	90169-09-02 14:24 G	34654855.94	34654856.10	34654856.25	0.0495	0.0328
Moon	90171-02-02 15:07 G	34655373.89	34655374.13	34655374.38	0.0498	0.0013
Earth	90171-02-02 17:03 G	34655373.98	34655374.21	34655374.45	0.0498	0.0020 *
Mercury	90173-01-06 17:17 G	34656078.05	34656078.22	34656078.39	0.0513	0.0173
Venus	90174-11-07 09:51 G	34656747.76	34656747.91	34656748.05	0.0528	0.0364
Venus	90175-07-03 00:00 G	34656985.32	34656985.50	34656985.68	0.0530	0.0226
Mercury	90178-08-30 13:55 G	34658139.96	34658140.08	34658140.20	0.0513	0.0184
Mercury	90178-11-27 18:43 G	34658229.25	34658229.28	34658229.31	0.0511	0.0492
Venus	90180-09-14 04:05 G	34658885.50	34658885.67	34658885.83	0.0498	0.0300
Venus	90181-05-08 13:41 G	34659121.89	34659122.07	34659122.27	0.0495	0.0192
Earth	90183-02-07 00:43 G	34659761.39	34659761.53	34659761.67	0.0499	0.0401
Moon	90183-02-07 00:58 G	34659761.41	34659761.54	34659761.67	0.0499	0.0409 *
Mercury	90184-10-25 13:12 G	34660387.96	34660388.05	34660388.15	0.0512	0.0433
Venus	90186-07-13 03:36 G	34661013.62	34661013.65	34661013.68	0.0527	0.0518
Venus	90187-03-07 16:05 G	34661250.97	34661251.17	34661251.37	0.0530	0.0062
Mercury	90190-06-18 18:15 G	34662450.17	34662450.26	34662450.36	0.0514	0.0354
Mercury	90190-09-15 23:03 G	34662539.36	34662539.46	34662539.56	0.0511	0.0322
Venus	90192-05-20 02:39 G	34663151.52	34663151.61	34663151.71	0.0498	0.0438
Venus	90193-01-11 14:24 G	34663387.89	34663388.10	34663388.30	0.0496	0.0056
Mercury	90196-11-11 21:36 G	34664788.26	34664788.40	34664788.54	0.0514	0.0324
Venus	90198-11-10 06:58 G	34665516.60	34665516.79	34665516.99	0.0529	0.0109
Venus	90199-07-05 23:17 G	34665754.40	34665754.47	34665754.56	0.0530	0.0486
Moon	90200-07-31 01:41 G	34666144.35	34666144.57	34666144.79	0.0528	0.0125

Earth	90200-07-31 04:48 G	34666144.48	34666144.70	34666144.93	0.0528	0.0114	*
Mercury	90202-07-06 02:53 G	34666849.50	34666849.62	34666849.75	0.0512	0.0140	
Venus	90204-09-17 14:39 G	34667653.90	34667654.11	34667654.31	0.0497	0.0083	
Venus	90205-05-11 22:48 G	34667890.33	34667890.45	34667890.57	0.0496	0.0403	
Mercury	90208-08-31 18:29 G	34669098.09	34669098.27	34669098.45	0.0513	0.0077	
Venus	90210-07-16 23:03 G	34669782.29	34669782.46	34669782.64	0.0528	0.0273	
Venus	90211-03-11 13:41 G	34670019.91	34670020.07	34670020.23	0.0530	0.0320	
Earth	90212-08-05 02:24 G	34670532.46	34670532.60	34670532.76	0.0527	0.0401	
Moon	90212-08-05 06:15 G	34670532.60	34670532.76	34670532.94	0.0527	0.0368	*
Mercury	90214-04-24 07:12 G	34671159.67	34671159.80	34671159.93	0.0513	0.0033	
Venus	90216-05-23 14:24 G	34671919.92	34671920.10	34671920.29	0.0498	0.0222	
Venus	90217-01-15 00:00 G	34672156.33	34672156.50	34672156.68	0.0496	0.0271	
Mercury	90220-06-19 14:24 G	34673407.93	34673408.10	34673408.27	0.0512	0.0185	
Venus	90222-03-21 15:07 G	34674048.02	34674048.13	34674048.24	0.0527	0.0434	
Venus	90222-11-14 03:51 G	34674285.47	34674285.66	34674285.86	0.0530	0.0151	
Mercury	90226-02-10 11:46 G	34675469.87	34675469.99	34675470.11	0.0514	0.0199	
Mercury	90226-05-10 16:34 G	34675559.15	34675559.19	34675559.23	0.0511	0.0479	
Venus	90228-01-27 13:41 G	34676185.93	34676186.07	34676186.22	0.0498	0.0359	
Venus	90228-09-20 00:58 G	34676422.35	34676422.54	34676422.74	0.0496	0.0136	
Mercury	90232-04-07 10:34 G	34677717.85	34677717.94	34677718.03	0.0512	0.0440	
Venus	90234-07-19 20:24 G	34678551.14	34678551.35	34678551.55	0.0530	0.0019	
Mercury	90237-11-29 16:34 G	34679780.10	34679780.19	34679780.28	0.0514	0.0362	
Mercury	90238-02-26 21:07 G	34679869.28	34679869.38	34679869.48	0.0512	0.0314	
Venus	90239-10-02 12:00 G	34680451.99	34680452.00	34680452.03	0.0499	0.0496	
Venus	90240-05-26 00:29 G	34680688.31	34680688.52	34680688.72	0.0496	0.0003	
Venus	90241-01-17 07:12 G	34680924.75	34680924.80	34680924.86	0.0495	0.0477	
Mercury	90244-04-24 18:00 G	34682118.11	34682118.25	34682118.40	0.0514	0.0304	
Venus	90246-03-24 13:12 G	34682816.86	34682817.05	34682817.24	0.0529	0.0179	
Venus	90246-11-17 05:31 G	34683054.61	34683054.73	34683054.86	0.0531	0.0418	
Mercury	90249-12-16 01:27 G	34684179.44	34684179.56	34684179.69	0.0512	0.0146	

Venus	90252-01-30 00:15 G	34684954.32	34684954.51	34684954.71	0.0497	0.0141
Venus	90252-09-22 08:39 G	34685190.72	34685190.86	34685191.01	0.0495	0.0348
Earth	90254-02-02 15:36 G	34685688.93	34685689.15	34685689.38	0.0498	0.0112
Moon	90254-02-02 16:05 G	34685688.95	34685689.17	34685689.40	0.0498	0.0083 *
Mercury	90256-02-11 15:07 G	34686427.95	34686428.13	34686428.31	0.0513	0.0058
Venus	90257-11-27 05:31 G	34687082.58	34687082.73	34687082.88	0.0528	0.0343
Venus	90258-07-22 19:12 G	34687320.13	34687320.30	34687320.48	0.0530	0.0249
Mercury	90261-10-04 05:17 G	34688489.59	34688489.72	34688489.85	0.0513	0.0040
Venus	90263-10-04 23:17 G	34689220.30	34689220.47	34689220.64	0.0498	0.0282
Venus	90264-05-28 09:51 G	34689456.73	34689456.91	34689457.10	0.0496	0.0214
Earth	90266-02-07 04:05 G	34690076.50	34690076.67	34690076.85	0.0499	0.0329
Moon	90266-02-07 06:00 G	34690076.57	34690076.75	34690076.94	0.0499	0.0325 *
Mercury	90267-11-30 12:00 G	34690737.83	34690738.00	34690738.17	0.0513	0.0187
Venus	90269-08-01 22:48 G	34691348.40	34691348.45	34691348.52	0.0526	0.0499
Venus	90270-03-27 10:48 G	34691585.75	34691585.95	34691586.15	0.0529	0.0082
Mercury	90273-07-23 09:36 G	34692799.79	34692799.90	34692800.02	0.0514	0.0211
Mercury	90273-10-20 14:24 G	34692889.05	34692889.10	34692889.15	0.0511	0.0466
Venus	90275-06-09 22:19 G	34693486.32	34693486.43	34693486.54	0.0499	0.0420
Venus	90276-02-01 10:34 G	34693722.74	34693722.94	34693723.15	0.0496	0.0077
Mercury	90279-09-18 07:41 G	34695047.74	34695047.82	34695047.92	0.0512	0.0448
Mars	90279-10-16 16:19 G	34695076.03	34695076.18	34695076.35	0.0512	0.0394
Venus	90281-11-30 01:27 G	34695851.36	34695851.56	34695851.76	0.0529	0.0089
Venus	90282-07-25 18:00 G	34696089.19	34696089.25	34696089.31	0.0530	0.0506
Earth	90283-07-31 00:00 G	34696459.29	34696459.50	34696459.71	0.0528	0.0228
Moon	90283-07-31 03:51 G	34696459.45	34696459.66	34696459.87	0.0528	0.0237 *
Mercury	90285-05-11 14:10 G	34697110.01	34697110.09	34697110.18	0.0514	0.0378
Mercury	90285-08-08 18:58 G	34697199.19	34697199.29	34697199.39	0.0512	0.0300
Venus	90287-10-07 11:17 G	34697988.76	34697988.97	34697989.17	0.0497	0.0061
Venus	90288-05-30 19:12 G	34698225.20	34698225.30	34698225.40	0.0495	0.0425
Mercury	90291-10-05 15:51 G	34699448.01	34699448.16	34699448.31	0.0514	0.0300

Venus	90293-08-04 18:29 G	34700117.09	34700117.27	34700117.44	0.0528	0.0252
Venus	90294-03-30 09:36 G	34700354.75	34700354.90	34700355.06	0.0531	0.0344
Moon	90295-08-04 22:05 G	34700847.22	34700847.42	34700847.62	0.0528	0.0271
Earth	90295-08-05 01:55 G	34700847.39	34700847.58	34700847.77	0.0528	0.0305 *
Mercury	90297-05-27 23:46 G	34701509.36	34701509.49	34701509.61	0.0512	0.0138
Venus	90299-06-12 10:34 G	34702254.75	34702254.94	34702255.13	0.0497	0.0199
Venus	90300-02-03 19:27 G	34702491.15	34702491.31	34702491.48	0.0495	0.0293
Mercury	90303-07-25 12:00 G	34703757.82	34703758.00	34703758.18	0.0513	0.0043
Venus	90305-04-10 12:00 G	34704382.88	34704383.00	34704383.13	0.0528	0.0412
Venus	90305-12-04 01:41 G	34704620.38	34704620.57	34704620.76	0.0530	0.0178
Mercury	90309-03-17 04:19 G	34705819.55	34705819.68	34705819.80	0.0513	0.0034
Venus	90311-02-16 09:51 G	34706520.76	34706520.91	34706521.06	0.0498	0.0338
Venus	90311-10-10 20:39 G	34706757.17	34706757.36	34706757.56	0.0496	0.0158
Mercury	90315-05-13 08:53 G	34708067.70	34708067.87	34708068.04	0.0513	0.0202
Venus	90317-08-08 16:48 G	34708886.00	34708886.20	34708886.41	0.0529	0.0014
Mercury	90321-01-03 07:55 G	34710129.72	34710129.83	34710129.95	0.0514	0.0215
Mercury	90321-04-02 12:43 G	34710218.98	34710219.03	34710219.09	0.0511	0.0463
Venus	90322-10-22 07:27 G	34710786.76	34710786.81	34710786.87	0.0499	0.0480
Venus	90323-06-15 20:39 G	34711023.15	34711023.36	34711023.56	0.0497	0.0020
Mercury	90327-03-01 05:46 G	34712377.66	34712377.74	34712377.84	0.0512	0.0445
Venus	90329-04-13 09:36 G	34713151.70	34713151.90	34713152.09	0.0528	0.0158
Venus	90329-12-07 00:43 G	34713389.43	34713389.53	34713389.65	0.0530	0.0439
Mercury	90332-10-22 12:29 G	34714439.93	34714440.02	34714440.10	0.0514	0.0386
Mercury	90333-01-19 17:03 G	34714529.11	34714529.21	34714529.32	0.0512	0.0291
Venus	90335-02-18 20:53 G	34715289.17	34715289.37	34715289.57	0.0497	0.0121
Venus	90335-10-13 06:00 G	34715525.62	34715525.75	34715525.89	0.0496	0.0371
Earth	90337-02-02 20:10 G	34716004.13	34716004.34	34716004.57	0.0498	0.0178
Moon	90337-02-02 21:51 G	34716004.18	34716004.41	34716004.64	0.0498	0.0149 *
Mercury	90339-03-18 13:41 G	34716777.92	34716778.07	34716778.22	0.0513	0.0300
Venus	90340-12-17 01:12 G	34717417.39	34717417.55	34717417.71	0.0527	0.0322

Venus	90341-08-11 14:53 G	34717654.95	34717655.12	34717655.29	0.0530	0.0271
Mars	90344-09-03 05:03 G	34718773.50	34718773.71	34718773.92	0.0515	0.0369
Mercury	90344-11-07 21:36 G	34718839.28	34718839.40	34718839.53	0.0513	0.0125
Venus	90346-10-24 20:53 G	34719555.20	34719555.37	34719555.55	0.0498	0.0259
Venus	90347-06-18 07:12 G	34719791.63	34719791.80	34719791.98	0.0496	0.0238
Moon	90349-02-07 03:51 G	34720391.46	34720391.66	34720391.86	0.0498	0.0244
Earth	90349-02-07 06:58 G	34720391.59	34720391.79	34720391.99	0.0498	0.0254 *
Mercury	90351-01-04 10:05 G	34721087.74	34721087.92	34721088.10	0.0513	0.0047
Venus	90352-08-21 18:58 G	34721683.21	34721683.29	34721683.37	0.0527	0.0480
Venus	90353-04-16 06:58 G	34721920.60	34721920.79	34721920.99	0.0530	0.0105
Mercury	90356-08-27 02:24 G	34723149.47	34723149.60	34723149.73	0.0513	0.0036
Venus	90358-06-29 20:10 G	34723821.22	34723821.34	34723821.47	0.0499	0.0397
Venus	90359-02-21 07:41 G	34724057.62	34724057.82	34724058.02	0.0496	0.0102
Mercury	90362-10-23 06:00 G	34725397.59	34725397.75	34725397.92	0.0512	0.0212
Venus	90364-12-19 23:46 G	34726186.29	34726186.49	34726186.69	0.0529	0.0062
Moon	90366-07-30 23:17 G	34726774.29	34726774.47	34726774.66	0.0529	0.0324
Earth	90366-07-31 03:07 G	34726774.45	34726774.63	34726774.82	0.0529	0.0309 *
Mercury	90368-06-15 06:58 G	34727459.68	34727459.79	34727459.91	0.0514	0.0201
Mercury	90368-09-12 11:46 G	34727548.95	34727548.99	34727549.04	0.0511	0.0476
Venus	90370-10-27 08:24 G	34728323.65	34728323.85	34728324.06	0.0496	0.0037
Venus	90371-06-20 16:05 G	34728560.09	34728560.17	34728560.26	0.0495	0.0449
Mercury	90374-08-11 03:07 G	34729707.55	34729707.63	34729707.72	0.0512	0.0453
Venus	90376-08-24 16:48 G	34730452.02	34730452.20	34730452.38	0.0528	0.0228
Venus	90377-04-19 07:41 G	34730689.68	34730689.82	34730689.96	0.0530	0.0370
Earth	90378-08-04 23:46 G	34731162.28	34731162.49	34731162.71	0.0527	0.0203
Moon	90378-08-05 02:39 G	34731162.40	34731162.61	34731162.82	0.0527	0.0176 *
Mercury	90380-04-03 10:48 G	34731769.87	34731769.95	34731770.04	0.0514	0.0385
Mercury	90380-07-01 15:36 G	34731859.04	34731859.15	34731859.25	0.0512	0.0292
Venus	90382-07-02 06:58 G	34732589.60	34732589.79	34732589.99	0.0498	0.0180
Venus	90383-02-23 16:48 G	34732826.05	34732826.20	34732826.36	0.0496	0.0316

Mercury	90386-08-28 12:00 G	34734107.86	34734108.00	34734108.15	0.0514	0.0312
Venus	90388-04-29 10:48 G	34734717.81	34734717.95	34734718.08	0.0527	0.0387
Venus	90388-12-22 23:17 G	34734955.28	34734955.47	34734955.66	0.0530	0.0203
Mercury	90392-04-19 19:55 G	34736169.20	34736169.33	34736169.46	0.0513	0.0121
Venus	90394-03-07 06:43 G	34736855.63	34736855.78	34736855.94	0.0499	0.0319
Venus	90394-10-29 18:14 G	34737092.07	34737092.26	34737092.46	0.0496	0.0181
Mars	90398-04-08 18:00 G	34738349.20	34738349.25	34738349.32	0.0511	0.0493
Mercury	90398-06-16 08:24 G	34738417.67	34738417.85	34738418.03	0.0513	0.0057
Venus	90400-08-27 14:10 G	34739220.89	34739221.09	34739221.29	0.0529	0.0034
Mercury	90404-02-07 00:29 G	34740479.39	34740479.52	34740479.65	0.0514	0.0044
Venus	90405-11-10 06:29 G	34741121.69	34741121.77	34741121.85	0.0500	0.0456
Venus	90406-07-04 19:26 G	34741358.10	34741358.31	34741358.51	0.0497	0.0045
Mercury	90410-04-04 04:48 G	34742727.53	34742727.70	34742727.87	0.0512	0.0196
Venus	90412-05-02 06:58 G	34743486.60	34743486.79	34743486.99	0.0529	0.0132
Venus	90412-12-25 22:48 G	34743724.36	34743724.45	34743724.55	0.0531	0.0466
Mercury	90415-11-26 05:17 G	34744789.61	34744789.72	34744789.84	0.0514	0.0204
Mercury	90416-02-23 10:05 G	34744878.88	34744878.92	34744878.97	0.0512	0.0475
Venus	90418-03-09 19:55 G	34745624.13	34745624.33	34745624.53	0.0497	0.0094
Venus	90418-11-01 04:19 G	34745860.56	34745860.68	34745860.81	0.0495	0.0397
Moon	90420-02-02 21:22 G	34746319.18	34746319.39	34746319.59	0.0497	0.0223
Earth	90420-02-03 00:14 G	34746319.31	34746319.51	34746319.72	0.0497	0.0247 *
Mercury	90422-01-21 00:58 G	34747037.46	34747037.54	34747037.62	0.0512	0.0453
Venus	90424-01-06 00:29 G	34747752.36	34747752.52	34747752.69	0.0528	0.0295
Venus	90424-08-30 14:53 G	34747989.96	34747990.12	34747990.29	0.0531	0.0303
Mercury	90427-09-14 10:05 G	34749099.83	34749099.92	34749100.01	0.0514	0.0367
Mercury	90427-12-12 14:53 G	34749189.02	34749189.12	34749189.22	0.0512	0.0311
Venus	90429-11-12 20:10 G	34749890.16	34749890.34	34749890.52	0.0498	0.0233
Venus	90430-07-07 06:00 G	34750126.58	34750126.75	34750126.92	0.0496	0.0264
Earth	90432-02-07 12:14 G	34750706.80	34750707.01	34750707.23	0.0498	0.0189
Moon	90432-02-07 16:19 G	34750706.96	34750707.18	34750707.40	0.0498	0.0176 *

Mercury	90434-02-07 09:50 G	34751437.77	34751437.91	34751438.06	0.0514	0.0312
Venus	90435-09-10 19:12 G	34752018.20	34752018.30	34752018.40	0.0527	0.0454
Venus	90436-05-05 07:12 G	34752255.61	34752255.80	34752256.00	0.0530	0.0134
Mercury	90439-09-30 18:43 G	34753499.15	34753499.28	34753499.40	0.0513	0.0128
Venus	90441-07-18 17:31 G	34754156.10	34754156.23	34754156.36	0.0499	0.0377
Venus	90442-03-12 05:46 G	34754392.54	34754392.74	34754392.94	0.0497	0.0125
Mercury	90445-11-26 07:26 G	34755747.63	34755747.81	34755747.99	0.0513	0.0076
Venus	90448-01-09 00:00 G	34756521.30	34756521.50	34756521.71	0.0529	0.0034
Earth	90449-07-30 02:53 G	34757089.47	34757089.62	34757089.77	0.0528	0.0400
Moon	90449-07-30 06:00 G	34757089.62	34757089.75	34757089.89	0.0528	0.0421 *
Mercury	90451-07-19 23:02 G	34757809.33	34757809.46	34757809.59	0.0513	0.0043
Venus	90453-11-15 06:43 G	34758658.57	34758658.78	34758658.98	0.0497	0.0014
Venus	90454-07-09 15:07 G	34758895.08	34758895.13	34758895.19	0.0496	0.0474
Mercury	90457-09-14 03:50 G	34760057.49	34760057.66	34760057.83	0.0512	0.0176
Venus	90459-09-13 15:50 G	34760786.98	34760787.16	34760787.35	0.0528	0.0200
Venus	90460-05-08 06:29 G	34761024.64	34761024.77	34761024.91	0.0530	0.0398
Moon	90461-08-04 00:00 G	34761477.26	34761477.50	34761477.74	0.0528	0.0091
Earth	90461-08-04 01:41 G	34761477.34	34761477.57	34761477.79	0.0528	0.0118 *
Mercury	90463-05-08 03:50 G	34762119.54	34762119.66	34762119.77	0.0514	0.0207
Mercury	90463-08-05 08:24 G	34762208.81	34762208.85	34762208.90	0.0512	0.0472
Venus	90465-07-21 07:26 G	34762924.61	34762924.81	34762925.00	0.0498	0.0152
Venus	90466-03-14 17:02 G	34763161.07	34763161.21	34763161.36	0.0496	0.0344
Mercury	90469-07-03 00:00 G	34764367.41	34764367.50	34764367.61	0.0512	0.0429
Venus	90471-05-19 09:36 G	34765052.76	34765052.90	34765053.05	0.0527	0.0361
Venus	90472-01-11 22:34 G	34765290.26	34765290.44	34765290.62	0.0530	0.0233
Mercury	90475-02-24 08:38 G	34766429.77	34766429.86	34766429.95	0.0515	0.0365
Mercury	90475-05-24 13:26 G	34766518.96	34766519.06	34766519.16	0.0512	0.0313
Venus	90477-03-26 07:41 G	34767190.66	34767190.82	34767190.99	0.0498	0.0291
Venus	90477-11-17 18:43 G	34767427.09	34767427.28	34767427.46	0.0496	0.0210
Mercury	90481-07-20 08:10 G	34768767.70	34768767.84	34768767.98	0.0513	0.0319

Venus	90483-01-22 04:05 G	34769318.64	34769318.67	34769318.70	0.0526	0.0518
Venus	90483-09-16 15:22 G	34769555.94	34769556.14	34769556.34	0.0530	0.0066
Mercury	90487-03-12 18:00 G	34770829.13	34770829.25	34770829.38	0.0513	0.0151
Venus	90488-11-29 07:26 G	34771456.71	34771456.81	34771456.91	0.0499	0.0428
Venus	90489-07-23 19:55 G	34771693.13	34771693.33	34771693.53	0.0496	0.0074
Mercury	90493-05-08 05:31 G	34773077.55	34773077.73	34773077.92	0.0513	0.0085
Venus	90495-05-22 09:07 G	34773821.68	34773821.88	34773822.08	0.0528	0.0100
Venus	90496-01-15 00:43 G	34774059.47	34774059.53	34774059.60	0.0530	0.0498
Mars	90498-11-28 05:31 G	34775107.44	34775107.73	34775108.03	0.0514	0.0141
Mercury	90498-12-29 22:05 G	34775139.29	34775139.42	34775139.54	0.0513	0.0036
Venus	90501-03-29 18:29 G	34775959.07	34775959.27	34775959.48	0.0497	0.0071
Venus	90501-11-21 03:36 G	34776195.55	34776195.65	34776195.76	0.0496	0.0423
Earth	90503-02-03 10:19 G	34776634.74	34776634.93	34776635.12	0.0498	0.0289
Moon	90503-02-03 14:10 G	34776634.90	34776635.09	34776635.30	0.0498	0.0264 *
Mercury	90505-02-25 03:07 G	34777387.45	34777387.63	34777387.80	0.0512	0.0151
Venus	90507-01-26 03:22 G	34778087.47	34778087.64	34778087.81	0.0527	0.0263
Venus	90507-09-20 16:48 G	34778325.05	34778325.20	34778325.36	0.0530	0.0335
Mercury	90510-10-19 02:24 G	34779449.49	34779449.60	34779449.72	0.0514	0.0200
Mercury	90511-01-16 07:12 G	34779538.76	34779538.80	34779538.85	0.0512	0.0478
Venus	90512-12-02 18:43 G	34780225.10	34780225.28	34780225.47	0.0498	0.0210
Venus	90513-07-27 05:31 G	34780461.57	34780461.73	34780461.90	0.0496	0.0290
Moon	90515-02-07 18:58 G	34781022.07	34781022.29	34781022.52	0.0498	0.0136
Earth	90515-02-07 23:02 G	34781022.24	34781022.46	34781022.68	0.0498	0.0151 *
Mercury	90516-12-13 23:31 G	34781697.37	34781697.48	34781697.59	0.0512	0.0401
Venus	90518-09-30 20:24 G	34782353.23	34782353.35	34782353.47	0.0526	0.0424
Venus	90519-05-26 07:55 G	34782590.64	34782590.83	34782591.02	0.0529	0.0166
Mercury	90522-08-07 07:12 G	34783759.71	34783759.80	34783759.89	0.0515	0.0364
Mercury	90522-11-04 11:46 G	34783848.89	34783848.99	34783849.10	0.0512	0.0314
Venus	90524-08-07 19:12 G	34784491.15	34784491.30	34784491.44	0.0499	0.0348
Venus	90525-04-01 07:26 G	34784727.61	34784727.81	34784728.00	0.0497	0.0156

Mercury	90528-12-31 07:41 G	34786097.69	34786097.82	34786097.96	0.0513	0.0350
Venus	90531-01-29 00:29 G	34786856.32	34786856.52	34786856.72	0.0529	0.0007
Moon	90532-07-30 06:43 G	34787404.71	34787404.78	34787404.87	0.0529	0.0493
Earth	90532-07-30 08:53 G	34787404.77	34787404.87	34787404.98	0.0529	0.0467 *
Mercury	90534-08-23 16:48 G	34788159.08	34788159.20	34788159.32	0.0513	0.0156
Venus	90536-04-12 19:12 G	34788757.25	34788757.30	34788757.35	0.0500	0.0485
Venus	90536-12-05 08:38 G	34788993.66	34788993.86	34788994.07	0.0497	0.0020
Mercury	90540-10-19 04:19 G	34790407.50	34790407.68	34790407.86	0.0513	0.0098
Venus	90542-10-03 18:14 G	34791122.07	34791122.26	34791122.45	0.0528	0.0167
Venus	90543-05-29 09:36 G	34791359.78	34791359.90	34791360.01	0.0530	0.0435
Earth	90544-08-04 11:31 G	34791792.75	34791792.98	34791793.21	0.0528	0.0070
Moon	90544-08-04 11:46 G	34791792.76	34791792.99	34791793.21	0.0528	0.0047 *
Mercury	90546-06-11 21:36 G	34792469.27	34792469.40	34792469.53	0.0513	0.0005
Venus	90548-08-10 09:22 G	34793259.69	34793259.89	34793260.09	0.0497	0.0121
Venus	90549-04-03 18:43 G	34793496.15	34793496.28	34793496.41	0.0496	0.0375
Mars	90552-07-04 04:05 G	34794683.42	34794683.67	34794683.92	0.0512	0.0049
Mercury	90552-08-07 01:41 G	34794717.40	34794717.57	34794717.75	0.0512	0.0137
Venus	90554-06-08 13:12 G	34795387.90	34795388.05	34795388.21	0.0527	0.0329
Venus	90555-02-01 02:10 G	34795625.42	34795625.59	34795625.77	0.0530	0.0269
Mercury	90558-03-31 01:41 G	34796779.45	34796779.57	34796779.69	0.0514	0.0185
Mercury	90558-06-28 06:14 G	34796868.73	34796868.76	34796868.80	0.0511	0.0492
Venus	90560-04-15 06:58 G	34797525.62	34797525.79	34797525.97	0.0499	0.0267
Venus	90560-12-07 18:29 G	34797762.09	34797762.27	34797762.45	0.0496	0.0237
Mercury	90564-05-25 23:02 G	34799027.34	34799027.46	34799027.59	0.0512	0.0372
Venus	90566-02-11 08:53 G	34799653.79	34799653.87	34799653.95	0.0526	0.0483
Venus	90566-10-06 19:41 G	34799891.12	34799891.32	34799891.52	0.0529	0.0103
Mercury	90570-01-17 06:14 G	34801089.67	34801089.76	34801089.85	0.0514	0.0351
Mercury	90570-04-16 10:48 G	34801178.85	34801178.95	34801179.05	0.0512	0.0325
Venus	90571-12-20 06:29 G	34801791.66	34801791.77	34801791.89	0.0500	0.0406
Venus	90572-08-12 19:41 G	34802028.12	34802028.32	34802028.52	0.0497	0.0100

Mercury	90576-06-12 07:26 G	34803427.70	34803427.81	34803427.93	0.0513	0.0383
Venus	90578-06-11 11:31 G	34804156.78	34804156.98	34804157.18	0.0528	0.0066
Mercury	90582-02-02 15:36 G	34805489.02	34805489.15	34805489.27	0.0513	0.0162
Venus	90584-04-17 21:07 G	34806294.18	34806294.38	34806294.59	0.0498	0.0039
Venus	90584-12-10 06:14 G	34806530.68	34806530.76	34806530.84	0.0496	0.0455
Moon	90586-02-02 18:29 G	34806950.09	34806950.27	34806950.46	0.0498	0.0301
Earth	90586-02-02 22:34 G	34806950.27	34806950.44	34806950.62	0.0498	0.0323 *
Mercury	90588-03-31 04:19 G	34807737.50	34807737.68	34807737.85	0.0513	0.0135
Venus	90590-02-14 04:48 G	34808422.52	34808422.70	34808422.88	0.0527	0.0230
Venus	90590-10-09 18:43 G	34808660.13	34808660.28	34808660.42	0.0530	0.0369
Mercury	90593-11-21 20:24 G	34809799.22	34809799.35	34809799.48	0.0514	0.0003
Venus	90595-12-22 22:05 G	34810560.23	34810560.42	34810560.62	0.0498	0.0177
Venus	90596-08-15 08:10 G	34810796.69	34810796.84	34810797.00	0.0496	0.0323
Earth	90598-02-07 09:50 G	34811337.69	34811337.91	34811338.14	0.0498	0.0111
Moon	90598-02-07 12:58 G	34811337.82	34811338.04	34811338.27	0.0498	0.0093 *
Mercury	90600-01-18 00:43 G	34812047.35	34812047.53	34812047.71	0.0512	0.0117
Venus	90601-10-20 23:02 G	34812688.33	34812688.46	34812688.60	0.0527	0.0392
Venus	90602-06-15 11:31 G	34812925.79	34812925.98	34812926.17	0.0530	0.0203
Mercury	90605-09-11 01:12 G	34814109.43	34814109.55	34814109.68	0.0514	0.0157
Venus	90607-08-28 22:19 G	34814826.27	34814826.43	34814826.59	0.0499	0.0316
Venus	90608-04-21 10:05 G	34815062.73	34815062.92	34815063.11	0.0496	0.0188
Mercury	90611-11-06 22:05 G	34816357.29	34816357.42	34816357.55	0.0512	0.0353
Venus	90614-02-18 05:46 G	34817191.53	34817191.74	34817191.94	0.0529	0.0038
Earth	90615-07-31 19:41 G	34817720.26	34817720.32	34817720.38	0.0528	0.0506
Mercury	90617-06-30 05:17 G	34818419.63	34818419.72	34818419.82	0.0514	0.0334
Mercury	90617-09-27 10:05 G	34818508.82	34818508.92	34818509.01	0.0512	0.0342
Venus	90619-05-03 18:58 G	34819092.21	34819092.29	34819092.37	0.0500	0.0461
Venus	90619-12-26 08:38 G	34819328.66	34819328.86	34819329.07	0.0497	0.0045
Mercury	90623-11-24 07:12 G	34820757.70	34820757.80	34820757.91	0.0514	0.0416
Venus	90625-10-24 00:00 G	34821457.31	34821457.50	34821457.70	0.0528	0.0127

Venus	90626-06-18 14:38 G	34821695.02	34821695.11	34821695.20	0.0530	0.0473
Earth	90627-08-05 20:24 G	34822108.12	34822108.35	34822108.58	0.0527	0.0019
Moon	90627-08-05 21:50 G	34822108.17	34822108.41	34822108.65	0.0527	0.0003 *
Mercury	90629-04-18 09:50 G	34822729.89	34822729.91	34822729.94	0.0515	0.0500
Mercury	90629-07-16 14:24 G	34822818.99	34822819.10	34822819.23	0.0512	0.0177
Venus	90631-08-31 09:22 G	34823594.69	34823594.89	34823595.09	0.0498	0.0095
Venus	90632-04-23 19:12 G	34823831.19	34823831.30	34823831.42	0.0496	0.0403
Mercury	90635-09-12 04:05 G	34825067.50	34825067.67	34825067.84	0.0513	0.0170
Venus	90637-06-28 16:48 G	34825723.03	34825723.20	34825723.36	0.0527	0.0292
Venus	90638-02-21 05:17 G	34825960.56	34825960.72	34825960.89	0.0529	0.0306
Mercury	90641-05-04 19:12 G	34827129.17	34827129.30	34827129.43	0.0513	0.0012
Venus	90643-05-06 10:05 G	34827860.74	34827860.92	34827861.11	0.0499	0.0234
Venus	90643-12-28 21:36 G	34828097.23	34828097.40	34828097.57	0.0497	0.0271
Mercury	90647-07-01 00:43 G	34829377.35	34829377.53	34829377.71	0.0512	0.0078
Venus	90649-03-03 10:48 G	34829988.86	34829988.95	34829989.06	0.0526	0.0451
Venus	90649-10-26 21:50 G	34830226.22	34830226.41	34830226.60	0.0529	0.0139
Mercury	90653-02-21 00:00 G	34831439.38	34831439.50	34831439.63	0.0514	0.0149
Venus	90655-01-09 10:34 G	34832126.81	34832126.94	34832127.08	0.0499	0.0372
Venus	90655-09-02 23:17 G	34832363.28	34832363.47	34832363.67	0.0497	0.0135
Mercury	90659-04-18 21:07 G	34833687.24	34833687.38	34833687.52	0.0512	0.0330
Venus	90661-07-01 15:07 G	34834491.93	34834492.13	34834492.33	0.0529	0.0030
Mercury	90664-12-10 05:02 G	34835749.61	34835749.71	34835749.81	0.0515	0.0306
Mercury	90665-03-09 09:36 G	34835838.82	34835838.90	34835838.99	0.0512	0.0371
Venus	90667-05-09 00:29 G	34836629.32	34836629.52	34836629.73	0.0497	0.0009
Venus	90667-12-31 08:53 G	34836865.85	34836865.87	34836865.92	0.0496	0.0488
Earth	90669-02-03 11:02 G	34837265.80	34837265.96	34837266.12	0.0497	0.0356
Moon	90669-02-03 13:55 G	34837265.92	34837266.08	34837266.25	0.0497	0.0341 *
Mercury	90671-05-06 06:14 G	34838087.67	34838087.76	34838087.86	0.0514	0.0436
Venus	90673-03-06 10:19 G	34838757.75	34838757.93	34838758.12	0.0528	0.0193
Venus	90673-10-30 00:29 G	34838995.39	34838995.52	34838995.65	0.0530	0.0408

Mercury	90676-09-28 09:07 G	34840059.84	34840059.88	34840059.93	0.0515	0.0481
Mercury	90676-12-26 13:41 G	34840148.96	34840149.07	34840149.19	0.0512	0.0195
Venus	90679-01-11 22:05 G	34840895.22	34840895.42	34840895.62	0.0498	0.0150
Venus	90679-09-05 08:38 G	34841131.71	34841131.86	34841132.00	0.0496	0.0351
Moon	90681-02-07 20:24 G	34841653.11	34841653.35	34841653.59	0.0499	0.0052
Earth	90681-02-07 21:36 G	34841653.17	34841653.40	34841653.64	0.0499	0.0077 *
Mercury	90683-02-22 03:50 G	34842397.49	34842397.66	34842397.83	0.0513	0.0202
Venus	90684-11-09 05:31 G	34843023.59	34843023.73	34843023.89	0.0527	0.0352
Venus	90685-07-04 17:46 G	34843261.06	34843261.24	34843261.42	0.0529	0.0244
Mercury	90688-10-14 18:29 G	34844459.14	34844459.27	34844459.39	0.0513	0.0031
Venus	90690-09-16 22:05 G	34845161.25	34845161.42	34845161.59	0.0499	0.0290
Venus	90691-05-11 10:05 G	34845397.74	34845397.92	34845398.11	0.0497	0.0216
Mercury	90694-12-11 00:43 G	34846707.34	34846707.53	34846707.71	0.0513	0.0045
Venus	90696-07-14 23:02 G	34847289.42	34847289.46	34847289.52	0.0525	0.0510
Venus	90697-03-09 09:07 G	34847526.69	34847526.88	34847527.08	0.0529	0.0076
Mercury	90700-08-03 23:02 G	34848769.34	34848769.46	34848769.58	0.0514	0.0138
Venus	90702-05-23 22:05 G	34849427.32	34849427.42	34849427.52	0.0500	0.0429
Venus	90703-01-15 12:00 G	34849663.79	34849664.00	34849664.20	0.0497	0.0080
Mercury	90706-09-29 21:22 G	34851017.24	34851017.39	34851017.54	0.0512	0.0292
Mars	90706-10-01 01:26 G	34851018.48	34851018.56	34851018.65	0.0512	0.0479
Venus	90708-11-13 02:10 G	34851792.39	34851792.59	34851792.79	0.0528	0.0092
Venus	90709-07-08 16:48 G	34852030.15	34852030.20	34852030.26	0.0530	0.0508
Moon	90710-08-06 01:55 G	34852423.35	34852423.58	34852423.80	0.0528	0.0049
Earth	90710-08-06 04:48 G	34852423.47	34852423.70	34852423.93	0.0528	0.0038 *
Mercury	90712-05-23 03:50 G	34853079.56	34853079.66	34853079.77	0.0514	0.0298
Mercury	90712-08-20 08:38 G	34853168.77	34853168.86	34853168.94	0.0512	0.0380
Venus	90714-09-20 13:12 G	34853929.85	34853930.05	34853930.26	0.0498	0.0060
Venus	90715-05-14 22:48 G	34854166.35	34854166.45	34854166.54	0.0496	0.0436
Mercury	90718-10-17 05:17 G	34855417.64	34855417.72	34855417.80	0.0514	0.0457
Venus	90720-07-18 19:55 G	34856058.15	34856058.33	34856058.50	0.0527	0.0258

Venus	90721-03-13 09:07 G	34856295.74	34856295.88	34856296.04	0.0530	0.0344
Earth	90722-08-11 06:29 G	34856811.70	34856811.77	34856811.86	0.0527	0.0495
Mercury	90724-03-11 08:53 G	34857389.81	34857389.87	34857389.92	0.0515	0.0456
Mercury	90724-06-08 13:26 G	34857478.94	34857479.06	34857479.18	0.0513	0.0220
Venus	90726-05-26 13:41 G	34858195.88	34858196.07	34858196.26	0.0498	0.0200
Venus	90727-01-18 00:29 G	34858432.36	34858432.52	34858432.68	0.0496	0.0304
Mercury	90730-08-05 02:53 G	34859727.45	34859727.62	34859727.78	0.0513	0.0222
Venus	90732-03-23 16:05 G	34860324.05	34860324.17	34860324.29	0.0526	0.0415
Venus	90732-11-16 03:36 G	34860561.46	34860561.65	34860561.84	0.0529	0.0178
Mercury	90736-03-27 17:31 G	34861789.11	34861789.23	34861789.36	0.0513	0.0048
Venus	90738-01-29 10:19 G	34862461.78	34862461.93	34862462.08	0.0499	0.0346
Venus	90738-09-22 23:02 G	34862698.27	34862698.46	34862698.66	0.0497	0.0162
Mercury	90742-05-24 00:00 G	34864037.32	34864037.50	34864037.68	0.0513	0.0017
Venus	90744-07-21 21:22 G	34864827.19	34864827.39	34864827.60	0.0528	0.0017
Mercury	90748-01-14 22:05 G	34866099.30	34866099.42	34866099.55	0.0513	0.0121
Venus	90749-10-04 09:22 G	34866727.85	34866727.89	34866727.94	0.0500	0.0486
Venus	90750-05-29 00:00 G	34866964.29	34866964.50	34866964.70	0.0497	0.0024
Moon	90752-02-04 19:41 G	34867581.18	34867581.32	34867581.48	0.0498	0.0390
Earth	90752-02-04 20:53 G	34867581.24	34867581.37	34867581.52	0.0498	0.0397 *
Mercury	90754-03-11 20:53 G	34868347.21	34868347.37	34868347.52	0.0512	0.0263
Venus	90756-03-26 13:55 G	34869092.88	34869093.08	34869093.27	0.0527	0.0155
Venus	90756-11-19 03:36 G	34869330.54	34869330.65	34869330.76	0.0529	0.0446
Mercury	90759-11-03 02:38 G	34870409.51	34870409.61	34870409.72	0.0514	0.0288
Mercury	90760-01-31 07:26 G	34870498.72	34870498.81	34870498.89	0.0512	0.0389
Venus	90762-02-01 00:58 G	34871230.34	34871230.54	34871230.74	0.0498	0.0116
Venus	90762-09-25 11:31 G	34871466.85	34871466.98	34871467.11	0.0496	0.0385
Moon	90764-02-09 09:36 G	34871968.67	34871968.90	34871969.13	0.0498	0.0014
Earth	90764-02-09 10:34 G	34871968.70	34871968.94	34871969.17	0.0498	0.0045 *
Mercury	90765-12-28 17:17 G	34872657.22	34872657.22	34872657.22	0.0511	0.0511
Mercury	90766-03-29 05:02 G	34872747.66	34872747.71	34872747.76	0.0514	0.0491

Venus	90767-11-30 07:12 G	34873358.65	34873358.80	34873358.96	0.0527	0.0319
Venus	90768-07-24 19:12 G	34873596.13	34873596.30	34873596.48	0.0529	0.0280
Mars	90771-08-14 12:43 G	34874711.82	34874712.03	34874712.24	0.0515	0.0374
Mercury	90771-08-22 07:26 G	34874719.75	34874719.81	34874719.87	0.0515	0.0449
Mercury	90771-11-19 12:14 G	34874808.89	34874809.01	34874809.12	0.0513	0.0228
Venus	90773-10-07 01:26 G	34875496.39	34875496.56	34875496.74	0.0499	0.0257
Venus	90774-05-31 13:26 G	34875732.88	34875733.06	34875733.23	0.0497	0.0250
Earth	90776-02-13 22:05 G	34876356.37	34876356.42	34876356.49	0.0499	0.0480
Moon	90776-02-14 00:43 G	34876356.45	34876356.53	34876356.61	0.0499	0.0467 *
Mercury	90778-01-15 01:26 G	34877057.40	34877057.56	34877057.73	0.0513	0.0240
Venus	90779-08-05 01:26 G	34877624.48	34877624.56	34877624.64	0.0526	0.0478
Venus	90780-03-29 12:00 G	34877861.80	34877862.00	34877862.20	0.0529	0.0111
Mercury	90783-09-07 17:02 G	34879119.08	34879119.21	34879119.33	0.0513	0.0068
Venus	90785-06-12 00:58 G	34879762.42	34879762.54	34879762.67	0.0500	0.0397
Venus	90786-02-03 14:24 G	34879998.90	34879999.10	34879999.30	0.0497	0.0113
Mercury	90789-11-02 22:48 G	34881367.27	34881367.45	34881367.64	0.0513	0.0006
Venus	90791-12-03 06:58 G	34882127.59	34882127.79	34882127.99	0.0528	0.0055
Earth	90793-08-05 16:34 G	34882738.96	34882739.19	34882739.42	0.0528	0.0074
Moon	90793-08-05 20:24 G	34882739.12	34882739.35	34882739.58	0.0528	0.0069 *
Mercury	90795-06-26 21:22 G	34883429.26	34883429.39	34883429.51	0.0513	0.0105
Venus	90797-10-09 12:14 G	34884264.81	34884265.01	34884265.22	0.0498	0.0033
Venus	90798-06-02 21:50 G	34884501.34	34884501.41	34884501.48	0.0496	0.0463
Mercury	90801-08-21 19:41 G	34885677.16	34885677.32	34885677.48	0.0513	0.0242
Venus	90803-08-08 01:26 G	34886393.38	34886393.56	34886393.75	0.0527	0.0217
Venus	90804-04-01 14:53 G	34886630.99	34886631.12	34886631.26	0.0529	0.0385
Moon	90805-08-10 13:12 G	34887126.97	34887127.05	34887127.15	0.0527	0.0484
Earth	90805-08-10 16:48 G	34887127.09	34887127.20	34887127.33	0.0527	0.0450 *
Mercury	90807-04-15 01:55 G	34887739.47	34887739.58	34887739.69	0.0514	0.0271
Mercury	90807-07-13 06:29 G	34887828.69	34887828.77	34887828.85	0.0511	0.0403
Venus	90809-06-14 12:00 G	34888530.81	34888531.00	34888531.20	0.0498	0.0175

Venus	90810-02-05 23:02 G	34888767.31	34888767.46	34888767.62	0.0497	0.0330
Mercury	90813-06-09 16:19 G	34889987.13	34889987.18	34889987.23	0.0512	0.0489
Venus	90815-04-12 18:29 G	34890659.14	34890659.27	34890659.42	0.0526	0.0380
Venus	90815-12-06 05:46 G	34890896.56	34890896.74	34890896.93	0.0529	0.0215
Mercury	90819-02-01 06:14 G	34892049.70	34892049.76	34892049.83	0.0515	0.0440
Mercury	90819-05-01 10:48 G	34892138.84	34892138.95	34892139.07	0.0512	0.0236
Venus	90821-02-17 12:14 G	34892796.85	34892797.01	34892797.17	0.0499	0.0314
Venus	90821-10-12 01:12 G	34893033.36	34893033.55	34893033.74	0.0497	0.0195
Mars	90825-03-23 19:41 G	34894292.13	34894292.32	34894292.53	0.0511	0.0298
Mercury	90825-06-27 00:58 G	34894387.39	34894387.54	34894387.70	0.0513	0.0267
Venus	90827-08-10 22:05 G	34895162.22	34895162.42	34895162.62	0.0528	0.0047
Mercury	90831-02-17 15:36 G	34896449.02	34896449.15	34896449.28	0.0513	0.0072
Venus	90832-10-23 12:00 G	34897062.92	34897063.00	34897063.08	0.0500	0.0454
Venus	90833-06-17 02:10 G	34897299.39	34897299.59	34897299.80	0.0497	0.0056
Moon	90835-02-04 06:29 G	34897896.67	34897896.77	34897896.87	0.0498	0.0444
Earth	90835-02-04 07:26 G	34897896.70	34897896.81	34897896.92	0.0498	0.0438 *
Mercury	90837-04-14 21:22 G	34898697.20	34898697.39	34898697.57	0.0513	0.0015
Venus	90839-04-15 14:53 G	34899427.93	34899428.12	34899428.32	0.0528	0.0123
Venus	90839-12-09 05:17 G	34899665.64	34899665.72	34899665.81	0.0530	0.0480
Mercury	90842-12-06 20:24 G	34900759.23	34900759.35	34900759.48	0.0514	0.0090
Venus	90845-02-20 02:38 G	34901565.40	34901565.61	34901565.81	0.0498	0.0085
Venus	90845-10-14 12:43 G	34901801.92	34901802.03	34901802.14	0.0496	0.0415
Earth	90847-02-08 19:26 G	34902284.08	34902284.31	34902284.55	0.0498	0.0005
Moon	90847-02-08 21:50 G	34902284.17	34902284.41	34902284.65	0.0498	0.0036 *
Mercury	90849-01-31 18:14 G	34903007.10	34903007.26	34903007.42	0.0512	0.0230
Venus	90850-12-19 10:19 G	34903693.76	34903693.93	34903694.10	0.0527	0.0285
Venus	90851-08-13 23:02 G	34903931.30	34903931.46	34903931.62	0.0529	0.0317
Mercury	90854-09-25 00:43 G	34905069.43	34905069.53	34905069.65	0.0514	0.0260
Mercury	90854-12-23 05:31 G	34905158.65	34905158.73	34905158.80	0.0511	0.0415
Venus	90856-10-25 23:46 G	34905831.31	34905831.49	34905831.67	0.0498	0.0231

Venus	90857-06-19 11:02 G	34906067.80	34906067.96	34906068.14	0.0497	0.0276
Moon	90859-02-13 00:58 G	34906671.42	34906671.54	34906671.68	0.0499	0.0411
Earth	90859-02-13 04:19 G	34906671.56	34906671.68	34906671.81	0.0499	0.0422 *
Mercury	90860-11-19 14:38 G	34907317.05	34907317.11	34907317.18	0.0512	0.0479
Venus	90862-08-24 05:31 G	34907959.63	34907959.73	34907959.84	0.0526	0.0442
Venus	90863-04-18 16:34 G	34908197.00	34908197.19	34908197.38	0.0529	0.0151
Mercury	90866-07-14 05:17 G	34909379.66	34909379.72	34909379.80	0.0514	0.0426
Mercury	90866-10-11 09:50 G	34909468.80	34909468.91	34909469.03	0.0512	0.0247
Venus	90868-06-30 22:34 G	34910097.31	34910097.44	34910097.58	0.0499	0.0373
Venus	90869-02-22 11:46 G	34910333.79	34910333.99	34910334.19	0.0497	0.0137
Mercury	90872-12-06 23:31 G	34911717.33	34911717.48	34911717.64	0.0514	0.0281
Venus	90874-12-22 07:55 G	34912462.63	34912462.83	34912463.03	0.0528	0.0020
Moon	90876-08-04 17:02 G	34913053.98	34913054.21	34913054.44	0.0527	0.0145
Earth	90876-08-04 20:38 G	34913054.15	34913054.36	34913054.59	0.0527	0.0150 *
Mercury	90878-07-30 14:10 G	34913778.97	34913779.09	34913779.22	0.0513	0.0078
Venus	90880-10-28 12:58 G	34914599.83	34914600.04	34914600.24	0.0498	0.0005
Venus	90881-06-21 22:34 G	34914836.42	34914836.44	34914836.46	0.0496	0.0494
Mercury	90884-09-24 20:10 G	34916027.16	34916027.34	34916027.52	0.0513	0.0032
Venus	90886-08-27 00:43 G	34916728.34	34916728.53	34916728.72	0.0527	0.0187
Venus	90887-04-21 13:55 G	34916965.96	34916966.08	34916966.21	0.0529	0.0415
Earth	90888-08-09 19:26 G	34917442.14	34917442.31	34917442.47	0.0527	0.0366
Moon	90888-08-09 22:05 G	34917442.28	34917442.42	34917442.57	0.0527	0.0403 *
Mercury	90890-05-18 18:58 G	34918089.16	34918089.29	34918089.41	0.0514	0.0091
Venus	90892-07-03 13:12 G	34918865.85	34918866.05	34918866.25	0.0498	0.0143
Venus	90893-02-25 00:00 G	34919102.36	34919102.50	34919102.64	0.0496	0.0360
Mercury	90896-07-13 16:19 G	34920337.01	34920337.18	34920337.34	0.0512	0.0226
Venus	90898-05-01 18:00 G	34920994.10	34920994.25	34920994.40	0.0526	0.0353
Venus	90898-12-25 05:31 G	34921231.56	34921231.73	34921231.91	0.0529	0.0246
Mercury	90902-03-07 23:31 G	34922399.37	34922399.48	34922399.60	0.0514	0.0252
Mercury	90902-06-05 04:19 G	34922488.61	34922488.68	34922488.75	0.0512	0.0424

Venus	90904-03-09 12:43 G	34923131.86	34923132.03	34923132.20	0.0499	0.0286
Venus	90904-11-01 01:12 G	34923368.37	34923368.55	34923368.73	0.0497	0.0224
Mercury	90908-05-02 12:43 G	34924646.97	34924647.03	34924647.11	0.0512	0.0473
Venus	90910-01-05 13:26 G	34925260.02	34925260.06	34925260.12	0.0526	0.0509
Venus	90910-08-30 23:31 G	34925497.29	34925497.48	34925497.68	0.0529	0.0081
Mercury	90913-12-25 04:05 G	34926709.60	34926709.67	34926709.75	0.0514	0.0419
Mercury	90914-03-24 08:38 G	34926798.75	34926798.86	34926798.97	0.0512	0.0254
Venus	90915-11-13 09:22 G	34927397.79	34927397.89	34927397.99	0.0500	0.0430
Venus	90916-07-06 23:02 G	34927634.26	34927634.46	34927634.66	0.0497	0.0080
Mercury	90920-05-19 21:22 G	34929047.24	34929047.39	34929047.55	0.0514	0.0284
Venus	90922-05-05 17:31 G	34929763.03	34929763.23	34929763.43	0.0528	0.0086
Venus	90922-12-29 08:10 G	34930000.80	34930000.84	34930000.88	0.0530	0.0517
Mars	90925-11-09 00:29 G	34931046.25	34931046.52	34931046.80	0.0514	0.0212
Mercury	90926-01-10 13:12 G	34931108.92	34931109.05	34931109.17	0.0512	0.0086
Venus	90928-03-11 22:48 G	34931900.25	34931900.45	34931900.66	0.0498	0.0062
Venus	90928-11-03 08:53 G	34932136.78	34932136.87	34932136.97	0.0496	0.0438
Moon	90930-02-08 19:12 G	34932599.08	34932599.30	34932599.53	0.0498	0.0110
Earth	90930-02-08 22:19 G	34932599.20	34932599.43	34932599.67	0.0498	0.0076 *
Mercury	90932-03-07 18:14 G	34933357.07	34933357.26	34933357.44	0.0513	0.0037
Venus	90934-01-08 09:50 G	34934028.74	34934028.91	34934029.09	0.0527	0.0254
Venus	90934-09-02 22:19 G	34934266.28	34934266.43	34934266.58	0.0529	0.0349
Mercury	90937-10-29 17:17 G	34935419.10	34935419.22	34935419.35	0.0513	0.0090
Venus	90939-11-15 22:48 G	34936166.26	34936166.45	34936166.64	0.0499	0.0203
Venus	90940-07-09 10:19 G	34936402.78	34936402.93	34936403.10	0.0497	0.0305
Earth	90942-02-13 11:17 G	34936986.82	34936986.97	34936987.14	0.0499	0.0365
Moon	90942-02-13 15:07 G	34936986.98	34936987.13	34936987.30	0.0499	0.0364 *
Mercury	90943-12-25 14:38 G	34937666.94	34937667.11	34937667.28	0.0512	0.0216
Venus	90945-09-13 03:07 G	34938294.52	34938294.63	34938294.76	0.0526	0.0417
Venus	90946-05-08 13:55 G	34938531.89	34938532.08	34938532.27	0.0529	0.0179
Mercury	90949-08-17 21:50 G	34939729.30	34939729.41	34939729.52	0.0514	0.0256

Mercury	90949-11-15 02:38 G	34939818.53	34939818.61	34939818.68	0.0512	0.0419
Venus	90951-07-21 22:05 G	34940432.28	34940432.42	34940432.57	0.0500	0.0346
Venus	90952-03-14 11:17 G	34940668.78	34940668.97	34940669.17	0.0497	0.0166
Mercury	90955-10-13 10:19 G	34941976.87	34941976.93	34941977.00	0.0512	0.0476
Venus	90958-01-11 05:46 G	34942797.53	34942797.74	34942797.94	0.0528	0.0012
Earth	90959-08-05 22:34 G	34943369.24	34943369.44	34943369.65	0.0528	0.0233
Moon	90959-08-06 01:41 G	34943369.37	34943369.57	34943369.78	0.0528	0.0224 *
Mercury	90961-06-06 02:38 G	34944039.54	34944039.61	34944039.68	0.0515	0.0419
Mercury	90961-09-03 07:12 G	34944128.69	34944128.80	34944128.91	0.0512	0.0255
Venus	90963-03-26 20:53 G	34944698.33	34944698.37	34944698.42	0.0500	0.0487
Venus	90963-11-18 11:46 G	34944934.78	34944934.99	34944935.19	0.0497	0.0026
Mercury	90967-10-30 19:12 G	34946377.15	34946377.30	34946377.45	0.0513	0.0281
Venus	90969-09-16 00:00 G	34947063.31	34947063.50	34947063.69	0.0528	0.0159
Venus	90970-05-11 13:55 G	34947300.98	34947301.08	34947301.19	0.0530	0.0447
Moon	90971-08-10 23:17 G	34947757.28	34947757.47	34947757.66	0.0527	0.0329
Earth	90971-08-11 00:29 G	34947757.34	34947757.52	34947757.72	0.0527	0.0299 *
Mercury	90973-06-22 11:46 G	34948438.86	34948438.99	34948439.11	0.0512	0.0089
Venus	90975-07-24 09:07 G	34949200.68	34949200.88	34949201.08	0.0498	0.0121
Venus	90976-03-16 19:26 G	34949437.18	34949437.31	34949437.44	0.0496	0.0382
Mars	90979-06-18 13:26 G	34950625.82	34950626.06	34950626.31	0.0512	0.0059
Mercury	90979-08-18 15:22 G	34950686.96	34950687.14	34950687.32	0.0513	0.0026
Venus	90981-05-21 18:14 G	34951329.11	34951329.26	34951329.42	0.0527	0.0322
Venus	90982-01-14 06:29 G	34951566.60	34951566.77	34951566.95	0.0529	0.0282
Mercury	90985-04-10 16:05 G	34952749.05	34952749.17	34952749.30	0.0513	0.0082
Venus	90987-03-29 08:10 G	34953466.67	34953466.84	34953467.02	0.0499	0.0264
Venus	90987-11-20 20:10 G	34953703.16	34953703.34	34953703.52	0.0496	0.0246
Mercury	90991-06-06 11:46 G	34954996.83	34954996.99	34954997.16	0.0513	0.0224
Venus	90993-01-24 11:31 G	34955594.91	34955594.98	34955595.06	0.0526	0.0483
Venus	90993-09-18 21:22 G	34955832.20	34955832.39	34955832.59	0.0529	0.0109
Mercury	90997-01-27 20:10 G	34957059.23	34957059.34	34957059.45	0.0514	0.0259

Mercury	90997-04-27 00:43 G	34957148.46	34957148.53	34957148.61	0.0512	0.0416
Venus	90998-12-02 06:58 G	34957732.67	34957732.79	34957732.91	0.0500	0.0407
Venus	90999-07-26 20:53 G	34957969.17	34957969.37	34957969.57	0.0497	0.0106

92ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 92nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	91003-03-26 08:24 G		34959306.78	34959306.85	34959306.91	0.0512	0.0474	
Venus	91005-05-25 13:41 G		34960097.87	34960098.07	34960098.27	0.0528	0.0063	
Mercury	91008-11-17 00:43 G		34961369.46	34961369.53	34961369.60	0.0514	0.0428	
Mercury	91009-02-14 05:17 G		34961458.61	34961458.72	34961458.83	0.0512	0.0246	
Venus	91011-04-01 21:07 G		34962235.17	34962235.38	34962235.58	0.0498	0.0037	
Venus	91011-11-24 06:58 G		34962471.73	34962471.79	34962471.87	0.0496	0.0464	
Earth	91013-02-09 02:24 G		34962914.38	34962914.60	34962914.83	0.0498	0.0143	
Moon	91013-02-09 06:14 G		34962914.54	34962914.76	34962914.98	0.0498	0.0173	*
Mercury	91015-04-12 16:19 G		34963707.02	34963707.18	34963707.33	0.0513	0.0271	
Venus	91017-01-28 05:46 G		34964363.56	34964363.74	34964363.92	0.0527	0.0232	
Venus	91017-09-22 18:29 G		34964601.13	34964601.27	34964601.41	0.0529	0.0373	
Mercury	91020-12-03 09:50 G		34965768.78	34965768.91	34965769.04	0.0513	0.0081	
Venus	91022-12-05 20:24 G		34966501.16	34966501.35	34966501.55	0.0498	0.0179	
Venus	91023-07-30 07:41 G		34966737.67	34966737.82	34966737.97	0.0496	0.0329	
Moon	91025-02-13 09:50 G		34967301.71	34967301.91	34967302.10	0.0499	0.0289	
Earth	91025-02-13 13:12 G		34967301.86	34967302.05	34967302.25	0.0499	0.0286	*

Mercury	91027-01-29 12:43 G	34968016.85	34968017.03	34968017.21	0.0513	0.0020
Venus	91028-10-03 00:29 G	34968629.39	34968629.52	34968629.65	0.0526	0.0394
Venus	91029-05-28 11:46 G	34968866.80	34968866.99	34968867.17	0.0529	0.0206
Mercury	91032-09-21 14:24 G	34970078.98	34970079.10	34970079.23	0.0513	0.0085
Venus	91034-08-10 17:46 G	34970767.09	34970767.24	34970767.40	0.0499	0.0324
Venus	91035-04-04 06:14 G	34971003.57	34971003.76	34971003.95	0.0496	0.0187
Mercury	91038-11-17 08:38 G	34972326.70	34972326.86	34972327.02	0.0513	0.0240
Venus	91041-01-31 04:34 G	34973132.49	34973132.69	34973132.89	0.0529	0.0039
Moon	91042-08-05 23:31 G	34973684.29	34973684.48	34973684.68	0.0528	0.0306
Earth	91042-08-06 01:41 G	34973684.38	34973684.57	34973684.76	0.0528	0.0314 *
Mercury	91044-07-10 18:58 G	34974389.18	34974389.29	34974389.40	0.0513	0.0253
Mercury	91044-10-07 23:31 G	34974478.41	34974478.48	34974478.55	0.0511	0.0419
Venus	91046-04-15 16:05 G	34975033.10	34975033.17	34975033.24	0.0500	0.0467
Venus	91046-12-08 06:00 G	34975269.55	34975269.75	34975269.96	0.0497	0.0047
Mercury	91050-09-05 05:02 G	34976636.66	34976636.71	34976636.76	0.0512	0.0490
Venus	91052-10-05 20:24 G	34977398.16	34977398.35	34977398.55	0.0528	0.0135
Venus	91053-05-31 10:05 G	34977635.84	34977635.92	34977636.02	0.0529	0.0472
Moon	91054-08-10 20:24 G	34978072.15	34978072.35	34978072.56	0.0527	0.0216
Earth	91054-08-10 20:38 G	34978072.15	34978072.36	34978072.58	0.0527	0.0187 *
Mercury	91056-04-28 22:48 G	34978699.39	34978699.45	34978699.52	0.0514	0.0434
Mercury	91056-07-27 03:22 G	34978788.53	34978788.64	34978788.76	0.0512	0.0240
Venus	91058-08-13 05:31 G	34979535.53	34979535.73	34979535.94	0.0498	0.0099
Venus	91059-04-06 16:19 G	34979772.07	34979772.18	34979772.30	0.0496	0.0407
Mercury	91062-09-22 13:55 G	34981036.92	34981037.08	34981037.24	0.0513	0.0268
Venus	91064-06-10 13:26 G	34981663.90	34981664.06	34981664.23	0.0527	0.0301
Venus	91065-02-03 00:58 G	34981901.38	34981901.54	34981901.71	0.0529	0.0303
Mercury	91068-05-15 07:55 G	34983098.70	34983098.83	34983098.95	0.0513	0.0071
Venus	91070-04-18 05:02 G	34983801.53	34983801.71	34983801.89	0.0499	0.0242
Venus	91070-12-10 17:02 G	34984038.04	34984038.21	34984038.39	0.0497	0.0270
Mercury	91074-07-11 09:50 G	34985346.72	34985346.91	34985347.09	0.0513	0.0015

Venus	91076-02-14 06:14 G	34985929.67	34985929.76	34985929.85	0.0526	0.0465
Venus	91076-10-08 16:05 G	34986166.98	34986167.17	34986167.37	0.0529	0.0130
Mercury	91080-03-03 12:29 G	34987408.89	34987409.02	34987409.14	0.0514	0.0098
Venus	91081-12-22 03:36 G	34988067.52	34988067.65	34988067.78	0.0500	0.0386
Venus	91082-08-15 17:17 G	34988304.02	34988304.22	34988304.42	0.0497	0.0129
Mercury	91086-04-29 05:46 G	34989656.59	34989656.74	34989656.91	0.0512	0.0250
Venus	91088-06-13 09:22 G	34990432.69	34990432.89	34990433.10	0.0528	0.0041
Mercury	91091-12-21 17:02 G	34991719.10	34991719.21	34991719.32	0.0514	0.0261
Mercury	91092-03-19 21:36 G	34991808.33	34991808.40	34991808.48	0.0511	0.0412
Venus	91094-04-20 15:50 G	34992569.95	34992570.16	34992570.36	0.0497	0.0016
Venus	91094-12-13 00:58 G	34992806.50	34992806.54	34992806.59	0.0496	0.0483
Moon	91096-02-08 19:41 G	34993229.13	34993229.32	34993229.52	0.0498	0.0273
Earth	91096-02-08 23:31 G	34993229.27	34993229.48	34993229.68	0.0498	0.0242 *
Mercury	91098-05-16 13:41 G	34994057.03	34994057.07	34994057.12	0.0514	0.0496
Venus	91100-02-17 02:53 G	34994698.44	34994698.62	34994698.81	0.0528	0.0207
Venus	91100-10-12 16:34 G	34994936.06	34994936.19	34994936.32	0.0530	0.0402
Mercury	91103-10-10 21:36 G	34996029.33	34996029.40	34996029.47	0.0514	0.0429
Mercury	91104-01-08 01:55 G	34996118.47	34996118.58	34996118.70	0.0512	0.0244
Venus	91105-12-25 14:53 G	34996835.92	34996836.12	34996836.32	0.0498	0.0159
Venus	91106-08-19 01:41 G	34997072.42	34997072.57	34997072.71	0.0496	0.0348
Earth	91108-02-14 10:48 G	34997616.73	34997616.95	34997617.17	0.0498	0.0190
Moon	91108-02-14 13:26 G	34997616.85	34997617.06	34997617.27	0.0498	0.0201 *
Mercury	91110-03-05 10:34 G	34998366.78	34998366.94	34998367.10	0.0514	0.0248
Venus	91111-10-23 20:10 G	34998964.20	34998964.34	34998964.48	0.0526	0.0373
Venus	91112-06-17 06:58 G	34999201.62	34999201.79	34999201.98	0.0529	0.0230
Mercury	91115-10-27 06:00 G	35000428.62	35000428.75	35000428.88	0.0513	0.0062
Venus	91117-08-30 13:12 G	35001101.89	35001102.05	35001102.21	0.0499	0.0306
Venus	91118-04-24 02:10 G	35001338.40	35001338.59	35001338.78	0.0497	0.0209
Mercury	91121-12-22 07:12 G	35002676.61	35002676.80	35002676.98	0.0513	0.0008
Venus	91124-02-20 22:48 G	35003467.25	35003467.45	35003467.66	0.0528	0.0059

Earth	91125-08-05 17:31 G	35003999.12	35003999.23	35003999.37	0.0528	0.0443
Moon	91125-08-05 18:14 G	35003999.14	35003999.26	35003999.40	0.0528	0.0432 *
Mercury	91127-08-15 10:19 G	35004738.80	35004738.93	35004739.05	0.0513	0.0111
Venus	91129-05-05 11:31 G	35005367.89	35005367.98	35005368.07	0.0500	0.0450
Venus	91129-12-28 02:10 G	35005604.39	35005604.59	35005604.80	0.0497	0.0068
Mars	91133-09-12 19:12 G	35006959.11	35006959.30	35006959.49	0.0511	0.0331
Mercury	91133-10-10 02:53 G	35006986.46	35006986.62	35006986.78	0.0512	0.0262
Venus	91135-10-26 14:24 G	35007732.91	35007733.10	35007733.30	0.0528	0.0116
Venus	91136-06-20 04:05 G	35007970.60	35007970.67	35007970.75	0.0530	0.0493
Earth	91137-08-10 15:36 G	35008386.92	35008387.15	35008387.38	0.0528	0.0071
Moon	91137-08-10 17:31 G	35008387.00	35008387.23	35008387.47	0.0528	0.0099 *
Mercury	91139-06-03 14:53 G	35009049.01	35009049.12	35009049.23	0.0514	0.0277
Mercury	91139-08-31 19:26 G	35009138.23	35009138.31	35009138.39	0.0512	0.0398
Venus	91141-09-02 01:55 G	35009870.37	35009870.58	35009870.78	0.0498	0.0076
Venus	91142-04-26 12:14 G	35010106.91	35010107.01	35010107.11	0.0496	0.0429
Mercury	91145-10-27 10:48 G	35011386.90	35011386.95	35011387.01	0.0514	0.0486
Venus	91147-07-01 08:10 G	35011998.67	35011998.84	35011999.01	0.0527	0.0282
Venus	91148-02-23 20:24 G	35012236.19	35012236.35	35012236.51	0.0530	0.0326
Mercury	91151-03-22 19:41 G	35013359.25	35013359.32	35013359.38	0.0514	0.0439
Mercury	91151-06-20 00:00 G	35013448.39	35013448.50	35013448.62	0.0512	0.0235
Venus	91153-05-08 00:14 G	35014136.33	35014136.51	35014136.70	0.0498	0.0221
Venus	91153-12-30 11:31 G	35014372.82	35014372.98	35014373.15	0.0496	0.0290
Mercury	91157-08-15 06:43 G	35015696.62	35015696.78	35015696.95	0.0514	0.0226
Venus	91159-03-06 02:10 G	35016264.49	35016264.59	35016264.70	0.0526	0.0445
Venus	91159-10-29 13:12 G	35016501.85	35016502.05	35016502.24	0.0529	0.0157
Mercury	91163-04-08 04:34 G	35017758.56	35017758.69	35017758.82	0.0513	0.0066
Venus	91165-01-10 22:34 G	35018402.30	35018402.44	35018402.58	0.0499	0.0366
Venus	91165-09-04 11:46 G	35018638.79	35018638.99	35018639.19	0.0497	0.0149
Mercury	91169-06-03 03:36 G	35020006.47	35020006.65	35020006.83	0.0513	0.0022
Venus	91171-07-04 05:02 G	35020767.50	35020767.71	35020767.91	0.0528	0.0021

Mercury	91175-01-25 08:24 G	35022068.73	35022068.85	35022068.98	0.0513	0.0118
Venus	91177-05-10 11:02 G	35022904.76	35022904.96	35022905.17	0.0498	0.0008
Earth	91179-02-09 01:55 G	35023544.41	35023544.58	35023544.77	0.0498	0.0317
Moon	91179-02-09 04:48 G	35023544.54	35023544.70	35023544.87	0.0498	0.0343 *
Mercury	91181-03-22 00:14 G	35024316.36	35024316.51	35024316.67	0.0512	0.0268
Venus	91183-03-08 21:50 G	35025033.23	35025033.41	35025033.60	0.0527	0.0187
Venus	91183-11-01 10:34 G	35025270.82	35025270.94	35025271.06	0.0529	0.0422
Mercury	91186-11-13 12:43 G	35026378.93	35026379.03	35026379.14	0.0514	0.0290
Mercury	91187-02-10 17:17 G	35026468.14	35026468.22	35026468.31	0.0512	0.0385
Venus	91189-01-13 10:19 G	35027170.74	35027170.93	35027171.13	0.0498	0.0141
Venus	91189-09-06 21:50 G	35027407.28	35027407.41	35027407.55	0.0497	0.0370
Moon	91191-02-13 11:31 G	35027931.75	35027931.98	35027932.22	0.0498	0.0126
Earth	91191-02-13 13:12 G	35027931.83	35027932.05	35027932.28	0.0498	0.0116 *
Mercury	91193-04-08 08:10 G	35028716.78	35028716.84	35028716.91	0.0513	0.0475
Venus	91194-11-11 14:10 G	35029298.95	35029299.09	35029299.24	0.0526	0.0355
Venus	91195-07-07 01:12 G	35029536.37	35029536.55	35029536.72	0.0529	0.0249
Mercury	91198-09-01 17:17 G	35030689.17	35030689.22	35030689.28	0.0515	0.0457
Mercury	91198-11-29 21:50 G	35030778.30	35030778.41	35030778.53	0.0513	0.0218
Venus	91200-09-18 09:36 G	35031436.73	35031436.90	35031437.07	0.0499	0.0284
Venus	91201-05-12 22:19 G	35031673.25	35031673.43	35031673.62	0.0497	0.0232
Mercury	91205-01-25 04:19 G	35033026.52	35033026.68	35033026.85	0.0513	0.0221
Venus	91206-07-17 08:24 G	35033564.82	35033564.85	35033564.89	0.0525	0.0515
Venus	91207-03-11 17:46 G	35033802.05	35033802.24	35033802.44	0.0529	0.0080
Moon	91208-08-04 16:34 G	35034314.17	35034314.19	35034314.23	0.0529	0.0525
Mercury	91210-09-18 02:38 G	35035088.48	35035088.61	35035088.74	0.0513	0.0056
Venus	91212-05-24 07:41 G	35035702.72	35035702.82	35035702.93	0.0500	0.0429
Venus	91213-01-15 21:50 G	35035939.20	35035939.41	35035939.61	0.0497	0.0089
Mercury	91216-11-13 00:14 G	35037336.33	35037336.51	35037336.69	0.0513	0.0042
Venus	91218-11-14 11:02 G	35038067.76	35038067.96	35038068.16	0.0528	0.0092
Venus	91219-07-10 01:26 G	35038305.53	35038305.56	35038305.60	0.0530	0.0520

Moon	91220-08-09 13:12 G	35038701.82	35038702.05	35038702.28	0.0528	0.0006
Earth	91220-08-09 16:19 G	35038701.95	35038702.18	35038702.41	0.0528	0.0021 *
Mercury	91222-07-07 07:12 G	35039398.68	35039398.80	35039398.93	0.0513	0.0111
Venus	91224-09-20 21:22 G	35040205.19	35040205.39	35040205.60	0.0498	0.0055
Venus	91225-05-15 07:12 G	35040441.72	35040441.80	35040441.89	0.0496	0.0450
Mercury	91228-08-31 20:53 G	35041646.22	35041646.37	35041646.52	0.0512	0.0288
Venus	91230-07-20 04:19 G	35042333.51	35042333.68	35042333.86	0.0527	0.0261
Venus	91231-03-14 16:34 G	35042571.04	35042571.19	35042571.34	0.0529	0.0348
Earth	91232-08-14 11:31 G	35043089.90	35043089.98	35043090.08	0.0527	0.0484
Moon	91232-08-14 15:50 G	35043090.05	35043090.16	35043090.26	0.0527	0.0467 *
Mercury	91234-04-25 11:02 G	35043708.86	35043708.96	35043709.06	0.0514	0.0295
Mercury	91234-07-23 15:36 G	35043798.06	35043798.15	35043798.23	0.0512	0.0379
Venus	91236-05-26 19:26 G	35044471.12	35044471.31	35044471.50	0.0499	0.0204
Venus	91237-01-18 07:26 G	35044707.65	35044707.81	35044707.97	0.0497	0.0311
Mercury	91240-09-18 06:00 G	35046046.68	35046046.75	35046046.82	0.0514	0.0475
Venus	91242-03-24 22:48 G	35046599.33	35046599.45	35046599.57	0.0526	0.0423
Venus	91242-11-17 08:38 G	35046836.67	35046836.86	35046837.05	0.0529	0.0177
Mercury	91246-02-11 15:22 G	35048019.09	35048019.14	35048019.20	0.0515	0.0466
Mercury	91246-05-11 19:55 G	35048108.21	35048108.33	35048108.45	0.0513	0.0208
Venus	91248-01-30 18:00 G	35048737.10	35048737.25	35048737.39	0.0500	0.0349
Venus	91248-09-23 07:55 G	35048973.64	35048973.83	35048974.03	0.0497	0.0170
Mercury	91252-07-07 01:55 G	35050356.42	35050356.58	35050356.75	0.0513	0.0218
Venus	91254-07-23 00:00 G	35051102.29	35051102.50	35051102.70	0.0528	0.0013
Mercury	91258-02-28 00:29 G	35052418.39	35052418.52	35052418.65	0.0513	0.0041
Venus	91259-10-05 16:34 G	35053003.16	35053003.19	35053003.23	0.0501	0.0492
Venus	91260-05-29 08:10 G	35053239.63	35053239.84	35053240.04	0.0498	0.0028
Moon	91262-02-08 02:10 G	35053859.47	35053859.59	35053859.73	0.0497	0.0419
Earth	91262-02-08 04:05 G	35053859.53	35053859.67	35053859.82	0.0497	0.0392 *
Mercury	91264-04-24 22:05 G	35054666.24	35054666.42	35054666.61	0.0512	0.0039
Venus	91266-03-27 17:17 G	35055368.03	35055368.22	35055368.41	0.0527	0.0166

Venus	91266-11-20 06:14 G	35055605.66	35055605.76	35055605.88	0.0530	0.0446
Mercury	91269-12-17 05:17 G	35056728.60	35056728.72	35056728.85	0.0514	0.0119
Venus	91272-02-02 07:26 G	35057505.61	35057505.81	35057506.01	0.0498	0.0117
Venus	91272-09-25 18:14 G	35057742.14	35057742.26	35057742.39	0.0496	0.0393
Earth	91274-02-12 13:26 G	35058246.82	35058247.06	35058247.29	0.0498	0.0030
Moon	91274-02-12 13:41 G	35058246.85	35058247.07	35058247.30	0.0498	0.0043 *
Mercury	91276-02-11 17:46 G	35058976.10	35058976.24	35058976.40	0.0512	0.0301
Venus	91277-11-30 11:02 G	35059633.81	35059633.96	35059634.12	0.0527	0.0333
Venus	91278-07-25 22:48 G	35059871.28	35059871.45	35059871.62	0.0530	0.0276
Mercury	91281-10-05 09:50 G	35061038.81	35061038.91	35061039.02	0.0514	0.0285
Mercury	91282-01-02 14:24 G	35061128.02	35061128.10	35061128.19	0.0512	0.0390
Venus	91283-10-08 06:43 G	35061771.60	35061771.78	35061771.95	0.0499	0.0262
Venus	91284-05-31 18:58 G	35062008.11	35062008.29	35062008.47	0.0496	0.0254
Earth	91286-02-17 01:12 G	35062634.47	35062634.55	35062634.64	0.0499	0.0462
Moon	91286-02-17 02:38 G	35062634.57	35062634.61	35062634.66	0.0499	0.0488 *
Mercury	91288-02-29 02:53 G	35063376.55	35063376.62	35063376.70	0.0514	0.0463
Venus	91289-08-05 06:00 G	35063899.69	35063899.75	35063899.82	0.0525	0.0494
Venus	91290-03-30 15:22 G	35064136.95	35064137.14	35064137.34	0.0528	0.0104
Mercury	91293-07-24 13:55 G	35065349.03	35065349.08	35065349.13	0.0515	0.0467
Mercury	91293-10-21 18:14 G	35065438.14	35065438.26	35065438.38	0.0513	0.0206
Venus	91295-06-13 03:07 G	35066037.52	35066037.63	35066037.75	0.0500	0.0412
Venus	91296-02-04 17:46 G	35066274.04	35066274.24	35066274.45	0.0497	0.0110
Mercury	91299-12-18 00:14 G	35067686.34	35067686.51	35067686.67	0.0513	0.0223
Venus	91301-12-04 08:53 G	35068402.67	35068402.87	35068403.07	0.0527	0.0068
Earth	91303-08-10 12:00 G	35069016.78	35069017.00	35069017.22	0.0528	0.0131
Moon	91303-08-10 15:50 G	35069016.93	35069017.16	35069017.39	0.0528	0.0101 *
Mercury	91305-08-10 22:48 G	35069748.32	35069748.45	35069748.57	0.0513	0.0037
Venus	91307-10-11 17:46 G	35070540.04	35070540.24	35070540.45	0.0498	0.0037
Venus	91308-06-04 04:34 G	35070776.64	35070776.69	35070776.76	0.0497	0.0472
Mercury	91311-10-06 20:24 G	35071996.16	35071996.35	35071996.53	0.0512	0.0033

Venus	91313-08-09 00:58 G	35072668.36	35072668.54	35072668.72	0.0527	0.0238
Venus	91314-04-03 12:58 G	35072905.90	35072906.04	35072906.18	0.0529	0.0373
Moon	91315-08-15 05:46 G	35073404.58	35073404.74	35073404.91	0.0527	0.0365
Earth	91315-08-15 09:36 G	35073404.75	35073404.90	35073405.06	0.0527	0.0382 *
Mercury	91317-05-30 03:22 G	35074058.51	35074058.64	35074058.76	0.0514	0.0130
Venus	91319-06-16 17:31 G	35074806.04	35074806.23	35074806.42	0.0499	0.0179
Venus	91320-02-08 05:31 G	35075042.59	35075042.73	35075042.89	0.0497	0.0337
Mercury	91323-07-25 16:19 G	35076306.04	35076306.18	35076306.34	0.0512	0.0288
Venus	91325-04-13 19:12 G	35076934.18	35076934.30	35076934.43	0.0526	0.0402
Venus	91325-12-07 05:17 G	35077171.54	35077171.72	35077171.91	0.0529	0.0202
Mercury	91329-03-18 08:10 G	35078368.74	35078368.84	35078368.95	0.0514	0.0290
Mercury	91329-06-15 12:43 G	35078457.95	35078458.03	35078458.12	0.0512	0.0386
Venus	91331-02-19 16:48 G	35079072.04	35079072.20	35079072.36	0.0499	0.0324
Venus	91331-10-14 06:14 G	35079308.57	35079308.76	35079308.95	0.0497	0.0196
Mercury	91335-08-12 00:29 G	35080706.44	35080706.52	35080706.60	0.0514	0.0458
Venus	91337-08-11 22:34 G	35081437.24	35081437.44	35081437.64	0.0529	0.0033
Mercury	91341-01-04 12:58 G	35082678.98	35082679.04	35082679.10	0.0515	0.0453
Mercury	91341-04-03 17:31 G	35082768.11	35082768.23	35082768.34	0.0513	0.0222
Venus	91342-10-25 15:22 G	35083338.07	35083338.14	35083338.21	0.0500	0.0468
Venus	91343-06-19 06:29 G	35083574.56	35083574.77	35083574.97	0.0497	0.0054
Earth	91345-02-08 08:10 G	35084174.75	35084174.84	35084174.93	0.0497	0.0460
Moon	91345-02-08 08:38 G	35084174.81	35084174.86	35084174.90	0.0497	0.0486 *
Mercury	91347-05-30 21:36 G	35085016.24	35085016.40	35085016.57	0.0513	0.0218
Venus	91349-04-16 16:34 G	35085703.00	35085703.19	35085703.39	0.0527	0.0140
Venus	91349-12-10 05:31 G	35085940.65	35085940.73	35085940.82	0.0529	0.0472
Mars	91352-10-14 14:38 G	35086979.96	35086980.11	35086980.29	0.0515	0.0429
Mercury	91353-01-20 21:22 G	35087078.26	35087078.39	35087078.52	0.0513	0.0039
Venus	91355-02-22 04:05 G	35087840.47	35087840.67	35087840.88	0.0499	0.0097
Venus	91355-10-16 15:50 G	35088077.05	35088077.16	35088077.27	0.0497	0.0416
Earth	91357-02-12 20:10 G	35088562.11	35088562.34	35088562.58	0.0498	0.0027

Moon	91357-02-12 21:36 G	35088562.16	35088562.40	35088562.65	0.0498	0.0011	*
Mercury	91359-03-18 18:58 G	35089326.11	35089326.29	35089326.47	0.0513	0.0019	
Venus	91360-12-20 11:17 G	35089968.81	35089968.97	35089969.14	0.0526	0.0305	
Venus	91361-08-14 22:05 G	35090206.26	35090206.42	35090206.59	0.0529	0.0304	
Mercury	91364-11-09 01:41 G	35091388.45	35091388.57	35091388.70	0.0514	0.0132	
Venus	91366-10-28 03:22 G	35092106.47	35092106.64	35092106.83	0.0499	0.0243	
Venus	91367-06-21 16:34 G	35092343.03	35092343.19	35092343.37	0.0497	0.0278	
Moon	91369-02-17 05:46 G	35092949.63	35092949.74	35092949.85	0.0499	0.0435	
Earth	91369-02-17 08:38 G	35092949.74	35092949.86	35092950.00	0.0499	0.0412	*
Mercury	91371-01-04 15:07 G	35093635.98	35093636.13	35093636.29	0.0512	0.0272	
Venus	91372-08-25 04:48 G	35094234.62	35094234.70	35094234.79	0.0525	0.0468	
Venus	91373-04-19 13:41 G	35094471.88	35094472.07	35094472.27	0.0528	0.0131	
Mercury	91376-08-28 06:29 G	35095698.67	35095698.77	35095698.87	0.0515	0.0296	
Mercury	91376-11-25 11:02 G	35095787.87	35095787.96	35095788.04	0.0512	0.0380	
Venus	91378-07-03 02:38 G	35096372.48	35096372.61	35096372.74	0.0500	0.0386	
Venus	91379-02-24 17:31 G	35096609.03	35096609.23	35096609.43	0.0498	0.0138	
Mercury	91383-01-21 23:31 G	35098036.42	35098036.48	35098036.55	0.0513	0.0478	
Venus	91384-12-23 06:58 G	35098737.59	35098737.79	35098737.99	0.0528	0.0040	
Moon	91386-08-09 10:34 G	35099331.73	35099331.94	35099332.16	0.0528	0.0185	
Earth	91386-08-09 14:24 G	35099331.90	35099332.10	35099332.32	0.0528	0.0213	*
Mercury	91388-06-16 11:17 G	35100008.92	35100008.97	35100009.03	0.0515	0.0454	
Mercury	91388-09-13 15:50 G	35100098.05	35100098.16	35100098.28	0.0513	0.0221	
Venus	91390-10-30 18:00 G	35100875.04	35100875.25	35100875.46	0.0498	0.0006	
Mercury	91394-11-09 19:41 G	35102346.16	35102346.32	35102346.49	0.0513	0.0223	
Venus	91396-08-28 00:43 G	35103003.35	35103003.53	35103003.72	0.0527	0.0210	
Venus	91397-04-22 13:26 G	35103240.93	35103241.06	35103241.19	0.0530	0.0405	
Earth	91398-08-14 16:05 G	35103719.99	35103720.17	35103720.36	0.0528	0.0318	
Moon	91398-08-14 19:12 G	35103720.11	35103720.30	35103720.48	0.0528	0.0297	*
Mercury	91400-07-03 20:38 G	35104408.23	35104408.36	35104408.49	0.0513	0.0059	
Venus	91402-07-06 17:46 G	35105141.04	35105141.24	35105141.43	0.0499	0.0151	

Venus	91403-02-28 05:17 G	35105377.59	35105377.72	35105377.86	0.0496	0.0365
Mars	91406-05-31 11:31 G	35106565.76	35106565.98	35106566.20	0.0510	0.0226
Mercury	91406-08-29 17:02 G	35106656.02	35106656.21	35106656.39	0.0512	0.0019
Venus	91408-05-03 20:24 G	35107269.21	35107269.35	35107269.49	0.0526	0.0373
Venus	91408-12-27 06:29 G	35107506.60	35107506.77	35107506.96	0.0529	0.0234
Mercury	91412-04-22 00:29 G	35108718.40	35108718.52	35108718.65	0.0514	0.0124
Venus	91414-03-11 14:24 G	35109406.94	35109407.10	35109407.26	0.0500	0.0303
Venus	91414-11-03 04:19 G	35109643.50	35109643.68	35109643.87	0.0497	0.0220
Mercury	91418-06-17 14:10 G	35110965.93	35110966.09	35110966.25	0.0512	0.0252
Venus	91420-09-01 00:29 G	35111772.32	35111772.52	35111772.72	0.0528	0.0064
Mercury	91424-02-09 05:02 G	35113028.61	35113028.71	35113028.82	0.0514	0.0290
Mercury	91424-05-08 09:36 G	35113117.82	35113117.90	35113117.99	0.0512	0.0384
Venus	91425-11-14 12:58 G	35113672.95	35113673.04	35113673.13	0.0501	0.0448
Venus	91426-07-09 04:48 G	35113909.49	35113909.70	35113909.90	0.0498	0.0078
Mercury	91430-04-05 10:34 G	35115275.91	35115275.94	35115275.97	0.0511	0.0502
Mercury	91430-07-04 22:48 G	35115366.42	35115366.45	35115366.49	0.0513	0.0502
Venus	91432-05-06 17:02 G	35116038.02	35116038.21	35116038.41	0.0527	0.0108
Venus	91432-12-30 05:46 G	35116275.68	35116275.74	35116275.79	0.0529	0.0503
Mercury	91435-11-28 09:50 G	35117338.85	35117338.91	35117338.97	0.0515	0.0454
Mercury	91436-02-25 14:24 G	35117427.98	35117428.10	35117428.21	0.0513	0.0221
Venus	91438-03-14 05:17 G	35118175.51	35118175.72	35118175.92	0.0499	0.0066
Venus	91438-11-05 16:48 G	35118412.12	35118412.20	35118412.29	0.0497	0.0447
Moon	91440-02-14 02:38 G	35118877.38	35118877.61	35118877.84	0.0498	0.0046
Earth	91440-02-14 05:46 G	35118877.50	35118877.74	35118877.97	0.0498	0.0071 *
Mercury	91442-04-22 19:12 G	35119676.15	35119676.30	35119676.46	0.0513	0.0253
Venus	91444-01-10 11:02 G	35120303.79	35120303.96	35120304.13	0.0526	0.0275
Venus	91444-09-03 21:50 G	35120541.26	35120541.41	35120541.57	0.0529	0.0336
Mercury	91447-12-14 19:12 G	35121738.18	35121738.30	35121738.43	0.0514	0.0064
Venus	91449-11-17 05:17 G	35122441.54	35122441.72	35122441.91	0.0499	0.0211
Venus	91450-07-11 18:00 G	35122678.09	35122678.25	35122678.41	0.0497	0.0309

Earth	91452-02-18 16:48 G	35123265.05	35123265.20	35123265.37	0.0498	0.0361
Moon	91452-02-18 20:53 G	35123265.23	35123265.37	35123265.53	0.0498	0.0382 *
Mercury	91454-02-08 15:36 G	35123985.96	35123986.15	35123986.33	0.0512	0.0009
Venus	91455-09-15 05:46 G	35124569.64	35124569.74	35124569.85	0.0525	0.0440
Venus	91456-05-09 15:22 G	35124806.95	35124807.14	35124807.33	0.0529	0.0165
Mercury	91459-10-03 00:14 G	35126048.38	35126048.51	35126048.63	0.0514	0.0099
Venus	91461-07-23 04:34 G	35126707.55	35126707.69	35126707.84	0.0500	0.0356
Venus	91462-03-16 18:58 G	35126944.09	35126944.29	35126944.48	0.0497	0.0168
Mercury	91465-11-27 12:43 G	35128295.87	35128296.03	35128296.19	0.0512	0.0240
Venus	91468-01-13 10:05 G	35129072.72	35129072.92	35129073.12	0.0528	0.0008
Earth	91469-08-09 22:05 G	35129647.22	35129647.42	35129647.62	0.0528	0.0266
Moon	91469-08-10 01:26 G	35129647.36	35129647.56	35129647.76	0.0528	0.0245 *
Mercury	91471-07-22 04:05 G	35130358.57	35130358.67	35130358.78	0.0514	0.0277
Mercury	91471-10-19 08:38 G	35130447.78	35130447.86	35130447.94	0.0512	0.0397
Venus	91473-11-19 16:48 G	35131210.00	35131210.20	35131210.41	0.0498	0.0020
Mercury	91477-09-15 09:50 G	35132605.85	35132605.91	35132605.98	0.0512	0.0476
Venus	91479-09-18 05:02 G	35133338.52	35133338.71	35133338.90	0.0527	0.0173
Venus	91480-05-12 17:02 G	35133576.10	35133576.21	35133576.32	0.0529	0.0440
Moon	91481-08-14 20:38 G	35134035.14	35134035.36	35134035.58	0.0527	0.0225
Earth	91481-08-14 22:05 G	35134035.22	35134035.42	35134035.63	0.0527	0.0255 *
Mercury	91483-05-10 08:53 G	35134668.81	35134668.87	35134668.93	0.0515	0.0442
Mercury	91483-08-07 13:12 G	35134757.94	35134758.05	35134758.17	0.0513	0.0231
Venus	91485-07-25 16:34 G	35135475.99	35135476.19	35135476.39	0.0499	0.0126
Venus	91486-03-19 04:48 G	35135712.58	35135712.70	35135712.83	0.0497	0.0392
Mercury	91489-10-02 18:58 G	35137006.14	35137006.29	35137006.44	0.0513	0.0283
Venus	91491-05-23 22:48 G	35137604.30	35137604.45	35137604.60	0.0526	0.0339
Venus	91492-01-16 08:24 G	35137841.68	35137841.85	35137842.03	0.0528	0.0269
Mercury	91495-05-26 18:00 G	35139068.12	35139068.25	35139068.37	0.0513	0.0068
Venus	91497-03-30 16:34 G	35139742.02	35139742.19	35139742.37	0.0500	0.0271
Venus	91497-11-22 06:29 G	35139978.60	35139978.77	35139978.95	0.0497	0.0254

Mercury	91501-07-22 15:22 G	35141315.96	35141316.14	35141316.33	0.0512	0.0035
Venus	91503-01-27 17:31 G	35141870.18	35141870.23	35141870.29	0.0524	0.0500
Venus	91503-09-22 01:41 G	35142107.37	35142107.57	35142107.76	0.0528	0.0098
Mars	91507-01-11 10:19 G	35143314.65	35143314.93	35143315.22	0.0516	0.0190
Mercury	91507-03-15 22:48 G	35143378.33	35143378.45	35143378.58	0.0514	0.0092
Venus	91508-12-04 16:19 G	35144008.07	35144008.18	35144008.30	0.0501	0.0415
Venus	91509-07-29 07:41 G	35144244.62	35144244.82	35144245.02	0.0498	0.0112
Mercury	91513-05-10 11:31 G	35145625.82	35145625.98	35145626.15	0.0512	0.0221
Venus	91515-05-27 19:41 G	35146373.12	35146373.32	35146373.51	0.0527	0.0074
Mercury	91519-01-02 03:50 G	35147688.55	35147688.66	35147688.77	0.0514	0.0250
Mercury	91519-04-01 08:24 G	35147777.78	35147777.85	35147777.92	0.0512	0.0424
Venus	91521-04-03 07:55 G	35148510.63	35148510.83	35148511.04	0.0498	0.0035
Venus	91521-11-25 19:12 G	35148747.25	35148747.30	35148747.35	0.0497	0.0479
Earth	91523-02-14 16:48 G	35149192.97	35149193.20	35149193.43	0.0498	0.0109
Moon	91523-02-14 20:53 G	35149193.13	35149193.37	35149193.60	0.0498	0.0076 *
Mercury	91525-02-26 08:38 G	35149935.79	35149935.86	35149935.95	0.0511	0.0459
Venus	91527-01-30 15:22 G	35150638.97	35150639.14	35150639.32	0.0526	0.0240
Venus	91527-09-25 02:38 G	35150876.47	35150876.61	35150876.75	0.0529	0.0373
Mercury	91530-10-21 07:55 G	35151998.76	35151998.83	35151998.90	0.0515	0.0426
Mercury	91531-01-18 12:29 G	35152087.90	35152088.02	35152088.13	0.0512	0.0247
Venus	91532-12-07 04:48 G	35152776.51	35152776.70	35152776.90	0.0499	0.0185
Venus	91533-07-31 17:46 G	35153013.09	35153013.24	35153013.39	0.0497	0.0337
Moon	91535-02-19 00:00 G	35153580.34	35153580.50	35153580.68	0.0499	0.0344
Earth	91535-02-19 04:05 G	35153580.50	35153580.67	35153580.85	0.0499	0.0325 *
Mercury	91537-03-15 18:29 G	35154336.13	35154336.27	35154336.42	0.0513	0.0314
Venus	91538-10-05 11:46 G	35154904.86	35154904.99	35154905.12	0.0525	0.0400
Venus	91539-05-30 20:53 G	35155142.18	35155142.37	35155142.55	0.0528	0.0206
Mercury	91542-11-06 17:02 G	35156398.08	35156398.21	35156398.34	0.0513	0.0081
Venus	91544-08-12 04:05 G	35157042.51	35157042.67	35157042.82	0.0500	0.0331
Venus	91545-04-05 18:43 G	35157279.09	35157279.28	35157279.47	0.0498	0.0196

Mercury	91549-01-01 15:22 G	35158645.95	35158646.14	35158646.32	0.0513	0.0069
Venus	91551-02-02 13:12 G	35159407.85	35159408.05	35159408.25	0.0527	0.0034
Moon	91552-08-10 04:05 G	35159962.48	35159962.67	35159962.87	0.0528	0.0311
Earth	91552-08-10 06:00 G	35159962.58	35159962.75	35159962.94	0.0528	0.0323 *
Mercury	91554-08-25 21:36 G	35160708.28	35160708.40	35160708.53	0.0514	0.0085
Venus	91556-04-17 03:22 G	35161308.58	35161308.64	35161308.71	0.0501	0.0474
Venus	91556-12-09 19:55 G	35161545.12	35161545.33	35161545.53	0.0498	0.0055
Mars	91560-08-26 06:14 G	35162900.55	35162900.76	35162900.97	0.0511	0.0279
Mercury	91560-10-20 11:46 G	35162955.82	35162955.99	35162956.16	0.0512	0.0181
Venus	91562-10-08 07:12 G	35163673.60	35163673.80	35163673.99	0.0527	0.0137
Venus	91563-06-02 18:58 G	35163911.21	35163911.29	35163911.38	0.0529	0.0476
Earth	91564-08-15 06:14 G	35164350.55	35164350.76	35164350.98	0.0527	0.0200
Moon	91564-08-15 06:14 G	35164350.55	35164350.76	35164350.98	0.0527	0.0167 *
Mercury	91566-06-14 02:38 G	35165018.50	35165018.61	35165018.72	0.0514	0.0241
Mercury	91566-09-11 07:12 G	35165107.73	35165107.80	35165107.87	0.0512	0.0433
Venus	91568-08-14 20:24 G	35165811.15	35165811.35	35165811.56	0.0499	0.0091
Venus	91569-04-08 08:24 G	35166047.75	35166047.85	35166047.96	0.0497	0.0425
Mercury	91572-08-08 07:55 G	35167265.74	35167265.83	35167265.93	0.0511	0.0435
Venus	91574-06-13 01:41 G	35167939.41	35167939.57	35167939.73	0.0526	0.0305
Venus	91575-02-05 12:00 G	35168176.84	35168177.00	35168177.17	0.0529	0.0307
Mercury	91578-04-02 07:41 G	35169328.74	35169328.82	35169328.90	0.0515	0.0399
Mercury	91578-06-30 12:00 G	35169417.90	35169418.00	35169418.11	0.0513	0.0275
Venus	91580-04-19 20:24 G	35170077.17	35170077.35	35170077.53	0.0500	0.0236
Venus	91580-12-12 09:36 G	35170313.74	35170313.90	35170314.07	0.0497	0.0288
Mercury	91584-08-25 17:31 G	35171666.10	35171666.23	35171666.37	0.0513	0.0335
Venus	91586-02-15 22:19 G	35172205.35	35172205.43	35172205.53	0.0525	0.0465
Venus	91586-10-11 06:58 G	35172442.60	35172442.79	35172442.99	0.0528	0.0138
Mercury	91590-04-18 16:19 G	35173728.05	35173728.18	35173728.30	0.0513	0.0100
Venus	91591-12-24 16:19 G	35174343.05	35174343.18	35174343.31	0.0501	0.0388
Venus	91592-08-17 07:41 G	35174579.62	35174579.82	35174580.01	0.0498	0.0140

Mercury	91596-06-13 14:53 G	35175975.94	35175976.12	35175976.30	0.0513	0.0099
Venus	91598-06-16 02:10 G	35176708.39	35176708.59	35176708.79	0.0527	0.0030
Mercury	91602-02-04 20:53 G	35178038.25	35178038.37	35178038.50	0.0513	0.0067
Venus	91604-04-22 07:55 G	35178845.62	35178845.83	35178846.03	0.0499	0.0007
Moon	91606-02-14 00:14 G	35179508.28	35179508.51	35179508.74	0.0498	0.0112
Earth	91606-02-14 04:05 G	35179508.45	35179508.67	35179508.90	0.0498	0.0144 *
Mercury	91608-04-01 11:31 G	35180285.81	35180285.98	35180286.16	0.0512	0.0147
Venus	91610-02-18 19:26 G	35180974.13	35180974.31	35180974.50	0.0526	0.0200
Venus	91610-10-14 06:29 G	35181211.64	35181211.77	35181211.89	0.0528	0.0413
Mercury	91613-11-24 01:41 G	35182348.45	35182348.57	35182348.68	0.0514	0.0231
Mercury	91614-02-21 06:00 G	35182437.69	35182437.75	35182437.82	0.0512	0.0443
Venus	91615-12-27 08:10 G	35183111.65	35183111.84	35183112.04	0.0499	0.0149
Venus	91616-08-19 21:07 G	35183348.25	35183348.38	35183348.52	0.0497	0.0372
Earth	91618-02-18 17:31 G	35183896.05	35183896.23	35183896.43	0.0499	0.0297
Moon	91618-02-18 20:38 G	35183896.19	35183896.36	35183896.54	0.0499	0.0311 *
Mercury	91620-01-19 07:55 G	35184595.72	35184595.83	35184595.95	0.0511	0.0396
Venus	91621-10-24 14:10 G	35185239.95	35185240.09	35185240.23	0.0525	0.0366
Venus	91622-06-18 23:02 G	35185477.29	35185477.46	35185477.65	0.0528	0.0244
Mercury	91625-09-12 06:29 G	35186658.69	35186658.77	35186658.85	0.0515	0.0390
Mercury	91625-12-10 11:02 G	35186747.85	35186747.96	35186748.06	0.0513	0.0285
Venus	91627-09-01 08:24 G	35187377.68	35187377.85	35187378.01	0.0500	0.0295
Venus	91628-04-24 22:48 G	35187614.27	35187614.45	35187614.63	0.0498	0.0232
Mercury	91632-02-05 16:48 G	35188996.07	35188996.20	35188996.33	0.0513	0.0357
Venus	91634-02-21 16:48 G	35189743.00	35189743.20	35189743.40	0.0528	0.0071
Earth	91635-08-10 17:46 G	35190278.08	35190278.24	35190278.41	0.0528	0.0362
Moon	91635-08-10 18:00 G	35190278.09	35190278.25	35190278.41	0.0528	0.0361 *
Mercury	91637-09-28 15:50 G	35191058.04	35191058.16	35191058.29	0.0513	0.0126
Venus	91639-05-07 07:26 G	35191643.72	35191643.81	35191643.91	0.0501	0.0440
Venus	91639-12-29 23:17 G	35191880.27	35191880.47	35191880.68	0.0498	0.0090
Mercury	91643-11-24 13:55 G	35193305.91	35193306.08	35193306.26	0.0513	0.0121

Venus	91645-10-27 12:29 G	35194008.83	35194009.02	35194009.22	0.0527	0.0098
Venus	91646-06-22 00:43 G	35194246.50	35194246.53	35194246.58	0.0529	0.0517
Earth	91647-08-15 19:26 G	35194666.09	35194666.31	35194666.53	0.0527	0.0169
Moon	91647-08-15 21:07 G	35194666.15	35194666.38	35194666.62	0.0527	0.0135 *
Mercury	91649-07-17 20:10 G	35195368.21	35195368.34	35195368.47	0.0513	0.0046
Venus	91651-09-03 20:24 G	35196146.15	35196146.35	35196146.56	0.0499	0.0063
Venus	91652-04-27 08:24 G	35196382.77	35196382.85	35196382.93	0.0497	0.0454
Mercury	91655-09-12 11:02 G	35197615.78	35197615.96	35197616.14	0.0513	0.0119
Venus	91657-07-02 08:24 G	35198274.68	35198274.85	35198275.02	0.0526	0.0262
Venus	91658-02-24 18:43 G	35198512.13	35198512.28	35198512.43	0.0528	0.0351
Mercury	91661-05-06 00:43 G	35199678.42	35199678.53	35199678.65	0.0514	0.0212
Mercury	91661-08-03 05:17 G	35199767.67	35199767.72	35199767.77	0.0512	0.0460
Venus	91663-05-09 19:55 G	35200412.14	35200412.33	35200412.52	0.0500	0.0208
Venus	91664-01-01 09:22 G	35200648.74	35200648.89	35200649.05	0.0497	0.0317
Mercury	91667-07-01 07:41 G	35201925.69	35201925.82	35201925.95	0.0512	0.0365
Venus	91669-03-07 02:38 G	35202540.50	35202540.61	35202540.73	0.0525	0.0426
Venus	91669-10-30 11:02 G	35202777.77	35202777.96	35202778.15	0.0528	0.0179
Mercury	91673-02-22 05:31 G	35203988.64	35203988.73	35203988.81	0.0514	0.0377
Mercury	91673-05-22 09:50 G	35204077.81	35204077.91	35204078.02	0.0512	0.0295
Venus	91675-01-12 19:26 G	35204678.17	35204678.31	35204678.46	0.0501	0.0354
Venus	91675-09-06 10:48 G	35204914.76	35204914.95	35204915.14	0.0498	0.0176
Mars	91679-02-17 06:14 G	35206174.66	35206174.76	35206174.87	0.0510	0.0459
Mercury	91679-07-18 16:34 G	35206326.08	35206326.19	35206326.31	0.0513	0.0395
Venus	91681-07-05 04:19 G	35207043.48	35207043.68	35207043.88	0.0527	0.0008
Mercury	91685-03-10 14:38 G	35208387.99	35208388.11	35208388.24	0.0513	0.0136
Venus	91686-09-17 18:43 G	35208944.26	35208944.28	35208944.30	0.0502	0.0498
Venus	91687-05-12 11:46 G	35209180.78	35209180.99	35209181.20	0.0498	0.0032
Earth	91689-02-13 16:34 G	35209823.97	35209824.19	35209824.41	0.0498	0.0176
Moon	91689-02-13 19:26 G	35209824.09	35209824.31	35209824.53	0.0498	0.0144 *
Mercury	91691-05-06 12:58 G	35210635.87	35210636.04	35210636.22	0.0513	0.0141

Venus	91693-03-09 22:05 G	35211309.24	35211309.42	35211309.62	0.0527	0.0165
Venus	91693-11-02 09:36 G	35211546.80	35211546.90	35211547.01	0.0529	0.0451
Mercury	91696-12-27 19:41 G	35212698.19	35212698.32	35212698.45	0.0514	0.0024
Venus	91699-01-15 11:46 G	35213446.79	35213446.99	35213447.19	0.0499	0.0114
Venus	91699-09-09 00:00 G	35213683.39	35213683.50	35213683.62	0.0497	0.0406
Moon	91701-02-19 04:19 G	35214211.48	35214211.68	35214211.89	0.0499	0.0263
Earth	91701-02-19 05:31 G	35214211.53	35214211.73	35214211.93	0.0499	0.0260 *
Mercury	91703-02-23 10:05 G	35214945.74	35214945.92	35214946.10	0.0512	0.0099
Venus	91704-11-13 18:43 G	35215575.12	35215575.28	35215575.43	0.0526	0.0329
Venus	91705-07-09 04:19 G	35215812.52	35215812.68	35215812.86	0.0528	0.0284
Mercury	91708-10-17 00:00 G	35217008.39	35217008.50	35217008.62	0.0514	0.0194
Mercury	91709-01-14 04:34 G	35217097.65	35217097.69	35217097.73	0.0511	0.0477
Venus	91710-09-21 08:10 G	35217712.67	35217712.84	35217713.01	0.0500	0.0266
Venus	91711-05-15 22:19 G	35217949.25	35217949.43	35217949.60	0.0497	0.0261
Mercury	91714-12-12 06:43 G	35219255.65	35219255.78	35219255.92	0.0512	0.0343
Venus	91716-07-19 14:53 G	35219841.06	35219841.12	35219841.20	0.0525	0.0488
Venus	91717-03-13 23:02 G	35220078.26	35220078.46	35220078.66	0.0528	0.0115
Earth	91718-08-11 06:29 G	35220593.62	35220593.77	35220593.93	0.0528	0.0396
Moon	91718-08-11 08:10 G	35220593.68	35220593.84	35220593.99	0.0528	0.0397 *
Mercury	91720-08-05 04:48 G	35221318.61	35221318.70	35221318.79	0.0514	0.0358
Mercury	91720-11-02 09:07 G	35221407.78	35221407.88	35221407.98	0.0512	0.0312
Venus	91722-05-27 06:29 G	35221978.66	35221978.77	35221978.89	0.0501	0.0413
Venus	91723-01-18 22:19 G	35222215.23	35222215.43	35222215.64	0.0498	0.0118
Mercury	91726-12-29 16:05 G	35223656.07	35223656.17	35223656.27	0.0514	0.0420
Venus	91728-11-16 15:50 G	35224343.96	35224344.16	35224344.36	0.0527	0.0059
Moon	91730-08-16 00:43 G	35224981.31	35224981.53	35224981.75	0.0527	0.0076
Earth	91730-08-16 03:36 G	35224981.42	35224981.65	35224981.87	0.0527	0.0111 *
Mercury	91732-08-21 13:41 G	35225717.94	35225718.07	35225718.19	0.0513	0.0145
Venus	91734-09-23 23:02 G	35226481.25	35226481.46	35226481.67	0.0499	0.0027
Venus	91735-05-18 11:02 G	35226717.93	35226717.96	35226718.00	0.0497	0.0489

Mercury	91738-10-17 12:43 G	35227965.85	35227966.03	35227966.20	0.0513	0.0172
Venus	91740-07-22 09:36 G	35228609.73	35228609.90	35228610.09	0.0526	0.0229
Venus	91741-03-16 20:10 G	35228847.20	35228847.34	35228847.48	0.0528	0.0386
Mercury	91744-06-09 18:29 G	35230028.14	35230028.27	35230028.39	0.0514	0.0022
Venus	91746-05-29 23:02 G	35230747.27	35230747.46	35230747.66	0.0500	0.0174
Venus	91747-01-21 12:29 G	35230983.88	35230984.02	35230984.16	0.0497	0.0351
Mercury	91750-08-05 08:38 G	35232275.68	35232275.86	35232276.05	0.0512	0.0084
Venus	91752-03-27 04:05 G	35232875.54	35232875.67	35232875.80	0.0525	0.0395
Venus	91752-11-19 12:58 G	35233112.86	35233113.04	35233113.22	0.0528	0.0214
Mercury	91756-03-28 23:17 G	35234338.35	35234338.47	35234338.59	0.0514	0.0177
Mercury	91756-06-26 03:36 G	35234427.63	35234427.65	35234427.69	0.0512	0.0496
Venus	91758-02-01 22:05 G	35235013.27	35235013.42	35235013.58	0.0500	0.0321
Venus	91758-09-26 13:12 G	35235249.86	35235250.05	35235250.24	0.0498	0.0210
Mercury	91762-05-24 05:31 G	35236585.59	35236585.73	35236585.87	0.0512	0.0326
Venus	91764-07-25 07:55 G	35237378.63	35237378.83	35237379.04	0.0528	0.0046
Mercury	91768-01-16 03:50 G	35238648.56	35238648.66	35238648.75	0.0514	0.0344
Mercury	91768-04-14 08:10 G	35238737.74	35238737.84	35238737.94	0.0512	0.0326
Venus	91769-10-07 18:14 G	35239279.19	35239279.26	35239279.33	0.0501	0.0470
Venus	91770-06-01 10:34 G	35239515.73	35239515.94	35239516.14	0.0498	0.0060
Moon	91772-02-14 21:22 G	35240139.17	35240139.39	35240139.62	0.0498	0.0205
Earth	91772-02-14 22:48 G	35240139.24	35240139.45	35240139.66	0.0498	0.0234 *
Mercury	91774-06-10 14:38 G	35240986.02	35240986.11	35240986.21	0.0514	0.0435
Venus	91776-03-30 03:07 G	35241644.44	35241644.63	35241644.83	0.0527	0.0124
Venus	91776-11-22 15:07 G	35241882.06	35241882.13	35241882.20	0.0529	0.0493
Mars	91779-09-25 15:50 G	35242918.93	35242919.16	35242919.40	0.0515	0.0328
Mercury	91779-11-04 08:24 G	35242958.84	35242958.85	35242958.87	0.0514	0.0509
Mercury	91780-02-01 12:43 G	35243047.91	35243048.03	35243048.15	0.0512	0.0160
Venus	91782-02-04 09:50 G	35243781.71	35243781.91	35243782.11	0.0499	0.0087
Venus	91782-09-28 22:05 G	35244018.33	35244018.42	35244018.53	0.0497	0.0433
Moon	91784-02-19 11:02 G	35244526.76	35244526.96	35244527.17	0.0499	0.0199

Earth	91784-02-19 12:00 G	35244526.79	35244527.00	35244527.22	0.0499	0.0205	*
Mercury	91786-03-29 11:17 G	35245295.80	35245295.97	35245296.15	0.0513	0.0190	
Venus	91787-12-03 20:53 G	35245910.20	35245910.37	35245910.53	0.0526	0.0293	
Venus	91788-07-28 06:29 G	35246147.61	35246147.77	35246147.93	0.0528	0.0320	
Mercury	91791-11-20 17:17 G	35247358.09	35247358.22	35247358.34	0.0513	0.0020	
Venus	91793-10-10 09:22 G	35248047.71	35248047.89	35248048.08	0.0500	0.0234	
Venus	91794-06-03 23:46 G	35248284.32	35248284.49	35248284.65	0.0498	0.0294	
Mercury	91798-01-15 07:55 G	35249605.65	35249605.83	35249606.01	0.0512	0.0060	
Venus	91799-08-08 15:22 G	35250176.04	35250176.14	35250176.23	0.0524	0.0457	
Venus	91800-04-02 23:02 G	35250413.27	35250413.46	35250413.66	0.0528	0.0148	
Moon	91801-08-11 07:41 G	35250908.74	35250908.82	35250908.92	0.0528	0.0481	
Earth	91801-08-11 10:19 G	35250908.84	35250908.93	35250909.04	0.0528	0.0473	*
Mercury	91803-09-09 21:50 G	35251668.29	35251668.41	35251668.53	0.0514	0.0174	
Mercury	91803-12-08 02:24 G	35251757.57	35251757.60	35251757.62	0.0512	0.0498	
Venus	91805-06-16 08:24 G	35252313.72	35252313.85	35252313.99	0.0501	0.0381	
Venus	91806-02-08 00:14 G	35252550.32	35252550.51	35252550.71	0.0498	0.0150	
Mercury	91809-11-04 03:50 G	35253915.52	35253915.66	35253915.80	0.0512	0.0318	
Venus	91811-12-07 16:05 G	35254678.97	35254679.17	35254679.37	0.0527	0.0027	
Earth	91813-08-16 09:50 G	35255296.68	35255296.91	35255297.14	0.0527	0.0048	
Moon	91813-08-16 13:41 G	35255296.84	35255297.07	35255297.30	0.0527	0.0017	*
Mercury	91815-06-29 02:38 G	35255978.52	35255978.61	35255978.71	0.0514	0.0335	
Mercury	91815-09-26 07:12 G	35256067.70	35256067.80	35256067.89	0.0512	0.0337	
Venus	91817-10-14 00:14 G	35256816.31	35256816.51	35256816.72	0.0499	0.0007	
Mercury	91821-11-21 12:58 G	35258315.96	35258316.04	35258316.14	0.0514	0.0444	
Venus	91823-08-12 11:31 G	35258944.79	35258944.98	35258945.17	0.0526	0.0194	
Venus	91824-04-05 22:48 G	35259182.33	35259182.45	35259182.57	0.0529	0.0423	
Mercury	91827-04-17 07:26 G	35260288.78	35260288.81	35260288.83	0.0514	0.0500	
Mercury	91827-07-15 11:31 G	35260377.86	35260377.98	35260378.11	0.0512	0.0170	
Venus	91829-06-18 21:07 G	35261082.18	35261082.38	35261082.57	0.0499	0.0147	
Venus	91830-02-10 09:50 G	35261318.78	35261318.91	35261319.04	0.0497	0.0376	

Mars	91833-05-15 12:00 G	35262508.75	35262509.00	35262509.25	0.0511	0.0033
Mercury	91833-09-09 09:22 G	35262625.72	35262625.89	35262626.06	0.0514	0.0194
Venus	91835-04-17 07:12 G	35263210.65	35263210.80	35263210.94	0.0526	0.0359
Venus	91835-12-10 16:34 G	35263448.01	35263448.19	35263448.37	0.0528	0.0254
Mercury	91839-05-03 16:19 G	35264688.05	35264688.18	35264688.30	0.0513	0.0016
Venus	91841-02-21 19:26 G	35265348.15	35265348.31	35265348.48	0.0500	0.0295
Venus	91841-10-16 10:05 G	35265584.74	35265584.92	35265585.10	0.0497	0.0235
Mercury	91845-06-28 06:00 G	35266935.57	35266935.75	35266935.94	0.0513	0.0054
Venus	91846-12-21 01:26 G	35267476.55	35267476.56	35267476.58	0.0524	0.0521
Venus	91847-08-15 08:38 G	35267713.66	35267713.86	35267714.06	0.0527	0.0079
Mercury	91851-02-19 20:38 G	35268998.24	35268998.36	35268998.48	0.0514	0.0171
Mercury	91851-05-20 00:58 G	35269087.52	35269087.54	35269087.56	0.0511	0.0501
Venus	91852-10-27 17:46 G	35269614.15	35269614.24	35269614.34	0.0501	0.0443
Venus	91853-06-21 10:19 G	35269850.73	35269850.93	35269851.14	0.0498	0.0091
Moon	91855-02-15 06:14 G	35270454.57	35270454.76	35270454.96	0.0498	0.0261
Earth	91855-02-15 07:12 G	35270454.61	35270454.80	35270454.99	0.0498	0.0285 *
Mercury	91857-04-16 02:24 G	35271245.45	35271245.60	35271245.75	0.0512	0.0304
Venus	91859-04-20 01:55 G	35271979.38	35271979.58	35271979.78	0.0527	0.0094
Venus	91859-12-13 13:12 G	35272217.03	35272217.05	35272217.09	0.0529	0.0522
Mercury	91862-12-09 01:12 G	35273308.45	35273308.55	35273308.64	0.0514	0.0337
Mercury	91863-03-08 05:31 G	35273397.63	35273397.73	35273397.83	0.0512	0.0335
Venus	91865-02-24 10:05 G	35274116.72	35274116.92	35274117.13	0.0499	0.0058
Venus	91865-10-18 22:34 G	35274353.38	35274353.44	35274353.52	0.0497	0.0463
Earth	91867-02-19 19:26 G	35274842.08	35274842.31	35274842.53	0.0498	0.0150
Moon	91867-02-19 22:05 G	35274842.19	35274842.42	35274842.65	0.0498	0.0137 *
Mercury	91869-05-03 10:48 G	35275645.86	35275645.95	35275646.04	0.0513	0.0444
Venus	91870-12-23 18:58 G	35276245.12	35276245.29	35276245.47	0.0526	0.0266
Venus	91871-08-18 05:02 G	35276482.56	35276482.71	35276482.86	0.0528	0.0350
Mercury	91874-09-27 05:46 G	35277618.72	35277618.74	35277618.77	0.0515	0.0499
Mercury	91874-12-25 10:19 G	35277707.81	35277707.93	35277708.05	0.0513	0.0173

Venus	91876-10-30 09:22 G	35278382.70	35278382.89	35278383.08	0.0500	0.0205
Venus	91877-06-23 23:02 G	35278619.31	35278619.46	35278619.62	0.0497	0.0323
Mercury	91881-02-19 07:26 G	35279955.64	35279955.81	35279955.98	0.0513	0.0197
Venus	91882-08-28 14:53 G	35280511.00	35280511.12	35280511.23	0.0525	0.0429
Venus	91883-04-22 23:17 G	35280748.29	35280748.47	35280748.66	0.0528	0.0181
Mercury	91886-10-13 14:53 G	35282017.99	35282018.12	35282018.24	0.0513	0.0014
Venus	91888-07-05 05:46 G	35282648.60	35282648.74	35282648.88	0.0500	0.0356
Venus	91889-02-26 20:38 G	35282885.17	35282885.36	35282885.56	0.0497	0.0175
Mercury	91892-12-08 03:22 G	35284265.46	35284265.64	35284265.82	0.0513	0.0061
Venus	91894-12-26 17:31 G	35285014.03	35285014.23	35285014.43	0.0528	0.0011
Moon	91896-08-15 13:12 G	35285611.82	35285612.05	35285612.29	0.0527	0.0048
Earth	91896-08-15 17:02 G	35285611.97	35285612.21	35285612.44	0.0527	0.0018 *
Mercury	91898-08-01 19:26 G	35286328.19	35286328.31	35286328.43	0.0513	0.0160
Mercury	91898-10-29 23:46 G	35286417.48	35286417.49	35286417.50	0.0511	0.0509
Venus	91900-11-02 20:10 G	35287151.14	35287151.34	35287151.55	0.0498	0.0029
Mercury	91904-09-26 23:46 G	35288575.35	35288575.49	35288575.64	0.0512	0.0310
Venus	91906-09-01 10:19 G	35289279.74	35289279.93	35289280.12	0.0526	0.0165
Venus	91907-04-26 21:22 G	35289517.29	35289517.39	35289517.50	0.0529	0.0454
Earth	91908-08-21 12:00 G	35289999.92	35290000.00	35290000.10	0.0527	0.0482
Moon	91908-08-21 14:38 G	35290000.05	35290000.11	35290000.18	0.0527	0.0500 *
Mercury	91910-05-21 23:31 G	35290638.39	35290638.48	35290638.58	0.0514	0.0336
Mercury	91910-08-19 03:50 G	35290727.57	35290727.66	35290727.76	0.0512	0.0334
Venus	91912-07-08 19:12 G	35291417.10	35291417.30	35291417.51	0.0499	0.0121
Venus	91913-03-02 08:24 G	35291653.73	35291653.85	35291653.97	0.0497	0.0404
Mercury	91916-10-14 08:53 G	35292975.79	35292975.87	35292975.96	0.0514	0.0450
Venus	91918-05-07 04:19 G	35293545.53	35293545.68	35293545.83	0.0525	0.0334
Venus	91918-12-30 13:12 G	35293782.88	35293783.05	35293783.22	0.0528	0.0280
Mercury	91922-03-10 04:05 G	35294948.65	35294948.67	35294948.69	0.0515	0.0505
Mercury	91922-06-07 08:24 G	35295037.73	35295037.85	35295037.97	0.0513	0.0166
Venus	91924-03-13 18:00 G	35295683.08	35295683.25	35295683.43	0.0500	0.0270

Venus	91924-11-05 08:53 G	35295919.70	35295919.87	35295920.05	0.0498	0.0262
Mercury	91928-08-02 04:48 G	35297285.53	35297285.70	35297285.87	0.0513	0.0190
Venus	91930-01-09 22:05 G	35297811.36	35297811.42	35297811.47	0.0524	0.0500
Venus	91930-09-04 05:17 G	35298048.52	35298048.72	35298048.91	0.0528	0.0105
Mars	91933-12-21 12:58 G	35299252.75	35299253.04	35299253.33	0.0516	0.0164
Mercury	91934-03-26 13:12 G	35299347.92	35299348.05	35299348.17	0.0513	0.0017
Venus	91935-11-17 16:34 G	35299949.07	35299949.19	35299949.30	0.0501	0.0417
Venus	91936-07-11 08:38 G	35300185.66	35300185.86	35300186.06	0.0498	0.0117
Earth	91938-02-15 10:05 G	35300769.77	35300769.92	35300770.09	0.0498	0.0356
Moon	91938-02-15 12:43 G	35300769.86	35300770.03	35300770.22	0.0498	0.0330 *
Mercury	91940-05-21 00:58 G	35301595.36	35301595.54	35301595.73	0.0512	0.0064
Venus	91942-05-09 23:46 G	35302314.29	35302314.49	35302314.69	0.0527	0.0067
Mercury	91946-01-12 17:46 G	35303658.12	35303658.24	35303658.36	0.0513	0.0162
Mercury	91946-04-11 22:05 G	35303747.41	35303747.42	35303747.44	0.0511	0.0508
Venus	91948-03-16 06:00 G	35304451.55	35304451.75	35304451.96	0.0498	0.0034
Venus	91948-11-07 17:46 G	35304688.20	35304688.24	35304688.29	0.0497	0.0484
Moon	91950-02-19 14:38 G	35305156.88	35305157.11	35305157.34	0.0498	0.0047
Earth	91950-02-19 18:00 G	35305157.02	35305157.25	35305157.49	0.0498	0.0060 *
Mercury	91952-03-08 20:38 G	35305905.22	35305905.36	35305905.50	0.0512	0.0325
Venus	91954-01-12 18:00 G	35306580.08	35306580.25	35306580.43	0.0527	0.0237
Venus	91954-09-07 04:48 G	35306817.57	35306817.70	35306817.84	0.0529	0.0384
Mercury	91957-10-31 22:19 G	35307968.34	35307968.43	35307968.53	0.0514	0.0329
Mercury	91958-01-29 02:38 G	35308057.52	35308057.61	35308057.71	0.0512	0.0340
Venus	91959-11-20 04:34 G	35308717.50	35308717.69	35308717.89	0.0499	0.0183
Venus	91960-07-13 17:46 G	35308954.10	35308954.24	35308954.39	0.0497	0.0344
Earth	91962-02-24 06:00 G	35309544.72	35309544.75	35309544.79	0.0499	0.0492
Moon	91962-02-24 09:50 G	35309544.83	35309544.91	35309545.00	0.0499	0.0461
Mercury	91964-03-26 05:46 G	35310305.65	35310305.74	35310305.84	0.0514	0.0437
Venus	91965-09-17 12:00 G	35310845.88	35310846.00	35310846.13	0.0525	0.0405
Venus	91966-05-12 20:24 G	35311083.17	35311083.35	35311083.54	0.0528	0.0208

Mercury	91969-08-20 02:24 G	35312278.59	35312278.60	35312278.62	0.0515	0.0508
Mercury	91969-11-17 06:43 G	35312367.66	35312367.78	35312367.90	0.0512	0.0162
Venus	91971-07-26 02:24 G	35312983.45	35312983.60	35312983.75	0.0500	0.0334
Venus	91972-03-18 17:46 G	35313220.05	35313220.24	35313220.43	0.0498	0.0200
Mercury	91976-01-13 02:24 G	35314615.43	35314615.60	35314615.77	0.0513	0.0188
Venus	91978-01-15 12:58 G	35315348.84	35315349.04	35315349.25	0.0527	0.0035
Earth	91979-08-16 11:46 G	35315926.76	35315926.99	35315927.21	0.0527	0.0132
Moon	91979-08-16 14:53 G	35315926.90	35315927.12	35315927.33	0.0527	0.0161 *
Mercury	91981-09-05 11:17 G	35316677.84	35316677.97	35316678.09	0.0513	0.0020
Venus	91983-03-31 00:14 G	35317249.46	35317249.51	35317249.56	0.0501	0.0484
Venus	91983-11-22 17:31 G	35317486.02	35317486.23	35317486.43	0.0498	0.0053
Mars	91987-08-10 01:12 G	35318842.34	35318842.55	35318842.75	0.0510	0.0283
Mercury	91987-10-31 22:05 G	35318925.24	35318925.42	35318925.60	0.0512	0.0075
Venus	91989-09-20 05:17 G	35319614.53	35319614.72	35319614.92	0.0526	0.0145
Venus	91990-05-15 16:19 G	35319852.11	35319852.18	35319852.28	0.0529	0.0477
Moon	91991-08-21 07:26 G	35320314.65	35320314.81	35320314.97	0.0527	0.0389
Earth	91991-08-21 09:22 G	35320314.73	35320314.89	35320315.05	0.0527	0.0377 *
Mercury	91993-06-24 15:50 G	35320988.04	35320988.16	35320988.28	0.0514	0.0174
Mercury	91993-09-21 20:10 G	35321077.32	35321077.34	35321077.37	0.0512	0.0497
Venus	91995-07-28 16:19 G	35321751.98	35321752.18	35321752.39	0.0499	0.0096
Venus	91996-03-21 05:02 G	35321988.62	35321988.71	35321988.82	0.0497	0.0429
Mercury	91999-08-19 18:00 G	35323235.12	35323235.25	35323235.40	0.0512	0.0331

93RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 93rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	92001-05-26 00:00	G	35323880.35	35323880.50	35323880.67	0.0526	0.0313	
Venus	92002-01-18 09:36	G	35324117.74	35324117.90	35324118.07	0.0529	0.0306	
Mercury	92005-04-12 20:24	G	35325298.26	35325298.35	35325298.45	0.0514	0.0337	
Mercury	92005-07-11 00:43	G	35325387.44	35325387.53	35325387.63	0.0512	0.0334	
Venus	92007-04-02 13:55	G	35326017.90	35326018.08	35326018.26	0.0499	0.0248	
Venus	92007-11-25 03:36	G	35326254.49	35326254.65	35326254.82	0.0497	0.0283	
Mercury	92011-09-06 02:24	G	35327635.50	35327635.60	35327635.71	0.0514	0.0415	
Venus	92013-01-28 18:58	G	35328146.21	35328146.29	35328146.37	0.0525	0.0477	
Venus	92013-09-23 02:53	G	35328383.43	35328383.62	35328383.82	0.0528	0.0134	
Mercury	92017-01-30 00:58	G	35329608.52	35329608.54	35329608.57	0.0514	0.0504	
Mercury	92017-04-29 05:17	G	35329697.60	35329697.72	35329697.84	0.0512	0.0166	
Venus	92018-12-06 11:31	G	35330283.86	35330283.98	35330284.11	0.0500	0.0397	
Venus	92019-07-31 02:53	G	35330520.43	35330520.62	35330520.82	0.0498	0.0138	
Moon	92021-02-14 04:19	G	35331084.57	35331084.68	35331084.80	0.0498	0.0427	
Earth	92021-02-14 07:26	G	35331084.73	35331084.81	35331084.92	0.0498	0.0452	*
Mercury	92023-06-24 22:48	G	35331945.28	35331945.45	35331945.63	0.0513	0.0168	
Venus	92025-05-28 19:41	G	35332649.12	35332649.32	35332649.52	0.0527	0.0044	
Mercury	92029-02-15 09:22	G	35334007.76	35334007.89	35334008.02	0.0513	0.0016	
Venus	92031-04-05 01:41	G	35334786.37	35334786.57	35334786.78	0.0499	0.0017	
Earth	92033-02-18 20:53	G	35335472.13	35335472.37	35335472.60	0.0498	0.0017	
Moon	92033-02-19 00:43	G	35335472.29	35335472.53	35335472.76	0.0498	0.0029	*
Mercury	92035-04-12 19:26	G	35336255.13	35336255.31	35336255.49	0.0512	0.0082	
Venus	92037-01-31 13:12	G	35336914.87	35336915.05	35336915.23	0.0526	0.0216	
Venus	92037-09-25 23:02	G	35337152.34	35337152.46	35337152.60	0.0528	0.0405	
Mercury	92040-12-04 13:41	G	35338317.95	35338318.07	35338318.19	0.0514	0.0186	
Mercury	92041-03-03 18:00	G	35338407.22	35338407.25	35338407.29	0.0512	0.0484	
Venus	92042-12-09 00:29	G	35339052.33	35339052.52	35339052.72	0.0500	0.0163	

Venus	92043-08-02 14:10 G	35339288.96	35339289.09	35339289.23	0.0497	0.0367
Moon	92045-02-23 04:48 G	35339859.55	35339859.70	35339859.85	0.0499	0.0387
Earth	92045-02-23 08:24 G	35339859.73	35339859.85	35339859.98	0.0499	0.0417 *
Mercury	92047-01-29 15:07 G	35340564.99	35340565.13	35340565.26	0.0512	0.0344
Venus	92048-10-06 06:14 G	35341180.63	35341180.76	35341180.90	0.0525	0.0387
Venus	92049-05-31 14:38 G	35341417.93	35341418.11	35341418.29	0.0528	0.0228
Mercury	92052-09-22 18:14 G	35342628.17	35342628.26	35342628.35	0.0514	0.0353
Mercury	92052-12-20 22:34 G	35342717.35	35342717.44	35342717.54	0.0512	0.0319
Venus	92054-08-13 22:48 G	35343318.29	35343318.45	35343318.61	0.0500	0.0313
Venus	92055-04-07 13:55 G	35343554.90	35343555.08	35343555.27	0.0498	0.0223
Mercury	92059-02-15 23:46 G	35344965.38	35344965.49	35344965.60	0.0513	0.0407
Venus	92061-02-03 07:55 G	35345683.63	35345683.83	35345684.03	0.0528	0.0055
Moon	92062-08-15 07:41 G	35346241.61	35346241.82	35346242.03	0.0528	0.0262
Earth	92062-08-15 10:05 G	35346241.71	35346241.92	35346242.12	0.0528	0.0232 *
Mercury	92064-07-11 23:02 G	35346938.46	35346938.46	35346938.47	0.0515	0.0514
Mercury	92064-10-09 03:22 G	35347027.52	35347027.64	35347027.76	0.0513	0.0156
Venus	92066-04-18 20:10 G	35347584.26	35347584.34	35347584.42	0.0501	0.0462
Venus	92066-12-11 12:29 G	35347820.81	35347821.02	35347821.22	0.0498	0.0074
Mercury	92070-12-04 19:12 G	35349275.13	35349275.30	35349275.48	0.0513	0.0143
Venus	92072-10-09 01:41 G	35349949.38	35349949.57	35349949.77	0.0527	0.0120
Venus	92073-06-03 13:41 G	35350187.01	35350187.07	35350187.13	0.0529	0.0504
Earth	92074-08-20 09:50 G	35350629.72	35350629.91	35350630.11	0.0527	0.0286
Moon	92074-08-20 10:05 G	35350629.74	35350629.92	35350630.10	0.0527	0.0304 *
Mercury	92076-07-28 07:55 G	35351337.70	35351337.83	35351337.96	0.0513	0.0015
Venus	92078-08-16 11:02 G	35352086.76	35352086.96	35352087.17	0.0498	0.0077
Venus	92079-04-09 23:17 G	35352323.39	35352323.47	35352323.56	0.0497	0.0448
Mercury	92082-09-22 15:50 G	35353584.98	35353585.16	35353585.34	0.0513	0.0106
Venus	92084-06-13 19:41 G	35354215.16	35354215.32	35354215.49	0.0526	0.0292
Venus	92085-02-06 05:02 G	35354452.56	35354452.71	35354452.87	0.0528	0.0328
Mars	92088-03-15 07:41 G	35355585.77	35355585.82	35355585.89	0.0515	0.0505

Mercury	92088-05-16 12:00 G	35355647.88	35355648.00	35355648.11	0.0514	0.0194
Mercury	92088-08-13 16:05 G	35355737.13	35355737.17	35355737.22	0.0512	0.0477
Venus	92090-04-21 08:38 G	35356352.68	35356352.86	35356353.04	0.0500	0.0230
Venus	92090-12-13 23:02 G	35356589.30	35356589.46	35356589.62	0.0497	0.0304
Mercury	92094-07-11 12:14 G	35357894.88	35357895.01	35357895.15	0.0512	0.0353
Venus	92096-02-17 14:24 G	35358481.01	35358481.10	35358481.20	0.0524	0.0458
Venus	92096-10-11 21:36 G	35358718.21	35358718.40	35358718.60	0.0528	0.0153
Mercury	92100-03-05 16:19 G	35359958.09	35359958.18	35359958.27	0.0514	0.0365
Mercury	92100-06-02 20:38 G	35360047.26	35360047.36	35360047.46	0.0512	0.0305
Venus	92101-12-26 06:14 G	35360618.64	35360618.76	35360618.90	0.0501	0.0381
Venus	92102-08-19 22:34 G	35360855.25	35360855.44	35360855.64	0.0498	0.0158
Mercury	92106-07-29 20:53 G	35362295.25	35362295.37	35362295.48	0.0513	0.0395
Venus	92108-06-17 13:41 G	35362983.87	35362984.07	35362984.27	0.0527	0.0025
Mercury	92112-03-22 01:12 G	35364357.42	35364357.55	35364357.67	0.0513	0.0139
Venus	92114-04-24 21:50 G	35365121.21	35365121.41	35365121.62	0.0499	0.0015
Moon	92116-02-19 17:17 G	35365786.99	35365787.22	35365787.45	0.0498	0.0116
Earth	92116-02-19 20:53 G	35365787.14	35365787.37	35365787.61	0.0498	0.0098 *
Mercury	92118-05-17 16:48 G	35366605.02	35366605.20	35366605.38	0.0513	0.0138
Venus	92120-02-21 07:26 G	35367249.63	35367249.81	35367250.00	0.0526	0.0198
Venus	92120-10-15 18:00 G	35367487.14	35367487.25	35367487.37	0.0529	0.0426
Mercury	92124-01-09 06:00 G	35368667.62	35368667.75	35368667.88	0.0513	0.0023
Venus	92125-12-28 20:10 G	35369387.15	35369387.34	35369387.54	0.0499	0.0142
Venus	92126-08-22 09:07 G	35369623.76	35369623.88	35369624.01	0.0497	0.0388
Earth	92128-02-24 05:31 G	35370174.55	35370174.73	35370174.91	0.0498	0.0320
Moon	92128-02-24 07:55 G	35370174.66	35370174.83	35370175.02	0.0498	0.0297 *
Mercury	92130-03-05 12:14 G	35370914.83	35370915.01	35370915.19	0.0512	0.0128
Venus	92131-10-27 01:55 G	35371515.44	35371515.58	35371515.72	0.0526	0.0367
Venus	92132-06-20 11:02 G	35371752.78	35371752.96	35371753.13	0.0529	0.0253
Mercury	92135-10-28 10:34 G	35372977.82	35372977.94	35372978.06	0.0514	0.0189
Mercury	92136-01-25 14:53 G	35373067.08	35373067.12	35373067.16	0.0512	0.0481

Venus	92137-09-02 18:14 G	35373653.10	35373653.26	35373653.44	0.0500	0.0293
Venus	92138-04-27 09:07 G	35373889.70	35373889.88	35373890.06	0.0497	0.0243
Mercury	92141-12-22 08:38 G	35375224.74	35375224.86	35375224.99	0.0512	0.0376
Venus	92144-02-24 03:50 G	35376018.46	35376018.66	35376018.86	0.0527	0.0075
Earth	92145-08-15 05:17 G	35376556.55	35376556.72	35376556.90	0.0528	0.0343
Moon	92145-08-15 06:29 G	35376556.61	35376556.77	35376556.93	0.0528	0.0370 *
Mercury	92147-08-16 14:24 G	35377288.02	35377288.10	35377288.19	0.0514	0.0372
Mercury	92147-11-13 18:43 G	35377377.18	35377377.28	35377377.39	0.0512	0.0298
Venus	92149-05-08 14:24 G	35377919.02	35377919.10	35377919.20	0.0501	0.0448
Venus	92149-12-31 07:26 G	35378155.61	35378155.81	35378156.01	0.0498	0.0093
Mercury	92154-01-08 18:14 G	35379625.15	35379625.26	35379625.38	0.0513	0.0391
Venus	92155-10-29 21:36 G	35380284.21	35380284.40	35380284.60	0.0526	0.0099
Venus	92156-06-23 08:38 G	35380521.84	35380521.86	35380521.88	0.0529	0.0524
Earth	92157-08-20 02:53 G	35380944.40	35380944.62	35380944.84	0.0527	0.0164
Moon	92157-08-20 04:19 G	35380944.46	35380944.68	35380944.91	0.0527	0.0186 *
Mercury	92159-09-01 23:02 G	35381687.34	35381687.46	35381687.59	0.0513	0.0128
Venus	92161-09-05 06:29 G	35382421.56	35382421.77	35382421.97	0.0499	0.0059
Venus	92162-04-29 19:12 G	35382658.24	35382658.30	35382658.37	0.0497	0.0469
Mercury	92165-10-27 14:10 G	35383934.91	35383935.09	35383935.27	0.0513	0.0132
Venus	92167-07-04 14:24 G	35384549.93	35384550.10	35384550.27	0.0525	0.0273
Venus	92168-02-26 23:31 G	35384787.33	35384787.48	35384787.63	0.0528	0.0349
Mercury	92171-06-21 03:50 G	35385997.53	35385997.66	35385997.78	0.0514	0.0044
Venus	92173-05-11 05:17 G	35386687.53	35386687.72	35386687.91	0.0500	0.0208
Venus	92174-01-02 19:26 G	35386924.16	35386924.31	35386924.47	0.0497	0.0328
Mercury	92177-08-15 10:05 G	35388244.74	35388244.92	35388245.10	0.0512	0.0127
Venus	92179-03-09 09:07 G	35388815.77	35388815.88	35388815.99	0.0525	0.0440
Venus	92179-11-01 16:34 G	35389053.00	35389053.19	35389053.38	0.0528	0.0175
Mercury	92183-04-09 08:38 G	35390307.74	35390307.86	35390307.98	0.0514	0.0200
Mercury	92183-07-07 12:58 G	35390396.99	35390397.04	35390397.09	0.0512	0.0471
Venus	92185-01-14 03:22 G	35390953.50	35390953.64	35390953.79	0.0500	0.0359

Venus	92185-09-07 18:58 G	35391190.10	35391190.29	35391190.48	0.0498	0.0180
Mercury	92189-06-03 05:31 G	35392554.61	35392554.73	35392554.85	0.0512	0.0392
Venus	92191-07-07 10:05 G	35393318.72	35393318.92	35393319.12	0.0528	0.0001
Mercury	92195-01-26 13:12 G	35394617.97	35394618.05	35394618.14	0.0514	0.0365
Mercury	92195-04-25 17:31 G	35394707.13	35394707.23	35394707.34	0.0512	0.0306
Venus	92197-05-13 18:14 G	35395456.06	35395456.26	35395456.47	0.0498	0.0034
Earth	92199-02-18 20:53 G	35396102.15	35396102.37	35396102.59	0.0498	0.0182
Moon	92199-02-18 23:46 G	35396102.28	35396102.49	35396102.70	0.0498	0.0206 *
Mercury	92201-06-21 15:07 G	35396955.01	35396955.13	35396955.26	0.0513	0.0373
Venus	92203-03-13 04:19 G	35397584.50	35397584.68	35397584.88	0.0526	0.0176
Venus	92203-11-05 14:53 G	35397822.02	35397822.12	35397822.22	0.0529	0.0449
Mercury	92207-02-12 21:22 G	35399017.27	35399017.39	35399017.52	0.0513	0.0125
Venus	92209-01-17 15:22 G	35399721.94	35399722.14	35399722.34	0.0499	0.0124
Venus	92209-09-11 05:02 G	35399958.60	35399958.71	35399958.83	0.0497	0.0408
Moon	92211-02-24 07:55 G	35400489.61	35400489.83	35400490.04	0.0499	0.0228
Earth	92211-02-24 09:22 G	35400489.69	35400489.89	35400490.09	0.0499	0.0253 *
Mercury	92213-04-09 12:00 G	35401264.83	35401265.00	35401265.18	0.0513	0.0133
Venus	92214-11-15 23:31 G	35401850.33	35401850.48	35401850.64	0.0525	0.0344
Venus	92215-07-11 07:55 G	35402087.66	35402087.83	35402088.00	0.0528	0.0276
Mercury	92218-12-02 01:55 G	35403327.45	35403327.58	35403327.71	0.0513	0.0047
Venus	92220-09-22 13:41 G	35403987.90	35403988.07	35403988.24	0.0500	0.0275
Venus	92221-05-17 05:17 G	35404224.54	35404224.72	35404224.89	0.0498	0.0264
Mercury	92225-01-26 07:55 G	35405574.66	35405574.83	35405575.01	0.0512	0.0125
Venus	92226-07-21 17:17 G	35406116.19	35406116.22	35406116.27	0.0524	0.0511
Venus	92227-03-15 23:46 G	35406353.29	35406353.49	35406353.69	0.0527	0.0098
Earth	92228-08-15 01:55 G	35406871.46	35406871.58	35406871.70	0.0528	0.0450
Moon	92228-08-15 02:38 G	35406871.50	35406871.61	35406871.72	0.0528	0.0469 *
Mercury	92230-09-20 06:29 G	35407637.66	35407637.77	35407637.89	0.0514	0.0213
Mercury	92230-12-18 10:48 G	35407726.90	35407726.95	35407727.01	0.0512	0.0459
Venus	92232-05-28 11:46 G	35408253.89	35408253.99	35408254.11	0.0501	0.0426

Venus	92233-01-20 05:02 G	35408490.51	35408490.71	35408490.91	0.0498	0.0117
Mercury	92236-11-14 03:50 G	35409884.54	35409884.66	35409884.79	0.0511	0.0382
Venus	92238-11-18 17:31 G	35410619.03	35410619.23	35410619.43	0.0527	0.0077
Moon	92240-08-19 23:02 G	35411259.24	35411259.46	35411259.68	0.0528	0.0094
Earth	92240-08-20 01:55 G	35411259.35	35411259.58	35411259.81	0.0528	0.0067 *
Mercury	92242-07-09 11:31 G	35411947.89	35411947.98	35411948.06	0.0515	0.0372
Mercury	92242-10-06 15:50 G	35412037.05	35412037.16	35412037.26	0.0513	0.0299
Venus	92244-09-25 04:34 G	35412756.48	35412756.69	35412756.89	0.0499	0.0034
Venus	92245-05-19 16:48 G	35412993.18	35412993.20	35412993.22	0.0497	0.0493
Mercury	92248-12-01 12:14 G	35414284.89	35414285.01	35414285.14	0.0513	0.0365
Venus	92250-07-24 11:31 G	35414884.81	35414884.98	35414885.16	0.0526	0.0250
Venus	92251-03-18 21:22 G	35415122.26	35415122.39	35415122.54	0.0529	0.0377
Mercury	92254-07-25 20:24 G	35416347.23	35416347.35	35416347.48	0.0513	0.0136
Venus	92256-05-31 03:07 G	35417022.44	35417022.63	35417022.83	0.0499	0.0184
Venus	92257-01-22 17:02 G	35417259.07	35417259.21	35417259.36	0.0497	0.0352
Mars	92260-04-26 02:53 G	35418448.45	35418448.62	35418448.80	0.0509	0.0363
Mercury	92260-09-19 09:07 G	35418594.71	35418594.88	35418595.07	0.0513	0.0123
Venus	92262-03-29 07:26 G	35419150.69	35419150.81	35419150.93	0.0525	0.0417
Venus	92262-11-21 15:07 G	35419387.95	35419388.13	35419388.32	0.0528	0.0200
Mercury	92266-05-14 00:29 G	35420657.39	35420657.52	35420657.64	0.0513	0.0048
Venus	92268-02-03 23:02 G	35421288.31	35421288.46	35421288.61	0.0501	0.0340
Venus	92268-09-27 15:22 G	35421524.95	35421525.14	35421525.33	0.0498	0.0202
Mercury	92272-07-08 06:14 G	35422904.58	35422904.76	35422904.94	0.0512	0.0117
Venus	92274-07-27 09:22 G	35423653.69	35423653.89	35423654.09	0.0527	0.0027
Mercury	92278-03-02 04:48 G	35424967.59	35424967.70	35424967.82	0.0514	0.0216
Mercury	92278-05-30 09:07 G	35425056.83	35425056.88	35425056.94	0.0512	0.0456
Venus	92279-10-09 20:38 G	35425554.33	35425554.36	35425554.41	0.0502	0.0491
Venus	92280-06-02 14:53 G	35425790.91	35425791.12	35425791.32	0.0499	0.0053
Moon	92282-02-19 01:12 G	35426417.35	35426417.55	35426417.76	0.0498	0.0267
Earth	92282-02-19 02:38 G	35426417.41	35426417.61	35426417.82	0.0498	0.0239 *

Mercury	92284-04-26 02:24 G	35427214.47	35427214.60	35427214.73	0.0511	0.0370
Venus	92286-04-01 02:24 G	35427919.41	35427919.60	35427919.79	0.0526	0.0149
Venus	92286-11-24 12:14 G	35428156.93	35428157.01	35428157.10	0.0528	0.0476
Mercury	92289-12-19 09:36 G	35429277.81	35429277.90	35429277.98	0.0515	0.0381
Mercury	92290-03-18 13:55 G	35429366.97	35429367.08	35429367.18	0.0513	0.0291
Venus	92292-02-06 14:10 G	35430056.89	35430057.09	35430057.30	0.0500	0.0097
Venus	92292-09-30 04:05 G	35430293.57	35430293.67	35430293.76	0.0497	0.0436
Earth	92294-02-23 14:53 G	35430804.91	35430805.12	35430805.34	0.0498	0.0193
Moon	92294-02-23 15:07 G	35430804.92	35430805.13	35430805.34	0.0498	0.0172 *
Mercury	92296-05-13 11:17 G	35431614.85	35431614.97	35431615.09	0.0513	0.0382
Venus	92297-12-04 20:38 G	35432185.21	35432185.36	35432185.53	0.0525	0.0320
Venus	92298-07-30 05:02 G	35432422.55	35432422.71	35432422.88	0.0528	0.0303
Mercury	92302-01-05 18:43 G	35433677.16	35433677.28	35433677.41	0.0513	0.0133
Venus	92303-10-13 13:41 G	35434322.89	35434323.07	35434323.25	0.0500	0.0247
Venus	92304-06-06 04:34 G	35434559.52	35434559.69	35434559.85	0.0498	0.0292
Mercury	92308-03-02 07:12 G	35435924.62	35435924.80	35435924.98	0.0512	0.0123
Venus	92309-08-10 15:36 G	35436451.09	35436451.15	35436451.23	0.0524	0.0487
Venus	92310-04-04 22:48 G	35436688.25	35436688.45	35436688.64	0.0528	0.0127
Earth	92311-08-16 06:43 G	35437186.74	35437186.78	35437186.81	0.0529	0.0521
Mercury	92313-10-24 23:46 G	35437987.36	35437987.49	35437987.61	0.0514	0.0035
Venus	92315-06-18 11:46 G	35438588.87	35438588.99	35438589.12	0.0501	0.0398
Venus	92316-02-10 04:19 G	35438825.48	35438825.68	35438825.88	0.0498	0.0145
Mercury	92319-12-20 04:05 G	35440234.49	35440234.67	35440234.85	0.0512	0.0118
Venus	92321-12-08 17:46 G	35440954.04	35440954.24	35440954.44	0.0527	0.0047
Earth	92323-08-21 05:02 G	35441574.48	35441574.71	35441574.95	0.0527	0.0012
Moon	92323-08-21 08:53 G	35441574.64	35441574.87	35441575.11	0.0527	0.0030 *
Mercury	92325-08-13 03:36 G	35442297.54	35442297.65	35442297.77	0.0514	0.0209
Mercury	92325-11-10 07:55 G	35442386.78	35442386.83	35442386.89	0.0512	0.0461
Venus	92327-10-16 01:41 G	35443091.36	35443091.57	35443091.77	0.0499	0.0015
Mercury	92331-10-08 00:58 G	35444544.42	35444544.54	35444544.68	0.0512	0.0356

Venus	92333-08-13 13:12 G	35445219.87	35445220.05	35445220.24	0.0526	0.0218
Venus	92334-04-07 22:34 G	35445457.32	35445457.44	35445457.57	0.0528	0.0408
Earth	92335-08-26 04:19 G	35445962.62	35445962.68	35445962.74	0.0527	0.0507
Mercury	92337-06-01 08:10 G	35446607.76	35446607.84	35446607.93	0.0514	0.0376
Mercury	92337-08-29 12:29 G	35446696.92	35446697.02	35446697.13	0.0512	0.0294
Venus	92339-06-21 00:14 G	35447357.32	35447357.51	35447357.71	0.0500	0.0162
Venus	92340-02-12 14:53 G	35447593.99	35447594.12	35447594.26	0.0498	0.0376
Mercury	92343-10-25 10:19 G	35448944.82	35448944.93	35448945.04	0.0513	0.0402
Venus	92345-04-18 07:26 G	35449485.68	35449485.81	35449485.95	0.0524	0.0387
Venus	92345-12-11 14:38 G	35449722.93	35449723.11	35449723.30	0.0527	0.0232
Mercury	92349-06-17 17:17 G	35451007.09	35451007.22	35451007.34	0.0513	0.0130
Venus	92351-02-23 23:17 G	35451623.31	35451623.47	35451623.63	0.0501	0.0312
Venus	92351-10-18 15:36 G	35451859.97	35451860.15	35451860.34	0.0498	0.0233
Mercury	92355-08-13 06:29 G	35453254.60	35453254.77	35453254.95	0.0512	0.0151
Venus	92357-08-16 08:10 G	35453988.64	35453988.84	35453989.04	0.0527	0.0057
Mars	92360-11-26 19:12 G	35455187.12	35455187.30	35455187.50	0.0517	0.0403
Mercury	92361-04-05 22:05 G	35455317.30	35455317.42	35455317.55	0.0514	0.0032
Venus	92362-10-29 22:19 G	35455889.35	35455889.43	35455889.51	0.0502	0.0461
Venus	92363-06-23 16:05 G	35456125.96	35456126.17	35456126.37	0.0499	0.0084
Earth	92365-02-19 10:05 G	35456732.74	35456732.92	35456733.12	0.0498	0.0291
Moon	92365-02-19 10:19 G	35456732.76	35456732.93	35456733.10	0.0498	0.0321 *
Mercury	92367-06-01 02:24 G	35457564.42	35457564.60	35457564.78	0.0512	0.0108
Venus	92369-04-21 02:38 G	35458254.41	35458254.61	35458254.81	0.0526	0.0119
Venus	92369-12-14 13:12 G	35458492.01	35458492.05	35458492.11	0.0529	0.0509
Mercury	92373-01-23 03:07 G	35459627.51	35459627.63	35459627.75	0.0514	0.0189
Mercury	92373-04-22 07:26 G	35459716.77	35459716.81	35459716.85	0.0512	0.0483
Venus	92375-02-26 15:22 G	35460391.94	35460392.14	35460392.35	0.0499	0.0066
Venus	92375-10-21 04:34 G	35460628.63	35460628.69	35460628.77	0.0497	0.0466
Earth	92377-02-23 23:17 G	35461120.24	35461120.47	35461120.69	0.0498	0.0143
Moon	92377-02-24 00:43 G	35461120.30	35461120.53	35461120.77	0.0498	0.0127 *

Mercury	92379-03-19 23:17 G	35461874.34	35461874.47	35461874.61	0.0512	0.0348
Venus	92380-12-24 22:48 G	35462520.29	35462520.45	35462520.62	0.0525	0.0288
Venus	92381-08-19 07:26 G	35462757.66	35462757.81	35462757.97	0.0528	0.0336
Mercury	92384-11-11 07:12 G	35463937.71	35463937.80	35463937.89	0.0514	0.0365
Mercury	92385-02-08 11:31 G	35464026.87	35464026.98	35464027.08	0.0512	0.0305
Venus	92386-11-01 11:31 G	35464657.80	35464657.98	35464658.17	0.0500	0.0224
Venus	92387-06-26 02:53 G	35464894.46	35464894.62	35464894.78	0.0498	0.0317
Mercury	92391-04-06 09:22 G	35466274.79	35466274.89	35466275.00	0.0513	0.0426
Venus	92392-08-29 19:41 G	35466786.22	35466786.32	35466786.42	0.0524	0.0451
Venus	92393-04-24 02:24 G	35467023.41	35467023.60	35467023.79	0.0527	0.0165
Mercury	92396-11-27 16:05 G	35468337.05	35468337.17	35468337.29	0.0513	0.0139
Venus	92398-07-07 09:36 G	35468923.77	35468923.90	35468924.04	0.0501	0.0375
Venus	92399-03-01 02:53 G	35469160.43	35469160.62	35469160.81	0.0499	0.0171
Mercury	92403-01-23 06:00 G	35470584.58	35470584.75	35470584.92	0.0513	0.0178
Venus	92404-12-27 19:26 G	35471289.11	35471289.31	35471289.51	0.0526	0.0012
Moon	92406-08-20 06:29 G	35471889.54	35471889.77	35471890.00	0.0527	0.0045
Earth	92406-08-20 10:19 G	35471889.71	35471889.93	35471890.16	0.0527	0.0075 *
Mercury	92408-09-15 20:38 G	35472647.24	35472647.36	35472647.49	0.0514	0.0029
Venus	92410-11-04 03:07 G	35473426.43	35473426.63	35473426.84	0.0499	0.0024
Mars	92414-07-22 13:12 G	35474782.81	35474783.05	35474783.30	0.0509	0.0089
Mercury	92414-11-11 02:10 G	35474894.41	35474894.59	35474894.78	0.0512	0.0074
Venus	92416-09-01 13:41 G	35475554.89	35475555.07	35475555.26	0.0525	0.0185
Venus	92417-04-26 23:02 G	35475792.36	35475792.46	35475792.58	0.0528	0.0441
Earth	92418-08-25 10:05 G	35476277.80	35476277.92	35476278.04	0.0527	0.0442
Moon	92418-08-25 13:12 G	35476277.95	35476278.05	35476278.16	0.0527	0.0460 *
Mercury	92420-07-05 01:41 G	35476957.45	35476957.57	35476957.69	0.0514	0.0183
Mercury	92420-10-02 06:00 G	35477046.72	35477046.75	35477046.79	0.0512	0.0488
Venus	92422-07-10 03:07 G	35477692.43	35477692.63	35477692.83	0.0500	0.0127
Venus	92423-03-03 17:17 G	35477929.11	35477929.22	35477929.34	0.0498	0.0409
Mercury	92426-08-29 22:05 G	35479204.29	35479204.42	35479204.57	0.0511	0.0330

Venus	92428-05-07 08:53 G	35479820.72	35479820.87	35479821.02	0.0525	0.0356
Venus	92428-12-30 16:34 G	35480058.02	35480058.19	35480058.37	0.0528	0.0267
Mercury	92432-04-23 06:43 G	35481267.69	35481267.78	35481267.87	0.0515	0.0342
Mercury	92432-07-21 11:02 G	35481356.86	35481356.96	35481357.06	0.0513	0.0329
Venus	92434-03-15 01:55 G	35481958.41	35481958.58	35481958.76	0.0501	0.0279
Venus	92434-11-06 18:00 G	35482195.08	35482195.25	35482195.42	0.0498	0.0265
Mercury	92438-09-16 08:10 G	35483604.75	35483604.84	35483604.93	0.0513	0.0440
Venus	92440-01-11 06:00 G	35484086.73	35484086.75	35484086.78	0.0524	0.0518
Venus	92440-09-04 12:00 G	35484323.81	35484324.00	35484324.20	0.0527	0.0094
Mercury	92444-05-09 15:07 G	35485667.01	35485667.13	35485667.25	0.0513	0.0154
Venus	92445-11-17 21:07 G	35486224.29	35486224.38	35486224.49	0.0502	0.0436
Venus	92446-07-12 15:07 G	35486460.93	35486461.13	35486461.33	0.0499	0.0111
Earth	92448-02-19 19:12 G	35487048.13	35487048.30	35487048.48	0.0498	0.0334
Moon	92448-02-19 20:53 G	35487048.20	35487048.37	35487048.54	0.0498	0.0363 *
Mercury	92450-07-05 05:31 G	35487914.56	35487914.73	35487914.89	0.0513	0.0205
Venus	92452-05-10 07:55 G	35488589.63	35488589.83	35488590.03	0.0526	0.0078
Mercury	92456-02-26 19:55 G	35489977.20	35489977.33	35489977.46	0.0513	0.0014
Venus	92458-03-17 14:24 G	35490726.90	35490727.10	35490727.31	0.0500	0.0040
Venus	92458-11-09 04:19 G	35490963.66	35490963.68	35490963.71	0.0498	0.0494
Moon	92460-02-24 06:29 G	35491435.54	35491435.77	35491435.99	0.0499	0.0097
Earth	92460-02-24 09:36 G	35491435.67	35491435.90	35491436.13	0.0499	0.0105 *
Mercury	92462-04-23 01:55 G	35492224.40	35492224.58	35492224.77	0.0512	0.0042
Venus	92464-01-14 02:10 G	35492855.41	35492855.59	35492855.77	0.0525	0.0250
Venus	92464-09-07 10:19 G	35493092.79	35493092.93	35493093.07	0.0528	0.0375
Mercury	92467-12-16 00:29 G	35494287.40	35494287.52	35494287.64	0.0514	0.0176
Mercury	92468-03-14 04:48 G	35494376.67	35494376.70	35494376.73	0.0512	0.0495
Venus	92469-11-20 14:10 G	35494992.90	35494993.09	35494993.28	0.0500	0.0189
Venus	92470-07-15 05:31 G	35495229.59	35495229.73	35495229.88	0.0498	0.0353
Mercury	92474-02-08 22:19 G	35496534.28	35496534.43	35496534.58	0.0512	0.0291
Venus	92475-09-18 21:22 G	35497121.27	35497121.39	35497121.51	0.0524	0.0418

Venus	92476-05-13 04:05 G	35497358.48	35497358.67	35497358.85	0.0527	0.0201
Mercury	92479-10-04 05:31 G	35498597.63	35498597.73	35498597.83	0.0515	0.0334
Mercury	92480-01-01 09:50 G	35498686.82	35498686.91	35498687.01	0.0513	0.0337
Venus	92481-07-26 13:26 G	35499258.91	35499259.06	35499259.22	0.0501	0.0340
Venus	92482-03-20 06:14 G	35499495.58	35499495.76	35499495.95	0.0498	0.0207
Mercury	92486-02-26 07:12 G	35500934.73	35500934.80	35500934.88	0.0513	0.0462
Venus	92488-01-16 22:05 G	35501624.22	35501624.42	35501624.62	0.0527	0.0025
Earth	92489-08-19 21:07 G	35502205.16	35502205.38	35502205.61	0.0528	0.0117
Moon	92489-08-20 00:29 G	35502205.30	35502205.52	35502205.75	0.0528	0.0085 *
Mercury	92491-07-23 10:34 G	35502907.90	35502907.94	35502907.97	0.0515	0.0491
Mercury	92491-10-20 14:53 G	35502997.00	35502997.12	35502997.24	0.0513	0.0180
Venus	92493-03-31 12:00 G	35503524.96	35503525.00	35503525.05	0.0502	0.0490
Venus	92493-11-23 06:29 G	35503761.57	35503761.77	35503761.98	0.0499	0.0059
Mercury	92497-12-15 04:19 G	35505244.52	35505244.68	35505244.85	0.0513	0.0225
Venus	92499-09-21 18:29 G	35505890.08	35505890.27	35505890.46	0.0526	0.0147
Venus	92500-05-17 04:05 G	35506127.60	35506127.67	35506127.76	0.0528	0.0482
Moon	92501-08-25 20:24 G	35506593.21	35506593.35	35506593.50	0.0527	0.0411
Earth	92501-08-25 22:05 G	35506593.28	35506593.42	35506593.57	0.0527	0.0407 *
Mercury	92503-08-09 18:58 G	35507307.17	35507307.29	35507307.42	0.0513	0.0019
Venus	92505-07-30 02:53 G	35508027.41	35508027.62	35508027.82	0.0500	0.0099
Venus	92506-03-23 17:02 G	35508264.12	35508264.21	35508264.31	0.0498	0.0438
Mercury	92509-10-04 01:26 G	35509554.38	35509554.56	35509554.75	0.0513	0.0014
Venus	92511-05-28 15:22 G	35510155.98	35510156.14	35510156.30	0.0525	0.0313
Venus	92512-01-20 23:02 G	35510393.30	35510393.46	35510393.62	0.0528	0.0311
Mars	92515-02-22 17:46 G	35511521.98	35511522.24	35511522.51	0.0516	0.0239
Mercury	92515-05-28 23:46 G	35511617.37	35511617.49	35511617.61	0.0514	0.0157
Mercury	92515-08-26 04:05 G	35511706.67	35511706.67	35511706.67	0.0512	0.0511
Venus	92517-04-04 01:41 G	35512293.39	35512293.57	35512293.75	0.0501	0.0251
Venus	92517-11-26 17:46 G	35512530.07	35512530.24	35512530.40	0.0498	0.0294
Mercury	92521-07-22 22:05 G	35513864.26	35513864.42	35513864.58	0.0512	0.0258

Venus	92523-01-31 10:19 G	35514421.86	35514421.93	35514422.01	0.0523	0.0479
Venus	92523-09-25 16:05 G	35514658.98	35514659.17	35514659.37	0.0527	0.0135
Mercury	92527-03-17 04:19 G	35515927.59	35515927.68	35515927.78	0.0514	0.0323
Mercury	92527-06-14 08:38 G	35516016.77	35516016.86	35516016.96	0.0512	0.0348
Venus	92528-12-08 00:29 G	35516559.40	35516559.52	35516559.64	0.0502	0.0401
Venus	92529-08-01 18:14 G	35516796.06	35516796.26	35516796.46	0.0499	0.0148
Moon	92531-02-20 05:46 G	35517363.61	35517363.74	35517363.88	0.0498	0.0394
Earth	92531-02-20 08:53 G	35517363.71	35517363.87	35517364.03	0.0498	0.0362 *
Mercury	92533-05-10 18:29 G	35518174.25	35518174.27	35518174.29	0.0511	0.0506
Mercury	92533-08-09 07:26 G	35518264.78	35518264.81	35518264.85	0.0513	0.0502
Venus	92535-05-31 10:19 G	35518924.73	35518924.93	35518925.13	0.0526	0.0040
Mercury	92539-01-03 09:22 G	35520237.85	35520237.89	35520237.93	0.0515	0.0481
Mercury	92539-04-02 13:41 G	35520326.95	35520327.07	35520327.19	0.0513	0.0189
Venus	92541-04-06 18:43 G	35521062.07	35521062.28	35521062.49	0.0499	0.0004
Earth	92543-02-24 22:19 G	35521751.20	35521751.43	35521751.66	0.0498	0.0074
Moon	92543-02-25 02:10 G	35521751.36	35521751.59	35521751.82	0.0498	0.0080 *
Mercury	92545-05-28 03:36 G	35522574.49	35522574.65	35522574.81	0.0513	0.0249
Venus	92547-02-03 05:02 G	35523190.52	35523190.71	35523190.89	0.0525	0.0214
Venus	92547-09-28 13:41 G	35523427.95	35523428.07	35523428.20	0.0528	0.0414
Mercury	92551-01-19 18:43 G	35524637.15	35524637.28	35524637.40	0.0514	0.0034
Venus	92552-12-10 18:14 G	35525328.06	35525328.26	35525328.45	0.0500	0.0152
Venus	92553-08-04 08:53 G	35525564.75	35525564.87	35525565.00	0.0498	0.0389
Mercury	92557-03-16 00:43 G	35526884.34	35526884.53	35526884.71	0.0512	0.0010
Venus	92558-10-09 02:10 G	35527456.46	35527456.59	35527456.73	0.0524	0.0380
Venus	92559-06-03 09:22 G	35527693.71	35527693.89	35527694.07	0.0527	0.0242
Mercury	92562-11-07 23:02 G	35528947.34	35528947.46	35528947.58	0.0513	0.0138
Venus	92564-08-15 13:41 G	35529593.92	35529594.07	35529594.24	0.0501	0.0310
Venus	92565-04-09 06:14 G	35529830.58	35529830.76	35529830.95	0.0498	0.0237
Mercury	92569-01-01 21:22 G	35531194.23	35531194.39	35531194.56	0.0512	0.0232
Venus	92571-02-06 04:48 G	35531959.51	35531959.70	35531959.90	0.0527	0.0072

Moon	92572-08-20 08:53 G	35532520.64	35532520.87	35532521.10	0.0527	0.0116
Earth	92572-08-20 10:48 G	35532520.73	35532520.95	35532521.17	0.0527	0.0147 *
Mercury	92574-08-27 03:50 G	35533257.56	35533257.66	35533257.76	0.0514	0.0301
Mercury	92574-11-24 07:55 G	35533346.75	35533346.83	35533346.92	0.0512	0.0367
Venus	92576-04-20 12:00 G	35533859.92	35533860.00	35533860.08	0.0502	0.0461
Venus	92576-12-13 06:14 G	35534096.55	35534096.76	35534096.96	0.0499	0.0088
Mercury	92580-10-20 18:00 G	35535504.19	35535504.25	35535504.32	0.0512	0.0476
Venus	92582-10-11 22:48 G	35536225.26	35536225.45	35536225.65	0.0526	0.0105
Venus	92583-06-06 08:24 G	35536462.83	35536462.85	35536462.88	0.0528	0.0522
Moon	92584-08-25 07:12 G	35536908.64	35536908.80	35536908.97	0.0527	0.0353
Earth	92584-08-25 07:41 G	35536908.65	35536908.82	35536908.99	0.0527	0.0356 *
Mercury	92586-06-15 08:24 G	35537567.80	35537567.85	35537567.90	0.0515	0.0467
Mercury	92586-09-12 12:43 G	35537656.91	35537657.03	35537657.15	0.0513	0.0201
Venus	92588-08-18 06:00 G	35538362.55	35538362.75	35538362.96	0.0500	0.0063
Venus	92589-04-11 20:24 G	35538599.30	35538599.35	35538599.42	0.0498	0.0475
Mercury	92592-11-07 03:36 G	35539904.50	35539904.65	35539904.81	0.0513	0.0288
Venus	92594-06-16 17:46 G	35540491.07	35540491.24	35540491.41	0.0525	0.0277
Venus	92595-02-09 01:26 G	35540728.41	35540728.56	35540728.71	0.0527	0.0349
Mercury	92598-07-01 17:31 G	35541967.10	35541967.23	35541967.36	0.0513	0.0042
Venus	92600-04-24 05:46 G	35542628.56	35542628.74	35542628.93	0.0501	0.0214
Venus	92600-12-16 21:36 G	35542865.25	35542865.40	35542865.56	0.0498	0.0332
Mercury	92604-08-26 23:46 G	35544214.31	35544214.49	35544214.68	0.0512	0.0035
Venus	92606-02-20 12:58 G	35544756.94	35544757.04	35544757.14	0.0524	0.0446
Venus	92606-10-15 19:12 G	35544994.11	35544994.30	35544994.49	0.0527	0.0173
Mercury	92610-04-20 22:34 G	35546277.32	35546277.44	35546277.56	0.0514	0.0116
Venus	92611-12-29 04:34 G	35546894.55	35546894.69	35546894.83	0.0501	0.0365
Venus	92612-08-21 21:50 G	35547131.22	35547131.41	35547131.60	0.0499	0.0185
Earth	92614-02-20 20:53 G	35547679.24	35547679.37	35547679.52	0.0498	0.0395
Moon	92614-02-21 00:58 G	35547679.42	35547679.54	35547679.67	0.0498	0.0422 *
Mercury	92616-06-14 20:38 G	35548524.20	35548524.36	35548524.53	0.0512	0.0208

Venus	92618-06-20 15:22 G	35549259.93	35549260.14	35549260.34	0.0526	0.0012
Mercury	92622-02-07 03:07 G	35550587.52	35550587.63	35550587.73	0.0514	0.0283
Mercury	92622-05-07 07:12 G	35550676.72	35550676.80	35550676.89	0.0512	0.0384
Venus	92624-04-26 18:43 G	35551397.07	35551397.28	35551397.48	0.0499	0.0030
Moon	92626-02-25 03:07 G	35552066.39	35552066.63	35552066.86	0.0499	0.0033
Earth	92626-02-25 06:43 G	35552066.55	35552066.78	35552067.02	0.0499	0.0027 *
Mercury	92628-04-02 17:02 G	35552834.13	35552834.21	35552834.30	0.0512	0.0454
Venus	92630-02-23 11:17 G	35553525.79	35553525.97	35553526.17	0.0526	0.0170
Venus	92630-10-18 20:38 G	35553763.26	35553763.36	35553763.45	0.0528	0.0459
Mercury	92633-11-26 07:41 G	35554897.77	35554897.82	35554897.89	0.0514	0.0447
Mercury	92634-02-23 12:00 G	35554986.88	35554987.00	35554987.11	0.0512	0.0221
Venus	92635-12-31 17:31 G	35555663.03	35555663.23	35555663.43	0.0500	0.0123
Venus	92636-08-24 08:10 G	35555899.74	35555899.84	35555899.96	0.0498	0.0418
Earth	92638-03-01 20:38 G	35556454.28	35556454.36	35556454.45	0.0499	0.0464
Moon	92638-03-01 23:31 G	35556454.47	35556454.48	35556454.49	0.0499	0.0499
Mercury	92640-04-20 03:07 G	35557234.49	35557234.63	35557234.78	0.0513	0.0315
Venus	92641-10-29 06:14 G	35557791.61	35557791.76	35557791.92	0.0524	0.0340
Venus	92642-06-23 13:12 G	35558028.89	35558029.05	35558029.22	0.0527	0.0285
Mercury	92645-12-12 16:34 G	35559297.06	35559297.19	35559297.32	0.0513	0.0054
Venus	92647-09-05 16:34 G	35559929.02	35559929.19	35559929.37	0.0501	0.0275
Venus	92648-04-29 09:22 G	35560165.72	35560165.89	35560166.06	0.0499	0.0273
Mercury	92652-02-06 23:31 G	35561544.30	35561544.48	35561544.67	0.0513	0.0068
Venus	92653-07-04 01:41 G	35562057.53	35562057.57	35562057.62	0.0523	0.0506
Venus	92654-02-26 06:58 G	35562294.59	35562294.79	35562294.98	0.0527	0.0108
Moon	92655-08-21 17:46 G	35562836.03	35562836.24	35562836.45	0.0527	0.0179
Earth	92655-08-21 18:00 G	35562836.04	35562836.25	35562836.46	0.0527	0.0210 *
Mercury	92657-09-30 21:22 G	35563607.26	35563607.39	35563607.51	0.0514	0.0108
Venus	92659-05-11 15:36 G	35564195.04	35564195.15	35564195.26	0.0502	0.0426
Venus	92660-01-03 09:36 G	35564431.71	35564431.90	35564432.11	0.0499	0.0126
Mercury	92663-11-25 19:41 G	35565854.14	35565854.32	35565854.49	0.0512	0.0189

Venus	92665-11-01 00:58 G	35566560.34	35566560.54	35566560.74	0.0526	0.0069
Earth	92667-08-26 17:31 G	35567224.04	35567224.23	35567224.42	0.0527	0.0308
Moon	92667-08-26 19:26 G	35567224.12	35567224.31	35567224.51	0.0527	0.0298 *
Mercury	92669-07-20 02:24 G	35567917.49	35567917.60	35567917.70	0.0514	0.0267
Mercury	92669-10-17 06:29 G	35568006.70	35568006.77	35568006.85	0.0512	0.0403
Venus	92671-09-08 09:22 G	35568697.68	35568697.89	35568698.09	0.0500	0.0027
Mercury	92675-09-13 16:19 G	35570164.08	35570164.18	35570164.28	0.0512	0.0433
Venus	92677-07-06 21:22 G	35570826.21	35570826.39	35570826.57	0.0525	0.0239
Venus	92678-03-01 05:46 G	35571063.61	35571063.74	35571063.88	0.0528	0.0390
Mercury	92681-05-08 06:58 G	35572227.72	35572227.79	35572227.86	0.0514	0.0431
Mercury	92681-08-05 11:02 G	35572316.85	35572316.96	35572317.07	0.0512	0.0236
Venus	92683-05-14 05:31 G	35572963.54	35572963.73	35572963.92	0.0500	0.0183
Venus	92684-01-05 20:38 G	35573200.22	35573200.36	35573200.51	0.0498	0.0361
Mars	92687-04-11 02:38 G	35574391.37	35574391.61	35574391.85	0.0510	0.0170
Mercury	92687-10-01 01:55 G	35574564.44	35574564.58	35574564.72	0.0514	0.0331
Venus	92689-03-11 18:00 G	35575092.13	35575092.25	35575092.38	0.0524	0.0405
Venus	92689-11-04 00:58 G	35575329.35	35575329.54	35575329.72	0.0527	0.0218
Mercury	92693-05-24 15:50 G	35576627.03	35576627.16	35576627.28	0.0512	0.0072
Venus	92695-01-17 03:36 G	35577229.50	35577229.65	35577229.81	0.0501	0.0336
Venus	92695-09-10 20:24 G	35577466.17	35577466.35	35577466.54	0.0498	0.0214
Moon	92697-02-20 00:00 G	35577994.44	35577994.50	35577994.56	0.0498	0.0481
Earth	92697-02-20 03:36 G	35577994.56	35577994.65	35577994.75	0.0498	0.0451 *
Mercury	92699-07-19 22:34 G	35578874.26	35578874.44	35578874.62	0.0513	0.0085
Venus	92701-07-10 18:14 G	35579595.06	35579595.26	35579595.46	0.0526	0.0041
Mercury	92705-03-13 20:24 G	35580937.22	35580937.35	35580937.47	0.0513	0.0099
Venus	92706-09-23 01:41 G	35581495.52	35581495.57	35581495.61	0.0502	0.0488
Venus	92707-05-17 20:38 G	35581732.15	35581732.36	35581732.56	0.0499	0.0064
Earth	92709-02-25 18:29 G	35582382.03	35582382.27	35582382.50	0.0499	0.0014
Moon	92709-02-25 21:07 G	35582382.15	35582382.38	35582382.61	0.0499	0.0002 *
Mercury	92711-05-08 18:58 G	35583184.11	35583184.29	35583184.47	0.0512	0.0163

Venus	92713-03-15 12:29 G	35583860.83	35583861.02	35583861.21	0.0525	0.0135
Venus	92713-11-07 21:22 G	35584098.32	35584098.39	35584098.46	0.0528	0.0494
Mercury	92716-12-31 00:58 G	35585247.43	35585247.54	35585247.65	0.0514	0.0261
Mercury	92717-03-30 05:17 G	35585336.64	35585336.72	35585336.80	0.0512	0.0407
Venus	92719-01-20 20:10 G	35585998.13	35585998.34	35585998.54	0.0500	0.0089
Venus	92719-09-14 10:48 G	35586234.87	35586234.95	35586235.04	0.0498	0.0452
Moon	92721-03-02 06:14 G	35586769.66	35586769.76	35586769.87	0.0499	0.0451
Earth	92721-03-02 07:26 G	35586769.69	35586769.81	35586769.93	0.0499	0.0424 *
Mercury	92723-02-24 14:53 G	35587494.01	35587494.12	35587494.22	0.0511	0.0420
Venus	92724-11-18 06:58 G	35588126.63	35588126.79	35588126.95	0.0525	0.0309
Venus	92725-07-13 14:10 G	35588363.93	35588364.09	35588364.25	0.0527	0.0319
Mercury	92728-10-19 06:00 G	35589557.68	35589557.75	35589557.82	0.0515	0.0421
Mercury	92729-01-16 10:05 G	35589646.81	35589646.92	35589647.03	0.0513	0.0248
Venus	92730-09-25 18:58 G	35590264.11	35590264.29	35590264.47	0.0501	0.0241
Venus	92731-05-20 11:02 G	35590500.80	35590500.96	35590501.12	0.0498	0.0307
Mercury	92735-03-14 00:29 G	35591894.39	35591894.52	35591894.66	0.0513	0.0345
Venus	92736-07-24 03:36 G	35592392.57	35592392.65	35592392.73	0.0524	0.0474
Venus	92737-03-18 09:22 G	35592629.70	35592629.89	35592630.09	0.0527	0.0146
Earth	92738-08-22 04:19 G	35593151.48	35593151.68	35593151.89	0.0527	0.0254
Moon	92738-08-22 06:00 G	35593151.54	35593151.75	35593151.97	0.0527	0.0223 *
Mercury	92740-11-04 14:38 G	35593956.99	35593957.11	35593957.24	0.0512	0.0085
Venus	92742-05-31 14:38 G	35594529.99	35594530.11	35594530.24	0.0501	0.0398
Venus	92743-01-23 08:10 G	35594766.64	35594766.84	35594767.04	0.0498	0.0153
Mercury	92746-12-30 20:38 G	35596204.18	35596204.36	35596204.54	0.0513	0.0092
Venus	92748-11-21 04:48 G	35596895.50	35596895.70	35596895.90	0.0527	0.0029
Moon	92750-08-27 01:26 G	35597539.37	35597539.56	35597539.77	0.0527	0.0251
Earth	92750-08-27 04:48 G	35597539.50	35597539.70	35597539.90	0.0527	0.0264 *
Mercury	92752-08-23 19:26 G	35598267.18	35598267.31	35598267.44	0.0513	0.0082
Venus	92754-09-28 07:12 G	35599032.59	35599032.80	35599033.01	0.0499	0.0003
Mercury	92758-10-18 17:17 G	35600514.04	35600514.22	35600514.39	0.0513	0.0155

Venus	92760-07-26 22:48 G	35601161.27	35601161.45	35601161.64	0.0525	0.0204
Venus	92761-03-21 07:12 G	35601398.69	35601398.80	35601398.92	0.0528	0.0427
Mercury	92764-06-11 23:46 G	35602577.38	35602577.49	35602577.60	0.0514	0.0254
Mercury	92764-09-09 03:50 G	35602666.59	35602666.66	35602666.74	0.0512	0.0414
Venus	92766-06-03 06:00 G	35603298.56	35603298.75	35603298.95	0.0500	0.0152
Venus	92767-01-25 21:22 G	35603535.27	35603535.39	35603535.52	0.0498	0.0393
Mercury	92770-08-06 13:26 G	35604823.95	35604824.06	35604824.18	0.0512	0.0404
Venus	92772-03-31 17:46 G	35605427.11	35605427.24	35605427.38	0.0524	0.0375
Venus	92772-11-24 00:14 G	35605664.34	35605664.51	35605664.69	0.0527	0.0251
Mercury	92776-03-31 04:19 G	35606887.61	35606887.68	35606887.76	0.0514	0.0420
Mercury	92776-06-28 08:38 G	35606976.75	35606976.86	35606976.97	0.0512	0.0248
Venus	92778-02-06 04:19 G	35607564.52	35607564.68	35607564.85	0.0501	0.0307
Venus	92778-09-30 21:36 G	35607801.22	35607801.40	35607801.58	0.0499	0.0246
Earth	92780-02-21 12:29 G	35608310.02	35608310.02	35608310.04	0.0498	0.0497
Mercury	92782-08-23 22:34 G	35609224.31	35609224.44	35609224.57	0.0513	0.0349
Venus	92784-07-29 17:17 G	35609930.02	35609930.22	35609930.42	0.0527	0.0071
Mars	92787-11-07 18:43 G	35611126.05	35611126.28	35611126.52	0.0517	0.0318
Mercury	92788-04-16 13:26 G	35611286.93	35611287.06	35611287.18	0.0513	0.0087
Venus	92789-10-12 02:24 G	35611830.53	35611830.60	35611830.69	0.0502	0.0458
Venus	92790-06-05 21:07 G	35612067.18	35612067.38	35612067.58	0.0499	0.0096
Moon	92792-02-26 00:00 G	35612697.25	35612697.50	35612697.74	0.0498	0.0054
Earth	92792-02-26 01:12 G	35612697.32	35612697.55	35612697.78	0.0498	0.0068 *
Mercury	92794-06-11 18:58 G	35613534.11	35613534.29	35613534.47	0.0513	0.0100
Venus	92796-04-03 12:43 G	35614195.84	35614196.03	35614196.23	0.0526	0.0103
Mercury	92800-02-03 18:14 G	35615597.13	35615597.26	35615597.38	0.0513	0.0078
Venus	92802-02-08 17:46 G	35616333.04	35616333.24	35616333.45	0.0499	0.0061
Venus	92802-10-03 07:41 G	35616569.77	35616569.82	35616569.88	0.0497	0.0478
Moon	92804-03-01 08:24 G	35617084.71	35617084.85	35617085.00	0.0499	0.0372
Earth	92804-03-01 09:07 G	35617084.72	35617084.88	35617085.06	0.0499	0.0347 *
Mercury	92806-03-30 14:38 G	35617843.94	35617844.11	35617844.29	0.0513	0.0160

Venus	92807-12-08 08:24 G	35618461.68	35618461.85	35618462.02	0.0525	0.0275
Venus	92808-08-01 16:34 G	35618699.04	35618699.19	35618699.34	0.0528	0.0357
Mercury	92811-11-22 22:48 G	35619907.34	35619907.45	35619907.56	0.0513	0.0241
Mercury	92812-02-20 02:53 G	35619996.55	35619996.62	35619996.69	0.0511	0.0424
Venus	92813-10-14 16:05 G	35620598.98	35620599.17	35620599.35	0.0500	0.0215
Venus	92814-06-08 07:41 G	35620835.66	35620835.82	35620835.97	0.0498	0.0332
Mercury	92818-01-16 11:02 G	35622153.85	35622153.96	35622154.07	0.0512	0.0408
Venus	92819-08-13 03:07 G	35622727.53	35622727.63	35622727.74	0.0524	0.0445
Venus	92820-04-06 09:22 G	35622964.70	35622964.89	35622965.08	0.0527	0.0179
Moon	92821-08-21 04:19 G	35623466.50	35623466.68	35623466.87	0.0527	0.0307
Earth	92821-08-21 06:58 G	35623466.62	35623466.79	35623466.97	0.0527	0.0336 *
Mercury	92823-09-11 03:07 G	35624217.56	35624217.63	35624217.70	0.0514	0.0416
Mercury	92823-12-09 07:12 G	35624306.69	35624306.80	35624306.91	0.0512	0.0251
Venus	92825-06-19 13:26 G	35624864.93	35624865.06	35624865.20	0.0501	0.0371
Venus	92826-02-11 07:12 G	35625101.61	35625101.80	35625101.99	0.0499	0.0182
Mercury	92830-02-02 20:53 G	35626554.24	35626554.37	35626554.50	0.0513	0.0356
Venus	92831-12-11 02:53 G	35627230.42	35627230.62	35627230.82	0.0526	0.0006
Earth	92833-08-26 03:50 G	35627854.45	35627854.66	35627854.88	0.0527	0.0168
Moon	92833-08-26 07:41 G	35627854.60	35627854.82	35627855.04	0.0527	0.0150 *
Mercury	92835-09-27 11:46 G	35628616.86	35628616.99	35628617.12	0.0513	0.0083
Venus	92837-10-17 06:29 G	35629367.57	35629367.77	35629367.98	0.0499	0.0031
Mars	92841-07-06 01:41 G	35630725.34	35630725.57	35630725.80	0.0510	0.0211
Mercury	92841-11-21 16:34 G	35630864.01	35630864.19	35630864.37	0.0513	0.0097
Venus	92843-08-15 20:10 G	35631496.15	35631496.34	35631496.52	0.0525	0.0178
Venus	92844-04-09 04:34 G	35631733.60	35631733.69	35631733.80	0.0528	0.0455
Mercury	92847-07-16 16:34 G	35632927.06	35632927.19	35632927.31	0.0513	0.0080
Venus	92849-06-22 05:02 G	35633633.51	35633633.71	35633633.91	0.0500	0.0124
Venus	92850-02-13 20:10 G	35633870.23	35633870.34	35633870.45	0.0498	0.0421
Mercury	92853-09-09 12:43 G	35635173.85	35635174.03	35635174.20	0.0512	0.0157
Venus	92855-04-20 15:50 G	35635762.01	35635762.16	35635762.31	0.0525	0.0349

Venus	92855-12-13 23:02 G	35635999.29	35635999.46	35635999.63	0.0528	0.0281
Mercury	92859-05-04 21:22 G	35637237.28	35637237.39	35637237.50	0.0513	0.0242
Mercury	92859-08-02 01:26 G	35637326.49	35637326.56	35637326.63	0.0511	0.0424
Venus	92861-02-25 01:41 G	35637899.40	35637899.57	35637899.74	0.0500	0.0280
Venus	92861-10-19 17:46 G	35638136.07	35638136.24	35638136.42	0.0498	0.0270
Mercury	92865-06-28 08:10 G	35639483.73	35639483.84	35639483.94	0.0512	0.0422
Venus	92866-12-24 11:17 G	35640027.95	35640027.97	35640028.01	0.0524	0.0516
Venus	92867-08-18 17:02 G	35640265.02	35640265.21	35640265.41	0.0527	0.0105
Mercury	92871-02-21 01:55 G	35641547.50	35641547.58	35641547.66	0.0514	0.0407
Mercury	92871-05-21 06:00 G	35641636.64	35641636.75	35641636.86	0.0512	0.0258
Venus	92872-10-30 22:48 G	35642165.36	35642165.45	35642165.56	0.0501	0.0436
Venus	92873-06-24 16:48 G	35642402.00	35642402.20	35642402.40	0.0498	0.0119
Moon	92875-02-25 00:00 G	35643012.28	35643012.50	35643012.72	0.0498	0.0137
Earth	92875-02-25 00:29 G	35643012.30	35643012.52	35643012.75	0.0498	0.0156 *
Mercury	92877-07-15 17:46 G	35643884.11	35643884.24	35643884.38	0.0514	0.0345
Venus	92879-04-23 10:48 G	35644530.75	35644530.95	35644531.15	0.0526	0.0075
Mercury	92883-03-09 10:05 G	35645946.80	35645946.92	35645947.05	0.0513	0.0082
Venus	92885-02-27 15:07 G	35646667.92	35646668.13	35646668.34	0.0500	0.0036
Earth	92887-03-01 14:10 G	35647399.90	35647400.09	35647400.29	0.0499	0.0282
Moon	92887-03-01 16:48 G	35647400.02	35647400.20	35647400.40	0.0499	0.0304 *
Mercury	92889-05-03 14:10 G	35648193.91	35648194.09	35648194.28	0.0513	0.0096
Venus	92890-12-27 05:02 G	35648796.54	35648796.71	35648796.89	0.0525	0.0250
Venus	92891-08-21 12:43 G	35649033.89	35649034.03	35649034.17	0.0527	0.0382
Mercury	92894-12-26 14:38 G	35650256.98	35650257.11	35650257.24	0.0513	0.0088
Venus	92896-11-02 13:26 G	35650933.87	35650934.06	35650934.25	0.0500	0.0192
Venus	92897-06-27 05:17 G	35651170.59	35651170.72	35651170.87	0.0498	0.0358
Mercury	92901-02-20 09:50 G	35652503.74	35652503.91	35652504.09	0.0512	0.0166
Venus	92902-09-01 22:48 G	35653062.34	35653062.45	35653062.57	0.0524	0.0424
Venus	92903-04-27 04:48 G	35653299.52	35653299.70	35653299.89	0.0527	0.0202
Earth	92904-08-21 04:34 G	35653781.57	35653781.69	35653781.82	0.0528	0.0438

Moon	92904-08-21 08:10 G	35653781.70	35653781.84	35653781.99	0.0528	0.0410	*
Mercury	92906-10-15 19:12 G	35654567.19	35654567.30	35654567.41	0.0514	0.0253	
Mercury	92907-01-12 23:31 G	35654656.41	35654656.48	35654656.55	0.0512	0.0415	
Venus	92908-07-09 11:17 G	35655199.82	35655199.97	35655200.12	0.0501	0.0346	
Venus	92909-03-03 04:34 G	35655436.51	35655436.69	35655436.88	0.0498	0.0209	
Mercury	92912-12-09 05:46 G	35656813.64	35656813.74	35656813.84	0.0512	0.0423	
Venus	92914-12-30 23:17 G	35657565.27	35657565.47	35657565.67	0.0527	0.0026	
Moon	92916-08-26 01:26 G	35658169.33	35658169.56	35658169.79	0.0527	0.0057	
Earth	92916-08-26 05:02 G	35658169.49	35658169.71	35658169.94	0.0527	0.0081	*
Mercury	92918-08-04 00:14 G	35658877.43	35658877.51	35658877.58	0.0514	0.0414	
Mercury	92918-11-01 04:19 G	35658966.57	35658966.68	35658966.79	0.0512	0.0253	
Venus	92920-03-14 07:41 G	35659465.82	35659465.82	35659465.83	0.0502	0.0501	
Venus	92920-11-06 02:24 G	35659702.39	35659702.60	35659702.80	0.0499	0.0054	
Mercury	92924-12-26 14:24 G	35661213.96	35661214.10	35661214.24	0.0514	0.0324	
Venus	92926-09-04 17:31 G	35661831.04	35661831.23	35661831.43	0.0526	0.0152	
Venus	92927-04-30 03:07 G	35662068.56	35662068.63	35662068.71	0.0528	0.0485	
Mercury	92930-08-20 08:53 G	35663276.74	35663276.87	35663277.00	0.0512	0.0086	
Venus	92932-07-12 00:14 G	35663968.31	35663968.51	35663968.72	0.0499	0.0102	
Venus	92933-03-05 14:38 G	35664205.02	35664205.11	35664205.21	0.0497	0.0442	
Mercury	92936-10-14 10:48 G	35665523.77	35665523.95	35665524.13	0.0513	0.0074	
Venus	92938-05-10 12:14 G	35666096.86	35666097.01	35666097.17	0.0525	0.0327	
Venus	92939-01-02 19:26 G	35666334.15	35666334.31	35666334.47	0.0528	0.0305	
Mars	92942-02-01 01:41 G	35667459.28	35667459.57	35667459.88	0.0516	0.0091	
Mercury	92942-06-08 12:58 G	35667586.91	35667587.04	35667587.16	0.0513	0.0093	
Venus	92944-03-16 21:22 G	35668234.21	35668234.39	35668234.57	0.0501	0.0260	
Venus	92944-11-08 13:55 G	35668470.92	35668471.08	35668471.25	0.0498	0.0294	
Mercury	92948-08-02 07:12 G	35669833.63	35669833.80	35669833.98	0.0512	0.0174	
Venus	92950-01-13 07:26 G	35670362.75	35670362.81	35670362.87	0.0523	0.0495	
Venus	92950-09-07 12:29 G	35670599.83	35670600.02	35670600.22	0.0527	0.0127	
Mercury	92954-03-27 17:17 G	35671897.11	35671897.22	35671897.33	0.0514	0.0264	

Mercury	92954-06-24 21:36 G	35671986.32	35671986.40	35671986.47	0.0512	0.0403
Venus	92955-11-20 18:29 G	35672500.17	35672500.27	35672500.39	0.0502	0.0417
Venus	92956-07-14 12:58 G	35672736.85	35672737.04	35672737.24	0.0499	0.0141
Earth	92958-02-25 03:07 G	35673327.42	35673327.63	35673327.84	0.0498	0.0226
Moon	92958-02-25 05:31 G	35673327.51	35673327.73	35673327.96	0.0498	0.0199 *
Mercury	92960-05-21 02:38 G	35674143.52	35674143.61	35674143.71	0.0512	0.0436
Venus	92962-05-13 05:17 G	35674865.52	35674865.72	35674865.92	0.0526	0.0055
Mercury	92966-01-13 22:05 G	35676207.35	35676207.42	35676207.48	0.0515	0.0430
Mercury	92966-04-13 02:10 G	35676296.48	35676296.59	35676296.70	0.0513	0.0238
Venus	92968-03-19 11:46 G	35677002.78	35677002.99	35677003.19	0.0499	0.0017
Moon	92970-03-01 11:17 G	35677714.76	35677714.97	35677715.17	0.0498	0.0222
Earth	92970-03-01 14:38 G	35677714.90	35677715.11	35677715.33	0.0498	0.0199 *
Mercury	92972-06-07 11:46 G	35678543.85	35678543.99	35678544.14	0.0513	0.0318
Venus	92974-01-15 23:46 G	35679131.31	35679131.49	35679131.67	0.0525	0.0230
Venus	92974-09-10 07:55 G	35679368.71	35679368.83	35679368.96	0.0528	0.0406
Mercury	92978-01-30 06:58 G	35680606.66	35680606.79	35680606.92	0.0513	0.0076
Venus	92979-11-23 09:07 G	35681268.69	35681268.88	35681269.08	0.0500	0.0170
Venus	92980-07-17 00:14 G	35681505.38	35681505.51	35681505.65	0.0497	0.0379
Mercury	92984-03-26 07:12 G	35682853.61	35682853.80	35682853.98	0.0513	0.0051
Venus	92985-09-20 18:29 G	35683397.15	35683397.27	35683397.40	0.0525	0.0404
Venus	92986-05-16 01:26 G	35683634.38	35683634.56	35683634.74	0.0528	0.0228
Moon	92987-08-21 01:41 G	35684096.51	35684096.57	35684096.63	0.0528	0.0507
Mercury	92989-11-18 11:31 G	35684916.86	35684916.98	35684917.11	0.0513	0.0090
Venus	92991-07-29 06:29 G	35685534.62	35685534.77	35685534.93	0.0501	0.0326
Venus	92992-03-21 23:17 G	35685771.29	35685771.47	35685771.65	0.0498	0.0229
Mars	92995-09-30 04:34 G	35687058.59	35687058.69	35687058.80	0.0510	0.0463
Mercury	92996-01-13 03:22 G	35687163.47	35687163.64	35687163.81	0.0512	0.0200
Venus	92998-01-18 18:43 G	35687900.08	35687900.28	35687900.48	0.0527	0.0048
Earth	92999-08-26 00:43 G	35688484.30	35688484.53	35688484.76	0.0527	0.0029
Moon	92999-08-26 03:36 G	35688484.43	35688484.65	35688484.88	0.0527	0.0057 *

94TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 94th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	93001-09-07 15:36	G	35689227.04	35689227.15	35689227.26	0.0514	0.0271	
Mercury	93001-12-05 19:41	G	35689316.24	35689316.32	35689316.40	0.0512	0.0395	
Venus	93003-04-04 02:10	G	35689800.54	35689800.59	35689800.64	0.0502	0.0486	
Venus	93003-11-26 21:22	G	35690037.18	35690037.39	35690037.59	0.0499	0.0073	
Mercury	93007-11-01 23:46	G	35691473.41	35691473.49	35691473.58	0.0512	0.0447	
Venus	93009-09-24 12:58	G	35692165.85	35692166.04	35692166.24	0.0525	0.0131	
Venus	93010-05-19 21:36	G	35692403.35	35692403.40	35692403.46	0.0528	0.0505	
Moon	93011-08-31 19:26	G	35692872.19	35692872.31	35692872.44	0.0527	0.0443	
Earth	93011-08-31 21:22	G	35692872.29	35692872.39	35692872.49	0.0527	0.0471	*
Mercury	93013-06-26 19:55	G	35693537.27	35693537.33	35693537.39	0.0514	0.0442	
Mercury	93013-09-24 00:00	G	35693626.39	35693626.50	35693626.62	0.0512	0.0225	
Venus	93015-08-01 19:26	G	35694303.10	35694303.31	35694303.51	0.0500	0.0083	
Venus	93016-03-25 10:19	G	35694539.87	35694539.93	35694540.01	0.0498	0.0464	
Mercury	93019-11-19 08:53	G	35695873.72	35695873.87	35695874.02	0.0513	0.0304	
Venus	93021-05-30 06:14	G	35696431.61	35696431.76	35696431.93	0.0524	0.0309	
Venus	93022-01-22 13:12	G	35696668.90	35696669.05	35696669.21	0.0527	0.0325	
Mercury	93025-07-13 04:34	G	35697936.57	35697936.69	35697936.82	0.0513	0.0059	
Venus	93027-04-06 17:31	G	35698569.04	35698569.23	35698569.41	0.0501	0.0239	
Venus	93027-11-29 09:50	G	35698805.76	35698805.91	35698806.08	0.0498	0.0317	

Mercury	93031-09-07 04:34 G	35700183.51	35700183.69	35700183.88	0.0512	0.0046
Venus	93033-02-02 01:26 G	35700697.48	35700697.56	35700697.64	0.0524	0.0478
Venus	93033-09-27 06:43 G	35700934.59	35700934.78	35700934.98	0.0527	0.0147
Mercury	93037-05-01 09:36 G	35702246.77	35702246.90	35702247.02	0.0513	0.0104
Venus	93038-12-10 14:38 G	35702834.99	35702835.11	35702835.24	0.0501	0.0395
Venus	93039-08-04 08:24 G	35703071.66	35703071.85	35703072.05	0.0498	0.0163
Moon	93041-02-24 20:53 G	35703642.19	35703642.37	35703642.56	0.0498	0.0294
Earth	93041-02-25 00:14 G	35703642.33	35703642.51	35703642.69	0.0498	0.0321 *
Mercury	93043-06-25 23:46 G	35704493.32	35704493.49	35704493.66	0.0512	0.0224
Venus	93045-06-02 00:43 G	35705200.33	35705200.53	35705200.73	0.0527	0.0033
Mercury	93049-02-17 14:10 G	35706556.98	35706557.09	35706557.20	0.0514	0.0267
Mercury	93049-05-17 18:14 G	35706646.18	35706646.26	35706646.34	0.0512	0.0399
Venus	93051-04-09 06:58 G	35707337.58	35707337.79	35707337.99	0.0499	0.0013
Earth	93053-03-01 12:00 G	35708029.77	35708030.00	35708030.23	0.0498	0.0105
Moon	93053-03-01 16:05 G	35708029.94	35708030.17	35708030.40	0.0498	0.0129 *
Mercury	93055-04-13 20:10 G	35708803.27	35708803.34	35708803.40	0.0512	0.0473
Venus	93057-02-04 19:12 G	35709466.12	35709466.30	35709466.49	0.0525	0.0211
Venus	93057-09-30 03:22 G	35709703.53	35709703.64	35709703.76	0.0528	0.0427
Mercury	93060-12-06 18:00 G	35710867.20	35710867.25	35710867.31	0.0514	0.0449
Mercury	93061-03-05 22:19 G	35710956.31	35710956.43	35710956.54	0.0512	0.0218
Venus	93062-12-13 03:22 G	35711603.45	35711603.64	35711603.84	0.0500	0.0153
Venus	93063-08-06 18:58 G	35711840.18	35711840.29	35711840.42	0.0498	0.0399
Mercury	93067-05-01 06:14 G	35713203.61	35713203.76	35713203.91	0.0513	0.0296
Venus	93068-10-10 14:38 G	35713731.98	35713732.11	35713732.25	0.0524	0.0383
Venus	93069-06-04 20:53 G	35713969.19	35713969.37	35713969.55	0.0527	0.0249
Mercury	93072-12-23 02:38 G	35715266.48	35715266.61	35715266.74	0.0513	0.0047
Venus	93074-08-18 00:43 G	35715869.37	35715869.53	35715869.70	0.0501	0.0311
Venus	93075-04-11 18:14 G	35716106.09	35716106.26	35716106.44	0.0499	0.0249
Mercury	93079-02-17 01:55 G	35717513.39	35717513.58	35717513.76	0.0512	0.0037
Venus	93081-02-07 13:12 G	35718234.85	35718235.05	35718235.25	0.0526	0.0068

Moon	93082-08-25 16:19 G	35718798.96	35718799.18	35718799.41	0.0527	0.0174
Earth	93082-08-25 18:58 G	35718799.07	35718799.29	35718799.51	0.0527	0.0146 *
Mercury	93084-10-11 07:12 G	35719576.68	35719576.80	35719576.93	0.0514	0.0121
Venus	93086-04-22 22:19 G	35720135.36	35720135.43	35720135.51	0.0502	0.0465
Venus	93086-12-15 17:31 G	35720372.02	35720372.23	35720372.43	0.0499	0.0096
Mercury	93090-12-05 21:36 G	35721823.23	35721823.40	35721823.57	0.0512	0.0223
Venus	93092-10-13 07:12 G	35722500.61	35722500.80	35722501.00	0.0526	0.0112
Venus	93093-06-07 16:19 G	35722738.17	35722738.18	35722738.19	0.0528	0.0526
Earth	93094-08-30 18:00 G	35723187.09	35723187.25	35723187.42	0.0527	0.0366
Moon	93094-08-30 18:43 G	35723187.11	35723187.28	35723187.45	0.0527	0.0343 *
Mars	93096-04-27 00:43 G	35723792.40	35723792.53	35723792.68	0.0516	0.0454
Mercury	93096-07-30 12:14 G	35723886.90	35723887.01	35723887.11	0.0514	0.0281
Mercury	93096-10-27 16:19 G	35723976.10	35723976.18	35723976.26	0.0512	0.0387
Venus	93098-08-20 15:50 G	35724637.95	35724638.16	35724638.37	0.0499	0.0061
Venus	93099-04-14 06:14 G	35724874.72	35724874.76	35724874.80	0.0497	0.0485
Mercury	93102-09-24 16:34 G	35726133.15	35726133.19	35726133.24	0.0511	0.0492
Venus	93104-06-19 01:41 G	35726766.40	35726766.57	35726766.74	0.0525	0.0289
Venus	93105-02-11 09:22 G	35727003.74	35727003.89	35727004.04	0.0528	0.0349
Mercury	93108-05-19 16:48 G	35728197.14	35728197.20	35728197.26	0.0515	0.0444
Mercury	93108-08-16 20:53 G	35728286.26	35728286.37	35728286.49	0.0512	0.0223
Venus	93110-04-26 13:41 G	35728903.89	35728904.07	35728904.26	0.0500	0.0218
Venus	93110-12-19 05:31 G	35729140.59	35729140.73	35729140.89	0.0498	0.0338
Mars	93114-03-23 19:41 G	35730331.24	35730331.32	35730331.43	0.0509	0.0469
Mercury	93114-10-12 02:38 G	35730533.46	35730533.61	35730533.77	0.0513	0.0274
Venus	93116-02-22 21:36 G	35731032.31	35731032.40	35731032.50	0.0524	0.0460
Venus	93116-10-17 03:07 G	35731269.44	35731269.63	35731269.82	0.0527	0.0168
Mercury	93120-06-05 00:58 G	35732596.41	35732596.54	35732596.67	0.0513	0.0042
Venus	93121-12-30 09:07 G	35733169.75	35733169.88	35733170.01	0.0502	0.0380
Venus	93122-08-24 03:07 G	35733406.44	35733406.63	35733406.83	0.0499	0.0181
Earth	93124-02-26 01:55 G	35733957.45	35733957.58	35733957.73	0.0498	0.0395

Moon	93124-02-26 06:00 G	35733957.59	35733957.75	35733957.92	0.0498	0.0362 *
Mercury	93126-07-30 23:31 G	35734843.29	35734843.48	35734843.66	0.0513	0.0034
Venus	93128-06-21 21:36 G	35735535.20	35735535.40	35735535.60	0.0526	0.0014
Mercury	93132-03-24 05:17 G	35736906.60	35736906.72	35736906.85	0.0514	0.0129
Venus	93134-04-29 01:55 G	35737672.37	35737672.58	35737672.78	0.0500	0.0027
Moon	93136-03-01 11:17 G	35738344.73	35738344.97	35738345.20	0.0498	0.0057
Earth	93136-03-01 15:07 G	35738344.89	35738345.13	35738345.36	0.0498	0.0037 *
Mercury	93138-05-18 19:12 G	35739153.13	35739153.30	35739153.47	0.0512	0.0225
Venus	93140-02-25 14:53 G	35739800.94	35739801.12	35739801.31	0.0525	0.0189
Venus	93140-10-19 22:34 G	35740038.34	35740038.44	35740038.55	0.0528	0.0449
Mercury	93144-01-11 09:50 G	35741216.81	35741216.91	35741217.02	0.0514	0.0296
Mercury	93144-04-09 14:10 G	35741306.00	35741306.09	35741306.17	0.0512	0.0372
Venus	93146-01-02 00:29 G	35741938.32	35741938.52	35741938.72	0.0500	0.0130
Venus	93146-08-26 16:05 G	35742175.07	35742175.17	35742175.28	0.0498	0.0423
Earth	93148-03-06 02:53 G	35742732.54	35742732.62	35742732.71	0.0499	0.0465
Moon	93148-03-06 05:31 G	35742732.63	35742732.73	35742732.84	0.0499	0.0443 *
Mercury	93150-03-06 14:53 G	35743463.06	35743463.12	35743463.18	0.0511	0.0483
Venus	93151-10-31 09:50 G	35744066.77	35744066.91	35744067.06	0.0524	0.0363
Venus	93152-06-24 16:05 G	35744304.00	35744304.17	35744304.34	0.0527	0.0272
Mercury	93155-10-30 14:53 G	35745527.06	35745527.12	35745527.18	0.0515	0.0455
Mercury	93156-01-27 18:58 G	35745616.18	35745616.29	35745616.41	0.0513	0.0213
Venus	93157-09-06 22:48 G	35746204.28	35746204.45	35746204.62	0.0501	0.0286
Venus	93158-05-01 15:36 G	35746440.98	35746441.15	35746441.33	0.0498	0.0273
Mercury	93162-03-23 23:46 G	35747863.33	35747863.49	35747863.65	0.0513	0.0262
Venus	93164-02-28 09:36 G	35748569.70	35748569.90	35748570.10	0.0527	0.0090
Earth	93165-08-25 19:41 G	35749114.12	35749114.32	35749114.53	0.0528	0.0234
Moon	93165-08-25 20:53 G	35749114.18	35749114.37	35749114.57	0.0528	0.0261 *
Mercury	93167-11-15 23:46 G	35749926.36	35749926.49	35749926.62	0.0513	0.0050
Venus	93169-05-12 20:10 G	35750470.25	35750470.34	35750470.44	0.0502	0.0442
Venus	93170-01-04 14:38 G	35750706.91	35750707.11	35750707.31	0.0499	0.0120

Mercury	93174-01-09 20:24 G	35752173.16	35752173.35	35752173.53	0.0512	0.0019
Venus	93175-11-03 04:48 G	35752835.51	35752835.70	35752835.90	0.0526	0.0089
Earth	93177-08-30 17:02 G	35753502.02	35753502.21	35753502.41	0.0527	0.0274
Moon	93177-08-30 18:14 G	35753502.05	35753502.26	35753502.47	0.0527	0.0256 *
Mercury	93179-09-04 03:50 G	35754236.53	35754236.66	35754236.78	0.0514	0.0131
Venus	93181-09-09 11:02 G	35754972.76	35754972.96	35754973.17	0.0500	0.0042
Mercury	93185-10-28 17:02 G	35756483.05	35756483.21	35756483.38	0.0512	0.0223
Venus	93187-07-09 00:43 G	35757101.36	35757101.53	35757101.71	0.0525	0.0262
Venus	93188-03-02 07:41 G	35757338.68	35757338.82	35757338.96	0.0527	0.0376
Mercury	93191-06-23 08:24 G	35758546.74	35758546.85	35758546.95	0.0514	0.0299
Mercury	93191-09-20 12:29 G	35758635.93	35758636.02	35758636.11	0.0512	0.0367
Venus	93193-05-15 09:07 G	35759238.69	35759238.88	35759239.07	0.0501	0.0199
Venus	93194-01-07 01:55 G	35759475.43	35759475.58	35759475.72	0.0498	0.0359
Mercury	93197-08-16 13:12 G	35760792.98	35760793.05	35760793.11	0.0511	0.0477
Venus	93199-03-13 19:12 G	35761367.20	35761367.30	35761367.41	0.0523	0.0435
Venus	93199-11-06 00:14 G	35761604.32	35761604.51	35761604.70	0.0527	0.0195
Mercury	93203-04-11 12:58 G	35762856.99	35762857.04	35762857.09	0.0515	0.0465
Mercury	93203-07-09 17:02 G	35762946.10	35762946.21	35762946.33	0.0513	0.0202
Venus	93205-01-18 07:12 G	35763504.65	35763504.80	35763504.94	0.0502	0.0355
Venus	93205-09-12 01:26 G	35763741.37	35763741.56	35763741.75	0.0499	0.0208
Moon	93207-02-25 03:07 G	35764272.51	35764272.63	35764272.75	0.0498	0.0428
Earth	93207-02-25 06:43 G	35764272.70	35764272.78	35764272.88	0.0498	0.0457 *
Mercury	93209-09-02 22:34 G	35765193.28	35765193.44	35765193.59	0.0513	0.0278
Venus	93211-07-11 18:14 G	35765870.06	35765870.26	35765870.46	0.0526	0.0016
Mercury	93215-04-27 22:05 G	35767256.29	35767256.42	35767256.54	0.0513	0.0045
Venus	93217-05-18 00:58 G	35768007.33	35768007.54	35768007.75	0.0499	0.0054
Earth	93219-03-01 18:29 G	35768660.04	35768660.27	35768660.51	0.0498	0.0031
Moon	93219-03-01 21:22 G	35768660.16	35768660.39	35768660.62	0.0498	0.0018 *
Mercury	93221-06-21 18:00 G	35769503.06	35769503.25	35769503.44	0.0512	0.0015
Venus	93223-03-16 12:29 G	35770135.84	35770136.02	35770136.22	0.0525	0.0165

Venus	93223-11-08 20:53 G	35770373.29	35770373.37	35770373.46	0.0528	0.0477
Mercury	93227-02-14 02:53 G	35771566.50	35771566.62	35771566.74	0.0514	0.0117
Venus	93229-01-20 23:31 G	35772273.28	35772273.48	35772273.68	0.0500	0.0102
Venus	93229-09-14 14:38 G	35772510.03	35772510.11	35772510.20	0.0498	0.0449
Moon	93231-03-06 05:46 G	35773047.58	35773047.74	35773047.91	0.0498	0.0369
Earth	93231-03-06 07:12 G	35773047.66	35773047.80	35773047.94	0.0498	0.0399 *
Mercury	93233-04-09 14:38 G	35773812.94	35773813.11	35773813.28	0.0512	0.0229
Venus	93234-11-19 09:07 G	35774401.73	35774401.88	35774402.04	0.0524	0.0337
Venus	93235-07-14 15:36 G	35774638.98	35774639.15	35774639.31	0.0527	0.0300
Mercury	93238-12-03 06:58 G	35775876.69	35775876.79	35775876.89	0.0514	0.0295
Mercury	93239-03-02 11:02 G	35775965.88	35775965.96	35775966.05	0.0512	0.0370
Venus	93240-09-25 18:58 G	35776539.11	35776539.29	35776539.46	0.0501	0.0265
Venus	93241-05-20 12:14 G	35776775.85	35776776.01	35776776.18	0.0499	0.0295
Mercury	93245-01-26 11:17 G	35778122.91	35778122.97	35778123.05	0.0512	0.0468
Venus	93246-07-25 06:14 G	35778667.71	35778667.76	35778667.81	0.0523	0.0503
Venus	93247-03-19 10:34 G	35778904.75	35778904.94	35778905.14	0.0526	0.0123
Earth	93248-08-24 22:05 G	35779429.23	35779429.42	35779429.60	0.0527	0.0310
Moon	93248-08-24 22:34 G	35779429.25	35779429.44	35779429.62	0.0527	0.0338 *
Mercury	93250-09-21 11:31 G	35780186.93	35780186.98	35780187.04	0.0515	0.0461
Mercury	93250-12-19 15:36 G	35780276.04	35780276.15	35780276.27	0.0513	0.0204
Venus	93252-05-31 16:05 G	35780805.07	35780805.17	35780805.29	0.0502	0.0423
Venus	93253-01-23 11:17 G	35781041.78	35781041.97	35781042.17	0.0499	0.0143
Mercury	93257-02-12 21:07 G	35782523.23	35782523.38	35782523.53	0.0513	0.0294
Venus	93258-11-22 04:19 G	35783170.48	35783170.68	35783170.88	0.0525	0.0057
Moon	93260-08-29 15:50 G	35783816.95	35783817.16	35783817.37	0.0527	0.0177
Earth	93260-08-29 18:29 G	35783817.06	35783817.27	35783817.49	0.0527	0.0188 *
Mercury	93262-10-07 20:24 G	35784586.22	35784586.35	35784586.47	0.0513	0.0043
Venus	93264-09-28 10:48 G	35785307.74	35785307.95	35785308.15	0.0500	0.0014
Mars	93268-06-16 18:29 G	35786665.02	35786665.27	35786665.52	0.0509	0.0085
Mercury	93268-12-01 17:17 G	35786833.03	35786833.22	35786833.40	0.0512	0.0040

Venus	93270-07-27 23:02 G	35787436.28	35787436.46	35787436.64	0.0524	0.0234
Venus	93271-03-22 05:46 G	35787673.62	35787673.74	35787673.88	0.0527	0.0405
Mercury	93274-07-27 01:12 G	35788896.43	35788896.55	35788896.68	0.0514	0.0119
Venus	93276-06-03 09:50 G	35789573.72	35789573.91	35789574.11	0.0501	0.0169
Venus	93277-01-26 02:10 G	35789810.47	35789810.59	35789810.72	0.0498	0.0389
Mercury	93280-09-19 12:43 G	35791142.87	35791143.03	35791143.20	0.0512	0.0221
Venus	93282-04-01 18:14 G	35791702.14	35791702.26	35791702.39	0.0524	0.0408
Venus	93282-11-24 23:46 G	35791939.31	35791939.49	35791939.67	0.0527	0.0226
Mercury	93286-05-15 06:14 G	35793206.65	35793206.76	35793206.86	0.0514	0.0278
Mercury	93286-08-12 10:19 G	35793295.85	35793295.93	35793296.01	0.0512	0.0389
Venus	93288-02-07 07:55 G	35793839.68	35793839.83	35793839.99	0.0502	0.0325
Venus	93288-10-01 01:55 G	35794076.40	35794076.58	35794076.76	0.0499	0.0238
Moon	93290-02-24 17:02 G	35794588.15	35794588.21	35794588.27	0.0498	0.0478
Mercury	93292-07-08 09:36 G	35795452.82	35795452.90	35795452.98	0.0511	0.0463
Venus	93294-07-30 19:26 G	35796205.11	35796205.31	35796205.51	0.0526	0.0048
Mercury	93298-03-03 10:19 G	35797516.88	35797516.93	35797516.99	0.0514	0.0453
Mercury	93298-05-31 14:24 G	35797605.99	35797606.10	35797606.22	0.0513	0.0213
Venus	93299-10-13 02:38 G	35798105.57	35798105.61	35798105.66	0.0503	0.0487
Venus	93300-06-06 22:34 G	35798342.23	35798342.44	35798342.64	0.0500	0.0079
Moon	93302-03-02 00:00 G	35798975.26	35798975.50	35798975.74	0.0499	0.0079
Earth	93302-03-02 01:12 G	35798975.32	35798975.55	35798975.79	0.0499	0.0083 *
Mercury	93304-07-26 20:10 G	35799853.19	35799853.34	35799853.48	0.0513	0.0312
Venus	93306-04-05 15:50 G	35800470.97	35800471.16	35800471.36	0.0525	0.0127
Venus	93306-11-28 23:46 G	35800708.45	35800708.49	35800708.54	0.0527	0.0513
Mercury	93310-03-20 19:12 G	35801916.17	35801916.30	35801916.42	0.0513	0.0048
Venus	93312-02-10 21:07 G	35802608.17	35802608.38	35802608.58	0.0500	0.0079
Venus	93312-10-04 12:58 G	35802844.98	35802845.04	35802845.10	0.0498	0.0475
Moon	93314-03-06 14:53 G	35803362.95	35803363.12	35803363.30	0.0499	0.0323
Earth	93314-03-06 15:22 G	35803362.97	35803363.14	35803363.30	0.0499	0.0353 *
Mercury	93316-05-14 16:34 G	35804163.00	35804163.19	35804163.37	0.0512	0.0064

Venus	93317-12-09 10:34 G	35804736.78	35804736.94	35804737.11	0.0524	0.0303
Venus	93318-08-03 16:34 G	35804974.04	35804974.19	35804974.34	0.0527	0.0334
Mercury	93322-01-06 23:46 G	35806226.37	35806226.49	35806226.62	0.0514	0.0117
Venus	93323-10-16 19:55 G	35806874.15	35806874.33	35806874.51	0.0501	0.0234
Venus	93324-06-09 13:26 G	35807110.91	35807111.06	35807111.22	0.0499	0.0328
Mercury	93328-03-02 12:29 G	35808472.85	35808473.02	35808473.20	0.0512	0.0189
Venus	93329-08-14 06:14 G	35809002.68	35809002.76	35809002.84	0.0523	0.0473
Venus	93330-04-08 10:34 G	35809239.75	35809239.94	35809240.13	0.0526	0.0156
Moon	93331-08-26 00:14 G	35809744.38	35809744.51	35809744.65	0.0528	0.0415
Earth	93331-08-26 02:38 G	35809744.45	35809744.61	35809744.77	0.0528	0.0382 *
Mercury	93333-10-26 04:48 G	35810536.59	35810536.70	35810536.81	0.0514	0.0275
Mercury	93334-01-23 09:07 G	35810625.80	35810625.88	35810625.96	0.0512	0.0393
Venus	93335-06-21 18:29 G	35811140.15	35811140.27	35811140.41	0.0502	0.0390
Venus	93336-02-13 13:26 G	35811376.87	35811377.06	35811377.26	0.0499	0.0177
Mercury	93339-12-20 08:24 G	35812782.76	35812782.85	35812782.94	0.0511	0.0446
Venus	93341-12-12 05:02 G	35813505.51	35813505.71	35813505.91	0.0526	0.0025
Earth	93343-08-31 02:38 G	35814132.39	35814132.61	35814132.83	0.0528	0.0134
Moon	93343-08-31 06:29 G	35814132.55	35814132.77	35814133.00	0.0528	0.0133 *
Mercury	93345-08-14 09:50 G	35814846.84	35814846.91	35814846.98	0.0515	0.0432
Mercury	93345-11-11 13:55 G	35814935.97	35814936.08	35814936.20	0.0513	0.0235
Venus	93347-10-19 12:58 G	35815642.83	35815643.04	35815643.25	0.0500	0.0022
Mercury	93352-01-06 18:43 G	35817183.14	35817183.28	35817183.42	0.0513	0.0325
Venus	93353-08-17 01:41 G	35817771.39	35817771.57	35817771.76	0.0525	0.0200
Venus	93354-04-11 09:22 G	35818008.78	35818008.89	35818008.99	0.0527	0.0442
Mercury	93357-08-30 18:14 G	35819246.13	35819246.26	35819246.39	0.0513	0.0061
Venus	93359-06-24 08:38 G	35819908.66	35819908.86	35819909.06	0.0501	0.0141
Venus	93360-02-16 00:58 G	35820145.43	35820145.54	35820145.66	0.0498	0.0416
Mercury	93363-10-25 15:36 G	35821492.97	35821493.15	35821493.34	0.0513	0.0088
Venus	93365-04-21 23:17 G	35822037.33	35822037.47	35822037.61	0.0524	0.0368
Venus	93365-12-15 04:34 G	35822274.53	35822274.69	35822274.87	0.0527	0.0268

Mars	93369-01-08 04:48 G	35823394.48	35823394.70	35823394.91	0.0517	0.0359
Mercury	93369-06-18 23:02 G	35823556.33	35823556.46	35823556.58	0.0513	0.0104
Venus	93371-02-27 06:29 G	35824174.61	35824174.77	35824174.94	0.0502	0.0299
Venus	93371-10-22 00:43 G	35824411.36	35824411.53	35824411.71	0.0499	0.0267
Mercury	93375-08-13 12:14 G	35825802.83	35825803.01	35825803.18	0.0512	0.0159
Venus	93377-08-19 22:19 G	35826540.24	35826540.43	35826540.63	0.0526	0.0088
Mercury	93381-04-07 03:36 G	35827866.54	35827866.65	35827866.76	0.0514	0.0267
Mercury	93381-07-05 07:41 G	35827955.74	35827955.82	35827955.90	0.0512	0.0399
Venus	93382-11-02 04:34 G	35828440.61	35828440.69	35828440.79	0.0503	0.0455
Venus	93383-06-27 00:43 G	35828677.33	35828677.53	35828677.73	0.0500	0.0114
Moon	93385-03-01 12:58 G	35829290.82	35829291.04	35829291.26	0.0499	0.0120
Earth	93385-03-01 13:12 G	35829290.83	35829291.05	35829291.29	0.0499	0.0118 *
Mercury	93387-06-01 08:24 G	35830112.74	35830112.85	35830112.96	0.0511	0.0408
Venus	93389-04-24 17:17 G	35830806.03	35830806.22	35830806.42	0.0525	0.0091
Mercury	93393-01-24 08:38 G	35832176.79	35832176.86	35832176.93	0.0515	0.0425
Mercury	93393-04-23 12:43 G	35832265.92	35832266.03	35832266.14	0.0513	0.0242
Venus	93395-03-02 00:29 G	35832943.31	35832943.52	35832943.73	0.0500	0.0041
Earth	93397-03-06 02:53 G	35833678.44	35833678.62	35833678.80	0.0499	0.0318
Moon	93397-03-06 04:34 G	35833678.50	35833678.69	35833678.90	0.0499	0.0286 *
Mercury	93399-06-18 17:46 G	35834513.11	35834513.24	35834513.38	0.0513	0.0346
Venus	93400-12-29 12:29 G	35835071.85	35835072.02	35835072.19	0.0524	0.0269
Venus	93401-08-23 18:58 G	35835309.15	35835309.29	35835309.43	0.0527	0.0372
Mercury	93405-02-10 17:46 G	35836576.11	35836576.24	35836576.36	0.0513	0.0085
Venus	93406-11-05 23:17 G	35837209.29	35837209.47	35837209.67	0.0501	0.0198
Venus	93407-06-30 16:34 G	35837446.05	35837446.19	35837446.33	0.0498	0.0364
Mercury	93411-04-07 14:38 G	35838822.93	35838823.11	35838823.29	0.0513	0.0107
Venus	93412-09-03 09:50 G	35839337.81	35839337.91	35839338.03	0.0523	0.0437
Venus	93413-04-28 14:53 G	35839574.94	35839575.12	35839575.31	0.0527	0.0196
Earth	93414-08-26 14:38 G	35840059.97	35840060.11	35840060.25	0.0527	0.0415
Moon	93414-08-26 18:14 G	35840060.14	35840060.26	35840060.39	0.0527	0.0448 *

Mercury	93416-11-29 22:05 G	35840886.30	35840886.42	35840886.55	0.0513	0.0086
Venus	93418-07-11 18:29 G	35841475.12	35841475.27	35841475.41	0.0502	0.0360
Venus	93419-03-05 12:58 G	35841711.86	35841712.04	35841712.23	0.0499	0.0207
Mars	93422-09-13 10:19 G	35842999.77	35842999.93	35843000.08	0.0510	0.0400
Mercury	93423-01-24 11:31 G	35843132.80	35843132.98	35843133.16	0.0513	0.0133
Venus	93425-01-01 11:17 G	35843840.77	35843840.97	35843841.17	0.0526	0.0021
Moon	93426-08-31 11:02 G	35844447.73	35844447.96	35844448.19	0.0527	0.0096
Earth	93426-08-31 15:07 G	35844447.90	35844448.13	35844448.36	0.0527	0.0099 *
Mercury	93428-09-18 02:53 G	35845196.51	35845196.62	35845196.73	0.0514	0.0248
Mercury	93428-12-16 06:58 G	35845285.72	35845285.79	35845285.86	0.0512	0.0416
Venus	93430-11-08 12:29 G	35845977.81	35845978.02	35845978.22	0.0500	0.0052
Mercury	93434-11-12 08:10 G	35847442.71	35847442.84	35847442.96	0.0512	0.0377
Venus	93436-09-06 06:00 G	35848106.56	35848106.75	35848106.94	0.0525	0.0157
Venus	93437-05-01 13:12 G	35848343.98	35848344.05	35848344.13	0.0527	0.0483
Mercury	93440-07-07 07:41 G	35849506.74	35849506.82	35849506.89	0.0514	0.0413
Mercury	93440-10-04 11:46 G	35849595.88	35849595.99	35849596.10	0.0513	0.0253
Venus	93442-07-14 11:31 G	35850243.78	35850243.98	35850244.19	0.0501	0.0105
Venus	93443-03-08 04:05 G	35850480.59	35850480.67	35850480.76	0.0499	0.0454
Mercury	93446-11-29 18:00 G	35851843.13	35851843.25	35851843.37	0.0513	0.0387
Venus	93448-05-12 01:41 G	35852372.42	35852372.57	35852372.73	0.0524	0.0332
Venus	93449-01-04 06:58 G	35852609.63	35852609.79	35852609.96	0.0527	0.0306
Mercury	93452-07-23 16:34 G	35853906.07	35853906.19	35853906.32	0.0513	0.0096
Venus	93454-03-19 10:48 G	35854509.77	35854509.95	35854510.13	0.0502	0.0261
Venus	93454-11-11 04:48 G	35854746.55	35854746.70	35854746.87	0.0499	0.0305
Mercury	93458-09-17 13:55 G	35856152.91	35856153.08	35856153.26	0.0512	0.0133
Venus	93460-01-15 21:22 G	35856638.34	35856638.39	35856638.45	0.0523	0.0502
Venus	93460-09-09 01:12 G	35856875.36	35856875.55	35856875.75	0.0526	0.0126
Mercury	93464-05-11 21:36 G	35858216.28	35858216.40	35858216.53	0.0514	0.0064
Venus	93465-11-22 09:07 G	35858775.77	35858775.88	35858776.00	0.0502	0.0417
Venus	93466-07-17 04:34 G	35859012.50	35859012.69	35859012.89	0.0499	0.0152

Earth	93468-03-02 01:55 G	35859606.35	35859606.58	35859606.80	0.0498	0.0148
Moon	93468-03-02 03:50 G	35859606.43	35859606.66	35859606.89	0.0498	0.0155 *
Mercury	93470-07-06 10:48 G	35860462.77	35860462.95	35860463.13	0.0512	0.0108
Venus	93472-05-14 22:05 G	35861141.22	35861141.42	35861141.62	0.0525	0.0050
Mercury	93476-02-29 02:10 G	35862526.48	35862526.59	35862526.71	0.0514	0.0229
Mercury	93476-05-28 06:14 G	35862615.70	35862615.76	35862615.83	0.0512	0.0434
Venus	93478-03-22 00:43 G	35863278.32	35863278.53	35863278.74	0.0500	0.0010
Moon	93480-03-06 08:53 G	35863993.68	35863993.87	35863994.08	0.0499	0.0243
Earth	93480-03-06 12:00 G	35863993.81	35863994.00	35863994.20	0.0499	0.0275 *
Mercury	93482-04-24 07:26 G	35864772.68	35864772.81	35864772.95	0.0512	0.0351
Venus	93484-01-18 19:12 G	35865407.12	35865407.30	35865407.48	0.0525	0.0222
Venus	93484-09-12 01:55 G	35865644.46	35865644.58	35865644.70	0.0527	0.0419
Mercury	93487-12-18 06:58 G	35866836.71	35866836.79	35866836.87	0.0514	0.0391
Mercury	93488-03-16 11:02 G	35866925.85	35866925.96	35866926.07	0.0512	0.0273
Venus	93489-11-24 23:17 G	35867544.28	35867544.47	35867544.67	0.0501	0.0167
Venus	93490-07-19 16:19 G	35867781.06	35867781.18	35867781.31	0.0499	0.0394
Mercury	93494-05-11 17:46 G	35869173.14	35869173.24	35869173.35	0.0513	0.0419
Venus	93495-09-23 14:53 G	35869672.99	35869673.12	35869673.25	0.0523	0.0395
Venus	93496-05-17 19:41 G	35869910.14	35869910.32	35869910.50	0.0526	0.0240
Moon	93497-08-25 21:22 G	35870375.32	35870375.39	35870375.46	0.0527	0.0498
Earth	93497-08-26 01:26 G	35870375.45	35870375.56	35870375.67	0.0527	0.0461 *
Mercury	93500-01-03 15:36 G	35871236.03	35871236.15	35871236.28	0.0513	0.0110
Venus	93501-07-31 21:36 G	35871810.25	35871810.40	35871810.56	0.0502	0.0324
Venus	93502-03-25 16:34 G	35872047.01	35872047.19	35872047.37	0.0499	0.0245
Mercury	93506-02-28 14:10 G	35873482.92	35873483.09	35873483.27	0.0513	0.0172
Venus	93508-01-22 14:10 G	35874175.89	35874176.09	35874176.29	0.0526	0.0061
Earth	93509-08-31 23:31 G	35874763.25	35874763.48	35874763.72	0.0527	0.0046
Moon	93509-09-01 03:07 G	35874763.40	35874763.63	35874763.85	0.0527	0.0050 *
Mercury	93511-10-23 20:38 G	35875546.23	35875546.36	35875546.49	0.0514	0.0051
Venus	93513-04-05 20:10 G	35876076.28	35876076.34	35876076.40	0.0503	0.0480

Venus	93513-11-28 16:48 G	35876313.00	35876313.20	35876313.40	0.0500	0.0091
Mercury	93517-12-17 10:05 G	35877792.74	35877792.92	35877793.11	0.0512	0.0083
Venus	93519-09-27 08:53 G	35878441.67	35878441.87	35878442.06	0.0525	0.0120
Venus	93520-05-21 16:34 G	35878679.17	35878679.19	35878679.21	0.0527	0.0523
Mars	93523-04-07 17:17 G	35879730.01	35879730.22	35879730.45	0.0517	0.0351
Mercury	93523-08-12 01:41 G	35879856.45	35879856.57	35879856.68	0.0514	0.0207
Mercury	93523-11-09 05:46 G	35879945.69	35879945.74	35879945.80	0.0512	0.0458
Venus	93525-08-03 15:50 G	35880578.95	35880579.16	35880579.36	0.0500	0.0065
Venus	93526-03-28 07:55 G	35880815.80	35880815.83	35880815.86	0.0498	0.0491
Mercury	93529-10-05 06:43 G	35882102.64	35882102.78	35882102.93	0.0512	0.0325
Venus	93531-06-02 06:14 G	35882707.59	35882707.76	35882707.92	0.0524	0.0292
Venus	93532-01-25 12:14 G	35882944.86	35882945.01	35882945.16	0.0527	0.0349
Mercury	93535-05-31 06:14 G	35884166.68	35884166.76	35884166.85	0.0514	0.0372
Mercury	93535-08-28 10:19 G	35884255.83	35884255.93	35884256.03	0.0512	0.0291
Venus	93537-04-08 11:31 G	35884844.79	35884844.98	35884845.16	0.0501	0.0228
Venus	93537-12-01 05:02 G	35885081.56	35885081.71	35885081.86	0.0499	0.0336
Mars	93541-03-07 06:14 G	35886273.58	35886273.76	35886273.95	0.0509	0.0346
Mercury	93541-10-22 16:48 G	35886503.12	35886503.20	35886503.30	0.0514	0.0444
Venus	93543-02-05 03:36 G	35886973.56	35886973.65	35886973.75	0.0523	0.0460
Venus	93543-09-30 08:10 G	35887210.65	35887210.84	35887211.03	0.0526	0.0174
Mercury	93547-06-16 15:07 G	35888566.01	35888566.13	35888566.25	0.0512	0.0130
Venus	93548-12-12 09:07 G	35889110.76	35889110.88	35889111.02	0.0502	0.0386
Venus	93549-08-06 04:19 G	35889347.49	35889347.68	35889347.88	0.0499	0.0184
Moon	93551-03-03 07:26 G	35889921.60	35889921.81	35889922.02	0.0499	0.0208
Earth	93551-03-03 10:34 G	35889921.72	35889921.94	35889922.16	0.0499	0.0194 *
Mercury	93553-08-10 13:41 G	35890812.90	35890813.07	35890813.24	0.0513	0.0200
Venus	93555-06-05 02:53 G	35891476.42	35891476.62	35891476.82	0.0525	0.0013
Mercury	93559-04-04 19:41 G	35892876.19	35892876.32	35892876.45	0.0513	0.0037
Venus	93561-04-11 03:50 G	35893613.46	35893613.66	35893613.87	0.0500	0.0029
Earth	93563-03-08 01:41 G	35894309.37	35894309.57	35894309.78	0.0499	0.0246

Moon	93563-03-08 05:31 G	35894309.52	35894309.73	35894309.94	0.0499	0.0219 *
Mercury	93565-05-29 10:05 G	35895122.74	35895122.92	35895123.11	0.0512	0.0048
Venus	93567-02-07 21:50 G	35895742.22	35895742.41	35895742.60	0.0524	0.0184
Venus	93567-10-03 04:19 G	35895979.59	35895979.68	35895979.78	0.0527	0.0458
Mercury	93571-01-22 00:29 G	35897186.41	35897186.52	35897186.64	0.0514	0.0198
Mercury	93571-04-21 04:34 G	35897275.65	35897275.69	35897275.75	0.0512	0.0468
Venus	93572-12-15 03:22 G	35897879.44	35897879.64	35897879.84	0.0501	0.0129
Venus	93573-08-08 20:10 G	35898116.25	35898116.34	35898116.45	0.0499	0.0433
Mercury	93577-03-17 06:00 G	35899432.60	35899432.75	35899432.90	0.0512	0.0302
Venus	93578-10-13 17:02 G	35900008.07	35900008.21	35900008.36	0.0524	0.0360
Venus	93579-06-07 22:05 G	35900245.26	35900245.42	35900245.59	0.0527	0.0279
Earth	93580-08-26 11:17 G	35900690.92	35900690.97	35900691.04	0.0528	0.0509
Mercury	93582-11-10 05:31 G	35901496.64	35901496.73	35901496.82	0.0514	0.0354
Mercury	93583-02-07 09:36 G	35901585.80	35901585.90	35901586.00	0.0512	0.0311
Venus	93584-08-20 01:41 G	35902145.40	35902145.57	35902145.74	0.0502	0.0286
Venus	93585-04-13 20:10 G	35902382.17	35902382.34	35902382.51	0.0499	0.0282
Mercury	93589-04-03 16:05 G	35903833.10	35903833.17	35903833.25	0.0513	0.0466
Venus	93591-02-10 18:14 G	35904511.07	35904511.26	35904511.46	0.0526	0.0103
Moon	93592-08-31 11:17 G	35905078.73	35905078.97	35905079.21	0.0527	0.0025
Earth	93592-08-31 13:12 G	35905078.81	35905079.05	35905079.28	0.0527	0.0017 *
Mercury	93594-11-26 14:24 G	35905895.98	35905896.10	35905896.22	0.0512	0.0147
Venus	93596-04-24 21:07 G	35906411.29	35906411.38	35906411.47	0.0502	0.0447
Venus	93596-12-17 16:48 G	35906648.00	35906648.20	35906648.40	0.0499	0.0123
Mercury	93601-01-20 12:29 G	35908142.86	35908143.02	35908143.19	0.0514	0.0218
Venus	93602-10-16 14:38 G	35908776.92	35908777.11	35908777.31	0.0525	0.0075
Mercury	93606-09-14 19:12 G	35910206.17	35910206.30	35910206.42	0.0513	0.0019
Venus	93608-08-22 15:22 G	35910913.93	35910914.14	35910914.35	0.0500	0.0034
Mercury	93612-11-08 09:07 G	35912452.70	35912452.88	35912453.07	0.0513	0.0027
Venus	93614-06-21 10:05 G	35913042.75	35913042.92	35913043.10	0.0524	0.0251
Venus	93615-02-13 16:05 G	35913280.04	35913280.17	35913280.30	0.0527	0.0392

Mercury	93618-07-03 23:46 G	35914516.37	35914516.49	35914516.60	0.0513	0.0184
Mercury	93618-10-01 03:36 G	35914605.61	35914605.65	35914605.70	0.0512	0.0480
Venus	93620-04-27 13:55 G	35915179.89	35915180.08	35915180.27	0.0501	0.0193
Venus	93620-12-20 07:41 G	35915416.68	35915416.82	35915416.95	0.0499	0.0373
Mercury	93624-08-27 05:31 G	35916762.57	35916762.73	35916762.89	0.0512	0.0274
Venus	93626-02-24 05:46 G	35917308.63	35917308.74	35917308.86	0.0523	0.0425
Venus	93626-10-19 10:05 G	35917545.73	35917545.92	35917546.10	0.0526	0.0211
Mercury	93630-04-22 04:19 G	35918826.59	35918826.68	35918826.78	0.0514	0.0346
Mercury	93630-07-20 08:24 G	35918915.75	35918915.85	35918915.95	0.0512	0.0318
Venus	93632-01-01 12:14 G	35919445.87	35919446.01	35919446.16	0.0502	0.0351
Venus	93632-08-25 07:26 G	35919682.63	35919682.81	35919683.00	0.0499	0.0221
Earth	93634-03-02 22:34 G	35920237.23	35920237.44	35920237.65	0.0498	0.0227
Moon	93634-03-03 02:24 G	35920237.40	35920237.60	35920237.80	0.0498	0.0249 *
Mercury	93636-09-13 14:53 G	35921163.06	35921163.12	35921163.18	0.0513	0.0482
Venus	93638-06-24 04:05 G	35921811.47	35921811.67	35921811.87	0.0526	0.0030
Mercury	93642-02-08 09:22 G	35923136.87	35923136.89	35923136.91	0.0515	0.0504
Mercury	93642-05-08 13:26 G	35923225.94	35923226.06	35923226.18	0.0513	0.0160
Venus	93644-04-30 06:43 G	35923948.58	35923948.78	35923948.99	0.0500	0.0065
Moon	93646-03-07 08:38 G	35924624.64	35924624.86	35924625.09	0.0499	0.0177
Earth	93646-03-07 12:00 G	35924624.79	35924625.00	35924625.22	0.0499	0.0204 *
Mercury	93648-07-02 11:31 G	35925472.82	35925472.98	35925473.14	0.0513	0.0237
Venus	93650-02-27 00:29 G	35926077.33	35926077.52	35926077.71	0.0525	0.0147
Venus	93650-10-22 07:41 G	35926314.76	35926314.82	35926314.89	0.0527	0.0499
Mercury	93654-02-24 18:14 G	35927536.13	35927536.26	35927536.38	0.0513	0.0016
Venus	93656-01-04 02:53 G	35928214.42	35928214.62	35928214.83	0.0500	0.0097
Venus	93656-08-27 18:58 G	35928451.22	35928451.29	35928451.37	0.0498	0.0463
Mercury	93660-04-20 07:26 G	35929782.62	35929782.81	35929783.00	0.0513	0.0018
Venus	93661-11-01 21:07 G	35930343.23	35930343.38	35930343.54	0.0524	0.0320
Venus	93662-06-27 03:07 G	35930580.47	35930580.63	35930580.79	0.0527	0.0324
Mercury	93665-12-13 22:48 G	35931846.33	35931846.45	35931846.57	0.0513	0.0166

Mercury	93666-03-13 02:53 G	35931935.60	35931935.62	35931935.65	0.0511	0.0496
Venus	93667-09-09 00:58 G	35932480.36	35932480.54	35932480.71	0.0501	0.0257
Venus	93668-05-02 18:29 G	35932717.11	35932717.27	35932717.44	0.0499	0.0311
Mercury	93672-02-07 03:50 G	35934092.51	35934092.66	35934092.82	0.0512	0.0264
Venus	93673-07-07 17:02 G	35934609.15	35934609.21	35934609.28	0.0523	0.0492
Venus	93674-03-01 20:53 G	35934846.18	35934846.37	35934846.56	0.0526	0.0141
Moon	93675-08-31 20:10 G	35935394.12	35935394.34	35935394.57	0.0527	0.0029
Earth	93675-08-31 20:24 G	35935394.12	35935394.35	35935394.59	0.0527	0.0049 *
Mercury	93677-10-02 03:22 G	35936156.55	35936156.64	35936156.74	0.0514	0.0335
Mercury	93677-12-30 07:12 G	35936245.71	35936245.80	35936245.90	0.0512	0.0328
Venus	93679-05-14 22:05 G	35936746.32	35936746.42	35936746.54	0.0502	0.0417
Venus	93680-01-06 18:00 G	35936983.05	35936983.25	35936983.45	0.0500	0.0157
Mercury	93683-11-26 00:14 G	35938402.51	35938402.51	35938402.52	0.0512	0.0511
Mercury	93684-02-24 13:55 G	35938493.05	35938493.08	35938493.12	0.0514	0.0503
Venus	93685-11-04 15:22 G	35939111.94	35939112.14	35939112.34	0.0525	0.0041
Earth	93687-09-05 17:31 G	35939782.12	35939782.23	35939782.35	0.0526	0.0452
Moon	93687-09-05 19:55 G	35939782.24	35939782.33	35939782.43	0.0526	0.0477 *
Mercury	93689-07-21 07:55 G	35940466.81	35940466.83	35940466.86	0.0514	0.0500
Mercury	93689-10-18 12:00 G	35940555.88	35940556.00	35940556.12	0.0513	0.0164
Venus	93691-09-11 17:02 G	35941249.00	35941249.21	35941249.42	0.0500	0.0004
Mars	93695-06-01 17:02 G	35942607.97	35942608.21	35942608.46	0.0509	0.0107
Mercury	93695-12-13 09:50 G	35942802.75	35942802.91	35942803.07	0.0513	0.0246
Venus	93697-07-10 09:50 G	35943377.73	35943377.91	35943378.09	0.0524	0.0220
Venus	93698-03-04 15:50 G	35943615.05	35943615.16	35943615.28	0.0527	0.0425
Mercury	93701-08-07 17:02 G	35944866.08	35944866.21	35944866.33	0.0513	0.0016
Venus	93703-05-18 15:36 G	35945514.95	35945515.15	35945515.35	0.0501	0.0159
Venus	93704-01-10 08:38 G	35945751.75	35945751.86	35945751.98	0.0499	0.0407
Mercury	93707-10-02 06:14 G	35947112.57	35947112.76	35947112.94	0.0513	0.0012
Venus	93709-03-16 06:29 G	35947643.64	35947643.77	35947643.90	0.0524	0.0393
Venus	93709-11-08 11:17 G	35947880.80	35947880.97	35947881.15	0.0527	0.0248

Mercury	93713-05-26 21:50 G	35949176.29	35949176.41	35949176.53	0.0513	0.0158
Mercury	93713-08-24 01:41 G	35949265.56	35949265.57	35949265.59	0.0511	0.0504
Venus	93715-01-21 11:31 G	35949780.82	35949780.98	35949781.14	0.0501	0.0321
Venus	93715-09-15 05:46 G	35950017.56	35950017.74	35950017.92	0.0499	0.0249
Moon	93717-03-02 21:50 G	35950552.23	35950552.41	35950552.59	0.0498	0.0327
Earth	93717-03-03 01:12 G	35950552.37	35950552.55	35950552.75	0.0498	0.0301 *
Mercury	93719-07-21 01:41 G	35951422.41	35951422.57	35951422.73	0.0513	0.0265
Venus	93721-07-14 06:43 G	35952146.58	35952146.78	35952146.98	0.0526	0.0069
Mercury	93725-03-15 02:38 G	35953486.51	35953486.61	35953486.70	0.0513	0.0321
Mercury	93725-06-12 06:29 G	35953575.68	35953575.77	35953575.86	0.0511	0.0341
Venus	93726-09-26 08:38 G	35954046.80	35954046.86	35954046.92	0.0502	0.0480
Venus	93727-05-21 04:19 G	35954283.48	35954283.68	35954283.89	0.0499	0.0094
Earth	93729-03-07 14:38 G	35954939.89	35954940.11	35954940.34	0.0499	0.0131
Moon	93729-03-07 17:17 G	35954940.00	35954940.22	35954940.44	0.0499	0.0109 *
Mercury	93731-05-08 22:05 G	35955732.42	35955732.42	35955732.42	0.0512	0.0512
Mercury	93731-08-07 12:00 G	35955822.97	35955823.00	35955823.03	0.0514	0.0504
Venus	93733-03-19 01:12 G	35956412.36	35956412.55	35956412.75	0.0525	0.0114
Mercury	93737-01-01 06:43 G	35957796.75	35957796.78	35957796.82	0.0514	0.0494
Mercury	93737-03-31 10:48 G	35957885.83	35957885.95	35957886.07	0.0512	0.0169
Venus	93739-01-24 02:38 G	35958549.41	35958549.61	35958549.82	0.0500	0.0067
Venus	93739-09-17 18:58 G	35958786.27	35958786.29	35958786.32	0.0498	0.0493
Mercury	93743-05-26 08:24 G	35960132.69	35960132.85	35960133.01	0.0513	0.0256
Venus	93744-11-21 20:24 G	35960678.19	35960678.35	35960678.52	0.0524	0.0291
Venus	93745-07-17 01:55 G	35960915.43	35960915.58	35960915.73	0.0527	0.0354
Mercury	93749-01-17 15:22 G	35962196.02	35962196.14	35962196.27	0.0513	0.0010
Venus	93750-09-29 00:43 G	35962815.35	35962815.53	35962815.72	0.0501	0.0227
Venus	93751-05-23 18:43 G	35963052.13	35963052.28	35963052.43	0.0499	0.0342
Mercury	93755-03-14 03:50 G	35964442.48	35964442.66	35964442.85	0.0513	0.0013
Venus	93756-07-27 15:07 G	35964944.04	35964944.13	35964944.22	0.0523	0.0466
Venus	93757-03-21 18:58 G	35965181.10	35965181.29	35965181.48	0.0526	0.0170

Earth	93758-08-31 22:48 G	35965709.22	35965709.45	35965709.67	0.0527	0.0130
Moon	93758-09-01 00:43 G	35965709.29	35965709.53	35965709.76	0.0527	0.0102 *
Mercury	93760-11-05 20:10 G	35966506.22	35966506.34	35966506.46	0.0514	0.0159
Mercury	93761-02-03 00:14 G	35966595.49	35966595.51	35966595.53	0.0512	0.0504
Venus	93762-06-03 22:19 G	35967081.30	35967081.43	35967081.56	0.0502	0.0386
Venus	93763-01-26 17:46 G	35967318.05	35967318.24	35967318.43	0.0499	0.0188
Mercury	93766-12-31 00:00 G	35968752.34	35968752.50	35968752.66	0.0512	0.0257
Venus	93768-11-24 14:24 G	35969446.90	35969447.10	35969447.30	0.0526	0.0010
Moon	93770-09-05 20:10 G	35970097.20	35970097.34	35970097.48	0.0527	0.0411
Earth	93770-09-05 23:17 G	35970097.32	35970097.47	35970097.63	0.0527	0.0386 *
Mercury	93772-08-25 00:58 G	35970816.45	35970816.54	35970816.64	0.0514	0.0319
Mercury	93772-11-22 05:02 G	35970905.62	35970905.71	35970905.80	0.0512	0.0343
Venus	93774-10-01 14:38 G	35971583.91	35971584.11	35971584.32	0.0499	0.0028
Mercury	93779-01-17 08:53 G	35973152.83	35973152.87	35973152.93	0.0514	0.0494
Venus	93780-07-30 09:36 G	35973712.72	35973712.90	35973713.09	0.0525	0.0189
Venus	93781-03-24 16:48 G	35973950.11	35973950.20	35973950.30	0.0528	0.0462
Mercury	93784-06-13 05:46 G	35975126.70	35975126.74	35975126.78	0.0514	0.0482
Mercury	93784-09-10 09:36 G	35975215.79	35975215.90	35975216.02	0.0512	0.0180
Venus	93786-06-06 12:29 G	35975849.82	35975850.02	35975850.22	0.0500	0.0134
Venus	93787-01-29 04:48 G	35976086.61	35976086.70	35976086.81	0.0498	0.0431
Mercury	93790-11-05 05:31 G	35977462.57	35977462.73	35977462.89	0.0514	0.0246
Venus	93792-04-04 05:17 G	35977978.58	35977978.72	35977978.86	0.0524	0.0366
Venus	93792-11-27 10:19 G	35978215.76	35978215.93	35978216.10	0.0527	0.0279
Mars	93795-12-20 04:19 G	35979333.44	35979333.68	35979333.93	0.0517	0.0305
Mercury	93796-06-29 13:55 G	35979525.95	35979526.08	35979526.21	0.0513	0.0007
Venus	93798-02-09 09:22 G	35980115.72	35980115.89	35980116.06	0.0502	0.0297
Venus	93798-10-04 03:50 G	35980352.49	35980352.66	35980352.84	0.0499	0.0277
Earth	93800-03-03 07:12 G	35980867.64	35980867.80	35980867.96	0.0498	0.0360
Moon	93800-03-03 09:36 G	35980867.76	35980867.90	35980868.05	0.0498	0.0389 *
Mercury	93802-08-25 01:55 G	35981772.39	35981772.58	35981772.76	0.0513	0.0012

Venus	93804-08-03 04:05 G	35982481.48	35982481.67	35982481.87	0.0526	0.0096
Mercury	93808-04-18 18:29 G	35983836.15	35983836.27	35983836.39	0.0513	0.0164
Mercury	93808-07-16 22:34 G	35983925.41	35983925.44	35983925.46	0.0511	0.0498
Venus	93809-10-16 06:29 G	35984381.68	35984381.77	35984381.85	0.0503	0.0457
Venus	93810-06-10 02:38 G	35984618.41	35984618.61	35984618.82	0.0500	0.0120
Moon	93812-03-07 18:58 G	35985255.05	35985255.29	35985255.54	0.0499	0.0051
Earth	93812-03-07 20:24 G	35985255.12	35985255.35	35985255.58	0.0499	0.0071 *
Mercury	93814-06-12 21:22 G	35986082.23	35986082.39	35986082.55	0.0512	0.0263
Venus	93816-04-07 21:36 G	35986747.21	35986747.40	35986747.60	0.0525	0.0089
Mercury	93820-02-05 23:17 G	35988146.37	35988146.47	35988146.56	0.0514	0.0328
Mercury	93820-05-05 03:07 G	35988235.54	35988235.63	35988235.73	0.0512	0.0336
Venus	93822-02-13 00:57 G	35988884.33	35988884.54	35988884.75	0.0500	0.0040
Earth	93824-03-12 08:09 G	35989642.83	35989642.84	35989642.87	0.0499	0.0496
Mercury	93826-06-30 06:57 G	35990482.74	35990482.79	35990482.84	0.0514	0.0494
Venus	93827-12-12 17:17 G	35991013.05	35991013.22	35991013.39	0.0524	0.0267
Venus	93828-08-05 23:02 G	35991250.33	35991250.46	35991250.60	0.0527	0.0382
Mercury	93831-11-25 04:05 G	35992456.63	35992456.67	35992456.71	0.0514	0.0487
Mercury	93832-02-22 08:09 G	35992545.72	35992545.84	35992545.96	0.0512	0.0175
Venus	93833-10-18 21:50 G	35993150.22	35993150.41	35993150.60	0.0501	0.0202
Venus	93834-06-12 14:53 G	35993386.98	35993387.12	35993387.26	0.0498	0.0366
Mercury	93838-04-18 02:09 G	35994792.42	35994792.59	35994792.75	0.0514	0.0227
Venus	93839-08-17 12:29 G	35995278.92	35995279.02	35995279.13	0.0524	0.0443
Venus	93840-04-10 17:17 G	35995516.04	35995516.22	35995516.41	0.0527	0.0201
Moon	93841-09-01 00:00 G	35996024.29	35996024.50	35996024.71	0.0528	0.0177
Earth	93841-09-01 02:53 G	35996024.41	35996024.62	35996024.83	0.0528	0.0205 *
Mercury	93843-12-11 12:43 G	35996855.90	35996856.03	35996856.16	0.0512	0.0013
Venus	93845-06-23 18:43 G	35997416.14	35997416.28	35997416.43	0.0501	0.0364
Venus	93846-02-15 13:26 G	35997652.87	35997653.06	35997653.25	0.0499	0.0210
Mars	93849-08-27 04:33 G	35998941.55	35998941.69	35998941.84	0.0509	0.0410
Mercury	93850-02-03 22:19 G	35999102.25	35999102.43	35999102.62	0.0513	0.0025

Venus	93851-12-15 11:31 G	35999781.78	35999781.98	35999782.18	0.0526	0.0019
Earth	93853-09-05 22:05 G	36000412.23	36000412.42	36000412.61	0.0527	0.0289
Moon	93853-09-06 01:41 G	36000412.39	36000412.57	36000412.76	0.0527	0.0313 *
Mercury	93855-09-29 16:48 G	36001166.08	36001166.20	36001166.32	0.0513	0.0168
Mercury	93855-12-27 20:53 G	36001255.34	36001255.37	36001255.40	0.0511	0.0494
Venus	93857-10-21 11:17 G	36001918.76	36001918.97	36001919.17	0.0500	0.0050
Mercury	93861-11-22 18:43 G	36003412.12	36003412.28	36003412.44	0.0512	0.0270
Venus	93863-08-20 06:14 G	36004047.57	36004047.76	36004047.95	0.0525	0.0165
Venus	93864-04-13 12:57 G	36004284.96	36004285.04	36004285.12	0.0527	0.0485
Mercury	93867-07-18 21:21 G	36005476.30	36005476.39	36005476.48	0.0514	0.0337
Mercury	93867-10-16 01:12 G	36005565.46	36005565.55	36005565.65	0.0512	0.0326
Venus	93869-06-26 08:53 G	36006184.67	36006184.87	36006185.07	0.0501	0.0112
Venus	93870-02-18 01:55 G	36006421.50	36006421.58	36006421.66	0.0498	0.0454
Mercury	93873-12-10 03:50 G	36007812.61	36007812.66	36007812.73	0.0513	0.0482
Venus	93875-04-25 00:14 G	36008313.37	36008313.51	36008313.66	0.0524	0.0345
Venus	93875-12-18 05:17 G	36008550.55	36008550.72	36008550.88	0.0527	0.0301
Mercury	93879-05-07 01:55 G	36009786.56	36009786.58	36009786.61	0.0515	0.0502
Mercury	93879-08-04 06:00 G	36009875.63	36009875.75	36009875.87	0.0513	0.0161
Venus	93881-03-01 06:14 G	36010450.59	36010450.76	36010450.94	0.0502	0.0273
Venus	93881-10-24 00:57 G	36010687.37	36010687.54	36010687.70	0.0499	0.0302
Moon	93883-03-03 06:57 G	36011182.70	36011182.79	36011182.88	0.0498	0.0463
Earth	93883-03-03 08:24 G	36011182.75	36011182.85	36011182.97	0.0498	0.0436 *
Mercury	93885-09-27 23:45 G	36012122.32	36012122.49	36012122.66	0.0513	0.0224
Venus	93886-12-28 19:55 G	36012579.31	36012579.33	36012579.36	0.0523	0.0518
Venus	93887-08-22 23:17 G	36012816.28	36012816.47	36012816.67	0.0526	0.0120
Mercury	93891-05-23 10:48 G	36014185.82	36014185.95	36014186.08	0.0513	0.0006
Venus	93892-11-04 03:07 G	36014716.53	36014716.63	36014716.73	0.0502	0.0434
Venus	93893-06-28 22:33 G	36014953.24	36014953.44	36014953.64	0.0499	0.0142
Moon	93895-03-07 17:02 G	36015569.99	36015570.21	36015570.44	0.0498	0.0042
Earth	93895-03-07 17:31 G	36015569.99	36015570.23	36015570.46	0.0498	0.0024 *

Mercury	93897-07-16 18:43 G	36016432.09	36016432.28	36016432.46	0.0513	0.0047
Venus	93899-04-27 18:00 G	36017082.05	36017082.25	36017082.44	0.0526	0.0066
Mercury	93903-03-12 15:36 G	36018496.03	36018496.15	36018496.27	0.0513	0.0164
Mercury	93903-06-09 19:26 G	36018585.29	36018585.31	36018585.34	0.0511	0.0497
Venus	93905-03-04 20:24 G	36019219.14	36019219.35	36019219.55	0.0500	0.0019
Earth	93907-03-13 05:17 G	36019957.59	36019957.72	36019957.87	0.0499	0.0401
Moon	93907-03-13 07:41 G	36019957.71	36019957.82	36019957.95	0.0499	0.0428 *
Mercury	93909-05-05 14:53 G	36020741.97	36020742.12	36020742.27	0.0512	0.0297
Venus	93911-01-01 12:57 G	36021347.86	36021348.04	36021348.22	0.0525	0.0246
Venus	93911-08-26 19:12 G	36021585.17	36021585.30	36021585.42	0.0527	0.0405
Mercury	93914-12-29 19:26 G	36022806.22	36022806.31	36022806.41	0.0514	0.0343
Mercury	93915-03-28 23:31 G	36022895.38	36022895.48	36022895.58	0.0512	0.0319
Venus	93916-11-07 16:48 G	36023485.01	36023485.20	36023485.39	0.0501	0.0184
Venus	93917-07-02 10:19 G	36023721.80	36023721.93	36023722.06	0.0499	0.0387
Mercury	93921-05-23 00:57 G	36025142.48	36025142.54	36025142.62	0.0514	0.0472
Venus	93922-09-06 08:38 G	36025613.74	36025613.86	36025613.98	0.0523	0.0421
Venus	93923-05-01 12:57 G	36025850.86	36025851.04	36025851.22	0.0526	0.0222
Earth	93924-08-31 20:53 G	36026339.19	36026339.37	36026339.55	0.0527	0.0320
Moon	93924-09-01 00:29 G	36026339.32	36026339.52	36026339.72	0.0527	0.0289 *
Mercury	93926-10-18 00:00 G	36027116.50	36027116.50	36027116.50	0.0514	0.0513
Mercury	93927-01-15 03:50 G	36027205.54	36027205.66	36027205.79	0.0512	0.0150
Venus	93928-07-13 13:26 G	36027750.91	36027751.06	36027751.21	0.0502	0.0347
Venus	93929-03-07 08:53 G	36027987.68	36027987.87	36027988.05	0.0499	0.0231
Mercury	93933-03-10 20:38 G	36029452.19	36029452.36	36029452.53	0.0513	0.0211
Venus	93935-01-04 05:45 G	36030116.54	36030116.74	36030116.94	0.0526	0.0037
Moon	93936-09-05 12:43 G	36030726.81	36030727.03	36030727.24	0.0527	0.0192
Earth	93936-09-05 16:19 G	36030726.96	36030727.18	36030727.40	0.0527	0.0173 *
Mercury	93938-11-03 08:38 G	36031515.73	36031515.86	36031515.98	0.0513	0.0022
Venus	93940-11-10 07:12 G	36032253.60	36032253.80	36032254.01	0.0500	0.0073
Mercury	93944-12-27 16:19 G	36033761.99	36033762.18	36033762.36	0.0512	0.0050

Venus	93946-09-09 00:14 G	36034382.32	36034382.51	36034382.70	0.0525	0.0146
Venus	93947-05-04 07:12 G	36034619.75	36034619.80	36034619.86	0.0528	0.0507
Mars	93950-03-16 08:09 G	36035666.54	36035666.84	36035667.14	0.0517	0.0076
Mercury	93950-08-22 13:26 G	36035825.94	36035826.06	36035826.18	0.0514	0.0177
Mercury	93950-11-19 17:31 G	36035915.19	36035915.23	36035915.27	0.0511	0.0485
Venus	93952-07-16 04:48 G	36036519.50	36036519.70	36036519.91	0.0500	0.0090
Venus	93953-03-09 21:07 G	36036756.32	36036756.38	36036756.44	0.0498	0.0475
Mercury	93956-10-15 11:02 G	36038071.82	36038071.96	36038072.11	0.0512	0.0322
Venus	93958-05-14 18:57 G	36038648.14	36038648.29	36038648.45	0.0524	0.0327
Venus	93959-01-07 00:43 G	36038885.37	36038885.53	36038885.69	0.0527	0.0324
Mercury	93962-06-10 18:14 G	36040136.16	36040136.26	36040136.35	0.0514	0.0341
Mercury	93962-09-07 22:05 G	36040225.33	36040225.42	36040225.52	0.0512	0.0321
Venus	93964-03-21 01:55 G	36040785.40	36040785.58	36040785.76	0.0501	0.0252
Venus	93964-11-12 19:41 G	36041022.17	36041022.32	36041022.49	0.0498	0.0322
Mercury	93968-11-01 21:07 G	36042472.30	36042472.38	36042472.48	0.0514	0.0444
Venus	93970-01-17 15:07 G	36042914.08	36042914.13	36042914.19	0.0523	0.0501
Venus	93970-09-11 18:43 G	36043151.09	36043151.28	36043151.48	0.0526	0.0139
Mercury	93974-06-27 02:09 G	36044535.47	36044535.59	36044535.71	0.0512	0.0141
Venus	93975-11-24 20:53 G	36045051.27	36045051.37	36045051.49	0.0502	0.0419
Venus	93976-07-18 17:02 G	36045288.01	36045288.21	36045288.40	0.0499	0.0160
Earth	93978-03-07 18:14 G	36045885.03	36045885.26	36045885.49	0.0498	0.0101
Moon	93978-03-07 20:24 G	36045885.11	36045885.35	36045885.59	0.0498	0.0107 *
Mercury	93980-08-20 17:45 G	36046782.07	36046782.24	36046782.41	0.0513	0.0199
Venus	93982-05-17 13:41 G	36047416.87	36047417.07	36047417.27	0.0525	0.0044
Mercury	93986-04-15 06:29 G	36048845.65	36048845.77	36048845.90	0.0513	0.0034
Venus	93988-03-23 14:38 G	36049553.90	36049554.11	36049554.32	0.0500	0.0005
Moon	93990-03-12 03:21 G	36050272.49	36050272.64	36050272.81	0.0499	0.0357
Earth	93990-03-12 06:57 G	36050272.62	36050272.79	36050272.97	0.0499	0.0327 *
Mercury	93992-06-08 13:26 G	36051091.87	36051092.06	36051092.24	0.0512	0.0062
Venus	93994-01-20 07:12 G	36051682.63	36051682.80	36051682.99	0.0524	0.0227

Venus	93994-09-14 12:57 G	36051919.93	36051920.04	36051920.16	0.0527	0.0425
Mercury	93998-02-01 11:02 G	36053155.85	36053155.96	36053156.08	0.0514	0.0197
Mercury	93998-05-01 15:07 G	36053245.08	36053245.13	36053245.18	0.0512	0.0467
Venus	93999-11-27 12:29 G	36053819.83	36053820.02	36053820.22	0.0501	0.0162
Venus	94000-07-21 06:14 G	36054056.64	36054056.76	36054056.87	0.0499	0.0410

95TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 95th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	94004-03-27 08:53 G		36055401.73	36055401.87	36055402.01	0.0512	0.0322	
Venus	94005-09-25 02:24 G		36055948.48	36055948.60	36055948.73	0.0523	0.0404	
Venus	94006-05-20 06:43 G		36056185.61	36056185.78	36056185.96	0.0527	0.0242	
Moon	94007-08-31 12:43 G		36056653.89	36056654.03	36056654.18	0.0528	0.0403	
Earth	94007-08-31 16:33 G		36056654.06	36056654.19	36056654.32	0.0528	0.0430	*
Mercury	94009-11-20 16:05 G		36057466.08	36057466.17	36057466.26	0.0514	0.0355	
Mercury	94010-02-17 19:55 G		36057555.24	36057555.33	36057555.44	0.0512	0.0308	
Venus	94011-08-02 09:50 G		36058085.76	36058085.91	36058086.07	0.0502	0.0325	
Venus	94012-03-26 04:33 G		36058322.52	36058322.69	36058322.87	0.0499	0.0253	
Mercury	94016-04-13 17:31 G		36059802.13	36059802.23	36059802.34	0.0513	0.0422	
Venus	94018-01-23 00:29 G		36060451.33	36060451.52	36060451.72	0.0526	0.0058	
Earth	94019-09-05 15:07 G		36061041.91	36061042.13	36061042.36	0.0528	0.0079	
Moon	94019-09-05 18:14 G		36061042.04	36061042.26	36061042.48	0.0528	0.0092	*
Mercury	94021-12-07 00:43 G		36061865.41	36061865.53	36061865.65	0.0513	0.0144	

Venus	94023-04-07 06:43 G	36062351.73	36062351.78	36062351.83	0.0503	0.0486
Venus	94023-11-30 03:07 G	36062588.42	36062588.63	36062588.83	0.0499	0.0094
Mercury	94028-01-31 13:55 G	36064111.91	36064112.08	36064112.26	0.0513	0.0173
Venus	94029-09-27 19:55 G	36064717.14	36064717.33	36064717.52	0.0525	0.0126
Venus	94030-05-23 03:07 G	36064954.63	36064954.63	36064954.63	0.0528	0.0527
Mercury	94033-09-25 04:48 G	36066175.57	36066175.70	36066175.82	0.0513	0.0037
Venus	94035-08-04 22:48 G	36066854.25	36066854.45	36066854.66	0.0500	0.0073
Venus	94036-03-28 15:36 G	36067091.13	36067091.15	36067091.17	0.0498	0.0494
Mercury	94039-11-19 10:33 G	36068421.76	36068421.94	36068422.13	0.0513	0.0071
Venus	94041-06-02 16:05 G	36068983.01	36068983.17	36068983.33	0.0524	0.0304
Venus	94042-01-25 20:53 G	36069220.23	36069220.37	36069220.53	0.0527	0.0347
Mercury	94045-07-14 09:07 G	36070485.77	36070485.88	36070486.00	0.0514	0.0206
Mercury	94045-10-11 13:12 G	36070575.00	36070575.05	36070575.11	0.0512	0.0456
Venus	94047-04-09 19:55 G	36071120.15	36071120.33	36071120.51	0.0502	0.0236
Venus	94047-12-02 14:24 G	36071356.96	36071357.10	36071357.26	0.0499	0.0341
Mercury	94051-09-07 06:14 G	36072731.62	36072731.76	36072731.91	0.0512	0.0328
Venus	94053-02-05 10:33 G	36073248.87	36073248.94	36073249.02	0.0522	0.0480
Venus	94053-09-30 13:41 G	36073485.88	36073486.07	36073486.26	0.0526	0.0161
Mercury	94057-05-02 13:55 G	36074795.99	36074796.08	36074796.16	0.0514	0.0373
Mercury	94057-07-30 17:45 G	36074885.14	36074885.24	36074885.35	0.0512	0.0291
Venus	94058-12-13 17:02 G	36075386.09	36075386.21	36075386.34	0.0503	0.0398
Venus	94059-08-07 13:12 G	36075622.86	36075623.05	36075623.24	0.0499	0.0184
Moon	94061-03-06 16:19 G	36076199.96	36076200.18	36076200.39	0.0498	0.0182
Earth	94061-03-06 19:41 G	36076200.10	36076200.32	36076200.54	0.0498	0.0176 *
Mercury	94063-09-24 15:36 G	36077132.06	36077132.15	36077132.26	0.0513	0.0426
Venus	94065-06-05 08:09 G	36077751.64	36077751.84	36077752.04	0.0525	0.0023
Mercury	94069-05-18 22:48 G	36079195.33	36079195.45	36079195.57	0.0513	0.0132
Venus	94071-04-12 11:45 G	36079888.78	36079888.99	36079889.20	0.0500	0.0023
Earth	94073-03-11 06:29 G	36080587.56	36080587.77	36080587.97	0.0498	0.0243
Moon	94073-03-11 10:19 G	36080587.74	36080587.93	36080588.13	0.0498	0.0278 *

Mercury	94075-07-13 10:48 G	36081441.78	36081441.95	36081442.13	0.0513	0.0158
Venus	94077-02-08 02:24 G	36082017.42	36082017.60	36082017.79	0.0525	0.0207
Venus	94077-10-03 08:53 G	36082254.77	36082254.87	36082254.98	0.0528	0.0448
Mercury	94081-03-07 03:36 G	36083505.52	36083505.65	36083505.77	0.0513	0.0032
Venus	94082-12-16 09:36 G	36084154.70	36084154.90	36084155.10	0.0501	0.0138
Venus	94083-08-10 02:24 G	36084391.51	36084391.60	36084391.71	0.0498	0.0433
Mercury	94087-05-01 07:12 G	36085751.62	36085751.80	36085751.99	0.0512	0.0091
Venus	94088-10-13 23:02 G	36086283.33	36086283.46	36086283.60	0.0523	0.0384
Venus	94089-06-08 03:36 G	36086520.48	36086520.65	36086520.82	0.0527	0.0265
Earth	94090-08-30 14:53 G	36086969.09	36086969.12	36086969.16	0.0528	0.0521
Moon	94090-08-30 18:14 G	36086969.18	36086969.26	36086969.35	0.0528	0.0489
Mercury	94092-12-24 07:41 G	36087815.70	36087815.82	36087815.93	0.0514	0.0210
Mercury	94093-03-23 11:31 G	36087904.93	36087904.98	36087905.04	0.0512	0.0452
Venus	94094-08-21 04:19 G	36088420.52	36088420.68	36088420.84	0.0502	0.0307
Venus	94095-04-14 23:31 G	36088657.31	36088657.48	36088657.65	0.0499	0.0272
Mercury	94099-02-17 03:50 G	36090061.52	36090061.66	36090061.81	0.0512	0.0332
Venus	94101-02-11 22:48 G	36090786.25	36090786.45	36090786.65	0.0526	0.0084
Moon	94102-09-05 10:33 G	36091356.70	36091356.94	36091357.18	0.0527	0.0009
Earth	94102-09-05 12:43 G	36091356.80	36091357.03	36091357.27	0.0527	0.0022 *
Mars	94104-06-08 23:17 G	36091999.29	36091999.47	36091999.68	0.0517	0.0392
Mercury	94104-10-13 12:14 G	36092125.92	36092126.01	36092126.09	0.0514	0.0377
Mercury	94105-01-10 16:05 G	36092215.07	36092215.17	36092215.28	0.0512	0.0285
Venus	94106-04-27 00:57 G	36092686.47	36092686.54	36092686.61	0.0503	0.0470
Venus	94106-12-19 21:50 G	36092923.21	36092923.41	36092923.61	0.0500	0.0113
Mercury	94111-03-07 13:41 G	36094461.97	36094462.07	36094462.17	0.0513	0.0427
Venus	94112-10-17 16:48 G	36095052.00	36095052.20	36095052.39	0.0525	0.0102
Earth	94114-09-10 08:09 G	36095744.75	36095744.84	36095744.95	0.0527	0.0473
Moon	94114-09-10 09:07 G	36095744.76	36095744.88	36095744.99	0.0527	0.0443 *
Mercury	94116-10-29 20:38 G	36096525.24	36096525.36	36096525.49	0.0513	0.0119
Venus	94118-08-24 20:09 G	36097189.13	36097189.34	36097189.54	0.0501	0.0048

Mars	94122-05-14 03:21 G	36098547.41	36098547.64	36098547.87	0.0508	0.0221
Mercury	94122-12-24 09:21 G	36098771.72	36098771.89	36098772.07	0.0513	0.0170
Venus	94124-06-22 11:45 G	36099317.82	36099317.99	36099318.16	0.0524	0.0281
Venus	94125-02-14 16:33 G	36099555.05	36099555.19	36099555.34	0.0527	0.0371
Mercury	94128-08-18 01:41 G	36100835.44	36100835.57	36100835.69	0.0514	0.0040
Venus	94130-04-29 18:29 G	36101455.08	36101455.27	36101455.46	0.0501	0.0210
Venus	94130-12-22 12:29 G	36101691.89	36101692.02	36101692.17	0.0499	0.0368
Mercury	94134-10-12 04:33 G	36103081.51	36103081.69	36103081.88	0.0512	0.0097
Venus	94136-02-26 06:57 G	36103583.70	36103583.79	36103583.88	0.0523	0.0460
Venus	94136-10-20 10:33 G	36103820.75	36103820.94	36103821.13	0.0526	0.0185
Mercury	94140-06-06 06:29 G	36105145.65	36105145.77	36105145.89	0.0514	0.0200
Mercury	94140-09-03 10:33 G	36105234.89	36105234.94	36105234.99	0.0512	0.0462
Venus	94142-01-02 15:50 G	36105721.02	36105721.16	36105721.30	0.0502	0.0372
Venus	94142-08-27 11:31 G	36105957.79	36105957.98	36105958.16	0.0499	0.0211
Earth	94144-03-06 22:19 G	36106515.23	36106515.43	36106515.64	0.0498	0.0245
Moon	94144-03-07 02:24 G	36106515.39	36106515.60	36106515.81	0.0498	0.0244 *
Mercury	94146-07-31 00:57 G	36107391.41	36107391.54	36107391.68	0.0512	0.0342
Venus	94148-06-25 06:29 G	36108086.57	36108086.77	36108086.97	0.0525	0.0005
Mercury	94152-03-25 10:33 G	36109455.86	36109455.94	36109456.03	0.0514	0.0376
Mercury	94152-06-22 14:38 G	36109545.00	36109545.11	36109545.21	0.0512	0.0285
Venus	94154-05-02 07:12 G	36110223.60	36110223.80	36110224.01	0.0500	0.0046
Moon	94156-03-11 05:45 G	36110902.53	36110902.74	36110902.96	0.0499	0.0209
Earth	94156-03-11 09:50 G	36110902.69	36110902.91	36110903.13	0.0499	0.0179 *
Mercury	94158-08-17 11:45 G	36111791.89	36111791.99	36111792.09	0.0514	0.0432
Venus	94160-02-29 02:53 G	36112352.43	36112352.62	36112352.81	0.0524	0.0176
Venus	94160-10-23 08:38 G	36112589.79	36112589.86	36112589.95	0.0527	0.0479
Mercury	94164-04-10 19:12 G	36113855.17	36113855.30	36113855.42	0.0513	0.0119
Venus	94166-01-05 05:02 G	36114489.51	36114489.71	36114489.91	0.0501	0.0118
Venus	94166-08-29 22:48 G	36114726.37	36114726.45	36114726.53	0.0499	0.0455
Mercury	94170-06-05 07:55 G	36116101.65	36116101.83	36116102.00	0.0513	0.0181

Venus	94171-11-03 22:05 G	36116618.27	36116618.42	36116618.57	0.0523	0.0354
Venus	94172-06-28 01:55 G	36116855.42	36116855.58	36116855.75	0.0526	0.0295
Mercury	94176-01-28 23:45 G	36118165.37	36118165.49	36118165.62	0.0513	0.0047
Venus	94177-09-10 02:53 G	36118755.45	36118755.62	36118755.79	0.0502	0.0281
Venus	94178-05-04 22:19 G	36118992.26	36118992.43	36118992.59	0.0499	0.0301
Mercury	94182-03-24 03:36 G	36120411.47	36120411.65	36120411.84	0.0512	0.0076
Venus	94184-03-02 20:09 G	36121121.15	36121121.34	36121121.54	0.0526	0.0111
Earth	94185-09-04 13:12 G	36121671.82	36121672.05	36121672.28	0.0527	0.0108
Moon	94185-09-04 14:09 G	36121671.87	36121672.09	36121672.31	0.0527	0.0100 *
Mercury	94187-11-17 04:48 G	36122475.58	36122475.70	36122475.82	0.0514	0.0204
Mercury	94188-02-14 08:53 G	36122564.81	36122564.87	36122564.92	0.0512	0.0458
Venus	94189-05-16 00:57 G	36123021.45	36123021.54	36123021.64	0.0503	0.0442
Venus	94190-01-07 21:36 G	36123258.21	36123258.40	36123258.60	0.0500	0.0144
Mercury	94194-01-09 23:02 G	36124721.32	36124721.46	36124721.60	0.0512	0.0337
Venus	94195-11-06 14:53 G	36125386.92	36125387.12	36125387.31	0.0525	0.0075
Earth	94197-09-09 12:14 G	36126059.87	36126060.01	36126060.17	0.0527	0.0402
Moon	94197-09-09 13:12 G	36126059.89	36126060.05	36126060.22	0.0527	0.0370 *
Mercury	94199-09-05 09:36 G	36126785.82	36126785.90	36126785.99	0.0514	0.0364
Mercury	94199-12-03 13:41 G	36126874.97	36126875.07	36126875.17	0.0512	0.0300
Venus	94201-09-13 20:09 G	36127524.13	36127524.34	36127524.55	0.0500	0.0018
Mercury	94206-01-28 09:36 G	36129121.80	36129121.90	36129122.00	0.0513	0.0431
Venus	94207-07-13 11:45 G	36129652.82	36129652.99	36129653.17	0.0524	0.0252
Venus	94208-03-06 17:02 G	36129890.08	36129890.21	36129890.34	0.0527	0.0402
Mercury	94211-09-22 18:00 G	36131185.12	36131185.25	36131185.37	0.0513	0.0125
Venus	94213-05-19 15:07 G	36131789.94	36131790.13	36131790.33	0.0501	0.0187
Venus	94214-01-11 09:21 G	36132026.77	36132026.89	36132027.02	0.0499	0.0392
Mercury	94217-11-16 06:29 G	36133431.60	36133431.77	36133431.94	0.0513	0.0193
Venus	94219-03-18 09:21 G	36133918.78	36133918.89	36133919.01	0.0523	0.0425
Venus	94219-11-10 12:43 G	36134155.86	36134156.03	36134156.22	0.0526	0.0223
Mercury	94223-07-11 22:33 G	36135495.32	36135495.44	36135495.57	0.0513	0.0041

Venus	94225-01-22 12:14 G	36136055.87	36136056.01	36136056.16	0.0502	0.0350
Venus	94225-09-16 08:24 G	36136292.67	36136292.85	36136293.03	0.0500	0.0235
Moon	94227-03-08 00:00 G	36136830.32	36136830.50	36136830.69	0.0499	0.0304
Earth	94227-03-08 04:05 G	36136830.49	36136830.67	36136830.86	0.0499	0.0300 *
Mercury	94229-09-04 02:38 G	36137741.43	36137741.61	36137741.80	0.0512	0.0056
Venus	94231-07-16 07:12 G	36138421.60	36138421.80	36138422.00	0.0525	0.0039
Mercury	94235-04-30 03:21 G	36139805.52	36139805.64	36139805.75	0.0514	0.0205
Mercury	94235-07-28 07:12 G	36139894.75	36139894.80	36139894.86	0.0512	0.0457
Venus	94237-05-22 07:41 G	36140558.61	36140558.82	36140559.02	0.0500	0.0077
Earth	94239-03-12 18:29 G	36141218.04	36141218.27	36141218.50	0.0499	0.0132
Moon	94239-03-12 21:21 G	36141218.18	36141218.39	36141218.61	0.0499	0.0163 *
Mercury	94241-06-22 22:33 G	36142051.30	36142051.44	36142051.59	0.0512	0.0309
Venus	94243-03-21 02:09 G	36142687.40	36142687.59	36142687.79	0.0524	0.0145
Venus	94243-11-13 07:55 G	36142924.79	36142924.83	36142924.88	0.0527	0.0510
Mercury	94247-02-16 08:09 G	36144115.76	36144115.84	36144115.93	0.0515	0.0363
Mercury	94247-05-16 12:14 G	36144204.91	36144205.01	36144205.11	0.0513	0.0301
Venus	94249-01-25 06:43 G	36144824.57	36144824.78	36144824.98	0.0501	0.0085
Venus	94249-09-19 00:00 G	36145061.47	36145061.50	36145061.55	0.0499	0.0488
Mercury	94253-07-10 08:09 G	36146451.75	36146451.84	36146451.93	0.0513	0.0444
Venus	94254-11-23 21:36 G	36146953.25	36146953.40	36146953.56	0.0523	0.0325
Venus	94255-07-19 01:55 G	36147190.43	36147190.58	36147190.74	0.0527	0.0328
Mercury	94259-03-04 17:17 G	36148515.10	36148515.22	36148515.34	0.0513	0.0144
Venus	94260-09-30 04:48 G	36149090.52	36149090.70	36149090.88	0.0502	0.0247
Venus	94261-05-24 23:45 G	36149327.34	36149327.49	36149327.64	0.0499	0.0334
Mercury	94265-04-28 04:48 G	36150761.53	36150761.70	36150761.87	0.0513	0.0202
Venus	94266-07-29 19:12 G	36151219.25	36151219.30	36151219.37	0.0522	0.0497
Venus	94267-03-23 22:19 G	36151456.23	36151456.43	36151456.62	0.0526	0.0147
Earth	94268-09-04 21:21 G	36151987.17	36151987.39	36151987.61	0.0527	0.0158
Moon	94268-09-04 21:50 G	36151987.18	36151987.41	36151987.64	0.0527	0.0154 *
Mercury	94270-12-21 21:36 G	36152825.27	36152825.40	36152825.52	0.0513	0.0030

Venus	94272-06-04 23:17 G	36153356.35	36153356.47	36153356.58	0.0503	0.0415
Venus	94273-01-27 19:41 G	36153593.13	36153593.32	36153593.52	0.0500	0.0171
Mars	94276-08-08 08:38 G	36154881.63	36154881.86	36154882.10	0.0509	0.0202
Mercury	94277-02-14 01:41 G	36155071.38	36155071.57	36155071.75	0.0513	0.0038
Venus	94278-11-26 19:12 G	36155722.10	36155722.30	36155722.50	0.0525	0.0032
Moon	94280-09-09 18:29 G	36156375.10	36156375.27	36156375.46	0.0526	0.0320
Earth	94280-09-09 21:07 G	36156375.22	36156375.38	36156375.56	0.0526	0.0352 *
Mercury	94282-10-10 02:24 G	36157135.48	36157135.60	36157135.71	0.0513	0.0192
Mercury	94283-01-07 06:14 G	36157224.71	36157224.76	36157224.81	0.0511	0.0468
Venus	94284-10-02 18:14 G	36157859.05	36157859.26	36157859.47	0.0501	0.0011
Mercury	94288-12-02 21:50 G	36159381.26	36159381.41	36159381.57	0.0512	0.0283
Venus	94290-08-01 14:24 G	36159987.92	36159988.10	36159988.29	0.0524	0.0214
Venus	94291-03-26 19:26 G	36160225.20	36160225.31	36160225.42	0.0526	0.0441
Mercury	94294-07-29 06:57 G	36161445.70	36161445.79	36161445.88	0.0514	0.0356
Mercury	94294-10-26 11:02 G	36161534.86	36161534.96	36161535.06	0.0512	0.0306
Venus	94296-06-07 16:48 G	36162125.00	36162125.20	36162125.40	0.0502	0.0152
Venus	94297-01-30 11:17 G	36162361.87	36162361.97	36162362.08	0.0499	0.0427
Mercury	94300-12-21 07:55 G	36163781.77	36163781.83	36163781.90	0.0513	0.0479
Venus	94302-04-07 10:33 G	36164253.81	36164253.94	36164254.07	0.0523	0.0391
Venus	94302-11-30 13:41 G	36164490.90	36164491.07	36164491.25	0.0526	0.0259
Mercury	94306-05-18 12:00 G	36165756.00	36165756.00	36165756.00	0.0515	0.0514
Mercury	94306-08-15 15:50 G	36165845.04	36165845.16	36165845.29	0.0513	0.0150
Venus	94308-02-12 15:07 G	36166390.98	36166391.13	36166391.30	0.0502	0.0315
Venus	94308-10-06 11:17 G	36166627.80	36166627.97	36166628.15	0.0500	0.0271
Earth	94310-03-08 15:07 G	36167145.96	36167146.13	36167146.31	0.0498	0.0336
Moon	94310-03-08 18:14 G	36167146.09	36167146.26	36167146.43	0.0498	0.0328 *
Mercury	94312-10-09 03:50 G	36168091.49	36168091.66	36168091.83	0.0513	0.0223
Venus	94314-08-05 08:24 G	36168756.65	36168756.85	36168757.05	0.0525	0.0073
Mercury	94318-06-03 20:53 G	36170155.25	36170155.37	36170155.50	0.0513	0.0018
Venus	94319-10-18 13:12 G	36170656.98	36170657.05	36170657.11	0.0503	0.0475

Venus	94320-06-11 10:33 G	36170893.74	36170893.94	36170894.14	0.0500	0.0113
Moon	94322-03-13 04:05 G	36171533.43	36171533.67	36171533.91	0.0499	0.0122
Earth	94322-03-13 05:17 G	36171533.49	36171533.72	36171533.95	0.0499	0.0094 *
Mercury	94324-07-28 00:29 G	36172401.34	36172401.52	36172401.71	0.0512	0.0020
Venus	94326-04-10 05:31 G	36173022.54	36173022.73	36173022.93	0.0525	0.0106
Mercury	94330-03-23 01:26 G	36174465.44	36174465.56	36174465.68	0.0513	0.0176
Mercury	94330-06-20 05:17 G	36174554.69	36174554.72	36174554.76	0.0511	0.0483
Venus	94332-02-15 06:00 G	36175159.54	36175159.75	36175159.95	0.0501	0.0055
Mercury	94336-05-15 21:07 G	36176711.22	36176711.38	36176711.54	0.0512	0.0261
Venus	94337-12-14 03:07 G	36177288.47	36177288.63	36177288.80	0.0524	0.0282
Venus	94338-08-08 07:55 G	36177525.69	36177525.83	36177525.97	0.0527	0.0373
Mercury	94342-01-09 06:14 G	36178775.67	36178775.76	36178775.86	0.0514	0.0337
Mercury	94342-04-08 10:05 G	36178864.83	36178864.92	36178865.02	0.0512	0.0323
Venus	94343-10-21 03:50 G	36179425.48	36179425.66	36179425.85	0.0502	0.0217
Venus	94344-06-13 22:48 G	36179662.31	36179662.45	36179662.59	0.0499	0.0364
Mercury	94348-03-03 17:31 G	36181021.21	36181021.23	36181021.26	0.0512	0.0504
Mercury	94348-06-02 07:41 G	36181111.80	36181111.82	36181111.84	0.0514	0.0510
Venus	94349-08-18 23:31 G	36181554.39	36181554.48	36181554.58	0.0522	0.0456
Venus	94350-04-13 02:09 G	36181791.41	36181791.59	36181791.78	0.0526	0.0190
Moon	94351-09-06 04:33 G	36182302.49	36182302.69	36182302.89	0.0527	0.0216
Earth	94351-09-06 06:43 G	36182302.57	36182302.78	36182303.00	0.0527	0.0209 *
Mercury	94353-10-28 11:02 G	36183085.93	36183085.96	36183085.98	0.0514	0.0502
Mercury	94354-01-25 14:53 G	36183175.00	36183175.12	36183175.24	0.0513	0.0159
Venus	94355-06-26 01:41 G	36183691.44	36183691.57	36183691.71	0.0503	0.0380
Venus	94356-02-17 22:33 G	36183928.25	36183928.44	36183928.63	0.0500	0.0208
Mercury	94360-03-21 04:05 G	36185421.51	36185421.67	36185421.83	0.0513	0.0261
Venus	94361-12-16 21:21 G	36186057.19	36186057.39	36186057.59	0.0525	0.0007
Earth	94363-09-11 04:48 G	36186690.51	36186690.70	36186690.89	0.0527	0.0293
Moon	94363-09-11 08:38 G	36186690.66	36186690.86	36186691.06	0.0527	0.0262 *
Mercury	94365-11-13 19:55 G	36187485.20	36187485.33	36187485.46	0.0513	0.0004

Venus	94367-10-23 22:05 G	36188194.22	36188194.42	36188194.63	0.0501	0.0049
Mercury	94372-01-07 23:45 G	36189731.31	36189731.49	36189731.68	0.0512	0.0008
Venus	94373-08-21 16:33 G	36190323.00	36190323.19	36190323.38	0.0524	0.0177
Venus	94374-04-15 21:50 G	36190560.34	36190560.41	36190560.50	0.0527	0.0480
Mars	94377-02-21 18:00 G	36191602.98	36191603.25	36191603.52	0.0518	0.0220
Mercury	94377-09-02 00:57 G	36191795.42	36191795.54	36191795.66	0.0514	0.0154
Mercury	94377-11-30 05:02 G	36191884.69	36191884.71	36191884.72	0.0512	0.0507
Venus	94379-06-28 20:53 G	36192460.16	36192460.37	36192460.57	0.0501	0.0113
Venus	94380-02-20 14:53 G	36192697.05	36192697.12	36192697.19	0.0499	0.0464
Mercury	94383-10-26 20:24 G	36194041.19	36194041.35	36194041.52	0.0512	0.0236
Venus	94385-04-26 14:24 G	36194588.96	36194589.10	36194589.25	0.0523	0.0352
Venus	94385-12-19 18:14 G	36194826.10	36194826.26	36194826.43	0.0526	0.0302
Mercury	94389-06-21 05:31 G	36196105.63	36196105.73	36196105.83	0.0514	0.0320
Mercury	94389-09-18 09:21 G	36196194.80	36196194.89	36196194.99	0.0512	0.0340
Venus	94391-03-03 15:50 G	36196725.99	36196726.16	36196726.33	0.0502	0.0281
Venus	94391-10-26 11:17 G	36196962.81	36196962.97	36196963.14	0.0499	0.0304
Moon	94393-03-07 21:50 G	36197461.25	36197461.41	36197461.58	0.0499	0.0370
Earth	94393-03-07 23:02 G	36197461.32	36197461.46	36197461.62	0.0499	0.0385 *
Mercury	94395-08-14 16:48 G	36198351.14	36198351.20	36198351.26	0.0512	0.0481
Venus	94396-12-30 12:29 G	36198855.02	36198855.02	36198855.03	0.0522	0.0522
Venus	94397-08-24 15:07 G	36199091.93	36199092.13	36199092.32	0.0526	0.0122
Mercury	94401-04-09 10:19 G	36200415.89	36200415.93	36200415.98	0.0514	0.0480
Mercury	94401-07-07 14:09 G	36200504.98	36200505.09	36200505.21	0.0512	0.0180
Venus	94402-11-06 12:57 G	36200991.96	36200992.04	36200992.15	0.0503	0.0444
Venus	94403-07-01 10:19 G	36201228.73	36201228.93	36201229.13	0.0500	0.0145
Moon	94405-03-12 13:26 G	36201848.84	36201849.06	36201849.29	0.0499	0.0077
Earth	94405-03-12 14:09 G	36201848.86	36201849.09	36201849.33	0.0499	0.0050 *
Mercury	94407-09-01 03:36 G	36202751.50	36202751.65	36202751.80	0.0513	0.0292
Venus	94409-04-29 10:33 G	36203357.74	36203357.94	36203358.14	0.0525	0.0062
Mercury	94413-04-25 18:57 G	36204815.16	36204815.29	36204815.42	0.0513	0.0016

Venus	94415-03-06 09:07 G	36205494.67	36205494.88	36205495.09	0.0501	0.0017
Earth	94417-03-17 05:31 G	36206236.69	36206236.73	36206236.79	0.0499	0.0488
Moon	94417-03-17 07:55 G	36206236.77	36206236.83	36206236.91	0.0499	0.0475 *
Mercury	94419-06-20 00:00 G	36207061.31	36207061.50	36207061.68	0.0513	0.0045
Venus	94421-01-02 06:14 G	36207623.58	36207623.76	36207623.94	0.0524	0.0242
Venus	94421-08-27 10:33 G	36207860.82	36207860.94	36207861.07	0.0526	0.0414
Mercury	94425-02-12 00:00 G	36209125.37	36209125.50	36209125.62	0.0514	0.0144
Venus	94426-11-09 08:09 G	36209760.65	36209760.84	36209761.04	0.0502	0.0178
Venus	94427-07-04 03:07 G	36209997.52	36209997.63	36209997.75	0.0499	0.0404
Mercury	94431-04-07 19:41 G	36211371.16	36211371.32	36211371.50	0.0512	0.0210
Venus	94432-09-07 01:55 G	36211889.47	36211889.58	36211889.70	0.0523	0.0420
Venus	94433-05-02 05:02 G	36212126.53	36212126.71	36212126.89	0.0526	0.0230
Earth	94434-09-05 17:31 G	36212618.03	36212618.23	36212618.43	0.0527	0.0252
Moon	94434-09-05 21:07 G	36212618.18	36212618.38	36212618.58	0.0527	0.0269 *
Mercury	94436-12-01 05:02 G	36213435.60	36213435.71	36213435.81	0.0514	0.0299
Mercury	94437-02-28 08:53 G	36213524.78	36213524.87	36213524.96	0.0512	0.0363
Venus	94438-07-15 06:14 G	36214026.61	36214026.76	36214026.91	0.0503	0.0340
Venus	94439-03-09 02:38 G	36214263.43	36214263.61	36214263.79	0.0500	0.0248
Mercury	94443-01-24 16:19 G	36215681.10	36215681.18	36215681.27	0.0512	0.0453
Venus	94445-01-05 01:55 G	36216392.38	36216392.58	36216392.78	0.0525	0.0049
Moon	94446-09-10 15:07 G	36217005.92	36217006.13	36217006.34	0.0527	0.0231
Earth	94446-09-10 18:57 G	36217006.09	36217006.29	36217006.49	0.0527	0.0266 *
Mercury	94448-09-19 09:36 G	36217745.85	36217745.90	36217745.96	0.0514	0.0461
Mercury	94448-12-17 13:41 G	36217834.95	36217835.07	36217835.18	0.0512	0.0198
Venus	94450-11-11 22:48 G	36218529.24	36218529.45	36218529.65	0.0500	0.0083
Mercury	94455-02-11 02:53 G	36220081.47	36220081.62	36220081.77	0.0514	0.0316
Venus	94456-09-09 23:02 G	36220658.27	36220658.46	36220658.66	0.0525	0.0129
Mercury	94460-10-05 18:29 G	36222145.14	36222145.27	36222145.40	0.0512	0.0039
Venus	94462-07-17 20:53 G	36222795.17	36222795.37	36222795.58	0.0501	0.0080
Venus	94463-03-11 14:38 G	36223032.10	36223032.11	36223032.13	0.0499	0.0496

Mercury	94466-11-29 23:31 G	36224391.30	36224391.48	36224391.66	0.0513	0.0073
Venus	94468-05-15 19:26 G	36224924.15	36224924.31	36224924.47	0.0523	0.0309
Venus	94469-01-07 23:17 G	36225161.32	36225161.47	36225161.62	0.0526	0.0347
Mercury	94472-07-24 23:02 G	36226455.34	36226455.46	36226455.59	0.0513	0.0127
Venus	94474-03-22 18:57 G	36227061.11	36227061.29	36227061.47	0.0502	0.0244
Venus	94474-11-14 14:53 G	36227297.97	36227298.12	36227298.27	0.0499	0.0343
Moon	94476-03-07 12:29 G	36227776.88	36227777.02	36227777.16	0.0499	0.0390
Earth	94476-03-07 13:12 G	36227776.92	36227777.05	36227777.18	0.0499	0.0412 *
Mercury	94478-09-17 19:55 G	36228701.15	36228701.33	36228701.50	0.0512	0.0174
Venus	94480-01-19 15:36 G	36229190.09	36229190.15	36229190.23	0.0522	0.0485
Venus	94480-09-12 18:00 G	36229427.06	36229427.25	36229427.44	0.0525	0.0163
Mercury	94484-05-13 04:05 G	36230765.56	36230765.67	36230765.77	0.0514	0.0287
Mercury	94484-08-10 07:55 G	36230854.75	36230854.83	36230854.92	0.0512	0.0373
Venus	94485-11-25 17:17 G	36231327.10	36231327.22	36231327.34	0.0503	0.0406
Venus	94486-07-20 14:24 G	36231563.91	36231564.10	36231564.30	0.0500	0.0185
Earth	94488-03-12 04:05 G	36232164.44	36232164.67	36232164.91	0.0499	0.0025
Moon	94488-03-12 06:29 G	36232164.53	36232164.77	36232165.01	0.0499	0.0050 *
Mercury	94490-07-06 15:36 G	36233011.05	36233011.15	36233011.25	0.0512	0.0428
Venus	94492-05-18 12:57 G	36233692.84	36233693.04	36233693.24	0.0525	0.0023
Mercury	94496-03-01 08:53 G	36235075.81	36235075.87	36235075.94	0.0514	0.0444
Mercury	94496-05-29 12:57 G	36235164.93	36235165.04	36235165.15	0.0513	0.0218
Venus	94498-03-25 13:26 G	36235829.85	36235830.06	36235830.26	0.0501	0.0027
Moon	94500-03-17 14:53 G	36236552.02	36236552.12	36236552.24	0.0499	0.0440
Earth	94500-03-17 18:00 G	36236552.17	36236552.25	36236552.36	0.0499	0.0456 *
Mercury	94502-07-25 02:09 G	36237411.46	36237411.59	36237411.73	0.0513	0.0342
Venus	94504-01-23 10:05 G	36237958.74	36237958.92	36237959.11	0.0524	0.0202
Venus	94504-09-16 15:07 G	36238196.04	36238196.13	36238196.24	0.0527	0.0458
Mercury	94508-03-18 17:45 G	36239475.11	36239475.24	36239475.36	0.0512	0.0057
Venus	94509-11-29 09:07 G	36240095.68	36240095.88	36240096.08	0.0501	0.0144
Venus	94510-07-24 03:07 G	36240332.54	36240332.63	36240332.74	0.0499	0.0437

Mercury	94514-05-12 22:19 G	36241721.25	36241721.43	36241721.62	0.0513	0.0092
Venus	94515-09-28 07:26 G	36242224.68	36242224.81	36242224.95	0.0523	0.0377
Venus	94516-05-22 11:31 G	36242461.81	36242461.98	36242462.15	0.0526	0.0279
Moon	94517-09-06 05:17 G	36242933.54	36242933.72	36242933.92	0.0527	0.0300
Earth	94517-09-06 09:21 G	36242933.70	36242933.89	36242934.09	0.0527	0.0275 *
Mercury	94520-01-05 22:33 G	36243785.32	36243785.44	36243785.56	0.0513	0.0104
Venus	94521-08-04 06:43 G	36244361.62	36244361.78	36244361.94	0.0502	0.0307
Venus	94522-03-29 02:24 G	36244598.43	36244598.60	36244598.77	0.0499	0.0280
Mercury	94526-02-28 18:57 G	36246031.11	36246031.29	36246031.47	0.0513	0.0152
Venus	94528-01-26 06:29 G	36246727.57	36246727.77	36246727.96	0.0525	0.0094
Earth	94529-09-11 05:45 G	36247321.53	36247321.74	36247321.95	0.0526	0.0219
Moon	94529-09-11 08:53 G	36247321.66	36247321.87	36247322.08	0.0526	0.0191 *
Mars	94531-05-21 00:57 G	36247938.39	36247938.54	36247938.68	0.0517	0.0447
Mercury	94531-10-25 03:07 G	36248095.52	36248095.63	36248095.74	0.0513	0.0271
Mercury	94532-01-22 06:57 G	36248184.71	36248184.79	36248184.87	0.0512	0.0387
Venus	94533-04-09 03:50 G	36248627.59	36248627.66	36248627.73	0.0503	0.0472
Venus	94533-12-02 01:41 G	36248864.37	36248864.57	36248864.77	0.0500	0.0120
Mercury	94537-12-17 15:21 G	36250341.02	36250341.14	36250341.25	0.0512	0.0398
Venus	94539-10-01 01:41 G	36250993.38	36250993.57	36250993.77	0.0524	0.0091
Mercury	94543-08-13 07:55 G	36252405.76	36252405.83	36252405.90	0.0514	0.0433
Mercury	94543-11-10 11:45 G	36252494.88	36252494.99	36252495.11	0.0512	0.0228
Venus	94545-08-07 00:29 G	36253130.31	36253130.52	36253130.72	0.0501	0.0042
Mars	94549-04-27 19:41 G	36254490.07	36254490.32	36254490.57	0.0508	0.0050
Mercury	94550-01-04 01:12 G	36254741.42	36254741.55	36254741.68	0.0513	0.0362
Venus	94551-06-05 20:53 G	36255259.21	36255259.37	36255259.55	0.0523	0.0274
Venus	94552-01-29 01:12 G	36255496.42	36255496.55	36255496.69	0.0526	0.0385
Mercury	94555-08-29 16:48 G	36256805.08	36256805.20	36256805.33	0.0513	0.0071
Venus	94557-04-11 22:33 G	36257396.26	36257396.44	36257396.63	0.0502	0.0205
Venus	94557-12-04 17:45 G	36257633.12	36257633.24	36257633.38	0.0499	0.0382
Earth	94559-03-09 00:43 G	36258092.43	36258092.53	36258092.63	0.0498	0.0448

Moon	94559-03-09 03:07 G	36258092.50	36258092.63	36258092.76	0.0498	0.0418	*
Mercury	94561-10-22 21:36 G	36259051.22	36259051.40	36259051.59	0.0513	0.0116	
Venus	94563-02-08 18:29 G	36259525.17	36259525.27	36259525.37	0.0523	0.0448	
Venus	94563-10-03 21:21 G	36259762.21	36259762.39	36259762.57	0.0526	0.0204	
Mercury	94567-06-17 21:36 G	36261115.28	36261115.40	36261115.53	0.0513	0.0091	
Venus	94568-12-15 18:14 G	36261662.12	36261662.26	36261662.40	0.0502	0.0372	
Venus	94569-08-09 14:24 G	36261898.92	36261899.10	36261899.29	0.0499	0.0218	
Moon	94571-03-13 06:43 G	36262479.55	36262479.78	36262480.01	0.0499	0.0013	
Earth	94571-03-13 09:50 G	36262479.68	36262479.91	36262480.15	0.0499	0.0037	*
Mercury	94573-08-10 17:17 G	36263361.05	36263361.22	36263361.41	0.0513	0.0142	
Venus	94575-06-08 17:45 G	36264028.04	36264028.24	36264028.44	0.0526	0.0022	
Mercury	94579-04-06 02:24 G	36265425.50	36265425.60	36265425.72	0.0513	0.0251	
Mercury	94579-07-04 06:29 G	36265514.69	36265514.77	36265514.84	0.0511	0.0407	
Venus	94581-04-14 12:43 G	36266164.83	36266165.03	36266165.24	0.0500	0.0057	
Earth	94583-03-18 00:00 G	36266867.36	36266867.50	36266867.64	0.0499	0.0395	
Moon	94583-03-18 03:50 G	36266867.51	36266867.66	36266867.81	0.0499	0.0374	*
Mercury	94585-05-29 13:55 G	36267670.96	36267671.08	36267671.20	0.0512	0.0386	
Venus	94587-02-11 13:26 G	36268293.87	36268294.06	36268294.25	0.0524	0.0162	
Venus	94587-10-06 18:43 G	36268531.22	36268531.28	36268531.34	0.0527	0.0499	
Mercury	94591-01-23 06:57 G	36269735.72	36269735.79	36269735.87	0.0514	0.0419	
Mercury	94591-04-22 10:48 G	36269824.84	36269824.95	36269825.07	0.0512	0.0240	
Venus	94592-12-18 11:02 G	36270430.75	36270430.96	36270431.16	0.0501	0.0109	
Venus	94593-08-12 05:02 G	36270667.66	36270667.71	36270667.78	0.0499	0.0473	
Mercury	94597-06-16 00:29 G	36272071.40	36272071.52	36272071.65	0.0514	0.0385	
Venus	94598-10-17 09:21 G	36272559.74	36272559.89	36272560.04	0.0523	0.0342	
Venus	94599-06-11 12:57 G	36272796.88	36272797.04	36272797.20	0.0526	0.0315	
Earth	94600-09-06 15:07 G	36273248.96	36273249.13	36273249.31	0.0527	0.0342	
Moon	94600-09-06 18:29 G	36273249.12	36273249.27	36273249.44	0.0527	0.0367	*
Mercury	94603-02-09 15:36 G	36274135.03	36274135.15	36274135.28	0.0513	0.0078	
Venus	94604-08-24 08:53 G	36274696.69	36274696.87	36274697.04	0.0502	0.0273	

Venus	94605-04-18 04:48 G	36274933.54	36274933.70	36274933.86	0.0499	0.0316
Mercury	94609-04-04 20:09 G	36276381.17	36276381.34	36276381.53	0.0513	0.0129
Venus	94610-06-23 05:02 G	36276825.69	36276825.71	36276825.73	0.0522	0.0518
Venus	94611-02-15 06:57 G	36277062.59	36277062.79	36277062.98	0.0525	0.0129
Moon	94612-09-11 10:05 G	36277636.69	36277636.92	36277637.16	0.0527	0.0130
Earth	94612-09-11 12:14 G	36277636.79	36277637.01	36277637.23	0.0527	0.0157 *
Mercury	94614-11-28 20:38 G	36278445.23	36278445.36	36278445.48	0.0513	0.0082
Venus	94616-04-29 06:14 G	36278962.67	36278962.76	36278962.87	0.0503	0.0437
Venus	94616-12-22 03:50 G	36279199.46	36279199.66	36279199.85	0.0500	0.0157
Mercury	94621-01-21 16:19 G	36280691.00	36280691.18	36280691.37	0.0513	0.0123
Venus	94622-10-21 03:07 G	36281328.44	36281328.63	36281328.83	0.0525	0.0055
Mercury	94626-09-17 01:26 G	36282755.45	36282755.56	36282755.67	0.0513	0.0241
Mercury	94626-12-15 05:17 G	36282844.65	36282844.72	36282844.79	0.0511	0.0416
Venus	94628-08-27 00:00 G	36283465.29	36283465.50	36283465.71	0.0500	0.0012
Mercury	94632-11-09 11:45 G	36285000.87	36285000.99	36285001.11	0.0513	0.0384
Venus	94634-06-25 23:31 G	36285594.31	36285594.48	36285594.66	0.0524	0.0236
Venus	94635-02-18 04:48 G	36285831.59	36285831.70	36285831.82	0.0527	0.0428
Mercury	94638-07-06 06:14 G	36287065.69	36287065.76	36287065.84	0.0513	0.0401
Mercury	94638-10-03 10:05 G	36287154.81	36287154.92	36287155.03	0.0511	0.0255
Venus	94640-05-01 21:50 G	36287731.21	36287731.41	36287731.60	0.0501	0.0175
Venus	94640-12-24 16:05 G	36287968.06	36287968.17	36287968.29	0.0499	0.0410
Moon	94642-03-09 00:57 G	36288407.51	36288407.54	36288407.59	0.0498	0.0491
Mercury	94644-11-26 22:33 G	36289401.32	36289401.44	36289401.56	0.0514	0.0389
Venus	94646-02-28 19:55 G	36289860.21	36289860.33	36289860.45	0.0523	0.0415
Venus	94646-10-23 23:02 G	36290097.29	36290097.46	36290097.64	0.0526	0.0242
Mercury	94650-07-22 14:24 G	36291464.98	36291465.10	36291465.23	0.0512	0.0087
Venus	94652-01-05 18:29 G	36291997.12	36291997.27	36291997.43	0.0502	0.0342
Venus	94652-08-29 14:53 G	36292233.94	36292234.12	36292234.30	0.0500	0.0250
Earth	94654-03-13 19:12 G	36292795.07	36292795.30	36292795.53	0.0499	0.0082
Moon	94654-03-13 23:02 G	36292795.22	36292795.46	36292795.69	0.0499	0.0065 *

Mercury	94656-09-14 18:57 G	36293711.11	36293711.29	36293711.47	0.0513	0.0141
Venus	94658-06-28 18:00 G	36294363.05	36294363.25	36294363.45	0.0525	0.0056
Mercury	94662-05-10 19:12 G	36295775.17	36295775.30	36295775.42	0.0513	0.0079
Venus	94664-05-04 13:26 G	36296499.86	36296500.06	36296500.27	0.0500	0.0089
Moon	94666-03-18 05:45 G	36297182.57	36297182.74	36297182.93	0.0499	0.0322
Earth	94666-03-18 09:21 G	36297182.72	36297182.89	36297183.06	0.0499	0.0350 *
Mercury	94668-07-03 14:24 G	36298020.92	36298021.10	36298021.29	0.0513	0.0118
Venus	94670-03-03 12:14 G	36298628.82	36298629.01	36298629.20	0.0524	0.0131
Mercury	94674-02-27 00:00 G	36300085.39	36300085.50	36300085.61	0.0514	0.0240
Mercury	94674-05-27 03:50 G	36300174.59	36300174.66	36300174.73	0.0512	0.0419
Venus	94676-01-08 11:45 G	36300765.78	36300765.99	36300766.19	0.0501	0.0076
Mercury	94680-04-21 10:19 G	36302330.81	36302330.93	36302331.06	0.0512	0.0370
Venus	94681-11-06 08:38 G	36302894.70	36302894.86	36302895.02	0.0523	0.0312
Venus	94682-07-01 12:57 G	36303131.89	36303132.04	36303132.18	0.0527	0.0350
Moon	94683-09-06 18:57 G	36303564.16	36303564.29	36303564.43	0.0527	0.0430
Earth	94683-09-06 21:36 G	36303564.26	36303564.40	36303564.55	0.0527	0.0406 *
Mercury	94685-12-16 04:48 G	36304395.63	36304395.70	36304395.78	0.0514	0.0399
Mercury	94686-03-15 08:53 G	36304484.76	36304484.87	36304484.98	0.0512	0.0260
Venus	94687-09-13 07:55 G	36305031.65	36305031.83	36305032.01	0.0501	0.0244
Venus	94688-05-07 02:53 G	36305268.47	36305268.62	36305268.77	0.0499	0.0344
Mercury	94692-05-08 19:55 G	36306731.21	36306731.33	36306731.45	0.0514	0.0381
Venus	94693-07-12 04:48 G	36307160.64	36307160.70	36307160.77	0.0523	0.0490
Venus	94694-03-06 07:55 G	36307397.64	36307397.83	36307398.02	0.0526	0.0165
Earth	94695-09-11 21:07 G	36307952.15	36307952.38	36307952.61	0.0527	0.0102
Moon	94695-09-11 21:07 G	36307952.16	36307952.38	36307952.60	0.0527	0.0086 *
Mercury	94698-01-01 13:41 G	36308794.94	36308795.07	36308795.19	0.0512	0.0099
Venus	94699-05-19 04:48 G	36309297.59	36309297.70	36309297.82	0.0502	0.0409
Venus	94700-01-11 01:12 G	36309534.36	36309534.55	36309534.74	0.0499	0.0184
Mars	94703-07-24 18:00 G	36310824.06	36310824.25	36310824.45	0.0509	0.0325
Mercury	94704-02-26 16:19 G	36311041.00	36311041.18	36311041.36	0.0514	0.0134

Venus	94705-11-10 03:07 G	36311663.43	36311663.63	36311663.83	0.0525	0.0024
Mercury	94709-10-21 18:00 G	36313105.12	36313105.25	36313105.37	0.0513	0.0077
Venus	94711-09-16 22:48 G	36313800.24	36313800.45	36313800.66	0.0500	0.0018
Mercury	94715-12-15 12:29 G	36315350.84	36315351.02	36315351.21	0.0513	0.0115
Venus	94717-07-15 22:19 G	36315929.25	36315929.43	36315929.62	0.0524	0.0207
Venus	94718-03-10 03:07 G	36316166.54	36316166.63	36316166.73	0.0527	0.0457
Mercury	94721-08-09 22:33 G	36317415.33	36317415.44	36317415.55	0.0513	0.0242
Mercury	94721-11-07 02:24 G	36317504.53	36317504.60	36317504.67	0.0511	0.0415
Venus	94723-05-22 20:24 G	36318066.15	36318066.35	36318066.55	0.0501	0.0148
Venus	94724-01-14 15:07 G	36318303.04	36318303.13	36318303.23	0.0499	0.0439
Mercury	94727-10-03 07:55 G	36319660.71	36319660.83	36319660.96	0.0512	0.0373
Venus	94729-03-20 17:17 G	36320195.09	36320195.22	36320195.35	0.0523	0.0389
Venus	94729-11-12 20:09 G	36320432.17	36320432.34	36320432.52	0.0526	0.0269
Mercury	94733-05-29 03:07 G	36321725.56	36321725.63	36321725.71	0.0514	0.0405
Mercury	94733-08-26 07:12 G	36321814.69	36321814.80	36321814.91	0.0512	0.0255
Venus	94735-01-25 17:45 G	36322332.08	36322332.24	36322332.40	0.0502	0.0313
Venus	94735-09-19 13:55 G	36322568.91	36322569.08	36322569.25	0.0499	0.0280
Moon	94737-03-13 20:09 G	36323110.11	36323110.34	36323110.57	0.0498	0.0136
Earth	94737-03-13 23:45 G	36323110.27	36323110.49	36323110.72	0.0498	0.0145 *
Mercury	94739-10-20 18:00 G	36324061.13	36324061.25	36324061.38	0.0514	0.0387
Venus	94741-07-18 15:36 G	36324697.95	36324698.15	36324698.35	0.0526	0.0084
Mercury	94745-06-14 12:00 G	36326124.88	36326125.00	36326125.13	0.0512	0.0095
Venus	94746-09-30 13:55 G	36326598.02	36326598.08	36326598.14	0.0503	0.0480
Venus	94747-05-25 11:02 G	36326834.76	36326834.96	36326835.16	0.0500	0.0114
Earth	94749-03-18 08:38 G	36327497.66	36327497.86	36327498.06	0.0499	0.0265
Moon	94749-03-18 11:17 G	36327497.77	36327497.97	36327498.17	0.0499	0.0237 *
Mercury	94751-08-08 12:57 G	36328370.86	36328371.04	36328371.23	0.0514	0.0118
Venus	94753-03-23 10:33 G	36328963.75	36328963.94	36328964.14	0.0525	0.0103
Mercury	94757-04-02 16:48 G	36330435.07	36330435.20	36330435.32	0.0512	0.0067
Venus	94759-01-28 08:38 G	36331100.65	36331100.86	36331101.06	0.0500	0.0051

Mercury	94763-05-27 09:07 G	36332680.71	36332680.88	36332681.07	0.0513	0.0133
Venus	94764-11-26 06:29 G	36333229.60	36333229.77	36333229.94	0.0524	0.0287
Venus	94765-07-21 10:48 G	36333466.82	36333466.95	36333467.09	0.0527	0.0378
Earth	94766-09-06 22:19 G	36333879.36	36333879.43	36333879.52	0.0527	0.0491
Moon	94766-09-06 23:17 G	36333879.43	36333879.47	36333879.51	0.0527	0.0518 *
Mercury	94769-01-19 20:53 G	36334745.26	36334745.37	36334745.48	0.0513	0.0243
Mercury	94769-04-19 00:43 G	36334834.46	36334834.53	36334834.61	0.0511	0.0414
Venus	94770-10-03 04:48 G	36335366.52	36335366.70	36335366.89	0.0502	0.0221
Venus	94771-05-28 00:00 G	36335603.37	36335603.50	36335603.64	0.0499	0.0370
Mercury	94775-03-15 05:31 G	36336990.61	36336990.73	36336990.86	0.0512	0.0379
Venus	94776-08-01 02:38 G	36337495.52	36337495.61	36337495.70	0.0522	0.0465
Venus	94777-03-26 05:02 G	36337732.53	36337732.71	36337732.90	0.0526	0.0191
Earth	94778-09-11 18:29 G	36338267.04	36338267.27	36338267.50	0.0527	0.0007
Moon	94778-09-11 20:09 G	36338267.10	36338267.34	36338267.58	0.0527	0.0013 *
Mercury	94780-11-08 01:26 G	36339055.49	36339055.56	36339055.63	0.0514	0.0411
Mercury	94781-02-05 05:17 G	36339144.61	36339144.72	36339144.83	0.0512	0.0247
Venus	94782-06-08 01:26 G	36339632.43	36339632.56	36339632.69	0.0503	0.0388
Venus	94783-01-30 22:19 G	36339869.24	36339869.43	36339869.62	0.0500	0.0208
Mercury	94787-04-01 15:21 G	36341391.01	36341391.14	36341391.26	0.0513	0.0377
Venus	94788-11-28 22:48 G	36341998.25	36341998.45	36341998.65	0.0525	0.0008
Moon	94790-09-16 10:48 G	36342654.92	36342654.95	36342654.98	0.0527	0.0520
Earth	94790-09-16 13:55 G	36342655.00	36342655.08	36342655.17	0.0527	0.0489
Mercury	94792-11-24 09:50 G	36343454.79	36343454.91	36343455.04	0.0513	0.0085
Venus	94794-10-05 20:24 G	36344135.14	36344135.35	36344135.56	0.0500	0.0045
Mercury	94799-01-18 10:48 G	36345700.77	36345700.95	36345701.14	0.0513	0.0119
Venus	94800-08-03 18:00 G	36346264.06	36346264.25	36346264.44	0.0524	0.0184
Venus	94801-03-28 23:02 G	36346501.39	36346501.46	36346501.54	0.0527	0.0482
Mars	94804-02-02 05:17 G	36347541.47	36347541.72	36347541.98	0.0518	0.0263
Mercury	94804-09-12 14:53 G	36347764.99	36347765.12	36347765.25	0.0513	0.0075
Venus	94806-06-10 17:31 G	36348401.03	36348401.23	36348401.43	0.0501	0.0123

Venus	94807-02-02 11:17 G	36348637.90	36348637.97	36348638.05	0.0498	0.0461
Mercury	94810-11-06 05:45 G	36350010.56	36350010.74	36350010.91	0.0513	0.0155
Venus	94812-04-08 13:12 G	36350529.91	36350530.05	36350530.19	0.0524	0.0369
Venus	94812-12-01 17:17 G	36350767.05	36350767.22	36350767.38	0.0527	0.0296
Mercury	94816-07-01 19:41 G	36352075.21	36352075.32	36352075.43	0.0513	0.0238
Mercury	94816-09-28 23:31 G	36352164.41	36352164.48	36352164.55	0.0511	0.0418
Venus	94818-02-13 14:09 G	36352666.92	36352667.09	36352667.26	0.0502	0.0291
Venus	94818-10-08 09:36 G	36352903.73	36352903.90	36352904.06	0.0499	0.0302
Earth	94820-03-12 21:21 G	36353425.19	36353425.39	36353425.61	0.0498	0.0236
Moon	94820-03-13 00:14 G	36353425.31	36353425.51	36353425.71	0.0498	0.0228 *
Mercury	94822-08-25 01:41 G	36354320.46	36354320.57	36354320.69	0.0512	0.0405
Venus	94824-08-06 12:00 G	36355032.80	36355033.00	36355033.19	0.0526	0.0107
Mercury	94828-04-19 23:45 G	36356385.42	36356385.49	36356385.56	0.0514	0.0415
Mercury	94828-07-18 03:36 G	36356474.54	36356474.65	36356474.76	0.0512	0.0242
Venus	94829-10-19 09:07 G	36356932.81	36356932.88	36356932.96	0.0503	0.0462
Venus	94830-06-13 06:43 G	36357169.58	36357169.78	36357169.98	0.0500	0.0136
Moon	94832-03-17 09:21 G	36357812.66	36357812.89	36357813.12	0.0499	0.0163
Earth	94832-03-17 10:48 G	36357812.74	36357812.95	36357813.17	0.0499	0.0194 *
Mercury	94834-09-11 12:29 G	36358720.89	36358721.02	36358721.15	0.0514	0.0366
Venus	94836-04-11 07:12 G	36359298.60	36359298.80	36359298.99	0.0525	0.0080
Mercury	94840-05-06 08:09 G	36360784.71	36360784.84	36360784.96	0.0512	0.0074
Venus	94842-02-16 03:50 G	36361435.46	36361435.66	36361435.87	0.0501	0.0032
Mercury	94846-06-30 07:55 G	36363030.65	36363030.83	36363031.01	0.0513	0.0105
Venus	94847-12-16 01:12 G	36363564.38	36363564.55	36363564.73	0.0523	0.0267
Venus	94848-08-09 05:17 G	36363801.59	36363801.72	36363801.85	0.0526	0.0399
Mercury	94852-02-23 12:43 G	36365094.90	36365095.03	36365095.15	0.0513	0.0093
Venus	94853-10-22 01:12 G	36365701.36	36365701.55	36365701.74	0.0502	0.0198
Venus	94854-06-15 20:24 G	36365938.23	36365938.35	36365938.48	0.0499	0.0394
Mercury	94858-04-18 03:21 G	36367340.46	36367340.64	36367340.82	0.0512	0.0156
Venus	94859-08-20 20:38 G	36367830.27	36367830.36	36367830.47	0.0523	0.0448

Venus	94860-04-13 23:31 G	36368067.30	36368067.48	36368067.66	0.0526	0.0212
Moon	94861-09-10 12:43 G	36368581.81	36368582.03	36368582.25	0.0527	0.0116
Earth	94861-09-10 15:21 G	36368581.92	36368582.14	36368582.37	0.0527	0.0103 *
Mercury	94863-12-12 17:31 G	36369405.13	36369405.23	36369405.35	0.0513	0.0252
Mercury	94864-03-10 21:21 G	36369494.32	36369494.39	36369494.47	0.0511	0.0407
Venus	94865-06-26 22:05 G	36369967.28	36369967.42	36369967.57	0.0502	0.0366
Venus	94866-02-18 18:14 G	36370204.08	36370204.26	36370204.45	0.0499	0.0231
Mercury	94870-02-03 22:05 G	36371650.32	36371650.42	36371650.52	0.0512	0.0429
Venus	94871-12-18 17:45 G	36372333.04	36372333.24	36372333.44	0.0526	0.0022
Earth	94873-09-15 13:55 G	36372969.93	36372970.08	36372970.23	0.0527	0.0399
Moon	94873-09-15 17:31 G	36372970.10	36372970.23	36372970.37	0.0527	0.0433 *
Mercury	94875-09-30 22:19 G	36373715.36	36373715.43	36373715.51	0.0514	0.0414
Mercury	94875-12-29 02:09 G	36373804.48	36373804.59	36373804.70	0.0512	0.0244
Venus	94877-10-24 16:05 G	36374469.96	36374470.17	36374470.37	0.0500	0.0066
Mercury	94882-02-21 08:24 G	36376050.72	36376050.85	36376050.99	0.0514	0.0337
Venus	94883-08-23 13:12 G	36376598.87	36376599.05	36376599.24	0.0524	0.0166
Venus	94884-04-16 18:43 G	36376836.23	36376836.28	36376836.34	0.0527	0.0503
Mercury	94887-10-17 06:14 G	36378114.63	36378114.76	36378114.89	0.0512	0.0066
Venus	94889-06-29 11:45 G	36378735.79	36378735.99	36378736.19	0.0501	0.0106
Venus	94890-02-21 06:00 G	36378972.70	36378972.75	36378972.80	0.0499	0.0481
Mercury	94893-12-10 05:02 G	36380360.52	36380360.71	36380360.89	0.0513	0.0092
Venus	94895-04-28 09:36 G	36380864.75	36380864.90	36380865.05	0.0523	0.0347
Venus	94895-12-21 12:57 G	36381101.89	36381102.04	36381102.20	0.0526	0.0318
Mercury	94899-08-05 10:48 G	36382424.82	36382424.95	36382425.07	0.0513	0.0104
Venus	94901-03-05 07:55 G	36383001.67	36383001.83	36383002.01	0.0502	0.0276
Venus	94901-10-28 04:19 G	36383238.52	36383238.68	36383238.84	0.0499	0.0322
Moon	94903-03-13 20:53 G	36383740.17	36383740.37	36383740.56	0.0498	0.0302
Earth	94903-03-13 22:33 G	36383740.26	36383740.44	36383740.63	0.0498	0.0309 *
Mercury	94905-09-29 00:29 G	36384670.34	36384670.52	36384670.69	0.0512	0.0169
Venus	94907-08-27 06:00 G	36385367.56	36385367.75	36385367.95	0.0525	0.0128

Mercury	94911-05-25 15:21 G	36386735.03	36386735.14	36386735.24	0.0514	0.0271
Mercury	94911-08-22 19:12 G	36386824.22	36386824.30	36386824.38	0.0512	0.0387
Venus	94912-11-08 04:48 G	36387267.60	36387267.70	36387267.80	0.0503	0.0442
Venus	94913-07-03 02:24 G	36387504.41	36387504.60	36387504.80	0.0500	0.0159
Earth	94915-03-18 11:02 G	36388127.73	36388127.96	36388128.19	0.0498	0.0114
Moon	94915-03-18 11:17 G	36388127.75	36388127.97	36388128.20	0.0498	0.0086 *
Mercury	94917-07-17 19:41 G	36388980.22	36388980.32	36388980.42	0.0512	0.0429
Venus	94919-05-02 00:57 G	36389633.34	36389633.54	36389633.73	0.0525	0.0062
Mercury	94923-03-13 20:09 G	36391045.27	36391045.34	36391045.41	0.0514	0.0429
Mercury	94923-06-11 00:00 G	36391134.39	36391134.50	36391134.62	0.0512	0.0230
Venus	94925-03-08 00:14 G	36391770.30	36391770.51	36391770.71	0.0500	0.0011
Mercury	94929-08-04 04:48 G	36393380.56	36393380.70	36393380.85	0.0513	0.0313
Venus	94931-01-04 19:12 G	36393899.13	36393899.30	36393899.48	0.0524	0.0250
Venus	94931-08-30 00:00 G	36394136.39	36394136.50	36394136.63	0.0527	0.0420
Mercury	94935-03-30 04:48 G	36395444.58	36395444.70	36395444.83	0.0513	0.0067
Venus	94936-11-10 21:21 G	36396036.20	36396036.39	36396036.59	0.0501	0.0176
Venus	94937-07-05 15:50 G	36396273.05	36396273.16	36396273.28	0.0498	0.0415
Mercury	94941-05-23 00:57 G	36397690.36	36397690.54	36397690.73	0.0513	0.0063
Venus	94942-09-09 15:50 G	36398165.05	36398165.16	36398165.27	0.0523	0.0430
Venus	94943-05-04 18:57 G	36398402.11	36398402.29	36398402.47	0.0526	0.0232
Earth	94944-09-10 11:45 G	36398896.78	36398896.99	36398897.21	0.0527	0.0203
Moon	94944-09-10 15:21 G	36398896.93	36398897.14	36398897.36	0.0527	0.0213 *
Mercury	94947-01-16 08:53 G	36399754.75	36399754.87	36399754.99	0.0513	0.0111
Venus	94948-07-16 15:50 G	36400302.01	36400302.16	36400302.31	0.0502	0.0350
Venus	94949-03-10 12:29 G	36400538.84	36400539.02	36400539.19	0.0499	0.0249
Mercury	94953-03-10 21:21 G	36402000.22	36402000.39	36402000.57	0.0513	0.0181
Venus	94955-01-07 14:24 G	36402667.90	36402668.10	36402668.30	0.0525	0.0046
Moon	94956-09-15 05:02 G	36403284.53	36403284.71	36403284.90	0.0527	0.0319
Earth	94956-09-15 08:53 G	36403284.68	36403284.87	36403285.06	0.0527	0.0290 *
Mars	94958-04-27 17:17 G	36403873.93	36403874.22	36403874.52	0.0518	0.0027

Mercury	94958-11-04 13:26 G	36404064.95	36404065.06	36404065.16	0.0513	0.0280
Mercury	94959-02-01 17:17 G	36404154.13	36404154.22	36404154.30	0.0512	0.0377
Venus	94960-11-13 10:05 G	36404804.71	36404804.92	36404805.12	0.0500	0.0084
Mercury	94964-12-27 17:02 G	36406310.12	36406310.21	36406310.31	0.0512	0.0438
Venus	94966-09-12 08:24 G	36406933.66	36406933.85	36406934.04	0.0524	0.0144
Venus	94967-05-07 13:12 G	36407171.04	36407171.05	36407171.07	0.0527	0.0525
Mercury	94970-08-23 18:00 G	36408375.19	36408375.25	36408375.31	0.0514	0.0447
Mercury	94970-11-20 21:50 G	36408464.29	36408464.41	36408464.52	0.0512	0.0211
Venus	94972-07-19 07:26 G	36409070.61	36409070.81	36409071.02	0.0501	0.0084
Mars	94976-04-08 10:33 G	36410429.74	36410429.94	36410430.13	0.0507	0.0324
Mercury	94977-01-14 02:53 G	36410710.47	36410710.62	36410710.76	0.0513	0.0316
Venus	94978-05-18 03:36 G	36411199.50	36411199.65	36411199.81	0.0523	0.0328
Venus	94979-01-10 06:57 G	36411436.64	36411436.79	36411436.95	0.0526	0.0338
Mercury	94982-09-09 02:53 G	36412774.49	36412774.62	36412774.74	0.0513	0.0056
Venus	94984-03-24 05:02 G	36413336.53	36413336.71	36413336.89	0.0502	0.0251
Venus	94984-11-16 00:43 G	36413573.39	36413573.53	36413573.69	0.0499	0.0345
Earth	94986-03-12 22:05 G	36414055.27	36414055.42	36414055.57	0.0498	0.0389
Moon	94986-03-12 22:33 G	36414055.30	36414055.44	36414055.59	0.0498	0.0386 *
Mercury	94988-11-01 21:36 G	36415020.22	36415020.40	36415020.59	0.0513	0.0046
Venus	94990-01-20 22:33 G	36415465.41	36415465.44	36415465.48	0.0522	0.0510
Venus	94990-09-15 00:43 G	36415702.34	36415702.53	36415702.73	0.0526	0.0148
Mercury	94994-06-28 07:26 G	36417084.69	36417084.81	36417084.94	0.0513	0.0110
Venus	94995-11-28 01:41 G	36417602.46	36417602.57	36417602.69	0.0503	0.0419
Venus	94996-07-21 22:48 G	36417839.26	36417839.45	36417839.65	0.0500	0.0182
Earth	94998-03-17 10:19 G	36418442.70	36418442.93	36418443.17	0.0498	0.0032
Moon	94998-03-17 11:45 G	36418442.75	36418442.99	36418443.24	0.0498	0.0008 *
Mercury	95000-08-21 17:45 G	36419330.07	36419330.24	36419330.41	0.0512	0.0205

96TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 96th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	95002-05-21 20:53	G	36419968.17	36419968.37	36419968.57	0.0525	0.0041	
Mercury	95006-04-17 11:45	G	36421394.88	36421394.99	36421395.09	0.0513	0.0286	
Mercury	95006-07-15 15:21	G	36421484.06	36421484.14	36421484.23	0.0512	0.0371	
Venus	95008-03-27 18:14	G	36422105.05	36422105.26	36422105.47	0.0501	0.0012	
Moon	95010-03-22 18:57	G	36422830.20	36422830.29	36422830.39	0.0499	0.0448	
Earth	95010-03-22 22:05	G	36422830.33	36422830.42	36422830.52	0.0499	0.0453	*
Mercury	95012-06-09 14:09	G	36423640.01	36423640.09	36423640.19	0.0512	0.0447	
Venus	95014-01-24 17:17	G	36424234.04	36424234.22	36424234.40	0.0524	0.0223	
Venus	95014-09-18 21:36	G	36424471.30	36424471.40	36424471.50	0.0527	0.0446	
Mercury	95018-02-03 16:05	G	36425705.12	36425705.17	36425705.23	0.0514	0.0453	
Mercury	95018-05-03 19:55	G	36425794.22	36425794.33	36425794.45	0.0512	0.0205	
Venus	95019-12-01 15:07	G	36426370.94	36426371.13	36426371.33	0.0502	0.0159	
Venus	95020-07-25 10:33	G	36426607.84	36426607.94	36426608.04	0.0499	0.0434	
Mercury	95024-06-27 00:29	G	36428040.37	36428040.52	36428040.67	0.0513	0.0313	
Venus	95025-09-29 12:29	G	36428499.90	36428500.02	36428500.15	0.0522	0.0406	
Venus	95026-05-24 14:53	G	36428736.95	36428737.12	36428737.30	0.0526	0.0257	
Moon	95027-09-11 04:19	G	36429211.51	36429211.68	36429211.86	0.0527	0.0324	
Earth	95027-09-11 07:55	G	36429211.65	36429211.83	36429212.03	0.0527	0.0310	*
Mercury	95030-02-20 00:29	G	36430104.40	36430104.52	36430104.65	0.0513	0.0043	
Venus	95031-08-06 12:00	G	36430636.85	36430637.00	36430637.16	0.0503	0.0327	
Venus	95032-03-30 09:07	G	36430873.71	36430873.88	36430874.05	0.0500	0.0274	
Mercury	95036-04-14 19:55	G	36432350.15	36432350.33	36432350.52	0.0513	0.0056	

Venus	95038-01-27 09:21 G	36433002.69	36433002.89	36433003.09	0.0525	0.0068
Earth	95039-09-16 05:31 G	36433599.51	36433599.73	36433599.95	0.0527	0.0187
Moon	95039-09-16 08:53 G	36433599.67	36433599.87	36433600.08	0.0527	0.0220 *
Mercury	95041-12-09 05:31 G	36434414.61	36434414.73	36434414.85	0.0513	0.0120
Venus	95043-04-11 09:21 G	36434902.86	36434902.89	36434902.93	0.0504	0.0494
Venus	95043-12-04 07:41 G	36435139.62	36435139.82	36435140.03	0.0500	0.0110
Mercury	95048-02-01 15:07 G	36436659.96	36436660.13	36436660.30	0.0512	0.0214
Venus	95049-10-02 03:50 G	36437268.46	36437268.66	36437268.85	0.0524	0.0122
Mercury	95053-09-27 10:19 G	36438724.83	36438724.93	36438725.04	0.0514	0.0280
Mercury	95053-12-25 14:24 G	36438814.01	36438814.10	36438814.18	0.0512	0.0378
Venus	95055-08-09 05:17 G	36439405.52	36439405.72	36439405.93	0.0501	0.0058
Mercury	95059-11-20 11:17 G	36440969.89	36440969.97	36440970.05	0.0512	0.0461
Venus	95061-06-07 00:43 G	36441534.37	36441534.53	36441534.70	0.0523	0.0305
Venus	95062-01-30 04:33 G	36441771.55	36441771.69	36441771.83	0.0526	0.0363
Mercury	95065-07-16 14:38 G	36443035.05	36443035.11	36443035.16	0.0514	0.0455
Mercury	95065-10-13 18:29 G	36443124.15	36443124.27	36443124.38	0.0512	0.0202
Venus	95067-04-13 23:45 G	36443671.31	36443671.49	36443671.68	0.0502	0.0232
Venus	95067-12-06 19:55 G	36443908.19	36443908.33	36443908.47	0.0499	0.0365
Earth	95069-03-12 23:02 G	36444370.38	36444370.46	36444370.55	0.0498	0.0462
Moon	95069-03-13 00:14 G	36444370.42	36444370.51	36444370.60	0.0498	0.0462 *
Mercury	95071-12-07 22:05 G	36445370.28	36445370.42	36445370.57	0.0514	0.0314
Venus	95073-02-09 22:33 G	36445800.36	36445800.44	36445800.51	0.0522	0.0480
Venus	95073-10-05 00:14 G	36446037.33	36446037.51	36446037.70	0.0526	0.0180
Mercury	95077-08-01 23:02 G	36447434.33	36447434.46	36447434.59	0.0513	0.0037
Venus	95078-12-17 20:24 G	36447937.22	36447937.35	36447937.47	0.0503	0.0400
Venus	95079-08-11 17:45 G	36448174.05	36448174.24	36448174.43	0.0500	0.0203
Moon	95081-03-17 10:05 G	36448757.70	36448757.92	36448758.15	0.0499	0.0067
Earth	95081-03-17 13:12 G	36448757.81	36448758.05	36448758.28	0.0499	0.0036 *
Mercury	95083-09-25 18:14 G	36449680.07	36449680.26	36449680.44	0.0513	0.0061
Venus	95085-06-09 18:57 G	36450303.09	36450303.29	36450303.49	0.0524	0.0012

Mercury	95089-05-21 03:36 G	36451744.53	36451744.65	36451744.78	0.0513	0.0129
Venus	95091-04-16 16:05 G	36452439.96	36452440.17	36452440.38	0.0501	0.0037
Earth	95093-03-22 02:53 G	36453145.48	36453145.62	36453145.76	0.0499	0.0391
Moon	95093-03-22 06:43 G	36453145.64	36453145.78	36453145.93	0.0499	0.0392 *
Mercury	95095-07-14 13:55 G	36453989.91	36453990.08	36453990.25	0.0512	0.0196
Venus	95097-02-12 13:55 G	36454568.90	36454569.08	36454569.27	0.0524	0.0198
Venus	95097-10-07 18:00 G	36454806.17	36454806.25	36454806.34	0.0526	0.0473
Mercury	95101-03-10 08:38 G	36456054.76	36456054.86	36456054.96	0.0514	0.0287
Mercury	95101-06-07 12:29 G	36456143.94	36456144.02	36456144.11	0.0512	0.0372
Venus	95102-12-21 14:24 G	36456705.90	36456706.10	36456706.31	0.0502	0.0130
Venus	95103-08-15 09:36 G	36456942.83	36456942.90	36456942.98	0.0499	0.0463
Mercury	95107-05-03 08:53 G	36458299.80	36458299.87	36458299.96	0.0512	0.0460
Venus	95108-10-19 09:21 G	36458834.75	36458834.89	36458835.02	0.0523	0.0383
Venus	95109-06-13 12:14 G	36459071.84	36459072.01	36459072.18	0.0526	0.0283
Earth	95110-09-11 09:50 G	36459526.76	36459526.91	36459527.07	0.0528	0.0389
Moon	95110-09-11 13:26 G	36459526.92	36459527.06	36459527.22	0.0528	0.0393 *
Mars	95112-07-23 06:57 G	36460207.67	36460207.79	36460207.93	0.0518	0.0465
Mercury	95112-12-27 13:26 G	36460365.00	36460365.06	36460365.13	0.0514	0.0446
Mercury	95113-03-26 17:31 G	36460454.11	36460454.23	36460454.34	0.0513	0.0214
Venus	95114-08-26 11:45 G	36460971.82	36460971.99	36460972.16	0.0502	0.0297
Venus	95115-04-20 08:09 G	36461208.68	36461208.84	36461209.01	0.0499	0.0303
Mercury	95119-05-20 19:41 G	36462700.18	36462700.32	36462700.47	0.0513	0.0308
Venus	95121-02-16 08:24 G	36463337.66	36463337.85	36463338.05	0.0525	0.0098
Moon	95122-09-16 06:29 G	36463914.54	36463914.77	36463915.00	0.0527	0.0149
Earth	95122-09-16 08:53 G	36463914.65	36463914.87	36463915.10	0.0527	0.0117 *
Mercury	95125-01-12 21:36 G	36464764.28	36464764.40	36464764.53	0.0513	0.0043
Venus	95126-05-01 05:31 G	36465237.67	36465237.73	36465237.81	0.0503	0.0471
Venus	95126-12-24 03:50 G	36465474.46	36465474.66	36465474.86	0.0500	0.0133
Mars	95130-07-05 02:38 G	36466763.36	36466763.61	36466763.87	0.0508	0.0026
Mercury	95131-03-08 16:19 G	36467010.00	36467010.18	36467010.37	0.0513	0.0068

Venus	95132-10-22 05:31 G	36467603.53	36467603.73	36467603.93	0.0524	0.0086
Mercury	95136-11-01 02:24 G	36469074.48	36469074.60	36469074.72	0.0513	0.0123
Venus	95138-08-29 01:26 G	36469740.35	36469740.56	36469740.76	0.0501	0.0035
Mercury	95142-12-25 12:29 G	36471319.85	36471320.02	36471320.20	0.0512	0.0181
Venus	95144-06-27 01:12 G	36471869.38	36471869.55	36471869.72	0.0523	0.0271
Venus	95145-02-19 04:19 G	36472106.55	36472106.68	36472106.81	0.0526	0.0398
Mercury	95148-08-20 06:57 G	36473384.69	36473384.79	36473384.90	0.0514	0.0289
Mercury	95148-11-17 10:48 G	36473473.87	36473473.95	36473474.04	0.0512	0.0369
Venus	95150-05-03 23:02 G	36474006.27	36474006.46	36474006.65	0.0502	0.0202
Venus	95150-12-26 19:12 G	36474243.18	36474243.30	36474243.43	0.0499	0.0397
Mercury	95154-10-13 08:09 G	36475629.75	36475629.84	36475629.95	0.0512	0.0435
Venus	95156-03-01 21:07 G	36476135.29	36476135.38	36476135.49	0.0522	0.0452
Venus	95156-10-24 22:48 G	36476372.27	36476372.45	36476372.64	0.0525	0.0210
Mercury	95160-06-08 12:00 G	36477694.94	36477695.00	36477695.06	0.0514	0.0447
Mercury	95160-09-05 15:50 G	36477784.05	36477784.16	36477784.28	0.0513	0.0212
Venus	95162-01-06 21:07 G	36478272.24	36478272.38	36478272.52	0.0503	0.0369
Venus	95162-08-31 18:29 G	36478509.09	36478509.27	36478509.46	0.0500	0.0236
Earth	95164-03-17 20:24 G	36479073.12	36479073.35	36479073.59	0.0498	0.0084
Moon	95164-03-18 00:29 G	36479073.29	36479073.52	36479073.75	0.0498	0.0115 *
Mercury	95166-10-30 18:00 G	36480030.11	36480030.25	36480030.40	0.0513	0.0318
Venus	95168-06-29 17:45 G	36480638.04	36480638.24	36480638.44	0.0525	0.0023
Mercury	95172-06-24 20:53 G	36482094.24	36482094.37	36482094.49	0.0513	0.0055
Venus	95174-05-06 17:02 G	36482775.01	36482775.21	36482775.42	0.0501	0.0070
Moon	95176-03-22 06:00 G	36483460.58	36483460.75	36483460.93	0.0499	0.0338
Earth	95176-03-22 10:05 G	36483460.75	36483460.92	36483461.10	0.0499	0.0340 *
Mercury	95178-08-18 14:38 G	36484339.92	36484340.11	36484340.29	0.0513	0.0074
Venus	95180-03-04 14:53 G	36484903.93	36484904.12	36484904.31	0.0524	0.0164
Venus	95180-10-27 19:26 G	36485141.26	36485141.31	36485141.36	0.0527	0.0507
Mercury	95184-04-13 01:12 G	36486404.43	36486404.55	36486404.67	0.0513	0.0115
Venus	95186-01-09 12:00 G	36487040.80	36487041.00	36487041.20	0.0501	0.0103

Venus	95186-09-03 06:43 G	36487277.76	36487277.78	36487277.83	0.0499	0.0491
Mercury	95190-06-06 11:02 G	36488649.79	36488649.96	36488650.14	0.0513	0.0168
Venus	95191-11-08 12:43 G	36489169.89	36489170.03	36489170.19	0.0523	0.0343
Venus	95192-07-02 15:50 G	36489407.00	36489407.16	36489407.32	0.0526	0.0325
Moon	95193-09-10 16:05 G	36489842.04	36489842.17	36489842.31	0.0527	0.0434
Earth	95193-09-10 18:57 G	36489842.16	36489842.29	36489842.42	0.0527	0.0437 *
Mercury	95196-01-31 06:00 G	36490714.65	36490714.75	36490714.86	0.0513	0.0277
Mercury	95196-04-29 09:50 G	36490803.83	36490803.91	36490803.99	0.0511	0.0378
Venus	95197-09-14 09:07 G	36491306.71	36491306.88	36491307.05	0.0502	0.0271
Venus	95198-05-09 05:45 G	36491543.59	36491543.74	36491543.89	0.0500	0.0330
Mercury	95202-03-25 07:26 G	36492959.70	36492959.81	36492959.92	0.0512	0.0413
Venus	95203-07-14 09:36 G	36493435.89	36493435.90	36493435.91	0.0522	0.0520
Venus	95204-03-07 10:33 G	36493672.75	36493672.94	36493673.13	0.0525	0.0137
Earth	95205-09-15 14:53 G	36494229.89	36494230.12	36494230.35	0.0527	0.0052
Moon	95205-09-15 15:50 G	36494229.94	36494230.16	36494230.38	0.0527	0.0087 *
Mercury	95207-11-19 10:33 G	36495024.88	36495024.94	36495025.01	0.0514	0.0442
Mercury	95208-02-16 14:38 G	36495113.99	36495114.11	36495114.22	0.0512	0.0216
Venus	95209-05-20 06:14 G	36495572.67	36495572.76	36495572.86	0.0504	0.0439
Venus	95210-01-12 04:48 G	36495809.50	36495809.70	36495809.89	0.0500	0.0168
Mercury	95214-04-11 17:45 G	36497360.11	36497360.24	36497360.38	0.0513	0.0350
Venus	95215-11-11 06:00 G	36497938.55	36497938.75	36497938.95	0.0524	0.0051
Mercury	95219-12-05 19:26 G	36499424.19	36499424.31	36499424.44	0.0513	0.0061
Venus	95221-09-17 03:36 G	36500075.45	36500075.65	36500075.86	0.0501	0.0009
Mercury	95226-01-28 13:26 G	36501669.88	36501670.06	36501670.25	0.0513	0.0092
Venus	95227-07-17 01:26 G	36502204.38	36502204.56	36502204.74	0.0523	0.0238
Venus	95228-03-10 05:02 G	36502441.60	36502441.71	36502441.82	0.0526	0.0433
Mercury	95231-09-24 00:29 G	36503734.40	36503734.52	36503734.65	0.0513	0.0098
Venus	95233-05-23 01:55 G	36504341.38	36504341.58	36504341.77	0.0502	0.0165
Venus	95234-01-14 21:21 G	36504578.30	36504578.39	36504578.50	0.0499	0.0433
Mercury	95237-11-16 09:50 G	36505979.74	36505979.91	36505980.09	0.0512	0.0153

Venus	95239-03-21 23:17 G	36506470.36	36506470.47	36506470.59	0.0522	0.0417
Venus	95239-11-14 01:41 G	36506707.39	36506707.57	36506707.74	0.0526	0.0249
Mercury	95243-07-13 05:02 G	36508044.60	36508044.71	36508044.82	0.0513	0.0264
Mercury	95243-10-10 08:53 G	36508133.79	36508133.87	36508133.95	0.0511	0.0391
Venus	95245-01-25 20:09 G	36508607.19	36508607.34	36508607.50	0.0503	0.0339
Venus	95245-09-19 17:17 G	36508844.05	36508844.22	36508844.40	0.0500	0.0266
Moon	95247-03-17 22:33 G	36509388.22	36509388.44	36509388.66	0.0499	0.0174
Earth	95247-03-18 02:38 G	36509388.39	36509388.61	36509388.84	0.0499	0.0140 *
Mercury	95249-09-04 06:14 G	36510289.65	36510289.76	36510289.88	0.0512	0.0396
Venus	95251-07-19 22:48 G	36510973.26	36510973.45	36510973.65	0.0525	0.0066
Mercury	95255-05-01 09:50 G	36512354.85	36512354.91	36512354.98	0.0514	0.0424
Mercury	95255-07-29 13:41 G	36512443.96	36512444.07	36512444.19	0.0512	0.0232
Venus	95257-05-25 15:50 G	36513109.95	36513110.16	36513110.36	0.0501	0.0101
Earth	95259-03-22 17:31 G	36513776.04	36513776.23	36513776.43	0.0499	0.0291
Moon	95259-03-22 20:53 G	36513776.19	36513776.37	36513776.56	0.0499	0.0297 *
Mercury	95261-09-21 17:17 G	36514690.10	36514690.22	36514690.35	0.0514	0.0377
Venus	95263-03-24 18:43 G	36515239.08	36515239.28	36515239.47	0.0524	0.0122
Mercury	95267-05-17 18:29 G	36516754.14	36516754.27	36516754.39	0.0513	0.0069
Venus	95269-01-28 14:09 G	36517375.88	36517376.09	36517376.29	0.0502	0.0067
Mercury	95273-07-10 13:26 G	36518999.88	36519000.06	36519000.24	0.0513	0.0128
Venus	95274-11-27 14:53 G	36519504.96	36519505.12	36519505.29	0.0523	0.0306
Venus	95275-07-22 17:31 G	36519742.09	36519742.23	36519742.38	0.0526	0.0364
Earth	95276-09-10 01:55 G	36520157.51	36520157.58	36520157.66	0.0527	0.0497
Moon	95276-09-10 03:07 G	36520157.56	36520157.63	36520157.72	0.0527	0.0488 *
Mercury	95279-03-05 23:31 G	36521064.35	36521064.48	36521064.60	0.0513	0.0090
Venus	95280-10-03 12:29 G	36521641.84	36521642.02	36521642.21	0.0502	0.0234
Venus	95281-05-28 09:21 G	36521878.75	36521878.89	36521879.03	0.0500	0.0369
Mars	95284-09-28 15:07 G	36523098.08	36523098.13	36523098.20	0.0508	0.0492
Mercury	95285-04-28 09:07 G	36523309.70	36523309.88	36523310.06	0.0512	0.0128
Venus	95286-08-02 11:02 G	36523770.89	36523770.96	36523771.03	0.0522	0.0487

Venus	95287-03-27 12:14 G	36524007.82	36524008.01	36524008.20	0.0525	0.0175
Earth	95288-09-15 00:00 G	36524545.27	36524545.50	36524545.73	0.0527	0.0007
Moon	95288-09-15 00:29 G	36524545.28	36524545.52	36524545.75	0.0527	0.0037 *
Mercury	95290-12-23 04:19 G	36525374.57	36525374.68	36525374.80	0.0514	0.0245
Mercury	95291-03-22 08:24 G	36525463.77	36525463.85	36525463.92	0.0512	0.0413
Venus	95292-06-08 10:19 G	36525907.80	36525907.93	36525908.05	0.0503	0.0400
Venus	95293-01-31 08:09 G	36526144.66	36526144.84	36526145.03	0.0500	0.0207
Mercury	95297-02-14 05:31 G	36527619.61	36527619.73	36527619.86	0.0512	0.0371
Venus	95298-11-30 09:36 G	36528273.70	36528273.90	36528274.10	0.0525	0.0010
Moon	95300-09-20 22:33 G	36528933.39	36528933.44	36528933.51	0.0526	0.0508
Earth	95300-09-21 00:43 G	36528933.49	36528933.53	36528933.59	0.0526	0.0514 *
Mercury	95302-10-12 09:07 G	36529684.80	36529684.88	36529684.95	0.0514	0.0408
Mercury	95303-01-09 12:57 G	36529773.93	36529774.04	36529774.15	0.0512	0.0248
Venus	95304-10-07 03:50 G	36530410.45	36530410.66	36530410.86	0.0501	0.0037
Mercury	95309-03-04 16:19 G	36532020.07	36532020.18	36532020.30	0.0514	0.0400
Venus	95310-08-06 07:26 G	36532539.62	36532539.81	36532539.99	0.0524	0.0192
Venus	95311-03-31 11:31 G	36532776.90	36532776.98	36532777.06	0.0527	0.0482
Mercury	95314-10-28 17:45 G	36534084.12	36534084.24	36534084.37	0.0512	0.0089
Venus	95316-06-12 01:41 G	36534676.37	36534676.57	36534676.77	0.0502	0.0132
Venus	95317-02-03 20:53 G	36534913.31	36534913.37	36534913.45	0.0499	0.0465
Mercury	95320-12-21 12:57 G	36536329.87	36536330.04	36536330.22	0.0513	0.0158
Venus	95322-04-11 04:05 G	36536805.54	36536805.67	36536805.82	0.0523	0.0374
Venus	95322-12-04 06:29 G	36537042.61	36537042.77	36537042.94	0.0526	0.0295
Mercury	95326-08-16 22:33 G	36538394.31	36538394.44	36538394.56	0.0513	0.0075
Venus	95328-02-15 23:02 G	36538942.30	36538942.46	36538942.63	0.0503	0.0302
Venus	95328-10-09 20:24 G	36539179.19	36539179.35	36539179.52	0.0500	0.0305
Earth	95330-03-18 16:05 G	36539703.95	36539704.17	36539704.40	0.0499	0.0168
Moon	95330-03-18 19:26 G	36539704.10	36539704.31	36539704.53	0.0499	0.0196 *
Mercury	95332-10-09 09:21 G	36540639.71	36540639.89	36540640.07	0.0513	0.0091
Venus	95334-08-09 01:41 G	36541308.38	36541308.57	36541308.77	0.0525	0.0107

Mercury	95338-06-05 03:21 G	36542704.53	36542704.64	36542704.76	0.0514	0.0233
Mercury	95338-09-02 07:12 G	36542793.74	36542793.80	36542793.87	0.0512	0.0424
Venus	95339-10-21 21:07 G	36543208.31	36543208.38	36543208.45	0.0504	0.0468
Venus	95340-06-14 19:55 G	36543445.13	36543445.33	36543445.53	0.0501	0.0141
Moon	95342-03-23 05:45 G	36544091.54	36544091.74	36544091.95	0.0499	0.0276
Earth	95342-03-23 07:26 G	36544091.62	36544091.81	36544092.02	0.0499	0.0266 *
Mercury	95344-07-28 05:02 G	36544949.58	36544949.71	36544949.85	0.0512	0.0345
Venus	95346-04-13 21:07 G	36545574.18	36545574.38	36545574.57	0.0524	0.0083
Mercury	95350-03-24 08:38 G	36547014.78	36547014.86	36547014.94	0.0514	0.0388
Mercury	95350-06-21 12:29 G	36547103.91	36547104.02	36547104.12	0.0512	0.0269
Venus	95352-02-18 18:29 G	36547711.06	36547711.27	36547711.48	0.0501	0.0025
Mercury	95356-08-14 16:05 G	36549350.07	36549350.17	36549350.27	0.0514	0.0426
Venus	95357-12-17 18:43 G	36549840.11	36549840.28	36549840.46	0.0523	0.0265
Venus	95358-08-11 22:05 G	36550077.30	36550077.42	36550077.55	0.0526	0.0409
Moon	95359-09-11 15:36 G	36550473.10	36550473.15	36550473.21	0.0527	0.0511
Mercury	95362-04-09 17:02 G	36551414.09	36551414.21	36551414.34	0.0512	0.0107
Venus	95363-10-24 13:41 G	36551976.88	36551977.07	36551977.26	0.0502	0.0198
Venus	95364-06-17 09:36 G	36552213.78	36552213.90	36552214.02	0.0499	0.0403
Mercury	95368-06-02 12:14 G	36553659.83	36553660.01	36553660.18	0.0514	0.0179
Venus	95369-08-22 16:48 G	36554106.10	36554106.20	36554106.31	0.0523	0.0442
Venus	95370-04-16 18:57 G	36554343.12	36554343.29	36554343.48	0.0526	0.0226
Moon	95371-09-16 14:09 G	36554860.87	36554861.09	36554861.32	0.0527	0.0013
Earth	95371-09-16 16:19 G	36554860.95	36554861.18	36554861.41	0.0527	0.0019 *
Mercury	95374-01-26 22:05 G	36555724.29	36555724.42	36555724.54	0.0512	0.0052
Venus	95375-06-29 11:02 G	36556242.82	36556242.96	36556243.10	0.0503	0.0367
Venus	95376-02-21 08:24 G	36556479.67	36556479.85	36556480.03	0.0500	0.0241
Mercury	95380-03-21 08:53 G	36557969.68	36557969.87	36557970.05	0.0513	0.0064
Venus	95381-12-20 14:53 G	36558608.92	36558609.12	36558609.32	0.0525	0.0037
Earth	95383-09-21 12:43 G	36559248.94	36559249.03	36559249.14	0.0526	0.0473
Moon	95383-09-21 16:33 G	36559249.07	36559249.19	36559249.30	0.0526	0.0454 *

Mars	95385-04-06 19:26 G	36559812.01	36559812.31	36559812.60	0.0518	0.0069
Mercury	95385-11-15 02:38 G	36560034.50	36560034.61	36560034.73	0.0513	0.0216
Mercury	95386-02-12 06:29 G	36560123.71	36560123.77	36560123.83	0.0511	0.0438
Venus	95387-10-27 07:12 G	36560745.59	36560745.80	36560746.00	0.0501	0.0075
Mercury	95392-01-08 05:02 G	36562279.57	36562279.71	36562279.86	0.0512	0.0309
Venus	95393-08-25 10:48 G	36562874.76	36562874.95	36562875.14	0.0524	0.0151
Venus	95394-04-19 14:38 G	36563112.10	36563112.11	36563112.13	0.0526	0.0523
Mercury	95397-09-03 07:41 G	36564344.73	36564344.82	36564344.90	0.0514	0.0375
Mercury	95397-12-01 11:31 G	36564433.87	36564433.98	36564434.08	0.0512	0.0281
Venus	95399-07-02 05:45 G	36565011.54	36565011.74	36565011.95	0.0502	0.0093
Mars	95403-03-24 06:57 G	36566371.57	36566371.79	36566372.02	0.0507	0.0250
Mercury	95404-01-26 15:21 G	36566680.06	36566680.14	36566680.23	0.0514	0.0452
Venus	95405-05-01 06:43 G	36567140.63	36567140.78	36567140.93	0.0523	0.0336
Venus	95405-12-24 09:07 G	36567377.73	36567377.88	36567378.04	0.0526	0.0335
Mercury	95409-09-20 16:33 G	36568744.06	36568744.19	36568744.31	0.0513	0.0127
Venus	95411-03-08 03:36 G	36569277.48	36569277.65	36569277.83	0.0503	0.0261
Venus	95411-10-31 00:43 G	36569514.38	36569514.53	36569514.68	0.0500	0.0346
Moon	95413-03-19 03:21 G	36570019.43	36570019.64	36570019.87	0.0499	0.0220
Earth	95413-03-19 05:17 G	36570019.51	36570019.72	36570019.94	0.0499	0.0197 *
Mercury	95415-11-14 11:45 G	36570989.82	36570989.99	36570990.16	0.0513	0.0208
Venus	95417-01-04 04:33 G	36571406.67	36571406.69	36571406.73	0.0522	0.0513
Venus	95417-08-29 06:00 G	36571643.56	36571643.75	36571643.94	0.0525	0.0150
Mercury	95421-07-09 21:21 G	36573054.26	36573054.39	36573054.51	0.0512	0.0037
Venus	95422-11-10 23:02 G	36573543.36	36573543.46	36573543.56	0.0503	0.0432
Venus	95423-07-05 20:53 G	36573780.18	36573780.37	36573780.56	0.0500	0.0177
Earth	95425-03-23 15:07 G	36574406.91	36574407.13	36574407.34	0.0499	0.0212
Moon	95425-03-23 14:38 G	36574406.92	36574407.11	36574407.32	0.0499	0.0233 *
Mercury	95427-09-02 07:41 G	36575299.63	36575299.82	36575300.01	0.0513	0.0045
Venus	95429-05-04 03:07 G	36575909.43	36575909.63	36575909.83	0.0525	0.0035
Mercury	95433-04-28 02:09 G	36577364.48	36577364.59	36577364.71	0.0513	0.0192

Mercury	95433-07-26 06:00 G	36577453.70	36577453.75	36577453.80	0.0511	0.0460
Venus	95435-03-10 18:57 G	36578046.08	36578046.29	36578046.50	0.0501	0.0010
Mercury	95439-06-21 04:19 G	36579609.52	36579609.68	36579609.83	0.0513	0.0287
Venus	95441-01-06 23:31 G	36580175.30	36580175.48	36580175.67	0.0524	0.0221
Venus	95441-09-01 03:07 G	36580412.53	36580412.63	36580412.73	0.0526	0.0454
Mercury	95445-02-14 06:57 G	36581674.70	36581674.79	36581674.87	0.0513	0.0358
Mercury	95445-05-14 10:33 G	36581763.84	36581763.94	36581764.05	0.0512	0.0297
Venus	95446-11-13 16:48 G	36582312.01	36582312.20	36582312.40	0.0502	0.0160
Venus	95447-07-08 12:43 G	36582548.95	36582549.03	36582549.13	0.0499	0.0443
Mercury	95451-07-08 15:07 G	36584010.08	36584010.13	36584010.19	0.0514	0.0485
Venus	95452-09-11 20:09 G	36584441.22	36584441.34	36584441.47	0.0522	0.0403
Venus	95453-05-06 22:05 G	36584678.25	36584678.42	36584678.60	0.0525	0.0267
Earth	95454-09-17 00:57 G	36585176.31	36585176.54	36585176.77	0.0527	0.0073
Moon	95454-09-17 04:19 G	36585176.45	36585176.68	36585176.91	0.0527	0.0048 *
Mercury	95457-03-02 15:36 G	36586074.02	36586074.15	36586074.27	0.0512	0.0139
Venus	95458-07-19 14:38 G	36586577.95	36586578.11	36586578.27	0.0503	0.0329
Venus	95459-03-13 12:14 G	36586814.84	36586815.01	36586815.18	0.0500	0.0281
Mercury	95463-04-26 11:02 G	36588319.79	36588319.96	36588320.13	0.0513	0.0230
Venus	95465-01-09 16:48 G	36588944.01	36588944.20	36588944.40	0.0525	0.0077
Moon	95466-09-21 18:29 G	36589564.12	36589564.27	36589564.42	0.0527	0.0398
Earth	95466-09-21 22:33 G	36589564.30	36589564.44	36589564.57	0.0527	0.0423 *
Mercury	95468-12-19 20:38 G	36590384.23	36590384.36	36590384.48	0.0513	0.0026
Venus	95470-03-24 11:45 G	36590843.96	36590843.99	36590844.03	0.0504	0.0496
Venus	95470-11-16 11:02 G	36591080.76	36591080.96	36591081.16	0.0501	0.0116
Mercury	95475-02-12 07:12 G	36592629.62	36592629.80	36592629.99	0.0513	0.0021
Venus	95476-09-14 13:55 G	36593209.88	36593210.08	36593210.28	0.0524	0.0110
Mercury	95480-10-08 01:26 G	36594694.44	36594694.56	36594694.68	0.0513	0.0177
Mercury	95481-01-05 05:02 G	36594783.67	36594783.71	36594783.76	0.0511	0.0476
Venus	95482-07-22 06:57 G	36595346.58	36595346.79	36595347.00	0.0501	0.0057
Mercury	95486-12-01 02:53 G	36596939.46	36596939.62	36596939.78	0.0513	0.0275

Venus	95488-05-20 11:17 G	36597475.80	36597475.97	36597476.13	0.0524	0.0294
Venus	95489-01-12 14:38 G	36597712.98	36597713.11	36597713.25	0.0527	0.0384
Mercury	95492-07-27 06:14 G	36599004.67	36599004.76	36599004.86	0.0513	0.0335
Mercury	95492-10-24 10:05 G	36599093.82	36599093.92	36599094.02	0.0511	0.0318
Venus	95494-03-27 04:19 G	36599612.50	36599612.68	36599612.87	0.0502	0.0226
Venus	95494-11-19 00:43 G	36599849.39	36599849.53	36599849.66	0.0499	0.0379
Earth	95496-03-18 11:31 G	36600334.78	36600334.98	36600335.19	0.0499	0.0254
Moon	95496-03-18 11:31 G	36600334.79	36600334.98	36600335.17	0.0499	0.0271 *
Mercury	95498-12-18 14:09 G	36601340.05	36601340.09	36601340.13	0.0514	0.0501
Venus	95500-01-24 08:24 G	36601741.77	36601741.85	36601741.93	0.0522	0.0474
Venus	95500-09-18 10:05 G	36601978.73	36601978.92	36601979.10	0.0526	0.0194
Mercury	95504-05-16 10:48 G	36603314.93	36603314.95	36603314.98	0.0514	0.0502
Mercury	95504-08-13 14:38 G	36603403.99	36603404.11	36603404.23	0.0512	0.0152
Venus	95505-12-01 01:12 G	36603878.43	36603878.55	36603878.68	0.0503	0.0398
Venus	95506-07-25 23:17 G	36604115.28	36604115.47	36604115.66	0.0500	0.0214
Earth	95508-03-24 03:21 G	36604722.42	36604722.64	36604722.86	0.0499	0.0179
Moon	95508-03-24 05:17 G	36604722.50	36604722.72	36604722.94	0.0499	0.0206 *
Mercury	95510-10-07 10:19 G	36605649.77	36605649.93	36605650.10	0.0514	0.0255
Venus	95512-05-24 05:31 G	36606244.53	36606244.73	36606244.93	0.0525	0.0010
Mercury	95516-06-01 19:26 G	36607714.18	36607714.31	36607714.44	0.0513	0.0009
Venus	95518-03-30 21:36 G	36608381.20	36608381.40	36608381.61	0.0501	0.0048
Mercury	95522-07-26 06:00 G	36609959.57	36609959.75	36609959.94	0.0513	0.0012
Venus	95524-01-28 00:43 G	36610510.34	36610510.53	36610510.71	0.0524	0.0186
Venus	95524-09-21 04:05 G	36610747.61	36610747.67	36610747.75	0.0526	0.0492
Mercury	95528-03-21 00:14 G	36612024.40	36612024.51	36612024.63	0.0513	0.0168
Mercury	95528-06-18 04:04 G	36612113.64	36612113.67	36612113.71	0.0511	0.0487
Venus	95529-12-03 19:55 G	36612647.13	36612647.33	36612647.53	0.0502	0.0122
Venus	95530-07-28 15:21 G	36612884.10	36612884.14	36612884.21	0.0499	0.0481
Mercury	95534-05-14 02:09 G	36614269.43	36614269.59	36614269.75	0.0513	0.0250
Venus	95535-10-02 21:50 G	36614776.27	36614776.41	36614776.55	0.0523	0.0368

Venus	95536-05-27 00:14 G	36615013.36	36615013.51	36615013.68	0.0526	0.0307
Moon	95537-09-17 07:40 G	36615491.59	36615491.82	36615492.04	0.0527	0.0100
Earth	95537-09-17 11:31 G	36615491.76	36615491.98	36615492.20	0.0527	0.0118 *
Mercury	95540-01-08 05:16 G	36616334.63	36616334.72	36616334.82	0.0513	0.0324
Mercury	95540-04-06 09:07 G	36616423.78	36616423.88	36616423.97	0.0511	0.0329
Venus	95541-08-08 15:36 G	36616912.99	36616913.15	36616913.32	0.0502	0.0294
Venus	95542-04-02 12:14 G	36617149.85	36617150.01	36617150.17	0.0499	0.0313
Mercury	95546-05-31 12:00 G	36618669.98	36618670.00	36618670.04	0.0515	0.0506
Venus	95548-01-30 20:24 G	36619279.16	36619279.35	36619279.55	0.0526	0.0118
Earth	95549-09-22 11:31 G	36619879.83	36619879.98	36619880.14	0.0527	0.0388
Moon	95549-09-22 14:52 G	36619879.96	36619880.12	36619880.29	0.0527	0.0362 *
Mercury	95551-10-27 10:19 G	36620644.89	36620644.93	36620644.97	0.0513	0.0482
Mercury	95552-01-24 13:55 G	36620733.96	36620734.08	36620734.20	0.0511	0.0171
Venus	95553-04-13 12:14 G	36621178.94	36621179.01	36621179.10	0.0503	0.0464
Venus	95553-12-06 10:33 G	36621415.74	36621415.94	36621416.14	0.0500	0.0147
Mars	95557-06-18 16:04 G	36622705.93	36622706.17	36622706.41	0.0508	0.0192
Mercury	95558-03-19 08:38 G	36622979.70	36622979.86	36622980.02	0.0514	0.0261
Venus	95559-10-05 16:19 G	36623544.98	36623545.18	36623545.38	0.0525	0.0072
Mercury	95563-11-12 18:28 G	36625044.14	36625044.27	36625044.39	0.0512	0.0009
Venus	95565-08-11 07:55 G	36625681.63	36625681.83	36625682.04	0.0501	0.0024
Mercury	95570-01-05 05:02 G	36627289.52	36627289.71	36627289.89	0.0513	0.0019
Venus	95571-06-10 12:28 G	36627810.85	36627811.02	36627811.20	0.0523	0.0259
Venus	95572-02-02 15:36 G	36628048.04	36628048.15	36628048.27	0.0526	0.0419
Mercury	95575-08-31 23:02 G	36629354.34	36629354.46	36629354.58	0.0513	0.0162
Mercury	95575-11-29 02:52 G	36629443.59	36629443.62	36629443.65	0.0511	0.0491
Venus	95577-04-16 05:31 G	36629947.54	36629947.73	36629947.92	0.0502	0.0194
Venus	95577-12-09 01:55 G	36630184.47	36630184.58	36630184.70	0.0499	0.0413
Earth	95579-03-19 21:50 G	36630650.22	36630650.41	36630650.60	0.0499	0.0293
Moon	95579-03-19 23:45 G	36630650.30	36630650.49	36630650.69	0.0499	0.0303 *
Mercury	95581-10-24 00:28 G	36631599.36	36631599.52	36631599.69	0.0513	0.0242

Venus	95583-02-13 07:55 G	36632076.73	36632076.83	36632076.94	0.0522	0.0443
Venus	95583-10-08 09:36 G	36632313.72	36632313.90	36632314.08	0.0525	0.0227
Mercury	95587-06-20 04:04 G	36633664.57	36633664.67	36633664.77	0.0514	0.0321
Mercury	95587-09-17 07:40 G	36633753.73	36633753.82	36633753.92	0.0512	0.0334
Venus	95588-12-20 02:52 G	36634213.48	36634213.62	36634213.76	0.0503	0.0363
Venus	95589-08-14 00:28 G	36634450.35	36634450.52	36634450.71	0.0500	0.0250
Moon	95591-03-24 08:38 G	36635037.65	36635037.86	36635038.08	0.0499	0.0157
Earth	95591-03-24 11:31 G	36635037.76	36635037.98	36635038.21	0.0499	0.0131 *
Mercury	95593-08-11 20:09 G	36635909.30	36635909.34	36635909.40	0.0512	0.0495
Venus	95595-06-13 05:45 G	36636579.54	36636579.74	36636579.94	0.0525	0.0039
Mercury	95599-04-08 08:52 G	36637974.83	36637974.87	36637974.92	0.0514	0.0478
Mercury	95599-07-06 12:43 G	36638063.91	36638064.03	36638064.15	0.0512	0.0176
Venus	95601-04-18 21:07 G	36638716.18	36638716.38	36638716.59	0.0500	0.0079
Mercury	95605-08-29 06:00 G	36640309.59	36640309.75	36640309.92	0.0514	0.0256
Venus	95607-02-16 01:26 G	36640845.37	36640845.56	36640845.76	0.0525	0.0151
Mercury	95611-04-24 17:31 G	36642374.11	36642374.23	36642374.36	0.0512	0.0023
Venus	95612-12-22 18:43 G	36642982.08	36642982.28	36642982.49	0.0501	0.0092
Mercury	95617-06-17 02:24 G	36644619.41	36644619.60	36644619.79	0.0514	0.0010
Venus	95618-10-21 22:04 G	36645111.27	36645111.42	36645111.58	0.0523	0.0338
Venus	95619-06-16 00:57 G	36645348.40	36645348.54	36645348.70	0.0526	0.0342
Earth	95620-09-16 17:02 G	36645807.00	36645807.21	36645807.43	0.0527	0.0183
Moon	95620-09-16 20:38 G	36645807.15	36645807.36	36645807.58	0.0527	0.0165 *
Mercury	95623-02-10 22:04 G	36646684.30	36646684.42	36646684.54	0.0513	0.0154
Mercury	95623-05-11 01:40 G	36646773.55	36646773.57	36646773.60	0.0511	0.0497
Venus	95624-08-27 14:52 G	36647247.95	36647248.12	36647248.30	0.0502	0.0266
Venus	95625-04-21 11:45 G	36647484.84	36647484.99	36647485.14	0.0499	0.0344
Mercury	95629-04-04 22:33 G	36648929.28	36648929.44	36648929.61	0.0513	0.0237
Venus	95630-06-26 18:57 G	36649377.27	36649377.29	36649377.32	0.0522	0.0518
Venus	95631-02-18 19:55 G	36649614.14	36649614.33	36649614.53	0.0525	0.0151
Moon	95632-09-21 10:48 G	36650194.75	36650194.95	36650195.15	0.0526	0.0279

Earth	95632-09-21 13:26 G	36650194.88	36650195.06	36650195.25	0.0526	0.0306	*
Mercury	95634-11-30 02:38 G	36650994.51	36650994.61	36650994.71	0.0513	0.0320	
Mercury	95635-02-27 06:14 G	36651083.67	36651083.76	36651083.86	0.0511	0.0334	
Venus	95636-05-02 11:31 G	36651513.88	36651513.98	36651514.08	0.0503	0.0438	
Venus	95636-12-25 10:04 G	36651750.72	36651750.92	36651751.11	0.0500	0.0178	
Mercury	95641-01-21 18:14 G	36653239.21	36653239.26	36653239.31	0.0512	0.0493	
Venus	95642-10-24 14:24 G	36653879.90	36653880.10	36653880.30	0.0524	0.0043	
Mercury	95646-09-18 07:12 G	36655304.77	36655304.80	36655304.85	0.0514	0.0482	
Mercury	95646-12-16 11:02 G	36655393.84	36655393.96	36655394.08	0.0512	0.0173	
Venus	95648-08-30 07:40 G	36656016.62	36656016.82	36656017.03	0.0501	0.0014	
Mercury	95653-02-08 04:33 G	36657639.53	36657639.69	36657639.85	0.0514	0.0267	
Venus	95654-06-29 10:33 G	36658145.76	36658145.94	36658146.12	0.0524	0.0230	
Venus	95655-02-21 13:55 G	36658382.99	36658383.08	36658383.19	0.0527	0.0451	
Mercury	95658-10-04 16:04 G	36659704.04	36659704.17	36659704.30	0.0512	0.0016	
Venus	95660-05-05 04:19 G	36660282.49	36660282.68	36660282.88	0.0501	0.0165	
Venus	95660-12-27 23:45 G	36660519.40	36660519.49	36660519.59	0.0499	0.0440	
Moon	95662-03-18 20:09 G	36660965.20	36660965.34	36660965.49	0.0498	0.0384	
Earth	95662-03-18 22:48 G	36660965.30	36660965.45	36660965.61	0.0498	0.0369	*
Mercury	95664-11-26 23:16 G	36661949.29	36661949.47	36661949.66	0.0514	0.0011	
Venus	95666-03-04 06:14 G	36662411.64	36662411.76	36662411.88	0.0523	0.0418	
Venus	95666-10-27 08:52 G	36662648.70	36662648.87	36662649.04	0.0526	0.0260	
Mercury	95670-07-23 20:52 G	36664014.25	36664014.37	36664014.49	0.0512	0.0144	
Mercury	95670-10-21 00:28 G	36664103.51	36664103.52	36664103.54	0.0511	0.0506	
Venus	95672-01-09 00:57 G	36664548.40	36664548.54	36664548.70	0.0502	0.0337	
Venus	95672-09-01 21:50 G	36664785.24	36664785.41	36664785.58	0.0499	0.0275	
Earth	95674-03-23 11:45 G	36665352.75	36665352.99	36665353.22	0.0498	0.0050	
Moon	95674-03-23 15:21 G	36665352.90	36665353.14	36665353.38	0.0498	0.0079	*
Mercury	95676-09-14 19:26 G	36666259.15	36666259.31	36666259.48	0.0513	0.0253	
Venus	95678-07-02 04:19 G	36666914.48	36666914.68	36666914.88	0.0525	0.0067	
Mercury	95682-05-12 01:12 G	36668324.45	36668324.55	36668324.65	0.0513	0.0317	

Mercury	95682-08-09 04:48 G	36668413.61	36668413.70	36668413.80	0.0511	0.0335
Venus	95684-05-07 18:57 G	36669051.08	36669051.29	36669051.49	0.0500	0.0104
Moon	95686-03-27 22:04 G	36669740.40	36669740.42	36669740.46	0.0499	0.0494
Earth	95686-03-28 01:40 G	36669740.52	36669740.57	36669740.65	0.0499	0.0478
Mercury	95688-07-03 15:50 G	36670569.12	36670569.16	36670569.20	0.0512	0.0498
Venus	95690-03-07 00:00 G	36671180.30	36671180.50	36671180.69	0.0524	0.0123
Mercury	95694-02-28 05:45 G	36672634.70	36672634.74	36672634.78	0.0514	0.0485
Mercury	95694-05-28 09:21 G	36672723.78	36672723.89	36672724.01	0.0512	0.0170
Venus	95696-01-11 16:04 G	36673316.97	36673317.17	36673317.38	0.0501	0.0067
Mercury	95700-07-22 01:55 G	36674969.42	36674969.58	36674969.74	0.0514	0.0260
Venus	95701-11-10 18:43 G	36675446.12	36675446.28	36675446.44	0.0523	0.0313
Venus	95702-07-05 21:21 G	36675683.25	36675683.39	36675683.53	0.0526	0.0367
Moon	95703-09-17 12:00 G	36676121.80	36676122.00	36676122.21	0.0527	0.0261
Earth	95703-09-17 15:21 G	36676121.95	36676122.14	36676122.34	0.0527	0.0281 *
Mercury	95706-03-17 14:09 G	36677033.96	36677034.09	36677034.22	0.0512	0.0007
Venus	95707-09-17 12:57 G	36677582.87	36677583.04	36677583.23	0.0502	0.0240
Venus	95708-05-11 09:50 G	36677819.77	36677819.91	36677820.05	0.0499	0.0372
Mercury	95712-05-09 21:36 G	36679279.21	36679279.40	36679279.58	0.0513	0.0007
Venus	95713-07-16 15:07 G	36679712.07	36679712.13	36679712.19	0.0522	0.0495
Venus	95714-03-10 16:19 G	36679948.99	36679949.18	36679949.37	0.0526	0.0176
Earth	95715-09-22 13:40 G	36680509.87	36680510.07	36680510.29	0.0527	0.0218
Moon	95715-09-22 15:07 G	36680509.93	36680510.13	36680510.34	0.0527	0.0193 *
Mercury	95718-01-03 19:12 G	36681344.18	36681344.30	36681344.42	0.0513	0.0151
Mercury	95718-04-02 22:48 G	36681433.43	36681433.45	36681433.48	0.0511	0.0500
Venus	95719-05-23 09:36 G	36681848.79	36681848.90	36681849.02	0.0503	0.0412
Venus	95720-01-15 07:12 G	36682085.61	36682085.80	36682085.99	0.0499	0.0203
Mercury	95724-02-26 16:04 G	36683589.01	36683589.17	36683589.33	0.0513	0.0273
Venus	95725-11-13 11:02 G	36684214.76	36684214.96	36684215.16	0.0525	0.0018
Mercury	95729-10-23 00:00 G	36685654.40	36685654.50	36685654.60	0.0513	0.0312
Mercury	95730-01-20 03:36 G	36685743.56	36685743.65	36685743.75	0.0511	0.0340

Venus	95731-09-20 04:33 G	36686351.48	36686351.69	36686351.90	0.0500	0.0033
Mercury	95736-03-15 02:52 G	36687989.58	36687989.62	36687989.67	0.0514	0.0495
Venus	95737-07-19 07:12 G	36688480.62	36688480.80	36688480.98	0.0524	0.0208
Venus	95738-03-13 11:02 G	36688717.88	36688717.96	36688718.05	0.0527	0.0476
Mercury	95741-08-11 04:04 G	36689964.64	36689964.67	36689964.71	0.0514	0.0487
Mercury	95741-11-08 07:55 G	36690053.71	36690053.83	36690053.95	0.0512	0.0165
Venus	95743-05-26 00:14 G	36690617.32	36690617.51	36690617.71	0.0501	0.0144
Venus	95744-01-17 19:55 G	36690854.26	36690854.33	36690854.41	0.0499	0.0463
Earth	95745-03-19 00:57 G	36691280.44	36691280.54	36691280.66	0.0498	0.0438
Moon	95745-03-19 04:33 G	36691280.59	36691280.69	36691280.80	0.0498	0.0446 *
Mercury	95748-01-01 23:02 G	36692299.30	36692299.46	36692299.63	0.0514	0.0250
Venus	95749-03-24 03:36 G	36692746.52	36692746.65	36692746.78	0.0523	0.0394
Venus	95749-11-16 05:45 G	36692983.57	36692983.74	36692983.91	0.0526	0.0285
Mercury	95753-08-27 12:28 G	36694363.89	36694364.02	36694364.14	0.0512	0.0016
Venus	95755-01-28 20:24 G	36694883.19	36694883.35	36694883.52	0.0503	0.0317
Venus	95755-09-22 17:45 G	36695120.08	36695120.24	36695120.41	0.0500	0.0298
Moon	95757-03-23 10:48 G	36695667.72	36695667.95	36695668.19	0.0499	0.0012
Earth	95757-03-23 14:38 G	36695667.87	36695668.11	36695668.35	0.0499	0.0016 *
Mercury	95759-10-20 18:43 G	36696609.09	36696609.28	36696609.46	0.0513	0.0015
Venus	95761-07-21 23:31 G	36697249.28	36697249.48	36697249.67	0.0525	0.0090
Mercury	95765-06-15 17:02 G	36698674.09	36698674.21	36698674.33	0.0513	0.0167
Mercury	95765-09-12 20:38 G	36698763.33	36698763.36	36698763.40	0.0511	0.0485
Venus	95766-10-03 16:33 G	36699149.15	36699149.19	36699149.25	0.0504	0.0489
Venus	95767-05-28 15:36 G	36699385.95	36699386.15	36699386.35	0.0500	0.0130
Earth	95769-03-28 03:07 G	36700055.50	36700055.63	36700055.77	0.0499	0.0403
Moon	95769-03-28 06:14 G	36700055.64	36700055.76	36700055.89	0.0499	0.0416 *
Mercury	95771-08-08 13:55 G	36700918.92	36700919.08	36700919.24	0.0513	0.0271
Venus	95773-03-26 18:28 G	36701515.08	36701515.27	36701515.47	0.0524	0.0102
Mercury	95777-04-03 21:50 G	36702984.32	36702984.41	36702984.51	0.0513	0.0325
Mercury	95777-07-02 01:40 G	36703073.47	36703073.57	36703073.67	0.0511	0.0328

Venus	95779-01-31 12:57 G	36703651.83	36703652.04	36703652.25	0.0501	0.0043
Mercury	95783-08-25 23:02 G	36705319.39	36705319.46	36705319.54	0.0514	0.0471
Venus	95784-11-29 13:26 G	36705780.90	36705781.06	36705781.22	0.0524	0.0295
Venus	95785-07-24 16:48 G	36706018.07	36706018.20	36706018.34	0.0527	0.0390
Earth	95786-09-16 14:52 G	36706436.96	36706437.12	36706437.29	0.0528	0.0370
Moon	95786-09-16 17:02 G	36706437.05	36706437.21	36706437.38	0.0528	0.0354 *
Mercury	95789-01-21 02:38 G	36707294.58	36707294.61	36707294.65	0.0514	0.0486
Mercury	95789-04-20 06:28 G	36707383.65	36707383.77	36707383.89	0.0512	0.0167
Venus	95790-10-06 09:36 G	36707917.72	36707917.90	36707918.09	0.0502	0.0216
Venus	95791-05-31 05:31 G	36708154.61	36708154.73	36708154.86	0.0499	0.0394
Mercury	95795-06-13 19:12 G	36709629.13	36709629.30	36709629.47	0.0514	0.0220
Venus	95796-08-04 10:19 G	36710046.85	36710046.93	36710047.00	0.0522	0.0479
Venus	95797-03-29 12:00 G	36710283.81	36710284.00	36710284.18	0.0526	0.0197
Earth	95798-09-21 11:16 G	36710824.74	36710824.97	36710825.19	0.0527	0.0122
Moon	95798-09-21 11:31 G	36710824.75	36710824.98	36710825.22	0.0527	0.0094 *
Mercury	95801-02-07 10:33 G	36711693.81	36711693.94	36711694.07	0.0512	0.0009
Venus	95802-06-12 04:04 G	36712183.55	36712183.67	36712183.80	0.0503	0.0394
Venus	95803-02-04 01:55 G	36712420.39	36712420.58	36712420.77	0.0500	0.0223
Mercury	95807-04-02 15:36 G	36713938.96	36713939.15	36713939.33	0.0513	0.0027
Venus	95808-12-03 07:40 G	36714549.62	36714549.82	36714550.02	0.0525	0.0009
Mars	95812-03-17 10:19 G	36715749.68	36715749.93	36715750.19	0.0518	0.0262
Mercury	95812-11-26 15:07 G	36716004.01	36716004.13	36716004.25	0.0513	0.0177
Mercury	95813-02-23 18:43 G	36716093.24	36716093.28	36716093.33	0.0511	0.0474
Venus	95814-10-09 23:02 G	36716686.25	36716686.46	36716686.66	0.0501	0.0052
Mercury	95819-01-19 11:02 G	36718248.80	36718248.96	36718249.11	0.0512	0.0285
Venus	95820-08-08 01:55 G	36718815.40	36718815.58	36718815.77	0.0524	0.0187
Venus	95821-04-02 05:16 G	36719052.66	36719052.72	36719052.79	0.0526	0.0496
Mercury	95824-09-14 19:40 G	36720314.23	36720314.32	36720314.41	0.0514	0.0343
Mercury	95824-12-12 23:16 G	36720403.38	36720403.47	36720403.58	0.0512	0.0311
Venus	95826-06-14 20:09 G	36720952.14	36720952.34	36720952.54	0.0502	0.0121

Venus	95827-02-06 15:50 G	36721189.12	36721189.16	36721189.20	0.0499	0.0487
Mars	95830-03-05 13:40 G	36722311.93	36722312.07	36722312.23	0.0507	0.0408
Mercury	95831-02-05 20:52 G	36722649.30	36722649.37	36722649.45	0.0514	0.0469
Venus	95832-04-12 21:21 G	36723081.26	36723081.39	36723081.54	0.0523	0.0376
Venus	95832-12-05 23:31 G	36723318.32	36723318.48	36723318.65	0.0526	0.0305
Mercury	95836-07-04 00:28 G	36724624.50	36724624.52	36724624.55	0.0514	0.0502
Mercury	95836-10-01 04:19 G	36724713.56	36724713.68	36724713.80	0.0512	0.0153
Venus	95838-02-17 17:02 G	36725218.05	36725218.21	36725218.38	0.0502	0.0295
Venus	95838-10-12 13:55 G	36725454.92	36725455.08	36725455.24	0.0499	0.0320
Earth	95840-03-23 12:28 G	36725982.79	36725983.02	36725983.25	0.0498	0.0102
Moon	95840-03-23 15:50 G	36725982.93	36725983.16	36725983.39	0.0498	0.0070 *
Mercury	95842-11-24 15:21 G	36726958.97	36726959.14	36726959.32	0.0513	0.0196
Venus	95844-08-10 17:31 G	36727584.04	36727584.23	36727584.43	0.0526	0.0109
Mercury	95848-07-20 09:07 G	36729023.76	36729023.88	36729024.01	0.0513	0.0012
Venus	95849-10-23 13:26 G	36729483.98	36729484.06	36729484.13	0.0503	0.0466
Venus	95850-06-17 11:31 G	36729720.78	36729720.98	36729721.18	0.0500	0.0152
Moon	95852-03-27 22:19 G	36730370.25	36730370.43	36730370.62	0.0498	0.0324
Earth	95852-03-28 00:43 G	36730370.35	36730370.53	36730370.72	0.0498	0.0314 *
Mercury	95854-09-12 11:31 G	36731268.79	36731268.98	36731269.16	0.0513	0.0057
Venus	95856-04-15 13:40 G	36731849.87	36731850.07	36731850.26	0.0525	0.0084
Mercury	95860-05-08 13:12 G	36733333.94	36733334.05	36733334.17	0.0513	0.0185
Mercury	95860-08-05 17:02 G	36733423.16	36733423.21	36733423.26	0.0511	0.0466
Venus	95862-02-20 06:43 G	36733986.57	36733986.78	36733986.99	0.0501	0.0026
Mercury	95866-07-01 07:40 G	36735578.67	36735578.82	36735578.98	0.0513	0.0301
Venus	95867-12-20 10:19 G	36736115.76	36736115.93	36736116.10	0.0523	0.0270
Venus	95868-08-13 13:12 G	36736352.93	36736353.05	36736353.17	0.0526	0.0414
Moon	95869-09-16 10:19 G	36736751.82	36736751.93	36736752.05	0.0527	0.0460
Earth	95869-09-16 10:48 G	36736751.86	36736751.95	36736752.06	0.0527	0.0472 *
Mercury	95872-02-25 17:45 G	36737644.15	36737644.24	36737644.33	0.0513	0.0352
Mercury	95872-05-24 21:21 G	36737733.29	36737733.39	36737733.50	0.0511	0.0300

Venus	95873-10-26 03:07 G	36738252.44	36738252.63	36738252.82	0.0502	0.0200
Venus	95874-06-19 23:31 G	36738489.37	36738489.48	36738489.60	0.0499	0.0413
Mercury	95878-07-18 18:00 G	36739979.17	36739979.25	36739979.33	0.0514	0.0458
Venus	95879-08-25 05:31 G	36740381.64	36740381.73	36740381.82	0.0522	0.0457
Venus	95880-04-18 06:43 G	36740618.60	36740618.78	36740618.96	0.0525	0.0219
Moon	95881-09-21 03:36 G	36741139.43	36741139.65	36741139.87	0.0527	0.0025
Earth	95881-09-21 05:16 G	36741139.49	36741139.72	36741139.95	0.0527	0.0008 *
Mercury	95884-03-13 02:09 G	36742043.46	36742043.59	36742043.71	0.0512	0.0135
Venus	95885-06-30 23:31 G	36742518.34	36742518.48	36742518.62	0.0503	0.0374
Venus	95886-02-22 21:21 G	36742755.22	36742755.39	36742755.58	0.0500	0.0246
Mercury	95890-05-06 13:26 G	36744288.89	36744289.06	36744289.23	0.0513	0.0197
Venus	95891-12-23 01:26 G	36744884.36	36744884.56	36744884.76	0.0525	0.0026
Earth	95893-09-26 02:09 G	36745527.53	36745527.59	36745527.67	0.0527	0.0498
Moon	95893-09-26 05:45 G	36745527.65	36745527.74	36745527.83	0.0527	0.0486 *
Mercury	95895-12-31 06:57 G	36746353.67	36746353.79	36746353.92	0.0513	0.0025
Venus	95897-10-28 19:40 G	36747021.11	36747021.32	36747021.52	0.0500	0.0076
Mercury	95902-02-23 07:55 G	36748598.65	36748598.83	36748599.02	0.0513	0.0076
Venus	95903-08-28 19:40 G	36749150.13	36749150.32	36749150.51	0.0524	0.0171
Venus	95904-04-21 23:45 G	36749387.46	36749387.49	36749387.53	0.0527	0.0517
Mercury	95907-10-20 11:45 G	36750663.87	36750663.99	36750664.11	0.0513	0.0184
Mercury	95908-01-17 15:36 G	36750753.10	36750753.15	36750753.20	0.0511	0.0467
Venus	95909-07-04 16:33 G	36751286.99	36751287.19	36751287.40	0.0501	0.0098
Mercury	95913-12-12 03:50 G	36752908.52	36752908.66	36752908.81	0.0512	0.0327
Venus	95915-05-03 16:33 G	36753416.05	36753416.19	36753416.34	0.0523	0.0357
Venus	95915-12-26 19:12 G	36753653.14	36753653.30	36753653.45	0.0526	0.0326
Mercury	95919-08-08 15:50 G	36754974.08	36754974.16	36754974.25	0.0513	0.0360
Mercury	95919-11-05 19:40 G	36755063.22	36755063.32	36755063.42	0.0511	0.0292
Venus	95921-03-09 10:33 G	36755552.77	36755552.94	36755553.12	0.0502	0.0277
Venus	95921-11-01 07:40 G	36755789.68	36755789.82	36755789.98	0.0499	0.0339
Moon	95923-03-24 09:07 G	36756297.65	36756297.88	36756298.11	0.0498	0.0149

Earth	95923-03-24 11:45 G	36756297.77	36756297.99	36756298.21	0.0498	0.0182	*
Mercury	95925-12-29 15:07 G	36757309.04	36757309.13	36757309.22	0.0514	0.0446	
Venus	95927-08-31 14:52 G	36757918.93	36757919.12	36757919.32	0.0525	0.0136	
Mercury	95931-08-25 00:14 G	36759373.39	36759373.51	36759373.63	0.0512	0.0126	
Venus	95932-11-12 06:28 G	36759818.68	36759818.77	36759818.86	0.0503	0.0451	
Venus	95933-07-07 05:16 G	36760055.52	36760055.72	36760055.91	0.0500	0.0170	
Earth	95935-03-29 01:12 G	36760685.35	36760685.55	36760685.76	0.0499	0.0240	
Moon	95935-03-29 02:38 G	36760685.41	36760685.61	36760685.81	0.0499	0.0250	*
Mercury	95937-10-17 10:48 G	36761618.78	36761618.95	36761619.12	0.0513	0.0191	
Venus	95939-05-06 09:36 G	36762184.70	36762184.90	36762185.10	0.0524	0.0058	
Mercury	95943-06-13 04:48 G	36763683.57	36763683.70	36763683.83	0.0513	0.0040	
Venus	95945-03-12 02:38 G	36764321.40	36764321.61	36764321.82	0.0501	0.0003	
Mercury	95949-08-05 06:14 G	36765928.57	36765928.76	36765928.94	0.0513	0.0069	
Venus	95951-01-09 04:48 G	36766450.53	36766450.70	36766450.88	0.0523	0.0250	
Venus	95951-09-03 07:40 G	36766687.71	36766687.82	36766687.93	0.0526	0.0435	
Mercury	95955-04-01 09:50 G	36767993.79	36767993.91	36767994.02	0.0513	0.0199	
Mercury	95955-06-29 13:26 G	36768083.01	36768083.06	36768083.12	0.0511	0.0455	
Venus	95956-11-15 00:28 G	36768587.33	36768587.52	36768587.72	0.0502	0.0175	
Venus	95957-07-09 20:52 G	36768824.27	36768824.37	36768824.47	0.0499	0.0437	
Mercury	95961-05-24 00:57 G	36770238.40	36770238.54	36770238.68	0.0512	0.0338	
Venus	95962-09-13 23:45 G	36770716.39	36770716.49	36770716.60	0.0522	0.0440	
Venus	95963-05-09 01:26 G	36770953.39	36770953.56	36770953.74	0.0526	0.0240	
Earth	95964-09-21 03:21 G	36771454.42	36771454.64	36771454.87	0.0528	0.0087	
Moon	95964-09-21 06:28 G	36771454.54	36771454.77	36771455.00	0.0528	0.0120	*
Mars	95966-06-11 12:43 G	36772082.75	36772083.03	36772083.33	0.0519	0.0100	
Mercury	95967-01-18 14:38 G	36772304.02	36772304.11	36772304.20	0.0514	0.0357	
Mercury	95967-04-17 18:28 G	36772393.16	36772393.27	36772393.37	0.0512	0.0296	
Venus	95968-07-20 21:07 G	36772853.23	36772853.38	36772853.53	0.0503	0.0348	
Venus	95969-03-14 18:43 G	36773090.11	36773090.28	36773090.45	0.0500	0.0271	
Mercury	95973-06-10 11:31 G	36774638.89	36774638.98	36774639.09	0.0514	0.0427	

Venus	95975-01-11 21:50 G	36775219.21	36775219.41	36775219.61	0.0525	0.0049
Moon	95976-09-25 21:36 G	36775842.26	36775842.40	36775842.56	0.0527	0.0396
Earth	95976-09-26 01:26 G	36775842.42	36775842.56	36775842.71	0.0527	0.0410 *
Mercury	95979-02-03 22:33 G	36776703.32	36776703.44	36776703.56	0.0512	0.0122
Venus	95980-11-17 13:55 G	36777355.87	36777356.08	36777356.28	0.0501	0.0095
Mars	95984-05-29 18:57 G	36778645.04	36778645.29	36778645.54	0.0507	0.0120
Mercury	95985-03-29 08:09 G	36778948.67	36778948.84	36778949.02	0.0514	0.0185
Venus	95986-09-16 18:43 G	36779485.09	36779485.28	36779485.47	0.0524	0.0140
Mercury	95990-11-23 03:07 G	36781013.51	36781013.63	36781013.76	0.0512	0.0045
Venus	95992-07-23 10:33 G	36781621.74	36781621.94	36781622.15	0.0501	0.0079
Mercury	95997-01-15 04:04 G	36783258.49	36783258.67	36783258.86	0.0513	0.0068
Venus	95998-05-22 14:24 G	36783750.95	36783751.10	36783751.26	0.0523	0.0329
Venus	95999-01-14 16:19 G	36783988.04	36783988.18	36783988.33	0.0526	0.0355

97TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 97th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	96002-09-11 07:40 G		36785323.71	36785323.82	36785323.94	0.0513	0.0209	
Mercury	96002-12-09 11:31 G		36785412.92	36785412.98	36785413.04	0.0511	0.0443	
Venus	96004-03-28 07:26 G		36785887.63	36785887.81	36785887.99	0.0503	0.0252	
Venus	96004-11-20 05:02 G		36786124.57	36786124.71	36786124.85	0.0500	0.0366	
Earth	96006-03-23 15:07 G		36786612.93	36786613.13	36786613.34	0.0498	0.0248	
Moon	96006-03-23 16:33 G		36786612.99	36786613.19	36786613.40	0.0498	0.0215 *	

Mercury	96008-11-02 23:31 G	36787568.34	36787568.48	36787568.63	0.0512	0.0325
Venus	96010-01-25 10:19 G	36788016.91	36788016.93	36788016.97	0.0521	0.0514
Venus	96010-09-19 11:02 G	36788253.77	36788253.96	36788254.15	0.0525	0.0161
Mercury	96014-06-30 12:43 G	36789633.94	36789634.03	36789634.12	0.0514	0.0367
Mercury	96014-09-27 16:33 G	36789723.08	36789723.19	36789723.29	0.0512	0.0287
Venus	96015-12-02 05:02 G	36790153.60	36790153.71	36790153.82	0.0504	0.0425
Venus	96016-07-26 03:50 G	36790390.47	36790390.66	36790390.85	0.0500	0.0198
Earth	96018-03-28 04:33 G	36791000.47	36791000.69	36791000.91	0.0498	0.0176
Moon	96018-03-28 04:48 G	36791000.48	36791000.70	36791000.93	0.0498	0.0180 *
Mercury	96020-11-20 09:21 G	36791968.78	36791968.89	36791968.99	0.0514	0.0423
Venus	96022-05-25 05:31 G	36792519.53	36792519.73	36792519.93	0.0524	0.0035
Mercury	96026-07-16 21:21 G	36794033.27	36794033.39	36794033.51	0.0512	0.0129
Venus	96028-03-31 01:26 G	36794656.35	36794656.56	36794656.77	0.0501	0.0027
Mercury	96032-09-08 05:31 G	36796278.55	36796278.73	36796278.90	0.0513	0.0175
Venus	96034-01-28 02:38 G	36796785.43	36796785.61	36796785.79	0.0523	0.0223
Venus	96034-09-22 05:45 G	36797022.65	36797022.74	36797022.84	0.0526	0.0464
Mercury	96038-05-05 01:40 G	36798343.44	36798343.57	36798343.70	0.0513	0.0042
Venus	96039-12-04 19:55 G	36798922.13	36798922.33	36798922.53	0.0502	0.0152
Venus	96040-07-28 16:04 G	36799159.10	36799159.17	36799159.25	0.0499	0.0460
Mercury	96044-06-27 01:55 G	36800588.39	36800588.58	36800588.76	0.0513	0.0067
Venus	96045-10-03 00:43 G	36801051.41	36801051.53	36801051.65	0.0522	0.0405
Venus	96046-05-28 02:24 G	36801288.43	36801288.60	36801288.77	0.0526	0.0276
Moon	96047-09-21 03:50 G	36801769.45	36801769.66	36801769.87	0.0527	0.0193
Earth	96047-09-21 07:26 G	36801769.59	36801769.81	36801770.03	0.0527	0.0156 *
Mercury	96050-02-21 06:28 G	36802653.65	36802653.77	36802653.88	0.0513	0.0205
Mercury	96050-05-21 10:04 G	36802742.86	36802742.92	36802742.98	0.0511	0.0445
Venus	96051-08-09 16:04 G	36803188.02	36803188.17	36803188.33	0.0503	0.0327
Venus	96052-04-02 14:09 G	36803424.92	36803425.09	36803425.26	0.0500	0.0294
Mercury	96056-04-14 21:50 G	36804898.27	36804898.41	36804898.56	0.0512	0.0316
Venus	96058-01-30 21:21 G	36805554.19	36805554.39	36805554.58	0.0525	0.0083

Earth	96059-09-26 02:38 G	36806157.44	36806157.61	36806157.80	0.0527	0.0327
Moon	96059-09-26 06:28 G	36806157.59	36806157.77	36806157.95	0.0527	0.0321 *
Mercury	96061-12-10 11:02 G	36806963.87	36806963.96	36806964.04	0.0514	0.0371
Mercury	96062-03-09 14:38 G	36807053.01	36807053.11	36807053.22	0.0512	0.0282
Venus	96063-04-14 12:28 G	36807454.00	36807454.02	36807454.05	0.0504	0.0500
Venus	96063-12-07 12:28 G	36807690.81	36807691.02	36807691.22	0.0501	0.0125
Mercury	96068-05-02 08:24 G	36809298.76	36809298.85	36809298.94	0.0514	0.0445
Venus	96069-10-05 16:33 G	36809820.00	36809820.19	36809820.39	0.0524	0.0111
Mercury	96073-12-26 19:40 G	36811363.20	36811363.32	36811363.45	0.0513	0.0126
Venus	96075-08-12 10:48 G	36811956.74	36811956.95	36811957.15	0.0502	0.0048
Mercury	96080-02-19 03:36 G	36813608.48	36813608.65	36813608.83	0.0513	0.0182
Venus	96081-06-10 12:00 G	36814085.84	36814086.00	36814086.17	0.0523	0.0302
Venus	96082-02-02 14:09 G	36814322.96	36814323.09	36814323.23	0.0526	0.0384
Mercury	96085-10-15 00:43 G	36815673.40	36815673.53	36815673.66	0.0513	0.0031
Venus	96087-04-17 07:55 G	36816222.65	36816222.83	36816223.02	0.0502	0.0220
Venus	96087-12-10 05:02 G	36816459.60	36816459.71	36816459.84	0.0499	0.0399
Earth	96089-03-22 21:36 G	36816928.21	36816928.40	36816928.59	0.0498	0.0300
Moon	96089-03-22 21:50 G	36816928.21	36816928.41	36816928.62	0.0498	0.0269 *
Mercury	96091-12-08 00:00 G	36817918.31	36817918.50	36817918.68	0.0513	0.0065
Venus	96093-02-13 09:50 G	36818351.84	36818351.91	36818351.99	0.0522	0.0484
Venus	96093-10-08 10:48 G	36818588.77	36818588.95	36818589.14	0.0525	0.0194
Mercury	96097-08-03 05:02 G	36819983.60	36819983.71	36819983.83	0.0513	0.0201
Mercury	96097-10-31 08:52 G	36820072.81	36820072.87	36820072.93	0.0511	0.0450
Venus	96098-12-21 01:55 G	36820488.46	36820488.58	36820488.71	0.0503	0.0398
Venus	96099-08-15 00:28 G	36820725.34	36820725.52	36820725.71	0.0500	0.0225
Moon	96101-03-28 05:45 G	36821315.52	36821315.74	36821315.96	0.0499	0.0105
Earth	96101-03-28 07:55 G	36821315.60	36821315.83	36821316.06	0.0499	0.0110 *
Mercury	96103-09-26 20:09 G	36822228.20	36822228.34	36822228.49	0.0513	0.0308
Venus	96105-06-14 08:24 G	36822854.65	36822854.85	36822855.05	0.0525	0.0008
Mercury	96109-05-23 10:04 G	36824293.83	36824293.92	36824294.00	0.0513	0.0361

Mercury	96109-08-20 13:40 G	36824382.97	36824383.07	36824383.17	0.0511	0.0290
Venus	96111-04-20 22:04 G	36824991.21	36824991.42	36824991.63	0.0501	0.0053
Mercury	96115-10-14 07:26 G	36826628.73	36826628.81	36826628.89	0.0514	0.0462
Venus	96117-02-17 04:19 G	36827120.49	36827120.68	36827120.87	0.0523	0.0185
Venus	96117-10-12 06:57 G	36827357.74	36827357.79	36827357.86	0.0526	0.0503
Mercury	96121-06-08 18:14 G	36828693.14	36828693.26	36828693.39	0.0512	0.0129
Venus	96122-12-24 19:40 G	36829257.12	36829257.32	36829257.53	0.0502	0.0120
Venus	96123-08-18 16:19 G	36829494.16	36829494.18	36829494.21	0.0499	0.0494
Mercury	96127-08-02 03:21 G	36830938.47	36830938.64	36830938.81	0.0513	0.0211
Venus	96128-10-23 00:28 G	36831386.39	36831386.52	36831386.67	0.0522	0.0374
Venus	96129-06-17 02:09 G	36831623.43	36831623.59	36831623.75	0.0525	0.0311
Earth	96130-09-21 10:48 G	36832084.74	36832084.95	36832085.16	0.0527	0.0231
Moon	96130-09-21 14:38 G	36832084.91	36832085.11	36832085.31	0.0527	0.0264 *
Mercury	96133-03-27 23:16 G	36833003.35	36833003.47	36833003.60	0.0513	0.0030
Venus	96134-08-29 17:45 G	36833523.07	36833523.24	36833523.41	0.0503	0.0292
Venus	96135-04-23 15:36 G	36833760.00	36833760.15	36833760.31	0.0500	0.0330
Mars	96138-08-24 20:52 G	36834979.15	36834979.37	36834979.58	0.0507	0.0284
Mercury	96139-05-20 22:33 G	36835248.26	36835248.44	36835248.63	0.0513	0.0050
Venus	96141-02-19 20:38 G	36835889.17	36835889.36	36835889.56	0.0525	0.0116
Moon	96142-09-26 05:16 G	36836472.53	36836472.72	36836472.93	0.0527	0.0264
Earth	96142-09-26 08:24 G	36836472.65	36836472.85	36836473.05	0.0527	0.0263 *
Mercury	96145-01-14 04:19 G	36837313.56	36837313.68	36837313.80	0.0513	0.0185
Mercury	96145-04-13 08:09 G	36837402.79	36837402.84	36837402.89	0.0512	0.0467
Venus	96146-05-04 14:52 G	36837789.04	36837789.12	36837789.20	0.0504	0.0464
Venus	96146-12-27 14:09 G	36838025.90	36838026.09	36838026.29	0.0501	0.0162
Mercury	96151-03-08 18:57 G	36839558.14	36839558.29	36839558.44	0.0512	0.0294
Venus	96152-10-25 18:00 G	36840155.06	36840155.25	36840155.45	0.0524	0.0074
Mercury	96156-11-02 08:52 G	36841623.78	36841623.87	36841623.96	0.0513	0.0350
Mercury	96157-01-30 12:28 G	36841712.92	36841713.02	36841713.13	0.0511	0.0301
Venus	96158-09-01 09:07 G	36842291.67	36842291.88	36842292.09	0.0501	0.0017

Mercury	96163-03-26 06:00 G	36843958.69	36843958.75	36843958.82	0.0514	0.0478
Venus	96164-06-30 16:19 G	36844421.01	36844421.18	36844421.35	0.0523	0.0258
Venus	96165-02-22 18:43 G	36844658.18	36844658.28	36844658.40	0.0526	0.0430
Mercury	96168-08-21 13:40 G	36845934.06	36845934.07	36845934.09	0.0514	0.0509
Mercury	96168-11-18 17:31 G	36846023.11	36846023.23	36846023.35	0.0512	0.0142
Venus	96170-05-07 06:14 G	36846557.57	36846557.76	36846557.96	0.0502	0.0190
Venus	96170-12-30 03:21 G	36846794.54	36846794.64	36846794.75	0.0500	0.0428
Moon	96172-03-23 01:12 G	36847243.38	36847243.55	36847243.72	0.0499	0.0332
Earth	96172-03-23 03:07 G	36847243.47	36847243.63	36847243.80	0.0499	0.0357 *
Mercury	96175-01-12 02:24 G	36848268.44	36848268.60	36848268.77	0.0514	0.0234
Venus	96176-03-05 13:12 G	36848686.96	36848687.05	36848687.16	0.0522	0.0444
Venus	96176-10-28 14:09 G	36848923.91	36848924.09	36848924.27	0.0525	0.0237
Mercury	96180-09-06 22:04 G	36850333.30	36850333.42	36850333.55	0.0513	0.0026
Venus	96182-01-10 03:21 G	36850823.50	36850823.64	36850823.79	0.0503	0.0364
Venus	96182-09-04 01:55 G	36851060.41	36851060.58	36851060.76	0.0500	0.0262
Earth	96184-03-27 18:57 G	36851631.05	36851631.29	36851631.52	0.0499	0.0074
Moon	96184-03-27 22:33 G	36851631.21	36851631.44	36851631.68	0.0499	0.0059 *
Mercury	96186-10-30 22:33 G	36852578.25	36852578.44	36852578.63	0.0513	0.0016
Venus	96188-07-03 09:50 G	36853189.71	36853189.91	36853190.11	0.0524	0.0045
Mercury	96192-06-26 03:07 G	36854643.51	36854643.63	36854643.75	0.0513	0.0178
Mercury	96192-09-23 06:57 G	36854732.74	36854732.79	36854732.83	0.0511	0.0473
Venus	96194-05-10 00:57 G	36855326.34	36855326.54	36855326.75	0.0501	0.0092
Moon	96196-04-01 06:00 G	36856018.68	36856018.75	36856018.84	0.0499	0.0468
Mercury	96198-08-18 18:00 G	36856888.10	36856888.25	36856888.41	0.0512	0.0271
Venus	96200-03-09 05:16 G	36857455.53	36857455.72	36857455.91	0.0523	0.0149
Mercury	96204-04-15 08:09 G	36858953.75	36858953.84	36858953.94	0.0514	0.0333
Mercury	96204-07-13 12:00 G	36859042.90	36859043.00	36859043.10	0.0512	0.0320
Venus	96206-01-13 23:02 G	36859592.26	36859592.46	36859592.67	0.0502	0.0080
Mercury	96210-09-06 05:16 G	36861288.67	36861288.72	36861288.76	0.0514	0.0498
Venus	96211-11-13 03:07 G	36861721.48	36861721.63	36861721.79	0.0523	0.0335

Venus	96212-07-07 05:02 G	36861958.57	36861958.71	36861958.86	0.0526	0.0353
Moon	96213-09-21 18:57 G	36862400.10	36862400.29	36862400.49	0.0527	0.0303
Earth	96213-09-21 22:04 G	36862400.23	36862400.42	36862400.62	0.0527	0.0270 *
Mercury	96216-02-02 12:57 G	36863264.01	36863264.04	36863264.07	0.0514	0.0495
Mercury	96216-05-01 16:33 G	36863353.07	36863353.19	36863353.31	0.0512	0.0157
Venus	96217-09-18 17:45 G	36863858.06	36863858.24	36863858.42	0.0502	0.0258
Venus	96218-05-13 15:07 G	36864094.99	36864095.13	36864095.28	0.0500	0.0363
Mercury	96222-06-25 01:26 G	36865598.40	36865598.56	36865598.72	0.0514	0.0253
Venus	96223-07-19 01:55 G	36865987.55	36865987.58	36865987.61	0.0522	0.0514
Venus	96224-03-12 02:24 G	36866224.42	36866224.60	36866224.79	0.0525	0.0165
Earth	96225-09-26 22:33 G	36866788.24	36866788.44	36866788.65	0.0527	0.0234
Moon	96225-09-26 23:31 G	36866788.29	36866788.48	36866788.68	0.0527	0.0249 *
Mercury	96228-02-18 21:36 G	36867663.27	36867663.40	36867663.53	0.0512	0.0001
Venus	96229-05-24 14:38 G	36868124.01	36868124.11	36868124.22	0.0503	0.0432
Venus	96230-01-16 13:40 G	36868360.88	36868361.07	36868361.26	0.0500	0.0195
Mercury	96234-04-12 22:04 G	36869908.23	36869908.42	36869908.60	0.0513	0.0017
Venus	96235-11-15 22:48 G	36870490.25	36870490.45	36870490.65	0.0524	0.0028
Mercury	96239-12-08 02:09 G	36871973.48	36871973.59	36871973.72	0.0513	0.0165
Mercury	96240-03-06 06:00 G	36872062.71	36872062.75	36872062.79	0.0511	0.0485
Venus	96241-09-21 11:45 G	36872626.78	36872626.99	36872627.20	0.0501	0.0023
Mercury	96246-01-29 18:14 G	36874218.09	36874218.26	36874218.42	0.0513	0.0236
Venus	96247-07-21 19:12 G	36874756.12	36874756.30	36874756.48	0.0523	0.0218
Venus	96248-03-14 21:36 G	36874993.31	36874993.40	36874993.49	0.0526	0.0471
Mercury	96251-09-26 07:12 G	36876283.70	36876283.80	36876283.90	0.0514	0.0322
Mercury	96251-12-24 11:02 G	36876372.86	36876372.96	36876373.05	0.0512	0.0330
Venus	96253-05-27 10:04 G	36876892.72	36876892.92	36876893.12	0.0502	0.0150
Venus	96254-01-19 07:12 G	36877129.73	36877129.80	36877129.87	0.0500	0.0469
Earth	96255-03-24 16:48 G	36877559.06	36877559.20	36877559.36	0.0498	0.0382
Moon	96255-03-24 20:38 G	36877559.20	36877559.36	36877559.53	0.0498	0.0359 *
Mars	96257-02-15 05:45 G	36878252.66	36878252.74	36878252.83	0.0506	0.0478

Mercury	96257-11-17 13:40 G	36878528.02	36878528.07	36878528.13	0.0512	0.0489
Venus	96259-03-26 15:21 G	36879022.02	36879022.14	36879022.26	0.0522	0.0407
Venus	96259-11-18 16:19 G	36879259.01	36879259.18	36879259.35	0.0525	0.0277
Mercury	96263-07-15 12:14 G	36880593.97	36880594.01	36880594.06	0.0514	0.0477
Mercury	96263-10-12 16:04 G	36880683.05	36880683.17	36880683.29	0.0512	0.0177
Venus	96265-01-30 07:40 G	36881158.67	36881158.82	36881158.98	0.0503	0.0323
Venus	96265-09-24 06:00 G	36881395.59	36881395.75	36881395.92	0.0500	0.0303
Moon	96267-03-29 03:36 G	36881946.41	36881946.65	36881946.89	0.0499	0.0022
Earth	96267-03-29 07:40 G	36881946.59	36881946.82	36881947.06	0.0499	0.0043 *
Mercury	96269-12-05 00:57 G	36882928.38	36882928.54	36882928.70	0.0514	0.0280
Venus	96271-07-24 13:40 G	36883524.87	36883525.07	36883525.26	0.0525	0.0089
Mercury	96275-07-31 20:52 G	36884993.24	36884993.37	36884993.49	0.0512	0.0019
Venus	96276-10-05 02:24 G	36885424.58	36885424.60	36885424.63	0.0504	0.0499
Venus	96277-05-30 01:40 G	36885661.37	36885661.57	36885661.78	0.0500	0.0128
Earth	96279-04-02 17:31 G	36886334.13	36886334.23	36886334.33	0.0499	0.0450
Moon	96279-04-02 21:07 G	36886334.26	36886334.38	36886334.50	0.0499	0.0421 *
Mercury	96281-09-22 20:52 G	36887238.19	36887238.37	36887238.56	0.0514	0.0032
Venus	96283-03-29 11:16 G	36887790.78	36887790.97	36887791.17	0.0524	0.0101
Mercury	96287-05-20 01:40 G	36889303.45	36889303.57	36889303.70	0.0512	0.0141
Mercury	96287-08-17 05:31 G	36889392.72	36889392.73	36889392.74	0.0510	0.0507
Venus	96289-02-01 23:45 G	36889927.28	36889927.49	36889927.69	0.0501	0.0045
Mercury	96293-07-11 17:31 G	36891548.06	36891548.23	36891548.40	0.0513	0.0210
Venus	96294-12-02 08:24 G	36892056.69	36892056.85	36892057.02	0.0523	0.0290
Venus	96295-07-27 10:33 G	36892293.81	36892293.94	36892294.07	0.0526	0.0400
Earth	96296-09-21 10:48 G	36892715.77	36892715.95	36892716.14	0.0527	0.0306
Moon	96296-09-21 12:14 G	36892715.84	36892716.01	36892716.18	0.0527	0.0332 *
Mercury	96299-03-08 06:28 G	36893613.67	36893613.77	36893613.87	0.0513	0.0304
Mercury	96299-06-05 10:04 G	36893702.83	36893702.92	36893703.01	0.0511	0.0346
Venus	96300-10-08 21:07 G	36894193.19	36894193.38	36894193.57	0.0502	0.0220
Venus	96301-06-02 18:28 G	36894430.16	36894430.27	36894430.40	0.0500	0.0403

Mercury	96305-04-30 13:40 G	36895857.99	36895858.07	36895858.16	0.0512	0.0455
Venus	96306-08-08 05:31 G	36896322.66	36896322.73	36896322.82	0.0522	0.0474
Venus	96307-04-02 06:00 G	36896559.57	36896559.75	36896559.94	0.0525	0.0208
Earth	96308-09-27 08:09 G	36897103.62	36897103.84	36897104.05	0.0527	0.0183
Moon	96308-09-27 08:24 G	36897103.64	36897103.85	36897104.08	0.0527	0.0202 *
Mercury	96310-12-26 11:16 G	36897923.92	36897923.97	36897924.03	0.0514	0.0463
Mercury	96311-03-25 15:07 G	36898013.01	36898013.13	36898013.25	0.0512	0.0189
Venus	96312-06-13 18:43 G	36898459.15	36898459.28	36898459.41	0.0504	0.0393
Venus	96313-02-05 17:45 G	36898696.06	36898696.24	36898696.42	0.0500	0.0236
Mercury	96317-05-18 00:28 G	36900258.37	36900258.52	36900258.67	0.0514	0.0307
Venus	96318-12-06 01:26 G	36900825.36	36900825.56	36900825.76	0.0524	0.0015
Mercury	96323-01-11 20:09 G	36902323.21	36902323.34	36902323.47	0.0513	0.0035
Venus	96324-10-11 16:19 G	36902961.97	36902962.18	36902962.38	0.0501	0.0066
Mercury	96329-03-05 20:38 G	36904568.18	36904568.36	36904568.55	0.0513	0.0063
Venus	96330-08-10 22:48 G	36905091.27	36905091.45	36905091.64	0.0523	0.0177
Venus	96331-04-05 01:40 G	36905328.55	36905328.57	36905328.62	0.0526	0.0517
Mercury	96334-10-31 00:57 G	36906633.42	36906633.54	36906633.67	0.0512	0.0125
Venus	96336-06-16 12:00 G	36907227.80	36907228.00	36907228.20	0.0501	0.0112
Moon	96338-03-24 20:09 G	36907874.22	36907874.34	36907874.48	0.0498	0.0415
Earth	96338-03-25 00:28 G	36907874.41	36907874.52	36907874.64	0.0498	0.0433 *
Mercury	96340-12-22 16:33 G	36908878.01	36908878.19	36908878.36	0.0513	0.0193
Venus	96342-04-15 20:52 G	36909357.23	36909357.37	36909357.51	0.0523	0.0362
Venus	96342-12-08 22:48 G	36909594.30	36909594.45	36909594.61	0.0526	0.0328
Mercury	96346-08-19 06:00 G	36910943.65	36910943.75	36910943.86	0.0513	0.0279
Mercury	96346-11-16 09:50 G	36911032.82	36911032.91	36911032.99	0.0511	0.0369
Venus	96348-02-20 09:07 G	36911493.71	36911493.88	36911494.06	0.0502	0.0287
Venus	96348-10-14 06:43 G	36911730.63	36911730.78	36911730.93	0.0500	0.0338
Earth	96350-03-29 15:21 G	36912261.90	36912262.14	36912262.38	0.0499	0.0008
Moon	96350-03-29 18:57 G	36912262.06	36912262.29	36912262.52	0.0499	0.0029 *
Mercury	96352-10-10 12:57 G	36913187.95	36913188.04	36913188.14	0.0513	0.0433

Venus	96354-08-13 18:57 G	36913860.10	36913860.29	36913860.48	0.0525	0.0135
Mercury	96358-06-07 10:48 G	36915253.89	36915253.95	36915254.01	0.0513	0.0443
Mercury	96358-09-04 14:24 G	36915342.99	36915343.10	36915343.22	0.0511	0.0206
Venus	96359-10-26 05:45 G	36915759.67	36915759.74	36915759.83	0.0504	0.0462
Venus	96360-06-19 05:16 G	36915996.52	36915996.72	36915996.91	0.0501	0.0168
Moon	96362-04-03 05:16 G	36916649.58	36916649.72	36916649.87	0.0499	0.0397
Earth	96362-04-03 07:26 G	36916649.70	36916649.81	36916649.94	0.0499	0.0425 *
Mercury	96364-10-28 00:28 G	36917588.38	36917588.52	36917588.66	0.0514	0.0340
Venus	96366-04-18 15:07 G	36918125.93	36918126.13	36918126.33	0.0524	0.0058
Mercury	96370-06-23 19:12 G	36919653.18	36919653.30	36919653.43	0.0512	0.0051
Venus	96372-02-23 03:36 G	36920262.44	36920262.65	36920262.86	0.0501	0.0004
Mercury	96376-08-15 20:09 G	36921898.15	36921898.34	36921898.52	0.0513	0.0087
Venus	96377-12-22 10:48 G	36922391.78	36922391.95	36922392.13	0.0523	0.0251
Venus	96378-08-16 12:57 G	36922628.94	36922629.04	36922629.15	0.0526	0.0441
Earth	96379-09-22 20:24 G	36923031.19	36923031.35	36923031.53	0.0527	0.0355
Moon	96379-09-22 20:52 G	36923031.21	36923031.37	36923031.54	0.0527	0.0377 *
Mercury	96382-04-12 00:14 G	36923963.39	36923963.51	36923963.64	0.0513	0.0108
Venus	96383-10-29 01:26 G	36924528.37	36924528.56	36924528.76	0.0502	0.0178
Venus	96384-06-21 22:48 G	36924765.36	36924765.45	36924765.54	0.0500	0.0445
Mercury	96388-06-03 16:19 G	36926208.00	36926208.18	36926208.36	0.0513	0.0160
Venus	96389-08-27 08:38 G	36926657.75	36926657.86	36926657.97	0.0522	0.0435
Venus	96390-04-21 09:36 G	36926894.73	36926894.90	36926895.08	0.0526	0.0252
Moon	96391-09-27 19:12 G	36927419.09	36927419.30	36927419.51	0.0527	0.0172
Earth	96391-09-27 21:21 G	36927419.16	36927419.39	36927419.61	0.0527	0.0149 *
Mars	96393-05-23 01:26 G	36928022.28	36928022.56	36928022.84	0.0518	0.0158
Mercury	96394-01-29 05:16 G	36928273.61	36928273.72	36928273.83	0.0513	0.0263
Mercury	96394-04-28 08:52 G	36928362.79	36928362.87	36928362.95	0.0511	0.0385
Venus	96395-07-03 21:07 G	36928794.24	36928794.38	36928794.53	0.0503	0.0355
Venus	96396-02-25 19:12 G	36929031.12	36929031.30	36929031.47	0.0500	0.0272
Mercury	96400-03-22 11:45 G	36930517.88	36930517.99	36930518.09	0.0513	0.0419

Venus	96401-12-25 06:43 G	36931160.58	36931160.78	36931160.98	0.0525	0.0060
Mercury	96405-11-17 10:19 G	36932583.86	36932583.93	36932584.00	0.0513	0.0419
Mercury	96406-02-14 13:55 G	36932672.97	36932673.08	36932673.19	0.0511	0.0229
Venus	96407-10-31 17:16 G	36933297.02	36933297.22	36933297.42	0.0500	0.0101
Mars	96411-05-13 22:19 G	36934587.17	36934587.43	36934587.68	0.0508	0.0013
Mercury	96412-04-08 23:16 G	36934918.34	36934918.47	36934918.60	0.0514	0.0358
Venus	96413-08-30 03:21 G	36935426.45	36935426.64	36935426.83	0.0524	0.0133
Mercury	96417-12-03 18:28 G	36936983.15	36936983.27	36936983.40	0.0512	0.0066
Venus	96419-07-06 14:52 G	36937562.91	36937563.12	36937563.32	0.0502	0.0075
Earth	96421-03-24 13:12 G	36938189.97	36938190.05	36938190.14	0.0499	0.0463
Moon	96421-03-24 17:02 G	36938190.11	36938190.21	36938190.31	0.0499	0.0447 *
Mercury	96424-01-26 19:40 G	36939228.14	36939228.32	36939228.50	0.0514	0.0113
Venus	96425-05-05 00:14 G	36939692.35	36939692.51	36939692.67	0.0523	0.0322
Venus	96425-12-28 01:55 G	36939929.44	36939929.58	36939929.72	0.0526	0.0370
Mercury	96429-09-21 23:16 G	36941293.35	36941293.47	36941293.60	0.0512	0.0096
Venus	96431-03-11 12:14 G	36941828.83	36941829.01	36941829.19	0.0503	0.0249
Venus	96431-11-03 10:04 G	36942065.79	36942065.92	36942066.06	0.0500	0.0377
Moon	96433-03-29 02:38 G	36942577.37	36942577.61	36942577.86	0.0499	0.0059
Earth	96433-03-29 05:02 G	36942577.47	36942577.71	36942577.94	0.0499	0.0034 *
Mercury	96435-11-14 15:21 G	36943537.96	36943538.14	36943538.32	0.0513	0.0140
Venus	96437-01-07 20:24 G	36943958.31	36943958.35	36943958.39	0.0521	0.0509
Venus	96437-09-01 20:38 G	36944195.17	36944195.36	36944195.55	0.0525	0.0174
Mercury	96441-07-11 04:19 G	36945603.57	36945603.68	36945603.79	0.0513	0.0252
Mercury	96441-10-08 07:55 G	36945692.76	36945692.83	36945692.91	0.0511	0.0398
Venus	96442-11-14 09:36 G	36946094.79	36946094.90	36946095.01	0.0504	0.0423
Venus	96443-07-09 08:38 G	36946331.68	36946331.86	36946332.05	0.0500	0.0209
Earth	96445-04-02 19:12 G	36946965.16	36946965.30	36946965.45	0.0499	0.0389
Moon	96445-04-02 19:12 G	36946965.16	36946965.30	36946965.45	0.0499	0.0375 *
Mercury	96447-09-02 11:16 G	36947847.85	36947847.97	36947848.09	0.0513	0.0389
Venus	96449-05-07 17:31 G	36948461.03	36948461.23	36948461.43	0.0524	0.0019

Mercury	96453-04-29 09:21 G	36949913.82	36949913.89	36949913.97	0.0513	0.0407
Mercury	96453-07-27 12:57 G	36950002.93	36950003.04	36950003.15	0.0511	0.0242
Venus	96455-03-14 05:02 G	36950597.50	36950597.71	36950597.92	0.0501	0.0032
Mercury	96459-09-19 21:36 G	36952248.27	36952248.40	36952248.53	0.0515	0.0365
Venus	96461-01-10 14:09 G	36952726.91	36952727.09	36952727.27	0.0524	0.0210
Venus	96461-09-04 17:31 G	36952964.16	36952964.23	36952964.30	0.0527	0.0487
Moon	96462-09-22 08:52 G	36953346.73	36953346.87	36953347.02	0.0528	0.0405
Earth	96462-09-22 10:48 G	36953346.80	36953346.95	36953347.11	0.0528	0.0385 *
Mercury	96465-05-15 18:00 G	36954313.13	36954313.25	36954313.38	0.0511	0.0086
Venus	96466-11-17 02:38 G	36954863.41	36954863.61	36954863.81	0.0501	0.0143
Venus	96467-07-11 22:48 G	36955100.39	36955100.45	36955100.51	0.0499	0.0477
Mercury	96471-07-08 18:00 G	36956558.07	36956558.25	36956558.43	0.0514	0.0121
Venus	96472-09-15 11:31 G	36956992.85	36956992.98	36956993.10	0.0523	0.0399
Venus	96473-05-10 12:57 G	36957229.88	36957230.04	36957230.21	0.0526	0.0294
Earth	96474-09-27 07:40 G	36957734.59	36957734.82	36957735.04	0.0527	0.0104
Moon	96474-09-27 11:02 G	36957734.73	36957734.96	36957735.18	0.0527	0.0135 *
Mercury	96477-03-03 22:33 G	36958623.31	36958623.44	36958623.56	0.0512	0.0081
Venus	96478-07-22 22:48 G	36959129.30	36959129.45	36959129.61	0.0503	0.0321
Venus	96479-03-16 20:52 G	36959366.21	36959366.37	36959366.53	0.0500	0.0308
Mercury	96483-04-26 14:24 G	36960867.92	36960868.10	36960868.28	0.0513	0.0123
Venus	96485-01-13 08:52 G	36961495.67	36961495.87	36961496.06	0.0525	0.0099
Mercury	96488-12-21 03:21 G	36962933.53	36962933.64	36962933.75	0.0513	0.0243
Mercury	96489-03-20 06:57 G	36963022.71	36963022.79	36963022.86	0.0511	0.0405
Venus	96490-03-27 19:12 G	36963395.28	36963395.30	36963395.34	0.0504	0.0496
Venus	96490-11-19 19:12 G	36963632.10	36963632.30	36963632.50	0.0501	0.0137
Mercury	96495-02-12 09:50 G	36965177.79	36965177.91	36965178.04	0.0513	0.0377
Venus	96496-09-18 03:50 G	36965761.46	36965761.66	36965761.85	0.0524	0.0098
Mercury	96500-10-10 08:09 G	36967243.76	36967243.84	36967243.92	0.0513	0.0402
Mercury	96501-01-07 11:45 G	36967332.88	36967332.99	36967333.10	0.0512	0.0249
Venus	96502-07-26 17:02 G	36967898.00	36967898.21	36967898.42	0.0501	0.0037

Moon	96504-03-24 21:07 G	36968505.34	36968505.38	36968505.41	0.0498	0.0492
Mercury	96507-03-02 20:52 G	36969578.25	36969578.37	36969578.49	0.0514	0.0387
Venus	96508-05-25 00:43 G	36970027.37	36970027.53	36970027.70	0.0523	0.0288
Venus	96509-01-17 02:52 G	36970264.50	36970264.62	36970264.75	0.0526	0.0408
Mercury	96512-10-26 16:48 G	36971643.08	36971643.20	36971643.33	0.0512	0.0094
Venus	96514-03-31 13:12 G	36972163.87	36972164.05	36972164.24	0.0502	0.0215
Venus	96514-11-23 10:04 G	36972400.81	36972400.92	36972401.04	0.0499	0.0409
Earth	96516-03-29 09:07 G	36972892.65	36972892.88	36972893.11	0.0498	0.0097
Moon	96516-03-29 09:21 G	36972892.67	36972892.89	36972893.11	0.0498	0.0125 *
Mercury	96518-12-19 15:36 G	36973887.97	36973888.15	36973888.34	0.0514	0.0121
Venus	96520-01-28 21:07 G	36974293.30	36974293.38	36974293.46	0.0522	0.0478
Venus	96520-09-21 22:33 G	36974530.26	36974530.44	36974530.62	0.0526	0.0213
Mercury	96524-08-14 21:50 G	36975953.28	36975953.41	36975953.53	0.0512	0.0064
Venus	96525-12-04 10:04 G	36976429.80	36976429.92	36976430.06	0.0503	0.0391
Venus	96526-07-29 08:09 G	36976666.66	36976666.84	36976667.02	0.0500	0.0240
Earth	96528-04-02 22:48 G	36977280.28	36977280.45	36977280.64	0.0499	0.0322
Moon	96528-04-03 00:57 G	36977280.35	36977280.54	36977280.73	0.0499	0.0313 *
Mercury	96530-10-07 12:00 G	36978197.82	36978198.00	36978198.18	0.0514	0.0125
Venus	96532-05-27 18:57 G	36978796.09	36978796.29	36978796.49	0.0525	0.0020
Mercury	96536-06-03 02:09 G	36980263.48	36980263.59	36980263.71	0.0513	0.0233
Mercury	96536-08-31 05:45 G	36980352.67	36980352.74	36980352.82	0.0511	0.0414
Venus	96538-04-03 05:16 G	36980932.51	36980932.72	36980932.92	0.0501	0.0064
Mercury	96542-07-26 08:09 G	36982507.72	36982507.84	36982507.98	0.0513	0.0369
Venus	96544-01-31 15:07 G	36983061.94	36983062.13	36983062.32	0.0524	0.0176
Venus	96544-09-24 18:00 G	36983299.23	36983299.25	36983299.28	0.0526	0.0521
Earth	96545-09-22 14:52 G	36983662.01	36983662.12	36983662.24	0.0527	0.0454
Moon	96545-09-22 18:00 G	36983662.15	36983662.25	36983662.37	0.0527	0.0463 *
Mercury	96548-03-22 06:57 G	36984573.71	36984573.79	36984573.87	0.0513	0.0397
Mercury	96548-06-19 10:33 G	36984662.83	36984662.94	36984663.05	0.0511	0.0252
Venus	96549-12-07 02:24 G	36985198.40	36985198.60	36985198.81	0.0502	0.0113

Mercury	96554-08-12 18:57 G	36986908.17	36986908.29	36986908.41	0.0514	0.0392
Venus	96555-10-06 10:19 G	36987327.80	36987327.93	36987328.08	0.0522	0.0369
Venus	96556-05-30 12:00 G	36987564.85	36987565.00	36987565.16	0.0526	0.0326
Moon	96557-09-27 06:43 G	36988049.55	36988049.78	36988050.01	0.0527	0.0058
Earth	96557-09-27 10:19 G	36988049.70	36988049.93	36988050.16	0.0527	0.0028 *
Mercury	96560-04-07 15:21 G	36988973.01	36988973.14	36988973.26	0.0512	0.0093
Venus	96561-08-11 23:31 G	36989464.31	36989464.48	36989464.65	0.0503	0.0288
Venus	96562-04-05 21:21 G	36989701.25	36989701.39	36989701.55	0.0500	0.0343
Mars	96565-08-08 04:48 G	36990921.57	36990921.70	36990921.82	0.0507	0.0439
Mercury	96566-05-31 14:38 G	36991217.93	36991218.11	36991218.29	0.0514	0.0137
Venus	96568-02-03 07:40 G	36991830.63	36991830.82	36991831.02	0.0525	0.0131
Earth	96569-10-02 09:36 G	36992437.87	36992437.90	36992437.93	0.0527	0.0522
Mercury	96572-01-25 20:24 G	36993283.22	36993283.35	36993283.48	0.0512	0.0062
Venus	96573-04-16 19:40 G	36993730.25	36993730.32	36993730.40	0.0503	0.0465
Venus	96573-12-09 18:28 G	36993967.08	36993967.27	36993967.47	0.0500	0.0168
Mercury	96578-03-19 09:07 G	36995527.70	36995527.88	36995528.07	0.0514	0.0136
Venus	96579-10-09 03:07 G	36996096.43	36996096.63	36996096.83	0.0525	0.0067
Mercury	96583-11-14 01:12 G	36997593.44	36997593.55	36997593.67	0.0512	0.0221
Mercury	96584-02-11 04:48 G	36997682.64	36997682.70	36997682.77	0.0510	0.0426
Venus	96585-08-14 15:50 G	36998232.95	36998233.16	36998233.37	0.0501	0.0009
Mercury	96590-01-05 05:16 G	36999837.60	36999837.72	36999837.85	0.0513	0.0382
Venus	96591-06-13 23:45 G	37000362.32	37000362.49	37000362.67	0.0524	0.0260
Venus	96592-02-06 02:38 G	37000599.50	37000599.61	37000599.72	0.0527	0.0439
Mercury	96595-09-02 05:45 G	37001903.66	37001903.74	37001903.82	0.0513	0.0391
Mercury	96595-11-30 09:21 G	37001992.78	37001992.89	37001993.00	0.0511	0.0257
Venus	96597-04-19 11:45 G	37002498.80	37002498.99	37002499.18	0.0502	0.0188
Venus	96597-12-12 08:38 G	37002735.77	37002735.86	37002735.96	0.0499	0.0438
Earth	96599-03-29 15:21 G	37003207.91	37003208.14	37003208.36	0.0498	0.0152
Moon	96599-03-29 17:02 G	37003207.98	37003208.21	37003208.44	0.0498	0.0181 *
Mercury	96602-01-23 16:48 G	37004238.08	37004238.20	37004238.32	0.0514	0.0392

Venus	96603-02-17 20:52 G	37004628.27	37004628.37	37004628.47	0.0522	0.0448
Venus	96603-10-12 21:50 G	37004865.23	37004865.41	37004865.58	0.0526	0.0244
Mercury	96607-09-19 13:55 G	37006302.96	37006303.08	37006303.20	0.0512	0.0092
Venus	96608-12-24 07:55 G	37006764.69	37006764.83	37006764.98	0.0503	0.0366
Venus	96609-08-18 06:28 G	37007001.60	37007001.77	37007001.95	0.0500	0.0268
Moon	96611-04-04 02:09 G	37007595.40	37007595.59	37007595.79	0.0499	0.0262
Earth	96611-04-04 05:16 G	37007595.53	37007595.72	37007595.92	0.0499	0.0269 *
Mercury	96613-11-11 12:14 G	37008547.83	37008548.01	37008548.19	0.0514	0.0134
Venus	96615-06-17 16:04 G	37009130.98	37009131.17	37009131.37	0.0525	0.0047
Mercury	96619-07-08 18:43 G	37010613.15	37010613.28	37010613.40	0.0512	0.0072
Venus	96621-04-23 04:04 G	37011267.47	37011267.67	37011267.88	0.0501	0.0094
Mercury	96625-08-30 07:40 G	37012857.64	37012857.82	37012858.00	0.0513	0.0124
Venus	96627-02-20 12:00 G	37013396.81	37013397.00	37013397.19	0.0524	0.0149
Mercury	96631-04-26 23:31 G	37014923.37	37014923.48	37014923.60	0.0513	0.0226
Mercury	96631-07-25 03:07 G	37015012.57	37015012.63	37015012.71	0.0511	0.0422
Venus	96632-12-27 01:12 G	37015533.34	37015533.55	37015533.75	0.0501	0.0084
Mercury	96637-06-18 02:09 G	37017167.47	37017167.59	37017167.71	0.0513	0.0399
Venus	96638-10-26 06:57 G	37017662.65	37017662.79	37017662.95	0.0523	0.0347
Venus	96639-06-20 09:36 G	37017899.76	37017899.90	37017900.05	0.0527	0.0354
Earth	96640-09-27 14:09 G	37018364.86	37018365.09	37018365.32	0.0528	0.0046
Moon	96640-09-27 17:45 G	37018365.01	37018365.24	37018365.46	0.0528	0.0011 *
Mercury	96643-02-13 04:33 G	37019233.61	37019233.69	37019233.77	0.0513	0.0384
Mercury	96643-05-13 08:09 G	37019322.73	37019322.84	37019322.95	0.0511	0.0263
Venus	96644-08-31 21:36 G	37019799.23	37019799.40	37019799.58	0.0502	0.0261
Venus	96645-04-25 18:28 G	37020036.14	37020036.27	37020036.42	0.0499	0.0368
Mercury	96649-07-05 13:12 G	37021567.92	37021568.05	37021568.18	0.0515	0.0370
Venus	96651-02-23 05:16 G	37022165.53	37022165.72	37022165.91	0.0526	0.0157
Moon	96652-10-02 08:09 G	37022752.72	37022752.84	37022752.97	0.0527	0.0451
Earth	96652-10-02 10:33 G	37022752.83	37022752.94	37022753.07	0.0527	0.0443 *
Mercury	96655-03-01 12:28 G	37023632.89	37023633.02	37023633.14	0.0512	0.0093

Venus	96656-05-06 16:19 G	37024065.09	37024065.18	37024065.28	0.0503	0.0443
Venus	96656-12-29 15:21 G	37024301.95	37024302.14	37024302.33	0.0500	0.0192
Mercury	96661-04-23 09:36 G	37025877.72	37025877.90	37025878.08	0.0514	0.0125
Venus	96662-10-29 01:12 G	37026431.35	37026431.55	37026431.75	0.0524	0.0040
Mars	96666-02-04 22:33 G	37027626.38	37027626.44	37027626.52	0.0519	0.0502
Mercury	96666-12-18 16:48 G	37027943.08	37027943.20	37027943.33	0.0512	0.0077
Venus	96668-09-03 12:00 G	37028567.79	37028568.00	37028568.21	0.0501	0.0017
Mercury	96673-02-09 05:02 G	37030187.53	37030187.71	37030187.89	0.0513	0.0134
Venus	96674-07-03 20:09 G	37030697.16	37030697.34	37030697.51	0.0523	0.0235
Venus	96675-02-25 22:19 G	37030934.34	37030934.43	37030934.52	0.0526	0.0464
Mercury	96678-10-06 21:36 G	37032253.29	37032253.40	37032253.51	0.0513	0.0239
Mercury	96679-01-04 01:12 G	37032342.48	37032342.55	37032342.62	0.0511	0.0408
Venus	96680-05-09 08:52 G	37032833.68	37032833.87	37032834.07	0.0502	0.0162
Venus	96681-01-01 06:00 G	37033070.68	37033070.75	37033070.82	0.0499	0.0465
Moon	96682-03-29 14:52 G	37033522.92	37033523.12	37033523.32	0.0498	0.0255
Earth	96682-03-29 17:45 G	37033523.03	37033523.24	37033523.45	0.0498	0.0220 *
Mars	96684-01-29 07:40 G	37034193.77	37034193.82	37034193.89	0.0506	0.0491
Mercury	96684-11-28 00:14 G	37034497.39	37034497.51	37034497.63	0.0513	0.0393
Venus	96686-03-08 16:04 G	37034963.05	37034963.17	37034963.28	0.0522	0.0427
Venus	96686-10-31 17:02 G	37035200.04	37035200.21	37035200.38	0.0526	0.0268
Mercury	96690-07-26 02:38 G	37036563.53	37036563.61	37036563.68	0.0513	0.0396
Mercury	96690-10-23 06:14 G	37036652.65	37036652.76	37036652.87	0.0511	0.0253
Venus	96692-01-13 05:45 G	37037099.59	37037099.74	37037099.89	0.0503	0.0340
Venus	96692-09-06 03:36 G	37037336.48	37037336.65	37037336.82	0.0499	0.0293
Earth	96694-04-03 04:04 G	37037910.46	37037910.67	37037910.89	0.0498	0.0188
Moon	96694-04-03 07:55 G	37037910.61	37037910.83	37037911.05	0.0498	0.0183 *
Mercury	96696-12-15 09:36 G	37038897.77	37038897.90	37038898.04	0.0514	0.0347
Venus	96698-07-06 11:16 G	37039465.78	37039465.97	37039466.17	0.0525	0.0069
Mercury	96702-08-12 11:02 G	37040962.84	37040962.96	37040963.08	0.0512	0.0094
Venus	96704-05-13 00:43 G	37041602.33	37041602.53	37041602.74	0.0500	0.0119

Mercury	96708-10-04 05:31 G	37043207.55	37043207.73	37043207.92	0.0514	0.0096
Venus	96710-03-12 07:40 G	37043731.63	37043731.82	37043732.01	0.0524	0.0129
Mercury	96714-05-31 15:21 G	37045273.01	37045273.14	37045273.26	0.0512	0.0081
Venus	96716-01-16 20:09 G	37045868.13	37045868.34	37045868.55	0.0501	0.0063
Mercury	96720-07-23 01:55 G	37047517.40	37047517.58	37047517.76	0.0513	0.0149
Venus	96721-11-15 04:19 G	37047997.53	37047997.68	37047997.84	0.0523	0.0321
Venus	96722-07-10 06:28 G	37048234.63	37048234.77	37048234.91	0.0526	0.0379
Moon	96723-09-28 08:24 G	37048679.62	37048679.85	37048680.08	0.0527	0.0109
Earth	96723-09-28 11:16 G	37048679.75	37048679.97	37048680.19	0.0527	0.0143 *
Mercury	96726-03-19 19:40 G	37049583.21	37049583.32	37049583.43	0.0513	0.0247
Mercury	96726-06-16 23:16 G	37049672.40	37049672.47	37049672.55	0.0511	0.0400
Venus	96727-09-21 16:04 G	37050133.99	37050134.17	37050134.35	0.0502	0.0243
Venus	96728-05-15 13:40 G	37050370.94	37050371.07	37050371.20	0.0499	0.0389
Mercury	96732-05-10 21:21 G	37051827.28	37051827.39	37051827.50	0.0513	0.0406
Venus	96733-07-21 00:00 G	37052263.47	37052263.50	37052263.54	0.0521	0.0510
Venus	96734-03-15 00:14 G	37052500.32	37052500.51	37052500.70	0.0525	0.0180
Earth	96735-10-03 05:16 G	37053067.55	37053067.72	37053067.90	0.0527	0.0332
Moon	96735-10-03 06:43 G	37053067.61	37053067.78	37053067.95	0.0527	0.0342 *
Mercury	96738-01-06 00:14 G	37053893.44	37053893.51	37053893.59	0.0513	0.0413
Mercury	96738-04-05 04:04 G	37053982.55	37053982.67	37053982.78	0.0512	0.0236
Venus	96739-05-27 12:14 G	37054399.90	37054400.01	37054400.12	0.0503	0.0421
Venus	96740-01-19 11:16 G	37054636.79	37054636.97	37054637.16	0.0500	0.0217
Mercury	96744-05-28 07:26 G	37056227.68	37056227.81	37056227.95	0.0514	0.0348
Venus	96745-11-17 19:12 G	37056766.10	37056766.30	37056766.50	0.0524	0.0019
Mercury	96750-01-22 08:52 G	37058292.75	37058292.87	37058293.00	0.0512	0.0081
Venus	96751-09-24 08:52 G	37058902.66	37058902.87	37058903.07	0.0501	0.0040
Mercury	96756-03-16 01:55 G	37060537.39	37060537.58	37060537.77	0.0514	0.0072
Venus	96757-07-23 13:40 G	37061031.89	37061032.07	37061032.25	0.0524	0.0219
Venus	96758-03-17 16:48 G	37061269.12	37061269.20	37061269.28	0.0527	0.0485
Mercury	96761-11-10 13:40 G	37062602.95	37062603.07	37062603.20	0.0512	0.0082

Venus	96763-05-30 05:31 G	37063168.53	37063168.73	37063168.93	0.0501	0.0139
Venus	96764-01-22 01:55 G	37063405.54	37063405.58	37063405.62	0.0499	0.0487
Earth	96765-03-29 15:50 G	37063837.98	37063838.16	37063838.35	0.0498	0.0302
Moon	96765-03-29 19:26 G	37063838.14	37063838.31	37063838.49	0.0498	0.0335 *
Mercury	96768-01-02 21:36 G	37064847.23	37064847.40	37064847.58	0.0513	0.0181
Venus	96769-03-28 10:33 G	37065297.82	37065297.94	37065298.07	0.0523	0.0410
Venus	96769-11-20 12:14 G	37065534.84	37065535.01	37065535.17	0.0526	0.0288
Mercury	96773-08-29 18:00 G	37066913.14	37066913.25	37066913.36	0.0513	0.0254
Mercury	96773-11-26 21:36 G	37067002.32	37067002.40	37067002.48	0.0511	0.0392
Venus	96775-02-01 23:31 G	37067434.33	37067434.48	37067434.65	0.0503	0.0323
Venus	96775-09-26 21:36 G	37067671.24	37067671.40	37067671.56	0.0500	0.0312
Moon	96777-04-02 23:45 G	37068225.26	37068225.49	37068225.72	0.0498	0.0104
Earth	96777-04-03 03:36 G	37068225.42	37068225.65	37068225.88	0.0498	0.0110 *
Mercury	96779-10-21 18:00 G	37069157.15	37069157.25	37069157.35	0.0513	0.0423
Venus	96781-07-26 08:09 G	37069800.65	37069800.84	37069801.04	0.0525	0.0093
Mercury	96785-06-17 22:19 G	37071223.37	37071223.43	37071223.51	0.0513	0.0422
Mercury	96785-09-15 02:09 G	37071312.47	37071312.59	37071312.70	0.0511	0.0227
Venus	96786-10-07 18:43 G	37071700.28	37071700.28	37071700.31	0.0504	0.0502
Venus	96787-06-01 18:28 G	37071937.07	37071937.27	37071937.47	0.0500	0.0137
Mercury	96791-11-08 04:33 G	37073557.55	37073557.69	37073557.83	0.0514	0.0335
Venus	96793-03-31 02:52 G	37074066.42	37074066.62	37074066.81	0.0524	0.0107
Mercury	96797-07-04 06:43 G	37075622.65	37075622.78	37075622.90	0.0512	0.0063
Venus	96799-02-04 15:36 G	37076202.94	37076203.15	37076203.35	0.0501	0.0042
Mercury	96803-08-26 23:45 G	37077867.31	37077867.49	37077867.68	0.0513	0.0073
Venus	96804-12-03 22:19 G	37078332.27	37078332.43	37078332.59	0.0523	0.0302
Venus	96805-07-29 00:00 G	37078569.38	37078569.50	37078569.63	0.0526	0.0400
Earth	96806-09-27 05:31 G	37078994.53	37078994.73	37078994.93	0.0528	0.0255
Moon	96806-09-27 07:26 G	37078994.61	37078994.81	37078995.01	0.0528	0.0222 *
Mercury	96809-04-22 11:31 G	37079932.86	37079932.98	37079933.11	0.0513	0.0096
Venus	96810-10-10 12:43 G	37080468.85	37080469.03	37080469.22	0.0502	0.0219

Venus	96811-06-04 10:04 G	37080705.80	37080705.92	37080706.03	0.0499	0.0412
Mercury	96815-06-14 18:14 G	37082177.09	37082177.26	37082177.43	0.0513	0.0201
Venus	96816-08-08 17:16 G	37082598.16	37082598.22	37082598.27	0.0522	0.0496
Venus	96817-04-02 17:45 G	37082835.06	37082835.24	37082835.43	0.0526	0.0198
Earth	96818-10-02 02:09 G	37083382.39	37083382.59	37083382.80	0.0528	0.0234
Moon	96818-10-02 02:38 G	37083382.39	37083382.61	37083382.82	0.0528	0.0236 *
Mars	96820-04-30 23:45 G	37083959.22	37083959.49	37083959.76	0.0519	0.0158
Mercury	96821-02-08 16:19 G	37084243.07	37084243.18	37084243.29	0.0513	0.0256
Mercury	96821-05-08 19:55 G	37084332.26	37084332.33	37084332.42	0.0511	0.0392
Venus	96822-06-15 09:07 G	37084734.75	37084734.88	37084735.00	0.0503	0.0397
Venus	96823-02-07 07:26 G	37084971.63	37084971.81	37084972.00	0.0500	0.0240
Mercury	96827-04-02 13:55 G	37086487.00	37086487.08	37086487.17	0.0512	0.0452
Venus	96828-12-06 14:09 G	37087100.89	37087101.09	37087101.29	0.0525	0.0007
Mercury	96832-11-27 20:38 G	37088553.29	37088553.36	37088553.43	0.0513	0.0429
Mercury	96833-02-25 00:14 G	37088642.40	37088642.51	37088642.62	0.0511	0.0218
Venus	96834-10-13 02:24 G	37089237.39	37089237.60	37089237.80	0.0501	0.0058
Mars	96838-04-24 07:12 G	37090526.57	37090526.80	37090527.04	0.0507	0.0231
Mercury	96839-04-20 01:26 G	37090887.41	37090887.56	37090887.71	0.0514	0.0320
Venus	96840-08-11 11:02 G	37091366.78	37091366.96	37091367.15	0.0524	0.0192
Venus	96841-04-05 13:40 G	37091604.03	37091604.07	37091604.12	0.0526	0.0511
Mercury	96844-12-14 04:48 G	37092952.58	37092952.70	37092952.83	0.0512	0.0054
Venus	96846-06-17 22:33 G	37093503.24	37093503.44	37093503.65	0.0502	0.0122
Moon	96848-03-28 11:16 G	37094152.84	37094152.97	37094153.10	0.0498	0.0415
Earth	96848-03-28 15:07 G	37094152.98	37094153.13	37094153.28	0.0498	0.0381 *
Mercury	96851-02-05 21:07 G	37095197.19	37095197.38	37095197.56	0.0513	0.0065
Venus	96852-04-16 06:43 G	37095632.65	37095632.78	37095632.92	0.0522	0.0385
Venus	96852-12-09 07:40 G	37095869.66	37095869.82	37095869.98	0.0526	0.0313
Mercury	96856-10-02 09:21 G	37097262.77	37097262.89	37097263.01	0.0513	0.0113
Venus	96858-02-20 18:57 G	37097769.12	37097769.29	37097769.46	0.0503	0.0301
Venus	96858-10-15 17:16 G	37098006.07	37098006.22	37098006.37	0.0500	0.0336

Earth	96860-04-02 04:33 G	37098540.45	37098540.69	37098540.92	0.0498	0.0035
Moon	96860-04-02 07:40 G	37098540.59	37098540.82	37098541.06	0.0498	0.0042 *
Mercury	96862-11-24 16:19 G	37099507.01	37099507.18	37099507.35	0.0513	0.0196
Venus	96864-08-14 02:24 G	37100135.40	37100135.60	37100135.79	0.0525	0.0114
Mercury	96868-07-21 14:24 G	37101572.99	37101573.10	37101573.20	0.0513	0.0271
Mercury	96868-10-18 18:00 G	37101662.17	37101662.25	37101662.33	0.0511	0.0377
Venus	96869-10-26 15:50 G	37102035.10	37102035.16	37102035.23	0.0504	0.0478
Venus	96870-06-20 15:36 G	37102271.95	37102272.15	37102272.34	0.0500	0.0162
Moon	96872-04-06 14:52 G	37102928.06	37102928.12	37102928.19	0.0498	0.0479
Earth	96872-04-06 17:02 G	37102928.11	37102928.21	37102928.31	0.0498	0.0448 *
Mercury	96874-09-12 10:48 G	37103816.88	37103816.95	37103817.03	0.0512	0.0466
Venus	96876-04-18 20:38 G	37104401.16	37104401.36	37104401.56	0.0524	0.0088
Mercury	96880-05-09 19:12 G	37105883.23	37105883.30	37105883.36	0.0514	0.0430
Mercury	96880-08-06 22:48 G	37105972.34	37105972.45	37105972.57	0.0512	0.0219
Venus	96882-02-23 12:28 G	37106537.82	37106538.02	37106538.23	0.0501	0.0019
Mercury	96886-09-29 21:50 G	37108217.26	37108217.41	37108217.56	0.0514	0.0296
Venus	96887-12-23 17:45 G	37108667.07	37108667.24	37108667.41	0.0523	0.0281
Venus	96888-08-16 19:55 G	37108904.21	37108904.33	37108904.45	0.0526	0.0422
Moon	96889-09-26 03:07 G	37109309.44	37109309.63	37109309.82	0.0528	0.0313
Earth	96889-09-26 03:36 G	37109309.48	37109309.65	37109309.82	0.0528	0.0345 *
Mercury	96892-05-26 03:07 G	37110282.50	37110282.63	37110282.75	0.0512	0.0048
Venus	96893-10-29 06:28 G	37110803.59	37110803.77	37110803.97	0.0502	0.0200
Venus	96894-06-23 03:50 G	37111040.56	37111040.66	37111040.77	0.0499	0.0432
Mercury	96898-07-18 18:00 G	37112527.07	37112527.25	37112527.44	0.0514	0.0054
Venus	96899-08-28 15:36 G	37112933.07	37112933.15	37112933.24	0.0522	0.0467
Venus	96900-04-22 16:19 G	37113170.00	37113170.18	37113170.36	0.0525	0.0229
Moon	96901-10-01 23:45 G	37113697.28	37113697.49	37113697.71	0.0527	0.0141
Earth	96901-10-02 01:40 G	37113697.35	37113697.57	37113697.80	0.0527	0.0146 *
Mercury	96904-03-15 07:40 G	37114592.70	37114592.82	37114592.94	0.0512	0.0117
Venus	96905-07-05 02:24 G	37115069.47	37115069.60	37115069.74	0.0503	0.0380

Venus	96906-02-27 01:12 G	37115306.37	37115306.55	37115306.73	0.0500	0.0259
Mercury	96910-05-07 13:55 G	37116836.91	37116837.08	37116837.25	0.0513	0.0199
Venus	96911-12-27 11:16 G	37117435.77	37117435.97	37117436.17	0.0524	0.0029
Mercury	96916-01-02 12:14 G	37118902.91	37118903.01	37118903.11	0.0513	0.0283
Mercury	96916-03-31 15:50 G	37118992.07	37118992.16	37118992.25	0.0511	0.0364
Venus	96917-11-01 22:33 G	37119572.24	37119572.44	37119572.65	0.0501	0.0084
Mercury	96922-02-23 09:21 G	37121146.81	37121146.89	37121146.97	0.0512	0.0456
Venus	96923-09-01 06:28 G	37121701.59	37121701.77	37121701.96	0.0523	0.0169
Mercury	96927-10-21 17:02 G	37123213.15	37123213.21	37123213.27	0.0514	0.0442
Mercury	96928-01-18 20:52 G	37123302.25	37123302.37	37123302.48	0.0512	0.0208
Venus	96929-07-07 20:38 G	37123838.15	37123838.36	37123838.56	0.0502	0.0094
Earth	96931-03-29 17:45 G	37124468.14	37124468.24	37124468.35	0.0498	0.0445
Moon	96931-03-29 21:07 G	37124468.32	37124468.38	37124468.46	0.0498	0.0474 *
Mercury	96934-03-12 19:12 G	37125547.14	37125547.30	37125547.45	0.0514	0.0289
Venus	96935-05-07 01:40 G	37125967.43	37125967.57	37125967.71	0.0522	0.0365
Venus	96935-12-30 02:52 G	37126204.47	37126204.62	37126204.77	0.0526	0.0336
Mercury	96939-11-07 01:40 G	37127612.45	37127612.57	37127612.70	0.0512	0.0051
Venus	96941-03-12 17:16 G	37128104.04	37128104.22	37128104.39	0.0503	0.0273
Venus	96941-11-04 15:21 G	37128341.00	37128341.14	37128341.28	0.0500	0.0364
Moon	96943-04-03 04:33 G	37128855.45	37128855.69	37128855.93	0.0498	0.0024
Earth	96943-04-03 06:57 G	37128855.55	37128855.79	37128856.03	0.0498	0.0032 *
Mercury	96945-12-29 15:07 G	37129856.94	37129857.13	37129857.31	0.0513	0.0040
Venus	96947-09-03 23:16 G	37130470.28	37130470.47	37130470.66	0.0525	0.0140
Mercury	96951-08-26 06:00 G	37131922.63	37131922.75	37131922.88	0.0512	0.0120
Venus	96952-11-15 10:48 G	37132369.87	37132369.95	37132370.04	0.0504	0.0456
Venus	96953-07-10 10:19 G	37132606.73	37132606.93	37132607.12	0.0500	0.0184
Earth	96955-04-07 17:16 G	37133243.06	37133243.22	37133243.38	0.0499	0.0373
Moon	96955-04-07 18:14 G	37133243.13	37133243.26	37133243.39	0.0499	0.0407 *
Mercury	96957-10-17 11:16 G	37134166.80	37134166.97	37134167.15	0.0513	0.0204
Venus	96959-05-09 20:38 G	37134736.17	37134736.36	37134736.56	0.0524	0.0055

Mercury	96963-06-14 10:48 G	37136232.85	37136232.95	37136233.05	0.0513	0.0282
Mercury	96963-09-11 14:24 G	37136322.01	37136322.10	37136322.19	0.0511	0.0364
Venus	96965-03-15 07:12 G	37136872.59	37136872.80	37136873.00	0.0501	0.0010
Mercury	96969-08-05 07:12 G	37138476.72	37138476.80	37138476.89	0.0512	0.0452
Venus	96971-01-12 16:48 G	37139002.03	37139002.20	37139002.38	0.0523	0.0249
Venus	96971-09-06 18:28 G	37139239.17	37139239.27	37139239.37	0.0526	0.0454
Moon	96972-09-26 02:52 G	37139624.48	37139624.62	37139624.77	0.0527	0.0402
Earth	96972-09-26 04:19 G	37139624.55	37139624.68	37139624.81	0.0527	0.0430 *
Mars	96974-07-25 21:36 G	37140292.13	37140292.40	37140292.68	0.0519	0.0172
Mercury	96975-04-02 15:21 G	37140543.08	37140543.14	37140543.20	0.0514	0.0448
Mercury	96975-06-30 18:57 G	37140632.18	37140632.29	37140632.41	0.0512	0.0201
Venus	96976-11-18 04:04 G	37141138.48	37141138.67	37141138.87	0.0502	0.0173
Venus	96977-07-13 01:40 G	37141375.50	37141375.57	37141375.65	0.0500	0.0461
Mercury	96981-08-22 18:00 G	37142877.10	37142877.25	37142877.40	0.0514	0.0306
Venus	96982-09-17 12:57 G	37143267.94	37143268.04	37143268.15	0.0522	0.0440
Venus	96983-05-12 13:12 G	37143504.88	37143505.05	37143505.23	0.0525	0.0258
Earth	96984-10-01 00:43 G	37144012.30	37144012.53	37144012.76	0.0527	0.0054
Moon	96984-10-01 03:50 G	37144012.43	37144012.66	37144012.90	0.0527	0.0045 *
Mercury	96987-04-19 00:00 G	37144942.37	37144942.50	37144942.63	0.0512	0.0044
Venus	96988-07-24 01:26 G	37145404.41	37145404.56	37145404.71	0.0503	0.0351
Venus	96989-03-18 00:28 G	37145641.35	37145641.52	37145641.69	0.0500	0.0290
Mars	96992-07-18 18:57 G	37146860.04	37146860.29	37146860.55	0.0506	0.0101
Mercury	96993-06-10 12:57 G	37147186.86	37147187.04	37147187.23	0.0513	0.0044
Venus	96995-01-15 07:55 G	37147770.63	37147770.83	37147771.03	0.0524	0.0056
Moon	96996-10-05 17:31 G	37148400.17	37148400.23	37148400.31	0.0527	0.0503
Mercury	96999-02-05 05:02 G	37149252.58	37149252.71	37149252.83	0.0513	0.0113
Venus	97000-11-21 22:19 G	37149907.23	37149907.43	37149907.63	0.0501	0.0116

98TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 98th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	97005-03-30 09:07	G	37151496.71	37151496.88	37151497.05	0.0513	0.0206	
Venus	97006-09-21 05:02	G	37152036.52	37152036.71	37152036.90	0.0524	0.0138	
Mercury	97010-11-25 09:21	G	37153562.79	37153562.89	37153563.00	0.0513	0.0280	
Mercury	97011-02-22 12:57	G	37153651.96	37153652.04	37153652.13	0.0511	0.0366	
Venus	97012-07-27 16:48	G	37154172.99	37154173.20	37154173.40	0.0502	0.0069	
Mercury	97017-01-16 05:16	G	37155806.63	37155806.72	37155806.81	0.0513	0.0450	
Venus	97018-05-27 03:21	G	37156302.49	37156302.64	37156302.80	0.0523	0.0327	
Venus	97019-01-19 04:48	G	37156539.57	37156539.70	37156539.84	0.0526	0.0376	
Mercury	97022-09-13 14:09	G	37157873.03	37157873.09	37157873.16	0.0513	0.0440	
Mercury	97022-12-11 17:45	G	37157962.13	37157962.24	37157962.36	0.0511	0.0208	
Venus	97024-04-01 13:12	G	37158438.87	37158439.05	37158439.23	0.0503	0.0248	
Venus	97024-11-24 11:16	G	37158675.85	37158675.97	37158676.10	0.0500	0.0390	
Earth	97026-04-03 09:21	G	37159170.66	37159170.89	37159171.13	0.0498	0.0101	
Moon	97026-04-03 10:33	G	37159170.72	37159170.94	37159171.17	0.0498	0.0087	*
Mercury	97029-02-02 16:33	G	37160207.04	37160207.19	37160207.34	0.0514	0.0318	
Venus	97030-01-30 00:28	G	37160568.49	37160568.52	37160568.55	0.0521	0.0516	
Venus	97030-09-24 00:14	G	37160805.32	37160805.51	37160805.70	0.0525	0.0178	
Mercury	97034-09-29 22:33	G	37162272.31	37162272.44	37162272.56	0.0512	0.0045	
Venus	97035-12-06 09:36	G	37162704.80	37162704.90	37162705.02	0.0504	0.0428	
Venus	97036-07-30 09:21	G	37162941.71	37162941.89	37162942.08	0.0501	0.0216	
Earth	97038-04-08 00:28	G	37163558.35	37163558.52	37163558.71	0.0499	0.0322	
Moon	97038-04-08 00:57	G	37163558.37	37163558.54	37163558.72	0.0499	0.0352	*

Mercury	97040-11-21 12:14 G	37164516.83	37164517.01	37164517.20	0.0513	0.0067
Venus	97042-05-29 19:55 G	37165071.13	37165071.33	37165071.53	0.0524	0.0020
Mercury	97046-07-19 03:21 G	37166582.52	37166582.64	37166582.77	0.0513	0.0113
Venus	97048-04-04 07:40 G	37167207.62	37167207.82	37167208.03	0.0501	0.0041
Mercury	97052-09-09 07:40 G	37168826.64	37168826.82	37168826.99	0.0513	0.0194
Venus	97054-02-01 15:07 G	37169336.95	37169337.13	37169337.31	0.0523	0.0219
Venus	97054-09-26 17:02 G	37169574.14	37169574.21	37169574.29	0.0526	0.0486
Earth	97055-09-27 07:26 G	37169939.75	37169939.81	37169939.88	0.0528	0.0503
Moon	97055-09-27 10:19 G	37169939.83	37169939.93	37169940.04	0.0528	0.0471 *
Mercury	97058-05-07 08:24 G	37170892.74	37170892.85	37170892.96	0.0513	0.0269
Mercury	97058-08-04 12:00 G	37170981.92	37170982.00	37170982.09	0.0512	0.0379
Venus	97059-12-09 05:16 G	37171473.52	37171473.72	37171473.92	0.0502	0.0137
Venus	97060-08-02 02:38 G	37171710.60	37171710.61	37171710.64	0.0499	0.0496
Mercury	97064-06-28 03:36 G	37173136.56	37173136.65	37173136.75	0.0512	0.0440
Venus	97065-10-07 12:57 G	37173602.92	37173603.04	37173603.17	0.0522	0.0407
Venus	97066-06-01 13:55 G	37173839.91	37173840.08	37173840.24	0.0526	0.0294
Moon	97067-10-02 03:50 G	37174327.43	37174327.66	37174327.88	0.0527	0.0016
Earth	97067-10-02 07:40 G	37174327.59	37174327.82	37174328.05	0.0527	0.0007 *
Mercury	97070-02-23 12:57 G	37175202.98	37175203.04	37175203.11	0.0513	0.0433
Mercury	97070-05-23 16:33 G	37175292.08	37175292.19	37175292.31	0.0511	0.0215
Venus	97071-08-13 23:31 G	37175739.32	37175739.48	37175739.64	0.0503	0.0321
Venus	97072-04-06 22:04 G	37175976.26	37175976.42	37175976.58	0.0500	0.0319
Mercury	97076-07-15 14:52 G	37177536.98	37177537.12	37177537.27	0.0514	0.0328
Venus	97078-02-04 11:31 G	37178105.78	37178105.98	37178106.17	0.0525	0.0101
Earth	97079-10-07 07:40 G	37178715.74	37178715.82	37178715.90	0.0527	0.0493
Moon	97079-10-07 11:16 G	37178715.87	37178715.97	37178716.09	0.0527	0.0461 *
Mercury	97082-03-11 21:36 G	37179602.27	37179602.40	37179602.52	0.0512	0.0057
Venus	97083-04-18 19:40 G	37180005.30	37180005.32	37180005.35	0.0504	0.0499
Venus	97083-12-11 19:55 G	37180242.13	37180242.33	37180242.53	0.0501	0.0145
Mercury	97088-05-03 11:16 G	37181846.79	37181846.97	37181847.16	0.0514	0.0084

Venus	97089-10-10 07:55 G	37182371.63	37182371.83	37182372.02	0.0524	0.0097
Mercury	97093-12-29 02:09 G	37183912.47	37183912.59	37183912.72	0.0512	0.0107
Venus	97095-08-16 17:16 G	37184508.01	37184508.22	37184508.43	0.0502	0.0034
Mercury	97100-02-20 07:12 G	37186156.63	37186156.80	37186156.98	0.0513	0.0165
Venus	97101-06-16 04:19 G	37186637.52	37186637.68	37186637.85	0.0522	0.0291
Venus	97102-02-08 05:31 G	37186874.61	37186874.73	37186874.86	0.0526	0.0414
Mercury	97105-10-18 07:12 G	37188222.69	37188222.80	37188222.91	0.0513	0.0263
Mercury	97106-01-15 10:48 G	37188311.87	37188311.95	37188312.04	0.0511	0.0383
Venus	97107-04-22 15:07 G	37188773.94	37188774.13	37188774.32	0.0503	0.0211
Venus	97107-12-15 13:40 G	37189010.96	37189011.07	37189011.17	0.0500	0.0427
Earth	97109-04-03 20:24 G	37189486.12	37189486.35	37189486.58	0.0498	0.0136
Moon	97109-04-03 20:38 G	37189486.13	37189486.36	37189486.60	0.0498	0.0120 *
Mercury	97111-12-10 02:38 G	37190466.51	37190466.61	37190466.72	0.0512	0.0420
Venus	97113-02-19 00:28 G	37190903.45	37190903.52	37190903.59	0.0521	0.0482
Venus	97113-10-14 00:14 G	37191140.33	37191140.51	37191140.69	0.0525	0.0214
Mercury	97117-08-06 12:14 G	37192532.94	37192533.01	37192533.08	0.0514	0.0419
Mercury	97117-11-03 15:50 G	37192622.05	37192622.16	37192622.28	0.0512	0.0230
Venus	97118-12-26 12:28 G	37193039.89	37193040.02	37193040.15	0.0504	0.0389
Venus	97119-08-20 12:00 G	37193276.82	37193277.00	37193277.18	0.0500	0.0256
Moon	97121-04-08 08:38 G	37193873.69	37193873.86	37193874.04	0.0498	0.0310
Earth	97121-04-08 10:48 G	37193873.76	37193873.95	37193874.14	0.0498	0.0283 *
Mercury	97123-12-27 13:55 G	37194866.94	37194867.08	37194867.22	0.0514	0.0346
Venus	97125-06-18 21:36 G	37195406.21	37195406.40	37195406.60	0.0524	0.0023
Mercury	97129-08-22 20:38 G	37196932.23	37196932.36	37196932.48	0.0512	0.0069
Venus	97131-04-25 06:57 G	37197542.59	37197542.79	37197543.00	0.0501	0.0075
Mercury	97135-10-15 10:04 G	37199176.73	37199176.92	37199177.10	0.0514	0.0099
Venus	97137-02-21 19:40 G	37199672.13	37199672.32	37199672.51	0.0524	0.0173
Moon	97138-09-27 17:31 G	37200255.17	37200255.23	37200255.30	0.0527	0.0504
Mercury	97141-06-11 01:40 G	37201242.44	37201242.57	37201242.69	0.0512	0.0089
Venus	97142-12-29 04:33 G	37201808.49	37201808.69	37201808.89	0.0502	0.0104

Mercury	97147-08-03 06:28 G	37203486.59	37203486.77	37203486.95	0.0513	0.0143
Venus	97148-10-27 17:02 G	37203938.07	37203938.21	37203938.36	0.0522	0.0365
Venus	97149-06-21 18:00 G	37204175.11	37204175.25	37204175.41	0.0526	0.0340
Earth	97150-10-02 18:14 G	37204643.03	37204643.26	37204643.49	0.0527	0.0049
Moon	97150-10-02 22:04 G	37204643.19	37204643.42	37204643.65	0.0527	0.0061 *
Mercury	97153-03-30 06:14 G	37205552.65	37205552.76	37205552.87	0.0513	0.0250
Mercury	97153-06-27 09:50 G	37205641.83	37205641.91	37205641.99	0.0511	0.0394
Venus	97154-09-03 01:26 G	37206074.39	37206074.56	37206074.73	0.0503	0.0284
Venus	97155-04-28 00:00 G	37206311.36	37206311.50	37206311.65	0.0500	0.0358
Mercury	97159-05-22 02:24 G	37207796.49	37207796.60	37207796.73	0.0513	0.0389
Venus	97161-02-24 13:55 G	37208440.88	37208441.08	37208441.27	0.0525	0.0142
Moon	97162-10-07 12:14 G	37209030.86	37209031.01	37209031.16	0.0527	0.0404
Earth	97162-10-07 15:07 G	37209031.01	37209031.13	37209031.26	0.0527	0.0436 *
Mercury	97165-01-16 11:02 G	37209862.89	37209862.96	37209863.04	0.0513	0.0409
Mercury	97165-04-15 14:52 G	37209952.01	37209952.12	37209952.23	0.0512	0.0239
Venus	97166-05-08 22:33 G	37210340.37	37210340.44	37210340.53	0.0504	0.0463
Venus	97166-12-31 23:02 G	37210577.27	37210577.46	37210577.65	0.0501	0.0185
Mercury	97171-06-08 13:12 G	37212196.93	37212197.05	37212197.18	0.0514	0.0371
Venus	97172-10-30 09:21 G	37212706.69	37212706.89	37212707.08	0.0524	0.0059
Mercury	97177-02-01 19:55 G	37214262.20	37214262.33	37214262.45	0.0512	0.0086
Venus	97178-09-05 21:07 G	37214843.17	37214843.38	37214843.58	0.0502	0.0012
Mercury	97183-03-27 09:21 G	37216506.71	37216506.89	37216507.08	0.0514	0.0126
Venus	97184-07-05 07:12 G	37216972.62	37216972.80	37216972.97	0.0523	0.0250
Venus	97185-02-27 08:52 G	37217209.77	37217209.87	37217209.97	0.0526	0.0457
Mercury	97188-11-21 00:43 G	37218572.41	37218572.53	37218572.66	0.0512	0.0073
Venus	97190-05-11 16:04 G	37219108.98	37219109.17	37219109.37	0.0502	0.0175
Venus	97191-01-03 13:40 G	37219346.00	37219346.07	37219346.15	0.0499	0.0462
Moon	97192-04-03 00:57 G	37219801.33	37219801.54	37219801.76	0.0498	0.0173
Earth	97192-04-03 02:52 G	37219801.40	37219801.62	37219801.84	0.0498	0.0191 *
Mercury	97195-01-13 05:16 G	37220816.54	37220816.72	37220816.90	0.0514	0.0126

Venus	97196-03-10 05:16 G	37221238.62	37221238.72	37221238.83	0.0522	0.0439
Venus	97196-11-02 06:00 G	37221475.58	37221475.75	37221475.93	0.0526	0.0265
Mercury	97200-09-09 05:45 G	37222882.63	37222882.74	37222882.85	0.0512	0.0228
Mercury	97200-12-07 09:21 G	37222971.82	37222971.89	37222971.96	0.0510	0.0415
Venus	97202-01-14 13:12 G	37223374.91	37223375.05	37223375.20	0.0503	0.0353
Venus	97202-09-08 12:00 G	37223611.83	37223612.00	37223612.17	0.0500	0.0290
Earth	97204-04-07 17:45 G	37224189.03	37224189.24	37224189.45	0.0499	0.0231
Moon	97204-04-07 21:21 G	37224189.18	37224189.39	37224189.60	0.0499	0.0253 *
Mercury	97206-11-01 01:40 G	37225126.45	37225126.57	37225126.71	0.0513	0.0367
Venus	97208-07-08 02:52 G	37225741.42	37225741.62	37225741.82	0.0525	0.0067
Mercury	97212-06-28 10:19 G	37227192.86	37227192.93	37227193.02	0.0513	0.0391
Mercury	97212-09-25 14:09 G	37227281.98	37227282.09	37227282.20	0.0511	0.0255
Venus	97214-05-14 10:04 G	37227877.71	37227877.92	37227878.12	0.0501	0.0114
Mercury	97218-11-18 13:12 G	37229526.94	37229527.05	37229527.17	0.0514	0.0405
Venus	97220-03-12 23:16 G	37230007.28	37230007.47	37230007.66	0.0523	0.0130
Mercury	97224-07-14 18:57 G	37231592.17	37231592.29	37231592.42	0.0512	0.0099
Venus	97226-01-17 08:09 G	37232143.64	37232143.84	37232144.05	0.0502	0.0064
Mercury	97230-09-06 08:52 G	37233836.70	37233836.87	37233837.05	0.0514	0.0152
Venus	97231-11-16 19:26 G	37234273.15	37234273.31	37234273.46	0.0522	0.0326
Venus	97232-07-10 20:24 G	37234510.21	37234510.35	37234510.49	0.0526	0.0381
Moon	97233-10-02 00:14 G	37234958.28	37234958.51	37234958.74	0.0527	0.0116
Earth	97233-10-02 03:36 G	37234958.42	37234958.65	37234958.87	0.0527	0.0098 *
Mercury	97236-05-03 00:00 G	37235902.38	37235902.50	37235902.63	0.0513	0.0056
Venus	97237-09-22 05:45 G	37236409.56	37236409.74	37236409.93	0.0503	0.0242
Venus	97238-05-17 04:19 G	37236646.56	37236646.68	37236646.80	0.0500	0.0401
Mercury	97242-06-25 05:02 G	37238146.53	37238146.71	37238146.90	0.0513	0.0095
Venus	97243-07-22 17:31 G	37238539.20	37238539.23	37238539.27	0.0521	0.0513
Venus	97244-03-15 17:16 G	37238776.04	37238776.22	37238776.41	0.0525	0.0187
Earth	97245-10-07 04:04 G	37239346.53	37239346.67	37239346.82	0.0527	0.0402
Moon	97245-10-07 05:02 G	37239346.56	37239346.71	37239346.87	0.0527	0.0380 *

Mars	97247-04-11 10:04 G	37239897.68	37239897.92	37239898.16	0.0519	0.0274
Mercury	97248-02-20 05:02 G	37240212.60	37240212.71	37240212.82	0.0512	0.0211
Mercury	97248-05-19 08:38 G	37240301.79	37240301.86	37240301.92	0.0510	0.0431
Venus	97249-05-28 01:11 G	37240675.44	37240675.55	37240675.66	0.0503	0.0424
Venus	97250-01-20 00:14 G	37240912.33	37240912.51	37240912.70	0.0500	0.0223
Mercury	97254-04-13 00:43 G	37242456.39	37242456.53	37242456.67	0.0513	0.0350
Venus	97255-11-19 14:52 G	37243041.92	37243042.12	37243042.32	0.0525	0.0010
Mercury	97259-12-09 10:04 G	37244522.83	37244522.92	37244523.01	0.0513	0.0366
Mercury	97260-03-07 13:40 G	37244611.96	37244612.07	37244612.17	0.0511	0.0278
Venus	97261-09-24 22:04 G	37245178.22	37245178.42	37245178.63	0.0501	0.0047
Mars	97265-04-06 08:24 G	37246467.62	37246467.85	37246468.09	0.0507	0.0222
Mercury	97266-04-30 12:28 G	37246856.92	37246857.02	37246857.12	0.0515	0.0428
Venus	97267-07-25 12:14 G	37247307.83	37247308.01	37247308.19	0.0523	0.0205
Venus	97268-03-18 14:24 G	37247545.05	37247545.10	37247545.15	0.0526	0.0506
Mercury	97271-12-25 18:14 G	37248922.14	37248922.26	37248922.39	0.0511	0.0118
Venus	97273-05-30 19:26 G	37249444.11	37249444.31	37249444.52	0.0502	0.0136
Earth	97275-04-03 16:19 G	37250116.97	37250117.18	37250117.40	0.0498	0.0217
Moon	97275-04-03 19:55 G	37250117.11	37250117.33	37250117.55	0.0498	0.0188 *
Mercury	97278-02-16 08:52 G	37251166.69	37251166.87	37251167.04	0.0514	0.0184
Venus	97279-03-30 09:21 G	37251573.77	37251573.89	37251574.02	0.0522	0.0398
Venus	97279-11-22 10:04 G	37251810.76	37251810.92	37251811.08	0.0525	0.0308
Mercury	97283-10-13 23:16 G	37253232.34	37253232.47	37253232.59	0.0512	0.0042
Venus	97285-02-02 16:48 G	37253710.05	37253710.20	37253710.37	0.0503	0.0315
Venus	97285-09-27 15:50 G	37253947.01	37253947.16	37253947.32	0.0500	0.0332
Moon	97287-04-08 04:19 G	37254504.48	37254504.68	37254504.90	0.0499	0.0227
Earth	97287-04-08 08:24 G	37254504.64	37254504.85	37254505.07	0.0499	0.0209 *
Mercury	97289-12-05 04:33 G	37255476.51	37255476.69	37255476.88	0.0513	0.0069
Venus	97291-07-28 05:16 G	37256076.52	37256076.72	37256076.91	0.0525	0.0109
Mercury	97295-08-02 04:19 G	37257542.56	37257542.68	37257542.79	0.0513	0.0196
Mercury	97295-10-30 07:40 G	37257631.77	37257631.82	37257631.89	0.0511	0.0449

Venus	97296-10-08 13:55 G	37257976.05	37257976.08	37257976.13	0.0504	0.0492
Venus	97297-06-02 14:24 G	37258212.90	37258213.10	37258213.30	0.0501	0.0157
Mercury	97301-09-24 00:43 G	37259786.38	37259786.53	37259786.67	0.0513	0.0315
Venus	97303-04-03 02:24 G	37260342.41	37260342.60	37260342.80	0.0524	0.0088
Mercury	97307-05-22 09:07 G	37261852.79	37261852.88	37261852.98	0.0513	0.0351
Mercury	97307-08-19 12:57 G	37261941.93	37261942.04	37261942.14	0.0511	0.0294
Venus	97309-02-06 10:33 G	37262478.73	37262478.94	37262479.14	0.0501	0.0027
Mercury	97313-10-11 11:16 G	37264186.88	37264186.97	37264187.06	0.0515	0.0442
Venus	97314-12-07 00:00 G	37264608.33	37264608.50	37264608.66	0.0523	0.0283
Venus	97315-08-01 01:55 G	37264845.47	37264845.58	37264845.70	0.0527	0.0431
Earth	97316-10-02 19:55 G	37265274.11	37265274.33	37265274.56	0.0528	0.0118
Moon	97316-10-02 21:07 G	37265274.17	37265274.38	37265274.60	0.0528	0.0145 *
Mercury	97319-03-10 14:09 G	37266163.08	37266163.09	37266163.12	0.0513	0.0505
Mercury	97319-06-07 18:00 G	37266252.12	37266252.25	37266252.37	0.0511	0.0141
Venus	97320-10-12 07:55 G	37266744.64	37266744.83	37266745.02	0.0502	0.0204
Venus	97321-06-06 05:02 G	37266981.62	37266981.71	37266981.82	0.0499	0.0436
Mercury	97325-07-30 07:40 G	37268496.65	37268496.82	37268497.00	0.0515	0.0201
Venus	97326-08-11 21:50 G	37268874.33	37268874.41	37268874.49	0.0522	0.0473
Venus	97327-04-05 22:19 G	37269111.25	37269111.43	37269111.61	0.0525	0.0232
Earth	97328-10-07 17:16 G	37269662.06	37269662.22	37269662.38	0.0527	0.0368
Moon	97328-10-07 18:00 G	37269662.07	37269662.25	37269662.43	0.0527	0.0348 *
Mercury	97331-03-26 22:33 G	37270562.31	37270562.44	37270562.57	0.0512	0.0023
Venus	97332-06-17 04:19 G	37271010.55	37271010.68	37271010.81	0.0503	0.0386
Venus	97333-02-09 03:21 G	37271247.47	37271247.64	37271247.82	0.0500	0.0262
Mercury	97337-05-18 04:04 G	37272806.49	37272806.67	37272806.86	0.0514	0.0043
Venus	97338-12-09 18:43 G	37273377.08	37273377.28	37273377.48	0.0524	0.0034
Mercury	97343-01-13 03:21 G	37274872.52	37274872.64	37274872.76	0.0512	0.0182
Mercury	97343-04-12 06:57 G	37274961.74	37274961.79	37274961.84	0.0511	0.0461
Venus	97344-10-15 01:26 G	37275513.36	37275513.56	37275513.77	0.0501	0.0086
Mercury	97349-03-06 00:00 G	37277116.34	37277116.50	37277116.65	0.0513	0.0293

Venus	97350-08-14 14:09 G	37277642.91	37277643.09	37277643.29	0.0523	0.0166
Mercury	97354-11-01 08:24 G	37279182.76	37279182.85	37279182.94	0.0513	0.0338
Mercury	97355-01-29 12:00 G	37279271.90	37279272.00	37279272.10	0.0511	0.0307
Venus	97356-06-19 23:31 G	37279779.27	37279779.48	37279779.68	0.0502	0.0093
Moon	97358-04-04 01:11 G	37280432.34	37280432.55	37280432.76	0.0498	0.0217
Earth	97358-04-04 05:02 G	37280432.51	37280432.71	37280432.92	0.0498	0.0248 *
Mercury	97361-03-23 11:02 G	37281516.89	37281516.96	37281517.03	0.0515	0.0473
Venus	97362-04-19 11:45 G	37281908.85	37281908.99	37281909.14	0.0522	0.0359
Venus	97362-12-12 12:43 G	37282145.89	37282146.03	37282146.18	0.0526	0.0352
Mercury	97366-08-20 13:26 G	37283493.03	37283493.06	37283493.09	0.0513	0.0491
Mercury	97366-11-17 17:02 G	37283582.09	37283582.21	37283582.33	0.0511	0.0154
Venus	97368-02-23 19:26 G	37284045.14	37284045.31	37284045.49	0.0502	0.0276
Venus	97368-10-17 17:16 G	37284282.09	37284282.22	37284282.36	0.0499	0.0368
Earth	97370-04-08 14:52 G	37284819.90	37284820.12	37284820.35	0.0498	0.0154
Moon	97370-04-08 18:28 G	37284820.06	37284820.27	37284820.49	0.0498	0.0172 *
Mercury	97373-01-09 06:14 G	37285826.59	37285826.76	37285826.93	0.0515	0.0210
Venus	97374-08-17 09:07 G	37286411.69	37286411.88	37286412.08	0.0526	0.0153
Mercury	97378-09-05 22:04 G	37287892.29	37287892.42	37287892.55	0.0511	0.0003
Venus	97379-10-29 16:19 G	37288311.10	37288311.18	37288311.27	0.0503	0.0455
Venus	97380-06-22 15:35 G	37288547.96	37288548.15	37288548.34	0.0500	0.0193
Mercury	97384-10-28 02:38 G	37290136.42	37290136.61	37290136.80	0.0514	0.0033
Venus	97386-04-22 06:14 G	37290677.56	37290677.76	37290677.95	0.0524	0.0048
Mercury	97390-06-25 02:38 G	37292202.49	37292202.61	37292202.73	0.0512	0.0165
Mercury	97390-09-22 06:14 G	37292291.72	37292291.76	37292291.80	0.0510	0.0476
Venus	97392-02-26 12:43 G	37292813.82	37292814.03	37292814.24	0.0501	0.0013
Mercury	97396-08-15 23:02 G	37294446.30	37294446.46	37294446.62	0.0513	0.0274
Venus	97397-12-26 03:07 G	37294943.45	37294943.63	37294943.80	0.0523	0.0242
Venus	97398-08-20 04:48 G	37295180.62	37295180.70	37295180.79	0.0526	0.0471
Earth	97399-10-03 04:04 G	37295589.45	37295589.67	37295589.89	0.0527	0.0171
Moon	97399-10-03 04:19 G	37295589.46	37295589.68	37295589.91	0.0527	0.0202 *

Mars	97401-07-08 13:40 G	37296232.86	37296233.07	37296233.29	0.0519	0.0339
Mercury	97402-04-14 07:26 G	37296512.71	37296512.81	37296512.91	0.0513	0.0326
Mercury	97402-07-12 11:02 G	37296601.86	37296601.96	37296602.06	0.0511	0.0318
Venus	97403-11-02 09:50 G	37297079.72	37297079.91	37297080.11	0.0502	0.0169
Venus	97404-06-26 07:40 G	37297316.76	37297316.82	37297316.89	0.0499	0.0474
Mercury	97408-09-03 09:50 G	37298846.86	37298846.91	37298846.97	0.0515	0.0488
Venus	97409-08-31 23:02 G	37299209.36	37299209.46	37299209.57	0.0522	0.0437
Venus	97410-04-25 23:16 G	37299446.30	37299446.47	37299446.65	0.0525	0.0271
Moon	97411-10-08 21:50 G	37299977.23	37299977.41	37299977.61	0.0527	0.0290
Earth	97411-10-08 23:45 G	37299977.31	37299977.49	37299977.68	0.0527	0.0307 *
Mercury	97414-01-31 12:14 G	37300822.97	37300823.01	37300823.05	0.0513	0.0485
Mercury	97414-04-30 15:50 G	37300912.04	37300912.16	37300912.28	0.0512	0.0162
Venus	97415-07-08 06:57 G	37301345.65	37301345.79	37301345.95	0.0503	0.0348
Venus	97416-03-01 06:00 G	37301582.59	37301582.75	37301582.92	0.0500	0.0302
Mars	97419-07-04 01:11 G	37302802.33	37302802.55	37302802.78	0.0507	0.0273
Mercury	97420-06-22 05:45 G	37303156.57	37303156.74	37303156.90	0.0514	0.0237
Venus	97421-12-29 19:55 G	37303712.13	37303712.33	37303712.53	0.0525	0.0072
Mercury	97426-02-16 20:52 G	37305222.25	37305222.37	37305222.50	0.0512	0.0021
Venus	97427-11-05 02:52 G	37305848.42	37305848.62	37305848.82	0.0500	0.0121
Mercury	97432-04-10 00:28 G	37307466.33	37307466.52	37307466.71	0.0514	0.0031
Venus	97433-09-03 16:04 G	37307977.97	37307978.17	37307978.36	0.0524	0.0130
Mercury	97437-12-06 01:55 G	37309532.46	37309532.58	37309532.70	0.0512	0.0147
Mercury	97438-03-05 05:31 G	37309621.70	37309621.73	37309621.76	0.0510	0.0494
Venus	97439-07-11 00:28 G	37310114.31	37310114.52	37310114.73	0.0501	0.0059
Earth	97441-04-04 10:04 G	37310747.74	37310747.92	37310748.11	0.0498	0.0306
Moon	97441-04-04 13:40 G	37310747.88	37310748.07	37310748.27	0.0498	0.0272 *
Mercury	97444-01-27 20:52 G	37311776.21	37311776.37	37311776.52	0.0514	0.0275
Venus	97445-05-09 13:26 G	37312243.90	37312244.06	37312244.22	0.0523	0.0325
Venus	97446-01-01 15:07 G	37312481.00	37312481.13	37312481.27	0.0526	0.0390
Mercury	97449-09-24 06:28 G	37313842.67	37313842.77	37313842.87	0.0512	0.0313

Mercury	97449-12-22 10:04 G	37313931.82	37313931.92	37313932.02	0.0511	0.0329
Venus	97451-03-15 20:24 G	37314380.17	37314380.35	37314380.53	0.0502	0.0243
Venus	97451-11-07 18:14 G	37314617.15	37314617.26	37314617.39	0.0499	0.0402
Moon	97453-04-08 21:50 G	37315135.18	37315135.41	37315135.65	0.0498	0.0129
Earth	97453-04-09 00:43 G	37315135.31	37315135.53	37315135.77	0.0498	0.0116 *
Mercury	97456-02-14 08:38 G	37316176.82	37316176.86	37316176.90	0.0515	0.0500
Venus	97457-01-12 10:48 G	37316509.93	37316509.95	37316509.98	0.0522	0.0515
Venus	97457-09-06 10:48 G	37316746.77	37316746.95	37316747.14	0.0525	0.0191
Mercury	97461-07-13 11:02 G	37318152.92	37318152.96	37318153.01	0.0513	0.0477
Mercury	97461-10-10 14:52 G	37318242.00	37318242.12	37318242.24	0.0511	0.0169
Venus	97462-11-18 16:48 G	37318646.09	37318646.20	37318646.31	0.0503	0.0424
Venus	97463-07-13 16:19 G	37318883.00	37318883.18	37318883.37	0.0500	0.0227
Mercury	97467-12-03 04:04 G	37320486.51	37320486.67	37320486.84	0.0514	0.0245
Venus	97469-05-12 06:00 G	37321012.55	37321012.75	37321012.95	0.0524	0.0012
Mercury	97473-07-29 19:40 G	37322552.19	37322552.32	37322552.44	0.0512	0.0012
Venus	97475-03-18 13:55 G	37323148.88	37323149.08	37323149.29	0.0501	0.0049
Mercury	97479-09-20 23:45 G	37324796.30	37324796.49	37324796.68	0.0514	0.0009
Venus	97481-01-15 02:24 G	37325278.42	37325278.60	37325278.79	0.0523	0.0210
Venus	97481-09-09 04:33 G	37325515.64	37325515.69	37325515.74	0.0527	0.0507
Moon	97482-10-03 08:09 G	37325904.66	37325904.84	37325905.04	0.0528	0.0271
Earth	97482-10-03 09:50 G	37325904.70	37325904.91	37325905.12	0.0528	0.0236 *
Mercury	97485-05-18 00:43 G	37326862.41	37326862.53	37326862.65	0.0512	0.0143
Mercury	97485-08-15 04:19 G	37326951.65	37326951.68	37326951.70	0.0510	0.0497
Venus	97486-11-21 10:48 G	37327414.75	37327414.95	37327415.15	0.0501	0.0134
Mercury	97491-07-09 18:14 G	37329106.11	37329106.26	37329106.42	0.0514	0.0281
Venus	97492-09-19 22:04 G	37329544.30	37329544.42	37329544.55	0.0523	0.0409
Venus	97493-05-14 23:45 G	37329781.33	37329781.49	37329781.65	0.0526	0.0306
Earth	97494-10-08 08:38 G	37330292.67	37330292.86	37330293.07	0.0528	0.0258
Moon	97494-10-08 11:45 G	37330292.78	37330292.99	37330293.20	0.0528	0.0245 *
Mercury	97497-03-06 05:45 G	37331172.64	37331172.74	37331172.84	0.0512	0.0299

Mercury	97497-06-03 09:07 G	37331261.79	37331261.88	37331261.98	0.0510	0.0343
Venus	97498-07-27 07:40 G	37331680.66	37331680.82	37331680.98	0.0502	0.0316
Venus	97499-03-21 05:31 G	37331917.57	37331917.73	37331917.88	0.0499	0.0331
Mercury	97503-07-28 05:45 G	37333506.69	37333506.74	37333506.80	0.0515	0.0491
Venus	97505-01-18 19:55 G	37334047.14	37334047.33	37334047.53	0.0525	0.0105
Mercury	97508-12-24 10:04 G	37335482.87	37335482.92	37335482.97	0.0513	0.0468
Mercury	97509-03-23 13:40 G	37335571.95	37335572.07	37335572.19	0.0511	0.0176
Venus	97510-04-02 02:24 G	37335946.59	37335946.60	37335946.62	0.0504	0.0501
Venus	97510-11-25 02:09 G	37336183.40	37336183.59	37336183.79	0.0500	0.0152
Mercury	97515-05-16 01:55 G	37337816.42	37337816.58	37337816.75	0.0514	0.0248
Venus	97516-09-23 16:19 G	37338312.99	37338313.18	37338313.38	0.0524	0.0095
Mercury	97521-01-09 18:14 G	37339882.14	37339882.26	37339882.39	0.0512	0.0018
Venus	97522-07-30 23:16 G	37340449.26	37340449.47	37340449.67	0.0501	0.0032
Moon	97524-04-04 14:09 G	37341062.91	37341063.09	37341063.28	0.0498	0.0322
Earth	97524-04-04 17:31 G	37341063.06	37341063.23	37341063.39	0.0498	0.0353 *
Mercury	97527-03-03 21:35 G	37342126.21	37342126.40	37342126.59	0.0514	0.0009
Venus	97528-05-29 11:45 G	37342578.83	37342578.99	37342579.16	0.0523	0.0295
Venus	97529-01-21 13:11 G	37342815.94	37342816.05	37342816.17	0.0526	0.0421
Mercury	97532-10-28 23:02 G	37344192.34	37344192.46	37344192.58	0.0512	0.0148
Mercury	97533-01-26 02:24 G	37344281.58	37344281.60	37344281.64	0.0510	0.0494
Venus	97534-04-04 19:55 G	37344715.14	37344715.33	37344715.52	0.0502	0.0212
Venus	97534-11-27 17:45 G	37344952.15	37344952.24	37344952.35	0.0499	0.0436
Earth	97536-04-09 06:57 G	37345450.56	37345450.79	37345451.03	0.0498	0.0061
Moon	97536-04-09 08:09 G	37345450.62	37345450.84	37345451.07	0.0498	0.0070 *
Mercury	97538-12-20 17:02 G	37346436.05	37346436.21	37346436.37	0.0513	0.0265
Venus	97540-02-02 08:09 G	37346844.78	37346844.84	37346844.92	0.0522	0.0489
Venus	97540-09-26 08:38 G	37347081.68	37347081.86	37347082.04	0.0525	0.0221
Mercury	97544-08-17 04:04 G	37348502.57	37348502.67	37348502.77	0.0513	0.0302
Mercury	97544-11-14 07:40 G	37348591.73	37348591.82	37348591.91	0.0511	0.0340
Venus	97545-12-08 16:48 G	37348981.07	37348981.20	37348981.33	0.0503	0.0394

Venus	97546-08-02 15:21 G	37349217.97	37349218.14	37349218.32	0.0500	0.0256
Earth	97548-04-13 17:16 G	37349838.14	37349838.22	37349838.31	0.0498	0.0462
Moon	97548-04-13 18:00 G	37349838.14	37349838.25	37349838.38	0.0498	0.0433 *
Mercury	97551-01-07 02:38 G	37350836.54	37350836.61	37350836.68	0.0515	0.0476
Venus	97552-06-01 03:35 G	37351347.45	37351347.65	37351347.85	0.0525	0.0017
Mercury	97556-06-05 08:52 G	37352812.82	37352812.87	37352812.93	0.0513	0.0460
Mercury	97556-09-02 12:28 G	37352901.91	37352902.02	37352902.14	0.0511	0.0185
Venus	97558-04-07 12:43 G	37353483.82	37353484.03	37353484.23	0.0500	0.0077
Mercury	97562-10-25 22:33 G	37355146.28	37355146.44	37355146.61	0.0515	0.0228
Venus	97564-02-05 00:14 G	37355613.32	37355613.51	37355613.70	0.0524	0.0185
Earth	97565-10-03 12:28 G	37356219.84	37356220.02	37356220.21	0.0528	0.0307
Moon	97565-10-03 14:52 G	37356219.95	37356220.12	37356220.31	0.0528	0.0339 *
Mercury	97568-06-21 16:48 G	37357212.08	37357212.20	37357212.33	0.0512	0.0024
Venus	97569-12-11 08:09 G	37357749.64	37357749.84	37357750.05	0.0501	0.0109
Mercury	97574-08-13 18:57 G	37359456.10	37359456.29	37359456.48	0.0514	0.0017
Venus	97575-10-10 21:07 G	37359879.25	37359879.38	37359879.52	0.0523	0.0380
Venus	97576-06-03 22:33 G	37360116.29	37360116.44	37360116.59	0.0526	0.0336
Moon	97577-10-08 05:45 G	37360607.52	37360607.74	37360607.95	0.0527	0.0164
Earth	97577-10-08 09:07 G	37360607.67	37360607.88	37360608.10	0.0527	0.0174 *
Mercury	97580-04-09 21:21 G	37361522.27	37361522.39	37361522.52	0.0512	0.0151
Mercury	97580-07-08 00:57 G	37361611.51	37361611.54	37361611.57	0.0510	0.0490
Venus	97581-08-16 04:04 G	37362015.51	37362015.67	37362015.84	0.0503	0.0292
Venus	97582-04-10 02:24 G	37362252.46	37362252.60	37362252.75	0.0500	0.0358
Mercury	97586-06-01 14:24 G	37363765.95	37363766.10	37363766.26	0.0513	0.0272
Venus	97588-02-07 16:48 G	37364382.01	37364382.20	37364382.39	0.0525	0.0132
Mercury	97592-01-28 02:09 G	37365832.49	37365832.59	37365832.69	0.0513	0.0314
Mercury	97592-04-26 05:45 G	37365921.64	37365921.74	37365921.83	0.0511	0.0330
Venus	97593-04-21 00:00 G	37366281.44	37366281.50	37366281.57	0.0504	0.0475
Venus	97593-12-14 00:00 G	37366518.31	37366518.50	37366518.70	0.0500	0.0181
Mercury	97598-06-19 00:57 G	37368166.48	37368166.54	37368166.61	0.0515	0.0484

Venus	97599-10-13 12:14 G	37368647.81	37368648.01	37368648.21	0.0524	0.0070
Mercury	97603-11-16 07:11 G	37370142.75	37370142.80	37370142.85	0.0513	0.0469
Mercury	97604-02-13 10:48 G	37370231.83	37370231.95	37370232.07	0.0511	0.0176
Venus	97605-08-18 21:21 G	37370784.18	37370784.39	37370784.60	0.0501	0.0003
Earth	97607-04-04 17:45 G	37371378.13	37371378.24	37371378.38	0.0497	0.0425
Moon	97607-04-04 19:55 G	37371378.19	37371378.33	37371378.46	0.0497	0.0395 *
Mercury	97610-04-06 19:11 G	37372476.13	37372476.30	37372476.48	0.0514	0.0208
Venus	97611-06-18 06:57 G	37372913.62	37372913.79	37372913.96	0.0523	0.0275
Venus	97612-02-10 09:07 G	37373150.78	37373150.88	37373150.99	0.0527	0.0446
Mercury	97615-12-02 15:35 G	37374542.03	37374542.15	37374542.28	0.0512	0.0020
Venus	97617-04-23 18:00 G	37375050.06	37375050.25	37375050.44	0.0502	0.0185
Venus	97617-12-16 15:07 G	37375287.06	37375287.13	37375287.21	0.0499	0.0459
Earth	97619-04-09 06:43 G	37375765.54	37375765.78	37375766.02	0.0497	0.0016
Moon	97619-04-09 07:11 G	37375765.55	37375765.80	37375766.05	0.0497	0.0015 *
Mercury	97622-01-23 15:07 G	37376785.95	37376786.13	37376786.32	0.0514	0.0044
Venus	97623-02-21 04:04 G	37377179.59	37377179.67	37377179.76	0.0522	0.0469
Venus	97623-10-16 05:02 G	37377416.53	37377416.71	37377416.88	0.0526	0.0244
Mercury	97627-09-20 19:55 G	37378852.21	37378852.33	37378852.45	0.0512	0.0153
Mercury	97627-12-18 23:31 G	37378941.44	37378941.48	37378941.51	0.0510	0.0487
Venus	97628-12-27 12:14 G	37379315.88	37379316.01	37379316.16	0.0503	0.0373
Venus	97629-08-21 11:02 G	37379552.79	37379552.96	37379553.14	0.0500	0.0280
Moon	97631-04-13 16:48 G	37380153.05	37380153.20	37380153.36	0.0498	0.0363
Earth	97631-04-13 19:11 G	37380153.16	37380153.30	37380153.44	0.0498	0.0395 *
Mercury	97633-11-11 11:16 G	37381095.82	37381095.97	37381096.13	0.0513	0.0287
Venus	97635-06-21 01:11 G	37381682.35	37381682.55	37381682.75	0.0525	0.0044
Mercury	97639-07-10 00:28 G	37383162.42	37383162.52	37383162.62	0.0513	0.0319
Mercury	97639-10-07 04:04 G	37383251.57	37383251.67	37383251.76	0.0511	0.0324
Venus	97641-04-26 07:40 G	37383818.62	37383818.82	37383819.03	0.0501	0.0099
Mercury	97645-11-28 22:04 G	37385496.35	37385496.42	37385496.50	0.0515	0.0472
Venus	97647-02-23 20:09 G	37385948.15	37385948.34	37385948.53	0.0523	0.0160

Moon	97648-10-02 05:02 G	37386534.59	37386534.71	37386534.83	0.0528	0.0445
Earth	97648-10-02 08:09 G	37386534.70	37386534.84	37386534.99	0.0528	0.0411 *
Mercury	97651-04-28 04:48 G	37387472.67	37387472.70	37387472.74	0.0513	0.0486
Mercury	97651-07-26 08:38 G	37387561.74	37387561.86	37387561.98	0.0511	0.0160
Venus	97652-12-30 04:33 G	37388084.49	37388084.69	37388084.90	0.0502	0.0084
Mercury	97657-09-16 17:16 G	37389806.05	37389806.22	37389806.39	0.0514	0.0211
Venus	97658-10-29 15:50 G	37390214.02	37390214.16	37390214.31	0.0522	0.0359
Venus	97659-06-23 17:02 G	37390451.06	37390451.21	37390451.35	0.0526	0.0358
Earth	97660-10-07 05:02 G	37390922.48	37390922.71	37390922.94	0.0528	0.0069
Moon	97660-10-07 08:52 G	37390922.64	37390922.87	37390923.09	0.0528	0.0069 *
Mercury	97663-05-14 13:40 G	37391871.94	37391872.07	37391872.19	0.0512	0.0019
Venus	97664-09-04 01:26 G	37392350.39	37392350.56	37392350.74	0.0502	0.0267
Venus	97665-04-28 23:31 G	37392587.35	37392587.48	37392587.61	0.0499	0.0382
Mercury	97669-07-05 11:31 G	37394115.80	37394115.98	37394116.17	0.0514	0.0065
Venus	97671-02-26 10:48 G	37394716.76	37394716.95	37394717.14	0.0526	0.0151
Mars	97674-03-22 07:40 G	37395836.63	37395836.82	37395837.03	0.0520	0.0365
Mercury	97675-03-02 18:28 G	37396182.15	37396182.27	37396182.39	0.0512	0.0154
Mercury	97675-05-30 22:04 G	37396271.38	37396271.42	37396271.45	0.0510	0.0488
Venus	97676-05-09 21:35 G	37396616.31	37396616.40	37396616.49	0.0503	0.0450
Venus	97677-01-01 20:52 G	37396853.18	37396853.37	37396853.56	0.0500	0.0204
Mercury	97681-04-23 07:11 G	37398425.66	37398425.80	37398425.95	0.0513	0.0317
Venus	97682-11-01 07:11 G	37398982.60	37398982.80	37398983.00	0.0525	0.0051
Mercury	97686-12-19 22:33 G	37400492.35	37400492.44	37400492.54	0.0513	0.0326
Mercury	97687-03-19 02:09 G	37400581.49	37400581.59	37400581.69	0.0511	0.0317
Venus	97688-09-06 15:35 G	37401118.94	37401119.15	37401119.36	0.0501	0.0019
Moon	97690-04-03 17:02 G	37401693.14	37401693.21	37401693.30	0.0498	0.0471
Mars	97692-03-18 10:04 G	37402407.73	37402407.92	37402408.12	0.0506	0.0339
Mercury	97693-05-10 18:43 G	37402826.20	37402826.28	37402826.37	0.0515	0.0455
Venus	97694-07-07 04:19 G	37403248.50	37403248.68	37403248.85	0.0523	0.0248
Venus	97695-03-01 06:00 G	37403485.67	37403485.75	37403485.84	0.0526	0.0473

Mercury	97698-10-08 03:07 G	37404802.60	37404802.63	37404802.66	0.0513	0.0491
Mercury	97699-01-05 06:43 G	37404891.66	37404891.78	37404891.90	0.0511	0.0153
Venus	97700-05-13 11:31 G	37405384.79	37405384.98	37405385.18	0.0502	0.0167
Venus	97701-01-05 09:21 G	37405621.83	37405621.89	37405621.94	0.0499	0.0480
Moon	97702-04-09 04:33 G	37406080.47	37406080.69	37406080.92	0.0498	0.0095
Earth	97702-04-09 06:28 G	37406080.54	37406080.77	37406081.01	0.0498	0.0091 *
Mercury	97705-02-27 14:24 G	37407135.93	37407136.10	37407136.27	0.0514	0.0198
Venus	97706-03-13 00:00 G	37407514.40	37407514.50	37407514.60	0.0522	0.0445
Venus	97706-11-05 00:00 G	37407751.34	37407751.50	37407751.68	0.0525	0.0269
Mercury	97710-10-25 11:16 G	37409201.85	37409201.97	37409202.10	0.0512	0.0015
Venus	97712-01-17 07:26 G	37409650.67	37409650.81	37409650.97	0.0503	0.0351
Venus	97712-09-10 06:28 G	37409887.61	37409887.77	37409887.94	0.0500	0.0304
Earth	97714-04-13 19:26 G	37410468.14	37410468.31	37410468.50	0.0498	0.0320
Moon	97714-04-13 22:48 G	37410468.26	37410468.45	37410468.65	0.0498	0.0287 *
Mercury	97716-12-16 09:35 G	37411445.71	37411445.90	37411446.08	0.0513	0.0063
Venus	97718-07-10 19:11 G	37412017.10	37412017.30	37412017.50	0.0525	0.0064
Mercury	97722-08-13 16:19 G	37413512.06	37413512.18	37413512.30	0.0513	0.0170
Mercury	97722-11-10 19:40 G	37413601.28	37413601.32	37413601.37	0.0511	0.0473
Venus	97724-05-16 04:19 G	37414153.48	37414153.68	37414153.89	0.0500	0.0123
Mercury	97728-10-04 03:50 G	37415755.52	37415755.66	37415755.80	0.0513	0.0337
Venus	97730-03-15 13:11 G	37416282.86	37416283.05	37416283.24	0.0524	0.0143
Earth	97731-10-03 03:50 G	37416849.61	37416849.66	37416849.72	0.0529	0.0512
Mercury	97734-06-01 21:07 G	37417822.28	37417822.38	37417822.48	0.0513	0.0328
Mercury	97734-08-30 00:43 G	37417911.43	37417911.53	37417911.63	0.0511	0.0315
Venus	97736-01-20 01:11 G	37418419.35	37418419.55	37418419.76	0.0501	0.0059
Mercury	97740-10-21 14:52 G	37420156.01	37420156.12	37420156.22	0.0515	0.0424
Venus	97741-11-18 10:04 G	37420548.78	37420548.92	37420549.08	0.0523	0.0341
Venus	97742-07-13 11:45 G	37420785.85	37420785.99	37420786.13	0.0526	0.0379
Moon	97743-10-07 22:19 G	37421237.20	37421237.43	37421237.66	0.0528	0.0030
Earth	97743-10-08 01:55 G	37421237.35	37421237.58	37421237.81	0.0528	0.0026 *

Mercury	97746-03-21 01:11 G	37422132.53	37422132.55	37422132.58	0.0513	0.0501
Mercury	97746-06-18 05:02 G	37422221.59	37422221.71	37422221.83	0.0511	0.0145
Venus	97747-09-24 18:57 G	37422685.12	37422685.29	37422685.48	0.0502	0.0249
Venus	97748-05-18 17:02 G	37422922.09	37422922.21	37422922.34	0.0499	0.0402
Mercury	97752-08-09 11:02 G	37424465.79	37424465.96	37424466.14	0.0514	0.0180
Venus	97754-03-18 07:55 G	37425051.65	37425051.83	37425052.02	0.0525	0.0180
Earth	97755-10-12 23:02 G	37425625.36	37425625.46	37425625.58	0.0527	0.0458
Moon	97755-10-13 01:26 G	37425625.49	37425625.56	37425625.64	0.0527	0.0494 *
Mercury	97758-04-06 09:35 G	37426531.77	37426531.90	37426532.02	0.0512	0.0023
Venus	97759-05-30 14:24 G	37426951.00	37426951.10	37426951.21	0.0504	0.0434
Venus	97760-01-22 14:09 G	37427187.90	37427188.09	37427188.27	0.0500	0.0223
Mercury	97764-05-28 06:43 G	37428775.59	37428775.78	37428775.96	0.0513	0.0075
Venus	97765-11-21 03:07 G	37429317.43	37429317.63	37429317.82	0.0524	0.0028
Mercury	97770-01-23 13:55 G	37430841.97	37430842.08	37430842.20	0.0513	0.0187
Mercury	97770-04-22 17:31 G	37430931.18	37430931.23	37430931.29	0.0511	0.0455
Venus	97771-09-27 10:48 G	37431453.74	37431453.95	37431454.16	0.0501	0.0041
Mercury	97776-03-16 01:40 G	37433085.44	37433085.57	37433085.72	0.0513	0.0334
Venus	97777-07-26 22:19 G	37433583.26	37433583.43	37433583.62	0.0523	0.0228
Venus	97778-03-21 00:00 G	37433820.44	37433820.50	37433820.57	0.0526	0.0493
Mercury	97781-11-11 18:57 G	37435152.20	37435152.29	37435152.38	0.0513	0.0345
Mercury	97782-02-08 22:33 G	37435241.34	37435241.44	37435241.54	0.0511	0.0300
Venus	97783-06-02 08:24 G	37435719.65	37435719.85	37435720.05	0.0502	0.0142
Earth	97785-04-08 06:43 G	37436395.56	37436395.78	37436396.01	0.0497	0.0164
Moon	97785-04-08 09:50 G	37436395.68	37436395.91	37436396.14	0.0497	0.0167 *
Mercury	97788-04-02 11:31 G	37437485.87	37437485.98	37437486.09	0.0514	0.0406
Venus	97789-03-31 17:02 G	37437849.10	37437849.21	37437849.33	0.0522	0.0430
Venus	97789-11-23 17:31 G	37438086.07	37438086.23	37438086.40	0.0526	0.0287
Mercury	97793-08-30 23:45 G	37439462.47	37439462.49	37439462.51	0.0514	0.0503
Mercury	97793-11-28 03:21 G	37439551.52	37439551.64	37439551.76	0.0512	0.0143
Venus	97795-02-05 04:33 G	37439985.54	37439985.69	37439985.85	0.0503	0.0326

Venus	97795-09-30 03:21 G	37440222.48	37440222.64	37440222.79	0.0500	0.0329
Moon	97797-04-12 15:35 G	37440782.94	37440783.15	37440783.36	0.0498	0.0210
Earth	97797-04-12 19:11 G	37440783.10	37440783.30	37440783.51	0.0498	0.0244 *
Mercury	97800-01-20 07:11 G	37441795.62	37441795.80	37441795.98	0.0514	0.0154
Venus	97801-07-30 13:55 G	37442351.89	37442352.08	37442352.28	0.0525	0.0086
Mercury	97805-09-17 07:40 G	37443861.69	37443861.82	37443861.95	0.0512	0.0028
Venus	97807-06-05 22:04 G	37444488.22	37444488.42	37444488.62	0.0500	0.0143
Mercury	97811-11-09 03:21 G	37446105.46	37446105.64	37446105.83	0.0514	0.0090
Venus	97813-04-04 11:16 G	37446617.78	37446617.97	37446618.17	0.0524	0.0113
Mercury	97817-07-06 12:14 G	37448171.90	37448172.01	37448172.13	0.0512	0.0191
Mercury	97817-10-03 15:50 G	37448261.10	37448261.16	37448261.22	0.0510	0.0449
Venus	97819-02-08 18:28 G	37448754.06	37448754.27	37448754.47	0.0501	0.0041
Mercury	97823-08-27 23:16 G	37450415.33	37450415.47	37450415.61	0.0513	0.0340
Venus	97824-12-08 07:26 G	37450883.65	37450883.81	37450883.97	0.0522	0.0313
Venus	97825-08-02 08:09 G	37451120.72	37451120.84	37451120.97	0.0526	0.0407
Earth	97826-10-07 22:33 G	37451552.22	37451552.44	37451552.66	0.0528	0.0126
Moon	97826-10-08 01:26 G	37451552.34	37451552.56	37451552.78	0.0528	0.0128 *
Mars	97828-06-15 21:50 G	37452169.13	37452169.41	37452169.69	0.0520	0.0094
Mercury	97829-04-24 16:48 G	37452482.11	37452482.20	37452482.29	0.0513	0.0358
Mercury	97829-07-22 20:24 G	37452571.25	37452571.35	37452571.46	0.0511	0.0285
Venus	97830-10-14 14:38 G	37453019.92	37453020.11	37453020.30	0.0503	0.0226
Venus	97831-06-08 12:57 G	37453256.94	37453257.04	37453257.15	0.0500	0.0427
Mercury	97835-09-14 09:50 G	37454815.80	37454815.91	37454816.02	0.0514	0.0413
Venus	97836-08-13 03:35 G	37455149.61	37455149.65	37455149.69	0.0521	0.0508
Venus	97837-04-07 02:52 G	37455386.44	37455386.62	37455386.81	0.0525	0.0203
Moon	97838-10-12 17:16 G	37455940.06	37455940.22	37455940.38	0.0528	0.0381
Earth	97838-10-12 18:28 G	37455940.11	37455940.27	37455940.45	0.0528	0.0351 *
Mercury	97841-05-11 01:26 G	37456881.43	37456881.56	37456881.68	0.0512	0.0130
Venus	97842-06-19 11:31 G	37457285.87	37457285.98	37457286.11	0.0504	0.0409
Venus	97843-02-11 11:16 G	37457522.80	37457522.97	37457523.15	0.0500	0.0250

Mars	97846-06-13 11:45 G	37458740.73	37458740.99	37458741.26	0.0505	0.0058
Mercury	97847-07-03 04:33 G	37459125.51	37459125.69	37459125.87	0.0514	0.0145
Venus	97848-12-10 21:21 G	37459652.19	37459652.39	37459652.59	0.0524	0.0011
Mercury	97853-02-27 06:14 G	37461191.63	37461191.76	37461191.89	0.0512	0.0028
Venus	97854-10-17 08:38 G	37461788.65	37461788.86	37461789.06	0.0501	0.0070
Mercury	97859-04-21 00:14 G	37463435.33	37463435.51	37463435.69	0.0513	0.0106
Venus	97860-08-15 18:14 G	37463918.08	37463918.26	37463918.45	0.0523	0.0204
Venus	97861-04-09 20:24 G	37464155.32	37464155.35	37464155.38	0.0527	0.0519
Mercury	97864-12-16 10:33 G	37465501.83	37465501.94	37465502.06	0.0512	0.0197
Mercury	97865-03-15 14:09 G	37465591.03	37465591.09	37465591.15	0.0511	0.0444
Venus	97866-06-22 02:38 G	37466054.41	37466054.61	37466054.82	0.0502	0.0120
Moon	97868-04-08 01:55 G	37466710.38	37466710.58	37466710.78	0.0498	0.0249
Earth	97868-04-08 05:31 G	37466710.53	37466710.73	37466710.94	0.0498	0.0245 *
Mercury	97871-02-06 20:24 G	37467745.21	37467745.35	37467745.49	0.0513	0.0350
Venus	97872-04-20 16:19 G	37468184.06	37468184.18	37468184.31	0.0522	0.0397
Venus	97872-12-13 17:02 G	37468421.06	37468421.21	37468421.37	0.0526	0.0322
Mercury	97876-10-04 15:21 G	37469812.05	37469812.14	37469812.23	0.0513	0.0358
Mercury	97877-01-01 18:57 G	37469901.18	37469901.29	37469901.39	0.0511	0.0284
Venus	97878-02-24 22:48 G	37470320.28	37470320.45	37470320.61	0.0503	0.0305
Venus	97878-10-19 21:21 G	37470557.25	37470557.39	37470557.54	0.0500	0.0351
Earth	97880-04-12 18:57 G	37471098.07	37471098.29	37471098.51	0.0498	0.0167
Moon	97880-04-12 22:48 G	37471098.22	37471098.45	37471098.68	0.0498	0.0136 *
Mercury	97883-02-24 07:40 G	37472145.71	37472145.82	37472145.93	0.0514	0.0414
Venus	97884-08-18 12:28 G	37472686.83	37472687.02	37472687.22	0.0525	0.0118
Mercury	97888-10-20 23:31 G	37474211.36	37474211.48	37474211.60	0.0512	0.0121
Venus	97889-10-30 18:14 G	37474586.23	37474586.26	37474586.32	0.0504	0.0491
Venus	97890-06-24 18:57 G	37474823.09	37474823.29	37474823.48	0.0501	0.0171
Mercury	97894-12-13 03:07 G	37476455.45	37476455.63	37476455.81	0.0514	0.0158
Venus	97896-04-23 07:55 G	37476952.64	37476952.83	37476953.03	0.0524	0.0087
Mercury	97900-08-10 04:19 G	37478521.56	37478521.68	37478521.81	0.0512	0.0039

Venus	97902-02-28 16:48 G	37479088.99	37479089.20	37479089.41	0.0502	0.0011
Mercury	97906-10-01 22:04 G	37480765.23	37480765.42	37480765.60	0.0513	0.0107
Venus	97907-12-29 03:07 G	37481218.46	37481218.63	37481218.80	0.0523	0.0289
Venus	97908-08-22 04:04 G	37481455.56	37481455.67	37481455.78	0.0526	0.0432
Moon	97909-10-07 19:26 G	37481867.10	37481867.31	37481867.53	0.0528	0.0220
Earth	97909-10-07 21:21 G	37481867.19	37481867.39	37481867.61	0.0528	0.0217 *
Mercury	97912-05-29 09:21 G	37482831.77	37482831.89	37482832.00	0.0513	0.0193
Mercury	97912-08-26 12:57 G	37482920.98	37482921.04	37482921.10	0.0511	0.0449
Venus	97913-11-03 13:40 G	37483354.88	37483355.07	37483355.27	0.0503	0.0194
Venus	97914-06-28 11:45 G	37483591.92	37483591.99	37483592.08	0.0499	0.0459
Mercury	97918-07-20 17:45 G	37485075.11	37485075.24	37485075.38	0.0513	0.0355
Venus	97919-09-03 00:43 G	37485484.46	37485484.53	37485484.60	0.0521	0.0482
Venus	97920-04-27 00:43 G	37485721.35	37485721.53	37485721.71	0.0525	0.0232
Moon	97921-10-12 20:09 G	37486255.16	37486255.34	37486255.52	0.0528	0.0306
Earth	97921-10-12 20:38 G	37486255.17	37486255.36	37486255.56	0.0528	0.0275 *
Mercury	97924-03-17 13:40 G	37487141.99	37487142.07	37487142.16	0.0513	0.0359
Mercury	97924-06-14 17:16 G	37487231.12	37487231.22	37487231.33	0.0511	0.0284
Venus	97925-07-09 07:26 G	37487620.68	37487620.81	37487620.95	0.0503	0.0384
Venus	97926-03-03 06:57 G	37487857.61	37487857.79	37487857.96	0.0500	0.0275
Mercury	97930-08-07 05:16 G	37489475.61	37489475.72	37489475.83	0.0515	0.0412
Venus	97931-12-31 22:19 G	37489987.23	37489987.43	37489987.63	0.0525	0.0034
Mercury	97936-04-02 22:04 G	37491541.30	37491541.42	37491541.55	0.0511	0.0127
Venus	97937-11-06 04:04 G	37492123.46	37492123.67	37492123.87	0.0501	0.0094
Mercury	97942-05-26 01:26 G	37493785.38	37493785.56	37493785.73	0.0514	0.0165
Venus	97943-09-05 18:43 G	37494253.09	37494253.28	37494253.47	0.0523	0.0168
Mercury	97948-01-21 02:52 G	37495851.49	37495851.62	37495851.74	0.0512	0.0039
Venus	97949-07-12 00:57 G	37496389.34	37496389.54	37496389.74	0.0502	0.0090
Earth	97951-04-09 11:16 G	37497025.79	37497025.97	37497026.16	0.0498	0.0300
Moon	97951-04-09 15:07 G	37497025.95	37497026.13	37497026.32	0.0498	0.0308 *
Mercury	97954-03-13 21:07 G	37498095.19	37498095.38	37498095.56	0.0513	0.0087

Venus	97955-05-11 15:07 G	37498518.99	37498519.13	37498519.28	0.0522	0.0366
Venus	97956-01-03 15:35 G	37498756.00	37498756.15	37498756.29	0.0526	0.0354
Mercury	97959-11-09 07:40 G	37500161.71	37500161.82	37500161.94	0.0513	0.0195
Mercury	97960-02-06 11:16 G	37500250.91	37500250.97	37500251.03	0.0511	0.0446
Venus	97961-03-16 22:04 G	37500655.26	37500655.42	37500655.60	0.0503	0.0275
Venus	97961-11-08 21:21 G	37500892.26	37500892.39	37500892.52	0.0500	0.0384
Moon	97963-04-13 23:16 G	37501413.23	37501413.47	37501413.70	0.0498	0.0088
Earth	97963-04-14 02:24 G	37501413.37	37501413.60	37501413.83	0.0498	0.0119 *
Mercury	97965-12-30 16:19 G	37502405.04	37502405.18	37502405.31	0.0513	0.0346
Venus	97967-09-08 10:04 G	37503021.73	37503021.92	37503022.11	0.0525	0.0148
Mercury	97971-08-28 12:43 G	37504471.94	37504472.03	37504472.12	0.0513	0.0351
Mercury	97971-11-25 16:19 G	37504561.08	37504561.18	37504561.28	0.0512	0.0293
Venus	97972-11-19 18:57 G	37504921.21	37504921.29	37504921.38	0.0504	0.0456
Venus	97973-07-14 19:26 G	37505158.12	37505158.31	37505158.50	0.0501	0.0206
Mercury	97978-01-17 03:21 G	37506805.54	37506805.64	37506805.75	0.0514	0.0416
Venus	97979-05-14 07:11 G	37507287.60	37507287.80	37507288.00	0.0524	0.0053
Mars	97982-09-10 19:55 G	37508503.14	37508503.33	37508503.54	0.0519	0.0361
Mercury	97983-09-13 20:52 G	37508871.25	37508871.37	37508871.50	0.0511	0.0130
Venus	97985-03-19 13:55 G	37509423.88	37509424.08	37509424.29	0.0501	0.0022
Mercury	97989-11-04 23:31 G	37511115.30	37511115.48	37511115.65	0.0514	0.0170
Venus	97991-01-17 05:31 G	37511553.55	37511553.73	37511553.90	0.0523	0.0249
Venus	97991-09-11 06:57 G	37511790.71	37511790.79	37511790.88	0.0526	0.0477
Earth	97992-10-07 06:57 G	37512182.59	37512182.79	37512182.99	0.0528	0.0264
Moon	97992-10-07 06:43 G	37512182.59	37512182.78	37512182.98	0.0528	0.0258 *
Mercury	97995-07-03 01:55 G	37513181.45	37513181.58	37513181.70	0.0512	0.0029
Venus	97996-11-22 11:02 G	37513689.76	37513689.96	37513690.16	0.0502	0.0165
Venus	97997-07-17 08:52 G	37513926.83	37513926.87	37513926.91	0.0499	0.0486
Mars	98000-09-07 12:14 G	37515074.82	37515075.01	37515075.21	0.0506	0.0346

99TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 99th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	98001-08-23 19:40	G	37515425.14	37515425.32	37515425.51	0.0514	0.0074	
Venus	98002-09-22 02:52	G	37515819.52	37515819.62	37515819.72	0.0522	0.0444	
Venus	98003-05-17 02:52	G	37516056.45	37516056.62	37516056.79	0.0525	0.0274	
Earth	98004-10-12 03:21	G	37516570.44	37516570.64	37516570.86	0.0527	0.0215	
Moon	98004-10-12 06:00	G	37516570.54	37516570.75	37516570.96	0.0527	0.0245	*
Mercury	98007-04-21 06:28	G	37517491.65	37517491.77	37517491.89	0.0512	0.0190	
Mercury	98007-07-19 10:04	G	37517580.86	37517580.92	37517580.98	0.0511	0.0450	
Venus	98008-07-28 07:11	G	37517955.66	37517955.80	37517955.96	0.0503	0.0352	
Venus	98009-03-22 06:57	G	37518192.62	37518192.79	37518192.95	0.0500	0.0310	
Mercury	98013-06-11 15:35	G	37519735.01	37519735.15	37519735.30	0.0513	0.0322	
Venus	98015-01-19 22:48	G	37520322.25	37520322.45	37520322.65	0.0524	0.0071	
Mercury	98019-02-07 11:16	G	37521801.88	37521801.97	37521802.07	0.0513	0.0348	
Mercury	98019-05-07 14:52	G	37521891.02	37521891.12	37521891.23	0.0511	0.0296	
Venus	98020-11-25 05:16	G	37522458.52	37522458.72	37522458.92	0.0501	0.0131	
Mercury	98025-06-29 02:09	G	37524135.50	37524135.59	37524135.69	0.0514	0.0432	
Venus	98026-09-24 18:00	G	37524588.06	37524588.25	37524588.44	0.0523	0.0134	
Mercury	98030-11-26 16:19	G	37526112.16	37526112.18	37526112.20	0.0514	0.0503	
Mercury	98031-02-23 19:55	G	37526201.21	37526201.33	37526201.46	0.0512	0.0143	
Venus	98032-07-31 02:52	G	37526724.42	37526724.62	37526724.83	0.0502	0.0052	
Moon	98034-04-08 17:45	G	37527341.07	37527341.24	37527341.41	0.0498	0.0357	

Earth	98034-04-08 20:52 G	37527341.20	37527341.37	37527341.55	0.0498	0.0340	*
Mercury	98037-04-16 22:19 G	37528445.25	37528445.43	37528445.60	0.0514	0.0186	
Venus	98038-05-30 15:50 G	37528854.01	37528854.16	37528854.32	0.0522	0.0330	
Venus	98039-01-22 16:48 G	37529091.07	37529091.20	37529091.33	0.0526	0.0393	
Mercury	98042-12-13 00:43 G	37530511.41	37530511.53	37530511.66	0.0512	0.0019	
Venus	98044-04-04 21:35 G	37530990.22	37530990.40	37530990.58	0.0502	0.0240	
Venus	98044-11-27 19:55 G	37531227.22	37531227.33	37531227.45	0.0499	0.0416	
Earth	98046-04-13 06:28 G	37531728.53	37531728.77	37531729.01	0.0498	0.0056	
Moon	98046-04-13 08:09 G	37531728.62	37531728.84	37531729.07	0.0498	0.0030	*
Mercury	98049-02-02 18:14 G	37532755.07	37532755.26	37532755.44	0.0514	0.0065	
Venus	98050-09-27 14:09 G	37533356.91	37533357.09	37533357.28	0.0525	0.0195	
Mercury	98054-10-01 05:45 G	37534821.62	37534821.74	37534821.86	0.0512	0.0173	
Mercury	98054-12-29 09:21 G	37534910.84	37534910.89	37534910.93	0.0510	0.0466	
Venus	98055-12-09 18:14 G	37535256.16	37535256.26	37535256.38	0.0504	0.0424	
Venus	98056-08-02 18:00 G	37535493.07	37535493.25	37535493.43	0.0500	0.0238	
Moon	98058-04-17 20:38 G	37536116.31	37536116.36	37536116.44	0.0498	0.0480	
Earth	98058-04-17 21:07 G	37536116.31	37536116.38	37536116.46	0.0498	0.0470	*
Mercury	98060-11-21 14:38 G	37537064.96	37537065.11	37537065.26	0.0513	0.0304	
Venus	98062-06-02 11:02 G	37537622.76	37537622.96	37537623.16	0.0524	0.0009	
Mercury	98066-07-20 10:19 G	37539131.84	37539131.93	37539132.03	0.0513	0.0336	
Mercury	98066-10-17 13:55 G	37539220.98	37539221.08	37539221.18	0.0511	0.0306	
Venus	98068-04-07 15:21 G	37539758.94	37539759.14	37539759.35	0.0501	0.0056	
Mercury	98072-12-09 02:09 G	37541465.51	37541465.59	37541465.66	0.0515	0.0463	
Venus	98074-02-05 07:40 G	37541888.64	37541888.82	37541889.00	0.0523	0.0209	
Venus	98074-09-30 09:07 G	37542125.84	37542125.88	37542125.91	0.0526	0.0517	
Earth	98075-10-07 13:55 G	37542497.90	37542498.08	37542498.26	0.0528	0.0322	
Moon	98075-10-07 16:19 G	37542497.99	37542498.18	37542498.37	0.0528	0.0301	*
Mercury	98078-05-08 15:21 G	37543442.11	37543442.14	37543442.17	0.0514	0.0493	
Mercury	98078-08-05 18:57 G	37543531.17	37543531.29	37543531.41	0.0512	0.0151	
Venus	98079-12-12 13:26 G	37544024.86	37544025.06	37544025.26	0.0502	0.0127	

Mercury	98084-09-26 21:35 G	37545775.23	37545775.40	37545775.57	0.0514	0.0208
Venus	98085-10-11 03:35 G	37546154.53	37546154.65	37546154.78	0.0522	0.0408
Venus	98086-06-05 03:50 G	37546391.50	37546391.66	37546391.82	0.0525	0.0313
Moon	98087-10-12 06:43 G	37546885.57	37546885.78	37546886.00	0.0528	0.0186
Earth	98087-10-12 10:19 G	37546885.72	37546885.93	37546886.16	0.0528	0.0157 *
Mercury	98090-05-25 00:00 G	37547841.37	37547841.50	37547841.63	0.0512	0.0003
Venus	98091-08-17 10:33 G	37548290.78	37548290.94	37548291.11	0.0503	0.0310
Venus	98092-04-10 10:04 G	37548527.77	37548527.92	37548528.06	0.0500	0.0351
Mercury	98096-07-15 17:31 G	37550085.05	37550085.23	37550085.42	0.0513	0.0040
Venus	98098-02-08 00:57 G	37550657.35	37550657.54	37550657.74	0.0525	0.0113
Mercury	98102-03-14 04:48 G	37552151.58	37552151.70	37552151.82	0.0512	0.0160
Mercury	98102-06-11 08:24 G	37552240.81	37552240.85	37552240.89	0.0510	0.0478
Venus	98103-04-23 05:16 G	37552556.70	37552556.72	37552556.76	0.0504	0.0497
Venus	98103-12-16 05:45 G	37552793.54	37552793.74	37552793.93	0.0500	0.0167
Mercury	98108-05-04 13:11 G	37554394.90	37554395.05	37554395.21	0.0514	0.0291
Venus	98109-10-14 22:33 G	37554923.25	37554923.44	37554923.64	0.0524	0.0088
Mercury	98113-12-31 09:50 G	37556461.81	37556461.91	37556462.01	0.0512	0.0314
Mercury	98114-03-30 13:26 G	37556550.96	37556551.06	37556551.16	0.0510	0.0326
Venus	98115-08-21 03:21 G	37557059.43	37557059.64	37557059.84	0.0501	0.0018
Earth	98117-04-09 02:52 G	37557656.49	37557656.62	37557656.77	0.0498	0.0395
Moon	98117-04-09 04:33 G	37557656.58	37557656.69	37557656.82	0.0498	0.0420 *
Mars	98119-03-01 04:04 G	37558347.59	37558347.67	37558347.77	0.0506	0.0475
Mercury	98120-05-22 01:11 G	37558795.49	37558795.55	37558795.61	0.0515	0.0484
Venus	98121-06-19 20:24 G	37559189.19	37559189.35	37559189.52	0.0523	0.0286
Venus	98122-02-11 21:35 G	37559426.30	37559426.40	37559426.51	0.0526	0.0441
Mercury	98125-10-19 14:38 G	37560772.06	37560772.11	37560772.15	0.0513	0.0476
Mercury	98126-01-16 18:14 G	37560861.14	37560861.26	37560861.38	0.0511	0.0166
Venus	98127-04-26 00:14 G	37561325.31	37561325.51	37561325.70	0.0502	0.0202
Venus	98127-12-18 22:33 G	37561562.36	37561562.44	37561562.53	0.0500	0.0456
Moon	98129-04-13 18:57 G	37562044.04	37562044.29	37562044.53	0.0498	0.0004

Earth	98129-04-13 19:11 G	37562044.06	37562044.30	37562044.53	0.0498	0.0027	*
Mercury	98132-03-09 21:21 G	37563105.23	37563105.39	37563105.56	0.0514	0.0240	
Venus	98133-02-22 17:45 G	37563455.17	37563455.24	37563455.32	0.0521	0.0481	
Venus	98133-10-17 17:31 G	37563692.05	37563692.23	37563692.41	0.0525	0.0238	
Mercury	98137-11-04 23:02 G	37565171.34	37565171.46	37565171.59	0.0512	0.0014	
Venus	98138-12-29 21:21 G	37565591.26	37565591.39	37565591.53	0.0504	0.0385	
Venus	98139-08-23 21:21 G	37565828.22	37565828.39	37565828.56	0.0500	0.0279	
Moon	98141-04-18 09:50 G	37566431.82	37566431.91	37566431.99	0.0498	0.0463	
Earth	98141-04-18 11:02 G	37566431.86	37566431.96	37566432.07	0.0498	0.0445	*
Mercury	98143-12-27 17:02 G	37567415.02	37567415.21	37567415.40	0.0514	0.0014	
Venus	98145-06-22 12:57 G	37567957.84	37567958.04	37567958.24	0.0524	0.0034	
Mercury	98149-08-24 04:04 G	37569481.55	37569481.67	37569481.79	0.0513	0.0144	
Mercury	98149-11-21 07:40 G	37569570.79	37569570.82	37569570.85	0.0511	0.0495	
Venus	98151-04-28 19:26 G	37570094.11	37570094.31	37570094.51	0.0501	0.0100	
Mercury	98155-10-15 13:11 G	37571724.89	37571725.05	37571725.21	0.0513	0.0258	
Venus	98157-02-25 10:33 G	37572223.75	37572223.94	37572224.13	0.0523	0.0166	
Moon	98158-10-07 22:04 G	37572813.25	37572813.42	37572813.60	0.0528	0.0337	
Earth	98158-10-08 01:40 G	37572813.41	37572813.57	37572813.74	0.0528	0.0361	*
Mercury	98161-06-12 09:07 G	37573791.78	37573791.88	37573791.98	0.0513	0.0299	
Mercury	98161-09-09 12:43 G	37573880.93	37573881.03	37573881.12	0.0511	0.0341	
Venus	98163-01-01 15:21 G	37574359.93	37574360.14	37574360.34	0.0502	0.0089	
Mercury	98167-11-02 00:00 G	37576125.46	37576125.50	37576125.54	0.0515	0.0500	
Venus	98168-10-31 08:09 G	37576489.70	37576489.84	37576489.98	0.0523	0.0364	
Venus	98169-06-25 09:21 G	37576726.75	37576726.89	37576727.04	0.0526	0.0364	
Earth	98170-10-13 02:38 G	37577201.39	37577201.61	37577201.84	0.0528	0.0136	
Moon	98170-10-13 06:43 G	37577201.56	37577201.78	37577202.00	0.0528	0.0165	*
Mercury	98173-03-31 14:09 G	37578102.03	37578102.09	37578102.15	0.0513	0.0452	
Mercury	98173-06-28 17:45 G	37578191.12	37578191.24	37578191.36	0.0511	0.0189	
Venus	98174-09-06 12:28 G	37578625.85	37578626.02	37578626.19	0.0502	0.0272	
Venus	98175-05-01 10:48 G	37578862.82	37578862.95	37578863.08	0.0499	0.0388	

Mercury	98179-08-20 20:24 G	37580435.20	37580435.35	37580435.52	0.0515	0.0261
Venus	98181-02-28 06:14 G	37580992.57	37580992.76	37580992.95	0.0525	0.0161
Mercury	98185-04-16 22:19 G	37582501.31	37582501.43	37582501.56	0.0511	0.0032
Venus	98186-05-12 08:38 G	37582891.78	37582891.86	37582891.95	0.0504	0.0459
Venus	98187-01-04 08:52 G	37583128.68	37583128.87	37583129.06	0.0500	0.0207
Mercury	98191-06-08 16:48 G	37584745.02	37584745.20	37584745.39	0.0514	0.0022
Venus	98192-11-03 02:52 G	37585258.42	37585258.62	37585258.82	0.0524	0.0042
Mercury	98197-02-03 03:21 G	37586811.52	37586811.64	37586811.76	0.0512	0.0129
Mercury	98197-05-03 06:43 G	37586900.78	37586900.78	37586900.79	0.0510	0.0509
Venus	98198-09-09 06:43 G	37587394.58	37587394.78	37587394.99	0.0501	0.0028
Earth	98200-04-09 17:31 G	37587972.11	37587972.23	37587972.36	0.0498	0.0415
Moon	98200-04-09 17:16 G	37587972.12	37587972.22	37587972.34	0.0498	0.0443 *
Mercury	98203-03-28 12:28 G	37589054.86	37589055.02	37589055.19	0.0513	0.0233
Venus	98204-07-09 22:48 G	37589524.28	37589524.45	37589524.63	0.0523	0.0245
Venus	98205-03-04 00:00 G	37589761.43	37589761.50	37589761.58	0.0526	0.0483
Mercury	98208-11-23 08:24 G	37591121.74	37591121.85	37591121.95	0.0513	0.0284
Mercury	98209-02-20 11:45 G	37591210.91	37591210.99	37591211.09	0.0511	0.0358
Venus	98210-05-16 04:33 G	37591660.49	37591660.69	37591660.89	0.0502	0.0158
Moon	98212-04-14 07:11 G	37592359.57	37592359.80	37592360.03	0.0498	0.0022
Earth	98212-04-14 08:38 G	37592359.62	37592359.86	37592360.10	0.0498	0.0002 *
Mercury	98215-01-14 08:38 G	37593364.80	37593364.86	37593364.93	0.0513	0.0477
Venus	98216-03-14 20:38 G	37593790.26	37593790.36	37593790.47	0.0522	0.0440
Venus	98216-11-06 20:38 G	37594027.20	37594027.36	37594027.53	0.0526	0.0284
Mercury	98220-09-11 13:26 G	37595431.99	37595432.06	37595432.12	0.0513	0.0437
Mercury	98220-12-09 17:02 G	37595521.09	37595521.21	37595521.32	0.0511	0.0205
Venus	98222-01-19 00:28 G	37595926.37	37595926.52	37595926.67	0.0503	0.0345
Venus	98222-09-12 23:16 G	37596163.31	37596163.47	37596163.63	0.0500	0.0318
Earth	98224-04-18 18:28 G	37596747.12	37596747.27	37596747.41	0.0498	0.0394
Moon	98224-04-18 21:21 G	37596747.27	37596747.39	37596747.52	0.0498	0.0419 *
Mercury	98227-01-31 19:11 G	37597765.15	37597765.30	37597765.46	0.0515	0.0275

Venus	98228-07-12 17:45 G	37598293.05	37598293.24	37598293.44	0.0525	0.0081
Mercury	98232-09-27 22:04 G	37599831.29	37599831.42	37599831.55	0.0511	0.0053
Venus	98234-05-18 21:21 G	37600429.19	37600429.39	37600429.59	0.0500	0.0137
Mercury	98238-11-19 15:50 G	37602074.97	37602075.16	37602075.35	0.0514	0.0035
Venus	98240-03-17 15:07 G	37602558.94	37602559.13	37602559.33	0.0524	0.0122
Earth	98241-10-08 15:35 G	37603129.00	37603129.15	37603129.31	0.0528	0.0388
Moon	98241-10-08 19:40 G	37603129.15	37603129.32	37603129.49	0.0528	0.0356 *
Mercury	98244-07-17 02:38 G	37604141.49	37604141.61	37604141.74	0.0512	0.0111
Venus	98246-01-21 18:28 G	37604695.06	37604695.27	37604695.48	0.0501	0.0048
Mercury	98250-09-07 12:14 G	37606384.84	37606385.01	37606385.18	0.0514	0.0205
Venus	98251-11-21 12:28 G	37606824.87	37606825.02	37606825.18	0.0523	0.0321
Venus	98252-07-15 13:26 G	37607061.94	37607062.06	37607062.19	0.0526	0.0408
Moon	98253-10-13 09:35 G	37607516.67	37607516.90	37607517.13	0.0528	0.0114
Earth	98253-10-13 13:11 G	37607516.82	37607517.05	37607517.27	0.0528	0.0092 *
Mars	98255-05-29 01:40 G	37608109.29	37608109.57	37608109.85	0.0520	0.0030
Mercury	98256-05-05 07:40 G	37608451.71	37608451.82	37608451.92	0.0512	0.0268
Mercury	98256-08-02 11:02 G	37608540.88	37608540.96	37608541.05	0.0511	0.0372
Venus	98257-09-26 15:35 G	37608960.97	37608961.15	37608961.34	0.0503	0.0233
Venus	98258-05-21 14:24 G	37609198.00	37609198.10	37609198.21	0.0500	0.0429
Mercury	98262-06-26 07:55 G	37610694.75	37610694.83	37610694.92	0.0513	0.0454
Venus	98263-07-27 09:07 G	37611090.86	37611090.88	37611090.91	0.0521	0.0517
Venus	98264-03-20 08:24 G	37611327.67	37611327.85	37611328.04	0.0525	0.0203
Mercury	98268-02-22 12:28 G	37612761.95	37612762.02	37612762.09	0.0513	0.0424
Mercury	98268-05-21 16:04 G	37612851.06	37612851.17	37612851.29	0.0511	0.0218
Venus	98269-06-01 12:57 G	37613226.92	37613227.04	37613227.15	0.0504	0.0417
Venus	98270-01-24 12:43 G	37613463.86	37613464.03	37613464.22	0.0500	0.0252
Mars	98273-05-27 03:07 G	37614682.37	37614682.63	37614682.90	0.0506	0.0057
Mercury	98274-07-13 19:11 G	37615095.16	37615095.30	37615095.45	0.0514	0.0309
Venus	98275-11-24 05:31 G	37615593.53	37615593.73	37615593.93	0.0524	0.0001
Mercury	98280-03-09 21:07 G	37617161.26	37617161.38	37617161.51	0.0511	0.0068

Venus	98281-09-29 09:21 G	37617729.68	37617729.89	37617730.10	0.0501	0.0065
Moon	98283-04-09 23:45 G	37618287.47	37618287.49	37618287.52	0.0497	0.0494
Earth	98283-04-10 00:57 G	37618287.47	37618287.54	37618287.64	0.0497	0.0463 *
Mercury	98286-05-01 14:24 G	37619404.91	37619405.10	37619405.28	0.0515	0.0046
Venus	98287-07-30 02:09 G	37619859.41	37619859.59	37619859.78	0.0524	0.0204
Mercury	98291-12-28 02:24 G	37621471.47	37621471.60	37621471.72	0.0512	0.0087
Venus	98293-06-04 06:57 G	37621995.59	37621995.79	37621995.99	0.0501	0.0120
Earth	98295-04-14 15:35 G	37622674.92	37622675.15	37622675.39	0.0498	0.0052
Moon	98295-04-14 18:43 G	37622675.04	37622675.28	37622675.53	0.0498	0.0062 *
Mercury	98298-02-17 10:48 G	37623714.78	37623714.95	37623715.12	0.0514	0.0195
Venus	98299-04-04 00:14 G	37624125.38	37624125.51	37624125.63	0.0523	0.0402
Venus	98299-11-27 00:57 G	37624362.39	37624362.54	37624362.70	0.0526	0.0328
Mercury	98303-10-17 06:57 G	37625781.68	37625781.79	37625781.90	0.0512	0.0249
Mercury	98304-01-14 10:19 G	37625870.85	37625870.93	37625871.01	0.0510	0.0388
Venus	98305-02-08 03:07 G	37626261.47	37626261.63	37626261.80	0.0503	0.0308
Venus	98305-10-03 01:55 G	37626498.44	37626498.58	37626498.73	0.0500	0.0357
Moon	98307-04-20 03:07 G	37627062.49	37627062.63	37627062.78	0.0498	0.0394
Earth	98307-04-20 06:57 G	37627062.63	37627062.79	37627062.95	0.0498	0.0365 *
Mercury	98309-12-07 07:11 G	37628024.70	37628024.80	37628024.90	0.0513	0.0434
Venus	98311-08-02 21:21 G	37628628.20	37628628.39	37628628.59	0.0525	0.0125
Mercury	98315-08-05 11:45 G	37630091.91	37630091.99	37630092.06	0.0513	0.0409
Mercury	98315-11-02 15:07 G	37630181.02	37630181.13	37630181.25	0.0511	0.0232
Venus	98316-10-13 23:31 G	37630527.44	37630527.48	37630527.52	0.0504	0.0493
Venus	98317-06-07 23:45 G	37630764.30	37630764.49	37630764.69	0.0501	0.0177
Mercury	98321-12-24 18:14 G	37632425.12	37632425.26	37632425.41	0.0515	0.0328
Venus	98323-04-07 17:02 G	37632894.01	37632894.21	37632894.40	0.0524	0.0082
Moon	98324-10-08 19:26 G	37633444.17	37633444.31	37633444.45	0.0528	0.0416
Earth	98324-10-08 23:02 G	37633444.34	37633444.46	37633444.58	0.0528	0.0445 *
Mercury	98327-08-21 20:09 G	37634491.22	37634491.34	37634491.47	0.0512	0.0076
Venus	98329-02-10 21:35 G	37635030.20	37635030.40	37635030.61	0.0501	0.0014

Mercury	98333-10-12 14:09 G	37636734.91	37636735.09	37636735.28	0.0514	0.0077
Venus	98334-12-11 14:09 G	37637159.92	37637160.09	37637160.26	0.0523	0.0283
Venus	98335-08-05 15:07 G	37637397.04	37637397.13	37637397.24	0.0526	0.0451
Earth	98336-10-13 22:33 G	37637832.21	37637832.44	37637832.67	0.0528	0.0043
Moon	98336-10-14 00:14 G	37637832.29	37637832.51	37637832.73	0.0528	0.0055 *
Mercury	98339-06-10 01:11 G	37638801.43	37638801.55	37638801.68	0.0512	0.0078
Venus	98340-10-16 18:14 G	37639296.07	37639296.26	37639296.46	0.0502	0.0195
Venus	98341-06-10 15:50 G	37639533.09	37639533.16	37639533.24	0.0499	0.0464
Mercury	98345-07-31 08:52 G	37641044.70	37641044.87	37641045.04	0.0514	0.0191
Venus	98346-08-16 10:19 G	37641425.87	37641425.93	37641426.01	0.0522	0.0485
Venus	98347-04-10 11:02 G	37641662.79	37641662.96	37641663.14	0.0526	0.0244
Moon	98348-10-18 23:02 G	37642220.39	37642220.46	37642220.54	0.0528	0.0502
Mercury	98351-03-29 06:28 G	37643111.65	37643111.77	37643111.88	0.0512	0.0229
Mercury	98351-06-26 09:50 G	37643200.84	37643200.91	37643200.99	0.0510	0.0408
Venus	98352-06-21 15:21 G	37643562.01	37643562.14	37643562.28	0.0503	0.0380
Venus	98353-02-13 14:09 G	37643798.92	37643799.09	37643799.26	0.0499	0.0286
Mercury	98357-05-19 05:16 G	37645354.62	37645354.72	37645354.82	0.0514	0.0432
Venus	98358-12-14 08:09 G	37645928.64	37645928.84	37645929.04	0.0525	0.0040
Mercury	98363-01-15 11:02 G	37647421.88	37647421.96	37647422.03	0.0513	0.0394
Mercury	98363-04-14 14:24 G	37647510.99	37647511.10	37647511.21	0.0511	0.0246
Venus	98364-10-19 11:02 G	37648064.75	37648064.96	37648065.16	0.0501	0.0101
Earth	98366-04-10 11:45 G	37648602.98	37648602.99	37648603.00	0.0498	0.0497
Mercury	98369-06-05 17:02 G	37649755.08	37649755.21	37649755.35	0.0515	0.0341
Venus	98370-08-19 05:02 G	37650194.52	37650194.71	37650194.90	0.0524	0.0163
Mercury	98375-01-31 19:11 G	37651821.18	37651821.30	37651821.43	0.0511	0.0086
Venus	98376-06-24 08:09 G	37652330.63	37652330.84	37652331.04	0.0502	0.0085
Moon	98378-04-14 23:02 G	37652990.23	37652990.46	37652990.69	0.0498	0.0088
Earth	98378-04-15 02:52 G	37652990.39	37652990.62	37652990.85	0.0498	0.0085 *
Mercury	98381-03-24 12:43 G	37654064.85	37654065.03	37654065.22	0.0514	0.0089
Venus	98382-04-24 00:57 G	37654460.40	37654460.54	37654460.69	0.0522	0.0366

Venus	98382-12-17 01:26 G	37654697.42	37654697.56	37654697.71	0.0526	0.0365
Mercury	98386-11-20 00:00 G	37656131.38	37656131.50	37656131.63	0.0512	0.0072
Venus	98388-02-28 05:02 G	37656596.54	37656596.71	37656596.89	0.0503	0.0271
Venus	98388-10-22 03:50 G	37656833.54	37656833.66	37656833.79	0.0500	0.0395
Earth	98390-04-19 16:48 G	37657378.03	37657378.20	37657378.38	0.0498	0.0325
Moon	98390-04-19 20:24 G	37657378.20	37657378.35	37657378.51	0.0498	0.0360 *
Mercury	98393-01-10 08:24 G	37658374.67	37658374.85	37658375.03	0.0514	0.0164
Venus	98394-08-21 21:35 G	37658963.21	37658963.40	37658963.59	0.0525	0.0161
Mercury	98398-09-08 05:02 G	37660441.60	37660441.71	37660441.83	0.0512	0.0225
Mercury	98398-12-06 08:38 G	37660530.79	37660530.86	37660530.93	0.0510	0.0413
Venus	98399-11-03 01:40 G	37660862.49	37660862.57	37660862.66	0.0503	0.0457
Venus	98400-06-27 01:11 G	37661099.36	37661099.55	37661099.74	0.0500	0.0211
Mercury	98404-10-29 02:52 G	37662684.52	37662684.62	37662684.72	0.0513	0.0434
Venus	98406-04-26 17:02 G	37663229.01	37663229.21	37663229.41	0.0525	0.0049
Earth	98407-10-09 08:09 G	37663759.76	37663759.84	37663759.92	0.0529	0.0492
Moon	98407-10-09 10:04 G	37663759.82	37663759.92	37663760.03	0.0529	0.0462 *
Mercury	98410-06-27 10:04 G	37664751.84	37664751.92	37664752.01	0.0513	0.0378
Mercury	98410-09-24 13:40 G	37664840.96	37664841.07	37664841.18	0.0511	0.0261
Venus	98412-03-01 22:33 G	37665365.24	37665365.44	37665365.65	0.0501	0.0029
Mercury	98416-11-15 14:38 G	37667084.97	37667085.11	37667085.25	0.0515	0.0334
Venus	98417-12-30 14:24 G	37667494.93	37667495.10	37667495.28	0.0524	0.0251
Venus	98418-08-24 16:19 G	37667732.11	37667732.18	37667732.26	0.0527	0.0486
Earth	98419-10-14 06:14 G	37668147.53	37668147.76	37668147.99	0.0528	0.0007
Moon	98419-10-14 06:28 G	37668147.53	37668147.77	37668148.01	0.0528	0.0005 *
Mercury	98422-07-13 18:14 G	37669151.13	37669151.26	37669151.38	0.0511	0.0097
Venus	98423-11-05 18:28 G	37669631.07	37669631.27	37669631.47	0.0502	0.0162
Venus	98424-06-29 16:04 G	37669868.16	37669868.17	37669868.19	0.0499	0.0497
Mars	98427-08-22 07:26 G	37671016.73	37671016.81	37671016.89	0.0506	0.0482
Mercury	98428-09-03 10:48 G	37671394.77	37671394.95	37671395.14	0.0514	0.0094
Venus	98429-09-04 11:45 G	37671760.90	37671760.99	37671761.10	0.0522	0.0449

Venus	98430-04-29 12:14 G	37671997.85	37671998.01	37671998.18	0.0526	0.0281
Moon	98431-10-19 01:11 G	37672535.43	37672535.55	37672535.68	0.0528	0.0436
Earth	98431-10-19 03:21 G	37672535.54	37672535.64	37672535.74	0.0528	0.0470 *
Mercury	98434-05-01 22:48 G	37673461.33	37673461.45	37673461.58	0.0512	0.0066
Venus	98435-07-11 14:38 G	37673896.96	37673897.11	37673897.26	0.0503	0.0350
Venus	98436-03-04 13:40 G	37674133.91	37674134.07	37674134.23	0.0500	0.0318
Mercury	98440-06-22 06:28 G	37675704.59	37675704.77	37675704.95	0.0514	0.0160
Venus	98442-01-02 07:26 G	37676263.61	37676263.81	37676264.00	0.0525	0.0074
Mercury	98446-02-18 03:35 G	37677771.53	37677771.65	37677771.76	0.0512	0.0227
Mercury	98446-05-18 06:57 G	37677860.72	37677860.79	37677860.87	0.0510	0.0412
Venus	98447-11-08 11:16 G	37678399.77	37678399.97	37678400.17	0.0501	0.0135
Mercury	98452-04-10 01:55 G	37680014.48	37680014.58	37680014.69	0.0513	0.0414
Venus	98453-09-07 03:21 G	37680529.45	37680529.64	37680529.83	0.0524	0.0133
Mercury	98457-12-07 08:38 G	37682081.78	37682081.86	37682081.94	0.0513	0.0379
Mercury	98458-03-06 12:14 G	37682170.90	37682171.01	37682171.12	0.0511	0.0260
Venus	98459-07-14 08:38 G	37682665.65	37682665.86	37682666.06	0.0501	0.0052
Earth	98461-04-14 06:28 G	37683305.54	37683305.77	37683306.00	0.0497	0.0144
Moon	98461-04-14 10:04 G	37683305.70	37683305.92	37683306.15	0.0497	0.0140 *
Mercury	98464-04-27 11:45 G	37684414.85	37684414.99	37684415.13	0.0515	0.0323
Venus	98465-05-12 22:19 G	37684795.29	37684795.43	37684795.59	0.0523	0.0342
Venus	98466-01-05 00:14 G	37685032.38	37685032.51	37685032.64	0.0527	0.0396
Mercury	98469-12-23 17:16 G	37686481.09	37686481.22	37686481.34	0.0511	0.0107
Venus	98471-03-19 05:16 G	37686931.54	37686931.72	37686931.91	0.0502	0.0239
Venus	98471-11-11 02:52 G	37687168.52	37687168.62	37687168.74	0.0499	0.0425
Moon	98473-04-18 16:19 G	37687692.99	37687693.18	37687693.38	0.0497	0.0291
Earth	98473-04-18 19:26 G	37687693.11	37687693.31	37687693.52	0.0497	0.0260 *
Mercury	98476-02-14 07:40 G	37688724.64	37688724.82	37688725.01	0.0515	0.0077
Venus	98477-09-09 20:24 G	37689298.17	37689298.35	37689298.54	0.0526	0.0190
Mercury	98481-10-11 21:35 G	37690791.28	37690791.40	37690791.53	0.0512	0.0061
Venus	98482-11-22 00:00 G	37691197.40	37691197.50	37691197.61	0.0503	0.0430

Venus	98483-07-16 23:31 G	37691434.30	37691434.48	37691434.66	0.0500	0.0240
Mercury	98487-12-03 04:04 G	37693034.49	37693034.67	37693034.85	0.0514	0.0165
Venus	98489-05-15 17:02 G	37693564.01	37693564.21	37693564.41	0.0525	0.0015
Mercury	98493-07-31 02:09 G	37695101.48	37695101.59	37695101.71	0.0512	0.0224
Mercury	98493-10-28 05:45 G	37695190.67	37695190.74	37695190.81	0.0510	0.0412
Venus	98495-03-21 20:09 G	37695700.13	37695700.34	37695700.55	0.0501	0.0054
Mercury	98499-09-20 23:31 G	37697344.38	37697344.48	37697344.60	0.0513	0.0417
Venus	98501-01-19 12:28 G	37697829.84	37697830.02	37697830.20	0.0523	0.0222
Venus	98501-09-13 13:55 G	37698067.04	37698067.08	37698067.12	0.0527	0.0515
Moon	98502-10-14 04:04 G	37698462.46	37698462.67	37698462.89	0.0528	0.0096
Earth	98502-10-14 05:31 G	37698462.51	37698462.73	37698462.96	0.0528	0.0096 *
Mercury	98505-05-20 06:43 G	37699411.70	37699411.78	37699411.87	0.0513	0.0388
Mercury	98505-08-17 10:19 G	37699500.82	37699500.93	37699501.04	0.0511	0.0252
Venus	98506-11-25 16:48 G	37699966.01	37699966.20	37699966.41	0.0502	0.0133
Mercury	98511-10-09 10:19 G	37701744.79	37701744.93	37701745.07	0.0515	0.0336
Venus	98512-09-24 08:38 G	37702095.74	37702095.86	37702095.97	0.0522	0.0424
Venus	98513-05-19 09:07 G	37702332.72	37702332.88	37702333.04	0.0526	0.0309
Earth	98514-10-19 03:07 G	37702850.47	37702850.63	37702850.79	0.0528	0.0383
Moon	98514-10-19 05:45 G	37702850.57	37702850.74	37702850.93	0.0528	0.0349 *
Mercury	98517-06-05 15:21 G	37703811.02	37703811.14	37703811.27	0.0511	0.0101
Venus	98518-07-31 13:55 G	37704231.92	37704232.08	37704232.24	0.0503	0.0321
Venus	98519-03-25 12:28 G	37704468.87	37704469.02	37704469.17	0.0499	0.0346
Mercury	98523-07-28 04:33 G	37706054.50	37706054.69	37706054.88	0.0514	0.0059
Venus	98525-01-22 03:21 G	37706598.44	37706598.64	37706598.83	0.0525	0.0097
Mercury	98529-03-24 20:24 G	37708121.22	37708121.35	37708121.47	0.0512	0.0056
Venus	98530-11-28 09:50 G	37708734.71	37708734.91	37708735.11	0.0500	0.0164
Mercury	98535-05-16 00:14 G	37710364.34	37710364.51	37710364.69	0.0514	0.0190
Venus	98536-09-26 23:45 G	37710864.30	37710864.49	37710864.69	0.0524	0.0110
Mercury	98541-01-11 00:43 G	37712431.42	37712431.53	37712431.64	0.0512	0.0225
Mercury	98541-04-10 04:04 G	37712520.60	37712520.67	37712520.75	0.0510	0.0411

Venus	98542-08-03 05:02 G	37713000.50	37713000.71	37713000.92	0.0501	0.0027
Moon	98544-04-14 05:45 G	37713620.52	37713620.74	37713620.96	0.0497	0.0208
Earth	98544-04-14 09:07 G	37713620.66	37713620.88	37713621.09	0.0497	0.0209 *
Mars	98546-02-10 22:33 G	37714288.34	37714288.44	37714288.55	0.0505	0.0460
Mercury	98547-03-03 20:38 G	37714674.26	37714674.36	37714674.46	0.0513	0.0430
Venus	98548-06-01 21:07 G	37715130.23	37715130.38	37715130.55	0.0523	0.0311
Venus	98549-01-24 22:33 G	37715367.33	37715367.44	37715367.56	0.0526	0.0427
Mercury	98552-10-30 05:16 G	37716741.64	37716741.72	37716741.80	0.0513	0.0390
Mercury	98553-01-27 08:38 G	37716830.76	37716830.86	37716830.98	0.0511	0.0250
Venus	98554-04-08 00:43 G	37717266.35	37717266.53	37717266.72	0.0502	0.0216
Venus	98554-11-30 22:48 G	37717503.37	37717503.45	37717503.55	0.0499	0.0450
Earth	98556-04-18 22:19 G	37718008.21	37718008.43	37718008.64	0.0498	0.0197
Moon	98556-04-19 00:00 G	37718008.30	37718008.50	37718008.71	0.0498	0.0229 *
Mercury	98559-03-21 07:40 G	37719074.67	37719074.82	37719074.96	0.0515	0.0326
Venus	98560-02-05 17:16 G	37719396.18	37719396.22	37719396.26	0.0521	0.0511
Venus	98560-09-29 16:48 G	37719633.02	37719633.20	37719633.38	0.0525	0.0217
Mercury	98564-11-15 13:26 G	37721140.93	37721141.06	37721141.18	0.0511	0.0087
Venus	98565-12-11 20:38 G	37721532.24	37721532.36	37721532.49	0.0504	0.0405
Venus	98566-08-05 20:24 G	37721769.18	37721769.35	37721769.53	0.0500	0.0267
Mercury	98571-01-07 02:52 G	37723384.43	37723384.62	37723384.80	0.0514	0.0067
Venus	98572-06-04 12:14 G	37723898.81	37723899.01	37723899.21	0.0524	0.0011
Mercury	98576-09-03 18:28 G	37725451.14	37725451.27	37725451.39	0.0512	0.0070
Venus	98578-04-10 18:00 G	37726035.04	37726035.25	37726035.45	0.0501	0.0082
Mercury	98582-10-25 20:52 G	37727694.20	37727694.37	37727694.54	0.0513	0.0209
Venus	98584-02-08 06:14 G	37728164.58	37728164.76	37728164.95	0.0524	0.0204
Earth	98585-10-13 03:35 G	37728777.44	37728777.65	37728777.87	0.0529	0.0187
Moon	98585-10-13 06:00 G	37728777.53	37728777.75	37728777.98	0.0529	0.0184 *
Mercury	98588-06-22 23:16 G	37729761.36	37729761.47	37729761.58	0.0512	0.0225
Mercury	98588-09-20 02:38 G	37729850.54	37729850.61	37729850.69	0.0510	0.0413
Venus	98589-12-14 14:38 G	37730300.91	37730301.11	37730301.32	0.0501	0.0106

Mercury	98594-08-13 16:48 G	37732004.12	37732004.20	37732004.28	0.0513	0.0458
Venus	98595-10-14 03:21 G	37732430.52	37732430.64	37732430.77	0.0523	0.0405
Venus	98596-06-07 04:19 G	37732667.53	37732667.68	37732667.84	0.0526	0.0332
Moon	98597-10-17 22:04 G	37733165.23	37733165.42	37733165.62	0.0528	0.0262
Earth	98597-10-18 01:26 G	37733165.37	37733165.56	37733165.75	0.0528	0.0297 *
Mercury	98600-04-12 03:21 G	37734071.57	37734071.64	37734071.73	0.0513	0.0396
Mercury	98600-07-10 07:11 G	37734160.68	37734160.80	37734160.91	0.0511	0.0244
Venus	98601-08-20 08:38 G	37734566.70	37734566.86	37734567.03	0.0503	0.0300
Venus	98602-04-14 07:11 G	37734803.67	37734803.80	37734803.94	0.0499	0.0369
Mercury	98606-09-01 04:19 G	37736404.53	37736404.68	37736404.83	0.0515	0.0309
Venus	98608-02-12 00:57 G	37736933.34	37736933.54	37736933.73	0.0525	0.0126
Mercury	98612-04-28 11:45 G	37738470.86	37738470.99	37738471.11	0.0511	0.0081
Venus	98613-04-25 03:50 G	37738832.61	37738832.66	37738832.71	0.0504	0.0489
Venus	98613-12-18 03:50 G	37739069.47	37739069.66	37739069.86	0.0500	0.0186
Mercury	98618-06-19 23:45 G	37740714.31	37740714.49	37740714.68	0.0514	0.0055
Venus	98619-10-17 19:55 G	37741199.13	37741199.33	37741199.53	0.0524	0.0084
Mercury	98624-02-15 16:04 G	37742781.05	37742781.17	37742781.30	0.0512	0.0087
Venus	98625-08-23 00:28 G	37743335.32	37743335.52	37743335.73	0.0501	0.0009
Earth	98627-04-15 10:04 G	37743935.72	37743935.92	37743936.11	0.0497	0.0280
Moon	98627-04-15 12:14 G	37743935.82	37743936.01	37743936.20	0.0497	0.0277 *
Mercury	98630-04-07 18:57 G	37745024.12	37745024.29	37745024.46	0.0513	0.0206
Venus	98631-06-22 15:35 G	37745464.98	37745465.15	37745465.32	0.0523	0.0290
Venus	98632-02-14 16:33 G	37745702.09	37745702.19	37745702.30	0.0526	0.0448
Mercury	98635-12-04 21:07 G	37747091.27	37747091.38	37747091.49	0.0513	0.0241
Mercury	98636-03-03 00:43 G	37747180.45	37747180.53	37747180.61	0.0511	0.0397
Venus	98637-04-27 21:35 G	37747601.21	37747601.40	37747601.60	0.0502	0.0191
Venus	98637-12-20 19:40 G	37747838.27	37747838.32	37747838.39	0.0499	0.0474
Moon	98639-04-19 21:50 G	37748323.18	37748323.41	37748323.65	0.0497	0.0153
Earth	98639-04-19 22:19 G	37748323.20	37748323.43	37748323.66	0.0497	0.0124 *
Mercury	98642-01-24 13:11 G	37749333.99	37749334.05	37749334.12	0.0513	0.0478

Venus	98643-02-25 10:04 G	37749730.86	37749730.92	37749730.98	0.0522	0.0496
Venus	98643-10-20 10:04 G	37749967.74	37749967.92	37749968.10	0.0526	0.0235
Mercury	98647-09-23 01:55 G	37751401.50	37751401.58	37751401.66	0.0513	0.0399
Mercury	98647-12-21 05:31 G	37751490.62	37751490.73	37751490.84	0.0511	0.0241
Venus	98648-12-31 18:00 G	37751867.12	37751867.25	37751867.39	0.0503	0.0379
Venus	98649-08-25 17:02 G	37752104.05	37752104.21	37752104.38	0.0500	0.0293
Mercury	98654-02-11 00:14 G	37753734.35	37753734.51	37753734.67	0.0514	0.0278
Venus	98655-06-25 06:28 G	37754233.57	37754233.77	37754233.97	0.0525	0.0029
Mercury	98659-10-09 09:50 G	37755800.78	37755800.91	37755801.03	0.0511	0.0072
Venus	98661-04-30 11:45 G	37756369.79	37756369.99	37756370.19	0.0501	0.0102
Mercury	98665-11-29 20:24 G	37758044.16	37758044.35	37758044.54	0.0514	0.0034
Venus	98667-02-28 03:35 G	37758499.47	37758499.65	37758499.84	0.0524	0.0175
Moon	98668-10-12 23:02 G	37759092.27	37759092.46	37759092.65	0.0528	0.0277
Earth	98668-10-13 01:55 G	37759092.39	37759092.58	37759092.78	0.0528	0.0277 *
Mercury	98671-07-28 14:24 G	37760110.98	37760111.10	37760111.22	0.0512	0.0091
Venus	98673-01-03 07:55 G	37760635.62	37760635.83	37760636.03	0.0502	0.0088
Mercury	98677-09-17 16:04 G	37762354.00	37762354.17	37762354.34	0.0513	0.0219
Venus	98678-11-02 23:31 G	37762765.35	37762765.48	37762765.62	0.0522	0.0380
Venus	98679-06-28 00:00 G	37763002.36	37763002.50	37763002.65	0.0526	0.0357
Earth	98680-10-17 20:24 G	37763480.14	37763480.35	37763480.57	0.0528	0.0190
Moon	98680-10-18 00:14 G	37763480.29	37763480.51	37763480.73	0.0528	0.0158 *
Mars	98682-05-07 23:45 G	37764047.26	37764047.49	37764047.73	0.0521	0.0281
Mercury	98683-05-16 18:43 G	37764421.18	37764421.28	37764421.39	0.0513	0.0259
Mercury	98683-08-13 22:19 G	37764510.35	37764510.43	37764510.52	0.0511	0.0380
Venus	98684-09-08 03:35 G	37764901.48	37764901.65	37764901.82	0.0503	0.0278
Venus	98685-05-03 02:24 G	37765138.48	37765138.60	37765138.73	0.0500	0.0393
Mercury	98689-07-06 11:16 G	37766663.90	37766663.97	37766664.04	0.0513	0.0475
Venus	98691-03-02 18:57 G	37767268.09	37767268.29	37767268.48	0.0525	0.0147
Mercury	98695-03-04 23:45 G	37768731.42	37768731.49	37768731.56	0.0513	0.0416
Mercury	98695-06-02 03:21 G	37768820.53	37768820.64	37768820.75	0.0511	0.0225

Venus	98696-05-14 00:00 G	37769167.44	37769167.50	37769167.59	0.0504	0.0467
Venus	98697-01-06 00:28 G	37769404.34	37769404.52	37769404.71	0.0500	0.0210
Mars	98700-05-07 20:09 G	37770621.09	37770621.34	37770621.59	0.0504	0.0195
Mercury	98701-07-24 20:52 G	37771064.21	37771064.37	37771064.53	0.0514	0.0259
Venus	98702-11-06 12:43 G	37771533.83	37771534.03	37771534.23	0.0524	0.0067
Mercury	98707-03-22 08:09 G	37773130.72	37773130.84	37773130.97	0.0512	0.0069
Venus	98708-09-11 21:21 G	37773670.18	37773670.39	37773670.60	0.0501	0.0024
Moon	98710-04-15 08:52 G	37774250.70	37774250.87	37774251.05	0.0497	0.0346
Earth	98710-04-15 09:50 G	37774250.75	37774250.91	37774251.08	0.0497	0.0352 *
Mercury	98713-05-12 16:33 G	37775374.00	37775374.19	37775374.38	0.0514	0.0008
Venus	98714-07-12 09:35 G	37775799.74	37775799.90	37775800.08	0.0523	0.0271
Venus	98715-03-06 11:16 G	37776036.88	37776036.97	37776037.06	0.0527	0.0470
Mercury	98719-01-08 12:28 G	37777440.90	37777441.02	37777441.15	0.0512	0.0100
Venus	98720-05-17 15:21 G	37777935.94	37777936.14	37777936.33	0.0502	0.0171
Venus	98721-01-09 13:26 G	37778173.03	37778173.06	37778173.08	0.0499	0.0494
Moon	98722-04-19 18:43 G	37778638.05	37778638.28	37778638.50	0.0497	0.0069
Earth	98722-04-19 19:55 G	37778638.09	37778638.33	37778638.57	0.0497	0.0040 *
Mercury	98725-02-28 12:43 G	37779683.86	37779684.03	37779684.19	0.0514	0.0237
Venus	98726-03-17 07:40 G	37780065.74	37780065.82	37780065.91	0.0522	0.0467
Venus	98726-11-09 07:40 G	37780302.65	37780302.82	37780303.00	0.0526	0.0267
Mercury	98730-10-27 17:02 G	37781751.11	37781751.21	37781751.32	0.0512	0.0264
Mercury	98731-01-24 20:38 G	37781840.28	37781840.36	37781840.45	0.0510	0.0374
Venus	98732-01-21 10:48 G	37782201.81	37782201.95	37782202.10	0.0503	0.0361
Venus	98732-09-14 10:04 G	37782438.76	37782438.92	37782439.09	0.0500	0.0313
Earth	98734-04-24 08:38 G	37783025.76	37783025.86	37783025.97	0.0498	0.0444
Moon	98734-04-24 11:45 G	37783025.88	37783025.99	37783026.11	0.0498	0.0438 *
Mercury	98736-12-17 08:24 G	37783993.79	37783993.85	37783993.91	0.0513	0.0485
Venus	98738-07-15 03:07 G	37784568.43	37784568.63	37784568.83	0.0524	0.0057
Mercury	98742-08-15 21:35 G	37786061.33	37786061.40	37786061.47	0.0513	0.0430
Mercury	98742-11-13 01:11 G	37786150.44	37786150.55	37786150.67	0.0511	0.0210

Venus	98744-05-20 06:57 G	37786704.59	37786704.79	37786704.99	0.0501	0.0126
Mercury	98749-01-03 18:57 G	37788394.13	37788394.29	37788394.45	0.0514	0.0264
Venus	98750-03-19 22:33 G	37788834.25	37788834.44	37788834.63	0.0523	0.0152
Earth	98751-10-13 20:24 G	37789407.19	37789407.35	37789407.51	0.0528	0.0384
Moon	98751-10-14 00:00 G	37789407.34	37789407.50	37789407.66	0.0528	0.0387 *
Mercury	98754-09-01 06:00 G	37790460.63	37790460.75	37790460.88	0.0512	0.0057
Venus	98756-01-24 04:33 G	37790970.48	37790970.69	37790970.90	0.0502	0.0061
Mercury	98760-10-22 13:40 G	37792703.88	37792704.07	37792704.25	0.0513	0.0012
Venus	98761-11-22 17:02 G	37793100.07	37793100.21	37793100.36	0.0522	0.0361
Venus	98762-07-17 17:45 G	37793337.10	37793337.24	37793337.38	0.0526	0.0377
Moon	98763-10-18 12:14 G	37793794.78	37793795.01	37793795.25	0.0529	0.0053
Earth	98763-10-18 16:04 G	37793794.94	37793795.17	37793795.39	0.0529	0.0088 *
Mercury	98766-06-20 11:02 G	37794770.83	37794770.96	37794771.08	0.0513	0.0103
Venus	98767-09-29 00:57 G	37795236.36	37795236.54	37795236.72	0.0503	0.0250
Venus	98768-05-22 23:45 G	37795473.38	37795473.49	37795473.60	0.0499	0.0421
Mercury	98772-08-10 09:07 G	37797013.72	37797013.88	37797014.05	0.0513	0.0256
Venus	98774-03-22 13:55 G	37797602.90	37797603.08	37797603.27	0.0525	0.0171
Mercury	98778-04-08 15:21 G	37799081.03	37799081.14	37799081.25	0.0513	0.0270
Mercury	98778-07-06 18:57 G	37799170.20	37799170.29	37799170.37	0.0511	0.0367
Venus	98779-06-03 18:28 G	37799502.18	37799502.27	37799502.37	0.0504	0.0444
Venus	98780-01-26 18:28 G	37799739.09	37799739.27	37799739.45	0.0500	0.0232
Mercury	98784-05-29 05:02 G	37801323.68	37801323.71	37801323.76	0.0513	0.0500
Mercury	98784-08-27 20:38 G	37801414.34	37801414.36	37801414.39	0.0515	0.0509
Venus	98785-11-25 11:31 G	37801868.78	37801868.98	37801869.18	0.0524	0.0033
Mercury	98790-01-25 19:55 G	37803391.27	37803391.33	37803391.40	0.0513	0.0432
Mercury	98790-04-24 23:31 G	37803480.37	37803480.48	37803480.60	0.0511	0.0208
Venus	98791-10-01 14:52 G	37804004.91	37804005.12	37804005.33	0.0501	0.0045
Moon	98793-04-14 07:11 G	37804565.69	37804565.80	37804565.92	0.0497	0.0424
Earth	98793-04-14 07:55 G	37804565.73	37804565.83	37804565.95	0.0497	0.0435 *
Mercury	98796-06-15 16:33 G	37805724.03	37805724.19	37805724.35	0.0514	0.0259

Venus	98797-07-31 07:55 G	37806134.65	37806134.83	37806135.00	0.0523	0.0239
Venus	98798-03-25 08:52 G	37806371.81	37806371.87	37806371.93	0.0526	0.0501
Mercury	98802-02-11 04:04 G	37807790.55	37807790.67	37807790.80	0.0512	0.0045
Venus	98803-06-06 11:16 G	37808270.77	37808270.97	37808271.17	0.0502	0.0146
Earth	98805-04-18 22:04 G	37808953.19	37808953.42	37808953.66	0.0498	0.0029
Moon	98805-04-19 00:57 G	37808953.30	37808953.54	37808953.78	0.0498	0.0003 *
Mercury	98808-04-03 12:00 G	37810033.81	37810034.00	37810034.19	0.0514	0.0004
Venus	98809-04-05 03:50 G	37810400.57	37810400.66	37810400.77	0.0522	0.0443
Venus	98809-11-28 03:35 G	37810637.49	37810637.65	37810637.82	0.0525	0.0293
Mercury	98813-11-30 09:07 G	37812100.75	37812100.88	37812101.00	0.0512	0.0115
Venus	98815-02-09 08:09 G	37812536.69	37812536.84	37812537.00	0.0503	0.0334
Venus	98815-10-04 07:55 G	37812773.68	37812773.83	37812773.98	0.0500	0.0341
Moon	98817-04-23 08:38 G	37813340.72	37813340.86	37813341.02	0.0497	0.0378
Earth	98817-04-23 12:14 G	37813340.87	37813341.01	37813341.17	0.0497	0.0383 *
Mercury	98820-01-21 06:43 G	37814343.62	37814343.78	37814343.94	0.0513	0.0260
Venus	98821-08-02 22:04 G	37814903.22	37814903.42	37814903.61	0.0525	0.0081
Mercury	98825-09-18 13:55 G	37816410.97	37816411.08	37816411.18	0.0513	0.0270
Mercury	98825-12-16 17:31 G	37816500.14	37816500.23	37816500.31	0.0511	0.0368
Venus	98827-06-09 05:16 G	37817039.52	37817039.72	37817039.92	0.0501	0.0157
Mercury	98831-11-09 02:24 G	37818653.59	37818653.60	37818653.63	0.0513	0.0508
Mercury	98832-02-07 17:45 G	37818744.20	37818744.24	37818744.29	0.0515	0.0498
Venus	98833-04-07 18:57 G	37819169.09	37819169.29	37819169.48	0.0524	0.0125
Moon	98834-10-12 16:48 G	37819722.10	37819722.20	37819722.30	0.0529	0.0476
Earth	98834-10-12 20:24 G	37819722.25	37819722.35	37819722.46	0.0529	0.0468 *
Mars	98836-08-01 06:57 G	37820380.52	37820380.79	37820381.07	0.0521	0.0079
Mercury	98837-07-07 18:28 G	37820721.20	37820721.27	37820721.33	0.0513	0.0435
Mercury	98837-10-04 22:04 G	37820810.30	37820810.42	37820810.53	0.0511	0.0205
Venus	98839-02-11 23:45 G	37821305.28	37821305.49	37821305.69	0.0501	0.0038
Mercury	98843-11-26 13:55 G	37823053.92	37823054.08	37823054.24	0.0515	0.0252
Venus	98844-12-11 17:02 G	37823435.06	37823435.21	37823435.37	0.0523	0.0326

Venus	98845-08-05 18:00 G	37823672.13	37823672.25	37823672.37	0.0526	0.0416
Earth	98846-10-17 20:24 G	37824110.12	37824110.35	37824110.58	0.0528	0.0021
Moon	98846-10-17 23:16 G	37824110.25	37824110.47	37824110.70	0.0528	0.0016 *
Mercury	98849-07-24 02:52 G	37825120.49	37825120.62	37825120.74	0.0511	0.0047
Venus	98850-10-17 19:55 G	37825571.14	37825571.33	37825571.52	0.0502	0.0226
Venus	98851-06-11 18:28 G	37825808.18	37825808.27	37825808.36	0.0499	0.0445
Mars	98854-08-01 07:55 G	37826954.57	37826954.83	37826955.09	0.0505	0.0147
Mercury	98855-09-14 09:50 G	37827363.73	37827363.91	37827364.10	0.0514	0.0012
Venus	98857-04-10 13:40 G	37827937.89	37827938.07	37827938.25	0.0525	0.0207
Moon	98858-10-22 14:38 G	37828498.03	37828498.11	37828498.21	0.0528	0.0490
Earth	98858-10-22 16:33 G	37828498.11	37828498.19	37828498.27	0.0528	0.0491 *
Mercury	98861-05-12 07:26 G	37829430.69	37829430.81	37829430.93	0.0512	0.0118
Venus	98862-06-22 15:35 G	37829837.04	37829837.15	37829837.27	0.0504	0.0418
Venus	98863-02-14 15:50 G	37830073.99	37830074.16	37830074.34	0.0500	0.0261
Mercury	98867-07-03 05:31 G	37831673.57	37831673.73	37831673.90	0.0513	0.0245
Venus	98868-12-14 09:21 G	37832203.69	37832203.89	37832204.09	0.0524	0.0007
Mercury	98873-02-28 12:14 G	37833740.90	37833741.01	37833741.12	0.0513	0.0275
Mercury	98873-05-28 15:50 G	37833830.07	37833830.16	37833830.25	0.0511	0.0363
Venus	98874-10-20 13:40 G	37834339.87	37834340.07	37834340.28	0.0501	0.0076
Earth	98876-04-13 14:09 G	37834881.05	37834881.09	37834881.14	0.0497	0.0485
Moon	98876-04-13 16:33 G	37834881.12	37834881.19	37834881.29	0.0497	0.0465 *
Mercury	98879-04-21 00:43 G	37835983.50	37835983.53	37835983.56	0.0512	0.0502
Mercury	98879-07-20 16:04 G	37836074.13	37836074.17	37836074.21	0.0514	0.0502
Venus	98880-08-19 04:33 G	37836469.50	37836469.69	37836469.87	0.0523	0.0212
Mercury	98884-12-17 17:02 G	37838051.15	37838051.21	37838051.28	0.0514	0.0432
Mercury	98885-03-16 20:52 G	37838140.25	37838140.37	37838140.48	0.0512	0.0210
Venus	98886-06-25 11:02 G	37838605.76	37838605.96	37838606.16	0.0502	0.0112
Moon	98888-04-18 00:28 G	37839268.29	37839268.52	37839268.76	0.0497	0.0051
Earth	98888-04-18 04:04 G	37839268.44	37839268.67	37839268.90	0.0497	0.0081 *
Mercury	98891-05-08 11:45 G	37840383.83	37840383.99	37840384.15	0.0514	0.0253

Venus	98892-04-24 01:55 G	37840735.46	37840735.58	37840735.71	0.0522	0.0413
Venus	98892-12-17 01:55 G	37840972.43	37840972.58	37840972.74	0.0526	0.0326
Mercury	98897-01-03 01:26 G	37842450.43	37842450.56	37842450.68	0.0512	0.0048
Venus	98898-02-28 05:16 G	37842871.56	37842871.72	37842871.88	0.0503	0.0306
Venus	98898-10-23 04:19 G	37843108.54	37843108.68	37843108.82	0.0500	0.0369
Earth	98900-04-23 13:11 G	37843655.86	37843656.05	37843656.23	0.0498	0.0309
Moon	98900-04-23 17:02 G	37843656.03	37843656.21	37843656.40	0.0498	0.0304 *
Mercury	98903-02-25 07:40 G	37844693.63	37844693.82	37844694.01	0.0514	0.0005
Venus	98904-08-22 23:45 G	37845238.29	37845238.49	37845238.68	0.0525	0.0122
Mercury	98908-10-23 06:14 G	37846760.64	37846760.76	37846760.89	0.0512	0.0109
Venus	98909-11-04 01:26 G	37847137.52	37847137.56	37847137.60	0.0504	0.0494
Venus	98910-06-29 01:40 G	37847374.38	37847374.57	37847374.76	0.0500	0.0185
Mercury	98914-12-14 03:50 G	37849003.50	37849003.66	37849003.83	0.0514	0.0238
Venus	98916-04-27 20:24 G	37849504.16	37849504.35	37849504.55	0.0524	0.0086
Earth	98917-10-13 02:38 G	37850037.61	37850037.61	37850037.62	0.0528	0.0527
Mercury	98920-08-11 10:48 G	37851070.85	37851070.95	37851071.06	0.0513	0.0272
Mercury	98920-11-08 14:24 G	37851160.01	37851160.10	37851160.19	0.0511	0.0365
Venus	98922-03-03 22:33 G	37851640.23	37851640.44	37851640.65	0.0502	0.0008
Mercury	98926-10-01 23:45 G	37853313.43	37853313.49	37853313.55	0.0513	0.0483
Venus	98928-01-01 17:02 G	37853770.05	37853770.21	37853770.38	0.0522	0.0291
Venus	98928-08-25 17:31 G	37854007.14	37854007.23	37854007.34	0.0526	0.0451
Moon	98929-10-17 21:07 G	37854425.15	37854425.38	37854425.62	0.0528	0.0090
Earth	98929-10-17 23:16 G	37854425.25	37854425.47	37854425.70	0.0528	0.0056 *
Mercury	98932-05-30 15:35 G	37855381.09	37855381.15	37855381.22	0.0513	0.0430
Mercury	98932-08-27 19:26 G	37855470.19	37855470.31	37855470.42	0.0511	0.0210
Venus	98933-11-06 19:55 G	37855906.14	37855906.33	37855906.53	0.0503	0.0193
Venus	98934-07-01 18:43 G	37856143.24	37856143.28	37856143.35	0.0500	0.0481
Mercury	98938-10-19 10:19 G	37857713.78	37857713.93	37857714.10	0.0514	0.0266
Venus	98939-09-06 12:57 G	37858035.98	37858036.04	37858036.10	0.0521	0.0494
Venus	98940-04-30 12:14 G	37858272.83	37858273.01	37858273.18	0.0525	0.0240

Earth	98941-10-22 19:11 G	37858813.16	37858813.30	37858813.44	0.0528	0.0416
Moon	98941-10-22 19:26 G	37858813.18	37858813.31	37858813.44	0.0528	0.0423 *
Mercury	98944-06-16 00:14 G	37859780.39	37859780.51	37859780.64	0.0512	0.0057
Venus	98945-07-12 16:48 G	37860172.07	37860172.20	37860172.34	0.0504	0.0381
Venus	98946-03-06 17:02 G	37860409.04	37860409.21	37860409.38	0.0500	0.0300
Mercury	98950-08-07 06:14 G	37862023.58	37862023.76	37862023.95	0.0514	0.0021
Venus	98952-01-04 09:21 G	37862538.69	37862538.89	37862539.09	0.0524	0.0035
Mercury	98956-04-04 05:02 G	37864090.59	37864090.71	37864090.84	0.0512	0.0103
Venus	98957-11-09 12:14 G	37864674.80	37864675.01	37864675.21	0.0501	0.0108
Mercury	98962-05-26 01:55 G	37866333.42	37866333.58	37866333.75	0.0514	0.0233
Venus	98963-09-09 07:11 G	37866804.61	37866804.80	37866804.99	0.0524	0.0170
Mercury	98968-01-22 10:04 G	37868400.81	37868400.92	37868401.03	0.0512	0.0257
Mercury	98968-04-20 13:40 G	37868489.98	37868490.07	37868490.15	0.0510	0.0378
Venus	98969-07-15 09:21 G	37868940.69	37868940.89	37868941.10	0.0502	0.0080
Earth	98971-04-19 07:40 G	37869583.59	37869583.82	37869584.04	0.0497	0.0145
Moon	98971-04-19 11:31 G	37869583.75	37869583.98	37869584.21	0.0497	0.0113 *
Mercury	98974-03-13 22:19 G	37870643.37	37870643.43	37870643.51	0.0513	0.0472
Venus	98975-05-15 04:47 G	37871070.57	37871070.70	37871070.85	0.0522	0.0372
Venus	98976-01-07 05:16 G	37871307.58	37871307.72	37871307.86	0.0526	0.0370
Mercury	98979-11-10 14:38 G	37872711.04	37872711.11	37872711.18	0.0513	0.0420
Mercury	98980-02-07 18:14 G	37872800.15	37872800.26	37872800.38	0.0511	0.0219
Venus	98981-03-20 05:45 G	37873206.57	37873206.74	37873206.92	0.0503	0.0272
Venus	98981-11-12 05:02 G	37873443.59	37873443.71	37873443.83	0.0500	0.0405
Moon	98983-04-23 19:11 G	37873971.10	37873971.30	37873971.51	0.0498	0.0257
Earth	98983-04-23 22:47 G	37873971.26	37873971.45	37873971.65	0.0498	0.0269 *
Mercury	98986-03-31 09:50 G	37875043.76	37875043.91	37875044.07	0.0515	0.0292
Venus	98987-09-12 01:11 G	37875573.36	37875573.55	37875573.74	0.0525	0.0162
Mercury	98991-11-26 23:16 G	37877110.34	37877110.47	37877110.59	0.0512	0.0064
Venus	98992-11-23 02:38 G	37877472.53	37877472.61	37877472.70	0.0504	0.0460
Venus	98993-07-18 03:21 G	37877709.46	37877709.64	37877709.83	0.0501	0.0223

Mercury 98998-01-17 05:31 G 37879353.54 37879353.73 37879353.92 0.0514 0.0038
 Venus 98999-05-17 20:38 G 37879839.16 37879839.36 37879839.56 0.0524 0.0049

100TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 100th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	99003-09-16 04:19	G	37881420.55	37881420.68	37881420.80	0.0512	0.0092	
Venus	99005-03-24 01:11	G	37881975.34	37881975.55	37881975.76	0.0502	0.0037	
Mercury	99009-11-06 01:26	G	37883663.39	37883663.56	37883663.73	0.0513	0.0208	
Venus	99011-01-21 18:14	G	37884105.09	37884105.26	37884105.44	0.0523	0.0252	
Venus	99011-09-15 19:11	G	37884342.23	37884342.30	37884342.37	0.0526	0.0493	
Earth	99012-10-18 08:09	G	37884740.61	37884740.84	37884741.07	0.0528	0.0106	
Moon	99012-10-18 08:38	G	37884740.65	37884740.86	37884741.08	0.0528	0.0137	*
Mercury	99015-07-05 09:07	G	37885730.77	37885730.88	37885730.99	0.0512	0.0247	
Mercury	99015-10-02 12:28	G	37885819.94	37885820.02	37885820.11	0.0510	0.0389	
Venus	99016-11-26 20:38	G	37886241.16	37886241.36	37886241.56	0.0502	0.0157	
Mercury	99021-08-24 20:52	G	37887973.29	37887973.37	37887973.45	0.0513	0.0461	
Venus	99022-09-26 16:04	G	37888371.08	37888371.17	37888371.27	0.0522	0.0454	
Venus	99023-05-21 16:33	G	37888608.02	37888608.19	37888608.35	0.0526	0.0288	
Earth	99024-10-23 09:07	G	37889128.73	37889128.88	37889129.04	0.0528	0.0386	
Moon	99024-10-23 11:16	G	37889128.82	37889128.97	37889129.12	0.0528	0.0402	*
Mercury	99027-04-23 14:09	G	37890041.01	37890041.09	37890041.17	0.0513	0.0399	

Mercury	99027-07-21 17:45 G	37890130.12	37890130.24	37890130.35	0.0511	0.0238
Venus	99028-08-01 17:31 G	37890507.08	37890507.23	37890507.38	0.0503	0.0345
Venus	99029-03-26 16:33 G	37890744.04	37890744.19	37890744.35	0.0500	0.0333
Mercury	99033-09-11 08:52 G	37892373.72	37892373.87	37892374.02	0.0515	0.0309
Venus	99035-01-24 13:40 G	37892873.87	37892874.07	37892874.27	0.0525	0.0081
Mercury	99039-05-09 22:19 G	37894440.31	37894440.43	37894440.56	0.0511	0.0078
Venus	99040-11-29 14:09 G	37895009.89	37895010.09	37895010.29	0.0501	0.0147
Mercury	99045-06-30 05:02 G	37896683.53	37896683.71	37896683.90	0.0514	0.0066
Venus	99046-09-29 10:19 G	37897139.74	37897139.93	37897140.12	0.0524	0.0127
Mercury	99051-02-26 03:21 G	37898750.51	37898750.64	37898750.76	0.0512	0.0080
Venus	99052-08-04 11:59 G	37899275.79	37899276.00	37899276.21	0.0502	0.0041
Moon	99054-04-19 17:02 G	37899898.98	37899899.21	37899899.44	0.0498	0.0146
Earth	99054-04-19 20:52 G	37899899.14	37899899.37	37899899.59	0.0498	0.0171 *
Mercury	99057-04-18 00:43 G	37900993.36	37900993.53	37900993.71	0.0513	0.0185
Venus	99058-06-04 06:28 G	37901405.62	37901405.77	37901405.93	0.0522	0.0333
Venus	99059-01-27 06:43 G	37901642.66	37901642.78	37901642.91	0.0526	0.0411
Mercury	99062-12-15 08:09 G	37903060.73	37903060.84	37903060.96	0.0513	0.0233
Mercury	99063-03-14 11:45 G	37903149.92	37903149.99	37903150.07	0.0511	0.0404
Venus	99064-04-09 09:21 G	37903541.71	37903541.89	37903542.08	0.0503	0.0229
Venus	99064-12-02 08:23 G	37903778.77	37903778.85	37903778.95	0.0500	0.0449
Earth	99066-04-24 11:16 G	37904286.77	37904286.97	37904287.18	0.0498	0.0238
Moon	99066-04-24 13:40 G	37904286.87	37904287.07	37904287.28	0.0498	0.0220 *
Mercury	99069-02-03 20:38 G	37905303.27	37905303.36	37905303.47	0.0513	0.0429
Venus	99070-10-02 03:35 G	37905908.47	37905908.65	37905908.84	0.0525	0.0205
Mercury	99074-10-03 13:11 G	37907370.97	37907371.05	37907371.13	0.0513	0.0387
Mercury	99074-12-31 16:47 G	37907460.09	37907460.20	37907460.31	0.0511	0.0250
Venus	99075-12-14 05:02 G	37907807.60	37907807.71	37907807.82	0.0504	0.0421
Venus	99076-08-07 04:47 G	37908044.52	37908044.70	37908044.87	0.0500	0.0260
Mercury	99081-02-21 07:26 G	37909703.67	37909703.81	37909703.96	0.0515	0.0322
Venus	99082-06-07 01:11 G	37910174.35	37910174.55	37910174.74	0.0525	0.0012

Mercury	99086-10-19 21:50 G	37911770.29	37911770.41	37911770.54	0.0511	0.0101
Venus	99088-04-12 02:23 G	37912310.40	37912310.60	37912310.81	0.0501	0.0075
Mercury	99092-12-10 04:04 G	37914013.49	37914013.67	37914013.86	0.0515	0.0083
Venus	99094-02-09 22:47 G	37914440.27	37914440.45	37914440.64	0.0523	0.0208
Earth	99095-10-18 21:50 G	37915056.19	37915056.41	37915056.63	0.0528	0.0134
Moon	99095-10-18 23:31 G	37915056.25	37915056.48	37915056.70	0.0528	0.0157 *
Mercury	99098-08-08 02:38 G	37916080.48	37916080.61	37916080.74	0.0512	0.0060
Venus	99099-12-16 23:31 G	37916576.28	37916576.48	37916576.68	0.0502	0.0116
Mercury	99104-09-29 00:28 G	37918323.34	37918323.52	37918323.70	0.0514	0.0157
Venus	99105-10-16 20:09 G	37918706.23	37918706.34	37918706.47	0.0522	0.0410
Venus	99106-06-10 20:23 G	37918943.20	37918943.35	37918943.51	0.0526	0.0335
Moon	99107-10-24 16:04 G	37919444.01	37919444.17	37919444.33	0.0528	0.0364
Earth	99107-10-24 19:26 G	37919444.13	37919444.31	37919444.48	0.0528	0.0341 *
Mars	99109-04-19 03:07 G	37919986.45	37919986.63	37919986.82	0.0521	0.0386
Mercury	99110-05-28 07:26 G	37920390.70	37920390.81	37920390.93	0.0512	0.0217
Mercury	99110-08-25 11:02 G	37920479.89	37920479.96	37920480.03	0.0510	0.0417
Venus	99111-08-22 20:23 G	37920842.19	37920842.35	37920842.52	0.0503	0.0306
Venus	99112-04-15 19:55 G	37921079.20	37921079.33	37921079.47	0.0500	0.0375
Mercury	99116-07-17 20:09 G	37922633.23	37922633.34	37922633.46	0.0513	0.0404
Venus	99118-02-13 15:50 G	37923208.97	37923209.16	37923209.36	0.0525	0.0123
Mercury	99122-03-16 12:28 G	37924700.93	37924701.02	37924701.10	0.0513	0.0372
Mercury	99122-06-13 16:04 G	37924790.06	37924790.17	37924790.28	0.0511	0.0266
Venus	99123-04-27 17:16 G	37925108.19	37925108.22	37925108.27	0.0504	0.0494
Venus	99123-12-20 18:14 G	37925345.07	37925345.26	37925345.46	0.0501	0.0192
Mars	99127-04-20 06:14 G	37926561.51	37926561.76	37926562.01	0.0505	0.0206
Mercury	99128-08-04 07:40 G	37927033.69	37927033.82	37927033.95	0.0515	0.0356
Venus	99129-10-19 12:57 G	37927474.85	37927475.04	37927475.24	0.0524	0.0084
Mercury	99134-04-01 21:07 G	37929100.26	37929100.38	37929100.50	0.0511	0.0114
Venus	99135-08-25 14:38 G	37929610.90	37929611.11	37929611.32	0.0501	0.0003
Earth	99137-04-20 04:19 G	37930214.47	37930214.68	37930214.90	0.0497	0.0217

Moon	99137-04-20 06:57 G	37930214.58	37930214.79	37930215.00	0.0497	0.0199 *
Mercury	99140-05-23 02:52 G	37931343.43	37931343.62	37931343.80	0.0515	0.0097
Venus	99141-06-24 10:19 G	37931740.76	37931740.93	37931741.09	0.0523	0.0291
Venus	99142-02-16 11:45 G	37931977.90	37931977.99	37931978.09	0.0527	0.0460
Mercury	99146-01-19 02:09 G	37933410.47	37933410.59	37933410.72	0.0511	0.0041
Venus	99147-04-30 11:59 G	37933876.81	37933877.00	37933877.20	0.0502	0.0189
Venus	99147-12-23 10:04 G	37934113.88	37934113.92	37934113.97	0.0499	0.0486
Moon	99149-04-24 18:14 G	37934602.03	37934602.26	37934602.49	0.0497	0.0166
Earth	99149-04-24 19:11 G	37934602.08	37934602.30	37934602.52	0.0497	0.0191 *
Mercury	99152-03-10 23:16 G	37935653.29	37935653.47	37935653.65	0.0514	0.0142
Venus	99153-02-27 08:38 G	37936006.79	37936006.86	37936006.92	0.0522	0.0490
Venus	99153-10-22 08:38 G	37936243.69	37936243.86	37936244.04	0.0526	0.0253
Mercury	99157-11-07 06:57 G	37937720.67	37937720.79	37937720.91	0.0512	0.0197
Mercury	99158-02-04 10:19 G	37937809.87	37937809.93	37937810.00	0.0510	0.0436
Venus	99159-01-03 08:23 G	37938142.72	37938142.85	37938142.98	0.0503	0.0381
Venus	99159-08-28 07:55 G	37938379.67	37938379.83	37938380.00	0.0500	0.0301
Mercury	99163-12-28 19:40 G	37939963.20	37939963.32	37939963.45	0.0514	0.0379
Venus	99165-06-27 05:31 G	37940509.53	37940509.73	37940509.93	0.0525	0.0044
Mercury	99169-08-26 11:45 G	37942030.90	37942030.99	37942031.08	0.0513	0.0355
Mercury	99169-11-23 15:21 G	37942120.03	37942120.14	37942120.24	0.0511	0.0281
Venus	99171-05-03 05:45 G	37942645.54	37942645.74	37942645.94	0.0501	0.0116
Mercury	99176-01-15 07:11 G	37944363.67	37944363.80	37944363.92	0.0515	0.0381
Venus	99177-03-02 01:26 G	37944775.37	37944775.56	37944775.75	0.0523	0.0166
Moon	99178-10-19 03:21 G	37945371.44	37945371.64	37945371.85	0.0528	0.0206
Earth	99178-10-19 06:28 G	37945371.56	37945371.77	37945371.99	0.0528	0.0185 *
Mercury	99181-06-14 16:33 G	37946341.19	37946341.19	37946341.20	0.0513	0.0511
Mercury	99181-09-11 20:09 G	37946430.22	37946430.34	37946430.47	0.0511	0.0129
Venus	99183-01-06 03:35 G	37946911.44	37946911.65	37946911.86	0.0502	0.0072
Mercury	99187-11-03 02:52 G	37948673.44	37948673.62	37948673.81	0.0514	0.0134
Venus	99188-11-04 22:47 G	37949041.31	37949041.45	37949041.59	0.0522	0.0369

Venus	99189-06-29 23:16 G	37949278.34	37949278.47	37949278.61	0.0526	0.0379
Earth	99190-10-24 06:28 G	37949759.58	37949759.77	37949759.96	0.0528	0.0300
Moon	99190-10-24 10:19 G	37949759.76	37949759.93	37949760.12	0.0528	0.0330 *
Mercury	99193-07-01 01:26 G	37950740.43	37950740.56	37950740.69	0.0511	0.0023
Venus	99194-09-10 23:59 G	37951177.32	37951177.50	37951177.68	0.0502	0.0265
Venus	99195-05-05 22:33 G	37951414.32	37951414.44	37951414.55	0.0499	0.0414
Mercury	99199-08-21 21:50 G	37952983.23	37952983.41	37952983.59	0.0514	0.0131
Venus	99201-03-04 19:40 G	37953544.13	37953544.32	37953544.51	0.0526	0.0168
Mercury	99205-04-19 06:28 G	37955050.65	37955050.77	37955050.89	0.0512	0.0173
Mercury	99205-07-17 10:04 G	37955139.86	37955139.92	37955139.97	0.0510	0.0459
Venus	99206-05-16 21:07 G	37955443.29	37955443.38	37955443.47	0.0503	0.0454
Venus	99207-01-08 20:38 G	37955680.18	37955680.36	37955680.55	0.0500	0.0230
Mercury	99211-06-09 18:28 G	37957293.14	37957293.27	37957293.40	0.0514	0.0368
Venus	99212-11-07 17:02 G	37957810.01	37957810.21	37957810.41	0.0525	0.0040
Mercury	99217-02-05 11:02 G	37959360.87	37959360.96	37959361.06	0.0512	0.0336
Mercury	99217-05-05 14:38 G	37959450.01	37959450.11	37959450.21	0.0510	0.0300
Venus	99218-09-13 17:31 G	37959946.03	37959946.23	37959946.44	0.0501	0.0041
Moon	99220-04-19 16:04 G	37960529.96	37960530.17	37960530.39	0.0497	0.0230
Earth	99220-04-19 17:02 G	37960530.01	37960530.21	37960530.42	0.0497	0.0244 *
Mercury	99223-06-27 06:28 G	37961693.66	37961693.77	37961693.88	0.0515	0.0404
Venus	99224-07-13 14:23 G	37962075.93	37962076.10	37962076.28	0.0523	0.0247
Venus	99225-03-07 15:50 G	37962313.11	37962313.16	37962313.22	0.0527	0.0505
Mercury	99228-11-24 15:50 G	37963671.13	37963671.16	37963671.20	0.0513	0.0494
Mercury	99229-02-21 19:26 G	37963760.19	37963760.31	37963760.44	0.0511	0.0145
Venus	99230-05-19 14:38 G	37964211.91	37964212.11	37964212.31	0.0502	0.0150
Moon	99232-04-24 08:09 G	37964917.62	37964917.84	37964918.06	0.0498	0.0140
Earth	99232-04-24 08:38 G	37964917.64	37964917.86	37964918.08	0.0498	0.0167 *
Mercury	99235-04-15 02:09 G	37966003.41	37966003.59	37966003.77	0.0514	0.0154
Venus	99236-03-18 10:47 G	37966341.86	37966341.95	37966342.06	0.0522	0.0451
Venus	99236-11-10 10:47 G	37966578.79	37966578.95	37966579.12	0.0526	0.0295

Mercury	99240-12-11 00:28 G	37968070.39	37968070.52	37968070.65	0.0512	0.0013
Venus	99242-01-22 11:45 G	37968477.84	37968477.99	37968478.15	0.0503	0.0340
Venus	99242-09-16 11:16 G	37968714.83	37968714.97	37968715.13	0.0500	0.0345
Mercury	99247-01-31 22:04 G	37970313.23	37970313.42	37970313.60	0.0514	0.0095
Venus	99248-07-16 07:26 G	37970844.62	37970844.81	37970845.01	0.0525	0.0086
Mercury	99252-09-29 05:31 G	37972380.61	37972380.73	37972380.85	0.0512	0.0163
Mercury	99252-12-27 09:07 G	37972469.83	37972469.88	37972469.92	0.0510	0.0470
Venus	99254-05-22 08:23 G	37972980.66	37972980.85	37972981.05	0.0500	0.0155
Mercury	99258-11-19 16:33 G	37974623.06	37974623.19	37974623.33	0.0514	0.0362
Venus	99260-03-21 03:21 G	37975110.45	37975110.64	37975110.83	0.0524	0.0127
Earth	99261-10-18 19:26 G	37975687.10	37975687.31	37975687.52	0.0529	0.0215
Moon	99261-10-18 23:16 G	37975687.27	37975687.47	37975687.68	0.0529	0.0228 *
Mars	99263-07-15 16:04 G	37976321.93	37976322.17	37976322.41	0.0521	0.0261
Mercury	99264-07-18 10:47 G	37976690.85	37976690.95	37976691.05	0.0512	0.0313
Mercury	99264-10-15 14:09 G	37976779.99	37976780.09	37976780.19	0.0510	0.0321
Venus	99266-01-25 06:14 G	37977246.55	37977246.76	37977246.97	0.0501	0.0033
Mercury	99270-12-07 04:33 G	37979023.58	37979023.69	37979023.81	0.0516	0.0409
Venus	99271-11-25 01:11 G	37979376.40	37979376.55	37979376.71	0.0523	0.0333
Venus	99272-07-19 02:38 G	37979613.50	37979613.61	37979613.73	0.0527	0.0421
Moon	99273-10-23 14:09 G	37980074.91	37980075.09	37980075.29	0.0529	0.0294
Earth	99273-10-23 18:14 G	37980075.06	37980075.26	37980075.46	0.0529	0.0266 *
Mercury	99276-05-06 15:07 G	37981001.09	37981001.13	37981001.18	0.0513	0.0477
Mercury	99276-08-03 18:43 G	37981090.17	37981090.28	37981090.41	0.0511	0.0161
Venus	99277-09-30 02:09 G	37981512.41	37981512.59	37981512.78	0.0502	0.0227
Venus	99278-05-25 00:28 G	37981749.44	37981749.52	37981749.61	0.0499	0.0452
Mars	99281-07-14 19:40 G	37982896.10	37982896.32	37982896.55	0.0505	0.0276
Mercury	99282-09-25 00:57 G	37983333.37	37983333.54	37983333.72	0.0515	0.0170
Venus	99284-03-23 23:02 G	37983879.28	37983879.46	37983879.64	0.0526	0.0212
Mercury	99288-05-22 23:31 G	37985400.36	37985400.48	37985400.61	0.0511	0.0012
Venus	99289-06-04 22:33 G	37985778.33	37985778.44	37985778.55	0.0504	0.0419

Venus	99290-01-27 22:19 G	37986015.26	37986015.43	37986015.61	0.0500	0.0268
Mercury	99294-07-13 20:52 G	37987643.18	37987643.37	37987643.55	0.0514	0.0080
Venus	99295-11-27 18:28 G	37988145.07	37988145.27	37988145.47	0.0524	0.0003
Mercury	99300-03-12 04:19 G	37989710.56	37989710.68	37989710.80	0.0512	0.0157
Mercury	99300-06-09 07:55 G	37989799.79	37989799.83	37989799.87	0.0510	0.0476
Venus	99301-10-03 19:55 G	37990281.13	37990281.33	37990281.54	0.0501	0.0081
Moon	99303-04-21 03:50 G	37990845.47	37990845.66	37990845.85	0.0497	0.0269
Earth	99303-04-21 04:19 G	37990845.49	37990845.68	37990845.88	0.0497	0.0276 *
Mercury	99306-05-02 16:33 G	37991953.05	37991953.19	37991953.33	0.0513	0.0330
Venus	99307-08-03 15:07 G	37992410.95	37992411.13	37992411.32	0.0523	0.0209
Mercury	99311-12-30 09:35 G	37994020.80	37994020.90	37994021.00	0.0512	0.0307
Mercury	99312-03-28 12:57 G	37994109.95	37994110.04	37994110.14	0.0510	0.0328
Venus	99313-06-08 17:16 G	37994547.01	37994547.22	37994547.42	0.0501	0.0112
Earth	99315-04-25 15:07 G	37995232.90	37995233.13	37995233.36	0.0497	0.0118
Moon	99315-04-25 17:16 G	37995232.98	37995233.22	37995233.46	0.0497	0.0090 *
Mercury	99318-05-20 02:23 G	37996353.49	37996353.60	37996353.72	0.0515	0.0408
Venus	99319-04-08 10:47 G	37996676.83	37996676.95	37996677.07	0.0523	0.0420
Venus	99319-12-01 11:45 G	37996913.84	37996913.99	37996914.14	0.0527	0.0332
Mercury	99323-10-18 14:38 G	37998331.05	37998331.11	37998331.16	0.0513	0.0459
Mercury	99324-01-15 18:14 G	37998420.14	37998420.26	37998420.37	0.0511	0.0178
Venus	99325-02-11 14:09 G	37998812.93	37998813.09	37998813.26	0.0502	0.0303
Venus	99325-10-06 12:28 G	37999049.90	37999050.02	37999050.16	0.0499	0.0380
Mercury	99330-03-07 22:47 G	38000663.27	38000663.45	38000663.62	0.0515	0.0165
Venus	99331-08-06 08:38 G	38001179.67	38001179.86	38001180.06	0.0526	0.0123
Mercury	99335-11-03 22:47 G	38002730.32	38002730.45	38002730.57	0.0511	0.0021
Venus	99336-10-17 09:21 G	38003078.86	38003078.89	38003078.92	0.0504	0.0497
Venus	99337-06-11 09:21 G	38003315.70	38003315.89	38003316.08	0.0500	0.0190
Mercury	99341-12-24 19:11 G	38004973.11	38004973.30	38004973.48	0.0514	0.0074
Venus	99343-04-11 05:45 G	38005445.54	38005445.74	38005445.93	0.0524	0.0087
Moon	99344-10-18 22:19 G	38006002.24	38006002.43	38006002.63	0.0529	0.0286

Earth	99344-10-19 02:23 G	38006002.40	38006002.60	38006002.80	0.0529	0.0269	*
Mercury	99347-08-23 03:21 G	38007040.52	38007040.64	38007040.76	0.0512	0.0146	
Mercury	99347-11-20 06:43 G	38007129.75	38007129.78	38007129.82	0.0510	0.0485	
Venus	99349-02-14 06:14 G	38007581.55	38007581.76	38007581.97	0.0501	0.0003	
Mercury	99353-10-12 14:52 G	38009282.98	38009283.12	38009283.27	0.0514	0.0322	
Venus	99354-12-15 01:40 G	38009711.41	38009711.57	38009711.74	0.0523	0.0296	
Venus	99355-08-09 02:38 G	38009948.51	38009948.61	38009948.71	0.0526	0.0457	
Earth	99356-10-23 21:50 G	38010390.20	38010390.41	38010390.62	0.0528	0.0195	
Moon	99356-10-24 00:43 G	38010390.33	38010390.53	38010390.74	0.0528	0.0226	*
Mercury	99359-06-11 08:09 G	38011350.74	38011350.84	38011350.94	0.0513	0.0307	
Mercury	99359-09-08 11:31 G	38011439.89	38011439.98	38011440.08	0.0510	0.0329	
Venus	99360-10-20 03:07 G	38011847.44	38011847.63	38011847.82	0.0502	0.0192	
Venus	99361-06-14 01:26 G	38012084.53	38012084.56	38012084.60	0.0499	0.0488	
Mercury	99365-10-30 01:55 G	38013683.48	38013683.58	38013683.68	0.0515	0.0432	
Venus	99366-08-19 22:33 G	38013977.39	38013977.44	38013977.49	0.0522	0.0500	
Venus	99367-04-13 22:04 G	38014214.25	38014214.42	38014214.60	0.0526	0.0247	
Mercury	99371-03-30 13:11 G	38015661.00	38015661.05	38015661.11	0.0513	0.0458	
Mercury	99371-06-27 16:47 G	38015750.08	38015750.20	38015750.32	0.0511	0.0179	
Venus	99372-06-24 23:59 G	38016113.38	38016113.50	38016113.64	0.0503	0.0384	
Venus	99373-02-16 23:16 G	38016350.31	38016350.47	38016350.64	0.0499	0.0302	
Mercury	99377-08-17 20:09 G	38017993.16	38017993.34	38017993.52	0.0515	0.0158	
Venus	99378-12-17 17:02 G	38018480.01	38018480.21	38018480.41	0.0525	0.0030	
Mercury	99383-04-15 21:50 G	38020060.28	38020060.41	38020060.54	0.0511	0.0026	
Venus	99384-10-22 20:52 G	38020616.16	38020616.37	38020616.57	0.0500	0.0115	
Earth	99386-04-20 09:07 G	38021160.70	38021160.88	38021161.05	0.0496	0.0330	
Moon	99386-04-20 11:02 G	38021160.77	38021160.96	38021161.14	0.0496	0.0324	*
Mercury	99389-06-05 16:04 G	38022302.99	38022303.17	38022303.36	0.0514	0.0088	
Venus	99390-08-22 14:09 G	38022745.90	38022746.09	38022746.28	0.0524	0.0180	
Mercury	99395-02-02 02:23 G	38024370.47	38024370.60	38024370.72	0.0512	0.0140	
Mercury	99395-05-02 05:45 G	38024459.71	38024459.74	38024459.77	0.0510	0.0491	

Venus	99396-06-27 16:19 G	38024881.98	38024882.18	38024882.39	0.0501	0.0081
Moon	99398-04-24 18:43 G	38025548.05	38025548.28	38025548.51	0.0497	0.0039
Earth	99398-04-24 21:50 G	38025548.18	38025548.41	38025548.65	0.0497	0.0070 *
Mercury	99401-03-25 12:28 G	38026612.88	38026613.02	38026613.17	0.0514	0.0325
Venus	99402-04-28 11:45 G	38027011.86	38027011.99	38027012.13	0.0523	0.0384
Venus	99402-12-21 12:28 G	38027248.88	38027249.02	38027249.16	0.0526	0.0369
Mercury	99406-11-22 06:57 G	38028680.69	38028680.79	38028680.89	0.0512	0.0301
Mercury	99407-02-19 10:19 G	38028769.84	38028769.93	38028770.03	0.0510	0.0333
Venus	99408-03-03 12:28 G	38029147.85	38029148.02	38029148.19	0.0503	0.0274
Venus	99408-10-26 11:02 G	38029384.85	38029384.96	38029385.08	0.0499	0.0410
Earth	99410-04-30 11:16 G	38029935.91	38029935.97	38029936.05	0.0497	0.0471
Moon	99410-04-30 15:07 G	38029936.06	38029936.13	38029936.22	0.0497	0.0468
Mercury	99413-04-11 23:45 G	38031013.39	38031013.49	38031013.59	0.0515	0.0432
Venus	99414-08-26 07:26 G	38031514.62	38031514.81	38031515.00	0.0525	0.0155
Mercury	99418-09-10 11:31 G	38032990.93	38032990.98	38032991.03	0.0513	0.0464
Mercury	99418-12-08 15:07 G	38033080.01	38033080.13	38033080.25	0.0511	0.0173
Venus	99419-11-07 08:23 G	38033413.78	38033413.85	38033413.93	0.0504	0.0467
Venus	99420-07-01 08:38 G	38033650.67	38033650.86	38033651.04	0.0500	0.0223
Mercury	99425-01-28 18:57 G	38035323.12	38035323.29	38035323.47	0.0515	0.0176
Venus	99426-05-01 03:07 G	38035780.44	38035780.63	38035780.83	0.0524	0.0058
Earth	99427-10-20 03:07 G	38036317.46	38036317.63	38036317.80	0.0529	0.0351
Moon	99427-10-20 06:14 G	38036317.60	38036317.76	38036317.93	0.0529	0.0362 *
Mercury	99430-09-26 20:09 G	38037390.21	38037390.34	38037390.47	0.0511	0.0022
Venus	99432-03-06 06:14 G	38037916.55	38037916.76	38037916.96	0.0501	0.0034
Mercury	99436-11-16 13:11 G	38039632.87	38039633.05	38039633.24	0.0514	0.0099
Venus	99438-01-03 21:50 G	38040046.24	38040046.41	38040046.58	0.0523	0.0274
Venus	99438-08-28 23:31 G	38040283.41	38040283.48	38040283.56	0.0527	0.0485
Moon	99439-10-24 22:47 G	38040705.22	38040705.45	38040705.68	0.0529	0.0154
Earth	99439-10-25 00:28 G	38040705.30	38040705.52	38040705.74	0.0529	0.0125 *
Mercury	99442-07-16 01:11 G	38041700.42	38041700.55	38041700.67	0.0512	0.0133

Mercury	99442-10-13 04:33 G	38041789.67	38041789.69	38041789.71	0.0510	0.0498
Venus	99443-11-10 03:07 G	38042182.43	38042182.63	38042182.83	0.0502	0.0159
Mercury	99448-09-04 09:07 G	38043942.74	38043942.88	38043943.02	0.0514	0.0345
Venus	99449-09-08 19:11 G	38044312.22	38044312.30	38044312.38	0.0522	0.0477
Venus	99450-05-03 19:40 G	38044549.15	38044549.32	38044549.49	0.0526	0.0274
Mercury	99454-05-04 05:31 G	38046010.63	38046010.73	38046010.83	0.0512	0.0299
Mercury	99454-08-01 08:52 G	38046099.78	38046099.87	38046099.97	0.0510	0.0335
Venus	99455-07-15 21:35 G	38046448.26	38046448.40	38046448.55	0.0503	0.0356
Venus	99456-03-08 20:38 G	38046685.20	38046685.36	38046685.51	0.0499	0.0330
Mercury	99460-09-21 20:52 G	38048343.27	38048343.37	38048343.48	0.0515	0.0423
Venus	99462-01-06 16:33 G	38048814.99	38048815.19	38048815.38	0.0525	0.0064
Mercury	99466-02-20 10:04 G	38050320.87	38050320.92	38050320.97	0.0513	0.0462
Mercury	99466-05-20 13:40 G	38050409.95	38050410.07	38050410.19	0.0511	0.0173
Venus	99467-11-12 17:16 G	38050951.02	38050951.22	38050951.42	0.0500	0.0140
Moon	99469-04-20 09:21 G	38051475.75	38051475.89	38051476.03	0.0497	0.0392
Earth	99469-04-20 12:14 G	38051475.87	38051476.01	38051476.16	0.0497	0.0390 *
Mercury	99472-07-10 16:33 G	38052653.01	38052653.19	38052653.37	0.0515	0.0169
Venus	99473-09-11 11:59 G	38053080.81	38053081.00	38053081.19	0.0524	0.0150
Mercury	99478-03-08 18:14 G	38054720.13	38054720.26	38054720.39	0.0512	0.0011
Venus	99479-07-18 13:55 G	38055216.87	38055217.08	38055217.29	0.0502	0.0052
Earth	99481-04-25 01:40 G	38055863.34	38055863.57	38055863.81	0.0497	0.0013
Moon	99481-04-25 05:45 G	38055863.50	38055863.74	38055863.97	0.0497	0.0022 *
Mercury	99484-04-28 11:45 G	38056962.81	38056962.99	38056963.18	0.0514	0.0088
Venus	99485-05-17 07:40 G	38057346.69	38057346.82	38057346.97	0.0522	0.0360
Venus	99486-01-09 08:23 G	38057583.72	38057583.85	38057583.98	0.0526	0.0395
Mercury	99489-12-25 23:16 G	38059030.35	38059030.47	38059030.59	0.0512	0.0143
Mercury	99490-03-25 02:38 G	38059119.58	38059119.61	38059119.65	0.0510	0.0489
Venus	99491-03-23 11:02 G	38059482.78	38059482.96	38059483.14	0.0502	0.0245
Venus	99491-11-15 09:21 G	38059719.80	38059719.89	38059719.99	0.0499	0.0438
Moon	99493-04-29 09:35 G	38060250.76	38060250.90	38060251.04	0.0497	0.0400

Earth	99493-04-29 13:11 G	38060250.93	38060251.05	38060251.20	0.0497	0.0407	*
Mercury	99496-02-15 05:59 G	38061272.62	38061272.75	38061272.88	0.0513	0.0361	
Venus	99497-09-14 02:09 G	38061849.40	38061849.59	38061849.78	0.0526	0.0177	
Mercury	99501-10-15 04:04 G	38063340.57	38063340.67	38063340.77	0.0513	0.0298	
Mercury	99502-01-12 07:40 G	38063429.73	38063429.82	38063429.91	0.0511	0.0336	
Venus	99502-11-27 07:26 G	38063748.71	38063748.81	38063748.91	0.0504	0.0437	
Venus	99503-07-22 06:43 G	38063985.61	38063985.78	38063985.97	0.0500	0.0253	
Mercury	99508-03-04 17:02 G	38065673.10	38065673.21	38065673.33	0.0515	0.0395	
Venus	99509-05-20 22:47 G	38066115.25	38066115.45	38066115.65	0.0525	0.0036	
Moon	99510-10-19 23:45 G	38066632.37	38066632.49	38066632.62	0.0529	0.0440	
Earth	99510-10-20 02:09 G	38066632.46	38066632.59	38066632.72	0.0529	0.0434	*
Mercury	99513-08-03 08:23 G	38067650.80	38067650.85	38067650.90	0.0513	0.0466	
Mercury	99513-10-31 11:59 G	38067739.88	38067740.00	38067740.12	0.0511	0.0170	
Venus	99515-03-27 01:55 G	38068251.37	38068251.58	38068251.78	0.0501	0.0058	
Mercury	99519-12-22 13:26 G	38069982.88	38069983.06	38069983.24	0.0515	0.0153	
Venus	99521-01-23 20:09 G	38070381.16	38070381.34	38070381.52	0.0523	0.0242	
Venus	99521-09-17 21:35 G	38070618.37	38070618.40	38070618.44	0.0527	0.0516	
Earth	99522-10-25 00:14 G	38071020.28	38071020.51	38071020.74	0.0529	0.0041	
Moon	99522-10-25 00:14 G	38071020.29	38071020.51	38071020.73	0.0529	0.0074	*
Mercury	99525-08-19 16:33 G	38072050.07	38072050.19	38072050.32	0.0511	0.0013	
Venus	99526-11-29 21:35 G	38072517.21	38072517.40	38072517.61	0.0502	0.0138	
Mercury	99531-10-10 08:52 G	38074292.69	38074292.87	38074293.06	0.0514	0.0099	
Venus	99532-09-28 16:19 G	38074647.08	38074647.18	38074647.28	0.0522	0.0450	
Venus	99533-05-23 16:04 G	38074884.01	38074884.17	38074884.34	0.0526	0.0302	
Earth	99534-10-29 18:57 G	38075408.23	38075408.29	38075408.36	0.0529	0.0503	
Moon	99534-10-29 20:52 G	38075408.31	38075408.37	38075408.44	0.0529	0.0507	*
Mars	99536-03-30 21:21 G	38075926.24	38075926.39	38075926.54	0.0522	0.0432	
Mercury	99537-06-07 21:07 G	38076360.26	38076360.38	38076360.50	0.0512	0.0157	
Mercury	99537-09-05 00:28 G	38076449.48	38076449.52	38076449.57	0.0510	0.0475	
Venus	99538-08-04 17:16 G	38076783.07	38076783.22	38076783.38	0.0503	0.0333	

Venus	99539-03-29 16:47 G	38077020.05	38077020.20	38077020.34	0.0500	0.0356
Mercury	99543-07-29 04:04 G	38078602.54	38078602.67	38078602.81	0.0513	0.0355
Venus	99545-01-26 11:16 G	38079149.77	38079149.97	38079150.17	0.0525	0.0087
Mercury	99549-03-27 01:55 G	38080670.48	38080670.58	38080670.68	0.0513	0.0313
Mercury	99549-06-24 05:31 G	38080759.63	38080759.73	38080759.83	0.0511	0.0322
Venus	99550-12-02 14:38 G	38081285.91	38081286.11	38081286.30	0.0500	0.0168
Earth	99552-04-20 13:40 G	38081790.99	38081791.07	38081791.17	0.0496	0.0454
Moon	99552-04-20 17:45 G	38081791.15	38081791.24	38081791.32	0.0496	0.0462 *
Mars	99554-03-31 16:33 G	38082500.99	38082501.19	38082501.40	0.0503	0.0330
Mercury	99555-08-15 13:40 G	38083002.94	38083003.07	38083003.20	0.0515	0.0374
Venus	99556-10-01 05:02 G	38083415.52	38083415.71	38083415.90	0.0524	0.0133
Mercury	99561-01-13 06:43 G	38084980.74	38084980.78	38084980.83	0.0513	0.0470
Mercury	99561-04-12 10:33 G	38085069.82	38085069.94	38085070.05	0.0511	0.0169
Venus	99562-08-07 11:31 G	38085551.77	38085551.98	38085552.19	0.0501	0.0025
Moon	99564-04-24 22:19 G	38086178.20	38086178.43	38086178.67	0.0496	0.0094
Earth	99564-04-25 02:09 G	38086178.36	38086178.59	38086178.83	0.0496	0.0061 *
Mercury	99567-06-03 09:21 G	38087312.71	38087312.89	38087313.07	0.0514	0.0123
Venus	99568-06-06 02:09 G	38087681.44	38087681.59	38087681.74	0.0523	0.0340
Venus	99569-01-29 03:07 G	38087918.51	38087918.63	38087918.75	0.0527	0.0418
Mercury	99573-01-29 14:52 G	38089379.99	38089380.12	38089380.24	0.0511	0.0013
Venus	99574-04-12 05:31 G	38089817.54	38089817.73	38089817.91	0.0502	0.0223
Venus	99574-12-05 03:35 G	38090054.58	38090054.65	38090054.74	0.0499	0.0461
Earth	99576-04-29 12:28 G	38090565.84	38090566.02	38090566.19	0.0497	0.0329
Moon	99576-04-29 15:21 G	38090565.97	38090566.14	38090566.32	0.0497	0.0327 *
Mercury	99579-03-22 05:31 G	38091622.55	38091622.73	38091622.91	0.0514	0.0119
Venus	99580-10-03 23:45 G	38092184.31	38092184.49	38092184.67	0.0526	0.0207
Mercury	99584-11-17 19:26 G	38093690.19	38093690.31	38093690.43	0.0512	0.0162
Mercury	99585-02-14 22:47 G	38093779.41	38093779.45	38093779.50	0.0510	0.0468
Venus	99585-12-16 00:43 G	38094083.42	38094083.53	38094083.65	0.0504	0.0418
Venus	99586-08-10 00:28 G	38094320.35	38094320.52	38094320.69	0.0500	0.0273

Mercury	99591-01-08 01:11 G	38095932.42	38095932.55	38095932.68	0.0513	0.0368
Venus	99592-06-08 19:11 G	38096450.10	38096450.30	38096450.50	0.0524	0.0008
Mercury	99596-09-05 23:45 G	38098000.40	38098000.49	38098000.59	0.0513	0.0329
Mercury	99596-12-04 03:21 G	38098089.54	38098089.64	38098089.74	0.0511	0.0306
Venus	99598-04-14 20:52 G	38098586.17	38098586.37	38098586.58	0.0501	0.0080
Mercury	99603-01-25 11:45 G	38100332.86	38100332.99	38100333.12	0.0515	0.0378
Venus	99604-02-12 14:38 G	38100715.93	38100716.11	38100716.29	0.0523	0.0221
Earth	99605-10-23 18:14 G	38101335.03	38101335.26	38101335.49	0.0529	0.0068
Moon	99605-10-23 19:26 G	38101335.07	38101335.31	38101335.55	0.0529	0.0033 *
Mercury	99608-06-25 04:33 G	38102310.66	38102310.69	38102310.73	0.0513	0.0487
Mercury	99608-09-22 08:23 G	38102399.73	38102399.85	38102399.97	0.0511	0.0152
Venus	99609-12-18 18:14 G	38102852.06	38102852.26	38102852.47	0.0502	0.0112
Mercury	99614-11-13 05:59 G	38104642.57	38104642.75	38104642.93	0.0514	0.0105
Venus	99615-10-18 08:52 G	38104981.76	38104981.87	38104981.98	0.0522	0.0434
Venus	99616-06-11 09:07 G	38105218.72	38105218.88	38105219.04	0.0526	0.0320
Moon	99617-10-28 11:02 G	38105722.82	38105722.96	38105723.11	0.0529	0.0408
Earth	99617-10-28 13:26 G	38105722.92	38105723.06	38105723.22	0.0529	0.0400 *
Mercury	99620-07-11 13:11 G	38106709.92	38106710.05	38106710.18	0.0512	0.0007
Venus	99621-08-23 14:38 G	38107117.94	38107118.11	38107118.27	0.0503	0.0305
Venus	99622-04-17 13:26 G	38107354.94	38107355.06	38107355.20	0.0499	0.0383
Mercury	99626-09-01 01:26 G	38108952.39	38108952.56	38108952.75	0.0514	0.0147
Venus	99628-02-15 05:16 G	38109484.53	38109484.72	38109484.92	0.0525	0.0108
Mercury	99632-04-29 17:31 G	38111020.11	38111020.23	38111020.35	0.0512	0.0171
Mercury	99632-07-27 20:52 G	38111109.32	38111109.37	38111109.43	0.0510	0.0460
Venus	99633-04-28 07:55 G	38111383.83	38111383.83	38111383.84	0.0504	0.0504
Venus	99633-12-21 08:23 G	38111620.66	38111620.85	38111621.04	0.0500	0.0189
Mercury	99638-06-19 21:35 G	38113262.28	38113262.40	38113262.52	0.0513	0.0389
Venus	99639-10-21 02:38 G	38113750.41	38113750.61	38113750.81	0.0524	0.0101
Mercury	99644-02-16 22:04 G	38115330.33	38115330.42	38115330.52	0.0513	0.0333
Mercury	99644-05-16 01:40 G	38115419.47	38115419.57	38115419.67	0.0510	0.0300

Venus	99645-08-26 04:33 G	38115886.48	38115886.69	38115886.89	0.0501	0.0011
Earth	99647-04-24 23:45 G	38116493.26	38116493.49	38116493.72	0.0497	0.0142
Moon	99647-04-25 03:07 G	38116493.41	38116493.63	38116493.85	0.0497	0.0175 *
Mercury	99650-07-07 08:38 G	38117662.74	38117662.86	38117663.00	0.0515	0.0366
Venus	99651-06-25 23:02 G	38118016.30	38118016.46	38118016.62	0.0522	0.0312
Venus	99652-02-17 23:31 G	38118253.38	38118253.48	38118253.59	0.0526	0.0446
Mercury	99655-12-06 02:23 G	38119640.58	38119640.60	38119640.63	0.0513	0.0501
Mercury	99656-03-04 06:14 G	38119729.64	38119729.76	38119729.88	0.0511	0.0137
Venus	99657-05-01 00:14 G	38120152.32	38120152.51	38120152.70	0.0503	0.0201
Venus	99657-12-23 23:02 G	38120389.42	38120389.46	38120389.51	0.0499	0.0485
Moon	99659-04-29 10:47 G	38120880.74	38120880.95	38120881.16	0.0497	0.0251
Earth	99659-04-29 13:11 G	38120880.85	38120881.05	38120881.25	0.0497	0.0257 *
Mercury	99662-04-25 04:04 G	38121972.49	38121972.67	38121972.85	0.0514	0.0108
Venus	99663-02-28 18:57 G	38122282.28	38122282.29	38122282.31	0.0521	0.0518
Venus	99663-10-23 18:14 G	38122519.08	38122519.26	38122519.44	0.0525	0.0231
Mercury	99667-12-22 11:02 G	38124039.83	38124039.96	38124040.08	0.0512	0.0021
Venus	99669-01-03 21:07 G	38124418.25	38124418.38	38124418.51	0.0504	0.0394
Venus	99669-08-28 21:07 G	38124655.21	38124655.38	38124655.54	0.0500	0.0299
Mercury	99674-02-10 22:33 G	38126282.26	38126282.44	38126282.62	0.0513	0.0159
Venus	99675-06-28 12:14 G	38126784.81	38126785.01	38126785.21	0.0524	0.0012
Mercury	99679-10-10 15:50 G	38128350.04	38128350.16	38128350.28	0.0513	0.0176
Mercury	99680-01-07 19:26 G	38128439.25	38128439.31	38128439.36	0.0511	0.0456
Venus	99681-05-03 17:59 G	38128921.05	38128921.25	38128921.45	0.0501	0.0109
Mercury	99685-11-29 17:59 G	38130592.14	38130592.25	38130592.37	0.0513	0.0409
Venus	99687-03-03 08:52 G	38131050.69	38131050.87	38131051.06	0.0523	0.0199
Moon	99688-10-22 12:57 G	38131649.82	38131650.04	38131650.26	0.0529	0.0129
Earth	99688-10-22 14:52 G	38131649.90	38131650.12	38131650.34	0.0529	0.0163 *
Mars	99690-06-23 23:02 G	38132259.20	38132259.46	38132259.73	0.0522	0.0117
Mercury	99691-07-29 20:09 G	38132660.25	38132660.34	38132660.44	0.0513	0.0342
Mercury	99691-10-26 23:45 G	38132749.39	38132749.49	38132749.59	0.0511	0.0292

Venus	99693-01-06 12:14 G	38133186.81	38133187.01	38133187.22	0.0502	0.0090
Mercury	99697-12-17 05:31 G	38134992.59	38134992.73	38134992.87	0.0515	0.0348
Venus	99698-11-06 06:43 G	38135316.66	38135316.78	38135316.91	0.0522	0.0404
Venus	99699-07-01 07:26 G	38135553.67	38135553.81	38135553.96	0.0526	0.0354
Earth	99700-10-28 14:09 G	38136037.91	38136038.09	38136038.28	0.0529	0.0318
Moon	99700-10-28 17:45 G	38136038.05	38136038.24	38136038.42	0.0529	0.0321 *
Mercury	99703-05-19 00:57 G	38136970.52	38136970.54	38136970.56	0.0513	0.0503
Mercury	99703-08-16 04:33 G	38137059.57	38137059.69	38137059.81	0.0511	0.0133
Venus	99704-09-12 07:55 G	38137452.66	38137452.83	38137453.00	0.0503	0.0285
Venus	99705-05-07 06:43 G	38137689.67	38137689.78	38137689.91	0.0499	0.0405
Mars	99708-06-24 21:07 G	38138834.11	38138834.38	38138834.65	0.0504	0.0022
Mercury	99709-10-06 01:26 G	38139302.37	38139302.56	38139302.74	0.0514	0.0100
Venus	99711-03-07 02:52 G	38139819.43	38139819.62	38139819.82	0.0525	0.0139
Mercury	99715-06-04 09:07 G	38141369.75	38141369.88	38141370.00	0.0512	0.0034
Venus	99716-05-18 03:07 G	38141718.58	38141718.63	38141718.69	0.0504	0.0482
Venus	99717-01-10 03:50 G	38141955.47	38141955.66	38141955.85	0.0500	0.0214
Mercury	99721-07-24 20:52 G	38143612.19	38143612.37	38143612.54	0.0514	0.0154
Venus	99722-11-09 22:19 G	38144085.24	38144085.43	38144085.63	0.0524	0.0076
Mercury	99727-03-23 13:55 G	38145679.96	38145680.08	38145680.19	0.0513	0.0189
Mercury	99727-06-20 17:16 G	38145769.17	38145769.22	38145769.29	0.0511	0.0445
Venus	99728-09-15 01:26 G	38146221.35	38146221.56	38146221.77	0.0501	0.0024
Moon	99730-04-25 00:14 G	38146808.30	38146808.51	38146808.73	0.0497	0.0235
Earth	99730-04-25 02:52 G	38146808.40	38146808.62	38146808.83	0.0497	0.0203 *
Mercury	99733-05-12 15:35 G	38147922.04	38147922.15	38147922.26	0.0513	0.0415
Venus	99734-07-15 17:16 G	38148351.05	38148351.22	38148351.38	0.0522	0.0291
Venus	99735-03-09 17:31 G	38148588.15	38148588.23	38148588.33	0.0526	0.0469
Mercury	99739-01-09 18:43 G	38149990.19	38149990.28	38149990.37	0.0513	0.0346
Mercury	99739-04-08 22:19 G	38150079.33	38150079.43	38150079.53	0.0511	0.0290
Venus	99740-05-20 22:04 G	38150487.22	38150487.42	38150487.61	0.0503	0.0170
Earth	99742-04-29 15:35 G	38151195.93	38151196.15	38151196.37	0.0497	0.0192

Moon	99742-04-29 16:04 G	38151195.96	38151196.17	38151196.38	0.0497	0.0196	*
Mercury	99745-05-30 02:23 G	38152322.46	38152322.60	38152322.75	0.0514	0.0335	
Venus	99746-03-20 14:23 G	38152617.04	38152617.10	38152617.16	0.0521	0.0495	
Venus	99746-11-12 13:55 G	38152853.91	38152854.08	38152854.25	0.0526	0.0257	
Mercury	99750-10-28 23:16 G	38154300.46	38154300.47	38154300.48	0.0513	0.0510	
Mercury	99751-01-26 02:52 G	38154389.50	38154389.62	38154389.74	0.0511	0.0127	
Venus	99752-01-24 16:04 G	38154753.03	38154753.17	38154753.31	0.0503	0.0370	
Venus	99752-09-17 15:21 G	38154989.99	38154990.14	38154990.31	0.0500	0.0324	
Mercury	99757-03-17 22:19 G	38156632.25	38156632.43	38156632.62	0.0514	0.0088	
Venus	99758-07-18 11:31 G	38157119.78	38157119.98	38157120.18	0.0525	0.0048	
Mercury	99762-11-14 07:40 G	38158699.69	38158699.82	38158699.94	0.0512	0.0031	
Venus	99764-05-23 12:14 G	38159255.81	38159256.01	38159256.21	0.0501	0.0133	
Mercury	99769-01-03 18:28 G	38160942.09	38160942.27	38160942.45	0.0514	0.0157	
Venus	99770-03-23 08:09 G	38161385.65	38161385.84	38161386.03	0.0523	0.0165	
Earth	99771-10-23 16:19 G	38161964.98	38161965.18	38161965.38	0.0529	0.0241	
Moon	99771-10-23 19:11 G	38161965.09	38161965.30	38161965.52	0.0529	0.0206	*
Mercury	99774-09-02 12:14 G	38163009.89	38163010.01	38163010.12	0.0512	0.0195	
Mercury	99774-11-30 15:35 G	38163099.09	38163099.15	38163099.22	0.0510	0.0437	
Venus	99776-01-27 08:52 G	38163521.66	38163521.87	38163522.07	0.0502	0.0063	
Mercury	99780-10-22 14:09 G	38165251.97	38165252.09	38165252.20	0.0513	0.0405	
Venus	99781-11-26 04:19 G	38165651.55	38165651.68	38165651.82	0.0522	0.0375	
Venus	99782-07-21 04:33 G	38165888.56	38165888.69	38165888.83	0.0526	0.0383	
Moon	99783-10-28 08:52 G	38166352.67	38166352.87	38166353.08	0.0529	0.0223	
Earth	99783-10-28 12:28 G	38166352.82	38166353.02	38166353.24	0.0529	0.0226	*
Mercury	99786-06-21 16:47 G	38167320.11	38167320.20	38167320.30	0.0513	0.0353	
Mercury	99786-09-18 20:23 G	38167409.25	38167409.35	38167409.46	0.0511	0.0283	
Venus	99787-10-02 05:45 G	38167787.56	38167787.74	38167787.92	0.0503	0.0256	
Venus	99788-05-26 05:02 G	38168024.61	38168024.71	38168024.81	0.0500	0.0435	
Mercury	99792-11-09 00:14 G	38169652.38	38169652.51	38169652.66	0.0514	0.0335	
Venus	99794-03-25 22:47 G	38170154.26	38170154.45	38170154.63	0.0525	0.0166	

Mercury	99798-04-09 21:35 G	38171630.39	38171630.40	38171630.42	0.0514	0.0510
Mercury	99798-07-08 01:26 G	38171719.44	38171719.56	38171719.68	0.0512	0.0129
Venus	99799-06-07 01:55 G	38172053.50	38172053.58	38172053.68	0.0504	0.0450
Venus	99800-01-30 02:38 G	38172290.44	38172290.61	38172290.80	0.0500	0.0249
Mercury	99804-08-28 20:09 G	38173962.15	38173962.34	38173962.52	0.0514	0.0086
Venus	99805-11-29 19:26 G	38174420.11	38174420.31	38174420.51	0.0524	0.0046
Mercury	99810-04-27 05:59 G	38176029.63	38176029.75	38176029.88	0.0512	0.0033
Venus	99811-10-05 21:21 G	38176556.19	38176556.39	38176556.60	0.0501	0.0052
Earth	99813-04-25 02:23 G	38177123.41	38177123.60	38177123.80	0.0497	0.0280
Moon	99813-04-25 03:21 G	38177123.47	38177123.64	38177123.82	0.0497	0.0308 *
Mercury	99816-06-16 15:50 G	38178271.98	38178272.16	38178272.34	0.0514	0.0163
Venus	99817-08-04 17:16 G	38178686.05	38178686.22	38178686.40	0.0523	0.0255
Venus	99818-03-29 18:43 G	38178923.23	38178923.28	38178923.33	0.0527	0.0509
Mercury	99822-02-13 11:02 G	38180339.84	38180339.96	38180340.07	0.0512	0.0188
Mercury	99822-05-13 14:23 G	38180429.04	38180429.10	38180429.16	0.0510	0.0442
Venus	99823-06-10 17:59 G	38180822.06	38180822.25	38180822.46	0.0502	0.0144
Earth	99825-04-29 16:04 G	38181510.94	38181511.17	38181511.40	0.0497	0.0118
Moon	99825-04-29 17:16 G	38181510.99	38181511.22	38181511.46	0.0497	0.0128 *
Mercury	99828-04-04 11:59 G	38182581.89	38182582.00	38182582.12	0.0513	0.0404
Venus	99829-04-09 14:52 G	38182952.04	38182952.12	38182952.22	0.0522	0.0460
Venus	99829-12-02 14:38 G	38183188.95	38183189.11	38183189.28	0.0526	0.0297
Mercury	99833-12-02 15:21 G	38184650.05	38184650.14	38184650.24	0.0513	0.0352
Mercury	99834-03-01 18:57 G	38184739.19	38184739.29	38184739.40	0.0511	0.0283
Venus	99835-02-13 13:55 G	38185087.93	38185088.08	38185088.24	0.0503	0.0341
Venus	99835-10-08 13:40 G	38185324.93	38185325.07	38185325.22	0.0500	0.0355
Mercury	99840-04-21 23:16 G	38186982.34	38186982.47	38186982.61	0.0515	0.0352
Venus	99841-08-07 10:33 G	38187454.75	38187454.94	38187455.14	0.0525	0.0083
Mars	99844-09-18 13:40 G	38188592.84	38188593.07	38188593.31	0.0522	0.0262
Mercury	99845-09-20 20:09 G	38188960.33	38188960.34	38188960.35	0.0513	0.0510
Mercury	99845-12-18 23:59 G	38189049.38	38189049.50	38189049.62	0.0511	0.0128

Venus	99847-06-13 11:45 G	38189590.79	38189590.99	38189591.18	0.0501	0.0166
Mercury	99852-02-08 18:28 G	38191292.09	38191292.27	38191292.46	0.0514	0.0095
Venus	99853-04-12 05:45 G	38191720.55	38191720.74	38191720.93	0.0523	0.0134
Moon	99854-10-23 13:26 G	38192279.87	38192280.06	38192280.25	0.0529	0.0292
Earth	99854-10-23 16:47 G	38192280.03	38192280.20	38192280.39	0.0529	0.0324 *
Mercury	99857-10-07 04:47 G	38193359.58	38193359.70	38193359.83	0.0512	0.0028
Venus	99859-02-16 09:07 G	38193856.67	38193856.88	38193857.09	0.0502	0.0026
Mars	99862-09-19 16:33 G	38195168.01	38195168.19	38195168.39	0.0504	0.0365
Mercury	99863-11-27 14:23 G	38195601.92	38195602.10	38195602.28	0.0513	0.0153
Venus	99864-12-16 03:07 G	38195986.48	38195986.63	38195986.78	0.0522	0.0342
Venus	99865-08-10 03:21 G	38196223.53	38196223.64	38196223.77	0.0526	0.0420
Earth	99866-10-28 16:47 G	38196667.98	38196668.20	38196668.42	0.0529	0.0157
Moon	99866-10-28 20:23 G	38196668.13	38196668.35	38196668.56	0.0529	0.0149 *
Mercury	99869-07-26 09:35 G	38197669.78	38197669.90	38197670.02	0.0512	0.0185
Mercury	99869-10-23 13:11 G	38197758.99	38197759.05	38197759.11	0.0510	0.0446
Venus	99870-10-22 03:50 G	38198122.48	38198122.66	38198122.85	0.0503	0.0225
Venus	99871-06-16 02:23 G	38198359.54	38198359.60	38198359.68	0.0499	0.0465
Mercury	99875-09-15 09:50 G	38199911.80	38199911.91	38199912.03	0.0514	0.0403
Venus	99877-04-15 00:43 G	38200489.35	38200489.53	38200489.72	0.0526	0.0209
Mercury	99881-05-14 14:38 G	38201980.01	38201980.11	38201980.20	0.0512	0.0338
Mercury	99881-08-11 18:14 G	38202069.15	38202069.26	38202069.36	0.0510	0.0294
Venus	99882-06-27 00:28 G	38202388.41	38202388.52	38202388.64	0.0504	0.0419
Venus	99883-02-19 00:14 G	38202625.34	38202625.51	38202625.69	0.0500	0.0278
Mercury	99887-10-02 21:50 G	38204312.27	38204312.41	38204312.54	0.0515	0.0360
Venus	99888-12-18 21:50 G	38204755.21	38204755.41	38204755.61	0.0524	0.0005
Mercury	99893-03-02 19:11 G	38206290.28	38206290.30	38206290.32	0.0513	0.0501
Mercury	99893-05-30 22:47 G	38206379.33	38206379.45	38206379.57	0.0511	0.0134
Venus	99894-10-24 21:21 G	38206891.18	38206891.39	38206891.59	0.0501	0.0085
Earth	99896-04-24 10:19 G	38207438.76	38207438.93	38207439.12	0.0497	0.0325
Moon	99896-04-24 11:31 G	38207438.81	38207438.98	38207439.16	0.0497	0.0348 *

Mercury	99899-07-21 17:45 G	38208622.06	38208622.24	38208622.42	0.0514	0.0115
Venus	99900-08-24 18:28 G	38209021.09	38209021.27	38209021.46	0.0523	0.0216
Mercury	99905-03-20 03:35 G	38210689.53	38210689.65	38210689.78	0.0512	0.0024
Venus	99906-06-30 18:43 G	38211157.08	38211157.28	38211157.49	0.0502	0.0108
Moon	99908-04-29 23:16 G	38211826.25	38211826.47	38211826.70	0.0497	0.0095
Earth	99908-04-30 02:09 G	38211826.35	38211826.59	38211826.82	0.0497	0.0081 *
Mercury	99911-05-10 13:11 G	38212931.87	38212932.05	38212932.23	0.0513	0.0137
Venus	99912-04-29 14:38 G	38213287.00	38213287.11	38213287.22	0.0521	0.0425
Venus	99912-12-22 14:09 G	38213523.94	38213524.09	38213524.24	0.0526	0.0333
Mercury	99917-01-06 08:38 G	38214999.74	38214999.86	38214999.98	0.0513	0.0176
Mercury	99917-04-05 11:59 G	38215088.95	38215089.00	38215089.06	0.0511	0.0456
Venus	99918-03-05 15:50 G	38215422.99	38215423.16	38215423.32	0.0504	0.0302
Venus	99918-10-28 15:21 G	38215660.02	38215660.14	38215660.27	0.0500	0.0395
Earth	99920-05-04 16:04 G	38216214.11	38216214.17	38216214.23	0.0497	0.0480
Mercury	99923-02-26 09:07 G	38217241.76	38217241.88	38217242.01	0.0513	0.0381
Venus	99924-08-27 11:02 G	38217789.77	38217789.96	38217790.16	0.0525	0.0121
Mercury	99928-10-25 13:26 G	38219309.96	38219310.06	38219310.16	0.0513	0.0331
Mercury	99929-01-22 17:02 G	38219399.11	38219399.21	38219399.31	0.0510	0.0301
Venus	99929-11-08 10:47 G	38219688.93	38219688.95	38219688.98	0.0504	0.0499
Venus	99930-07-03 11:16 G	38219925.78	38219925.97	38219926.16	0.0500	0.0200
Mercury	99935-03-15 19:55 G	38221642.20	38221642.33	38221642.46	0.0515	0.0367
Venus	99936-05-02 08:23 G	38222055.66	38222055.85	38222056.05	0.0524	0.0092
Earth	99937-10-24 05:16 G	38222595.56	38222595.72	38222595.89	0.0529	0.0359
Moon	99937-10-24 08:52 G	38222595.70	38222595.87	38222596.05	0.0529	0.0327 *
Mercury	99940-08-13 18:28 G	38223620.23	38223620.27	38223620.31	0.0513	0.0483
Mercury	99940-11-10 22:04 G	38223709.30	38223709.42	38223709.54	0.0511	0.0151
Venus	99942-03-08 08:52 G	38224191.66	38224191.87	38224192.07	0.0501	0.0013
Mercury	99947-01-01 16:19 G	38225952.00	38225952.18	38225952.37	0.0515	0.0128
Venus	99948-01-06 06:28 G	38226321.61	38226321.77	38226321.93	0.0523	0.0300
Venus	99948-08-30 07:11 G	38226558.72	38226558.80	38226558.90	0.0527	0.0466

Moon	99949-10-29 01:11 G	38226983.32	38226983.55	38226983.78	0.0529	0.0105
Earth	99949-10-29 04:04 G	38226983.44	38226983.67	38226983.89	0.0529	0.0119 *
Mercury	99952-08-30 02:52 G	38228019.49	38228019.62	38228019.74	0.0511	0.0019
Venus	99953-11-11 05:16 G	38228457.53	38228457.72	38228457.91	0.0502	0.0188
Mercury	99958-10-20 12:43 G	38230261.85	38230262.03	38230262.21	0.0514	0.0113
Venus	99959-09-11 04:04 G	38230587.62	38230587.67	38230587.72	0.0521	0.0505
Venus	99960-05-05 03:21 G	38230824.47	38230824.64	38230824.82	0.0525	0.0252
Mercury	99964-06-18 07:40 G	38232329.70	38232329.82	38232329.94	0.0512	0.0165
Mercury	99964-09-15 11:02 G	38232418.92	38232418.96	38232419.01	0.0510	0.0465
Venus	99965-07-17 02:09 G	38232723.46	38232723.59	38232723.73	0.0504	0.0382
Venus	99966-03-11 02:09 G	38232960.44	38232960.59	38232960.76	0.0500	0.0318
Mercury	99970-08-08 08:23 G	38234571.72	38234571.85	38234571.98	0.0513	0.0360
Venus	99972-01-08 22:47 G	38235090.25	38235090.45	38235090.65	0.0524	0.0036
Mercury	99976-04-06 12:28 G	38236639.92	38236640.02	38236640.12	0.0513	0.0320
Mercury	99976-07-04 16:04 G	38236729.07	38236729.17	38236729.27	0.0511	0.0314
Venus	99977-11-14 00:14 G	38237226.31	38237226.51	38237226.71	0.0501	0.0128
Moon	99979-04-25 19:26 G	38237754.17	38237754.31	38237754.47	0.0497	0.0381
Earth	99979-04-25 22:19 G	38237754.27	38237754.43	38237754.60	0.0497	0.0356 *
Mars	99981-03-11 17:31 G	38238440.18	38238440.23	38238440.30	0.0503	0.0488
Mercury	99982-08-25 19:40 G	38238972.20	38238972.32	38238972.44	0.0515	0.0395
Venus	99983-09-13 20:09 G	38239356.15	38239356.34	38239356.53	0.0523	0.0175
Mercury	99988-01-24 17:31 G	38240950.18	38240950.23	38240950.28	0.0513	0.0473
Mercury	99988-04-22 21:07 G	38241039.26	38241039.38	38241039.50	0.0511	0.0162
Venus	99989-07-19 20:09 G	38241492.14	38241492.34	38241492.55	0.0502	0.0071
Earth	99991-04-30 08:09 G	38242141.60	38242141.84	38242142.07	0.0497	0.0029
Moon	99991-04-30 11:45 G	38242141.75	38242141.99	38242142.23	0.0497	0.0048 *
Mercury	99994-06-13 14:52 G	38243281.94	38243282.12	38243282.30	0.0515	0.0138
Venus	99995-05-19 17:31 G	38243622.10	38243622.23	38243622.36	0.0523	0.0385
Venus	99996-01-11 18:14 G	38243859.13	38243859.26	38243859.40	0.0527	0.0381
Mercury	100000-02-10 02:09 G	38245349.47	38245349.59	38245349.72	0.0511	0.0023

101ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 101st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	100001-03-24 17:31	G	38245758.05	38245758.23	38245758.41	0.0503	0.0264	
Venus	100001-11-16 16:04	G	38245995.07	38245995.17	38245995.28	0.0499	0.0430	
Moon	100003-05-04 18:14	G	38246529.19	38246529.26	38246529.36	0.0497	0.0459	
Earth	100003-05-04 22:19	G	38246529.32	38246529.43	38246529.56	0.0497	0.0428	*
Mercury	100006-04-01 11:31	G	38247591.79	38247591.98	38247592.16	0.0514	0.0099	
Venus	100007-09-16 15:21	G	38248124.96	38248125.14	38248125.34	0.0525	0.0169	
Mercury	100011-11-29 06:57	G	38249659.67	38249659.79	38249659.91	0.0512	0.0147	
Mercury	100012-02-26 10:19	G	38249748.90	38249748.93	38249748.97	0.0510	0.0481	
Venus	100012-11-27 13:26	G	38250023.98	38250024.06	38250024.15	0.0504	0.0460	
Venus	100013-07-22 13:40	G	38250260.89	38250261.07	38250261.25	0.0500	0.0241	
Mercury	100018-01-18 07:55	G	38251901.69	38251901.83	38251901.97	0.0514	0.0336	
Venus	100019-05-22 12:28	G	38252390.82	38252391.02	38252391.22	0.0524	0.0046	
Moon	100020-10-23 12:14	G	38252910.85	38252911.01	38252911.18	0.0529	0.0371	
Earth	100020-10-23 15:21	G	38252911.00	38252911.14	38252911.29	0.0529	0.0401	*
Mercury	100023-09-17 11:45	G	38253969.89	38253969.99	38253970.09	0.0512	0.0304	
Mercury	100023-12-15 15:21	G	38254059.04	38254059.14	38254059.24	0.0510	0.0328	
Venus	100025-03-27 11:16	G	38254526.77	38254526.97	38254527.18	0.0501	0.0050	
Mercury	100030-02-04 18:57	G	38256302.19	38256302.29	38256302.40	0.0515	0.0419	
Venus	100031-01-25 08:38	G	38256656.69	38256656.86	38256657.03	0.0523	0.0258	

Venus	100031-09-19 09:07 G	38256893.84	38256893.88	38256893.94	0.0526	0.0508
Earth	100032-10-28 11:31 G	38257298.76	38257298.98	38257299.21	0.0529	0.0064
Moon	100032-10-28 13:11 G	38257298.83	38257299.05	38257299.27	0.0529	0.0051 *
Mercury	100035-07-06 16:33 G	38258280.14	38258280.19	38258280.25	0.0513	0.0460
Mercury	100035-10-03 20:23 G	38258369.23	38258369.35	38258369.46	0.0511	0.0176
Venus	100036-11-30 08:52 G	38258792.67	38258792.87	38258793.07	0.0502	0.0145
Mercury	100041-11-23 14:52 G	38260611.95	38260612.12	38260612.30	0.0514	0.0173
Venus	100042-09-30 06:14 G	38260922.67	38260922.76	38260922.85	0.0521	0.0465
Venus	100043-05-25 05:45 G	38261159.58	38261159.74	38261159.91	0.0526	0.0297
Moon	100044-11-02 12:14 G	38261686.96	38261687.01	38261687.07	0.0529	0.0514
Mercury	100047-07-23 01:26 G	38262679.43	38262679.56	38262679.68	0.0511	0.0027
Venus	100048-08-05 05:16 G	38263058.57	38263058.72	38263058.87	0.0503	0.0342
Venus	100049-03-30 04:19 G	38263295.54	38263295.68	38263295.83	0.0499	0.0356
Mercury	100053-09-11 10:04 G	38264921.73	38264921.92	38264922.10	0.0514	0.0088
Venus	100055-01-28 02:38 G	38265425.41	38265425.61	38265425.81	0.0525	0.0081
Mercury	100059-05-11 06:28 G	38266989.65	38266989.77	38266989.90	0.0512	0.0124
Mercury	100059-08-08 09:50 G	38267078.90	38267078.91	38267078.93	0.0510	0.0503
Venus	100060-12-03 02:23 G	38267561.41	38267561.60	38267561.80	0.0500	0.0167
Earth	100062-04-25 05:59 G	38268069.62	38268069.75	38268069.90	0.0496	0.0400
Moon	100062-04-25 09:50 G	38268069.79	38268069.91	38268070.04	0.0496	0.0420 *
Mercury	100065-06-30 06:43 G	38269231.63	38269231.78	38269231.92	0.0514	0.0323
Venus	100066-10-03 00:28 G	38269691.32	38269691.52	38269691.71	0.0524	0.0131
Mercury	100071-02-27 11:16 G	38271299.86	38271299.97	38271300.07	0.0512	0.0284
Mercury	100071-05-27 14:38 G	38271389.02	38271389.11	38271389.21	0.0510	0.0346
Venus	100072-08-07 23:16 G	38271827.27	38271827.47	38271827.68	0.0501	0.0030
Moon	100074-04-29 17:16 G	38272456.98	38272457.22	38272457.45	0.0497	0.0021
Earth	100074-04-29 21:07 G	38272457.14	38272457.38	38272457.62	0.0497	0.0004 *
Mercury	100077-07-17 18:43 G	38273632.19	38273632.28	38273632.37	0.0515	0.0445
Venus	100078-06-07 22:04 G	38273957.27	38273957.42	38273957.57	0.0523	0.0339
Venus	100079-01-30 22:33 G	38274194.33	38274194.44	38274194.56	0.0526	0.0428

Mercury	100082-12-16 16:04 G	38275610.10	38275610.17	38275610.23	0.0513	0.0442
Mercury	100083-03-15 19:40 G	38275699.20	38275699.32	38275699.43	0.0511	0.0192
Venus	100084-04-12 20:23 G	38276093.16	38276093.35	38276093.53	0.0503	0.0224
Venus	100084-12-05 19:11 G	38276330.24	38276330.30	38276330.37	0.0499	0.0472
Earth	100086-05-04 12:14 G	38276844.89	38276845.01	38276845.15	0.0497	0.0407
Moon	100086-05-04 15:35 G	38276845.05	38276845.15	38276845.27	0.0497	0.0433 *
Mercury	100089-05-05 14:23 G	38277941.93	38277942.10	38277942.28	0.0515	0.0197
Venus	100090-10-05 17:59 G	38278460.07	38278460.25	38278460.43	0.0525	0.0211
Mercury	100095-01-02 00:28 G	38280009.40	38280009.52	38280009.65	0.0512	0.0039
Venus	100095-12-17 17:16 G	38280359.11	38280359.22	38280359.34	0.0504	0.0418
Venus	100096-08-10 17:31 G	38280596.06	38280596.23	38280596.41	0.0500	0.0285
Mercury	100101-02-22 10:19 G	38282251.74	38282251.93	38282252.12	0.0514	0.0050
Venus	100102-06-11 14:52 G	38282725.92	38282726.12	38282726.32	0.0524	0.0008
Earth	100103-10-25 01:26 G	38283226.44	38283226.56	38283226.69	0.0529	0.0445
Moon	100103-10-25 03:21 G	38283226.51	38283226.64	38283226.78	0.0529	0.0418 *
Mercury	100106-10-22 05:45 G	38284319.61	38284319.74	38284319.86	0.0512	0.0112
Venus	100108-04-16 14:23 G	38284861.90	38284862.10	38284862.31	0.0501	0.0090
Mercury	100112-12-11 05:16 G	38286561.57	38286561.72	38286561.87	0.0514	0.0312
Venus	100114-02-14 11:16 G	38286991.79	38286991.97	38286992.15	0.0524	0.0219
Moon	100115-10-30 02:23 G	38287614.36	38287614.60	38287614.84	0.0530	0.0021
Earth	100115-10-30 02:09 G	38287614.37	38287614.59	38287614.82	0.0530	0.0041 *
Mars	100117-06-06 15:21 G	38288199.87	38288200.14	38288200.41	0.0522	0.0069
Mercury	100118-08-10 10:47 G	38288629.84	38288629.95	38288630.06	0.0512	0.0261
Mercury	100118-11-07 14:23 G	38288719.01	38288719.10	38288719.18	0.0510	0.0369
Venus	100119-12-21 12:14 G	38289127.81	38289128.01	38289128.22	0.0501	0.0104
Mercury	100124-12-28 17:16 G	38290962.14	38290962.22	38290962.31	0.0516	0.0456
Venus	100125-10-20 09:21 G	38291257.78	38291257.89	38291258.01	0.0522	0.0426
Venus	100126-06-14 10:19 G	38291494.78	38291494.93	38291495.08	0.0527	0.0343
Moon	100127-11-03 23:02 G	38292002.39	38292002.46	38292002.54	0.0529	0.0498
Earth	100127-11-04 01:26 G	38292002.53	38292002.56	38292002.61	0.0529	0.0519 *

Mercury	100130-05-29 15:21 G	38292940.08	38292940.14	38292940.22	0.0513	0.0422
Mercury	100130-08-26 18:57 G	38293029.18	38293029.29	38293029.41	0.0510	0.0212
Venus	100131-08-26 08:23 G	38293393.69	38293393.85	38293394.02	0.0503	0.0301
Venus	100132-04-19 07:11 G	38293630.68	38293630.80	38293630.93	0.0499	0.0397
Mars	100135-06-07 10:19 G	38294774.66	38294774.93	38294775.21	0.0504	0.0016
Mercury	100136-10-16 13:40 G	38295271.91	38295272.07	38295272.24	0.0515	0.0219
Venus	100138-02-17 06:57 G	38295760.60	38295760.79	38295760.99	0.0525	0.0130
Mercury	100142-06-14 23:59 G	38297339.37	38297339.50	38297339.62	0.0511	0.0058
Venus	100143-05-01 04:33 G	38297659.66	38297659.69	38297659.73	0.0504	0.0497
Venus	100143-12-24 05:16 G	38297896.53	38297896.72	38297896.91	0.0500	0.0208
Moon	100145-04-25 15:21 G	38298385.05	38298385.14	38298385.25	0.0497	0.0445
Earth	100145-04-25 19:26 G	38298385.19	38298385.31	38298385.44	0.0497	0.0423 *
Mercury	100148-08-04 09:35 G	38299581.71	38299581.90	38299582.09	0.0514	0.0029
Venus	100149-10-23 02:52 G	38300026.43	38300026.62	38300026.82	0.0524	0.0088
Mercury	100154-04-03 04:47 G	38301649.57	38301649.70	38301649.82	0.0512	0.0101
Venus	100155-08-29 02:52 G	38302162.41	38302162.62	38302162.83	0.0501	0.0015
Earth	100157-04-30 10:04 G	38302772.69	38302772.92	38302773.16	0.0497	0.0025
Moon	100157-04-30 13:26 G	38302772.83	38302773.06	38302773.30	0.0497	0.0009 *
Mercury	100160-05-23 05:31 G	38303891.57	38303891.73	38303891.89	0.0514	0.0274
Venus	100161-06-27 23:59 G	38304292.34	38304292.50	38304292.67	0.0523	0.0300
Venus	100162-02-20 00:57 G	38304529.45	38304529.54	38304529.63	0.0527	0.0471
Mercury	100166-01-20 09:50 G	38305959.80	38305959.91	38305960.02	0.0512	0.0250
Mercury	100166-04-19 13:26 G	38306048.98	38306049.06	38306049.14	0.0510	0.0380
Venus	100167-05-03 23:45 G	38306428.30	38306428.49	38306428.69	0.0502	0.0183
Moon	100169-05-04 18:43 G	38307160.13	38307160.28	38307160.44	0.0496	0.0383
Earth	100169-05-04 20:38 G	38307160.21	38307160.36	38307160.53	0.0496	0.0365 *
Mercury	100172-06-09 15:35 G	38308292.07	38308292.15	38308292.23	0.0516	0.0463
Venus	100173-03-02 20:09 G	38308558.30	38308558.34	38308558.37	0.0522	0.0512
Venus	100173-10-25 20:23 G	38308795.18	38308795.35	38308795.53	0.0526	0.0253
Mercury	100177-11-08 14:52 G	38310270.05	38310270.12	38310270.20	0.0513	0.0400

Mercury	100178-02-05 18:28 G	38310359.16	38310359.27	38310359.39	0.0510	0.0233
Venus	100179-01-06 21:21 G	38310694.25	38310694.39	38310694.52	0.0503	0.0376
Venus	100179-08-31 20:09 G	38310931.19	38310931.34	38310931.50	0.0499	0.0324
Mercury	100184-03-28 11:59 G	38312601.83	38312602.00	38312602.17	0.0515	0.0224
Venus	100185-06-30 17:59 G	38313061.05	38313061.25	38313061.45	0.0525	0.0040
Moon	100186-10-24 13:26 G	38313541.94	38313542.06	38313542.18	0.0530	0.0451
Earth	100186-10-24 13:40 G	38313541.97	38313542.07	38313542.17	0.0530	0.0474 *
Mercury	100189-11-24 23:16 G	38314669.34	38314669.47	38314669.59	0.0511	0.0074
Venus	100191-05-06 17:02 G	38315197.01	38315197.21	38315197.41	0.0500	0.0130
Mercury	100196-01-15 08:38 G	38316911.67	38316911.86	38316912.04	0.0515	0.0017
Venus	100197-03-05 15:21 G	38317326.95	38317327.14	38317327.33	0.0524	0.0173
Moon	100198-10-29 10:19 G	38317929.70	38317929.93	38317930.15	0.0529	0.0030
Earth	100198-10-29 12:14 G	38317929.78	38317930.01	38317930.24	0.0529	0.0003 *
Mercury	100201-09-14 04:04 G	38318979.54	38318979.67	38318979.79	0.0512	0.0086
Venus	100203-01-10 14:09 G	38319462.88	38319463.09	38319463.30	0.0502	0.0065
Mercury	100207-11-04 04:19 G	38321221.52	38321221.68	38321221.85	0.0514	0.0258
Venus	100208-11-09 11:31 G	38321592.86	38321592.98	38321593.12	0.0522	0.0385
Venus	100209-07-04 11:59 G	38321829.87	38321830.00	38321830.14	0.0526	0.0384
Earth	100210-11-04 08:09 G	38322317.73	38322317.84	38322317.95	0.0529	0.0461
Moon	100210-11-04 11:59 G	38322317.87	38322318.00	38322318.12	0.0529	0.0444 *
Mercury	100213-07-03 08:52 G	38323289.75	38323289.87	38323289.98	0.0512	0.0243
Mercury	100213-09-30 12:14 G	38323378.93	38323379.01	38323379.09	0.0510	0.0388
Venus	100214-09-15 11:02 G	38323728.78	38323728.96	38323729.14	0.0503	0.0261
Venus	100215-05-10 10:04 G	38323965.82	38323965.92	38323966.02	0.0499	0.0439
Mercury	100219-08-23 00:14 G	38325531.48	38325531.51	38325531.54	0.0513	0.0503
Mercury	100219-11-21 15:35 G	38325622.11	38325622.15	38325622.20	0.0515	0.0496
Venus	100221-03-09 08:09 G	38326095.65	38326095.84	38326096.03	0.0525	0.0169
Mercury	100225-04-21 13:55 G	38327600.00	38327600.08	38327600.16	0.0513	0.0392
Mercury	100225-07-19 17:31 G	38327689.12	38327689.23	38327689.34	0.0511	0.0240
Venus	100226-05-21 07:55 G	38327994.75	38327994.83	38327994.92	0.0504	0.0457

Venus	100227-01-13 07:40 G	38328231.65	38328231.82	38328232.01	0.0500	0.0247
Earth	100228-04-26 03:35 G	38328700.58	38328700.65	38328700.75	0.0496	0.0461
Moon	100228-04-26 07:11 G	38328700.74	38328700.80	38328700.88	0.0496	0.0473 *
Mercury	100231-09-09 10:04 G	38329931.75	38329931.92	38329932.09	0.0515	0.0226
Venus	100232-11-12 03:21 G	38330361.44	38330361.64	38330361.84	0.0525	0.0053
Mercury	100237-05-07 22:33 G	38331999.32	38331999.44	38331999.57	0.0511	0.0092
Venus	100238-09-18 05:31 G	38332497.52	38332497.73	38332497.94	0.0500	0.0054
Moon	100240-04-30 15:21 G	38333087.90	38333088.14	38333088.39	0.0496	0.0039
Earth	100240-04-30 17:31 G	38333088.00	38333088.23	38333088.47	0.0496	0.0067 *
Mercury	100243-06-28 06:14 G	38334241.58	38334241.76	38334241.95	0.0515	0.0017
Venus	100244-07-18 01:11 G	38334627.38	38334627.55	38334627.72	0.0524	0.0264
Venus	100245-03-12 02:52 G	38334864.58	38334864.62	38334864.67	0.0527	0.0511
Mercury	100249-02-24 03:07 G	38336309.51	38336309.63	38336309.76	0.0511	0.0072
Venus	100250-05-24 01:26 G	38336763.36	38336763.56	38336763.76	0.0502	0.0144
Earth	100252-05-05 06:43 G	38337475.61	38337475.78	38337475.97	0.0496	0.0330
Moon	100252-05-05 07:26 G	38337475.65	38337475.81	38337475.97	0.0496	0.0346 *
Mercury	100255-04-16 02:52 G	38338551.46	38338551.62	38338551.78	0.0514	0.0250
Venus	100256-03-22 23:02 G	38338893.38	38338893.46	38338893.55	0.0522	0.0470
Venus	100256-11-14 23:16 G	38339130.31	38339130.47	38339130.64	0.0526	0.0297
Mercury	100260-12-13 07:55 G	38340619.72	38340619.83	38340619.94	0.0512	0.0229
Mercury	100261-03-12 11:16 G	38340708.90	38340708.97	38340709.05	0.0510	0.0400
Venus	100262-01-26 21:35 G	38341029.25	38341029.40	38341029.56	0.0503	0.0342
Venus	100262-09-20 20:52 G	38341266.23	38341266.37	38341266.52	0.0499	0.0360
Mercury	100267-02-01 22:47 G	38342861.40	38342861.45	38342861.50	0.0513	0.0493
Mercury	100267-05-03 14:09 G	38342952.06	38342952.09	38342952.12	0.0515	0.0507
Venus	100268-07-20 18:57 G	38343396.09	38343396.29	38343396.48	0.0525	0.0079
Moon	100269-10-24 17:02 G	38343857.19	38343857.21	38343857.24	0.0529	0.0524
Mars	100271-09-02 04:04 G	38344534.53	38344534.67	38344534.83	0.0522	0.0436
Mercury	100272-10-01 12:28 G	38344929.94	38344930.02	38344930.10	0.0513	0.0390
Mercury	100272-12-29 16:04 G	38345019.06	38345019.17	38345019.28	0.0511	0.0243

Venus	100274-05-26 18:28 G	38345532.07	38345532.27	38345532.46	0.0500	0.0169
Mercury	100279-02-19 09:35 G	38347261.74	38347261.90	38347262.07	0.0515	0.0255
Venus	100280-03-25 15:07 G	38347661.94	38347662.13	38347662.32	0.0524	0.0137
Earth	100281-10-29 16:47 G	38348244.98	38348245.20	38348245.43	0.0530	0.0066
Moon	100281-10-29 20:23 G	38348245.12	38348245.35	38348245.58	0.0530	0.0097 *
Mercury	100284-10-17 21:21 G	38349329.26	38349329.39	38349329.51	0.0511	0.0095
Venus	100286-01-29 16:04 G	38349797.96	38349798.17	38349798.38	0.0501	0.0028
Mars	100289-09-01 12:43 G	38351108.91	38351109.03	38351109.18	0.0504	0.0442
Mercury	100290-12-08 04:04 G	38351571.48	38351571.67	38351571.85	0.0514	0.0022
Venus	100291-11-29 09:50 G	38351927.77	38351927.91	38351928.06	0.0523	0.0357
Venus	100292-07-23 11:16 G	38352164.85	38352164.97	38352165.09	0.0527	0.0418
Moon	100293-11-03 11:16 G	38352632.82	38352632.97	38352633.13	0.0530	0.0389
Earth	100293-11-03 15:35 G	38352633.00	38352633.15	38352633.29	0.0530	0.0410 *
Mercury	100296-08-06 02:23 G	38353639.47	38353639.60	38353639.72	0.0512	0.0056
Venus	100297-10-04 13:11 G	38354063.86	38354064.05	38354064.24	0.0502	0.0223
Venus	100298-05-29 11:02 G	38354300.91	38354300.96	38354301.03	0.0498	0.0474
Mercury	100302-09-26 23:59 G	38355881.34	38355881.50	38355881.66	0.0514	0.0260
Venus	100304-03-29 07:55 G	38356430.65	38356430.83	38356431.02	0.0526	0.0203
Mercury	100308-05-26 06:43 G	38357949.67	38357949.78	38357949.90	0.0512	0.0220
Mercury	100308-08-23 10:19 G	38358038.86	38358038.93	38358039.01	0.0510	0.0408
Venus	100309-06-10 08:09 G	38358329.73	38358329.84	38358329.95	0.0503	0.0423
Venus	100310-02-02 07:40 G	38358566.65	38358566.82	38358566.99	0.0500	0.0281
Mercury	100314-07-15 20:38 G	38360191.31	38360191.36	38360191.41	0.0514	0.0493
Mercury	100314-10-14 11:59 G	38360281.98	38360282.00	38360282.03	0.0516	0.0508
Venus	100315-12-03 05:02 G	38360696.51	38360696.71	38360696.91	0.0525	0.0012
Mercury	100320-03-14 11:31 G	38362259.90	38362259.98	38362260.06	0.0512	0.0380
Mercury	100320-06-11 15:07 G	38362349.02	38362349.13	38362349.24	0.0510	0.0251
Venus	100321-10-08 04:19 G	38362832.48	38362832.68	38362832.89	0.0501	0.0087
Earth	100323-05-02 00:43 G	38363403.30	38363403.53	38363403.77	0.0496	0.0112
Moon	100323-05-02 01:26 G	38363403.34	38363403.56	38363403.79	0.0496	0.0082 *

Mercury	100326-08-02 07:40 G	38364591.66	38364591.82	38364591.99	0.0515	0.0258
Venus	100327-08-08 00:57 G	38364962.37	38364962.54	38364962.72	0.0523	0.0229
Mercury	100332-03-30 19:40 G	38366659.20	38366659.32	38366659.45	0.0511	0.0092
Venus	100333-06-13 00:57 G	38367098.34	38367098.54	38367098.75	0.0502	0.0112
Earth	100335-05-06 14:23 G	38367790.91	38367791.10	38367791.30	0.0496	0.0283
Moon	100335-05-06 14:52 G	38367790.93	38367791.12	38367791.33	0.0496	0.0298 *
Mercury	100338-05-21 03:07 G	38368901.45	38368901.63	38368901.82	0.0514	0.0013
Venus	100339-04-12 21:21 G	38369228.29	38369228.39	38369228.50	0.0522	0.0440
Venus	100339-12-05 21:35 G	38369465.24	38369465.40	38369465.55	0.0526	0.0330
Mercury	100344-01-18 00:43 G	38370969.41	38370969.53	38370969.66	0.0512	0.0060
Venus	100345-02-15 22:19 G	38371364.27	38371364.43	38371364.60	0.0503	0.0308
Venus	100345-10-10 21:07 G	38371601.26	38371601.38	38371601.51	0.0499	0.0394
Mercury	100350-03-08 21:21 G	38373211.23	38373211.39	38373211.55	0.0514	0.0268
Venus	100351-08-10 15:35 G	38373730.96	38373731.15	38373731.35	0.0526	0.0106
Mercury	100355-11-06 05:45 G	38375279.63	38375279.74	38375279.86	0.0512	0.0212
Mercury	100356-02-03 09:21 G	38375368.82	38375368.89	38375368.96	0.0510	0.0417
Venus	100356-10-21 18:57 G	38375630.28	38375630.29	38375630.30	0.0504	0.0503
Venus	100357-06-15 18:43 G	38375867.09	38375867.28	38375867.47	0.0500	0.0203
Mercury	100361-12-25 17:16 G	38377521.21	38377521.22	38377521.24	0.0513	0.0511
Mercury	100362-03-26 08:52 G	38377611.81	38377611.87	38377611.93	0.0516	0.0489
Venus	100363-04-15 12:28 G	38377996.83	38377997.02	38377997.22	0.0524	0.0110
Moon	100364-10-29 16:19 G	38378559.96	38378560.18	38378560.40	0.0530	0.0165
Earth	100364-10-29 20:09 G	38378560.12	38378560.34	38378560.56	0.0530	0.0130 *
Mercury	100367-08-25 10:19 G	38379589.84	38379589.93	38379590.01	0.0513	0.0376
Mercury	100367-11-22 13:40 G	38379678.97	38379679.07	38379679.18	0.0510	0.0255
Venus	100369-02-18 14:23 G	38380132.89	38380133.10	38380133.30	0.0501	0.0012
Mercury	100374-01-12 05:02 G	38381921.55	38381921.71	38381921.88	0.0515	0.0250
Venus	100374-12-19 10:04 G	38382262.77	38382262.92	38382263.08	0.0523	0.0321
Venus	100375-08-13 11:31 G	38382499.88	38382499.98	38382500.08	0.0527	0.0455
Earth	100376-11-03 18:28 G	38382948.10	38382948.27	38382948.45	0.0530	0.0341

Moon	100376-11-03 22:19 G	38382948.26	38382948.43	38382948.62	0.0530	0.0324 *
Mercury	100379-09-10 18:28 G	38383989.14	38383989.27	38383989.39	0.0511	0.0095
Venus	100380-10-24 10:04 G	38384398.73	38384398.92	38384399.11	0.0502	0.0195
Mercury	100385-10-31 00:57 G	38386231.35	38386231.54	38386231.72	0.0514	0.0011
Venus	100387-04-18 06:14 G	38386765.59	38386765.76	38386765.94	0.0526	0.0235
Mercury	100391-06-29 23:02 G	38388299.33	38388299.46	38388299.58	0.0512	0.0067
Venus	100392-06-29 05:59 G	38388664.62	38388664.75	38388664.88	0.0504	0.0395
Venus	100393-02-21 05:45 G	38388901.58	38388901.74	38388901.90	0.0500	0.0312
Mercury	100397-08-18 20:09 G	38390541.18	38390541.34	38390541.51	0.0514	0.0253
Venus	100398-12-22 01:40 G	38391031.37	38391031.57	38391031.77	0.0525	0.0017
Mercury	100403-04-18 04:04 G	38392609.55	38392609.67	38392609.78	0.0512	0.0221
Mercury	100403-07-16 07:26 G	38392698.74	38392698.81	38392698.89	0.0510	0.0409
Venus	100404-10-27 03:21 G	38393167.44	38393167.64	38393167.85	0.0500	0.0119
Earth	100406-05-01 04:33 G	38393718.47	38393718.69	38393718.92	0.0496	0.0166
Moon	100406-05-01 04:47 G	38393718.47	38393718.70	38393718.94	0.0496	0.0135 *
Mars	100408-02-21 17:16 G	38394380.20	38394380.22	38394380.25	0.0502	0.0500
Mercury	100409-09-05 05:45 G	38394941.67	38394941.74	38394941.81	0.0515	0.0474
Venus	100410-08-26 19:40 G	38395297.14	38395297.32	38395297.51	0.0524	0.0207
Mercury	100415-02-04 08:52 G	38396919.78	38396919.87	38396919.95	0.0513	0.0375
Mercury	100415-05-04 12:28 G	38397008.91	38397009.02	38397009.13	0.0511	0.0257
Venus	100416-07-02 00:28 G	38397433.32	38397433.52	38397433.73	0.0501	0.0078
Moon	100418-05-05 15:21 G	38398105.94	38398106.14	38398106.34	0.0496	0.0236
Earth	100418-05-05 17:02 G	38398106.00	38398106.21	38398106.42	0.0496	0.0223 *
Mercury	100421-06-24 01:26 G	38399251.39	38399251.56	38399251.73	0.0515	0.0225
Venus	100422-05-01 16:47 G	38399563.09	38399563.20	38399563.33	0.0522	0.0419
Venus	100422-12-24 17:45 G	38399800.09	38399800.24	38399800.39	0.0527	0.0355
Mercury	100427-02-20 16:47 G	38401319.08	38401319.20	38401319.33	0.0511	0.0094
Venus	100428-03-06 18:57 G	38401699.12	38401699.29	38401699.46	0.0503	0.0280
Venus	100428-10-29 17:31 G	38401936.12	38401936.23	38401936.34	0.0499	0.0421
Mercury	100433-04-11 21:50 G	38403561.22	38403561.41	38403561.59	0.0514	0.0019

Venus	100434-08-29 14:38 G	38404065.92	38404066.11	38404066.30	0.0526	0.0141
Mercury	100438-12-09 21:21 G	38405629.27	38405629.39	38405629.52	0.0512	0.0070
Venus	100439-11-10 14:09 G	38405965.03	38405965.09	38405965.15	0.0504	0.0480
Venus	100440-07-04 14:09 G	38406201.91	38406202.09	38406202.28	0.0500	0.0228
Mercury	100445-01-28 17:16 G	38407871.07	38407871.22	38407871.39	0.0514	0.0263
Venus	100446-05-04 10:04 G	38408331.72	38408331.92	38408332.12	0.0524	0.0080
Earth	100447-10-29 17:59 G	38408875.04	38408875.25	38408875.45	0.0529	0.0222
Moon	100447-10-29 21:50 G	38408875.21	38408875.41	38408875.61	0.0529	0.0253 *
Mercury	100450-09-28 01:55 G	38409939.47	38409939.58	38409939.69	0.0512	0.0232
Mercury	100450-12-26 05:31 G	38410028.65	38410028.73	38410028.81	0.0510	0.0397
Venus	100452-03-09 10:33 G	38410467.74	38410467.94	38410468.15	0.0501	0.0032
Mercury	100457-02-15 04:04 G	38412271.61	38412271.67	38412271.74	0.0515	0.0482
Venus	100458-01-07 05:59 G	38412597.58	38412597.75	38412597.91	0.0523	0.0296
Venus	100458-09-01 06:43 G	38412834.70	38412834.78	38412834.86	0.0527	0.0480
Moon	100459-11-03 11:16 G	38413262.76	38413262.97	38413263.18	0.0530	0.0220
Earth	100459-11-03 14:38 G	38413262.91	38413263.11	38413263.32	0.0530	0.0242 *
Mercury	100462-07-17 06:43 G	38414249.70	38414249.78	38414249.86	0.0513	0.0388
Mercury	100462-10-14 10:19 G	38414338.82	38414338.93	38414339.05	0.0511	0.0246
Venus	100463-11-13 07:55 G	38414733.63	38414733.83	38414734.03	0.0502	0.0167
Mercury	100468-12-03 22:04 G	38416581.25	38416581.42	38416581.60	0.0514	0.0208
Venus	100469-09-11 23:59 G	38416863.47	38416863.50	38416863.54	0.0521	0.0513
Venus	100470-05-06 23:59 G	38417100.32	38417100.50	38417100.67	0.0526	0.0255
Mercury	100474-08-02 15:21 G	38418649.02	38418649.14	38418649.26	0.0512	0.0091
Venus	100475-07-19 04:19 G	38418999.54	38418999.68	38418999.83	0.0503	0.0364
Venus	100476-03-12 03:35 G	38419236.50	38419236.65	38419236.80	0.0499	0.0342
Mercury	100480-09-21 17:45 G	38420891.06	38420891.24	38420891.43	0.0514	0.0043
Venus	100482-01-09 20:23 G	38421366.15	38421366.35	38421366.55	0.0525	0.0038
Mercury	100486-05-21 19:40 G	38422959.20	38422959.32	38422959.45	0.0512	0.0075
Venus	100487-11-15 22:33 G	38423502.24	38423502.44	38423502.64	0.0500	0.0142
Moon	100489-04-30 02:52 G	38424033.42	38424033.62	38424033.83	0.0496	0.0212

Earth	100489-04-30 04:04 G	38424033.47	38424033.67	38424033.88	0.0496	0.0241	*
Mercury	100492-07-10 13:55 G	38425200.93	38425201.08	38425201.24	0.0514	0.0282	
Venus	100493-09-14 17:45 G	38425632.06	38425632.24	38425632.43	0.0524	0.0175	
Mercury	100498-03-10 00:14 G	38427269.40	38427269.51	38427269.63	0.0512	0.0236	
Mercury	100498-06-07 03:50 G	38427358.58	38427358.66	38427358.74	0.0510	0.0392	
Venus	100499-07-21 18:28 G	38427768.07	38427768.27	38427768.48	0.0501	0.0056	
Earth	100501-05-05 16:19 G	38428420.96	38428421.18	38428421.41	0.0496	0.0148	
Moon	100501-05-05 19:11 G	38428421.07	38428421.30	38428421.54	0.0496	0.0157	*
Mercury	100504-07-29 00:57 G	38429601.47	38429601.54	38429601.62	0.0515	0.0469	
Venus	100505-05-21 14:09 G	38429897.96	38429898.09	38429898.22	0.0522	0.0390	
Venus	100506-01-13 14:23 G	38430134.97	38430135.10	38430135.24	0.0526	0.0384	
Mercury	100509-12-28 04:47 G	38431579.62	38431579.70	38431579.77	0.0513	0.0402	
Mercury	100510-03-27 08:23 G	38431668.74	38431668.85	38431668.96	0.0511	0.0230	
Venus	100511-03-27 13:55 G	38432033.91	38432034.08	38432034.27	0.0503	0.0258	
Venus	100511-11-19 12:57 G	38432270.95	38432271.04	38432271.14	0.0499	0.0446	
Mercury	100516-05-16 20:23 G	38433911.18	38433911.35	38433911.52	0.0515	0.0212	
Venus	100517-09-18 09:07 G	38434400.70	38434400.88	38434401.08	0.0525	0.0165	
Mercury	100522-01-13 13:11 G	38435978.93	38435979.05	38435979.18	0.0512	0.0076	
Venus	100522-11-30 10:47 G	38436299.86	38436299.95	38436300.04	0.0504	0.0455	
Venus	100523-07-25 11:02 G	38436536.78	38436536.96	38436537.14	0.0500	0.0255	
Mercury	100528-03-04 14:38 G	38438220.92	38438221.11	38438221.29	0.0514	0.0060	
Venus	100529-05-24 02:52 G	38438666.42	38438666.62	38438666.82	0.0524	0.0062	
Moon	100530-10-29 07:55 G	38439189.66	38439189.83	38439190.00	0.0530	0.0357	
Earth	100530-10-29 11:45 G	38439189.81	38439189.99	38439190.17	0.0530	0.0328	*
Mercury	100533-11-01 17:59 G	38440289.13	38440289.25	38440289.38	0.0512	0.0080	
Venus	100535-03-30 07:55 G	38440802.62	38440802.83	38440803.04	0.0501	0.0060	
Mercury	100539-12-22 10:04 G	38442530.78	38442530.92	38442531.07	0.0513	0.0308	
Venus	100541-01-26 23:45 G	38442932.32	38442932.49	38442932.66	0.0523	0.0276	
Venus	100541-09-21 00:57 G	38443169.48	38443169.54	38443169.60	0.0527	0.0502	
Earth	100542-11-03 10:47 G	38443577.73	38443577.95	38443578.17	0.0530	0.0146	

Moon	100542-11-03 13:11 G	38443577.83	38443578.05	38443578.27	0.0530	0.0132	*
Mars	100544-05-17 10:33 G	38444138.72	38444138.94	38444139.17	0.0523	0.0273	
Mercury	100545-08-20 22:19 G	38444599.32	38444599.43	38444599.55	0.0512	0.0246	
Mercury	100545-11-18 01:55 G	38444688.50	38444688.58	38444688.66	0.0510	0.0383	
Venus	100546-12-03 02:09 G	38445068.39	38445068.59	38445068.79	0.0502	0.0144	
Mercury	100552-01-08 21:35 G	38446931.31	38446931.40	38446931.49	0.0515	0.0448	
Venus	100552-10-01 21:35 G	38447198.33	38447198.40	38447198.47	0.0522	0.0484	
Venus	100553-05-26 21:35 G	38447435.24	38447435.40	38447435.57	0.0526	0.0288	
Mercury	100557-06-09 02:52 G	38448909.55	38448909.62	38448909.70	0.0513	0.0407	
Mercury	100557-09-06 06:43 G	38448998.66	38448998.78	38448998.89	0.0511	0.0225	
Venus	100558-08-07 21:35 G	38449334.25	38449334.40	38449334.56	0.0503	0.0345	
Venus	100559-04-01 20:52 G	38449571.23	38449571.37	38449571.51	0.0499	0.0362	
Mars	100562-05-17 21:50 G	38450713.15	38450713.41	38450713.67	0.0503	0.0185	
Mercury	100563-10-27 17:16 G	38451241.05	38451241.22	38451241.39	0.0515	0.0198	
Venus	100565-01-29 17:16 G	38451701.02	38451701.22	38451701.42	0.0525	0.0068	
Mercury	100569-06-25 11:02 G	38453308.84	38453308.96	38453309.09	0.0511	0.0062	
Venus	100570-12-05 17:16 G	38453837.03	38453837.22	38453837.42	0.0501	0.0167	
Earth	100572-04-30 04:33 G	38454348.51	38454348.69	38454348.87	0.0496	0.0312	
Moon	100572-04-30 06:57 G	38454348.59	38454348.79	38454348.99	0.0496	0.0280	*
Mercury	100575-08-15 12:28 G	38455550.84	38455551.02	38455551.21	0.0514	0.0058	
Venus	100576-10-04 12:43 G	38455966.84	38455967.03	38455967.22	0.0523	0.0152	
Mercury	100581-04-13 15:50 G	38457619.04	38457619.16	38457619.29	0.0512	0.0095	
Venus	100582-08-10 14:52 G	38458102.91	38458103.12	38458103.32	0.0502	0.0031	
Moon	100584-05-04 14:38 G	38458735.88	38458736.11	38458736.34	0.0496	0.0088	
Earth	100584-05-04 18:14 G	38458736.03	38458736.26	38458736.49	0.0496	0.0083	*
Mercury	100587-06-03 06:57 G	38459860.65	38459860.79	38459860.94	0.0513	0.0322	
Venus	100588-06-09 06:57 G	38460232.66	38460232.79	38460232.93	0.0522	0.0372	
Venus	100589-02-01 07:11 G	38460469.68	38460469.80	38460469.93	0.0526	0.0404	
Mercury	100593-01-30 20:38 G	38461929.25	38461929.36	38461929.47	0.0513	0.0252	
Mercury	100593-04-30 00:14 G	38462018.43	38462018.51	38462018.60	0.0511	0.0379	

Venus	100594-04-15 11:02 G	38462368.78	38462368.96	38462369.15	0.0503	0.0229
Venus	100594-12-08 10:04 G	38462605.86	38462605.92	38462605.98	0.0499	0.0475
Earth	100596-05-09 05:59 G	38463123.68	38463123.75	38463123.83	0.0496	0.0471
Moon	100596-05-09 10:04 G	38463123.82	38463123.92	38463124.03	0.0496	0.0440 *
Mercury	100599-06-20 17:59 G	38464261.14	38464261.25	38464261.35	0.0515	0.0423
Venus	100600-10-08 03:21 G	38464735.45	38464735.64	38464735.83	0.0525	0.0186
Mercury	100604-11-20 00:57 G	38466239.47	38466239.54	38466239.62	0.0513	0.0417
Mercury	100605-02-17 04:47 G	38466328.58	38466328.70	38466328.81	0.0511	0.0215
Venus	100605-12-20 05:02 G	38466634.61	38466634.71	38466634.82	0.0504	0.0433
Venus	100606-08-14 04:47 G	38466871.53	38466871.70	38466871.88	0.0500	0.0278
Mercury	100611-04-09 13:55 G	38468570.90	38468571.08	38468571.25	0.0515	0.0178
Venus	100612-06-13 00:43 G	38469001.33	38469001.53	38469001.73	0.0524	0.0031
Earth	100613-10-29 12:28 G	38469504.88	38469505.02	38469505.17	0.0530	0.0408
Moon	100613-10-29 15:21 G	38469505.03	38469505.14	38469505.28	0.0530	0.0437 *
Mercury	100616-12-06 09:21 G	38470638.77	38470638.89	38470639.02	0.0511	0.0060
Venus	100618-04-19 01:11 G	38471137.35	38471137.55	38471137.76	0.0501	0.0080
Mercury	100623-01-26 09:50 G	38472880.72	38472880.91	38472881.09	0.0514	0.0069
Venus	100624-02-16 21:21 G	38473267.21	38473267.39	38473267.56	0.0523	0.0246
Moon	100625-11-03 07:26 G	38473892.58	38473892.81	38473893.05	0.0529	0.0041
Earth	100625-11-03 08:52 G	38473892.64	38473892.87	38473893.10	0.0529	0.0055 *
Mercury	100628-09-24 13:55 G	38474948.96	38474949.08	38474949.20	0.0512	0.0107
Venus	100629-12-22 21:07 G	38475403.18	38475403.38	38475403.58	0.0502	0.0121
Mercury	100634-11-14 05:16 G	38477190.57	38477190.72	38477190.86	0.0513	0.0318
Venus	100635-10-22 17:16 G	38477533.13	38477533.22	38477533.32	0.0521	0.0459
Venus	100636-06-15 17:02 G	38477770.05	38477770.21	38477770.37	0.0526	0.0314
Earth	100637-11-08 05:02 G	38478280.66	38478280.71	38478280.76	0.0529	0.0514
Mercury	100640-07-13 18:43 G	38479259.17	38479259.28	38479259.39	0.0513	0.0265
Mercury	100640-10-10 22:19 G	38479348.34	38479348.43	38479348.52	0.0511	0.0365
Venus	100641-08-27 17:45 G	38479669.08	38479669.24	38479669.40	0.0504	0.0320
Venus	100642-04-21 17:31 G	38479906.10	38479906.23	38479906.36	0.0500	0.0390

Mercury	100646-12-01 15:07 G	38481591.02	38481591.13	38481591.24	0.0515	0.0413
Venus	100648-02-19 11:02 G	38482035.76	38482035.96	38482036.15	0.0525	0.0090
Mercury	100652-05-01 23:16 G	38483569.41	38483569.47	38483569.54	0.0514	0.0423
Mercury	100652-07-30 03:07 G	38483658.51	38483658.63	38483658.74	0.0511	0.0211
Venus	100653-12-25 14:52 G	38484171.93	38484172.12	38484172.31	0.0501	0.0197
Moon	100655-05-01 03:35 G	38484663.49	38484663.65	38484663.82	0.0496	0.0346
Earth	100655-05-01 06:57 G	38484663.64	38484663.79	38484663.95	0.0496	0.0375 *
Mercury	100658-09-19 10:47 G	38485900.77	38485900.95	38485901.12	0.0514	0.0163
Venus	100659-10-25 07:26 G	38486301.62	38486301.81	38486302.00	0.0523	0.0128
Mercury	100664-05-18 07:40 G	38487968.69	38487968.82	38487968.94	0.0511	0.0050
Venus	100665-08-30 09:21 G	38488437.68	38488437.89	38488438.10	0.0501	0.0007
Earth	100667-05-05 15:35 G	38489050.92	38489051.15	38489051.39	0.0496	0.0006
Moon	100667-05-05 19:40 G	38489051.08	38489051.32	38489051.56	0.0496	0.0007 *
Mercury	100670-07-08 06:28 G	38490210.59	38490210.77	38490210.96	0.0514	0.0084
Venus	100671-06-30 05:16 G	38490567.58	38490567.72	38490567.88	0.0522	0.0340
Venus	100672-02-22 05:59 G	38490804.65	38490804.75	38490804.87	0.0527	0.0440
Mercury	100676-03-06 12:28 G	38492278.89	38492279.02	38492279.14	0.0512	0.0108
Venus	100677-05-05 05:16 G	38492703.54	38492703.72	38492703.92	0.0503	0.0207
Venus	100677-12-28 03:50 G	38492940.66	38492940.66	38492940.68	0.0499	0.0498
Moon	100679-05-10 00:14 G	38493438.35	38493438.51	38493438.68	0.0496	0.0358
Earth	100679-05-10 04:04 G	38493438.54	38493438.67	38493438.83	0.0496	0.0391 *
Mercury	100682-04-26 02:23 G	38494520.46	38494520.60	38494520.75	0.0514	0.0327
Venus	100683-10-28 01:54 G	38495070.40	38495070.58	38495070.77	0.0525	0.0220
Mercury	100687-12-24 16:47 G	38496589.10	38496589.20	38496589.31	0.0513	0.0272
Mercury	100688-03-22 20:23 G	38496678.26	38496678.35	38496678.44	0.0510	0.0357
Venus	100689-01-08 00:42 G	38496969.42	38496969.53	38496969.66	0.0504	0.0409
Venus	100689-09-02 00:57 G	38497206.38	38497206.54	38497206.71	0.0500	0.0304
Mercury	100694-05-13 13:26 G	38498920.96	38498921.06	38498921.17	0.0515	0.0422
Venus	100695-07-02 21:50 G	38499336.21	38499336.41	38499336.61	0.0524	0.0008
Moon	100696-10-28 07:54 G	38499819.82	38499819.83	38499819.84	0.0529	0.0529

Earth	100696-10-28 10:04 G	38499819.85	38499819.92	38499820.00	0.0529	0.0500
Mars	100698-08-11 12:57 G	38500471.77	38500472.04	38500472.31	0.0523	0.0027
Mercury	100699-10-12 21:35 G	38500899.33	38500899.40	38500899.47	0.0513	0.0431
Mercury	100700-01-10 01:11 G	38500988.44	38500988.55	38500988.67	0.0511	0.0203
Venus	100701-05-08 22:18 G	38501472.23	38501472.43	38501472.64	0.0501	0.0110
Mercury	100706-03-02 08:23 G	38503230.67	38503230.85	38503231.03	0.0514	0.0161
Venus	100707-03-08 16:18 G	38503602.00	38503602.18	38503602.37	0.0523	0.0221
Earth	100708-11-03 05:02 G	38504207.48	38504207.71	38504207.94	0.0530	0.0045
Moon	100708-11-03 05:30 G	38504207.51	38504207.73	38504207.95	0.0530	0.0058 *
Mercury	100711-10-30 05:59 G	38505298.63	38505298.75	38505298.88	0.0512	0.0051
Venus	100713-01-11 19:26 G	38505738.11	38505738.31	38505738.52	0.0502	0.0088
Mars	100716-08-12 04:33 G	38507046.42	38507046.69	38507046.96	0.0502	0.0142
Mercury	100717-12-19 04:04 G	38507540.49	38507540.67	38507540.86	0.0514	0.0088
Venus	100718-11-11 13:26 G	38507867.95	38507868.06	38507868.17	0.0521	0.0432
Venus	100719-07-06 13:26 G	38508104.91	38508105.06	38508105.21	0.0526	0.0343
Earth	100720-11-08 04:33 G	38508595.56	38508595.69	38508595.83	0.0530	0.0429
Moon	100720-11-08 05:45 G	38508595.63	38508595.74	38508595.86	0.0530	0.0458 *
Mercury	100723-08-18 10:47 G	38509608.82	38509608.95	38509609.07	0.0512	0.0112
Venus	100724-09-16 13:54 G	38510003.91	38510004.08	38510004.25	0.0503	0.0293
Venus	100725-05-11 12:57 G	38510240.93	38510241.04	38510241.16	0.0499	0.0416
Mercury	100729-10-06 23:45 G	38511850.35	38511850.49	38511850.63	0.0514	0.0336
Venus	100731-03-11 10:33 G	38512370.75	38512370.94	38512371.14	0.0525	0.0127
Mercury	100735-06-06 15:35 G	38513919.04	38513919.15	38513919.26	0.0512	0.0267
Mercury	100735-09-03 19:11 G	38514008.21	38514008.30	38514008.39	0.0510	0.0361
Venus	100736-05-22 09:50 G	38514269.87	38514269.91	38514269.95	0.0504	0.0492
Venus	100737-01-14 10:18 G	38514506.74	38514506.93	38514507.12	0.0500	0.0222
Earth	100738-05-01 06:14 G	38514978.67	38514978.76	38514978.86	0.0496	0.0451
Moon	100738-05-01 10:18 G	38514978.80	38514978.93	38514979.05	0.0496	0.0417 *
Mercury	100741-10-24 11:16 G	38516250.87	38516250.97	38516251.08	0.0515	0.0420
Venus	100742-11-14 07:26 G	38516636.62	38516636.81	38516637.01	0.0524	0.0092

Mercury	100747-03-25 20:09 G	38518229.27	38518229.34	38518229.40	0.0513	0.0431
Mercury	100747-06-22 23:45 G	38518318.37	38518318.49	38518318.61	0.0511	0.0201
Venus	100748-09-19 06:42 G	38518772.57	38518772.78	38518772.99	0.0501	0.0023
Moon	100750-05-05 16:04 G	38519365.93	38519366.17	38519366.41	0.0496	0.0050
Earth	100750-05-05 20:09 G	38519366.10	38519366.34	38519366.57	0.0496	0.0057 *
Mercury	100753-08-12 07:11 G	38520560.62	38520560.80	38520560.97	0.0514	0.0172
Venus	100754-07-20 04:04 G	38520902.51	38520902.67	38520902.84	0.0522	0.0307
Venus	100755-03-14 04:33 G	38521139.61	38521139.69	38521139.78	0.0526	0.0473
Mercury	100759-04-11 04:33 G	38522628.56	38522628.69	38522628.82	0.0512	0.0045
Venus	100760-05-25 03:35 G	38523038.46	38523038.65	38523038.85	0.0503	0.0176
Earth	100762-05-10 10:47 G	38523753.78	38523753.95	38523754.12	0.0496	0.0341
Moon	100762-05-10 13:54 G	38523753.91	38523754.08	38523754.26	0.0496	0.0313 *
Mercury	100765-05-31 02:23 G	38524870.41	38524870.60	38524870.78	0.0514	0.0083
Venus	100766-03-24 23:45 G	38525168.49	38525168.49	38525168.50	0.0521	0.0520
Venus	100766-11-16 22:47 G	38525405.28	38525405.45	38525405.62	0.0525	0.0250
Mercury	100771-01-28 09:21 G	38526938.77	38526938.89	38526939.02	0.0513	0.0110
Venus	100772-01-29 00:14 G	38527304.37	38527304.51	38527304.65	0.0504	0.0375
Venus	100772-09-22 00:28 G	38527541.37	38527541.52	38527541.67	0.0500	0.0340
Mercury	100777-03-18 22:04 G	38529180.28	38529180.42	38529180.57	0.0513	0.0328
Venus	100778-07-22 19:40 G	38529671.12	38529671.32	38529671.52	0.0524	0.0034
Mercury	100782-11-16 14:09 G	38531248.98	38531249.09	38531249.20	0.0513	0.0268
Mercury	100783-02-13 17:45 G	38531338.15	38531338.24	38531338.33	0.0510	0.0361
Venus	100784-05-27 19:40 G	38531807.13	38531807.32	38531807.53	0.0501	0.0140
Mercury	100789-04-05 08:52 G	38533580.77	38533580.87	38533580.98	0.0515	0.0416
Venus	100790-03-27 17:02 G	38533937.02	38533937.21	38533937.40	0.0524	0.0183
Earth	100791-11-03 13:26 G	38534522.83	38534523.06	38534523.29	0.0530	0.0095
Moon	100791-11-03 14:09 G	38534522.85	38534523.09	38534523.32	0.0530	0.0107 *
Mercury	100794-09-04 18:57 G	38535559.22	38535559.29	38535559.37	0.0513	0.0421
Mercury	100794-12-02 22:47 G	38535648.33	38535648.45	38535648.56	0.0511	0.0210
Venus	100796-01-31 17:02 G	38536073.00	38536073.21	38536073.41	0.0502	0.0059

Mercury	100801-01-22 05:16 G	38537890.54	38537890.72	38537890.89	0.0515	0.0176
Venus	100801-11-30 14:38 G	38538202.99	38538203.11	38538203.25	0.0522	0.0396
Venus	100802-07-25 15:06 G	38538440.00	38538440.13	38538440.27	0.0526	0.0385
Moon	100803-11-08 09:21 G	38538910.75	38538910.89	38538911.04	0.0529	0.0404
Earth	100803-11-08 11:30 G	38538910.83	38538910.98	38538911.15	0.0529	0.0375 *
Mercury	100806-09-21 03:21 G	38539958.51	38539958.64	38539958.76	0.0511	0.0050
Venus	100807-10-06 12:42 G	38540338.86	38540339.03	38540339.21	0.0503	0.0261
Venus	100808-05-30 11:59 G	38540575.92	38540576.00	38540576.09	0.0499	0.0450
Mercury	100812-11-10 01:11 G	38542200.37	38542200.55	38542200.74	0.0514	0.0067
Venus	100814-03-30 11:02 G	38542705.78	38542705.96	38542706.15	0.0525	0.0165
Mercury	100818-07-10 08:09 G	38544268.71	38544268.84	38544268.96	0.0512	0.0106
Venus	100819-06-11 09:06 G	38544604.81	38544604.88	38544604.97	0.0505	0.0461
Venus	100820-02-03 10:04 G	38544841.75	38544841.92	38544842.10	0.0500	0.0258
Moon	100821-04-30 10:33 G	38545293.87	38545293.94	38545294.04	0.0496	0.0460
Earth	100821-04-30 14:52 G	38545294.10	38545294.12	38545294.15	0.0496	0.0492
Mercury	100824-08-28 20:52 G	38546510.22	38546510.37	38546510.51	0.0513	0.0316
Venus	100825-12-03 06:14 G	38546971.56	38546971.76	38546971.96	0.0524	0.0057
Mercury	100830-04-28 12:57 G	38548578.93	38548579.04	38548579.15	0.0513	0.0262
Mercury	100830-07-26 16:33 G	38548668.10	38548668.19	38548668.28	0.0511	0.0368
Venus	100831-10-09 07:40 G	38549107.61	38549107.82	38549108.02	0.0502	0.0063
Earth	100833-05-05 04:47 G	38549681.47	38549681.70	38549681.93	0.0496	0.0099
Moon	100833-05-05 08:09 G	38549681.62	38549681.84	38549682.07	0.0496	0.0093 *
Mercury	100836-09-15 07:40 G	38550910.73	38550910.82	38550910.93	0.0515	0.0433
Venus	100837-08-08 03:35 G	38551237.48	38551237.65	38551237.82	0.0522	0.0271
Venus	100838-04-02 04:18 G	38551474.63	38551474.68	38551474.72	0.0527	0.0511
Mercury	100842-02-14 17:45 G	38552889.17	38552889.24	38552889.31	0.0513	0.0417
Mercury	100842-05-14 21:21 G	38552978.28	38552978.39	38552978.51	0.0511	0.0215
Venus	100843-06-14 03:06 G	38553373.43	38553373.63	38553373.83	0.0502	0.0142
Moon	100845-05-09 11:59 G	38554068.79	38554069.00	38554069.21	0.0496	0.0250
Earth	100845-05-09 14:09 G	38554068.89	38554069.09	38554069.28	0.0496	0.0278 *

Mercury	100848-07-04 03:21 G	38555220.46	38555220.64	38555220.81	0.0515	0.0178
Venus	100849-04-13 00:57 G	38555503.47	38555503.54	38555503.61	0.0522	0.0484
Venus	100849-12-06 01:11 G	38555740.38	38555740.55	38555740.71	0.0526	0.0295
Mars	100852-11-05 23:30 G	38556806.44	38556806.48	38556806.55	0.0523	0.0511
Mercury	100854-03-03 02:38 G	38557288.48	38557288.61	38557288.73	0.0511	0.0066
Venus	100855-02-16 23:59 G	38557639.36	38557639.50	38557639.66	0.0503	0.0341
Venus	100855-10-11 23:16 G	38557876.34	38557876.47	38557876.61	0.0499	0.0373
Mercury	100860-04-21 23:45 G	38559530.30	38559530.49	38559530.67	0.0514	0.0059
Venus	100861-08-10 22:33 G	38560006.24	38560006.44	38560006.63	0.0525	0.0077
Mercury	100865-12-20 07:11 G	38561598.68	38561598.80	38561598.93	0.0512	0.0095
Venus	100867-06-16 20:23 G	38562142.16	38562142.35	38562142.55	0.0501	0.0176
Mercury	100872-02-08 19:54 G	38563840.18	38563840.33	38563840.49	0.0514	0.0297
Venus	100873-04-15 19:11 G	38564272.11	38564272.30	38564272.50	0.0523	0.0141
Moon	100874-11-02 18:42 G	38564838.07	38564838.28	38564838.49	0.0530	0.0162
Earth	100874-11-02 20:23 G	38564838.13	38564838.35	38564838.57	0.0530	0.0149 *
Mercury	100877-10-08 11:59 G	38565908.89	38565909.00	38565909.11	0.0512	0.0251
Mercury	100878-01-05 15:35 G	38565998.07	38565998.15	38565998.23	0.0510	0.0376
Venus	100879-02-19 17:59 G	38566408.04	38566408.25	38566408.46	0.0502	0.0021
Mercury	100884-02-26 06:57 G	38568240.71	38568240.79	38568240.88	0.0515	0.0451
Venus	100884-12-19 15:21 G	38568538.00	38568538.14	38568538.29	0.0522	0.0358
Venus	100885-08-13 15:35 G	38568775.03	38568775.15	38568775.26	0.0526	0.0424
Earth	100886-11-07 16:18 G	38569226.00	38569226.18	38569226.37	0.0530	0.0308
Moon	100886-11-07 19:40 G	38569226.14	38569226.32	38569226.50	0.0530	0.0341 *
Mercury	100889-07-27 16:47 G	38570219.13	38570219.20	38570219.28	0.0513	0.0408
Mercury	100889-10-24 20:23 G	38570308.24	38570308.35	38570308.47	0.0511	0.0225
Venus	100890-10-25 14:52 G	38570673.94	38570674.12	38570674.31	0.0503	0.0221
Venus	100891-06-19 14:09 G	38570911.06	38570911.09	38570911.13	0.0499	0.0491
Mercury	100895-12-15 02:52 G	38572550.45	38572550.62	38572550.79	0.0514	0.0205
Venus	100897-04-18 11:59 G	38573040.82	38573041.00	38573041.18	0.0525	0.0206
Mercury	100901-08-14 01:26 G	38574618.44	38574618.56	38574618.69	0.0511	0.0075

Venus	100902-07-01 11:02 G	38574939.85	38574939.96	38574940.07	0.0504	0.0423
Venus	100903-02-23 10:47 G	38575176.78	38575176.95	38575177.12	0.0500	0.0294
Mercury	100907-10-03 22:04 G	38576860.23	38576860.42	38576860.60	0.0514	0.0052
Venus	100908-12-23 08:52 G	38577306.67	38577306.87	38577307.07	0.0525	0.0016
Mercury	100913-06-02 06:42 G	38578928.65	38578928.78	38578928.90	0.0512	0.0077
Venus	100914-10-29 08:38 G	38579442.65	38579442.86	38579443.06	0.0501	0.0099
Moon	100916-05-05 08:23 G	38579996.62	38579996.85	38579997.09	0.0496	0.0145
Earth	100916-05-05 11:02 G	38579996.73	38579996.96	38579997.18	0.0496	0.0149 *
Mercury	100919-07-22 18:28 G	38581170.12	38581170.27	38581170.43	0.0514	0.0287
Venus	100920-08-28 06:57 G	38581572.61	38581572.79	38581572.97	0.0523	0.0229
Mercury	100925-03-21 11:16 G	38583238.86	38583238.97	38583239.08	0.0512	0.0235
Mercury	100925-06-18 14:52 G	38583328.04	38583328.12	38583328.20	0.0510	0.0391
Venus	100926-07-04 05:16 G	38583708.51	38583708.72	38583708.92	0.0502	0.0102
Earth	100928-05-10 01:11 G	38584384.35	38584384.55	38584384.76	0.0496	0.0248
Moon	100928-05-10 01:26 G	38584384.36	38584384.56	38584384.77	0.0496	0.0219 *
Mercury	100931-08-09 06:14 G	38585570.70	38585570.76	38585570.84	0.0515	0.0476
Venus	100932-05-03 04:33 G	38585838.59	38585838.69	38585838.80	0.0522	0.0441
Venus	100932-12-26 04:33 G	38586075.54	38586075.69	38586075.85	0.0526	0.0341
Mercury	100937-01-07 16:04 G	38587549.09	38587549.17	38587549.25	0.0513	0.0392
Mercury	100937-04-06 19:40 G	38587638.21	38587638.32	38587638.43	0.0511	0.0238
Venus	100938-03-09 01:54 G	38587974.42	38587974.58	38587974.75	0.0503	0.0302
Venus	100938-11-01 01:26 G	38588211.45	38588211.56	38588211.68	0.0500	0.0414
Mercury	100943-05-28 02:09 G	38589880.42	38589880.59	38589880.76	0.0515	0.0227
Venus	100944-08-30 23:59 G	38590341.31	38590341.50	38590341.70	0.0525	0.0120
Mercury	100949-01-24 00:28 G	38591948.40	38591948.52	38591948.65	0.0512	0.0087
Venus	100949-11-11 22:33 G	38592240.43	38592240.44	38592240.47	0.0505	0.0502
Venus	100950-07-06 23:30 G	38592477.30	38592477.48	38592477.67	0.0501	0.0220
Mercury	100955-03-15 22:04 G	38594190.23	38594190.42	38594190.61	0.0514	0.0018
Venus	100956-05-05 21:06 G	38594607.18	38594607.38	38594607.58	0.0524	0.0099
Earth	100957-11-03 05:16 G	38595153.51	38595153.72	38595153.93	0.0530	0.0198

Moon	100957-11-03 08:23 G	38595153.63	38595153.85	38595154.06	0.0530	0.0200 *
Mercury	100960-11-12 05:45 G	38596258.61	38596258.74	38596258.86	0.0512	0.0066
Venus	100962-03-11 20:23 G	38596743.14	38596743.35	38596743.56	0.0501	0.0019
Mercury	100967-01-01 17:02 G	38598500.06	38598500.21	38598500.37	0.0514	0.0277
Venus	100968-01-09 17:45 G	38598873.09	38598873.24	38598873.40	0.0523	0.0319
Venus	100968-09-02 19:11 G	38599110.21	38599110.30	38599110.39	0.0527	0.0470
Moon	100969-11-08 02:38 G	38599541.44	38599541.61	38599541.80	0.0530	0.0317
Earth	100969-11-08 06:42 G	38599541.58	38599541.78	38599541.97	0.0530	0.0283 *
Mars	100971-04-29 02:52 G	38600078.45	38600078.62	38600078.80	0.0524	0.0394
Mercury	100972-08-31 10:47 G	38600568.84	38600568.95	38600569.07	0.0512	0.0213
Mercury	100972-11-28 14:23 G	38600658.03	38600658.10	38600658.17	0.0510	0.0412
Venus	100973-11-14 17:59 G	38601009.05	38601009.25	38601009.44	0.0502	0.0179
Mercury	100978-10-20 13:40 G	38602810.05	38602810.07	38602810.10	0.0514	0.0509
Mercury	100979-01-19 05:02 G	38602900.66	38602900.71	38602900.77	0.0516	0.0488
Venus	100980-05-08 16:18 G	38603376.01	38603376.18	38603376.36	0.0526	0.0253
Mercury	100984-06-19 15:21 G	38604879.06	38604879.14	38604879.23	0.0513	0.0373
Mercury	100984-09-16 19:11 G	38604968.19	38604968.30	38604968.41	0.0510	0.0257
Venus	100985-07-20 13:54 G	38605274.95	38605275.08	38605275.22	0.0504	0.0382
Venus	100986-03-14 13:40 G	38605511.91	38605512.07	38605512.22	0.0500	0.0336
Mars	100989-04-28 02:09 G	38606652.37	38606652.59	38606652.83	0.0503	0.0287
Mercury	100990-11-07 01:40 G	38607210.41	38607210.57	38607210.73	0.0515	0.0251
Venus	100992-01-12 13:26 G	38607641.86	38607642.06	38607642.26	0.0525	0.0034
Mercury	100996-07-05 23:59 G	38609278.37	38609278.50	38609278.62	0.0511	0.0103
Venus	100997-11-17 11:16 G	38609777.77	38609777.97	38609778.17	0.0501	0.0140
Earth	100999-05-06 00:14 G	38610312.29	38610312.51	38610312.73	0.0496	0.0172
Moon	100999-05-06 00:42 G	38610312.32	38610312.53	38610312.74	0.0496	0.0179 *

102ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 102nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	101002-08-26 21:35	G	38611520.21	38611520.40	38611520.59	0.0514	0.0007	
Venus	101003-09-18 09:35	G	38611907.72	38611907.90	38611908.09	0.0523	0.0186	
Mercury	101008-04-25 04:47	G	38613588.58	38613588.70	38613588.83	0.0512	0.0052	
Venus	101009-07-24 08:52	G	38614043.66	38614043.87	38614044.08	0.0502	0.0058	
Earth	101011-05-11 14:52	G	38614699.91	38614700.12	38614700.33	0.0496	0.0222	
Moon	101011-05-11 16:33	G	38614699.96	38614700.19	38614700.41	0.0496	0.0192	*
Mercury	101014-06-14 17:30	G	38615830.06	38615830.23	38615830.39	0.0514	0.0238	
Venus	101015-05-24 06:57	G	38616173.66	38616173.79	38616173.92	0.0522	0.0399	
Venus	101016-01-16 06:57	G	38616410.66	38616410.79	38616410.93	0.0526	0.0385	
Mercury	101020-02-12 09:50	G	38617898.80	38617898.91	38617899.03	0.0512	0.0202	
Mercury	101020-05-11 13:26	G	38617987.99	38617988.06	38617988.13	0.0510	0.0425	
Venus	101021-03-29 05:30	G	38618309.56	38618309.73	38618309.92	0.0503	0.0261	
Venus	101021-11-21 04:04	G	38618546.60	38618546.67	38618546.77	0.0499	0.0453	
Mercury	101026-04-02 12:14	G	38620139.97	38620140.01	38620140.06	0.0514	0.0498	
Mercury	101026-07-02 03:35	G	38620230.61	38620230.65	38620230.70	0.0516	0.0498	
Venus	101027-09-21 03:06	G	38620676.44	38620676.63	38620676.82	0.0526	0.0162	
Mercury	101031-12-01 15:06	G	38622209.04	38622209.13	38622209.22	0.0513	0.0349	
Mercury	101032-02-28 18:42	G	38622298.17	38622298.28	38622298.38	0.0510	0.0279	
Venus	101032-12-02 03:06	G	38622575.55	38622575.63	38622575.71	0.0504	0.0458	
Venus	101033-07-27 02:38	G	38622812.44	38622812.61	38622812.79	0.0500	0.0261	
Mercury	101038-04-20 00:14	G	38624540.35	38624540.51	38624540.67	0.0515	0.0261	

Venus	101039-05-27 00:57 G	38624942.34	38624942.54	38624942.73	0.0525	0.0056
Moon	101040-11-03 15:21 G	38625468.93	38625469.14	38625469.35	0.0530	0.0218
Earth	101040-11-03 18:57 G	38625469.09	38625469.29	38625469.51	0.0530	0.0221 *
Mercury	101043-09-19 19:40 G	38626519.31	38626519.32	38626519.33	0.0513	0.0509
Mercury	101043-12-17 23:30 G	38626608.35	38626608.48	38626608.60	0.0511	0.0123
Venus	101045-03-31 23:30 G	38627078.27	38627078.48	38627078.69	0.0501	0.0062
Mercury	101050-02-05 20:52 G	38628850.18	38628850.37	38628850.55	0.0515	0.0028
Venus	101051-01-29 22:33 G	38629208.27	38629208.44	38629208.61	0.0523	0.0271
Venus	101051-09-23 23:45 G	38629445.46	38629445.49	38629445.52	0.0527	0.0519
Earth	101052-11-08 17:59 G	38629857.05	38629857.25	38629857.45	0.0530	0.0247
Moon	101052-11-08 21:21 G	38629857.21	38629857.39	38629857.59	0.0530	0.0285 *
Mercury	101055-10-06 04:18 G	38630918.55	38630918.68	38630918.80	0.0511	0.0037
Venus	101056-12-04 20:38 G	38631344.16	38631344.36	38631344.56	0.0502	0.0138
Mercury	101061-11-24 16:47 G	38633160.03	38633160.20	38633160.37	0.0514	0.0215
Venus	101062-10-04 19:26 G	38633474.24	38633474.31	38633474.38	0.0521	0.0484
Venus	101063-05-29 18:57 G	38633711.13	38633711.29	38633711.46	0.0526	0.0298
Mercury	101067-07-25 08:52 G	38635228.76	38635228.87	38635228.99	0.0512	0.0190
Mercury	101067-10-22 12:28 G	38635317.96	38635318.02	38635318.09	0.0510	0.0437
Venus	101068-08-09 17:30 G	38635610.08	38635610.23	38635610.38	0.0504	0.0339
Venus	101069-04-03 17:02 G	38635847.08	38635847.21	38635847.35	0.0500	0.0380
Mercury	101073-09-12 12:42 G	38637469.95	38637470.03	38637470.11	0.0513	0.0458
Venus	101075-02-01 15:35 G	38637976.96	38637977.15	38637977.35	0.0525	0.0079
Mercury	101079-05-13 14:09 G	38639539.00	38639539.09	38639539.18	0.0513	0.0338
Mercury	101079-08-10 17:45 G	38639628.14	38639628.24	38639628.34	0.0510	0.0290
Venus	101080-12-07 14:38 G	38640112.92	38640113.11	38640113.31	0.0500	0.0182
Earth	101082-05-06 09:50 G	38640627.70	38640627.91	38640628.13	0.0496	0.0205
Moon	101082-05-06 11:16 G	38640627.75	38640627.97	38640628.19	0.0496	0.0218 *
Mercury	101085-09-29 22:33 G	38641870.29	38641870.44	38641870.60	0.0515	0.0270
Venus	101086-10-07 11:16 G	38642242.78	38642242.97	38642243.16	0.0524	0.0147
Mercury	101091-03-01 19:11 G	38643849.27	38643849.30	38643849.34	0.0513	0.0487

Mercury	101091-05-29 23:02 G	38643938.34	38643938.46	38643938.58	0.0511	0.0144
Venus	101092-08-12 12:42 G	38644378.82	38644379.03	38644379.24	0.0501	0.0015
Moon	101094-05-10 21:06 G	38645015.17	38645015.38	38645015.60	0.0496	0.0153
Earth	101094-05-10 23:59 G	38645015.28	38645015.50	38645015.72	0.0496	0.0185 *
Mercury	101097-07-18 19:11 G	38646180.11	38646180.30	38646180.48	0.0515	0.0034
Venus	101098-06-12 09:21 G	38646508.75	38646508.89	38646509.04	0.0523	0.0361
Venus	101099-02-04 10:33 G	38646745.83	38646745.94	38646746.06	0.0527	0.0430
Mercury	101103-03-19 03:35 G	38648248.53	38648248.65	38648248.78	0.0511	0.0016
Venus	101104-04-18 08:38 G	38648644.68	38648644.86	38648645.05	0.0502	0.0218
Venus	101104-12-11 07:11 G	38648881.78	38648881.80	38648881.82	0.0499	0.0494
Mercury	101109-05-07 15:50 G	38650489.99	38650490.16	38650490.33	0.0514	0.0199
Venus	101110-10-11 07:26 G	38651011.63	38651011.81	38651012.00	0.0526	0.0211
Mercury	101115-01-05 08:23 G	38652558.73	38652558.85	38652558.97	0.0512	0.0171
Mercury	101115-04-04 11:59 G	38652647.94	38652648.00	38652648.05	0.0510	0.0453
Venus	101115-12-23 05:02 G	38652910.60	38652910.71	38652910.83	0.0504	0.0419
Venus	101116-08-16 04:47 G	38653147.54	38653147.70	38653147.87	0.0500	0.0302
Mercury	101121-02-23 11:45 G	38654799.90	38654799.99	38654800.09	0.0513	0.0439
Venus	101122-06-16 03:35 G	38655277.45	38655277.65	38655277.84	0.0524	0.0017
Earth	101123-11-05 02:23 G	38655784.41	38655784.60	38655784.80	0.0530	0.0273
Moon	101123-11-05 06:14 G	38655784.56	38655784.76	38655784.96	0.0530	0.0261 *
Mars	101125-07-25 23:16 G	38656413.21	38656413.47	38656413.73	0.0523	0.0141
Mercury	101126-10-24 13:11 G	38656868.95	38656869.05	38656869.14	0.0513	0.0329
Mercury	101127-01-21 16:47 G	38656958.10	38656958.20	38656958.30	0.0511	0.0299
Venus	101128-04-21 02:23 G	38657413.40	38657413.60	38657413.81	0.0501	0.0104
Mercury	101133-03-12 23:02 G	38659200.31	38659200.46	38659200.61	0.0515	0.0306
Venus	101134-02-19 00:14 G	38659543.33	38659543.51	38659543.69	0.0523	0.0230
Moon	101135-11-09 22:47 G	38660172.24	38660172.45	38660172.66	0.0530	0.0230
Earth	101135-11-10 01:54 G	38660172.36	38660172.58	38660172.79	0.0530	0.0196 *
Mercury	101138-08-12 18:14 G	38661179.22	38661179.26	38661179.30	0.0513	0.0479
Mercury	101138-11-09 21:50 G	38661268.29	38661268.41	38661268.54	0.0511	0.0154

Venus	101139-12-25 23:59 G	38661679.30	38661679.50	38661679.71	0.0502	0.0097
Mars	101143-07-25 12:57 G	38662986.79	38662987.04	38662987.31	0.0502	0.0191
Mercury	101144-12-29 17:16 G	38663510.04	38663510.22	38663510.41	0.0515	0.0038
Venus	101145-10-24 19:26 G	38663809.21	38663809.31	38663809.41	0.0522	0.0452
Venus	101146-06-18 20:09 G	38664046.19	38664046.34	38664046.50	0.0527	0.0337
Mercury	101150-08-29 03:06 G	38665578.50	38665578.63	38665578.76	0.0511	0.0006
Venus	101151-08-30 21:35 G	38665945.23	38665945.40	38665945.57	0.0503	0.0296
Venus	101152-04-23 19:54 G	38666182.23	38666182.33	38666182.45	0.0499	0.0420
Mercury	101156-10-17 13:40 G	38667819.90	38667820.07	38667820.24	0.0514	0.0199
Venus	101158-02-21 17:30 G	38668312.04	38668312.23	38668312.43	0.0526	0.0117
Mercury	101162-06-17 07:40 G	38669888.70	38669888.82	38669888.94	0.0512	0.0154
Mercury	101162-09-14 11:02 G	38669977.92	38669977.96	38669978.01	0.0510	0.0469
Venus	101163-05-05 16:47 G	38670211.18	38670211.20	38670211.23	0.0504	0.0499
Venus	101163-12-28 16:47 G	38670448.02	38670448.20	38670448.39	0.0500	0.0223
Moon	101165-05-06 18:14 G	38670943.06	38670943.26	38670943.46	0.0496	0.0254
Earth	101165-05-06 20:38 G	38670943.16	38670943.36	38670943.57	0.0496	0.0237 *
Mercury	101168-08-05 10:18 G	38672129.83	38672129.93	38672130.03	0.0514	0.0430
Venus	101169-10-27 14:52 G	38672577.93	38672578.12	38672578.32	0.0524	0.0101
Mercury	101174-04-05 12:14 G	38674198.92	38674199.01	38674199.11	0.0512	0.0314
Mercury	101174-07-03 15:50 G	38674288.07	38674288.16	38674288.26	0.0510	0.0314
Venus	101175-09-02 13:40 G	38674713.87	38674714.07	38674714.28	0.0501	0.0024
Earth	101177-05-11 10:33 G	38675330.72	38675330.94	38675331.17	0.0496	0.0153
Moon	101177-05-11 14:09 G	38675330.86	38675331.09	38675331.32	0.0496	0.0123 *
Mercury	101180-08-22 21:35 G	38676530.26	38676530.40	38676530.55	0.0515	0.0320
Venus	101181-07-02 11:30 G	38676843.82	38676843.98	38676844.14	0.0522	0.0320
Venus	101182-02-24 12:14 G	38677080.93	38677081.01	38677081.10	0.0527	0.0471
Mercury	101186-01-22 16:47 G	38678509.16	38678509.20	38678509.25	0.0513	0.0474
Mercury	101186-04-21 20:38 G	38678598.24	38678598.36	38678598.48	0.0511	0.0158
Venus	101187-05-08 10:18 G	38678979.74	38678979.93	38678980.13	0.0503	0.0180
Mercury	101192-06-10 17:16 G	38680840.03	38680840.22	38680840.41	0.0514	0.0071

Venus	101193-10-30 07:54 G	38681346.66	38681346.83	38681347.01	0.0526	0.0250
Mercury	101198-02-08 01:54 G	38682908.45	38682908.58	38682908.70	0.0512	0.0016
Venus	101199-01-11 07:54 G	38683245.70	38683245.83	38683245.97	0.0504	0.0380
Venus	101199-09-05 07:11 G	38683482.65	38683482.80	38683482.95	0.0499	0.0340
Mercury	101204-03-29 11:30 G	38685149.81	38685149.98	38685150.16	0.0514	0.0199
Venus	101205-07-05 02:23 G	38685612.41	38685612.60	38685612.80	0.0525	0.0024
Moon	101206-11-04 05:59 G	38686099.56	38686099.75	38686099.94	0.0531	0.0316
Earth	101206-11-04 09:21 G	38686099.71	38686099.89	38686100.07	0.0531	0.0324 *
Mercury	101209-11-27 06:57 G	38687218.67	38687218.79	38687218.91	0.0512	0.0140
Mercury	101210-02-24 10:18 G	38687307.90	38687307.93	38687307.97	0.0510	0.0484
Venus	101211-05-11 05:02 G	38687748.51	38687748.71	38687748.91	0.0500	0.0144
Mercury	101216-01-16 07:40 G	38689459.73	38689459.82	38689459.92	0.0514	0.0437
Venus	101217-03-09 23:59 G	38689878.31	38689878.50	38689878.68	0.0524	0.0197
Earth	101218-11-09 09:35 G	38690487.68	38690487.90	38690488.12	0.0531	0.0150
Moon	101218-11-09 11:02 G	38690487.76	38690487.96	38690488.17	0.0531	0.0183 *
Mercury	101221-09-15 11:30 G	38691528.88	38691528.98	38691529.08	0.0512	0.0301
Mercury	101221-12-13 15:06 G	38691618.03	38691618.13	38691618.22	0.0510	0.0325
Venus	101223-01-14 00:57 G	38692014.33	38692014.54	38692014.75	0.0501	0.0059
Mercury	101228-02-02 19:40 G	38693860.18	38693860.32	38693860.47	0.0515	0.0323
Venus	101228-11-12 21:50 G	38694144.29	38694144.41	38694144.53	0.0522	0.0410
Venus	101229-07-07 22:47 G	38694381.31	38694381.45	38694381.58	0.0527	0.0381
Mercury	101233-07-04 16:04 G	38695839.12	38695839.17	38695839.22	0.0513	0.0461
Mercury	101233-10-01 19:40 G	38695928.20	38695928.32	38695928.44	0.0511	0.0169
Venus	101234-09-18 20:52 G	38696280.20	38696280.37	38696280.55	0.0503	0.0262
Venus	101235-05-13 19:40 G	38696517.24	38696517.32	38696517.40	0.0499	0.0455
Mercury	101239-11-21 15:35 G	38698169.97	38698170.15	38698170.34	0.0515	0.0077
Venus	101241-03-12 18:14 G	38698647.07	38698647.26	38698647.45	0.0525	0.0157
Mercury	101245-07-21 00:28 G	38700238.39	38700238.52	38700238.64	0.0512	0.0014
Venus	101246-05-24 16:47 G	38700546.13	38700546.20	38700546.28	0.0504	0.0466
Venus	101247-01-16 17:16 G	38700783.04	38700783.22	38700783.40	0.0500	0.0259

Earth	101248-05-06 05:30 G	38701258.53	38701258.73	38701258.92	0.0496	0.0276
Moon	101248-05-06 08:52 G	38701258.68	38701258.87	38701259.07	0.0496	0.0295 *
Mercury	101251-09-09 11:02 G	38702479.79	38702479.96	38702480.14	0.0514	0.0173
Venus	101252-11-15 13:54 G	38702912.88	38702913.08	38702913.28	0.0524	0.0066
Mercury	101257-05-09 05:30 G	38704548.61	38704548.73	38704548.85	0.0512	0.0141
Mercury	101257-08-06 09:06 G	38704637.84	38704637.88	38704637.91	0.0510	0.0483
Venus	101258-09-21 15:06 G	38705048.92	38705049.13	38705049.33	0.0501	0.0060
Moon	101260-05-10 13:40 G	38705645.84	38705646.07	38705646.31	0.0495	0.0082
Earth	101260-05-10 17:30 G	38705646.00	38705646.23	38705646.46	0.0495	0.0110 *
Mercury	101263-06-28 05:16 G	38706789.63	38706789.72	38706789.82	0.0513	0.0441
Venus	101264-07-21 08:23 G	38707178.68	38707178.85	38707179.01	0.0523	0.0293
Venus	101265-03-15 09:50 G	38707415.86	38707415.91	38707415.97	0.0528	0.0502
Mercury	101269-02-25 10:33 G	38708858.83	38708858.94	38708859.04	0.0513	0.0292
Mercury	101269-05-25 14:09 G	38708947.99	38708948.09	38708948.18	0.0510	0.0335
Venus	101270-05-27 12:14 G	38709314.81	38709315.01	38709315.21	0.0502	0.0140
Earth	101272-05-15 05:59 G	38710033.74	38710033.75	38710033.77	0.0495	0.0493
Mercury	101275-07-15 16:33 G	38711190.05	38711190.19	38711190.35	0.0515	0.0308
Venus	101276-03-26 05:45 G	38711444.70	38711444.74	38711444.79	0.0522	0.0506
Venus	101276-11-18 06:14 G	38711681.60	38711681.76	38711681.93	0.0527	0.0282
Mercury	101280-12-14 14:52 G	38713169.07	38713169.12	38713169.18	0.0513	0.0455
Mercury	101281-03-13 18:42 G	38713258.16	38713258.28	38713258.39	0.0511	0.0176
Venus	101282-01-30 07:11 G	38713580.65	38713580.80	38713580.95	0.0503	0.0346
Venus	101282-09-24 06:14 G	38713817.62	38713817.76	38713817.90	0.0499	0.0374
Mercury	101287-05-03 13:11 G	38715499.86	38715500.05	38715500.23	0.0515	0.0072
Venus	101288-07-24 03:35 G	38715947.45	38715947.65	38715947.85	0.0525	0.0062
Earth	101289-11-03 14:23 G	38716414.95	38716415.10	38716415.27	0.0530	0.0384
Moon	101289-11-03 16:18 G	38716415.03	38716415.18	38716415.35	0.0530	0.0370 *
Mercury	101292-12-30 23:16 G	38717568.34	38717568.47	38717568.59	0.0511	0.0018
Venus	101294-05-30 02:52 G	38718083.43	38718083.62	38718083.82	0.0500	0.0176
Mercury	101299-02-19 08:52 G	38719809.70	38719809.87	38719810.05	0.0514	0.0173

Venus	101300-03-29 23:30 G	38720213.29	38720213.48	38720213.67	0.0523	0.0161
Earth	101301-11-09 10:47 G	38720802.72	38720802.95	38720803.18	0.0530	0.0074
Moon	101301-11-09 11:16 G	38720802.73	38720802.97	38720803.21	0.0530	0.0100 *
Mercury	101304-10-20 03:50 G	38721878.54	38721878.66	38721878.78	0.0512	0.0146
Mercury	101305-01-17 07:11 G	38721967.76	38721967.80	38721967.84	0.0510	0.0478
Venus	101306-02-02 23:30 G	38722349.27	38722349.48	38722349.69	0.0502	0.0027
Mercury	101310-12-09 04:33 G	38724119.58	38724119.69	38724119.79	0.0513	0.0422
Venus	101311-12-03 19:26 G	38724479.18	38724479.31	38724479.45	0.0522	0.0380
Venus	101312-07-27 20:09 G	38724716.22	38724716.34	38724716.46	0.0527	0.0411
Moon	101313-11-14 05:30 G	38725190.69	38725190.73	38725190.79	0.0530	0.0516
Mercury	101316-08-08 08:38 G	38726188.76	38726188.86	38726188.96	0.0513	0.0298
Mercury	101316-11-05 12:14 G	38726277.92	38726278.01	38726278.11	0.0511	0.0330
Venus	101317-10-08 20:38 G	38726615.18	38726615.36	38726615.55	0.0503	0.0229
Venus	101318-06-02 19:26 G	38726852.27	38726852.31	38726852.35	0.0499	0.0488
Mercury	101322-12-26 13:40 G	38728519.92	38728520.07	38728520.23	0.0515	0.0297
Venus	101324-04-01 13:26 G	38728981.88	38728982.06	38728982.25	0.0526	0.0181
Mercury	101328-05-27 13:26 G	38730499.01	38730499.06	38730499.12	0.0513	0.0452
Mercury	101328-08-24 17:16 G	38730588.10	38730588.22	38730588.34	0.0511	0.0179
Venus	101329-06-13 17:16 G	38730881.12	38730881.22	38730881.33	0.0504	0.0430
Venus	101330-02-05 17:16 G	38731118.05	38731118.22	38731118.38	0.0499	0.0294
Moon	101331-05-07 06:28 G	38731573.60	38731573.77	38731573.94	0.0495	0.0351
Earth	101331-05-07 10:18 G	38731573.75	38731573.93	38731574.11	0.0495	0.0326 *
Mercury	101334-10-14 09:35 G	38732829.72	38732829.90	38732830.09	0.0514	0.0051
Venus	101335-12-06 10:18 G	38733247.73	38733247.93	38733248.12	0.0525	0.0041
Mercury	101340-06-12 21:50 G	38734898.28	38734898.41	38734898.53	0.0511	0.0019
Venus	101341-10-11 12:14 G	38735383.81	38735384.01	38735384.22	0.0501	0.0092
Earth	101343-05-11 20:38 G	38735961.12	38735961.36	38735961.60	0.0495	0.0050
Moon	101343-05-11 23:45 G	38735961.25	38735961.49	38735961.72	0.0495	0.0033 *
Mercury	101346-08-02 05:59 G	38737139.58	38737139.75	38737139.92	0.0514	0.0186
Venus	101347-08-11 07:54 G	38737513.66	38737513.83	38737514.01	0.0523	0.0257

Mercury	101352-04-01 02:23 G	38739208.48	38739208.60	38739208.72	0.0512	0.0143
Mercury	101352-06-29 05:59 G	38739297.71	38739297.75	38739297.79	0.0510	0.0479
Venus	101353-06-16 08:23 G	38739649.64	38739649.85	38739650.05	0.0502	0.0113
Moon	101355-05-16 06:57 G	38740348.70	38740348.79	38740348.89	0.0496	0.0452
Earth	101355-05-16 08:52 G	38740348.76	38740348.87	38740348.99	0.0496	0.0432 *
Mercury	101358-05-21 01:54 G	38741449.48	38741449.58	38741449.68	0.0513	0.0428
Venus	101359-04-16 04:33 G	38741779.61	38741779.69	38741779.77	0.0521	0.0473
Venus	101359-12-09 04:18 G	38742016.53	38742016.68	38742016.84	0.0526	0.0315
Mercury	101364-01-19 06:42 G	38743518.68	38743518.78	38743518.88	0.0513	0.0308
Mercury	101364-04-17 10:33 G	38743607.84	38743607.94	38743608.03	0.0511	0.0320
Venus	101365-02-19 03:50 G	38743915.51	38743915.66	38743915.83	0.0503	0.0319
Venus	101365-10-14 03:06 G	38744152.52	38744152.63	38744152.76	0.0499	0.0404
Mercury	101370-06-07 12:28 G	38745849.87	38745850.02	38745850.17	0.0515	0.0308
Venus	101371-08-13 23:45 G	38746282.29	38746282.49	38746282.68	0.0525	0.0090
Moon	101372-11-03 11:16 G	38746729.86	38746729.97	38746730.10	0.0530	0.0456
Earth	101372-11-03 11:16 G	38746729.88	38746729.97	38746730.08	0.0530	0.0477 *
Mercury	101375-11-07 11:30 G	38747828.93	38747828.98	38747829.04	0.0514	0.0464
Mercury	101376-02-04 15:21 G	38747918.02	38747918.14	38747918.26	0.0511	0.0169
Venus	101377-06-19 01:11 G	38748418.36	38748418.55	38748418.74	0.0500	0.0206
Mercury	101382-03-26 06:28 G	38750159.59	38750159.77	38750159.96	0.0514	0.0039
Venus	101383-04-18 17:16 G	38750548.03	38750548.22	38750548.41	0.0524	0.0140
Moon	101384-11-08 04:47 G	38751117.47	38751117.70	38751117.92	0.0531	0.0008
Earth	101384-11-08 06:57 G	38751117.56	38751117.79	38751118.02	0.0531	0.0021 *
Mercury	101387-11-23 20:23 G	38752228.22	38752228.35	38752228.47	0.0512	0.0020
Venus	101389-02-21 22:18 G	38752684.22	38752684.43	38752684.64	0.0501	0.0007
Mercury	101394-01-12 02:23 G	38754469.43	38754469.60	38754469.77	0.0514	0.0210
Venus	101394-12-22 14:09 G	38754813.95	38754814.09	38754814.24	0.0522	0.0358
Venus	101395-08-16 15:21 G	38755051.03	38755051.14	38755051.25	0.0527	0.0436
Earth	101396-11-13 06:14 G	38755505.65	38755505.76	38755505.89	0.0531	0.0450
Moon	101396-11-13 10:04 G	38755505.79	38755505.92	38755506.06	0.0531	0.0425 *

Mars	101398-04-10 13:11 G	38756018.89	38756019.05	38756019.21	0.0525	0.0416
Mercury	101399-09-12 00:42 G	38756538.41	38756538.53	38756538.65	0.0512	0.0148
Mercury	101399-12-10 04:18 G	38756627.64	38756627.68	38756627.72	0.0510	0.0475
Venus	101400-10-28 16:47 G	38756950.01	38756950.20	38756950.39	0.0502	0.0201
Mercury	101405-10-31 22:33 G	38758779.35	38758779.44	38758779.53	0.0513	0.0447
Venus	101407-04-22 11:59 G	38759316.82	38759317.00	38759317.18	0.0526	0.0217
Mercury	101411-07-02 05:16 G	38760848.62	38760848.72	38760848.82	0.0513	0.0309
Mercury	101411-09-29 08:52 G	38760937.77	38760937.87	38760937.97	0.0510	0.0317
Venus	101412-07-03 11:59 G	38761215.89	38761216.00	38761216.13	0.0504	0.0407
Venus	101413-02-25 11:45 G	38761452.83	38761452.99	38761453.15	0.0500	0.0318
Earth	101414-05-07 09:50 G	38761888.77	38761888.91	38761889.05	0.0496	0.0399
Moon	101414-05-07 12:42 G	38761888.92	38761889.03	38761889.16	0.0496	0.0428 *
Mars	101416-04-09 08:52 G	38762591.67	38762591.87	38762592.08	0.0501	0.0351
Mercury	101417-11-18 09:35 G	38763179.75	38763179.90	38763180.05	0.0515	0.0296
Venus	101418-12-26 07:40 G	38763582.63	38763582.82	38763583.02	0.0524	0.0015
Mercury	101423-04-20 09:35 G	38765158.86	38765158.90	38765158.95	0.0513	0.0476
Mercury	101423-07-18 13:26 G	38765247.94	38765248.06	38765248.18	0.0511	0.0156
Venus	101424-10-31 07:54 G	38765718.63	38765718.83	38765719.04	0.0501	0.0116
Moon	101426-05-11 20:38 G	38766276.11	38766276.36	38766276.60	0.0496	0.0031
Earth	101426-05-11 22:18 G	38766276.20	38766276.43	38766276.67	0.0496	0.0017 *
Mercury	101429-09-06 04:47 G	38767489.52	38767489.70	38767489.89	0.0514	0.0043
Venus	101430-08-31 03:21 G	38767848.46	38767848.64	38767848.82	0.0523	0.0232
Mercury	101435-05-06 18:14 G	38769558.13	38769558.26	38769558.39	0.0512	0.0006
Venus	101436-07-06 05:16 G	38769984.52	38769984.72	38769984.93	0.0502	0.0086
Earth	101438-05-16 11:16 G	38770663.82	38770663.97	38770664.13	0.0495	0.0371
Moon	101438-05-16 11:30 G	38770663.85	38770663.98	38770664.12	0.0495	0.0398 *
Mercury	101441-06-24 23:02 G	38771799.30	38771799.46	38771799.63	0.0513	0.0225
Venus	101442-05-05 21:21 G	38772114.30	38772114.39	38772114.49	0.0521	0.0456
Venus	101442-12-28 21:21 G	38772351.24	38772351.39	38772351.55	0.0526	0.0334
Mercury	101447-02-22 23:02 G	38773868.34	38773868.46	38773868.58	0.0513	0.0154

Mercury	101447-05-23 02:38 G	38773957.56	38773957.61	38773957.65	0.0510	0.0471
Venus	101448-03-11 01:40 G	38774250.40	38774250.57	38774250.74	0.0503	0.0288
Venus	101448-11-03 00:42 G	38774487.44	38774487.53	38774487.64	0.0499	0.0434
Mercury	101453-04-12 18:57 G	38776109.21	38776109.29	38776109.36	0.0513	0.0470
Venus	101454-09-02 17:45 G	38776617.04	38776617.24	38776617.43	0.0525	0.0112
Mercury	101458-12-12 03:21 G	38778178.54	38778178.64	38778178.74	0.0513	0.0318
Mercury	101459-03-11 06:57 G	38778267.69	38778267.79	38778267.89	0.0511	0.0309
Venus	101459-11-14 19:26 G	38778516.29	38778516.31	38778516.35	0.0505	0.0497
Venus	101460-07-08 19:54 G	38778753.14	38778753.33	38778753.51	0.0500	0.0231
Mercury	101465-04-30 05:59 G	38780509.59	38780509.75	38780509.91	0.0515	0.0275
Venus	101466-05-08 15:06 G	38780882.93	38780883.13	38780883.32	0.0524	0.0108
Earth	101467-11-09 07:11 G	38781432.57	38781432.80	38781433.02	0.0531	0.0102
Moon	101467-11-09 10:47 G	38781432.72	38781432.95	38781433.18	0.0531	0.0081 *
Mercury	101470-09-30 07:54 G	38782488.79	38782488.83	38782488.87	0.0513	0.0479
Mercury	101470-12-28 11:45 G	38782577.87	38782577.99	38782578.11	0.0511	0.0151
Venus	101472-03-13 16:04 G	38783018.96	38783019.17	38783019.37	0.0501	0.0030
Mercury	101477-02-16 01:54 G	38784819.39	38784819.58	38784819.76	0.0514	0.0030
Venus	101478-01-11 11:30 G	38785148.83	38785148.98	38785149.14	0.0522	0.0329
Venus	101478-09-05 12:14 G	38785385.92	38785386.01	38785386.10	0.0527	0.0467
Moon	101479-11-13 23:30 G	38785820.31	38785820.48	38785820.66	0.0530	0.0331
Earth	101479-11-14 03:35 G	38785820.48	38785820.65	38785820.82	0.0530	0.0356 *
Mercury	101482-10-16 16:04 G	38786888.05	38786888.17	38786888.30	0.0512	0.0015
Venus	101483-11-17 11:30 G	38787284.78	38787284.98	38787285.17	0.0503	0.0179
Mercury	101488-12-04 21:06 G	38789129.22	38789129.38	38789129.55	0.0513	0.0223
Venus	101490-05-11 06:57 G	38789651.61	38789651.79	38789651.97	0.0526	0.0241
Mercury	101494-08-04 20:52 G	38791198.25	38791198.37	38791198.49	0.0513	0.0169
Mercury	101494-11-02 00:28 G	38791287.47	38791287.52	38791287.58	0.0510	0.0456
Venus	101495-07-23 07:54 G	38791550.70	38791550.83	38791550.97	0.0504	0.0383
Venus	101496-03-16 08:09 G	38791787.69	38791787.84	38791787.99	0.0500	0.0346
Moon	101497-05-06 10:04 G	38792203.89	38792203.92	38792203.96	0.0495	0.0490

Earth	101497-05-06 11:59 G	38792203.92	38792204.00	38792204.09	0.0495	0.0460	*
Mercury	101500-09-23 15:50 G	38793439.10	38793439.16	38793439.22	0.0512	0.0484	
Mercury	101500-12-23 06:57 G	38793529.75	38793529.79	38793529.83	0.0515	0.0501	
Venus	101502-01-15 00:28 G	38793917.32	38793917.52	38793917.72	0.0524	0.0013	
Mercury	101506-05-25 01:40 G	38795508.47	38795508.57	38795508.66	0.0513	0.0326	
Mercury	101506-08-22 05:16 G	38795597.62	38795597.72	38795597.82	0.0511	0.0303	
Venus	101507-11-21 05:02 G	38796053.51	38796053.71	38796053.91	0.0501	0.0147	
Earth	101509-05-11 23:59 G	38796591.27	38796591.50	38796591.74	0.0495	0.0080	
Moon	101509-05-12 00:28 G	38796591.29	38796591.52	38796591.74	0.0495	0.0091	*
Mercury	101512-10-11 02:23 G	38797839.44	38797839.60	38797839.76	0.0514	0.0251	
Venus	101513-09-19 21:06 G	38798183.20	38798183.38	38798183.56	0.0523	0.0211	
Mercury	101518-03-13 05:59 G	38799818.72	38799818.75	38799818.79	0.0514	0.0490	
Mercury	101518-06-10 09:50 G	38799907.79	38799907.91	38799908.03	0.0511	0.0141	
Venus	101519-07-26 23:30 G	38800319.28	38800319.48	38800319.69	0.0502	0.0063	
Earth	101521-05-16 08:38 G	38800978.67	38800978.86	38800979.05	0.0495	0.0289	
Moon	101521-05-16 09:35 G	38800978.72	38800978.90	38800979.10	0.0495	0.0316	*
Mercury	101524-07-29 22:18 G	38802149.24	38802149.43	38802149.62	0.0514	0.0009	
Venus	101525-05-25 18:57 G	38802449.18	38802449.29	38802449.40	0.0522	0.0426	
Venus	101526-01-17 19:11 G	38802686.16	38802686.30	38802686.45	0.0527	0.0368	
Mercury	101530-03-29 14:23 G	38804217.98	38804218.10	38804218.23	0.0512	0.0023	
Venus	101531-03-31 19:26 G	38804585.13	38804585.31	38804585.48	0.0503	0.0267	
Venus	101531-11-23 17:59 G	38804822.18	38804822.25	38804822.34	0.0499	0.0455	
Mercury	101536-05-17 18:14 G	38806459.09	38806459.26	38806459.43	0.0514	0.0236	
Venus	101537-09-22 15:06 G	38806951.94	38806952.13	38806952.32	0.0525	0.0143	
Mercury	101542-01-15 18:57 G	38808528.17	38808528.29	38808528.41	0.0512	0.0182	
Mercury	101542-04-14 22:18 G	38808617.38	38808617.43	38808617.50	0.0510	0.0443	
Venus	101542-12-04 14:09 G	38808851.03	38808851.09	38808851.16	0.0505	0.0475	
Venus	101543-07-29 14:38 G	38809087.94	38809088.11	38809088.29	0.0500	0.0255	
Mercury	101548-03-05 13:40 G	38810769.02	38810769.07	38810769.14	0.0513	0.0483	
Mercury	101548-06-04 04:47 G	38810859.67	38810859.70	38810859.74	0.0515	0.0504	

Venus	101549-05-28 10:33 G	38811217.75	38811217.94	38811218.14	0.0524	0.0083
Moon	101550-11-08 22:18 G	38811747.22	38811747.43	38811747.64	0.0530	0.0183
Earth	101550-11-09 02:09 G	38811747.38	38811747.59	38811747.80	0.0530	0.0204 *
Mars	101552-07-05 11:45 G	38812351.74	38812351.99	38812352.25	0.0525	0.0151
Mercury	101553-11-03 23:30 G	38812838.39	38812838.48	38812838.57	0.0513	0.0340
Mercury	101554-02-01 03:21 G	38812927.53	38812927.64	38812927.74	0.0511	0.0289
Venus	101555-04-03 11:59 G	38813353.79	38813354.00	38813354.21	0.0502	0.0055
Mercury	101560-03-22 23:30 G	38815169.31	38815169.48	38815169.64	0.0514	0.0239
Venus	101561-01-31 05:02 G	38815483.55	38815483.71	38815483.87	0.0522	0.0308
Venus	101561-09-25 05:16 G	38815720.65	38815720.72	38815720.80	0.0527	0.0488
Earth	101562-11-13 20:38 G	38816135.16	38816135.36	38816135.57	0.0531	0.0247
Moon	101562-11-14 00:14 G	38816135.31	38816135.51	38816135.72	0.0531	0.0223 *
Mercury	101565-08-23 04:04 G	38817148.65	38817148.67	38817148.70	0.0514	0.0499
Mercury	101565-11-20 07:54 G	38817237.71	38817237.83	38817237.96	0.0512	0.0136
Venus	101566-12-07 08:38 G	38817619.66	38817619.86	38817620.06	0.0503	0.0149
Mars	101570-07-04 08:38 G	38818924.58	38818924.86	38818925.14	0.0501	0.0055
Mercury	101572-01-09 18:57 G	38819479.11	38819479.29	38819479.48	0.0514	0.0013
Venus	101573-05-31 01:11 G	38819986.38	38819986.55	38819986.73	0.0526	0.0266
Mercury	101577-09-08 12:28 G	38821547.90	38821548.02	38821548.15	0.0512	0.0031
Venus	101578-08-12 02:52 G	38821885.48	38821885.62	38821885.77	0.0504	0.0358
Venus	101579-04-06 02:09 G	38822122.46	38822122.59	38822122.74	0.0499	0.0370
Mercury	101583-10-28 14:38 G	38823788.96	38823789.11	38823789.28	0.0514	0.0256
Venus	101585-02-02 22:33 G	38824252.25	38824252.44	38824252.64	0.0525	0.0045
Mercury	101589-06-27 17:16 G	38825858.10	38825858.22	38825858.34	0.0512	0.0183
Mercury	101589-09-24 20:52 G	38825947.31	38825947.37	38825947.43	0.0510	0.0440
Venus	101590-12-09 23:02 G	38826388.26	38826388.46	38826388.66	0.0500	0.0169
Earth	101592-05-10 21:21 G	38826906.17	38826906.39	38826906.61	0.0495	0.0162
Moon	101592-05-10 22:33 G	38826906.21	38826906.44	38826906.67	0.0495	0.0168 *
Mercury	101595-08-16 10:47 G	38828098.91	38828098.95	38828099.01	0.0513	0.0494
Mercury	101595-11-15 02:09 G	38828189.54	38828189.59	38828189.64	0.0515	0.0493

Venus	101596-10-08 19:26 G	38828518.12	38828518.31	38828518.50	0.0523	0.0179
Mercury	101601-04-15 21:35 G	38830168.31	38830168.40	38830168.50	0.0513	0.0348
Mercury	101601-07-14 01:26 G	38830257.45	38830257.56	38830257.66	0.0511	0.0280
Venus	101602-08-14 18:57 G	38830654.08	38830654.29	38830654.50	0.0502	0.0038
Moon	101604-05-15 07:26 G	38831293.61	38831293.81	38831294.01	0.0496	0.0251
Earth	101604-05-15 10:18 G	38831293.72	38831293.93	38831294.14	0.0496	0.0223 *
Mercury	101607-09-02 21:35 G	38832499.24	38832499.40	38832499.57	0.0515	0.0244
Venus	101608-06-13 15:50 G	38832784.03	38832784.16	38832784.28	0.0521	0.0398
Venus	101609-02-05 15:35 G	38833021.03	38833021.15	38833021.28	0.0526	0.0397
Mercury	101613-02-02 02:23 G	38834478.58	38834478.60	38834478.61	0.0514	0.0508
Mercury	101613-05-02 06:14 G	38834567.63	38834567.76	38834567.88	0.0512	0.0125
Venus	101614-04-19 15:35 G	38834919.97	38834920.15	38834920.33	0.0503	0.0241
Venus	101614-12-12 14:52 G	38835157.08	38835157.12	38835157.18	0.0499	0.0484
Mercury	101619-06-21 16:33 G	38836809.01	38836809.19	38836809.38	0.0514	0.0017
Venus	101620-10-11 09:35 G	38837286.71	38837286.90	38837287.09	0.0525	0.0167
Mercury	101625-02-18 11:02 G	38838877.83	38838877.96	38838878.08	0.0512	0.0034
Venus	101625-12-23 11:45 G	38839185.90	38839185.99	38839186.09	0.0505	0.0446
Venus	101626-08-17 12:28 G	38839422.85	38839423.02	38839423.19	0.0500	0.0288
Mercury	101631-04-09 12:14 G	38841118.85	38841119.01	38841119.17	0.0513	0.0261
Venus	101632-06-16 05:59 G	38841552.55	38841552.75	38841552.95	0.0524	0.0056
Earth	101633-11-07 23:45 G	38842062.30	38842062.49	38842062.68	0.0530	0.0296
Moon	101633-11-08 03:21 G	38842062.45	38842062.64	38842062.84	0.0530	0.0278 *
Mercury	101636-12-07 15:35 G	38843188.03	38843188.15	38843188.27	0.0513	0.0191
Mercury	101637-03-06 19:11 G	38843277.23	38843277.30	38843277.36	0.0510	0.0433
Venus	101638-04-22 07:26 G	38843688.60	38843688.81	38843689.01	0.0501	0.0080
Mercury	101643-01-26 07:54 G	38845428.81	38845428.83	38845428.85	0.0513	0.0508
Mercury	101643-04-26 23:02 G	38845519.40	38845519.46	38845519.53	0.0515	0.0479
Venus	101644-02-20 03:35 G	38845818.48	38845818.65	38845818.82	0.0523	0.0276
Venus	101644-10-14 04:33 G	38846055.68	38846055.69	38846055.71	0.0527	0.0525
Moon	101645-11-12 22:33 G	38846450.21	38846450.44	38846450.67	0.0531	0.0149

Earth 101645-11-13 00:57 G 38846450.32 38846450.54 38846450.75 0.0531 0.0180 *
 Mercury 101648-09-25 20:23 G 38847498.26 38847498.35 38847498.44 0.0513 0.0346
 Mercury 101648-12-23 23:59 G 38847587.40 38847587.50 38847587.61 0.0511 0.0281
 Venus 101649-12-26 04:04 G 38847954.47 38847954.67 38847954.87 0.0502 0.0123
 Mercury 101655-02-12 19:11 G 38849829.13 38849829.30 38849829.47 0.0515 0.0237
 Venus 101655-10-26 01:11 G 38850084.48 38850084.55 38850084.61 0.0521 0.0491
 Venus 101656-06-19 00:57 G 38850321.38 38850321.54 38850321.70 0.0526 0.0302
 Mercury 101660-07-15 00:42 G 38851808.52 38851808.53 38851808.54 0.0514 0.0510
 Mercury 101660-10-12 04:33 G 38851897.57 38851897.69 38851897.81 0.0511 0.0121
 Venus 101661-08-30 23:16 G 38852220.32 38852220.47 38852220.63 0.0504 0.0332
 Venus 101662-04-24 23:02 G 38852457.34 38852457.46 38852457.59 0.0500 0.0397
 Mercury 101666-12-01 14:52 G 38854138.94 38854139.12 38854139.31 0.0514 0.0015
 Venus 101668-02-22 20:52 G 38854587.17 38854587.37 38854587.56 0.0524 0.0077
 Mercury 101672-07-31 09:21 G 38856207.76 38856207.89 38856208.01 0.0512 0.0037
 Venus 101673-12-28 20:38 G 38856723.17 38856723.36 38856723.55 0.0501 0.0200
 Moon 101675-05-10 23:45 G 38857221.28 38857221.49 38857221.70 0.0496 0.0213
 Earth 101675-05-11 02:38 G 38857221.40 38857221.61 38857221.82 0.0496 0.0214 *
 Mercury 101678-09-19 10:18 G 38858448.77 38858448.93 38858449.09 0.0513 0.0259
 Venus 101679-10-28 15:35 G 38858852.96 38858853.15 38858853.34 0.0523 0.0151
 Mercury 101684-05-19 13:54 G 38860517.97 38860518.08 38860518.20 0.0513 0.0193
 Mercury 101684-08-16 17:30 G 38860607.17 38860607.23 38860607.30 0.0511 0.0434
 Venus 101685-09-02 17:45 G 38860989.03 38860989.24 38860989.45 0.0502 0.0004
 Earth 101687-05-15 15:35 G 38861608.93 38861609.15 38861609.38 0.0495 0.0169
 Moon 101687-05-15 19:26 G 38861609.10 38861609.31 38861609.53 0.0495 0.0203 *
 Mercury 101690-07-08 05:59 G 38862758.72 38862758.75 38862758.79 0.0513 0.0503
 Mercury 101690-10-06 20:52 G 38862849.31 38862849.37 38862849.44 0.0515 0.0481
 Venus 101691-07-03 12:42 G 38863118.89 38863119.03 38863119.17 0.0522 0.0369
 Venus 101692-02-25 12:42 G 38863355.92 38863356.03 38863356.14 0.0526 0.0428
 Mercury 101696-03-07 18:42 G 38864828.19 38864828.28 38864828.37 0.0513 0.0349
 Mercury 101696-06-04 22:18 G 38864917.33 38864917.43 38864917.54 0.0511 0.0279

Venus	101697-05-08 12:42 G	38865254.84	38865255.03	38865255.22	0.0503	0.0212
Mercury	101702-07-26 16:33 G	38867159.02	38867159.19	38867159.35	0.0515	0.0229
Venus	101703-11-01 09:35 G	38867621.72	38867621.90	38867622.08	0.0526	0.0205
Mars	101706-09-30 07:40 G	38868685.58	38868685.82	38868686.05	0.0524	0.0235
Mercury	101707-12-26 23:30 G	38869138.46	38869138.48	38869138.51	0.0513	0.0503
Mercury	101708-03-25 03:21 G	38869227.52	38869227.64	38869227.77	0.0511	0.0128
Venus	101709-01-12 09:21 G	38869520.78	38869520.89	38869521.01	0.0504	0.0417
Venus	101709-09-06 09:06 G	38869757.72	38869757.88	38869758.04	0.0500	0.0315
Mercury	101714-05-14 12:42 G	38871468.85	38871469.03	38871469.22	0.0514	0.0014
Venus	101715-07-07 06:42 G	38871887.59	38871887.78	38871887.98	0.0524	0.0021
Moon	101716-11-08 03:06 G	38872377.46	38872377.63	38872377.82	0.0530	0.0343
Earth	101716-11-08 05:59 G	38872377.58	38872377.75	38872377.92	0.0530	0.0350 *
Mercury	101720-01-12 07:54 G	38873537.71	38873537.83	38873537.96	0.0512	0.0034
Venus	101721-05-12 05:30 G	38874023.53	38874023.73	38874023.94	0.0501	0.0112
Mars	101724-09-27 23:02 G	38875258.24	38875258.46	38875258.68	0.0502	0.0310
Mercury	101726-03-02 08:52 G	38875778.71	38875778.87	38875779.04	0.0514	0.0249
Venus	101727-03-12 03:21 G	38876153.47	38876153.64	38876153.82	0.0523	0.0240
Earth	101728-11-13 03:35 G	38876765.42	38876765.65	38876765.87	0.0530	0.0109
Moon	101728-11-13 03:50 G	38876765.45	38876765.66	38876765.88	0.0530	0.0077 *
Mercury	101731-10-31 12:42 G	38877847.91	38877848.03	38877848.15	0.0513	0.0189
Mercury	101732-01-28 16:18 G	38877937.12	38877937.18	38877937.24	0.0510	0.0434
Venus	101733-01-15 02:38 G	38878289.41	38878289.61	38878289.82	0.0503	0.0091
Mercury	101737-12-19 04:33 G	38880088.65	38880088.69	38880088.74	0.0513	0.0494
Mercury	101738-03-19 19:40 G	38880179.26	38880179.32	38880179.37	0.0515	0.0489
Venus	101738-11-14 23:16 G	38880419.38	38880419.47	38880419.57	0.0521	0.0459
Venus	101739-07-09 22:47 G	38880656.30	38880656.45	38880656.60	0.0526	0.0335
Mercury	101743-08-19 17:16 G	38882158.13	38882158.22	38882158.32	0.0513	0.0348
Mercury	101743-11-16 21:06 G	38882247.28	38882247.38	38882247.49	0.0511	0.0282
Venus	101744-09-19 23:16 G	38882555.30	38882555.47	38882555.64	0.0504	0.0296
Venus	101745-05-14 23:02 G	38882792.37	38882792.46	38882792.57	0.0500	0.0435

Mercury	101750-01-05 15:21 G	38884488.97	38884489.14	38884489.30	0.0514	0.0242
Venus	101751-03-14 19:11 G	38884922.11	38884922.30	38884922.50	0.0525	0.0112
Mercury	101755-06-07 22:18 G	38886468.40	38886468.43	38886468.45	0.0514	0.0502
Mercury	101755-09-05 02:09 G	38886557.46	38886557.59	38886557.71	0.0511	0.0130
Venus	101756-05-25 18:28 G	38886821.27	38886821.27	38886821.29	0.0505	0.0504
Venus	101757-01-17 19:11 G	38887058.12	38887058.30	38887058.49	0.0500	0.0231
Earth	101758-05-11 05:02 G	38887536.52	38887536.71	38887536.91	0.0495	0.0275
Moon	101758-05-11 09:06 G	38887536.68	38887536.88	38887537.08	0.0495	0.0260 *
Mercury	101761-10-24 10:33 G	38888798.75	38888798.94	38888799.13	0.0514	0.0012
Venus	101762-11-17 16:04 G	38889187.98	38889188.17	38889188.37	0.0524	0.0113
Mercury	101767-06-24 07:11 G	38890867.67	38890867.80	38890867.92	0.0512	0.0023
Venus	101768-09-22 16:33 G	38891323.98	38891324.19	38891324.40	0.0501	0.0030
Moon	101770-05-15 14:38 G	38891923.89	38891924.11	38891924.34	0.0495	0.0140
Earth	101770-05-15 18:42 G	38891924.05	38891924.28	38891924.51	0.0495	0.0108 *
Mercury	101773-08-12 06:57 G	38893108.63	38893108.79	38893108.96	0.0514	0.0246
Venus	101774-07-23 14:09 G	38893453.94	38893454.09	38893454.25	0.0522	0.0331
Venus	101775-03-17 15:06 G	38893691.04	38893691.13	38893691.22	0.0527	0.0471
Mercury	101779-04-12 11:45 G	38895177.87	38895177.99	38895178.11	0.0512	0.0180
Mercury	101779-07-10 15:21 G	38895267.08	38895267.14	38895267.20	0.0510	0.0442
Venus	101780-05-28 12:42 G	38895589.83	38895590.03	38895590.22	0.0503	0.0177
Earth	101782-05-20 08:09 G	38896311.84	38896311.84	38896311.85	0.0496	0.0495
Mercury	101785-05-31 03:21 G	38897418.58	38897418.64	38897418.71	0.0513	0.0480
Mercury	101785-08-29 18:28 G	38897509.25	38897509.27	38897509.31	0.0515	0.0507
Venus	101786-11-20 11:02 G	38897956.79	38897956.96	38897957.14	0.0526	0.0248
Mercury	101791-01-29 16:18 G	38899488.09	38899488.18	38899488.28	0.0513	0.0338
Mercury	101791-04-28 20:09 G	38899577.23	38899577.34	38899577.44	0.0511	0.0290
Venus	101792-02-01 09:06 G	38899855.75	38899855.88	38899856.02	0.0504	0.0383
Venus	101792-09-25 09:21 G	38900092.74	38900092.89	38900093.04	0.0500	0.0352
Mercury	101797-06-17 14:09 G	38901818.93	38901819.09	38901819.25	0.0514	0.0258
Venus	101798-07-26 06:42 G	38902222.58	38902222.78	38902222.98	0.0524	0.0022

Earth	101799-11-08 09:06 G	38902692.74	38902692.88	38902693.02	0.0530	0.0420
Moon	101799-11-08 09:35 G	38902692.78	38902692.90	38902693.04	0.0530	0.0426 *
Mercury	101802-11-18 21:06 G	38903798.35	38903798.38	38903798.41	0.0514	0.0496
Mercury	101803-02-16 00:57 G	38903887.42	38903887.54	38903887.66	0.0512	0.0136
Venus	101804-06-01 06:57 G	38904358.59	38904358.79	38904358.99	0.0501	0.0152
Mercury	101809-04-06 10:04 G	38906128.73	38906128.92	38906129.10	0.0514	0.0016
Venus	101810-04-01 03:21 G	38906488.46	38906488.64	38906488.83	0.0523	0.0202
Earth	101811-11-14 08:52 G	38907080.64	38907080.87	38907081.10	0.0531	0.0047
Moon	101811-11-14 10:04 G	38907080.69	38907080.92	38907081.16	0.0531	0.0015 *
Mercury	101814-12-05 05:59 G	38908197.62	38908197.75	38908197.87	0.0512	0.0020
Venus	101816-02-05 03:21 G	38908624.43	38908624.64	38908624.85	0.0502	0.0055
Mercury	101821-01-23 05:02 G	38910438.55	38910438.71	38910438.88	0.0514	0.0243
Venus	101821-12-05 00:14 G	38910754.40	38910754.51	38910754.63	0.0522	0.0424
Venus	101822-07-30 00:57 G	38910991.41	38910991.54	38910991.68	0.0527	0.0379
Moon	101823-11-19 07:40 G	38911468.79	38911468.82	38911468.86	0.0531	0.0523
Earth	101823-11-19 10:33 G	38911468.91	38911468.94	38911468.98	0.0531	0.0523
Mercury	101826-09-23 11:02 G	38912507.84	38912507.96	38912508.08	0.0512	0.0164
Mercury	101826-12-21 14:38 G	38912597.05	38912597.11	38912597.16	0.0510	0.0458
Venus	101827-10-11 00:28 G	38912890.35	38912890.52	38912890.70	0.0503	0.0258
Venus	101828-06-03 23:02 G	38913127.40	38913127.46	38913127.54	0.0499	0.0470
Mercury	101832-11-11 01:40 G	38914748.51	38914748.57	38914748.64	0.0513	0.0474
Mercury	101833-02-09 17:02 G	38914839.20	38914839.21	38914839.22	0.0516	0.0514
Venus	101834-04-03 22:18 G	38915257.24	38915257.43	38915257.62	0.0525	0.0156
Mercury	101838-07-12 15:35 G	38916818.05	38916818.15	38916818.25	0.0513	0.0323
Mercury	101838-10-09 19:11 G	38916907.20	38916907.30	38916907.40	0.0510	0.0303
Venus	101839-06-15 20:09 G	38917156.27	38917156.34	38917156.42	0.0505	0.0466
Venus	101840-02-07 20:38 G	38917393.18	38917393.36	38917393.53	0.0500	0.0270
Moon	101841-05-11 11:16 G	38917851.78	38917851.97	38917852.17	0.0496	0.0293
Earth	101841-05-11 15:06 G	38917851.95	38917852.13	38917852.32	0.0496	0.0310 *
Mercury	101844-11-28 13:26 G	38919148.90	38919149.06	38919149.21	0.0515	0.0277

Venus	101845-12-07 19:11 G	38919523.11	38919523.30	38919523.50	0.0524	0.0068
Mercury	101850-04-30 20:23 G	38921128.30	38921128.35	38921128.39	0.0513	0.0481
Mercury	101850-07-28 23:59 G	38921217.38	38921217.50	38921217.63	0.0511	0.0150
Venus	101851-10-13 17:45 G	38921659.04	38921659.24	38921659.45	0.0501	0.0070
Earth	101853-05-16 05:45 G	38922239.51	38922239.74	38922239.98	0.0496	0.0079
Moon	101853-05-16 08:52 G	38922239.64	38922239.87	38922240.09	0.0496	0.0110 *
Mercury	101856-09-16 09:06 G	38923458.70	38923458.88	38923459.07	0.0514	0.0035
Venus	101857-08-12 15:35 G	38923788.99	38923789.15	38923789.32	0.0522	0.0291
Venus	101858-04-06 16:04 G	38924026.13	38924026.17	38924026.21	0.0527	0.0512
Mercury	101862-05-17 05:02 G	38925527.58	38925527.71	38925527.83	0.0512	0.0018
Venus	101863-06-18 14:52 G	38925924.93	38925925.12	38925925.33	0.0503	0.0136
Moon	101865-05-20 18:28 G	38926627.18	38926627.27	38926627.37	0.0496	0.0457
Earth	101865-05-20 19:54 G	38926627.25	38926627.33	38926627.41	0.0496	0.0464 *
Mercury	101868-07-05 05:02 G	38927768.55	38927768.71	38927768.89	0.0513	0.0210
Venus	101869-04-17 12:57 G	38928055.00	38928055.04	38928055.08	0.0521	0.0506
Venus	101869-12-10 12:14 G	38928291.85	38928292.01	38928292.18	0.0526	0.0290
Mercury	101874-03-05 10:04 G	38929837.80	38929837.92	38929838.04	0.0512	0.0155
Mercury	101874-06-02 13:26 G	38929927.02	38929927.06	38929927.11	0.0510	0.0467
Venus	101875-02-21 11:30 G	38930190.84	38930190.98	38930191.14	0.0504	0.0343
Venus	101875-10-16 10:47 G	38930427.83	38930427.95	38930428.09	0.0499	0.0390
Mercury	101880-04-23 00:14 G	38932078.43	38932078.51	38932078.58	0.0513	0.0466
Venus	101881-08-15 08:38 G	38932557.66	38932557.86	38932558.06	0.0525	0.0062
Earth	101882-11-08 21:06 G	38933008.26	38933008.38	38933008.50	0.0531	0.0451
Moon	101882-11-08 21:50 G	38933008.31	38933008.41	38933008.54	0.0531	0.0461 *
Mercury	101885-12-22 15:06 G	38934148.03	38934148.13	38934148.23	0.0513	0.0302
Mercury	101886-03-21 18:42 G	38934237.19	38934237.28	38934237.38	0.0510	0.0322
Venus	101887-06-21 09:06 G	38934693.69	38934693.88	38934694.07	0.0500	0.0192
Mercury	101892-05-10 11:45 G	38936478.84	38936478.99	38936479.15	0.0515	0.0286
Venus	101893-04-20 06:28 G	38936823.59	38936823.77	38936823.96	0.0524	0.0160
Moon	101894-11-13 19:26 G	38937396.08	38937396.31	38937396.53	0.0531	0.0016

Earth	101894-11-13 21:50 G	38937396.18	38937396.41	38937396.64	0.0531	0.0021	*
Mercury	101897-10-10 19:40 G	38938458.27	38938458.32	38938458.38	0.0513	0.0462	
Mercury	101898-01-07 23:30 G	38938547.36	38938547.48	38938547.60	0.0511	0.0167	
Venus	101899-02-24 05:45 G	38938959.53	38938959.74	38938959.95	0.0502	0.0014	
Mercury	101904-02-28 08:23 G	38940788.67	38940788.85	38940789.04	0.0515	0.0053	
Venus	101904-12-25 04:18 G	38941089.55	38941089.68	38941089.82	0.0522	0.0377	
Venus	101905-08-19 05:02 G	38941326.60	38941326.71	38941326.83	0.0527	0.0427	
Earth	101906-11-19 20:52 G	38941784.27	38941784.37	38941784.46	0.0531	0.0483	
Moon	101906-11-20 00:28 G	38941784.43	38941784.52	38941784.60	0.0531	0.0493	*
Mercury	101909-10-28 04:18 G	38942857.55	38942857.68	38942857.81	0.0512	0.0013	
Venus	101910-10-31 02:38 G	38943225.42	38943225.61	38943225.79	0.0503	0.0218	
Mercury	101915-12-17 04:33 G	38945098.52	38945098.69	38945098.86	0.0514	0.0188	
Venus	101917-04-24 00:28 G	38945592.34	38945592.52	38945592.71	0.0525	0.0200	
Mercury	101921-08-16 09:06 G	38947167.76	38947167.88	38947168.00	0.0512	0.0143	
Mercury	101921-11-13 12:28 G	38947256.99	38947257.02	38947257.07	0.0510	0.0480	
Venus	101922-07-05 23:02 G	38947491.36	38947491.46	38947491.58	0.0505	0.0425	
Venus	101923-02-27 23:45 G	38947728.33	38947728.49	38947728.65	0.0500	0.0315	
Earth	101924-05-12 03:50 G	38948167.50	38948167.66	38948167.84	0.0496	0.0335	
Moon	101924-05-12 06:57 G	38948167.62	38948167.79	38948167.97	0.0496	0.0314	*
Mercury	101927-10-05 00:28 G	38949408.42	38949408.52	38949408.62	0.0513	0.0428	
Venus	101928-12-27 21:21 G	38949858.19	38949858.39	38949858.58	0.0524	0.0027	
Mercury	101933-06-04 14:09 G	38951477.99	38951478.09	38951478.19	0.0513	0.0292	
Mercury	101933-09-01 17:45 G	38951567.15	38951567.24	38951567.34	0.0510	0.0333	
Venus	101934-11-02 20:52 G	38951994.17	38951994.37	38951994.57	0.0501	0.0110	
Moon	101936-05-16 13:11 G	38952554.81	38952555.05	38952555.29	0.0495	0.0069	
Earth	101936-05-16 14:52 G	38952554.88	38952555.12	38952555.36	0.0495	0.0043	*
Mercury	101939-10-22 10:18 G	38953808.78	38953808.93	38953809.08	0.0515	0.0295	
Venus	101940-09-01 17:16 G	38954124.04	38954124.22	38954124.39	0.0523	0.0252	
Mercury	101945-03-23 19:11 G	38955788.24	38955788.30	38955788.37	0.0513	0.0440	
Mercury	101945-06-20 23:02 G	38955877.34	38955877.46	38955877.58	0.0511	0.0188	

Venus	101946-07-08 18:42 G	38956260.08	38956260.28	38956260.49	0.0502	0.0093
Moon	101948-05-21 03:50 G	38956942.54	38956942.66	38956942.79	0.0495	0.0412
Earth	101948-05-21 04:33 G	38956942.58	38956942.69	38956942.81	0.0495	0.0426 *
Mercury	101951-08-10 06:57 G	38958118.60	38958118.79	38958118.97	0.0515	0.0061
Venus	101952-05-07 15:35 G	38958390.07	38958390.15	38958390.24	0.0522	0.0468
Venus	101952-12-30 16:04 G	38958627.02	38958627.17	38958627.33	0.0527	0.0336
Mercury	101957-04-09 03:50 G	38960187.53	38960187.66	38960187.78	0.0511	0.0036
Venus	101958-03-13 14:52 G	38960525.96	38960526.12	38960526.29	0.0503	0.0299
Venus	101958-11-05 13:40 G	38960762.98	38960763.07	38960763.18	0.0499	0.0433
Mercury	101963-05-29 03:35 G	38962428.48	38962428.65	38962428.83	0.0514	0.0169
Venus	101964-09-04 13:26 G	38962892.86	38962893.06	38962893.25	0.0525	0.0113
Moon	101965-11-09 06:28 G	38963323.71	38963323.77	38963323.86	0.0530	0.0500
Earth	101965-11-09 08:52 G	38963323.78	38963323.87	38963323.97	0.0530	0.0483 *
Mercury	101969-01-26 08:23 G	38964497.73	38964497.85	38964497.98	0.0512	0.0125
Mercury	101969-04-25 11:59 G	38964586.98	38964587.00	38964587.03	0.0510	0.0496
Venus	101970-07-11 11:30 G	38965028.80	38965028.98	38965029.16	0.0500	0.0234
Mercury	101975-03-16 23:45 G	38966738.38	38966738.49	38966738.61	0.0513	0.0406
Venus	101976-05-10 09:35 G	38967158.70	38967158.90	38967159.09	0.0523	0.0114
Earth	101977-11-14 05:45 G	38967711.51	38967711.74	38967711.97	0.0531	0.0029
Moon	101977-11-14 09:06 G	38967711.65	38967711.88	38967712.12	0.0531	0.0059 *
Mars	101979-06-18 04:18 G	38968292.44	38968292.68	38968292.93	0.0525	0.0178
Mercury	101980-11-14 13:11 G	38968807.95	38968808.05	38968808.16	0.0513	0.0281
Mercury	101981-02-11 16:47 G	38968897.11	38968897.20	38968897.30	0.0511	0.0345
Venus	101982-03-16 09:06 G	38969294.67	38969294.88	38969295.09	0.0502	0.0032
Mercury	101987-04-03 10:47 G	38971138.81	38971138.95	38971139.09	0.0515	0.0334
Venus	101988-01-14 06:42 G	38971424.63	38971424.78	38971424.93	0.0522	0.0335
Venus	101988-09-07 07:11 G	38971661.72	38971661.80	38971661.89	0.0527	0.0472
Moon	101989-11-19 01:40 G	38972099.46	38972099.57	38972099.70	0.0531	0.0451
Earth	101989-11-19 05:30 G	38972099.61	38972099.73	38972099.86	0.0531	0.0436 *
Mercury	101992-09-02 18:14 G	38973118.20	38973118.26	38973118.33	0.0513	0.0430

Mercury 101992-11-30 22:04 G 38973207.31 38973207.42 38973207.54 0.0511 0.0199

Venus 101993-11-19 06:28 G 38973560.57 38973560.77 38973560.96 0.0503 0.0175

Mars 101997-06-14 15:06 G 38974863.85 38974864.13 38974864.41 0.0501 0.0115

Mercury 101999-01-20 05:30 G 38975448.54 38975448.73 38975448.91 0.0515 0.0070

Venus 102000-05-13 02:23 G 38975927.42 38975927.60 38975927.78 0.0526 0.0242

103RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 103rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	102004-09-19 03:21	G	38977517.51	38977517.64	38977517.76	0.0511	0.0054	
Venus	102005-07-25 03:50	G	38977826.53	38977826.66	38977826.81	0.0504	0.0379	
Venus	102006-03-19 03:06	G	38978063.49	38978063.63	38978063.78	0.0499	0.0357	
Moon	102007-05-12 12:28	G	38978482.85	38978483.02	38978483.20	0.0495	0.0342	
Earth	102007-05-12 14:09	G	38978482.94	38978483.09	38978483.26	0.0495	0.0364	*
Mercury	102010-11-08 01:54	G	38979758.41	38979758.58	38979758.76	0.0514	0.0164	
Venus	102012-01-16 23:59	G	38980193.31	38980193.50	38980193.70	0.0525	0.0021	
Mercury	102016-07-08 07:54	G	38981827.71	38981827.83	38981827.96	0.0512	0.0104	
Venus	102017-11-21 23:59	G	38982329.30	38982329.50	38982329.70	0.0500	0.0154	
Moon	102019-05-17 02:38	G	38982870.38	38982870.61	38982870.84	0.0495	0.0036	
Earth	102019-05-17 03:06	G	38982870.40	38982870.63	38982870.87	0.0495	0.0020	*
Mercury	102022-08-26 22:47	G	38984068.33	38984068.45	38984068.57	0.0514	0.0391	
Venus	102023-09-21 21:50	G	38984459.23	38984459.41	38984459.60	0.0523	0.0203	

Mercury	102028-04-26 12:42 G	38986137.92	38986138.03	38986138.14	0.0512	0.0260
Mercury	102028-07-24 16:18 G	38986227.09	38986227.18	38986227.27	0.0510	0.0363
Venus	102029-07-27 21:06 G	38986595.17	38986595.38	38986595.58	0.0502	0.0051
Earth	102031-05-21 17:02 G	38987258.08	38987258.21	38987258.36	0.0495	0.0402
Moon	102031-05-21 19:54 G	38987258.18	38987258.33	38987258.49	0.0495	0.0376 *
Mercury	102034-09-13 10:04 G	38988468.78	38988468.92	38988469.05	0.0515	0.0354
Venus	102035-05-27 18:42 G	38988725.17	38988725.28	38988725.40	0.0521	0.0424
Venus	102036-01-19 18:57 G	38988962.15	38988962.29	38988962.43	0.0526	0.0381
Mercury	102040-02-13 17:16 G	38990448.15	38990448.22	38990448.29	0.0513	0.0419
Mercury	102040-05-12 21:06 G	38990537.26	38990537.38	38990537.49	0.0511	0.0209
Venus	102041-04-01 17:45 G	38990861.06	38990861.24	38990861.42	0.0503	0.0257
Venus	102041-11-24 16:47 G	38991098.15	38991098.20	38991098.26	0.0499	0.0476
Mercury	102046-07-02 05:45 G	38992778.56	38992778.74	38992778.92	0.0514	0.0109
Venus	102047-09-24 15:06 G	38993227.94	38993228.13	38993228.32	0.0525	0.0155
Mercury	102052-03-01 02:09 G	38994847.47	38994847.59	38994847.72	0.0512	0.0065
Venus	102052-12-05 15:06 G	38995127.05	38995127.13	38995127.21	0.0505	0.0463
Venus	102053-07-30 15:06 G	38995363.95	38995364.13	38995364.30	0.0500	0.0276
Mercury	102058-04-20 00:14 G	38997088.33	38997088.51	38997088.69	0.0514	0.0157
Venus	102059-05-30 10:04 G	38997493.72	38997493.92	38997494.12	0.0524	0.0078
Moon	102060-11-13 11:59 G	38998026.77	38998027.00	38998027.23	0.0531	0.0094
Earth	102060-11-13 15:35 G	38998026.93	38998027.15	38998027.38	0.0531	0.0067 *
Mercury	102063-12-19 07:26 G	38999157.68	38999157.81	38999157.93	0.0512	0.0084
Venus	102065-04-04 12:57 G	38999629.84	38999630.04	38999630.25	0.0501	0.0077
Mercury	102070-02-05 20:38 G	39001398.25	39001398.36	39001398.49	0.0514	0.0390
Venus	102071-02-02 07:54 G	39001759.67	39001759.83	39001760.00	0.0523	0.0298
Venus	102071-09-27 09:35 G	39001996.86	39001996.90	39001996.94	0.0528	0.0515
Earth	102072-11-18 16:47 G	39002415.05	39002415.20	39002415.35	0.0531	0.0405
Moon	102072-11-18 19:26 G	39002415.18	39002415.31	39002415.44	0.0531	0.0431 *
Mercury	102075-10-07 11:59 G	39003467.89	39003468.00	39003468.11	0.0512	0.0243
Mercury	102076-01-04 15:35 G	39003557.07	39003557.15	39003557.24	0.0510	0.0380

Venus	102076-12-08 09:06 G	39003895.68	39003895.88	39003896.08	0.0502	0.0132
Mercury	102082-02-23 08:38 G	39005798.73	39005798.86	39005798.99	0.0515	0.0366
Venus	102082-10-08 06:14 G	39006025.73	39006025.76	39006025.80	0.0521	0.0512
Venus	102083-06-02 06:28 G	39006262.61	39006262.77	39006262.94	0.0526	0.0291
Mercury	102087-07-26 16:33 G	39007778.12	39007778.19	39007778.27	0.0513	0.0401
Mercury	102087-10-23 20:23 G	39007867.24	39007867.35	39007867.46	0.0511	0.0226
Venus	102088-08-13 05:30 G	39008161.58	39008161.73	39008161.88	0.0504	0.0339
Venus	102089-04-07 04:33 G	39008398.57	39008398.69	39008398.82	0.0499	0.0397
Moon	102090-05-12 00:28 G	39008798.37	39008798.52	39008798.67	0.0495	0.0370
Earth	102090-05-12 00:57 G	39008798.41	39008798.54	39008798.69	0.0495	0.0395 *
Mercury	102093-12-12 04:47 G	39010108.52	39010108.70	39010108.88	0.0515	0.0124
Venus	102095-02-05 02:38 G	39010528.41	39010528.61	39010528.80	0.0525	0.0063
Mercury	102099-08-12 01:11 G	39012177.42	39012177.55	39012177.67	0.0512	0.0070
Venus	102100-12-12 02:09 G	39012664.40	39012664.59	39012664.78	0.0501	0.0195
Earth	102102-05-17 14:52 G	39013185.88	39013186.12	39013186.35	0.0495	0.0013
Moon	102102-05-17 17:30 G	39013185.99	39013186.23	39013186.48	0.0495	0.0008 *
Mercury	102105-10-01 00:28 G	39014418.34	39014418.52	39014418.70	0.0514	0.0121
Venus	102106-10-11 22:47 G	39014794.26	39014794.45	39014794.64	0.0523	0.0163
Mercury	102111-06-01 06:14 G	39016487.64	39016487.76	39016487.89	0.0512	0.0079
Venus	102112-08-16 23:59 G	39016930.30	39016930.50	39016930.71	0.0501	0.0012
Moon	102114-05-21 23:02 G	39017573.29	39017573.46	39017573.63	0.0495	0.0340
Earth	102114-05-22 02:38 G	39017573.46	39017573.61	39017573.77	0.0495	0.0368 *
Mercury	102117-07-19 18:57 G	39018728.17	39018728.29	39018728.41	0.0513	0.0385
Venus	102118-06-16 17:30 G	39019060.11	39019060.23	39019060.37	0.0522	0.0392
Venus	102119-02-08 18:42 G	39019297.16	39019297.28	39019297.40	0.0527	0.0417
Mercury	102123-03-20 11:16 G	39020797.86	39020797.97	39020798.09	0.0513	0.0227
Mercury	102123-06-17 14:52 G	39020887.05	39020887.12	39020887.20	0.0510	0.0396
Venus	102124-04-21 21:35 G	39021196.21	39021196.40	39021196.59	0.0503	0.0213
Mercury	102129-08-06 06:14 G	39023128.63	39023128.76	39023128.90	0.0515	0.0361
Venus	102130-10-14 15:35 G	39023562.97	39023563.15	39023563.34	0.0526	0.0193

Mars	102133-09-13 06:28 G	39024627.60	39024627.77	39024627.95	0.0525	0.0393
Mercury	102135-01-06 15:50 G	39025108.08	39025108.16	39025108.24	0.0513	0.0387
Mercury	102135-04-05 19:40 G	39025197.21	39025197.32	39025197.43	0.0511	0.0239
Venus	102135-12-26 16:47 G	39025462.09	39025462.20	39025462.32	0.0504	0.0422
Venus	102136-08-19 16:18 G	39025699.02	39025699.18	39025699.35	0.0499	0.0317
Mercury	102141-05-25 02:52 G	39027438.44	39027438.62	39027438.80	0.0515	0.0129
Venus	102142-06-19 13:11 G	39027828.85	39027829.05	39027829.25	0.0524	0.0030
Earth	102143-11-15 00:28 G	39028342.30	39028342.52	39028342.75	0.0531	0.0111
Moon	102143-11-15 03:21 G	39028342.43	39028342.64	39028342.86	0.0531	0.0130 *
Mercury	102147-01-23 00:14 G	39029507.39	39029507.51	39029507.64	0.0511	0.0085
Venus	102148-04-24 13:11 G	39029964.85	39029965.05	39029965.25	0.0501	0.0113
Mars	102151-09-10 11:30 G	39031198.82	39031198.98	39031199.14	0.0501	0.0415
Mercury	102153-03-12 23:02 G	39031748.28	39031748.46	39031748.64	0.0514	0.0112
Venus	102154-02-22 09:50 G	39032094.73	39032094.91	39032095.08	0.0523	0.0256
Moon	102155-11-19 19:40 G	39032730.16	39032730.32	39032730.50	0.0531	0.0367
Earth	102155-11-19 21:35 G	39032730.23	39032730.40	39032730.58	0.0531	0.0342 *
Mercury	102158-11-11 04:47 G	39033817.58	39033817.70	39033817.83	0.0512	0.0078
Venus	102159-12-29 09:50 G	39034230.71	39034230.91	39034231.12	0.0502	0.0094
Mercury	102164-12-29 18:42 G	39036058.15	39036058.28	39036058.41	0.0513	0.0356
Venus	102165-10-28 06:14 G	39036360.68	39036360.76	39036360.84	0.0521	0.0476
Venus	102166-06-22 06:14 G	39036597.61	39036597.76	39036597.92	0.0526	0.0328
Mercury	102170-08-30 09:50 G	39038127.80	39038127.91	39038128.03	0.0513	0.0227
Mercury	102170-11-27 13:26 G	39038216.99	39038217.06	39038217.14	0.0510	0.0398
Venus	102171-09-03 07:26 G	39038496.64	39038496.81	39038496.98	0.0504	0.0301
Venus	102172-04-27 06:14 G	39038733.67	39038733.76	39038733.87	0.0499	0.0435
Earth	102173-05-12 10:04 G	39039113.80	39039113.92	39039114.03	0.0495	0.0428
Moon	102173-05-12 12:42 G	39039113.89	39039114.03	39039114.18	0.0495	0.0396 *
Mercury	102177-01-16 04:04 G	39040458.53	39040458.67	39040458.80	0.0515	0.0358
Venus	102178-02-25 00:14 G	39040863.31	39040863.51	39040863.70	0.0525	0.0094
Mercury	102182-06-18 14:52 G	39042438.04	39042438.12	39042438.21	0.0513	0.0377

Mercury	102182-09-15 18:42 G	39042527.17	39042527.28	39042527.39	0.0511	0.0250
Venus	102184-01-01 04:18 G	39042999.50	39042999.68	39042999.87	0.0500	0.0237
Moon	102185-05-16 19:11 G	39043501.07	39043501.30	39043501.53	0.0494	0.0042
Earth	102185-05-16 22:47 G	39043501.22	39043501.45	39043501.69	0.0494	0.0050 *
Mercury	102188-11-03 23:59 G	39044768.32	39044768.50	39044768.68	0.0515	0.0118
Venus	102189-10-30 21:21 G	39045129.19	39045129.39	39045129.58	0.0524	0.0131
Mercury	102194-07-04 23:16 G	39046837.34	39046837.47	39046837.59	0.0511	0.0092
Venus	102195-09-05 23:59 G	39047265.30	39047265.50	39047265.71	0.0501	0.0031
Earth	102197-05-21 09:50 G	39047888.74	39047888.91	39047889.09	0.0495	0.0323
Moon	102197-05-21 13:54 G	39047888.89	39047889.08	39047889.27	0.0495	0.0295 *
Mercury	102200-08-23 20:38 G	39049078.18	39049078.36	39049078.54	0.0514	0.0115
Venus	102201-07-06 19:11 G	39049395.16	39049395.30	39049395.46	0.0522	0.0351
Venus	102202-02-28 20:23 G	39049632.26	39049632.35	39049632.45	0.0527	0.0462
Mercury	102206-04-24 03:50 G	39051147.54	39051147.66	39051147.79	0.0512	0.0066
Venus	102207-05-12 20:09 G	39051531.14	39051531.34	39051531.53	0.0503	0.0179
Mercury	102212-06-11 16:47 G	39053388.07	39053388.20	39053388.33	0.0513	0.0353
Venus	102213-11-03 15:50 G	39053897.98	39053898.16	39053898.34	0.0526	0.0232
Mercury	102218-02-10 08:23 G	39055457.73	39055457.85	39055457.96	0.0513	0.0229
Mercury	102218-05-10 11:59 G	39055546.92	39055547.00	39055547.08	0.0510	0.0394
Venus	102219-01-15 15:50 G	39055797.03	39055797.16	39055797.29	0.0504	0.0390
Venus	102219-09-09 15:35 G	39056034.01	39056034.15	39056034.30	0.0500	0.0351
Mercury	102224-06-29 03:06 G	39057788.52	39057788.63	39057788.76	0.0515	0.0381
Venus	102225-07-09 11:30 G	39058163.78	39058163.98	39058164.18	0.0524	0.0008
Moon	102226-11-14 23:16 G	39058657.26	39058657.47	39058657.69	0.0531	0.0207
Earth	102226-11-15 01:26 G	39058657.35	39058657.56	39058657.77	0.0531	0.0187 *
Mercury	102229-11-29 13:11 G	39059767.97	39059768.05	39059768.14	0.0513	0.0381
Mercury	102230-02-26 17:02 G	39059857.10	39059857.21	39059857.32	0.0511	0.0246
Venus	102231-05-15 13:40 G	39060299.87	39060300.07	39060300.27	0.0501	0.0149
Mercury	102236-04-16 21:21 G	39062098.21	39062098.39	39062098.58	0.0514	0.0112
Venus	102237-03-14 05:16 G	39062429.55	39062429.72	39062429.90	0.0523	0.0231

Earth	102238-11-19 21:50 G	39063045.21	39063045.41	39063045.61	0.0532	0.0266
Moon	102238-11-19 22:04 G	39063045.24	39063045.42	39063045.60	0.0532	0.0293 *
Mercury	102241-12-15 22:04 G	39064167.29	39064167.42	39064167.54	0.0512	0.0097
Venus	102243-01-18 11:02 G	39064565.75	39064565.96	39064566.17	0.0502	0.0055
Mercury	102248-02-03 17:30 G	39066408.05	39066408.23	39066408.41	0.0514	0.0131
Venus	102248-11-17 02:38 G	39066695.51	39066695.61	39066695.71	0.0521	0.0450
Venus	102249-07-12 03:21 G	39066932.50	39066932.64	39066932.79	0.0527	0.0359
Mercury	102253-10-04 02:38 G	39068477.48	39068477.61	39068477.73	0.0512	0.0065
Venus	102254-09-23 05:45 G	39068831.57	39068831.74	39068831.92	0.0503	0.0267
Venus	102255-05-18 04:33 G	39069068.62	39069068.69	39069068.76	0.0499	0.0468
Moon	102256-05-12 10:33 G	39069428.85	39069428.94	39069429.04	0.0495	0.0451
Earth	102256-05-12 14:09 G	39069429.05	39069429.09	39069429.15	0.0495	0.0483
Mercury	102259-11-22 13:54 G	39070717.95	39070718.08	39070718.21	0.0513	0.0364
Venus	102261-03-17 00:28 G	39071198.33	39071198.52	39071198.72	0.0525	0.0134
Mercury	102265-07-23 07:11 G	39072787.68	39072787.80	39072787.91	0.0513	0.0223
Mercury	102265-10-20 10:47 G	39072876.87	39072876.95	39072877.03	0.0510	0.0398
Venus	102266-05-29 01:11 G	39073097.48	39073097.55	39073097.62	0.0505	0.0476
Venus	102267-01-21 01:11 G	39073334.38	39073334.55	39073334.73	0.0500	0.0267
Earth	102268-05-17 02:09 G	39073816.36	39073816.59	39073816.83	0.0495	0.0108
Moon	102268-05-17 06:14 G	39073816.53	39073816.76	39073817.00	0.0495	0.0101 *
Mercury	102271-12-10 00:57 G	39075118.41	39075118.54	39075118.67	0.0515	0.0376
Venus	102272-11-19 20:23 G	39075464.16	39075464.35	39075464.55	0.0524	0.0096
Mercury	102277-05-11 11:30 G	39077097.90	39077097.98	39077098.06	0.0513	0.0388
Mercury	102277-08-08 15:21 G	39077187.03	39077187.14	39077187.25	0.0511	0.0239
Venus	102278-09-25 21:35 G	39077600.19	39077600.40	39077600.61	0.0501	0.0059
Moon	102280-05-21 11:02 G	39078203.76	39078203.96	39078204.18	0.0495	0.0241
Earth	102280-05-21 14:38 G	39078203.92	39078204.11	39078204.32	0.0495	0.0271 *
Mercury	102283-09-27 20:23 G	39079428.17	39079428.35	39079428.53	0.0514	0.0125
Venus	102284-07-25 16:33 G	39079730.04	39079730.19	39079730.35	0.0522	0.0321
Venus	102285-03-19 17:16 G	39079967.15	39079967.22	39079967.29	0.0527	0.0491

Mercury	102289-05-27 20:09 G	39081497.22	39081497.34	39081497.47	0.0512	0.0088
Venus	102290-05-31 18:57 G	39081866.09	39081866.29	39081866.49	0.0503	0.0147
Mercury	102295-07-16 14:38 G	39083737.93	39083738.11	39083738.29	0.0513	0.0142
Venus	102296-11-22 10:04 G	39084232.75	39084232.92	39084233.10	0.0526	0.0256
Mercury	102301-03-17 00:57 G	39085807.42	39085807.54	39085807.67	0.0513	0.0067
Venus	102302-02-04 15:35 G	39086132.00	39086132.15	39086132.30	0.0504	0.0354
Venus	102302-09-29 14:52 G	39086369.00	39086369.12	39086369.26	0.0499	0.0387
Mercury	102307-05-05 10:18 G	39088047.82	39088047.93	39088048.06	0.0513	0.0384
Venus	102308-07-29 06:57 G	39088498.59	39088498.79	39088498.98	0.0525	0.0031
Earth	102309-11-14 23:30 G	39088972.29	39088972.48	39088972.69	0.0531	0.0273
Moon	102309-11-15 00:28 G	39088972.34	39088972.52	39088972.71	0.0531	0.0289 *
Mercury	102313-01-03 05:30 G	39090117.62	39090117.73	39090117.84	0.0513	0.0226
Mercury	102313-04-02 09:06 G	39090206.80	39090206.88	39090206.96	0.0510	0.0396
Venus	102314-06-04 10:18 G	39090634.73	39090634.93	39090635.12	0.0500	0.0179
Mercury	102319-05-22 21:35 G	39092448.27	39092448.40	39092448.54	0.0515	0.0360
Venus	102320-04-03 04:18 G	39092764.50	39092764.68	39092764.87	0.0523	0.0195
Earth	102321-11-19 23:59 G	39093360.29	39093360.50	39093360.71	0.0531	0.0194
Moon	102321-11-20 01:26 G	39093360.35	39093360.56	39093360.78	0.0531	0.0223 *
Mercury	102324-10-22 10:04 G	39094427.84	39094427.92	39094428.00	0.0513	0.0387
Mercury	102325-01-19 13:40 G	39094516.96	39094517.07	39094517.19	0.0511	0.0240
Venus	102326-02-07 06:28 G	39094900.56	39094900.77	39094900.98	0.0502	0.0029
Mercury	102331-03-10 17:30 G	39096758.05	39096758.23	39096758.42	0.0514	0.0116
Venus	102331-12-08 00:57 G	39097030.43	39097030.54	39097030.66	0.0521	0.0418
Venus	102332-08-01 01:26 G	39097267.43	39097267.56	39097267.69	0.0526	0.0392
Mercury	102336-11-07 18:14 G	39098827.14	39098827.26	39098827.39	0.0512	0.0077
Venus	102337-10-13 01:40 G	39099166.39	39099166.57	39099166.76	0.0503	0.0241
Venus	102338-06-07 00:42 G	39099403.51	39099403.53	39099403.55	0.0499	0.0496
Mercury	102342-12-27 12:57 G	39101067.86	39101068.04	39101068.22	0.0514	0.0134
Venus	102344-04-05 20:23 G	39101533.16	39101533.35	39101533.54	0.0525	0.0161
Mercury	102348-08-26 23:02 G	39103137.34	39103137.46	39103137.59	0.0513	0.0077

Venus	102349-06-17 22:04 G	39103432.34	39103432.42	39103432.52	0.0505	0.0450
Venus	102350-02-09 22:47 G	39103669.28	39103669.45	39103669.62	0.0500	0.0297
Moon	102351-05-18 02:09 G	39104131.37	39104131.59	39104131.82	0.0495	0.0159
Earth	102351-05-18 05:59 G	39104131.53	39104131.75	39104131.98	0.0495	0.0162 *
Mercury	102354-10-15 07:26 G	39105377.70	39105377.81	39105377.93	0.0513	0.0396
Venus	102355-12-10 13:40 G	39105798.88	39105799.07	39105799.27	0.0524	0.0075
Mercury	102360-06-15 03:50 G	39107447.55	39107447.66	39107447.77	0.0513	0.0232
Mercury	102360-09-12 07:40 G	39107536.74	39107536.82	39107536.89	0.0511	0.0392
Venus	102361-10-15 19:40 G	39107935.12	39107935.32	39107935.53	0.0501	0.0094
Earth	102363-05-22 17:45 G	39108519.03	39108519.24	39108519.46	0.0494	0.0212
Moon	102363-05-22 20:09 G	39108519.13	39108519.34	39108519.55	0.0494	0.0184 *
Mercury	102366-11-01 17:59 G	39109778.11	39109778.25	39109778.39	0.0515	0.0335
Venus	102367-08-15 10:33 G	39110064.78	39110064.94	39110065.10	0.0522	0.0299
Venus	102368-04-08 11:30 G	39110301.95	39110301.98	39110302.03	0.0527	0.0516
Mercury	102372-04-03 08:09 G	39111757.76	39111757.84	39111757.92	0.0514	0.0395
Mercury	102372-07-01 11:59 G	39111846.89	39111847.00	39111847.12	0.0511	0.0232
Venus	102373-06-20 14:23 G	39112200.90	39112201.10	39112201.30	0.0502	0.0120
Mercury	102378-08-20 14:09 G	39114087.91	39114088.09	39114088.27	0.0514	0.0095
Venus	102379-04-20 08:23 G	39114330.83	39114330.85	39114330.88	0.0521	0.0516
Venus	102379-12-13 08:23 G	39114567.69	39114567.85	39114568.02	0.0526	0.0291
Mercury	102384-04-19 16:47 G	39116157.07	39116157.20	39116157.32	0.0512	0.0076
Venus	102385-02-23 09:49 G	39116466.76	39116466.91	39116467.07	0.0504	0.0331
Venus	102385-10-18 09:06 G	39116703.77	39116703.88	39116704.00	0.0499	0.0410
Mercury	102390-06-08 10:04 G	39118397.74	39118397.92	39118398.10	0.0514	0.0147
Venus	102391-08-18 04:33 G	39118833.49	39118833.69	39118833.89	0.0525	0.0061
Earth	102392-11-13 22:04 G	39119287.26	39119287.42	39119287.59	0.0531	0.0358
Moon	102392-11-13 22:33 G	39119287.28	39119287.44	39119287.62	0.0531	0.0369 *
Mercury	102396-02-06 21:06 G	39120467.25	39120467.38	39120467.50	0.0512	0.0090
Venus	102397-06-23 05:16 G	39120969.53	39120969.72	39120969.91	0.0501	0.0204
Mercury	102402-03-27 05:30 G	39122707.62	39122707.73	39122707.85	0.0513	0.0393

Venus	102403-04-22 23:59 G	39123099.31	39123099.50	39123099.69	0.0523	0.0168
Moon	102404-11-18 16:04 G	39123674.96	39123675.17	39123675.39	0.0531	0.0124
Earth	102404-11-18 18:42 G	39123675.06	39123675.28	39123675.51	0.0531	0.0094 *
Mars	102406-05-30 01:11 G	39124232.35	39124232.55	39124232.76	0.0526	0.0314
Mercury	102407-11-26 01:40 G	39124777.46	39124777.57	39124777.68	0.0513	0.0246
Mercury	102408-02-23 05:30 G	39124866.65	39124866.73	39124866.81	0.0511	0.0378
Venus	102409-02-26 02:37 G	39125235.40	39125235.61	39125235.82	0.0502	0.0005
Mercury	102414-04-13 14:52 G	39127107.98	39127108.12	39127108.27	0.0514	0.0320
Venus	102414-12-26 17:59 G	39127365.13	39127365.25	39127365.38	0.0521	0.0398
Venus	102415-08-20 18:13 G	39127602.14	39127602.26	39127602.38	0.0526	0.0412
Mercury	102419-09-14 06:28 G	39129087.69	39129087.77	39129087.84	0.0514	0.0404
Mercury	102419-12-12 10:18 G	39129176.82	39129176.93	39129177.04	0.0512	0.0225
Venus	102420-10-31 23:01 G	39129501.27	39129501.46	39129501.65	0.0504	0.0210
Mars	102424-05-24 23:45 G	39130802.25	39130802.49	39130802.75	0.0499	0.0250
Mercury	102426-01-30 10:33 G	39131417.75	39131417.94	39131418.12	0.0514	0.0072
Venus	102427-04-25 14:09 G	39131867.90	39131868.09	39131868.27	0.0525	0.0184
Mercury	102431-09-30 14:37 G	39133486.99	39133487.11	39133487.24	0.0512	0.0067
Venus	102432-07-06 17:01 G	39133767.11	39133767.21	39133767.33	0.0505	0.0425
Venus	102433-02-28 17:16 G	39134004.06	39134004.22	39134004.38	0.0500	0.0321
Earth	102434-05-17 03:49 G	39134446.45	39134446.66	39134446.86	0.0495	0.0241
Moon	102434-05-17 06:28 G	39134446.57	39134446.77	39134446.97	0.0495	0.0243 *
Mercury	102437-11-18 06:28 G	39135727.59	39135727.77	39135727.95	0.0514	0.0169
Venus	102438-12-29 11:16 G	39136133.78	39136133.97	39136134.17	0.0524	0.0043
Mercury	102443-07-19 19:25 G	39137797.18	39137797.31	39137797.43	0.0512	0.0093
Venus	102444-11-03 13:25 G	39138269.86	39138270.06	39138270.27	0.0501	0.0115
Moon	102446-05-21 14:09 G	39138833.85	39138834.09	39138834.33	0.0495	0.0100
Earth	102446-05-21 15:21 G	39138833.91	39138834.14	39138834.37	0.0495	0.0132 *
Mercury	102449-09-06 02:23 G	39140037.50	39140037.60	39140037.72	0.0513	0.0408
Venus	102450-09-03 08:09 G	39140399.67	39140399.84	39140400.01	0.0522	0.0268
Mercury	102455-05-07 23:45 G	39142107.38	39142107.49	39142107.60	0.0513	0.0258

Mercury	102455-08-05 03:21 G	39142196.56	39142196.64	39142196.73	0.0511	0.0365
Venus	102456-07-09 09:06 G	39142535.67	39142535.88	39142536.08	0.0503	0.0097
Mercury	102461-09-23 12:57 G	39144437.90	39144438.04	39144438.19	0.0515	0.0322
Venus	102462-05-09 04:18 G	39144665.62	39144665.68	39144665.75	0.0520	0.0490
Venus	102463-01-01 03:49 G	39144902.51	39144902.66	39144902.82	0.0526	0.0317
Mercury	102467-02-24 04:18 G	39146417.61	39146417.68	39146417.75	0.0514	0.0417
Mercury	102467-05-24 08:09 G	39146506.73	39146506.84	39146506.96	0.0512	0.0211
Venus	102468-03-14 05:30 G	39146801.57	39146801.73	39146801.89	0.0504	0.0306
Venus	102468-11-06 05:16 G	39147038.62	39147038.72	39147038.82	0.0500	0.0438
Mercury	102473-07-12 07:40 G	39148747.63	39148747.82	39148748.01	0.0514	0.0061
Venus	102474-09-05 21:35 G	39149168.20	39149168.40	39149168.60	0.0524	0.0082
Moon	102475-11-13 12:42 G	39149601.94	39149602.03	39149602.13	0.0531	0.0478
Earth	102475-11-13 14:23 G	39149602.00	39149602.10	39149602.21	0.0531	0.0468 *
Mercury	102479-03-12 12:57 G	39150816.91	39150817.04	39150817.16	0.0512	0.0056
Venus	102480-07-12 02:23 G	39151304.42	39151304.60	39151304.78	0.0501	0.0235
Mercury	102485-04-30 03:06 G	39153057.46	39153057.63	39153057.81	0.0513	0.0187
Venus	102486-05-11 17:45 G	39153434.05	39153434.24	39153434.44	0.0523	0.0146
Earth	102487-11-18 13:40 G	39153989.84	39153990.07	39153990.30	0.0531	0.0009
Moon	102487-11-18 17:16 G	39153989.99	39153990.22	39153990.45	0.0531	0.0028 *
Mercury	102490-12-29 17:30 G	39155127.10	39155127.23	39155127.35	0.0513	0.0104
Venus	102492-03-16 21:21 G	39155570.18	39155570.39	39155570.59	0.0502	0.0024
Mercury	102497-02-15 23:01 G	39157367.36	39157367.46	39157367.56	0.0513	0.0428
Venus	102498-01-14 15:21 G	39157700.00	39157700.14	39157700.28	0.0522	0.0369
Venus	102498-09-08 16:04 G	39157937.07	39157937.17	39157937.28	0.0527	0.0447
Moon	102499-11-23 10:47 G	39158377.85	39158377.95	39158378.06	0.0532	0.0474
Earth	102499-11-23 14:37 G	39158378.01	39158378.11	39158378.24	0.0532	0.0461 *
Mercury	102502-10-18 22:04 G	39159437.32	39159437.42	39159437.53	0.0513	0.0261
Mercury	102503-01-16 01:54 G	39159526.49	39159526.58	39159526.67	0.0511	0.0362
Venus	102503-11-21 17:16 G	39159836.03	39159836.22	39159836.41	0.0503	0.0187
Mercury	102509-03-06 10:04 G	39161767.77	39161767.92	39161768.07	0.0515	0.0309

Venus	102510-05-15 12:13 G	39162202.83	39162203.01	39162203.19	0.0525	0.0217
Mercury	102514-08-07 02:23 G	39163747.53	39163747.60	39163747.67	0.0514	0.0426
Mercury	102514-11-04 06:13 G	39163836.65	39163836.76	39163836.88	0.0511	0.0202
Venus	102515-07-27 12:13 G	39164101.89	39164102.01	39164102.14	0.0505	0.0401
Venus	102516-03-20 12:13 G	39164338.87	39164339.01	39164339.17	0.0500	0.0347
Moon	102517-05-17 02:52 G	39164761.44	39164761.62	39164761.81	0.0495	0.0314
Earth	102517-05-17 04:18 G	39164761.51	39164761.68	39164761.87	0.0495	0.0309 *
Mercury	102520-12-23 05:45 G	39166077.55	39166077.74	39166077.92	0.0514	0.0062
Venus	102522-01-18 07:54 G	39166468.63	39166468.83	39166469.03	0.0524	0.0015
Mercury	102526-08-23 11:01 G	39168146.83	39168146.96	39168147.09	0.0512	0.0046
Venus	102527-11-24 09:35 G	39168604.70	39168604.90	39168605.10	0.0501	0.0142
Earth	102529-05-21 18:13 G	39169149.02	39169149.26	39169149.49	0.0495	0.0073
Moon	102529-05-21 17:59 G	39169149.02	39169149.25	39169149.48	0.0495	0.0041 *
Mercury	102532-10-11 00:42 G	39170387.36	39170387.53	39170387.70	0.0513	0.0192
Venus	102533-09-23 02:23 G	39170734.43	39170734.60	39170734.78	0.0522	0.0245
Mercury	102538-06-11 15:35 G	39172457.03	39172457.15	39172457.28	0.0513	0.0113
Mercury	102538-09-08 19:25 G	39172546.30	39172546.31	39172546.31	0.0511	0.0510
Venus	102539-07-30 06:13 G	39172870.56	39172870.76	39172870.97	0.0503	0.0066
Earth	102541-05-26 06:28 G	39173536.67	39173536.77	39173536.87	0.0495	0.0446
Moon	102541-05-26 07:54 G	39173536.73	39173536.83	39173536.94	0.0495	0.0442 *
Mercury	102544-07-29 20:23 G	39174697.26	39174697.35	39174697.45	0.0512	0.0435
Venus	102545-05-28 23:16 G	39175000.39	39175000.47	39175000.56	0.0520	0.0466
Venus	102546-01-20 22:47 G	39175237.30	39175237.45	39175237.60	0.0526	0.0343
Mercury	102550-03-30 20:09 G	39176767.24	39176767.34	39176767.45	0.0513	0.0271
Mercury	102550-06-27 23:59 G	39176856.41	39176856.50	39176856.59	0.0511	0.0353
Venus	102551-04-04 00:57 G	39177136.37	39177136.54	39177136.72	0.0504	0.0281
Venus	102551-11-27 00:13 G	39177373.43	39177373.51	39177373.59	0.0499	0.0462
Mercury	102556-08-16 06:42 G	39179097.63	39179097.78	39179097.94	0.0515	0.0291
Venus	102557-09-25 19:40 G	39179503.13	39179503.32	39179503.52	0.0525	0.0116
Mars	102560-08-23 10:33 G	39180565.67	39180565.94	39180566.20	0.0526	0.0010

Mercury	102562-01-17 00:57 G	39181077.47	39181077.54	39181077.61	0.0514	0.0426
Mercury	102562-04-16 04:47 G	39181166.59	39181166.70	39181166.82	0.0511	0.0202
Venus	102562-12-07 20:52 G	39181402.33	39181402.37	39181402.42	0.0505	0.0491
Venus	102563-08-01 21:21 G	39181639.21	39181639.39	39181639.57	0.0500	0.0259
Mercury	102568-06-04 02:52 G	39183407.44	39183407.62	39183407.81	0.0514	0.0053
Venus	102569-05-31 16:47 G	39183769.00	39183769.20	39183769.39	0.0523	0.0112
Moon	102570-11-18 12:13 G	39184304.78	39184305.01	39184305.24	0.0531	0.0045
Earth	102570-11-18 16:04 G	39184304.95	39184305.17	39184305.40	0.0531	0.0079 *
Mercury	102574-02-02 09:21 G	39185476.76	39185476.89	39185477.02	0.0512	0.0041
Venus	102575-04-06 17:16 G	39185905.01	39185905.22	39185905.43	0.0502	0.0050
Mars	102578-08-19 03:35 G	39187135.37	39187135.65	39187135.94	0.0500	0.0068
Mercury	102580-03-22 22:47 G	39187717.28	39187717.45	39187717.63	0.0513	0.0189
Venus	102581-02-03 13:11 G	39188034.91	39188035.05	39188035.21	0.0522	0.0338
Venus	102581-09-28 13:40 G	39188271.99	39188272.07	39188272.15	0.0527	0.0479
Earth	102582-11-23 13:25 G	39188692.90	39188693.06	39188693.22	0.0531	0.0374
Moon	102582-11-23 17:01 G	39188693.06	39188693.21	39188693.37	0.0531	0.0389 *
Mercury	102585-11-21 13:54 G	39189786.96	39189787.08	39189787.21	0.0513	0.0117
Mercury	102586-02-18 17:30 G	39189876.22	39189876.23	39189876.25	0.0510	0.0504
Venus	102586-12-10 13:54 G	39190170.88	39190171.08	39190171.28	0.0503	0.0160
Mercury	102592-01-09 18:13 G	39192027.17	39192027.26	39192027.36	0.0512	0.0436
Venus	102593-06-03 07:40 G	39192537.65	39192537.82	39192538.00	0.0525	0.0244
Mercury	102597-09-09 18:42 G	39194097.17	39194097.28	39194097.38	0.0514	0.0275
Mercury	102597-12-07 22:18 G	39194186.34	39194186.43	39194186.53	0.0511	0.0351
Venus	102598-08-15 10:04 G	39194436.78	39194436.92	39194437.06	0.0505	0.0371
Venus	102599-04-09 10:33 G	39194673.80	39194673.94	39194674.07	0.0500	0.0380
Earth	102600-05-17 09:21 G	39195076.73	39195076.89	39195077.05	0.0495	0.0362
Moon	102600-05-17 09:21 G	39195076.75	39195076.89	39195077.04	0.0495	0.0374 *
Mercury	102604-01-28 04:33 G	39196427.54	39196427.69	39196427.85	0.0514	0.0291
Venus	102605-02-07 04:04 G	39196803.47	39196803.67	39196803.87	0.0524	0.0016
Mercury	102609-06-29 23:16 G	39198407.41	39198407.47	39198407.54	0.0514	0.0432

Mercury	102609-09-27 03:06 G	39198496.52	39198496.63	39198496.75	0.0511	0.0197
Venus	102610-12-14 05:59 G	39198939.56	39198939.75	39198939.95	0.0501	0.0170
Earth	102612-05-21 17:59 G	39199464.01	39199464.25	39199464.48	0.0495	0.0009
Moon	102612-05-21 19:11 G	39199464.05	39199464.30	39199464.54	0.0495	0.0031 *
Mercury	102615-11-15 23:59 G	39200737.32	39200737.50	39200737.69	0.0514	0.0042
Venus	102616-10-13 00:57 G	39201069.36	39201069.54	39201069.73	0.0523	0.0213
Mercury	102621-07-16 08:09 G	39202806.71	39202806.84	39202806.97	0.0512	0.0045
Venus	102622-08-19 03:06 G	39203205.42	39203205.63	39203205.84	0.0502	0.0038
Moon	102624-05-26 03:35 G	39203851.51	39203851.65	39203851.81	0.0495	0.0375
Earth	102624-05-26 06:13 G	39203851.62	39203851.76	39203851.92	0.0495	0.0376 *
Mercury	102627-09-03 20:23 G	39205047.18	39205047.35	39205047.53	0.0514	0.0195
Venus	102628-06-17 23:01 G	39205335.35	39205335.46	39205335.57	0.0521	0.0433
Venus	102629-02-09 23:01 G	39205572.33	39205572.46	39205572.60	0.0526	0.0382
Mercury	102633-05-04 12:42 G	39207116.90	39207117.03	39207117.15	0.0512	0.0116
Mercury	102633-08-01 16:18 G	39207206.16	39207206.18	39207206.20	0.0510	0.0503
Venus	102634-04-23 22:33 G	39207471.26	39207471.44	39207471.62	0.0504	0.0251
Venus	102634-12-16 21:35 G	39207708.38	39207708.40	39207708.44	0.0499	0.0493
Mercury	102639-06-22 16:33 G	39209357.10	39209357.19	39209357.30	0.0513	0.0430
Venus	102640-10-15 19:11 G	39209838.11	39209838.30	39209838.49	0.0525	0.0152
Mercury	102645-02-20 17:16 G	39211427.11	39211427.22	39211427.33	0.0513	0.0273
Mercury	102645-05-20 21:06 G	39211516.29	39211516.38	39211516.47	0.0511	0.0350
Venus	102645-12-27 18:42 G	39211737.20	39211737.28	39211737.36	0.0505	0.0462
Venus	102646-08-21 19:25 G	39211974.14	39211974.31	39211974.48	0.0501	0.0292
Mercury	102651-07-10 02:52 G	39213757.47	39213757.62	39213757.78	0.0514	0.0297
Venus	102652-06-20 14:09 G	39214103.90	39214104.09	39214104.29	0.0523	0.0081
Earth	102653-11-18 14:52 G	39214619.90	39214620.12	39214620.34	0.0531	0.0164
Moon	102653-11-18 18:42 G	39214620.06	39214620.28	39214620.51	0.0531	0.0128 *
Mercury	102656-12-09 21:49 G	39215737.34	39215737.41	39215737.48	0.0514	0.0433
Mercury	102657-03-09 01:54 G	39215826.46	39215826.58	39215826.69	0.0512	0.0197
Venus	102658-04-26 16:33 G	39216239.98	39216240.19	39216240.39	0.0502	0.0085

Mercury	102663-04-27 22:47 G	39218067.26	39218067.45	39218067.63	0.0514	0.0052
Venus	102664-02-24 11:01 G	39218369.80	39218369.96	39218370.13	0.0522	0.0306
Venus	102664-10-18 11:16 G	39218606.94	39218606.97	39218607.02	0.0527	0.0513
Moon	102665-11-23 11:30 G	39219007.79	39219007.98	39219008.18	0.0531	0.0306
Earth	102665-11-23 14:37 G	39219007.92	39219008.11	39219008.30	0.0531	0.0296 *
Mercury	102668-12-26 06:42 G	39220136.65	39220136.78	39220136.90	0.0512	0.0045
Venus	102669-12-30 12:13 G	39220505.82	39220506.01	39220506.22	0.0503	0.0129
Mercury	102675-02-13 17:59 G	39222377.08	39222377.25	39222377.42	0.0514	0.0201
Venus	102676-06-23 07:54 G	39222872.66	39222872.83	39222873.00	0.0526	0.0283
Mercury	102680-10-14 11:45 G	39224446.86	39224446.99	39224447.11	0.0512	0.0107
Venus	102681-09-04 09:06 G	39224771.73	39224771.88	39224772.04	0.0504	0.0338
Venus	102682-04-29 08:23 G	39225008.74	39225008.85	39225008.97	0.0499	0.0411
Earth	102683-05-17 11:45 G	39225391.87	39225391.99	39225392.11	0.0495	0.0421
Moon	102683-05-17 12:42 G	39225391.92	39225392.03	39225392.15	0.0495	0.0431 *
Mercury	102686-12-02 14:23 G	39226687.01	39226687.10	39226687.21	0.0513	0.0432
Venus	102688-02-27 05:16 G	39227138.52	39227138.72	39227138.92	0.0525	0.0055
Mercury	102692-08-02 16:04 G	39228757.07	39228757.17	39228757.28	0.0513	0.0266
Mercury	102692-10-30 19:54 G	39228846.24	39228846.33	39228846.42	0.0511	0.0356
Venus	102694-01-02 05:16 G	39229274.53	39229274.72	39229274.91	0.0501	0.0204
Moon	102695-05-21 22:18 G	39229779.20	39229779.43	39229779.66	0.0495	0.0075
Earth	102695-05-22 00:42 G	39229779.29	39229779.53	39229779.76	0.0495	0.0044 *
Mercury	102698-12-20 01:40 G	39231087.42	39231087.57	39231087.72	0.0515	0.0309
Venus	102699-11-02 02:09 G	39231404.40	39231404.59	39231404.78	0.0523	0.0172
Mercury	102704-05-22 20:37 G	39233067.30	39233067.36	39233067.43	0.0514	0.0425
Mercury	102704-08-20 00:42 G	39233156.41	39233156.53	39233156.64	0.0511	0.0203
Venus	102705-09-08 02:23 G	39233540.39	39233540.60	39233540.81	0.0502	0.0007
Earth	102707-05-27 14:52 G	39234166.95	39234167.12	39234167.29	0.0495	0.0335
Moon	102707-05-27 18:28 G	39234167.10	39234167.27	39234167.44	0.0495	0.0346 *
Mercury	102710-10-08 21:21 G	39235397.21	39235397.39	39235397.58	0.0514	0.0064
Venus	102711-07-08 22:18 G	39235670.31	39235670.43	39235670.56	0.0521	0.0398

Venus	102712-03-01 22:04 G	39235907.31	39235907.42	39235907.54	0.0526	0.0418
Mars	102714-11-19 04:47 G	39236899.53	39236899.70	39236899.89	0.0526	0.0374
Mercury	102716-06-08 05:16 G	39237466.60	39237466.72	39237466.85	0.0512	0.0052
Venus	102717-05-13 22:47 G	39237806.27	39237806.45	39237806.64	0.0504	0.0215
Mercury	102722-07-27 17:16 G	39239707.05	39239707.22	39239707.40	0.0513	0.0179
Venus	102723-11-05 18:28 G	39240173.08	39240173.27	39240173.45	0.0525	0.0189
Mercury	102728-03-27 10:18 G	39241776.81	39241776.93	39241777.06	0.0513	0.0103
Venus	102729-01-16 19:11 G	39242072.19	39242072.30	39242072.41	0.0505	0.0427
Venus	102729-09-10 18:57 G	39242309.14	39242309.29	39242309.46	0.0500	0.0326
Mars	102732-11-13 19:40 G	39243469.20	39243469.32	39243469.45	0.0500	0.0446
Mercury	102734-05-15 12:28 G	39244016.92	39244017.02	39244017.12	0.0513	0.0432
Venus	102735-07-11 14:52 G	39244438.92	39244439.12	39244439.32	0.0524	0.0043
Moon	102736-11-18 20:52 G	39244935.15	39244935.37	39244935.60	0.0532	0.0174
Earth	102736-11-19 00:13 G	39244935.30	39244935.51	39244935.73	0.0532	0.0206 *
Mercury	102740-01-14 15:21 G	39246087.03	39246087.14	39246087.25	0.0513	0.0252
Mercury	102740-04-12 19:11 G	39246176.21	39246176.30	39246176.38	0.0510	0.0370
Venus	102741-05-16 16:47 G	39246575.00	39246575.20	39246575.41	0.0501	0.0121
Mercury	102746-06-01 23:45 G	39248417.35	39248417.49	39248417.64	0.0515	0.0312
Venus	102747-03-16 12:42 G	39248704.86	39248705.03	39248705.21	0.0523	0.0267
Earth	102748-11-24 00:57 G	39249323.34	39249323.54	39249323.74	0.0531	0.0260
Moon	102748-11-24 02:09 G	39249323.40	39249323.59	39249323.78	0.0531	0.0260 *
Mercury	102751-11-02 19:54 G	39250397.26	39250397.33	39250397.41	0.0513	0.0411
Mercury	102752-01-30 23:45 G	39250486.38	39250486.49	39250486.61	0.0511	0.0215
Venus	102753-01-19 13:11 G	39250840.85	39250841.05	39250841.26	0.0503	0.0090
Mercury	102758-03-20 20:23 G	39252727.16	39252727.35	39252727.53	0.0514	0.0078
Venus	102758-11-19 10:33 G	39252970.88	39252970.94	39252971.01	0.0521	0.0487
Venus	102759-07-14 10:33 G	39253207.79	39253207.94	39253208.10	0.0526	0.0329
Mercury	102763-11-19 04:33 G	39254796.56	39254796.69	39254796.82	0.0512	0.0061
Venus	102764-09-24 09:35 G	39255106.74	39255106.90	39255107.07	0.0504	0.0301
Venus	102765-05-19 09:21 G	39255343.80	39255343.89	39255343.98	0.0500	0.0449

Moon	102766-05-17 19:11 G	39255707.24	39255707.30	39255707.37	0.0495	0.0471
Earth	102766-05-17 21:35 G	39255707.31	39255707.40	39255707.49	0.0495	0.0455 *
Mercury	102770-01-06 16:18 G	39257037.01	39257037.18	39257037.36	0.0513	0.0162
Venus	102771-03-19 05:59 G	39257473.56	39257473.75	39257473.95	0.0524	0.0097
Mercury	102775-09-07 09:21 G	39259106.76	39259106.89	39259107.01	0.0513	0.0096
Venus	102777-01-22 06:57 G	39259609.61	39259609.79	39259609.97	0.0501	0.0246
Earth	102778-05-22 11:30 G	39260094.75	39260094.98	39260095.21	0.0495	0.0076
Moon	102778-05-22 15:06 G	39260094.90	39260095.13	39260095.37	0.0495	0.0100 *
Mercury	102781-10-25 12:13 G	39261346.90	39261347.01	39261347.13	0.0513	0.0401
Venus	102782-11-22 02:37 G	39261739.42	39261739.61	39261739.81	0.0523	0.0133
Mercury	102787-06-26 14:09 G	39263416.98	39263417.09	39263417.21	0.0513	0.0246
Mercury	102787-09-23 17:59 G	39263506.17	39263506.25	39263506.34	0.0511	0.0377
Venus	102788-09-27 03:49 G	39263875.46	39263875.66	39263875.87	0.0502	0.0036
Moon	102790-05-26 17:30 G	39264482.05	39264482.23	39264482.43	0.0494	0.0305
Earth	102790-05-26 21:35 G	39264482.21	39264482.40	39264482.59	0.0494	0.0292 *
Mercury	102793-11-11 22:04 G	39265747.28	39265747.42	39265747.57	0.0515	0.0316
Venus	102794-07-27 23:01 G	39266005.32	39266005.46	39266005.60	0.0522	0.0362
Venus	102795-03-21 23:59 G	39266242.41	39266242.50	39266242.60	0.0527	0.0461
Mercury	102799-04-14 19:11 G	39267727.23	39267727.30	39267727.39	0.0513	0.0394
Mercury	102799-07-12 23:16 G	39267816.35	39267816.47	39267816.58	0.0511	0.0233
Venus	102800-06-02 01:25 G	39268141.37	39268141.56	39268141.76	0.0503	0.0173
Mercury	102805-08-30 18:42 G	39270057.09	39270057.28	39270057.46	0.0515	0.0084
Venus	102806-11-24 21:21 G	39270508.21	39270508.39	39270508.57	0.0526	0.0234
Mercury	102811-05-01 03:49 G	39272126.54	39272126.66	39272126.79	0.0512	0.0077
Venus	102812-02-05 21:21 G	39272407.26	39272407.39	39272407.53	0.0504	0.0385
Venus	102812-09-29 21:06 G	39272644.24	39272644.38	39272644.52	0.0500	0.0367
Mercury	102817-06-18 15:21 G	39274366.96	39274367.14	39274367.32	0.0514	0.0145
Venus	102818-07-30 18:42 G	39274774.08	39274774.28	39274774.48	0.0524	0.0006
Earth	102819-11-19 10:18 G	39275250.73	39275250.93	39275251.14	0.0531	0.0244
Moon	102819-11-19 11:59 G	39275250.80	39275251.00	39275251.21	0.0531	0.0213 *

Mercury	102823-02-17 08:37 G	39276436.73	39276436.86	39276436.98	0.0512	0.0078
Venus	102824-06-04 18:28 G	39276910.07	39276910.27	39276910.47	0.0501	0.0162
Mercury	102829-04-06 11:30 G	39278676.86	39278676.98	39278677.11	0.0513	0.0381
Venus	102830-04-04 15:06 G	39279039.95	39279040.13	39279040.31	0.0522	0.0224
Earth	102831-11-24 07:25 G	39279638.60	39279638.81	39279639.02	0.0531	0.0205
Moon	102831-11-24 07:54 G	39279638.61	39279638.83	39279639.05	0.0531	0.0197 *
Mars	102833-05-10 18:28 G	39280172.20	39280172.27	39280172.35	0.0527	0.0504
Mercury	102834-12-06 13:11 G	39280746.94	39280747.05	39280747.17	0.0513	0.0235
Mercury	102835-03-05 17:01 G	39280836.13	39280836.21	39280836.29	0.0511	0.0387
Venus	102836-02-08 15:35 G	39281175.95	39281176.15	39281176.36	0.0503	0.0049
Mercury	102841-04-23 22:18 G	39283077.30	39283077.43	39283077.57	0.0515	0.0352
Venus	102841-12-08 11:59 G	39283305.91	39283306.00	39283306.11	0.0521	0.0447
Venus	102842-08-02 11:59 G	39283542.87	39283543.00	39283543.15	0.0526	0.0372
Mercury	102846-09-24 18:13 G	39285057.18	39285057.26	39285057.34	0.0514	0.0384
Mercury	102846-12-22 22:04 G	39285146.31	39285146.42	39285146.54	0.0511	0.0242
Venus	102847-10-14 12:42 G	39285441.85	39285442.03	39285442.21	0.0504	0.0259
Venus	102848-06-07 11:30 G	39285678.95	39285678.98	39285679.03	0.0499	0.0489
Earth	102849-05-17 06:57 G	39286022.75	39286022.79	39286022.83	0.0495	0.0485
Mars	102851-05-04 20:37 G	39286740.23	39286740.36	39286740.48	0.0499	0.0448
Mercury	102853-02-09 17:01 G	39287387.03	39287387.21	39287387.40	0.0515	0.0092
Venus	102854-04-07 07:25 G	39287808.62	39287808.81	39287809.01	0.0525	0.0138
Mercury	102858-10-11 03:21 G	39289456.52	39289456.64	39289456.77	0.0512	0.0097
Venus	102859-06-19 10:04 G	39289707.85	39289707.92	39289708.00	0.0505	0.0467
Venus	102860-02-11 10:18 G	39289944.76	39289944.93	39289945.10	0.0500	0.0288
Moon	102861-05-21 16:47 G	39290409.98	39290410.20	39290410.43	0.0494	0.0135
Earth	102861-05-21 20:52 G	39290410.14	39290410.37	39290410.60	0.0494	0.0109 *
Mercury	102864-11-28 13:40 G	39291696.89	39291697.07	39291697.25	0.0514	0.0139
Venus	102865-12-11 05:30 G	39292074.53	39292074.73	39292074.92	0.0524	0.0090
Mercury	102870-07-30 08:09 G	39293766.71	39293766.84	39293766.96	0.0512	0.0060
Venus	102871-10-17 06:42 G	39294210.58	39294210.78	39294210.99	0.0501	0.0080

Earth	102873-05-26 09:35 G	39294797.70	39294797.90	39294798.10	0.0495	0.0265
Moon	102873-05-26 12:57 G	39294797.85	39294798.04	39294798.23	0.0495	0.0285 *
Mercury	102876-09-16 10:33 G	39296006.81	39296006.94	39296007.07	0.0513	0.0364
Venus	102877-08-16 03:35 G	39296340.49	39296340.65	39296340.81	0.0522	0.0313
Venus	102878-04-10 04:33 G	39296577.65	39296577.69	39296577.74	0.0527	0.0512
Mercury	102882-05-18 12:42 G	39298076.92	39298077.03	39298077.15	0.0513	0.0215
Mercury	102882-08-15 16:33 G	39298166.11	39298166.19	39298166.26	0.0510	0.0405
Venus	102883-06-22 03:35 G	39298476.45	39298476.65	39298476.85	0.0503	0.0131
Mercury	102888-10-03 21:35 G	39300407.28	39300407.40	39300407.53	0.0515	0.0374
Venus	102889-12-13 23:59 G	39300843.34	39300843.50	39300843.67	0.0526	0.0280
Mercury	102894-03-06 17:16 G	39302387.14	39302387.22	39302387.31	0.0514	0.0373
Mercury	102894-06-03 21:06 G	39302476.28	39302476.38	39302476.50	0.0511	0.0253
Venus	102895-02-25 00:13 G	39302742.36	39302742.51	39302742.66	0.0505	0.0343
Venus	102895-10-19 23:59 G	39302979.39	39302979.50	39302979.62	0.0500	0.0411
Mercury	102900-07-23 17:30 G	39304717.05	39304717.23	39304717.41	0.0514	0.0131
Venus	102901-08-19 20:37 G	39305109.16	39305109.36	39305109.56	0.0524	0.0050
Moon	102902-11-19 17:59 G	39305566.05	39305566.25	39305566.46	0.0531	0.0259
Earth	102902-11-19 18:13 G	39305566.07	39305566.26	39305566.45	0.0531	0.0292 *
Mercury	102906-03-24 02:23 G	39306786.48	39306786.60	39306786.73	0.0512	0.0107
Venus	102907-06-25 21:49 G	39307245.22	39307245.41	39307245.60	0.0501	0.0205
Mercury	102912-05-11 12:13 G	39309026.83	39309027.01	39309027.19	0.0514	0.0130
Venus	102913-04-24 15:49 G	39309374.97	39309375.16	39309375.34	0.0523	0.0186
Moon	102914-11-24 16:47 G	39309953.99	39309954.20	39309954.41	0.0532	0.0165
Earth	102914-11-24 18:13 G	39309954.04	39309954.26	39309954.48	0.0532	0.0173 *
Mercury	102918-01-10 07:40 G	39311096.69	39311096.82	39311096.94	0.0512	0.0041
Venus	102919-02-28 20:09 G	39311511.13	39311511.34	39311511.55	0.0502	0.0004
Mercury	102924-02-28 08:52 G	39313336.74	39313336.87	39313337.00	0.0513	0.0359
Venus	102924-12-28 13:54 G	39313640.96	39313641.08	39313641.21	0.0522	0.0408
Venus	102925-08-22 15:06 G	39313878.01	39313878.13	39313878.25	0.0527	0.0417
Mercury	102929-10-29 12:13 G	39315406.89	39315407.01	39315407.13	0.0513	0.0194

Mercury	102930-01-26 15:49 G	39315496.10	39315496.16	39315496.23	0.0510	0.0424
Venus	102930-11-03 16:04 G	39315776.98	39315777.17	39315777.36	0.0503	0.0213
Mercury	102936-03-16 20:23 G	39317737.24	39317737.35	39317737.48	0.0515	0.0391
Venus	102937-04-27 12:13 G	39318143.83	39318144.01	39318144.20	0.0526	0.0190
Mercury	102941-08-17 16:47 G	39319717.11	39319717.20	39319717.29	0.0513	0.0352
Mercury	102941-11-14 20:37 G	39319806.26	39319806.36	39319806.47	0.0511	0.0272
Venus	102942-07-09 12:13 G	39320042.91	39320043.01	39320043.12	0.0505	0.0426
Venus	102943-03-03 12:13 G	39320279.86	39320280.01	39320280.17	0.0500	0.0331
Earth	102944-05-22 08:52 G	39320725.64	39320725.87	39320726.10	0.0495	0.0135
Moon	102944-05-22 12:28 G	39320725.80	39320726.02	39320726.24	0.0495	0.0159 *
Mercury	102948-01-03 16:47 G	39322047.02	39322047.20	39322047.38	0.0514	0.0151
Venus	102948-12-31 08:37 G	39322409.66	39322409.86	39322410.06	0.0524	0.0043
Mercury	102953-06-05 21:21 G	39324027.38	39324027.39	39324027.40	0.0514	0.0512
Mercury	102953-09-03 01:25 G	39324116.44	39324116.56	39324116.68	0.0512	0.0117
Venus	102954-11-06 09:35 G	39324545.70	39324545.90	39324546.10	0.0501	0.0123
Moon	102956-05-26 19:25 G	39325113.11	39325113.31	39325113.53	0.0495	0.0256
Earth	102956-05-26 22:33 G	39325113.24	39325113.44	39325113.65	0.0495	0.0242 *
Mercury	102959-10-22 12:42 G	39326356.85	39326357.03	39326357.21	0.0514	0.0090
Venus	102960-09-05 05:30 G	39326675.56	39326675.73	39326675.90	0.0522	0.0270
Mercury	102965-06-22 06:28 G	39328426.65	39328426.77	39328426.90	0.0512	0.0030
Venus	102966-07-12 07:25 G	39328811.60	39328811.81	39328812.01	0.0502	0.0087
Mercury	102971-08-10 07:25 G	39330666.67	39330666.81	39330666.94	0.0513	0.0350
Venus	102972-05-11 00:28 G	39330941.47	39330941.52	39330941.57	0.0521	0.0501
Venus	102973-01-03 00:42 G	39331178.38	39331178.53	39331178.69	0.0527	0.0320
Mercury	102977-04-10 11:45 G	39332736.87	39332736.99	39332737.11	0.0513	0.0176
Mercury	102977-07-08 15:21 G	39332826.08	39332826.14	39332826.20	0.0510	0.0443
Venus	102978-03-17 05:01 G	39333077.55	39333077.71	39333077.88	0.0504	0.0295
Venus	102978-11-09 03:49 G	39333314.58	39333314.66	39333314.75	0.0499	0.0456
Mercury	102983-08-27 18:42 G	39335067.16	39335067.28	39335067.40	0.0515	0.0392
Venus	102984-09-07 22:18 G	39335444.24	39335444.43	39335444.63	0.0525	0.0092

Moon	102985-11-19 03:49 G	39335881.48	39335881.66	39335881.85	0.0532	0.0294
Earth	102985-11-19 04:47 G	39335881.53	39335881.70	39335881.89	0.0532	0.0325 *
Mars	102987-08-07 01:54 G	39336507.33	39336507.58	39336507.84	0.0527	0.0087
Mercury	102989-01-27 16:18 G	39337047.08	39337047.18	39337047.28	0.0513	0.0333
Mercury	102989-04-26 20:09 G	39337136.24	39337136.34	39337136.44	0.0511	0.0290
Venus	102990-07-15 00:42 G	39337580.35	39337580.53	39337580.71	0.0500	0.0250
Mercury	102995-06-15 15:21 G	39339376.97	39339377.14	39339377.32	0.0515	0.0163
Venus	102996-05-13 20:09 G	39339710.15	39339710.34	39339710.53	0.0523	0.0135
Earth	102997-11-24 05:30 G	39340269.51	39340269.73	39340269.95	0.0532	0.0138
Moon	102997-11-24 08:09 G	39340269.61	39340269.84	39340270.07	0.0532	0.0126 *
Mercury	103000-11-16 20:52 G	39341357.34	39341357.37	39341357.40	0.0514	0.0491

104TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 104th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	103001-02-14 00:57 G	39341446.41	39341446.54	39341446.66	0.0511	0.0137		
Venus	103002-03-20 21:35 G	39341846.20	39341846.40	39341846.61	0.0502	0.0043		
Mars	103005-07-31 23:45 G	39343075.21	39343075.49	39343075.77	0.0499	0.0118		
Mercury	103007-04-04 11:45 G	39343686.81	39343686.99	39343687.18	0.0514	0.0073		
Venus	103008-01-18 17:01 G	39343976.08	39343976.21	39343976.36	0.0521	0.0363		
Venus	103008-09-11 17:45 G	39344213.15	39344213.24	39344213.34	0.0527	0.0463		
Mercury	103012-12-03 05:30 G	39345756.60	39345756.73	39345756.86	0.0512	0.0022		

Venus	103013-11-23 18:13 G	39346112.06	39346112.26	39346112.45	0.0503	0.0172
Mercury	103019-01-21 07:40 G	39347996.68	39347996.82	39347996.97	0.0513	0.0313
Venus	103020-05-17 13:25 G	39348478.89	39348479.06	39348479.24	0.0525	0.0232
Mercury	103024-09-21 10:33 G	39350066.82	39350066.94	39350067.06	0.0513	0.0169
Mercury	103024-12-19 14:09 G	39350156.04	39350156.09	39350156.15	0.0510	0.0450
Venus	103025-07-29 15:35 G	39350378.02	39350378.15	39350378.29	0.0505	0.0383
Venus	103026-03-23 15:21 G	39350615.01	39350615.14	39350615.28	0.0500	0.0373
Moon	103027-05-23 17:01 G	39351040.99	39351041.21	39351041.44	0.0494	0.0183
Earth	103027-05-23 19:54 G	39351041.10	39351041.33	39351041.55	0.0494	0.0161 *
Mercury	103031-02-07 17:01 G	39352397.09	39352397.21	39352397.32	0.0515	0.0397
Venus	103032-01-21 07:54 G	39352744.63	39352744.83	39352745.03	0.0524	0.0012
Mercury	103036-07-10 15:35 G	39354377.05	39354377.15	39354377.25	0.0513	0.0317
Mercury	103036-10-07 19:25 G	39354466.21	39354466.31	39354466.41	0.0511	0.0306
Venus	103037-11-26 13:25 G	39354880.87	39354881.06	39354881.26	0.0501	0.0170
Earth	103039-05-28 08:37 G	39355428.65	39355428.86	39355429.08	0.0494	0.0212
Moon	103039-05-28 10:04 G	39355428.72	39355428.92	39355429.12	0.0494	0.0231 *
Mercury	103042-11-26 13:11 G	39356706.87	39356707.05	39356707.23	0.0515	0.0161
Venus	103043-09-26 05:30 G	39357010.55	39357010.73	39357010.91	0.0523	0.0234
Mercury	103048-04-28 20:09 G	39358687.29	39358687.34	39358687.38	0.0514	0.0476
Mercury	103048-07-26 23:59 G	39358776.38	39358776.50	39358776.62	0.0511	0.0152
Venus	103049-08-01 09:35 G	39359146.70	39359146.90	39359147.11	0.0502	0.0043
Mercury	103054-09-14 10:04 G	39361016.73	39361016.92	39361017.10	0.0514	0.0068
Venus	103055-06-01 04:04 G	39361276.57	39361276.67	39361276.76	0.0521	0.0455
Venus	103056-01-24 04:18 G	39361513.55	39361513.68	39361513.83	0.0527	0.0370
Mercury	103060-05-15 04:47 G	39363086.57	39363086.70	39363086.83	0.0512	0.0007
Venus	103061-04-06 05:45 G	39363412.56	39363412.74	39363412.92	0.0504	0.0256
Venus	103061-11-29 04:33 G	39363649.67	39363649.69	39363649.71	0.0499	0.0495
Mercury	103066-07-03 06:13 G	39365326.62	39365326.76	39365326.91	0.0513	0.0302
Venus	103067-09-29 00:28 G	39365779.33	39365779.52	39365779.71	0.0525	0.0136
Earth	103068-11-19 11:16 G	39366196.81	39366196.97	39366197.13	0.0531	0.0377

Moon	103068-11-19 11:30 G	39366196.81	39366196.98	39366197.17	0.0531	0.0341	*
Mercury	103072-03-03 09:21 G	39367396.77	39367396.89	39367397.01	0.0513	0.0165	
Mercury	103072-05-31 12:57 G	39367485.99	39367486.04	39367486.10	0.0510	0.0454	
Venus	103072-12-10 01:25 G	39367678.49	39367678.56	39367678.64	0.0505	0.0471	
Venus	103073-08-04 01:54 G	39367915.41	39367915.58	39367915.75	0.0500	0.0289	
Mercury	103078-07-20 16:47 G	39369727.10	39369727.20	39369727.31	0.0515	0.0429	
Venus	103079-06-03 20:37 G	39370045.16	39370045.36	39370045.55	0.0523	0.0096	
Moon	103080-11-24 08:23 G	39370584.63	39370584.85	39370585.07	0.0532	0.0085	
Earth	103080-11-24 09:49 G	39370584.68	39370584.91	39370585.14	0.0532	0.0076	*
Mercury	103083-12-21 14:09 G	39371706.99	39371707.09	39371707.19	0.0514	0.0315	
Mercury	103084-03-19 17:59 G	39371796.15	39371796.25	39371796.35	0.0511	0.0309	
Venus	103085-04-08 23:59 G	39372181.30	39372181.50	39372181.71	0.0501	0.0082	
Mercury	103090-05-08 11:16 G	39374036.79	39374036.97	39374037.14	0.0514	0.0162	
Venus	103091-02-06 14:52 G	39374310.97	39374311.12	39374311.27	0.0522	0.0332	
Venus	103091-10-01 15:49 G	39374548.10	39374548.16	39374548.23	0.0528	0.0498	
Earth	103092-11-29 07:25 G	39374972.78	39374972.81	39374972.83	0.0533	0.0529	
Moon	103092-11-29 10:18 G	39374972.85	39374972.93	39374973.01	0.0533	0.0498	
Mercury	103095-10-09 19:11 G	39376017.25	39376017.30	39376017.35	0.0514	0.0465	
Mercury	103096-01-06 23:16 G	39376106.35	39376106.47	39376106.59	0.0512	0.0163	
Venus	103096-12-12 21:35 G	39376447.20	39376447.40	39376447.60	0.0503	0.0127	
Mercury	103102-02-25 07:25 G	39378346.62	39378346.81	39378346.99	0.0514	0.0075	
Venus	103103-06-07 12:42 G	39378813.86	39378814.03	39378814.20	0.0526	0.0268	
Mercury	103107-10-27 03:49 G	39380416.53	39380416.66	39380416.79	0.0512	0.0009	
Venus	103108-08-18 16:47 G	39380713.05	39380713.20	39380713.36	0.0504	0.0342	
Venus	103109-04-12 15:49 G	39380950.05	39380950.16	39380950.28	0.0499	0.0414	
Earth	103110-05-24 03:49 G	39381356.45	39381356.66	39381356.88	0.0494	0.0201	
Moon	103110-05-24 07:54 G	39381356.63	39381356.83	39381357.04	0.0494	0.0233	*
Mercury	103113-12-14 04:04 G	39382656.52	39382656.67	39382656.82	0.0513	0.0303	
Venus	103115-02-10 10:18 G	39383079.73	39383079.93	39383080.13	0.0525	0.0039	
Mercury	103119-08-15 08:23 G	39384726.73	39384726.85	39384726.97	0.0513	0.0152	

Mercury	103119-11-12 11:59 G	39384815.96	39384816.00	39384816.05	0.0510	0.0466
Venus	103120-12-16 12:42 G	39385215.84	39385216.03	39385216.22	0.0501	0.0206
Moon	103122-05-28 12:13 G	39385743.79	39385744.01	39385744.24	0.0494	0.0149
Earth	103122-05-28 16:04 G	39385743.95	39385744.17	39385744.39	0.0494	0.0168 *
Mercury	103125-12-31 15:06 G	39387057.03	39387057.13	39387057.23	0.0515	0.0433
Venus	103126-10-16 06:42 G	39387345.60	39387345.78	39387345.97	0.0523	0.0193
Mercury	103131-06-03 12:42 G	39389036.93	39389037.03	39389037.13	0.0513	0.0315
Mercury	103131-08-31 16:33 G	39389126.10	39389126.19	39389126.30	0.0511	0.0309
Venus	103132-08-21 09:21 G	39389481.68	39389481.89	39389482.09	0.0502	0.0012
Mercury	103137-10-19 10:47 G	39391366.78	39391366.95	39391367.12	0.0514	0.0187
Venus	103138-06-21 03:21 G	39391611.52	39391611.64	39391611.76	0.0521	0.0419
Venus	103139-02-13 03:35 G	39391848.52	39391848.65	39391848.77	0.0526	0.0406
Mars	103141-11-02 07:40 G	39392841.80	39392841.82	39392841.86	0.0527	0.0523
Mercury	103143-03-22 17:45 G	39393347.19	39393347.24	39393347.29	0.0514	0.0468
Mercury	103143-06-19 21:35 G	39393436.28	39393436.40	39393436.52	0.0512	0.0161
Venus	103144-04-26 06:42 G	39393747.59	39393747.78	39393747.97	0.0504	0.0218
Mercury	103149-08-07 05:01 G	39395676.53	39395676.71	39395676.90	0.0513	0.0079
Venus	103150-10-18 20:52 G	39396114.18	39396114.37	39396114.56	0.0525	0.0165
Earth	103151-11-20 11:01 G	39396511.85	39396511.96	39396512.09	0.0532	0.0454
Moon	103151-11-20 14:52 G	39396512.01	39396512.12	39396512.24	0.0532	0.0452 *
Mercury	103155-04-08 02:37 G	39397746.48	39397746.61	39397746.74	0.0512	0.0012
Venus	103155-12-31 03:35 G	39398013.54	39398013.65	39398013.76	0.0505	0.0429
Venus	103156-08-24 03:35 G	39398250.49	39398250.65	39398250.80	0.0500	0.0331
Mercury	103161-05-26 01:11 G	39399986.41	39399986.55	39399986.70	0.0513	0.0315
Venus	103162-06-23 17:45 G	39400380.04	39400380.24	39400380.44	0.0524	0.0065
Moon	103163-11-25 08:37 G	39400899.63	39400899.86	39400900.10	0.0532	0.0039
Earth	103163-11-25 11:59 G	39400899.77	39400900.00	39400900.23	0.0532	0.0012 *
Mercury	103167-01-25 07:11 G	39402056.68	39402056.80	39402056.92	0.0513	0.0147
Mercury	103167-04-24 10:47 G	39402145.91	39402145.95	39402146.00	0.0510	0.0470
Venus	103168-04-28 23:16 G	39402516.26	39402516.47	39402516.67	0.0501	0.0119

Mercury	103173-06-12 12:28 G	39404386.92	39404387.02	39404387.12	0.0515	0.0425
Venus	103174-02-26 15:49 G	39404645.99	39404646.16	39404646.32	0.0522	0.0290
Earth	103175-11-30 12:57 G	39405287.93	39405288.04	39405288.15	0.0532	0.0469
Moon	103175-11-30 15:21 G	39405288.06	39405288.14	39405288.22	0.0532	0.0492 *
Mercury	103178-11-13 11:45 G	39406366.89	39406366.99	39406367.09	0.0513	0.0306
Mercury	103179-02-10 15:35 G	39406456.05	39406456.15	39406456.25	0.0511	0.0316
Venus	103180-01-02 19:11 G	39406782.10	39406782.30	39406782.51	0.0503	0.0095
Mercury	103185-03-31 08:23 G	39408696.68	39408696.85	39408697.03	0.0514	0.0185
Venus	103185-11-01 12:42 G	39408912.01	39408912.03	39408912.06	0.0520	0.0515
Venus	103186-06-26 12:28 G	39409148.87	39409149.02	39409149.19	0.0526	0.0307
Mercury	103190-09-01 15:49 G	39410677.12	39410677.16	39410677.21	0.0514	0.0472
Mercury	103190-11-29 19:54 G	39410766.21	39410766.33	39410766.45	0.0512	0.0156
Venus	103191-09-07 14:37 G	39411047.95	39411048.11	39411048.28	0.0504	0.0311
Venus	103192-05-01 14:09 G	39411285.00	39411285.09	39411285.18	0.0499	0.0446
Earth	103193-05-23 09:35 G	39411671.70	39411671.90	39411672.10	0.0495	0.0250
Moon	103193-05-23 09:35 G	39411671.70	39411671.90	39411672.10	0.0495	0.0236 *
Mercury	103197-01-17 04:04 G	39413006.49	39413006.67	39413006.86	0.0514	0.0061
Venus	103198-03-01 08:09 G	39413414.64	39413414.84	39413415.04	0.0524	0.0072
Mercury	103202-09-18 00:57 G	39415076.41	39415076.54	39415076.66	0.0513	0.0017
Venus	103204-01-05 12:13 G	39415550.83	39415551.01	39415551.19	0.0501	0.0241
Earth	103205-05-27 22:33 G	39416059.21	39416059.44	39416059.67	0.0494	0.0125
Moon	103205-05-27 23:01 G	39416059.22	39416059.46	39416059.70	0.0494	0.0107 *
Mercury	103208-11-04 22:33 G	39417316.30	39417316.44	39417316.59	0.0513	0.0322
Venus	103209-11-04 01:40 G	39417680.38	39417680.57	39417680.76	0.0523	0.0168
Mercury	103214-07-07 05:45 G	39419386.62	39419386.74	39419386.86	0.0513	0.0148
Mercury	103214-10-04 09:21 G	39419475.85	39419475.89	39419475.94	0.0511	0.0472
Venus	103215-09-10 09:35 G	39419816.69	39419816.90	39419817.11	0.0502	0.0032
Moon	103217-06-01 09:35 G	39420446.82	39420446.90	39420446.97	0.0494	0.0464
Earth	103217-06-01 10:33 G	39420446.92	39420446.94	39420446.96	0.0494	0.0492 *
Mercury	103220-11-22 09:06 G	39421716.77	39421716.88	39421716.99	0.0515	0.0406

Venus	103221-07-09 22:47 G	39421946.32	39421946.45	39421946.58	0.0521	0.0393
Venus	103222-03-03 23:16 G	39422183.37	39422183.47	39422183.59	0.0527	0.0435
Mercury	103226-04-25 10:04 G	39423696.82	39423696.92	39423697.02	0.0514	0.0308
Mercury	103226-07-23 13:54 G	39423785.99	39423786.08	39423786.18	0.0511	0.0315
Venus	103227-05-16 04:18 G	39424082.49	39424082.68	39424082.88	0.0503	0.0185
Mercury	103232-09-10 05:30 G	39426026.55	39426026.73	39426026.90	0.0514	0.0170
Venus	103233-11-06 20:23 G	39426449.17	39426449.35	39426449.54	0.0526	0.0205
Earth	103234-11-19 14:52 G	39426827.07	39426827.12	39426827.17	0.0532	0.0518
Mercury	103238-02-11 14:37 G	39428007.06	39428007.11	39428007.16	0.0514	0.0468
Mercury	103238-05-11 18:42 G	39428096.16	39428096.28	39428096.40	0.0512	0.0159
Venus	103239-01-18 23:59 G	39428348.37	39428348.50	39428348.62	0.0505	0.0400
Venus	103239-09-12 23:30 G	39428585.34	39428585.48	39428585.63	0.0500	0.0360
Mercury	103244-06-29 01:25 G	39430336.38	39430336.56	39430336.75	0.0514	0.0070
Venus	103245-07-12 16:47 G	39430715.00	39430715.20	39430715.40	0.0524	0.0029
Earth	103246-11-24 12:28 G	39431214.79	39431215.02	39431215.25	0.0532	0.0068
Moon	103246-11-24 14:23 G	39431214.86	39431215.10	39431215.33	0.0532	0.0092 *
Mercury	103250-02-27 23:01 G	39432406.33	39432406.46	39432406.59	0.0512	0.0004
Venus	103251-05-18 19:40 G	39432851.12	39432851.32	39432851.52	0.0501	0.0148
Mercury	103256-04-16 21:06 G	39434646.24	39434646.38	39434646.53	0.0513	0.0312
Venus	103257-03-17 12:42 G	39434980.85	39434981.03	39434981.20	0.0522	0.0261
Moon	103258-11-29 07:25 G	39435602.67	39435602.81	39435602.97	0.0532	0.0392
Earth	103258-11-29 09:49 G	39435602.75	39435602.91	39435603.07	0.0532	0.0378 *
Mars	103260-04-22 22:33 G	39436113.36	39436113.44	39436113.53	0.0528	0.0495
Mercury	103261-12-17 03:49 G	39436716.54	39436716.66	39436716.78	0.0513	0.0158
Mercury	103262-03-16 07:25 G	39436805.77	39436805.81	39436805.87	0.0511	0.0462
Venus	103263-01-21 17:01 G	39437117.00	39437117.21	39437117.42	0.0503	0.0063
Mercury	103268-05-04 06:13 G	39439046.64	39439046.76	39439046.88	0.0514	0.0393
Venus	103268-11-20 06:42 G	39439246.72	39439246.78	39439246.84	0.0520	0.0493
Venus	103269-07-15 06:13 G	39439483.61	39439483.76	39439483.92	0.0526	0.0330
Mercury	103273-10-05 08:23 G	39441026.75	39441026.85	39441026.95	0.0514	0.0314

Mercury	103274-01-02 12:28 G	39441115.92	39441116.02	39441116.12	0.0512	0.0311
Venus	103274-09-26 13:25 G	39441382.89	39441383.06	39441383.24	0.0504	0.0276
Venus	103275-05-21 12:57 G	39441619.99	39441620.04	39441620.09	0.0499	0.0480
Moon	103276-05-22 10:04 G	39441986.73	39441986.92	39441987.12	0.0494	0.0280
Earth	103276-05-22 14:09 G	39441986.91	39441987.09	39441987.28	0.0494	0.0302 *
Mars	103278-04-14 23:30 G	39442679.38	39442679.48	39442679.59	0.0498	0.0462
Mercury	103280-02-21 01:54 G	39443356.40	39443356.58	39443356.76	0.0514	0.0149
Venus	103281-03-20 02:37 G	39443749.41	39443749.61	39443749.80	0.0525	0.0097
Mercury	103285-07-24 12:57 G	39445336.99	39445337.04	39445337.08	0.0514	0.0476
Mercury	103285-10-21 17:01 G	39445426.09	39445426.21	39445426.33	0.0512	0.0153
Venus	103286-06-01 07:25 G	39445648.78	39445648.81	39445648.86	0.0506	0.0495
Venus	103287-01-24 08:09 G	39445885.67	39445885.84	39445886.02	0.0500	0.0270
Earth	103288-05-26 22:47 G	39446374.22	39446374.45	39446374.69	0.0494	0.0056
Moon	103288-05-27 02:52 G	39446374.39	39446374.62	39446374.86	0.0494	0.0090 *
Mercury	103291-12-09 22:04 G	39447666.24	39447666.42	39447666.61	0.0514	0.0088
Venus	103292-11-22 23:59 G	39448015.31	39448015.50	39448015.69	0.0523	0.0133
Mercury	103297-08-09 21:35 G	39449736.27	39449736.40	39449736.52	0.0512	0.0011
Venus	103298-09-29 04:18 G	39450151.48	39450151.68	39450151.89	0.0502	0.0058
Moon	103300-06-01 05:59 G	39450761.64	39450761.75	39450761.87	0.0494	0.0429
Earth	103300-06-01 09:49 G	39450761.80	39450761.91	39450762.04	0.0494	0.0420 *
Mercury	103303-09-28 18:13 G	39451976.12	39451976.26	39451976.41	0.0513	0.0325
Venus	103304-07-29 20:52 G	39452281.23	39452281.37	39452281.52	0.0521	0.0362
Venus	103305-03-23 21:21 G	39452518.31	39452518.39	39452518.48	0.0527	0.0468
Mercury	103309-05-30 01:40 G	39454046.46	39454046.57	39454046.70	0.0513	0.0170
Mercury	103309-08-27 05:30 G	39454135.68	39454135.73	39454135.79	0.0511	0.0450
Venus	103310-06-04 23:30 G	39454417.29	39454417.48	39454417.68	0.0503	0.0160
Mercury	103315-10-16 04:18 G	39456376.57	39456376.68	39456376.80	0.0515	0.0399
Venus	103316-11-26 16:18 G	39456784.00	39456784.18	39456784.36	0.0525	0.0232
Mercury	103321-03-18 06:28 G	39458356.67	39458356.77	39458356.87	0.0514	0.0327
Mercury	103321-06-15 10:18 G	39458445.83	39458445.93	39458446.03	0.0512	0.0298

Venus	103322-02-07 19:54 G	39458683.20	39458683.33	39458683.47	0.0505	0.0375
Venus	103322-10-02 20:09 G	39458920.22	39458920.34	39458920.48	0.0500	0.0389
Mercury	103327-08-03 23:01 G	39460686.28	39460686.46	39460686.64	0.0514	0.0136
Venus	103328-08-01 09:49 G	39461049.71	39461049.91	39461050.11	0.0523	0.0009
Earth	103329-11-24 04:33 G	39461529.48	39461529.69	39461529.91	0.0532	0.0178
Moon	103329-11-24 08:23 G	39461529.64	39461529.85	39461530.07	0.0532	0.0191 *
Mercury	103333-01-04 11:01 G	39462666.92	39462666.96	39462667.00	0.0515	0.0485
Mercury	103333-04-03 15:06 G	39462756.01	39462756.13	39462756.25	0.0512	0.0145
Venus	103334-06-07 17:16 G	39463186.03	39463186.22	39463186.41	0.0501	0.0181
Mercury	103339-05-22 18:42 G	39464996.10	39464996.28	39464996.46	0.0513	0.0108
Venus	103340-04-06 06:13 G	39465315.58	39465315.76	39465315.94	0.0522	0.0239
Moon	103341-11-29 00:42 G	39465917.33	39465917.53	39465917.74	0.0532	0.0241
Earth	103341-11-29 04:18 G	39465917.49	39465917.68	39465917.88	0.0532	0.0280 *
Mercury	103345-01-20 19:40 G	39467066.19	39467066.32	39467066.44	0.0513	0.0020
Venus	103346-02-10 12:13 G	39467451.80	39467452.01	39467452.22	0.0503	0.0037
Mercury	103351-03-10 14:37 G	39469305.98	39469306.11	39469306.25	0.0513	0.0347
Venus	103351-12-11 03:49 G	39469581.58	39469581.66	39469581.75	0.0521	0.0464
Venus	103352-08-04 04:04 G	39469818.53	39469818.67	39469818.82	0.0526	0.0364
Mercury	103356-11-09 00:13 G	39471376.39	39471376.51	39471376.63	0.0513	0.0172
Mercury	103357-02-06 03:49 G	39471465.61	39471465.66	39471465.73	0.0511	0.0447
Venus	103357-10-16 07:40 G	39471717.65	39471717.82	39471718.01	0.0504	0.0253
Moon	103359-05-23 10:33 G	39472301.81	39472301.94	39472302.09	0.0495	0.0407
Earth	103359-05-23 11:30 G	39472301.84	39472301.98	39472302.14	0.0495	0.0379 *
Mercury	103363-03-28 01:11 G	39473706.44	39473706.55	39473706.68	0.0515	0.0384
Venus	103364-04-09 00:13 G	39474084.32	39474084.51	39474084.70	0.0525	0.0129
Mercury	103368-08-28 04:33 G	39475686.59	39475686.69	39475686.78	0.0514	0.0338
Mercury	103368-11-25 08:23 G	39475775.75	39475775.85	39475775.96	0.0511	0.0286
Venus	103369-06-21 02:23 G	39475983.53	39475983.60	39475983.67	0.0506	0.0472
Venus	103370-02-13 03:06 G	39476220.46	39476220.63	39476220.80	0.0501	0.0295
Earth	103371-05-27 23:16 G	39476689.24	39476689.47	39476689.71	0.0494	0.0012

Moon	103371-05-27 23:45 G	39476689.26	39476689.49	39476689.72	0.0494	0.0015	*
Mercury	103375-01-13 20:52 G	39478016.20	39478016.37	39478016.56	0.0514	0.0138	
Venus	103375-12-13 19:54 G	39478350.13	39478350.33	39478350.52	0.0523	0.0105	
Mercury	103380-06-16 08:52 G	39479996.85	39479996.87	39479996.90	0.0515	0.0498	
Mercury	103380-09-13 13:11 G	39480085.92	39480086.05	39480086.17	0.0512	0.0133	
Venus	103381-10-18 23:59 G	39480486.30	39480486.50	39480486.71	0.0502	0.0085	
Earth	103383-06-01 12:28 G	39481076.86	39481077.02	39481077.18	0.0494	0.0360	
Moon	103383-06-01 12:13 G	39481076.86	39481077.01	39481077.17	0.0494	0.0385	*
Mercury	103386-11-01 15:49 G	39482325.98	39482326.16	39482326.34	0.0513	0.0120	
Venus	103387-08-18 14:09 G	39482615.95	39482616.09	39482616.25	0.0521	0.0341	
Venus	103388-04-11 14:09 G	39482853.03	39482853.09	39482853.17	0.0527	0.0490	
Mercury	103392-07-02 17:45 G	39484396.11	39484396.24	39484396.37	0.0513	0.0025	
Venus	103393-06-23 20:23 G	39484752.15	39484752.35	39484752.55	0.0504	0.0130	
Mercury	103398-08-20 11:30 G	39486635.85	39486635.98	39486636.11	0.0512	0.0362	
Venus	103399-12-16 09:49 G	39487118.74	39487118.91	39487119.09	0.0525	0.0257	
Mercury	103404-04-21 22:18 G	39488706.31	39488706.43	39488706.55	0.0513	0.0184	
Mercury	103404-07-20 01:54 G	39488795.52	39488795.58	39488795.65	0.0511	0.0436	
Venus	103405-02-27 14:52 G	39489017.98	39489018.12	39489018.28	0.0505	0.0350	
Venus	103405-10-22 14:37 G	39489255.00	39489255.11	39489255.23	0.0500	0.0414	
Mercury	103410-09-07 21:49 G	39491036.28	39491036.41	39491036.54	0.0515	0.0360	
Venus	103411-08-22 07:11 G	39491384.60	39491384.80	39491385.00	0.0524	0.0024	
Moon	103412-11-24 05:01 G	39491844.51	39491844.71	39491844.92	0.0532	0.0222	
Earth	103412-11-24 05:45 G	39491844.54	39491844.74	39491844.94	0.0532	0.0254	*
Mars	103414-07-19 05:45 G	39492446.51	39492446.74	39492446.98	0.0528	0.0200	
Mercury	103416-02-09 02:52 G	39493016.53	39493016.62	39493016.71	0.0514	0.0341	
Mercury	103416-05-08 06:42 G	39493105.68	39493105.78	39493105.89	0.0511	0.0283	
Venus	103417-06-27 11:16 G	39493520.78	39493520.97	39493521.16	0.0501	0.0204	
Mercury	103422-06-26 17:59 G	39495346.07	39495346.25	39495346.43	0.0514	0.0122	
Venus	103423-04-27 04:04 G	39495650.49	39495650.67	39495650.85	0.0522	0.0208	
Earth	103424-11-29 04:18 G	39496232.47	39496232.68	39496232.89	0.0532	0.0200	

Moon	103424-11-29 05:45 G	39496232.53	39496232.74	39496232.96	0.0532	0.0212	*
Mercury	103427-11-28 06:57 G	39497326.78	39497326.79	39497326.81	0.0514	0.0507	
Mercury	103428-02-25 11:16 G	39497415.84	39497415.97	39497416.09	0.0512	0.0122	
Venus	103429-03-02 06:57 G	39497786.58	39497786.79	39497787.00	0.0503	0.0014	
Mars	103432-07-09 23:45 G	39499012.21	39499012.49	39499012.77	0.0498	0.0160	
Mercury	103434-04-14 13:40 G	39499655.89	39499656.07	39499656.25	0.0513	0.0121	
Venus	103434-12-31 00:28 G	39499916.42	39499916.52	39499916.63	0.0520	0.0436	
Venus	103435-08-25 00:13 G	39500153.39	39500153.51	39500153.65	0.0526	0.0393	
Mercury	103439-12-14 15:49 G	39501726.03	39501726.16	39501726.29	0.0513	0.0036	
Venus	103440-11-05 03:06 G	39502052.45	39502052.63	39502052.82	0.0504	0.0228	
Earth	103442-05-23 13:40 G	39502616.97	39502617.07	39502617.18	0.0495	0.0439	
Moon	103442-05-23 17:16 G	39502617.12	39502617.22	39502617.34	0.0495	0.0437	*
Mercury	103446-01-31 08:52 G	39503965.75	39503965.87	39503966.00	0.0512	0.0370	
Venus	103447-04-29 17:59 G	39504419.06	39504419.25	39504419.44	0.0524	0.0152	
Mercury	103451-10-02 20:23 G	39506036.23	39506036.35	39506036.47	0.0514	0.0194	
Mercury	103451-12-31 00:13 G	39506125.44	39506125.51	39506125.58	0.0511	0.0428	
Venus	103452-07-10 23:01 G	39506318.36	39506318.46	39506318.55	0.0506	0.0444	
Venus	103453-03-04 23:59 G	39506555.35	39506555.50	39506555.66	0.0501	0.0326	
Moon	103454-05-27 22:18 G	39507004.20	39507004.43	39507004.67	0.0494	0.0101	
Earth	103454-05-28 02:23 G	39507004.36	39507004.60	39507004.83	0.0494	0.0070	*
Mercury	103458-02-17 18:57 G	39508366.15	39508366.29	39508366.43	0.0514	0.0348	
Venus	103459-01-02 14:09 G	39508684.89	39508685.09	39508685.29	0.0523	0.0081	
Mercury	103463-07-22 00:57 G	39510346.45	39510346.54	39510346.63	0.0514	0.0353	
Mercury	103463-10-19 04:47 G	39510435.60	39510435.70	39510435.81	0.0512	0.0272	
Venus	103464-11-07 19:11 G	39510821.10	39510821.30	39510821.50	0.0502	0.0109	
Earth	103466-06-01 10:04 G	39511391.74	39511391.92	39511392.12	0.0494	0.0285	
Moon	103466-06-01 14:23 G	39511391.90	39511392.10	39511392.30	0.0494	0.0259	*
Mercury	103469-12-06 14:37 G	39512675.92	39512676.11	39512676.29	0.0514	0.0102	
Venus	103470-09-07 11:30 G	39512950.82	39512950.98	39512951.14	0.0522	0.0312	
Venus	103471-05-02 12:13 G	39513188.00	39513188.01	39513188.03	0.0527	0.0524	

Mercury	103475-05-10 05:30 G	39514656.72	39514656.73	39514656.75	0.0514	0.0508
Mercury	103475-08-07 09:35 G	39514745.78	39514745.90	39514746.03	0.0512	0.0121
Venus	103476-07-13 15:35 G	39515086.95	39515087.15	39515087.35	0.0503	0.0105
Mercury	103481-09-24 10:47 G	39516985.77	39516985.95	39516986.13	0.0513	0.0134
Venus	103483-01-05 08:23 G	39517453.69	39517453.85	39517454.02	0.0526	0.0291
Mercury	103487-05-26 14:09 G	39519055.96	39519056.09	39519056.21	0.0513	0.0042
Venus	103488-03-18 10:47 G	39519352.79	39519352.95	39519353.10	0.0505	0.0324
Venus	103488-11-10 10:33 G	39519589.84	39519589.94	39519590.03	0.0500	0.0440
Mercury	103493-07-13 06:57 G	39521295.66	39521295.79	39521295.92	0.0513	0.0370
Venus	103494-09-10 04:33 G	39521719.49	39521719.69	39521719.89	0.0524	0.0055
Moon	103495-11-24 00:28 G	39522159.35	39522159.52	39522159.69	0.0531	0.0353
Earth	103495-11-24 04:04 G	39522159.50	39522159.67	39522159.85	0.0531	0.0337 *
Mercury	103499-03-14 18:42 G	39523366.16	39523366.28	39523366.39	0.0513	0.0200
Mercury	103499-06-11 22:33 G	39523455.37	39523455.44	39523455.51	0.0511	0.0421
Venus	103500-07-17 07:25 G	39523855.63	39523855.81	39523856.00	0.0501	0.0232
Mercury	103505-07-31 16:33 G	39525696.06	39525696.19	39525696.33	0.0514	0.0345
Venus	103506-05-16 23:16 G	39525985.29	39525985.47	39525985.66	0.0522	0.0182
Earth	103507-11-29 22:47 G	39526547.23	39526547.45	39526547.68	0.0532	0.0099
Moon	103507-11-30 02:37 G	39526547.39	39526547.61	39526547.83	0.0532	0.0127 *
Mercury	103511-01-01 23:01 G	39527676.38	39527676.46	39527676.55	0.0514	0.0360
Mercury	103511-04-01 03:06 G	39527765.53	39527765.63	39527765.74	0.0512	0.0267
Venus	103512-03-22 04:18 G	39528121.47	39528121.68	39528121.89	0.0503	0.0019
Mercury	103517-05-19 12:13 G	39530005.83	39530006.01	39530006.20	0.0513	0.0100
Venus	103518-01-19 20:09 G	39530251.22	39530251.34	39530251.46	0.0520	0.0410
Venus	103518-09-13 19:40 G	39530488.21	39530488.32	39530488.44	0.0526	0.0421
Mercury	103523-01-18 07:54 G	39532075.71	39532075.83	39532075.95	0.0512	0.0112
Venus	103523-11-25 23:30 G	39532387.29	39532387.48	39532387.67	0.0504	0.0201
Moon	103525-05-23 15:21 G	39532932.10	39532932.14	39532932.19	0.0495	0.0484
Mercury	103529-03-07 07:40 G	39534315.65	39534315.82	39534316.00	0.0513	0.0149
Venus	103530-05-19 16:18 G	39534753.99	39534754.18	39534754.36	0.0525	0.0186

Mercury	103534-11-06 12:42 G	39536385.91	39536386.03	39536386.16	0.0513	0.0040
Venus	103535-07-31 19:54 G	39536653.22	39536653.33	39536653.45	0.0505	0.0416
Venus	103536-03-24 20:09 G	39536890.19	39536890.34	39536890.48	0.0500	0.0352
Moon	103537-05-28 00:28 G	39537319.28	39537319.52	39537319.76	0.0494	0.0117
Earth	103537-05-28 01:40 G	39537319.35	39537319.57	39537319.80	0.0494	0.0140 *
Mercury	103540-12-24 04:18 G	39538625.56	39538625.68	39538625.80	0.0513	0.0380
Venus	103542-01-22 13:25 G	39539019.86	39539020.06	39539020.26	0.0523	0.0047
Mercury	103546-08-25 17:16 G	39540696.10	39540696.22	39540696.33	0.0513	0.0201
Mercury	103546-11-22 21:06 G	39540785.31	39540785.38	39540785.45	0.0511	0.0419
Venus	103547-11-28 16:04 G	39541155.97	39541156.17	39541156.37	0.0502	0.0139
Earth	103549-06-01 13:40 G	39541706.86	39541707.07	39541707.28	0.0494	0.0228
Moon	103549-06-01 13:54 G	39541706.88	39541707.08	39541707.29	0.0494	0.0220 *
Mercury	103553-01-10 14:52 G	39543025.99	39543026.12	39543026.26	0.0515	0.0350
Venus	103553-09-27 10:18 G	39543285.76	39543285.93	39543286.10	0.0522	0.0277
Mercury	103558-06-13 21:35 G	39545006.31	39545006.40	39545006.49	0.0514	0.0360
Mercury	103558-09-11 01:40 G	39545095.46	39545095.57	39545095.68	0.0512	0.0265
Venus	103559-08-03 12:42 G	39545421.83	39545422.03	39545422.24	0.0503	0.0075
Mercury	103564-10-29 10:18 G	39547335.75	39547335.93	39547336.12	0.0513	0.0103
Venus	103565-06-02 06:28 G	39547551.73	39547551.77	39547551.81	0.0519	0.0506
Venus	103566-01-25 05:16 G	39547788.57	39547788.72	39547788.88	0.0525	0.0320
Mars	103568-10-12 11:59 G	39548779.75	39548780.00	39548780.26	0.0528	0.0088
Mercury	103570-06-30 06:13 G	39549405.64	39549405.76	39549405.89	0.0513	0.0111
Venus	103571-04-08 08:52 G	39549687.70	39549687.87	39549688.04	0.0505	0.0292
Venus	103571-12-01 08:52 G	39549924.81	39549924.87	39549924.94	0.0500	0.0475
Mercury	103576-08-17 06:13 G	39551645.58	39551645.76	39551645.94	0.0513	0.0140
Venus	103577-09-30 01:25 G	39552054.37	39552054.56	39552054.76	0.0524	0.0087
Moon	103578-11-24 02:37 G	39552474.48	39552474.61	39552474.75	0.0531	0.0435
Earth	103578-11-24 03:21 G	39552474.50	39552474.64	39552474.78	0.0531	0.0418 *
Mercury	103582-04-18 11:01 G	39553715.84	39553715.96	39553716.09	0.0513	0.0046
Venus	103583-08-06 05:16 G	39554190.54	39554190.72	39554190.90	0.0501	0.0261

Mars	103586-10-04 04:04 G	39555345.39	39555345.67	39555345.95	0.0498	0.0160
Mercury	103588-06-05 01:25 G	39555955.45	39555955.56	39555955.69	0.0513	0.0389
Venus	103589-06-04 21:49 G	39556320.22	39556320.41	39556320.61	0.0523	0.0150
Moon	103590-11-29 03:49 G	39556862.44	39556862.66	39556862.88	0.0532	0.0016
Earth	103590-11-29 04:47 G	39556862.47	39556862.70	39556862.92	0.0532	0.0045 *
Mercury	103594-02-04 16:04 G	39558026.05	39558026.17	39558026.29	0.0513	0.0193
Mercury	103594-05-04 19:54 G	39558115.26	39558115.33	39558115.40	0.0511	0.0425
Venus	103595-04-11 02:37 G	39558456.40	39558456.61	39558456.81	0.0502	0.0051
Mercury	103600-06-22 12:28 G	39560355.89	39560356.02	39560356.16	0.0515	0.0345
Venus	103601-02-07 19:54 G	39560586.20	39560586.33	39560586.47	0.0521	0.0376
Venus	103601-10-02 20:23 G	39560823.26	39560823.35	39560823.45	0.0527	0.0461
Earth	103602-12-04 05:01 G	39561250.64	39561250.71	39561250.79	0.0532	0.0502
Moon	103602-12-04 06:57 G	39561250.74	39561250.79	39561250.87	0.0532	0.0510 *
Mercury	103605-11-23 20:23 G	39562336.26	39562336.35	39562336.45	0.0514	0.0354
Mercury	103606-02-21 00:28 G	39562425.41	39562425.52	39562425.63	0.0511	0.0270
Venus	103606-12-14 22:18 G	39562722.23	39562722.43	39562722.62	0.0504	0.0167
Mercury	103612-04-10 08:52 G	39564665.69	39564665.87	39564666.05	0.0514	0.0110
Venus	103613-06-07 16:47 G	39565089.02	39565089.20	39565089.38	0.0525	0.0226
Mercury	103617-09-12 00:57 G	39566646.54	39566646.54	39566646.55	0.0515	0.0513
Mercury	103617-12-10 05:16 G	39566735.59	39566735.72	39566735.84	0.0512	0.0116
Venus	103618-08-19 18:13 G	39566988.13	39566988.26	39566988.40	0.0506	0.0384
Venus	103619-04-13 18:42 G	39567225.15	39567225.28	39567225.41	0.0500	0.0387
Earth	103620-05-27 08:23 G	39567634.63	39567634.85	39567635.07	0.0495	0.0184
Moon	103620-05-27 11:59 G	39567634.78	39567635.00	39567635.23	0.0495	0.0170 *
Mercury	103624-01-28 04:47 G	39568975.52	39568975.70	39568975.88	0.0513	0.0131
Venus	103625-02-10 12:13 G	39569354.81	39569355.01	39569355.21	0.0523	0.0012
Mercury	103629-09-28 09:49 G	39571045.78	39571045.91	39571046.04	0.0513	0.0042
Venus	103630-12-17 15:49 G	39571490.96	39571491.16	39571491.35	0.0502	0.0176
Moon	103632-05-31 17:45 G	39572022.03	39572022.24	39572022.45	0.0494	0.0217
Earth	103632-05-31 21:35 G	39572022.18	39572022.40	39572022.62	0.0494	0.0186 *

Mercury	103635-11-16 00:42 G	39573285.41	39573285.53	39573285.66	0.0512	0.0369
Venus	103636-10-16 08:52 G	39573620.70	39573620.87	39573621.05	0.0521	0.0243
Mercury	103641-07-17 14:37 G	39575355.99	39575356.11	39575356.23	0.0513	0.0193
Mercury	103641-10-14 18:28 G	39575445.21	39575445.27	39575445.34	0.0511	0.0426
Venus	103642-08-22 12:13 G	39575756.81	39575757.01	39575757.22	0.0503	0.0042
Mercury	103647-12-03 10:18 G	39577685.79	39577685.93	39577686.07	0.0515	0.0341
Venus	103648-06-21 05:16 G	39577886.64	39577886.72	39577886.80	0.0520	0.0475
Venus	103649-02-13 05:30 G	39578123.58	39578123.73	39578123.87	0.0526	0.0359
Mercury	103653-05-05 19:40 G	39579666.23	39579666.32	39579666.41	0.0514	0.0342
Mercury	103653-08-02 23:30 G	39579755.38	39579755.48	39579755.59	0.0511	0.0281
Venus	103654-04-27 09:21 G	39580022.72	39580022.89	39580023.07	0.0504	0.0256
Mercury	103659-09-21 06:42 G	39581995.60	39581995.78	39581995.97	0.0514	0.0110
Venus	103660-10-19 02:52 G	39582389.43	39582389.62	39582389.81	0.0525	0.0127
Earth	103661-11-23 12:28 G	39582789.90	39582790.02	39582790.13	0.0532	0.0457
Moon	103661-11-23 15:49 G	39582790.03	39582790.16	39582790.31	0.0532	0.0424 *
Mercury	103665-02-21 23:59 G	39583976.48	39583976.50	39583976.53	0.0514	0.0502
Mercury	103665-05-22 04:18 G	39584065.55	39584065.68	39584065.80	0.0512	0.0126
Venus	103665-12-31 05:01 G	39584288.64	39584288.71	39584288.78	0.0506	0.0473
Venus	103666-08-25 05:16 G	39584525.56	39584525.72	39584525.89	0.0501	0.0300
Mercury	103671-07-10 03:21 G	39586305.46	39586305.64	39586305.82	0.0513	0.0121
Venus	103672-06-23 23:59 G	39586655.31	39586655.50	39586655.70	0.0523	0.0106
Moon	103673-11-28 08:09 G	39587177.60	39587177.84	39587178.07	0.0532	0.0015
Earth	103673-11-28 11:45 G	39587177.76	39587177.99	39587178.22	0.0532	0.0006 *
Mercury	103677-03-10 08:52 G	39588375.74	39588375.87	39588376.00	0.0513	0.0030
Venus	103678-04-30 02:23 G	39588791.40	39588791.60	39588791.81	0.0502	0.0087
Mercury	103683-04-27 23:45 G	39590615.35	39590615.49	39590615.62	0.0512	0.0355
Venus	103684-02-27 20:37 G	39590921.21	39590921.36	39590921.51	0.0521	0.0337
Venus	103684-10-21 20:37 G	39591158.30	39591158.36	39591158.42	0.0526	0.0500
Earth	103685-12-03 08:23 G	39591565.72	39591565.85	39591565.98	0.0532	0.0436
Moon	103685-12-03 11:45 G	39591565.85	39591565.99	39591566.14	0.0532	0.0403 *

Mercury	103688-12-27 13:25 G	39592685.94	39592686.06	39592686.18	0.0514	0.0188
Mercury	103689-03-26 17:16 G	39592775.16	39592775.22	39592775.29	0.0511	0.0432
Venus	103690-01-02 23:01 G	39593057.26	39593057.46	39593057.66	0.0504	0.0129
Mercury	103695-05-15 09:49 G	39595015.79	39595015.91	39595016.04	0.0514	0.0368
Venus	103696-06-26 16:47 G	39595424.03	39595424.20	39595424.37	0.0525	0.0265
Mercury	103700-10-16 18:13 G	39596996.17	39596996.26	39596996.36	0.0514	0.0339
Mercury	103701-01-13 22:18 G	39597085.33	39597085.43	39597085.54	0.0511	0.0285
Venus	103701-09-08 19:40 G	39597323.17	39597323.32	39597323.47	0.0505	0.0347
Venus	103702-05-03 19:25 G	39597560.20	39597560.31	39597560.42	0.0500	0.0423
Earth	103703-05-28 15:21 G	39597949.93	39597950.14	39597950.35	0.0494	0.0223
Moon	103703-05-28 17:01 G	39597950.02	39597950.21	39597950.41	0.0494	0.0253 *
Mercury	103707-03-04 04:47 G	39599325.52	39599325.70	39599325.89	0.0514	0.0111
Venus	103708-03-02 12:28 G	39599689.82	39599690.02	39599690.22	0.0524	0.0029
Mercury	103712-08-04 23:16 G	39601306.44	39601306.47	39601306.51	0.0514	0.0486
Mercury	103712-11-02 03:35 G	39601395.52	39601395.65	39601395.77	0.0512	0.0141
Venus	103714-01-06 17:30 G	39601826.05	39601826.23	39601826.42	0.0501	0.0216
Moon	103715-06-02 03:35 G	39602337.41	39602337.65	39602337.89	0.0494	0.0135
Earth	103715-06-02 04:33 G	39602337.46	39602337.69	39602337.92	0.0494	0.0146 *
Mercury	103718-12-21 01:40 G	39603635.38	39603635.57	39603635.75	0.0514	0.0118
Venus	103719-11-06 10:33 G	39603955.76	39603955.94	39603956.12	0.0523	0.0203
Mercury	103724-08-21 08:09 G	39605705.71	39605705.84	39605705.97	0.0512	0.0015
Venus	103725-09-11 14:09 G	39606091.88	39606092.09	39606092.29	0.0502	0.0009
Mercury	103730-10-08 22:18 G	39607945.30	39607945.43	39607945.57	0.0513	0.0342
Venus	103731-07-12 08:52 G	39608221.76	39608221.87	39608221.98	0.0521	0.0428
Venus	103732-03-05 08:52 G	39608458.75	39608458.87	39608459.00	0.0526	0.0409
Mercury	103736-06-09 12:42 G	39610015.91	39610016.03	39610016.15	0.0513	0.0171
Mercury	103736-09-06 16:33 G	39610105.13	39610105.19	39610105.25	0.0511	0.0447
Venus	103737-05-17 10:18 G	39610357.75	39610357.93	39610358.12	0.0504	0.0216
Mercury	103742-10-26 09:06 G	39612345.76	39612345.88	39612346.00	0.0514	0.0386
Venus	103743-11-09 04:33 G	39612724.51	39612724.69	39612724.88	0.0524	0.0171

Earth	103744-11-23 18:28 G	39613105.21	39613105.27	39613105.33	0.0531	0.0509
Moon	103744-11-23 19:25 G	39613105.26	39613105.31	39613105.37	0.0531	0.0510 *
Mercury	103748-03-28 17:16 G	39614326.13	39614326.22	39614326.32	0.0514	0.0330
Mercury	103748-06-25 21:21 G	39614415.29	39614415.39	39614415.49	0.0512	0.0294
Venus	103749-01-20 06:28 G	39614623.67	39614623.77	39614623.88	0.0506	0.0434
Venus	103749-09-14 07:11 G	39614860.66	39614860.80	39614860.96	0.0501	0.0342
Mercury	103754-08-14 05:01 G	39616655.53	39616655.71	39616655.89	0.0514	0.0146
Venus	103755-07-15 01:11 G	39616990.36	39616990.55	39616990.75	0.0523	0.0064
Moon	103756-11-28 17:59 G	39617493.01	39617493.25	39617493.49	0.0532	0.0030
Earth	103756-11-28 17:59 G	39617493.02	39617493.25	39617493.48	0.0532	0.0060 *
Mercury	103760-01-15 22:18 G	39618636.39	39618636.43	39618636.47	0.0515	0.0479
Mercury	103760-04-14 02:23 G	39618725.48	39618725.60	39618725.72	0.0512	0.0148
Venus	103761-05-20 04:47 G	39619126.50	39619126.70	39619126.90	0.0502	0.0128
Mercury	103766-06-01 23:59 G	39620965.32	39620965.50	39620965.68	0.0514	0.0112
Venus	103767-03-19 20:52 G	39621256.21	39621256.37	39621256.53	0.0522	0.0301
Moon	103768-12-03 17:01 G	39621881.08	39621881.21	39621881.35	0.0533	0.0413
Earth	103768-12-03 18:28 G	39621881.12	39621881.27	39621881.42	0.0533	0.0400 *
Mercury	103772-02-01 07:40 G	39623035.69	39623035.82	39623035.94	0.0512	0.0011
Venus	103773-01-23 02:52 G	39623392.41	39623392.62	39623392.82	0.0503	0.0083
Mercury	103778-03-20 20:37 G	39625275.23	39625275.36	39625275.50	0.0513	0.0338
Venus	103779-07-17 19:25 G	39625759.15	39625759.31	39625759.47	0.0526	0.0311
Mercury	103783-11-20 12:13 G	39627345.89	39627346.01	39627346.13	0.0513	0.0152
Mercury	103784-02-17 16:04 G	39627435.12	39627435.17	39627435.22	0.0510	0.0464
Venus	103784-09-27 22:33 G	39627658.28	39627658.44	39627658.61	0.0505	0.0302
Venus	103785-05-22 21:49 G	39627895.35	39627895.41	39627895.49	0.0499	0.0467
Moon	103786-05-27 23:16 G	39628265.28	39628265.47	39628265.68	0.0494	0.0242
Earth	103786-05-28 02:37 G	39628265.41	39628265.61	39628265.82	0.0494	0.0252 *
Mercury	103790-04-07 08:09 G	39629675.72	39629675.84	39629675.95	0.0515	0.0402
Venus	103791-03-22 17:01 G	39630025.01	39630025.21	39630025.40	0.0524	0.0079
Mercury	103795-09-08 16:47 G	39631656.10	39631656.20	39631656.30	0.0514	0.0308

Mercury	103795-12-06 20:52 G	39631745.27	39631745.37	39631745.47	0.0511	0.0313
Venus	103797-01-25 19:25 G	39632161.13	39632161.31	39632161.49	0.0501	0.0259
Earth	103798-06-01 16:04 G	39632652.94	39632653.17	39632653.40	0.0494	0.0119
Moon	103798-06-01 19:54 G	39632653.09	39632653.33	39632653.56	0.0494	0.0095 *
Mercury	103802-01-25 04:18 G	39633985.51	39633985.68	39633985.86	0.0514	0.0166
Venus	103802-11-26 13:25 G	39634290.87	39634291.06	39634291.25	0.0522	0.0157
Mercury	103807-06-28 21:21 G	39635966.34	39635966.39	39635966.44	0.0515	0.0469
Mercury	103807-09-26 01:25 G	39636055.44	39636055.56	39636055.68	0.0512	0.0159
Venus	103808-10-01 16:33 G	39636426.98	39636427.19	39636427.40	0.0503	0.0044
Moon	103810-06-07 01:40 G	39637040.50	39637040.57	39637040.66	0.0494	0.0461
Earth	103810-06-07 05:45 G	39637040.71	39637040.74	39637040.77	0.0494	0.0488
Mercury	103813-11-13 00:28 G	39638295.33	39638295.52	39638295.70	0.0513	0.0073
Venus	103814-08-01 10:33 G	39638556.81	39638556.94	39638557.08	0.0521	0.0386
Venus	103815-03-26 10:47 G	39638793.85	39638793.95	39638794.05	0.0526	0.0453
Mercury	103819-07-15 06:28 G	39640365.65	39640365.77	39640365.90	0.0513	0.0019
Venus	103820-06-06 13:54 G	39640692.89	39640693.08	39640693.28	0.0504	0.0172
Mercury	103825-08-31 19:11 G	39642605.16	39642605.30	39642605.44	0.0513	0.0329
Venus	103826-11-29 05:30 G	39643059.55	39643059.73	39643059.91	0.0525	0.0211
Mercury	103831-05-03 11:45 G	39644675.86	39644675.99	39644676.11	0.0513	0.0133
Mercury	103831-07-31 15:35 G	39644765.11	39644765.15	39644765.18	0.0511	0.0484
Venus	103832-02-10 11:45 G	39644958.86	39644958.99	39644959.12	0.0505	0.0385
Venus	103832-10-04 11:16 G	39645195.84	39645195.97	39645196.10	0.0500	0.0387
Mercury	103837-09-18 06:13 G	39647005.65	39647005.76	39647005.88	0.0515	0.0407
Venus	103838-08-04 03:21 G	39647325.44	39647325.64	39647325.84	0.0524	0.0020
Earth	103839-11-30 05:30 G	39647808.50	39647808.73	39647808.96	0.0532	0.0088
Moon	103839-11-30 09:21 G	39647808.67	39647808.89	39647809.12	0.0532	0.0106 *
Mars	103841-07-01 04:47 G	39648387.48	39648387.70	39648387.93	0.0529	0.0251
Mercury	103843-02-19 16:18 G	39648986.07	39648986.18	39648986.28	0.0514	0.0288
Mercury	103843-05-19 20:09 G	39649075.25	39649075.34	39649075.44	0.0511	0.0332
Venus	103844-06-09 07:54 G	39649461.64	39649461.83	39649462.03	0.0501	0.0176

Mercury	103849-07-07 03:06 G	39651315.46	39651315.63	39651315.81	0.0514	0.0181
Venus	103850-04-09 01:25 G	39651591.39	39651591.56	39651591.74	0.0522	0.0249
Moon	103851-12-05 02:52 G	39652196.46	39652196.62	39652196.78	0.0532	0.0388
Earth	103851-12-05 06:28 G	39652196.61	39652196.77	39652196.94	0.0532	0.0368 *
Mercury	103854-12-08 20:52 G	39653296.31	39653296.37	39653296.43	0.0514	0.0446
Mercury	103855-03-08 00:57 G	39653385.42	39653385.54	39653385.66	0.0512	0.0180
Venus	103856-02-13 05:01 G	39653727.50	39653727.71	39653727.91	0.0503	0.0041
Mars	103859-06-20 17:01 G	39654950.95	39654951.21	39654951.48	0.0498	0.0223
Mercury	103861-04-24 23:45 G	39655625.30	39655625.49	39655625.67	0.0513	0.0053
Venus	103861-12-12 22:47 G	39655857.38	39655857.45	39655857.53	0.0520	0.0477
Venus	103862-08-06 22:47 G	39656094.30	39656094.45	39656094.59	0.0526	0.0359
Mercury	103866-12-25 05:30 G	39657695.61	39657695.73	39657695.86	0.0513	0.0029
Venus	103867-10-19 01:11 G	39657993.37	39657993.55	39657993.73	0.0505	0.0258
Moon	103869-05-28 13:11 G	39658580.85	39658581.05	39658581.27	0.0495	0.0247
Earth	103869-05-28 15:21 G	39658580.95	39658581.14	39658581.34	0.0495	0.0274 *
Mercury	103873-02-10 19:40 G	39659935.17	39659935.32	39659935.48	0.0513	0.0288
Venus	103874-04-11 18:42 G	39660360.09	39660360.28	39660360.48	0.0524	0.0123
Mercury	103878-10-13 10:33 G	39662005.82	39662005.94	39662006.07	0.0513	0.0125
Mercury	103879-01-10 14:23 G	39662095.08	39662095.10	39662095.14	0.0511	0.0493
Venus	103879-06-23 22:18 G	39662259.37	39662259.43	39662259.51	0.0506	0.0474
Venus	103880-02-15 23:01 G	39662496.30	39662496.46	39662496.63	0.0500	0.0303
Earth	103881-06-02 03:35 G	39662968.42	39662968.65	39662968.89	0.0494	0.0095
Moon	103881-06-02 05:01 G	39662968.49	39662968.71	39662968.93	0.0494	0.0121 *
Mercury	103885-02-28 04:47 G	39664335.59	39664335.70	39664335.81	0.0515	0.0415
Venus	103885-12-15 13:25 G	39664625.86	39664626.06	39664626.25	0.0523	0.0119
Mercury	103890-08-01 15:49 G	39666316.05	39666316.16	39666316.27	0.0514	0.0270
Mercury	103890-10-29 19:40 G	39666405.23	39666405.32	39666405.41	0.0511	0.0351
Venus	103891-10-21 21:21 G	39666762.18	39666762.39	39666762.59	0.0502	0.0094
Moon	103893-06-06 16:18 G	39667356.09	39667356.18	39667356.28	0.0493	0.0453
Earth	103893-06-06 16:47 G	39667356.12	39667356.20	39667356.29	0.0493	0.0461 *

Mercury	103896-12-17 01:25 G	39668645.38	39668645.56	39668645.73	0.0514	0.0184
Venus	103897-08-20 11:30 G	39668891.84	39668891.98	39668892.14	0.0521	0.0348
Venus	103898-04-14 12:42 G	39669128.97	39669129.03	39669129.10	0.0527	0.0498
Mercury	103902-05-21 20:23 G	39670626.28	39670626.35	39670626.42	0.0514	0.0427
Mercury	103902-08-19 00:28 G	39670715.40	39670715.52	39670715.64	0.0512	0.0198
Venus	103903-06-27 17:16 G	39671028.02	39671028.22	39671028.43	0.0503	0.0124
Mercury	103908-10-05 22:18 G	39672955.24	39672955.43	39672955.61	0.0514	0.0041
Venus	103909-12-19 10:04 G	39673394.75	39673394.92	39673395.09	0.0526	0.0265
Mercury	103914-06-07 05:01 G	39675025.59	39675025.71	39675025.84	0.0512	0.0047
Venus	103915-03-02 13:25 G	39675293.92	39675294.06	39675294.22	0.0505	0.0342
Venus	103915-10-25 13:11 G	39675530.95	39675531.05	39675531.15	0.0500	0.0430
Mercury	103920-07-24 18:42 G	39677265.13	39677265.28	39677265.44	0.0513	0.0271
Venus	103921-08-24 06:42 G	39677660.58	39677660.78	39677660.98	0.0524	0.0028
Earth	103922-11-30 13:40 G	39678123.85	39678124.07	39678124.29	0.0532	0.0133
Moon	103922-11-30 13:54 G	39678123.87	39678124.08	39678124.30	0.0532	0.0157 *
Mercury	103926-03-26 09:35 G	39679335.78	39679335.90	39679336.03	0.0513	0.0115
Mercury	103926-06-23 13:25 G	39679425.04	39679425.06	39679425.08	0.0511	0.0501
Venus	103927-06-30 10:18 G	39679796.74	39679796.93	39679797.11	0.0501	0.0219
Mercury	103932-05-12 15:06 G	39681575.10	39681575.13	39681575.16	0.0512	0.0504
Mercury	103932-08-11 05:16 G	39681665.63	39681665.72	39681665.81	0.0515	0.0454
Venus	103933-04-29 03:06 G	39681926.45	39681926.63	39681926.82	0.0522	0.0206
Earth	103934-12-05 12:57 G	39682511.86	39682512.04	39682512.23	0.0532	0.0317
Moon	103934-12-05 13:40 G	39682511.87	39682512.07	39682512.27	0.0532	0.0287 *
Mercury	103938-01-12 14:37 G	39683646.00	39683646.11	39683646.22	0.0514	0.0263
Mercury	103938-04-11 18:28 G	39683735.19	39683735.27	39683735.37	0.0511	0.0359
Venus	103939-03-05 08:23 G	39684062.64	39684062.85	39684063.06	0.0503	0.0006
Mercury	103944-05-29 23:45 G	39685975.32	39685975.49	39685975.66	0.0514	0.0191
Venus	103945-01-01 21:35 G	39686192.31	39686192.40	39686192.51	0.0520	0.0444
Venus	103945-08-26 22:04 G	39686429.30	39686429.42	39686429.56	0.0527	0.0398
Mercury	103949-10-31 19:40 G	39687956.24	39687956.32	39687956.39	0.0515	0.0411

Mercury	103950-01-28 23:45 G	39688045.37	39688045.49	39688045.60	0.0512	0.0215
Venus	103950-11-08 05:59 G	39688328.56	39688328.75	39688328.94	0.0504	0.0208
Earth	103952-05-29 03:21 G	39688896.45	39688896.64	39688896.83	0.0494	0.0295
Moon	103952-05-29 07:11 G	39688896.61	39688896.80	39688896.98	0.0494	0.0315 *
Mercury	103956-03-17 20:09 G	39690285.16	39690285.34	39690285.53	0.0514	0.0041
Venus	103957-05-01 19:25 G	39690695.12	39690695.31	39690695.50	0.0525	0.0164
Mercury	103961-11-17 04:18 G	39692355.56	39692355.68	39692355.81	0.0512	0.0062
Venus	103962-07-14 01:25 G	39692594.46	39692594.56	39692594.67	0.0506	0.0428
Venus	103963-03-08 01:25 G	39692831.42	39692831.56	39692831.71	0.0500	0.0348
Moon	103964-06-02 11:01 G	39693283.73	39693283.96	39693284.19	0.0494	0.0073
Earth	103964-06-02 14:52 G	39693283.88	39693284.12	39693284.35	0.0494	0.0065 *
Mercury	103968-01-04 17:01 G	39694595.06	39694595.21	39694595.38	0.0513	0.0264
Venus	103969-01-04 17:16 G	39694961.03	39694961.22	39694961.42	0.0523	0.0069
Mercury	103973-09-05 09:06 G	39696665.75	39696665.88	39696666.00	0.0513	0.0096
Venus	103974-11-10 22:18 G	39697097.23	39697097.43	39697097.63	0.0502	0.0135
Earth	103976-06-07 02:52 G	39697671.51	39697671.62	39697671.74	0.0494	0.0428
Moon	103976-06-07 06:28 G	39697671.70	39697671.77	39697671.87	0.0494	0.0461 *
Mercury	103979-10-23 13:40 G	39698905.03	39698905.07	39698905.13	0.0512	0.0492
Mercury	103980-01-22 03:49 G	39698995.60	39698995.66	39698995.75	0.0515	0.0468
Venus	103980-09-09 14:37 G	39699226.95	39699227.11	39699227.27	0.0521	0.0300
Mercury	103985-06-24 13:25 G	39700975.95	39700976.06	39700976.17	0.0514	0.0256
Mercury	103985-09-21 17:30 G	39701065.14	39701065.23	39701065.32	0.0511	0.0364
Venus	103986-07-16 18:42 G	39701363.07	39701363.28	39701363.48	0.0503	0.0084
Mercury	103991-11-09 23:59 G	39703305.33	39703305.50	39703305.66	0.0514	0.0225
Venus	103993-01-07 10:47 G	39703729.79	39703729.95	39703730.12	0.0526	0.0307
Mars	103995-09-26 19:25 G	39704722.08	39704722.31	39704722.54	0.0529	0.0229
Mercury	103997-04-12 18:13 G	39705286.19	39705286.26	39705286.34	0.0515	0.0408
Mercury	103997-07-10 22:33 G	39705375.32	39705375.44	39705375.55	0.0512	0.0219
Venus	103998-03-21 16:04 G	39705629.01	39705629.17	39705629.34	0.0505	0.0299
Venus	103998-11-13 15:49 G	39705866.09	39705866.16	39705866.22	0.0499	0.0473

105TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 105th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	104003-08-28 18:28	G	39707615.08	39707615.27	39707615.45	0.0513	0.0037	
Venus	104004-09-12 04:47	G	39707995.50	39707995.70	39707995.90	0.0524	0.0063	
Moon	104005-11-29 13:11	G	39708438.84	39708439.05	39708439.27	0.0533	0.0163	
Earth	104005-11-29 17:16	G	39708439.01	39708439.22	39708439.44	0.0533	0.0195	*
Mercury	104009-04-29 03:35	G	39709685.52	39709685.65	39709685.78	0.0513	0.0073	
Venus	104010-07-19 13:54	G	39710131.90	39710132.08	39710132.26	0.0501	0.0266	
Mars	104013-09-15 02:52	G	39711285.37	39711285.62	39711285.88	0.0497	0.0261	
Mercury	104015-06-16 14:52	G	39711924.96	39711925.12	39711925.28	0.0513	0.0268	
Venus	104016-05-18 02:09	G	39712261.40	39712261.59	39712261.78	0.0523	0.0170	
Earth	104017-12-04 18:57	G	39712827.10	39712827.29	39712827.49	0.0533	0.0265	
Moon	104017-12-04 23:01	G	39712827.26	39712827.46	39712827.66	0.0533	0.0264	*
Mercury	104021-02-15 08:09	G	39713995.72	39713995.84	39713995.97	0.0513	0.0084	
Venus	104022-03-24 10:04	G	39714397.71	39714397.92	39714398.12	0.0502	0.0050	
Mercury	104027-04-04 11:45	G	39716234.94	39716234.99	39716235.04	0.0512	0.0490	
Mercury	104027-07-04 01:54	G	39716325.51	39716325.58	39716325.66	0.0515	0.0469	
Venus	104028-01-22 00:28	G	39716527.40	39716527.52	39716527.65	0.0521	0.0397	
Venus	104028-09-15 01:25	G	39716764.45	39716764.56	39716764.66	0.0527	0.0447	
Mercury	104032-12-04 12:42	G	39718305.92	39718306.03	39718306.14	0.0514	0.0241	

Mercury	104033-03-03 16:33 G	39718395.11	39718395.19	39718395.28	0.0511	0.0379
Venus	104033-11-27 05:59 G	39718663.56	39718663.75	39718663.95	0.0504	0.0169
Earth	104035-05-29 11:16 G	39719211.79	39719211.97	39719212.14	0.0494	0.0337
Moon	104035-05-29 12:57 G	39719211.88	39719212.04	39719212.20	0.0494	0.0354 *
Mercury	104039-04-21 22:18 G	39720635.27	39720635.43	39720635.60	0.0514	0.0233
Venus	104040-05-20 21:21 G	39721030.21	39721030.39	39721030.57	0.0525	0.0209
Mercury	104044-09-22 17:01 G	39722616.13	39722616.21	39722616.29	0.0514	0.0404
Mercury	104044-12-20 21:06 G	39722705.27	39722705.38	39722705.50	0.0512	0.0221
Venus	104045-08-02 01:25 G	39722929.43	39722929.56	39722929.69	0.0506	0.0391
Venus	104046-03-27 01:40 G	39723166.44	39723166.57	39723166.70	0.0500	0.0387
Moon	104047-06-02 22:04 G	39723599.18	39723599.42	39723599.67	0.0494	0.0005
Earth	104047-06-02 23:45 G	39723599.25	39723599.49	39723599.72	0.0494	0.0030 *
Mercury	104051-02-07 18:13 G	39724945.07	39724945.26	39724945.44	0.0513	0.0010
Venus	104052-01-24 17:16 G	39725296.02	39725296.22	39725296.42	0.0523	0.0029
Mercury	104056-10-09 02:09 G	39727015.46	39727015.59	39727015.71	0.0513	0.0073
Venus	104057-11-29 23:45 G	39727432.29	39727432.49	39727432.68	0.0502	0.0176
Earth	104059-06-07 12:28 G	39727986.88	39727987.02	39727987.16	0.0493	0.0396
Moon	104059-06-07 13:11 G	39727986.92	39727987.05	39727987.20	0.0493	0.0386 *
Mercury	104062-11-26 12:42 G	39729254.87	39729255.03	39729255.19	0.0512	0.0267
Venus	104063-09-29 11:16 G	39729561.80	39729561.97	39729562.14	0.0521	0.0271
Mercury	104068-07-28 06:57 G	39731325.67	39731325.79	39731325.92	0.0513	0.0077
Venus	104069-08-04 21:21 G	39731698.18	39731698.39	39731698.60	0.0503	0.0038
Mercury	104074-09-14 09:06 G	39733564.84	39733564.88	39733564.92	0.0512	0.0498
Mercury	104074-12-13 23:16 G	39733655.39	39733655.47	39733655.55	0.0515	0.0458
Venus	104075-06-04 08:37 G	39733827.81	39733827.86	39733827.92	0.0520	0.0498
Venus	104076-01-27 08:52 G	39734064.72	39734064.87	39734065.02	0.0526	0.0341
Mercury	104080-05-16 11:30 G	39735635.87	39735635.98	39735636.09	0.0514	0.0235
Mercury	104080-08-13 15:21 G	39735725.06	39735725.14	39735725.23	0.0511	0.0385
Venus	104081-04-09 16:33 G	39735964.01	39735964.19	39735964.37	0.0505	0.0259
Mercury	104086-10-01 19:40 G	39737965.16	39737965.32	39737965.49	0.0514	0.0228

Venus	104087-10-02 06:28 G	39738330.57	39738330.77	39738330.96	0.0525	0.0109
Moon	104088-11-28 23:59 G	39738754.29	39738754.50	39738754.72	0.0532	0.0239
Earth	104088-11-29 00:28 G	39738754.32	39738754.52	39738754.72	0.0532	0.0245 *
Mercury	104092-03-04 16:04 G	39739946.09	39739946.17	39739946.25	0.0514	0.0393
Mercury	104092-06-01 20:09 G	39740035.23	39740035.34	39740035.45	0.0512	0.0231
Venus	104092-12-13 11:59 G	39740229.94	39740230.00	39740230.06	0.0506	0.0479
Venus	104093-08-07 12:13 G	39740466.85	39740467.01	39740467.18	0.0501	0.0301
Mercury	104098-07-20 16:04 G	39742274.99	39742275.17	39742275.36	0.0513	0.0011
Venus	104099-06-07 03:06 G	39742596.43	39742596.63	39742596.82	0.0523	0.0129
Earth	104100-12-04 22:47 G	39743142.23	39743142.45	39743142.66	0.0532	0.0201
Moon	104100-12-04 22:33 G	39743142.24	39743142.44	39743142.64	0.0532	0.0235 *
Mercury	104104-03-22 00:28 G	39744345.40	39744345.52	39744345.65	0.0513	0.0072
Venus	104105-04-13 08:37 G	39744732.65	39744732.86	39744733.06	0.0502	0.0084
Mercury	104110-05-09 11:59 G	39746584.84	39746585.00	39746585.16	0.0513	0.0247
Venus	104111-02-10 23:30 G	39746862.34	39746862.48	39746862.62	0.0521	0.0362
Venus	104111-10-05 23:45 G	39747099.41	39747099.49	39747099.57	0.0527	0.0483
Mercury	104116-01-09 05:16 G	39748655.60	39748655.72	39748655.85	0.0513	0.0083
Venus	104116-12-17 05:45 G	39748998.54	39748998.74	39748998.94	0.0504	0.0132
Moon	104118-05-29 15:35 G	39749526.99	39749527.15	39749527.32	0.0494	0.0346
Earth	104118-05-29 18:42 G	39749527.14	39749527.28	39749527.45	0.0494	0.0376 *
Mercury	104122-02-25 06:57 G	39750894.75	39750894.79	39750894.82	0.0512	0.0501
Mercury	104122-05-26 20:52 G	39750985.28	39750985.37	39750985.45	0.0514	0.0452
Venus	104123-06-10 16:47 G	39751365.02	39751365.20	39751365.37	0.0525	0.0237
Mercury	104127-10-28 10:04 G	39752965.81	39752965.92	39752966.04	0.0514	0.0234
Mercury	104128-01-25 14:09 G	39753055.01	39753055.09	39753055.17	0.0512	0.0387
Venus	104128-08-22 02:37 G	39753264.46	39753264.61	39753264.76	0.0506	0.0350
Venus	104129-04-16 02:23 G	39753501.50	39753501.60	39753501.71	0.0500	0.0428
Earth	104130-06-03 07:25 G	39753914.57	39753914.81	39753915.05	0.0494	0.0011
Moon	104130-06-03 11:16 G	39753914.73	39753914.97	39753915.21	0.0494	0.0007 *
Mercury	104134-03-14 16:47 G	39755295.03	39755295.20	39755295.37	0.0514	0.0212

Venus	104135-02-13 13:25 G	39755630.86	39755631.06	39755631.26	0.0524	0.0003
Mercury	104139-08-16 14:37 G	39757276.03	39757276.11	39757276.19	0.0515	0.0393
Mercury	104139-11-13 18:42 G	39757365.17	39757365.28	39757365.40	0.0512	0.0231
Venus	104140-12-19 22:04 G	39757767.24	39757767.42	39757767.61	0.0501	0.0212
Moon	104142-06-07 12:57 G	39758301.86	39758302.04	39758302.22	0.0493	0.0316
Earth	104142-06-07 16:33 G	39758302.03	39758302.19	39758302.37	0.0493	0.0341 *
Mercury	104145-12-31 13:11 G	39759604.87	39759605.05	39759605.24	0.0513	0.0020
Venus	104146-10-19 11:16 G	39759896.79	39759896.97	39759897.15	0.0522	0.0231
Mercury	104151-09-01 23:16 G	39761675.35	39761675.47	39761675.60	0.0512	0.0078
Venus	104152-08-24 18:28 G	39762033.06	39762033.27	39762033.47	0.0503	0.0012
Mercury	104157-10-19 09:35 G	39763914.74	39763914.90	39763915.06	0.0513	0.0252
Venus	104158-06-24 08:37 G	39764162.77	39764162.86	39764162.95	0.0520	0.0461
Venus	104159-02-16 08:23 G	39764399.72	39764399.85	39764399.99	0.0526	0.0380
Mercury	104163-06-21 03:35 G	39765985.53	39765985.65	39765985.78	0.0513	0.0088
Venus	104164-04-29 13:25 G	39766298.88	39766299.06	39766299.25	0.0505	0.0229
Mercury	104169-08-07 05:30 G	39768224.68	39768224.73	39768224.79	0.0512	0.0489
Mercury	104169-11-05 19:25 G	39768315.24	39768315.31	39768315.40	0.0514	0.0466
Venus	104170-10-22 03:49 G	39768665.47	39768665.66	39768665.85	0.0524	0.0141
Earth	104171-11-29 22:47 G	39769069.28	39769069.45	39769069.64	0.0532	0.0327
Moon	104171-11-30 02:37 G	39769069.44	39769069.61	39769069.78	0.0532	0.0360 *
Mercury	104175-04-09 08:23 G	39770295.74	39770295.85	39770295.96	0.0514	0.0242
Mercury	104175-07-07 12:28 G	39770384.93	39770385.02	39770385.10	0.0512	0.0379
Venus	104176-01-03 09:49 G	39770564.82	39770564.91	39770565.01	0.0507	0.0448
Venus	104176-08-27 10:47 G	39770801.80	39770801.95	39770802.10	0.0501	0.0335
Mercury	104181-08-24 14:09 G	39772624.92	39772625.09	39772625.26	0.0513	0.0203
Venus	104182-06-26 21:21 G	39772931.19	39772931.39	39772931.58	0.0522	0.0105
Moon	104183-12-04 13:25 G	39773456.83	39773457.06	39773457.29	0.0533	0.0081
Earth	104183-12-04 17:30 G	39773457.00	39773457.23	39773457.45	0.0533	0.0104 *
Mercury	104187-01-26 12:57 G	39774605.96	39774606.04	39774606.12	0.0515	0.0398
Mercury	104187-04-25 17:16 G	39774695.10	39774695.22	39774695.33	0.0512	0.0229

Venus	104188-05-02 07:54 G	39775067.63	39775067.83	39775068.03	0.0502	0.0122
Mercury	104193-06-12 10:04 G	39776934.73	39776934.92	39776935.10	0.0513	0.0038
Venus	104194-03-01 18:13 G	39777197.11	39777197.26	39777197.41	0.0521	0.0337
Venus	104194-10-24 18:42 G	39777434.23	39777434.28	39777434.33	0.0527	0.0510
Mercury	104199-02-11 21:35 G	39779005.28	39779005.40	39779005.53	0.0513	0.0072
Venus	104200-01-06 02:52 G	39779333.42	39779333.62	39779333.83	0.0504	0.0101
Moon	104201-05-29 17:59 G	39779842.15	39779842.25	39779842.36	0.0494	0.0444
Earth	104201-05-29 20:37 G	39779842.25	39779842.36	39779842.47	0.0494	0.0437 *
Mercury	104205-04-01 06:13 G	39781244.61	39781244.76	39781244.92	0.0513	0.0270
Venus	104206-06-30 15:35 G	39781699.99	39781700.15	39781700.32	0.0525	0.0275
Mercury	104210-12-02 02:09 G	39783315.47	39783315.59	39783315.72	0.0513	0.0087
Venus	104211-09-11 22:18 G	39783599.28	39783599.43	39783599.60	0.0505	0.0322
Venus	104212-05-05 22:04 G	39783836.34	39783836.42	39783836.50	0.0500	0.0455
Earth	104213-06-03 07:40 G	39784229.59	39784229.82	39784230.06	0.0494	0.0080
Moon	104213-06-03 09:35 G	39784229.67	39784229.90	39784230.13	0.0494	0.0052 *
Mercury	104217-01-18 02:37 G	39785554.58	39785554.61	39785554.65	0.0512	0.0500
Mercury	104217-04-18 16:47 G	39785645.12	39785645.20	39785645.29	0.0515	0.0454
Venus	104218-03-05 12:13 G	39785965.81	39785966.01	39785966.21	0.0524	0.0037
Mercury	104222-09-20 06:28 G	39787625.66	39787625.77	39787625.88	0.0514	0.0251
Mercury	104222-12-18 10:33 G	39787714.85	39787714.94	39787715.02	0.0511	0.0369
Venus	104224-01-09 17:59 G	39788102.07	39788102.25	39788102.43	0.0501	0.0239
Moon	104225-06-07 17:30 G	39788617.04	39788617.23	39788617.42	0.0494	0.0308
Earth	104225-06-07 18:57 G	39788617.10	39788617.29	39788617.49	0.0494	0.0282 *
Mercury	104229-02-04 12:28 G	39789954.85	39789955.02	39789955.19	0.0514	0.0210
Venus	104229-11-08 07:54 G	39790231.65	39790231.83	39790232.02	0.0522	0.0202
Mercury	104234-07-09 11:01 G	39791935.88	39791935.96	39791936.03	0.0515	0.0409
Mercury	104234-10-06 15:06 G	39792025.02	39792025.13	39792025.25	0.0512	0.0217
Venus	104235-09-14 15:06 G	39792367.92	39792368.13	39792368.34	0.0503	0.0024
Mercury	104240-11-23 07:11 G	39794264.62	39794264.80	39794264.99	0.0513	0.0048
Venus	104241-07-14 02:23 G	39794497.50	39794497.60	39794497.71	0.0519	0.0439

Venus	104242-03-08 01:40 G	39794734.45	39794734.57	39794734.70	0.0526	0.0403
Mercury	104246-07-25 19:54 G	39796335.20	39796335.33	39796335.46	0.0513	0.0063
Venus	104247-05-20 11:16 G	39796633.78	39796633.97	39796634.16	0.0505	0.0196
Mercury	104252-09-11 03:06 G	39798574.48	39798574.63	39798574.78	0.0512	0.0286
Venus	104253-11-10 21:49 G	39799000.22	39799000.41	39799000.60	0.0524	0.0165
Earth	104254-11-29 17:16 G	39799384.09	39799384.22	39799384.37	0.0532	0.0426
Moon	104254-11-29 18:57 G	39799384.16	39799384.29	39799384.44	0.0532	0.0405 *
Mercury	104258-05-14 00:28 G	39800645.39	39800645.52	39800645.64	0.0514	0.0098
Venus	104259-01-23 05:59 G	39800899.64	39800899.75	39800899.86	0.0506	0.0420
Venus	104259-09-17 06:28 G	39801136.63	39801136.77	39801136.91	0.0500	0.0363
Mercury	104264-09-28 13:11 G	39802974.96	39802975.05	39802975.15	0.0514	0.0432
Venus	104265-07-16 19:11 G	39803266.10	39803266.30	39803266.50	0.0523	0.0071
Moon	104266-12-04 18:28 G	39803772.03	39803772.27	39803772.50	0.0533	0.0014
Earth	104266-12-04 18:57 G	39803772.06	39803772.29	39803772.52	0.0533	0.0031 *
Mars	104268-06-12 11:59 G	39804327.84	39804328.00	39804328.16	0.0530	0.0401
Mercury	104270-03-02 04:47 G	39804955.60	39804955.70	39804955.82	0.0514	0.0254
Mercury	104270-05-30 08:52 G	39805044.79	39805044.87	39805044.96	0.0511	0.0367
Venus	104271-05-23 02:37 G	39805402.41	39805402.61	39805402.81	0.0502	0.0147
Mercury	104276-07-17 09:21 G	39807284.72	39807284.89	39807285.07	0.0514	0.0195
Venus	104277-03-21 16:18 G	39807532.02	39807532.18	39807532.34	0.0521	0.0305
Moon	104278-12-09 17:16 G	39808160.10	39808160.22	39808160.34	0.0533	0.0444
Earth	104278-12-09 17:30 G	39808160.14	39808160.23	39808160.34	0.0533	0.0477 *
Mercury	104281-12-19 09:06 G	39809265.81	39809265.88	39809265.95	0.0515	0.0419
Mercury	104282-03-18 13:11 G	39809354.94	39809355.05	39809355.17	0.0512	0.0207
Venus	104283-01-25 21:49 G	39809668.21	39809668.41	39809668.62	0.0504	0.0076
Mars	104286-05-30 10:18 G	39810888.74	39810888.93	39810889.12	0.0496	0.0379
Mercury	104288-05-05 05:16 G	39811594.53	39811594.72	39811594.90	0.0513	0.0046
Venus	104289-07-19 11:45 G	39812034.83	39812034.99	39812035.16	0.0525	0.0304
Mercury	104294-01-04 17:59 G	39813665.12	39813665.25	39813665.37	0.0513	0.0054
Venus	104294-09-30 17:59 G	39813934.08	39813934.25	39813934.42	0.0506	0.0297

Venus	104295-05-25 17:59 G	39814171.21	39814171.25	39814171.30	0.0500	0.0483
Moon	104296-06-02 07:11 G	39814544.59	39814544.80	39814545.02	0.0494	0.0161
Earth	104296-06-02 10:18 G	39814544.71	39814544.93	39814545.16	0.0494	0.0136 *
Mercury	104300-02-22 00:13 G	39815904.37	39815904.51	39815904.67	0.0512	0.0297
Venus	104301-03-25 05:30 G	39816300.53	39816300.73	39816300.93	0.0523	0.0058
Mercury	104305-10-24 22:18 G	39817975.31	39817975.43	39817975.56	0.0514	0.0108
Mercury	104306-01-22 02:23 G	39818064.60	39818064.60	39818064.60	0.0512	0.0511
Venus	104307-01-29 15:06 G	39818436.96	39818437.13	39818437.31	0.0502	0.0272
Earth	104308-06-07 22:04 G	39818932.21	39818932.42	39818932.63	0.0494	0.0224
Moon	104308-06-08 01:40 G	39818932.37	39818932.57	39818932.79	0.0494	0.0236 *
Mercury	104312-03-11 10:04 G	39820304.81	39820304.92	39820305.03	0.0514	0.0414
Venus	104312-11-28 01:40 G	39820566.39	39820566.57	39820566.76	0.0521	0.0179
Mercury	104317-08-13 02:52 G	39822285.51	39822285.62	39822285.73	0.0514	0.0266
Mercury	104317-11-10 06:57 G	39822374.70	39822374.79	39822374.88	0.0512	0.0355
Venus	104318-10-04 10:18 G	39822702.72	39822702.93	39822703.13	0.0503	0.0049
Mercury	104323-12-29 05:45 G	39824614.57	39824614.74	39824614.92	0.0514	0.0172
Venus	104324-08-02 23:01 G	39824832.35	39824832.46	39824832.59	0.0520	0.0412
Venus	104325-03-27 23:16 G	39825069.37	39825069.47	39825069.58	0.0526	0.0437
Mercury	104329-06-01 07:25 G	39826595.74	39826595.81	39826595.88	0.0515	0.0423
Mercury	104329-08-29 11:45 G	39826684.87	39826684.99	39826685.10	0.0512	0.0203
Venus	104330-06-09 06:13 G	39826968.56	39826968.76	39826968.95	0.0504	0.0172
Mercury	104335-10-17 02:09 G	39828924.40	39828924.59	39828924.77	0.0513	0.0063
Venus	104336-11-30 19:40 G	39829335.14	39829335.32	39829335.50	0.0525	0.0197
Moon	104337-11-29 14:52 G	39829699.04	39829699.12	39829699.22	0.0532	0.0488
Earth	104337-11-29 17:59 G	39829699.17	39829699.25	39829699.33	0.0532	0.0498 *
Mercury	104341-06-17 16:04 G	39830995.04	39830995.17	39830995.29	0.0513	0.0044
Venus	104342-02-12 00:42 G	39831234.41	39831234.53	39831234.66	0.0506	0.0397
Venus	104342-10-07 01:11 G	39831471.42	39831471.55	39831471.68	0.0501	0.0388
Mercury	104347-08-04 22:04 G	39833234.28	39833234.42	39833234.57	0.0512	0.0299
Venus	104348-08-05 15:35 G	39833600.95	39833601.15	39833601.35	0.0523	0.0042

Earth	104349-12-04 15:06 G	39834086.91	39834087.13	39834087.36	0.0532	0.0062
Moon	104349-12-04 18:57 G	39834087.05	39834087.29	39834087.52	0.0532	0.0028 *
Mercury	104353-04-05 20:23 G	39835305.23	39835305.35	39835305.48	0.0514	0.0118
Mercury	104353-07-04 00:28 G	39835394.50	39835394.52	39835394.54	0.0511	0.0500
Venus	104354-06-11 22:04 G	39835737.22	39835737.42	39835737.61	0.0502	0.0173
Mercury	104359-08-22 07:11 G	39837634.70	39837634.80	39837634.92	0.0514	0.0405
Venus	104360-04-10 10:18 G	39837866.76	39837866.93	39837867.10	0.0520	0.0282
Moon	104361-12-09 05:45 G	39838474.58	39838474.74	39838474.91	0.0533	0.0372
Earth	104361-12-09 09:35 G	39838474.74	39838474.90	39838475.07	0.0533	0.0368 *
Mercury	104365-01-23 00:57 G	39839615.43	39839615.54	39839615.65	0.0515	0.0277
Mercury	104365-04-22 05:01 G	39839704.62	39839704.71	39839704.81	0.0512	0.0346
Venus	104366-02-14 18:28 G	39840003.06	39840003.27	39840003.48	0.0504	0.0046
Mercury	104371-06-10 03:06 G	39841944.45	39841944.63	39841944.80	0.0513	0.0161
Venus	104371-12-15 06:57 G	39842132.76	39842132.79	39842132.82	0.0519	0.0512
Venus	104372-08-08 05:45 G	39842369.59	39842369.74	39842369.90	0.0525	0.0328
Mercury	104376-11-11 05:30 G	39843925.66	39843925.73	39843925.79	0.0515	0.0436
Mercury	104377-02-08 09:35 G	39844014.79	39844014.90	39844015.02	0.0513	0.0192
Venus	104377-10-20 13:11 G	39844268.88	39844269.05	39844269.23	0.0505	0.0272
Moon	104379-06-03 05:30 G	39844859.51	39844859.73	39844859.95	0.0494	0.0210
Earth	104379-06-03 08:37 G	39844859.64	39844859.86	39844860.07	0.0494	0.0208 *
Mercury	104383-03-28 22:33 G	39846254.26	39846254.44	39846254.63	0.0513	0.0085
Venus	104384-04-13 02:37 G	39846635.41	39846635.61	39846635.81	0.0524	0.0089
Mercury	104388-11-27 14:23 G	39848324.98	39848325.10	39848325.23	0.0513	0.0041
Venus	104389-06-25 08:52 G	39848534.83	39848534.87	39848534.92	0.0507	0.0493
Venus	104390-02-17 09:49 G	39848771.75	39848771.91	39848772.09	0.0501	0.0296
Earth	104391-06-07 19:54 G	39849247.11	39849247.33	39849247.56	0.0494	0.0150
Moon	104391-06-07 22:04 G	39849247.20	39849247.42	39849247.64	0.0494	0.0122 *
Mercury	104395-01-14 19:11 G	39850564.15	39850564.30	39850564.44	0.0512	0.0314
Venus	104395-12-17 23:45 G	39850901.30	39850901.49	39850901.68	0.0522	0.0147
Mercury	104400-09-15 18:42 G	39852635.16	39852635.28	39852635.41	0.0514	0.0124

Mercury	104400-12-13 22:47 G	39852724.42	39852724.45	39852724.48	0.0511	0.0492
Venus	104401-10-23 05:30 G	39853037.53	39853037.73	39853037.94	0.0503	0.0075
Moon	104403-06-12 05:30 G	39853634.70	39853634.73	39853634.77	0.0494	0.0487
Mercury	104407-02-01 05:16 G	39854964.61	39854964.72	39854964.83	0.0514	0.0404
Venus	104407-08-22 20:37 G	39855167.22	39855167.36	39855167.49	0.0520	0.0380
Venus	104408-04-15 20:23 G	39855404.26	39855404.35	39855404.44	0.0526	0.0468
Mercury	104412-07-04 23:16 G	39856945.36	39856945.47	39856945.57	0.0514	0.0283
Mercury	104412-10-02 03:21 G	39857034.55	39857034.64	39857034.73	0.0512	0.0339
Venus	104413-06-28 01:40 G	39857303.37	39857303.57	39857303.77	0.0505	0.0146
Mercury	104418-11-20 00:42 G	39859274.35	39859274.53	39859274.70	0.0513	0.0155
Venus	104419-12-20 14:23 G	39859669.92	39859670.10	39859670.28	0.0524	0.0223
Mars	104422-09-06 09:49 G	39860660.67	39860660.91	39860661.15	0.0530	0.0170
Mercury	104424-04-23 03:35 G	39861255.59	39861255.65	39861255.71	0.0516	0.0446
Mercury	104424-07-21 07:54 G	39861344.71	39861344.83	39861344.95	0.0513	0.0183
Venus	104425-03-02 21:06 G	39861569.25	39861569.38	39861569.53	0.0507	0.0370
Venus	104425-10-25 22:18 G	39861806.32	39861806.43	39861806.54	0.0501	0.0419
Mercury	104430-09-07 20:23 G	39863584.17	39863584.35	39863584.53	0.0512	0.0087
Venus	104431-08-25 10:33 G	39863935.74	39863935.94	39863936.14	0.0522	0.0018
Earth	104432-12-03 10:33 G	39864401.72	39864401.94	39864402.16	0.0532	0.0156
Moon	104432-12-03 12:42 G	39864401.82	39864402.03	39864402.24	0.0532	0.0168 *
Mercury	104436-05-09 12:28 G	39865654.90	39865655.02	39865655.15	0.0513	0.0031
Venus	104437-06-30 17:45 G	39866072.06	39866072.24	39866072.44	0.0502	0.0200
Mars	104440-08-23 05:30 G	39867221.44	39867221.73	39867222.02	0.0496	0.0098
Mercury	104442-06-26 15:49 G	39867894.02	39867894.16	39867894.30	0.0512	0.0332
Venus	104443-04-30 07:11 G	39868201.63	39868201.80	39868201.98	0.0521	0.0254
Moon	104444-12-08 11:16 G	39868789.79	39868789.97	39868790.17	0.0533	0.0327
Earth	104444-12-08 12:13 G	39868789.82	39868790.01	39868790.20	0.0533	0.0301 *
Mercury	104448-02-26 17:16 G	39869965.10	39869965.22	39869965.35	0.0514	0.0124
Mercury	104448-05-25 21:21 G	39870054.36	39870054.39	39870054.42	0.0511	0.0492
Venus	104449-03-05 14:52 G	39870337.91	39870338.12	39870338.32	0.0503	0.0021

Mercury	104454-07-14 02:23 G	39872294.48	39872294.60	39872294.72	0.0514	0.0391
Venus	104455-01-03 05:01 G	39872467.64	39872467.71	39872467.79	0.0519	0.0483
Venus	104455-08-28 04:47 G	39872704.56	39872704.70	39872704.85	0.0526	0.0364
Mercury	104459-12-15 21:35 G	39874275.30	39874275.40	39874275.51	0.0514	0.0286
Mercury	104460-03-14 01:40 G	39874364.48	39874364.57	39874364.67	0.0512	0.0336
Venus	104460-11-08 09:49 G	39874603.73	39874603.91	39874604.09	0.0505	0.0243
Earth	104462-06-02 10:33 G	39875174.75	39875174.94	39875175.14	0.0495	0.0267
Moon	104462-06-02 12:42 G	39875174.82	39875175.03	39875175.25	0.0495	0.0236 *
Mercury	104466-05-01 22:33 G	39876604.27	39876604.44	39876604.62	0.0514	0.0156
Venus	104467-05-03 00:57 G	39876970.35	39876970.54	39876970.74	0.0524	0.0124
Mercury	104471-10-04 02:09 G	39878585.52	39878585.59	39878585.65	0.0515	0.0446
Mercury	104472-01-01 06:13 G	39878674.65	39878674.76	39878674.88	0.0513	0.0182
Venus	104472-07-14 05:16 G	39878869.64	39878869.72	39878869.80	0.0507	0.0466
Venus	104473-03-08 06:28 G	39879106.62	39879106.77	39879106.93	0.0501	0.0326
Moon	104474-06-06 21:06 G	39879562.16	39879562.38	39879562.61	0.0494	0.0112
Earth	104474-06-06 23:45 G	39879562.26	39879562.49	39879562.73	0.0494	0.0097 *
Mercury	104478-02-17 18:28 G	39880914.08	39880914.27	39880914.45	0.0512	0.0087
Venus	104479-01-05 20:09 G	39881236.15	39881236.34	39881236.54	0.0522	0.0118
Mercury	104483-10-20 10:47 G	39882984.83	39882984.95	39882985.08	0.0514	0.0025
Venus	104484-11-11 03:06 G	39883372.43	39883372.63	39883372.83	0.0503	0.0107
Earth	104486-06-11 11:59 G	39883949.92	39883950.00	39883950.09	0.0494	0.0458
Moon	104486-06-11 15:35 G	39883950.04	39883950.15	39883950.26	0.0494	0.0437 *
Mercury	104489-12-06 14:23 G	39885223.96	39885224.10	39885224.24	0.0512	0.0324
Venus	104490-09-10 17:01 G	39885502.06	39885502.21	39885502.35	0.0520	0.0352
Venus	104491-05-05 16:33 G	39885739.13	39885739.19	39885739.26	0.0526	0.0498
Mercury	104495-08-08 15:35 G	39887295.03	39887295.15	39887295.27	0.0514	0.0131
Mercury	104495-11-05 19:25 G	39887384.28	39887384.31	39887384.35	0.0511	0.0486
Venus	104496-07-16 23:01 G	39887638.26	39887638.46	39887638.66	0.0504	0.0117
Mercury	104501-12-24 23:30 G	39889624.36	39889624.48	39889624.61	0.0514	0.0378
Venus	104503-01-09 12:28 G	39890004.85	39890005.02	39890005.20	0.0525	0.0257

Mercury	104507-05-28 20:23 G	39891605.25	39891605.35	39891605.46	0.0514	0.0281
Mercury	104507-08-26 00:28 G	39891694.43	39891694.52	39891694.62	0.0512	0.0340
Venus	104508-03-22 19:40 G	39891904.17	39891904.32	39891904.48	0.0506	0.0337
Venus	104508-11-14 19:25 G	39892141.23	39892141.31	39892141.41	0.0500	0.0449
Mercury	104513-10-12 19:54 G	39893934.16	39893934.33	39893934.51	0.0514	0.0147
Venus	104514-09-14 10:04 G	39894270.72	39894270.92	39894271.12	0.0523	0.0020
Moon	104515-12-04 13:25 G	39894716.86	39894717.06	39894717.26	0.0532	0.0233
Earth	104515-12-04 16:18 G	39894716.97	39894717.18	39894717.39	0.0532	0.0207 *
Mercury	104519-03-17 00:42 G	39895915.47	39895915.53	39895915.60	0.0515	0.0443
Mercury	104519-06-14 05:01 G	39896004.59	39896004.71	39896004.83	0.0512	0.0184
Venus	104520-07-20 15:49 G	39896406.98	39896407.16	39896407.34	0.0502	0.0232
Mercury	104525-07-31 16:33 G	39898244.01	39898244.19	39898244.37	0.0513	0.0083
Venus	104526-05-20 07:11 G	39898536.62	39898536.80	39898536.98	0.0521	0.0215
Earth	104527-12-09 15:06 G	39899104.93	39899105.13	39899105.34	0.0532	0.0236
Moon	104527-12-09 18:42 G	39899105.07	39899105.28	39899105.49	0.0532	0.0211 *
Mercury	104531-04-02 09:35 G	39900314.78	39900314.90	39900315.03	0.0513	0.0030
Venus	104532-03-25 12:28 G	39900672.81	39900673.02	39900673.23	0.0503	0.0014
Mercury	104537-05-19 12:42 G	39902553.89	39902554.03	39902554.17	0.0512	0.0318
Venus	104538-01-23 03:35 G	39902802.56	39902802.65	39902802.75	0.0519	0.0449
Venus	104538-09-17 02:37 G	39903039.49	39903039.61	39903039.75	0.0525	0.0398
Mercury	104543-01-19 14:09 G	39904624.97	39904625.09	39904625.21	0.0514	0.0132
Mercury	104543-04-18 18:13 G	39904714.22	39904714.26	39904714.29	0.0512	0.0486
Venus	104543-11-29 08:23 G	39904938.66	39904938.85	39904939.04	0.0505	0.0210
Earth	104545-06-02 17:16 G	39905490.03	39905490.22	39905490.40	0.0495	0.0310
Moon	104545-06-02 20:37 G	39905490.19	39905490.36	39905490.54	0.0495	0.0330 *
Mercury	104549-06-05 22:18 G	39906954.32	39906954.43	39906954.55	0.0514	0.0393
Venus	104550-05-22 22:47 G	39907305.26	39907305.45	39907305.64	0.0524	0.0158
Mercury	104554-11-07 18:57 G	39908935.18	39908935.29	39908935.39	0.0515	0.0284
Mercury	104555-02-04 23:01 G	39909024.37	39909024.46	39909024.55	0.0512	0.0337
Venus	104555-08-04 04:33 G	39909204.58	39909204.69	39909204.79	0.0507	0.0434

Venus	104556-03-28 05:16 G	39909441.58	39909441.72	39909441.86	0.0501	0.0357
Moon	104557-06-07 00:13 G	39909877.26	39909877.51	39909877.75	0.0494	0.0057
Earth	104557-06-07 03:21 G	39909877.41	39909877.64	39909877.88	0.0494	0.0045 *
Mercury	104561-03-24 17:30 G	39911264.05	39911264.23	39911264.41	0.0514	0.0140
Venus	104562-01-25 18:42 G	39911571.08	39911571.28	39911571.48	0.0523	0.0085
Mercury	104566-08-26 23:45 G	39913245.42	39913245.49	39913245.56	0.0515	0.0434
Mercury	104566-11-24 04:04 G	39913334.55	39913334.67	39913334.79	0.0512	0.0192
Venus	104567-12-02 02:52 G	39913707.42	39913707.62	39913707.82	0.0502	0.0143
Earth	104569-06-11 15:49 G	39914265.03	39914265.16	39914265.30	0.0493	0.0405
Moon	104569-06-11 17:59 G	39914265.15	39914265.25	39914265.36	0.0493	0.0436 *
Mercury	104573-01-10 14:09 G	39915573.91	39915574.09	39915574.27	0.0513	0.0088
Venus	104573-09-30 16:47 G	39915837.04	39915837.20	39915837.36	0.0521	0.0317
Mars	104576-12-01 17:01 G	39916995.00	39916995.21	39916995.44	0.0530	0.0264
Mercury	104578-09-12 08:37 G	39917644.73	39917644.86	39917644.99	0.0513	0.0036
Venus	104579-08-06 22:47 G	39917973.24	39917973.45	39917973.65	0.0504	0.0079
Mercury	104584-10-29 11:01 G	39919883.81	39919883.96	39919884.11	0.0512	0.0312
Venus	104586-01-28 14:09 G	39920339.93	39920340.09	39920340.25	0.0525	0.0301
Mercury	104590-07-01 13:11 G	39921954.92	39921955.05	39921955.17	0.0514	0.0121
Mercury	104590-09-28 17:01 G	39922044.19	39922044.21	39922044.24	0.0511	0.0495
Venus	104591-04-11 18:42 G	39922239.12	39922239.28	39922239.45	0.0506	0.0302
Venus	104591-12-04 18:42 G	39922476.24	39922476.28	39922476.33	0.0500	0.0485
Mars	104594-11-18 08:52 G	39923555.67	39923555.87	39923556.09	0.0497	0.0346
Mercury	104596-11-15 21:06 G	39924284.27	39924284.38	39924284.50	0.0514	0.0404
Venus	104597-10-03 09:49 G	39924605.72	39924605.91	39924606.11	0.0523	0.0060
Moon	104598-12-03 15:49 G	39925031.95	39925032.16	39925032.37	0.0531	0.0241
Earth	104598-12-03 18:42 G	39925032.09	39925032.28	39925032.48	0.0531	0.0273 *
Mercury	104602-04-20 17:30 G	39926265.13	39926265.23	39926265.34	0.0515	0.0281
Mercury	104602-07-18 21:49 G	39926354.31	39926354.41	39926354.50	0.0512	0.0341
Venus	104603-08-10 15:49 G	39926741.99	39926742.16	39926742.34	0.0502	0.0270
Mercury	104608-09-04 17:01 G	39928594.04	39928594.21	39928594.39	0.0513	0.0165

Venus	104609-06-09 06:28 G	39928871.59	39928871.77	39928871.96	0.0521	0.0179
Earth	104610-12-09 17:59 G	39929420.03	39929420.25	39929420.47	0.0532	0.0170
Moon	104610-12-09 19:54 G	39929420.12	39929420.33	39929420.54	0.0532	0.0168 *
Mercury	104614-02-06 22:18 G	39930575.37	39930575.43	39930575.50	0.0515	0.0433
Mercury	104614-05-07 02:37 G	39930664.50	39930664.61	39930664.73	0.0513	0.0194
Venus	104615-04-15 12:57 G	39931007.83	39931008.04	39931008.25	0.0503	0.0050
Mercury	104620-06-23 12:13 G	39932903.82	39932904.01	39932904.19	0.0513	0.0089
Venus	104621-02-12 02:23 G	39933137.48	39933137.60	39933137.72	0.0520	0.0418
Venus	104621-10-07 02:37 G	39933374.50	39933374.61	39933374.72	0.0526	0.0436
Mercury	104626-02-23 07:54 G	39934974.70	39934974.83	39934974.95	0.0513	0.0051
Venus	104626-12-19 10:18 G	39935273.74	39935273.93	39935274.13	0.0504	0.0168
Moon	104628-06-02 22:33 G	39935805.29	39935805.44	39935805.59	0.0494	0.0370
Earth	104628-06-03 00:13 G	39935805.35	39935805.51	39935805.68	0.0494	0.0348 *
Mercury	104632-04-11 08:52 G	39937213.73	39937213.87	39937214.02	0.0512	0.0313
Venus	104633-06-11 23:59 G	39937640.32	39937640.50	39937640.69	0.0525	0.0199
Mercury	104637-12-12 12:28 G	39939284.89	39939285.02	39939285.14	0.0513	0.0108
Mercury	104638-03-11 16:18 G	39939374.17	39939374.18	39939374.19	0.0511	0.0507
Venus	104638-08-24 05:59 G	39939539.62	39939539.75	39939539.88	0.0506	0.0392
Venus	104639-04-18 06:13 G	39939776.64	39939776.76	39939776.89	0.0500	0.0398
Earth	104640-06-07 12:28 G	39940192.78	39940193.02	39940193.25	0.0494	0.0014
Moon	104640-06-07 14:37 G	39940192.86	39940193.11	39940193.35	0.0494	0.0021 *
Mercury	104644-04-28 19:54 G	39941614.22	39941614.33	39941614.44	0.0514	0.0416
Venus	104645-02-14 21:35 G	39941906.20	39941906.40	39941906.60	0.0523	0.0037
Mercury	104649-09-30 17:01 G	39943595.10	39943595.21	39943595.32	0.0514	0.0264
Mercury	104649-12-28 21:06 G	39943684.29	39943684.38	39943684.47	0.0512	0.0356
Venus	104650-12-22 03:06 G	39944042.44	39944042.63	39944042.83	0.0502	0.0183
Moon	104652-06-11 22:33 G	39944580.30	39944580.44	39944580.60	0.0494	0.0367
Earth	104652-06-12 01:11 G	39944580.41	39944580.55	39944580.72	0.0494	0.0372 *
Mercury	104656-02-15 16:04 G	39945924.00	39945924.17	39945924.35	0.0513	0.0180
Venus	104656-10-20 18:28 G	39946172.10	39946172.27	39946172.44	0.0521	0.0274

Mercury	104661-07-19 21:21 G	39947905.32	39947905.39	39947905.46	0.0515	0.0425
Mercury	104661-10-17 01:40 G	39947994.45	39947994.57	39947994.69	0.0513	0.0201
Venus	104662-08-26 23:45 G	39948308.29	39948308.49	39948308.70	0.0504	0.0039
Mercury	104667-12-04 12:13 G	39950233.82	39950234.01	39950234.19	0.0513	0.0057
Venus	104668-06-25 15:35 G	39950438.11	39950438.15	39950438.20	0.0519	0.0505
Venus	104669-02-17 14:37 G	39950674.96	39950675.11	39950675.26	0.0525	0.0342
Mercury	104673-08-05 06:42 G	39952304.65	39952304.78	39952304.90	0.0513	0.0056
Venus	104674-05-01 20:37 G	39952574.19	39952574.36	39952574.55	0.0505	0.0262
Mercury	104679-09-22 07:11 G	39954543.65	39954543.80	39954543.95	0.0512	0.0308
Venus	104680-10-23 09:49 G	39954940.71	39954940.91	39954941.11	0.0524	0.0097
Earth	104681-12-04 02:23 G	39955347.42	39955347.60	39955347.78	0.0532	0.0316
Moon	104681-12-04 05:16 G	39955347.52	39955347.72	39955347.91	0.0532	0.0308 *
Mercury	104685-05-24 11:45 G	39956614.86	39956614.99	39956615.11	0.0514	0.0091
Venus	104686-01-04 18:13 G	39956840.20	39956840.26	39956840.32	0.0507	0.0479
Venus	104686-08-29 18:57 G	39957077.13	39957077.29	39957077.45	0.0501	0.0314
Mercury	104691-10-09 17:59 G	39958944.14	39958944.25	39958944.35	0.0515	0.0418
Venus	104692-06-28 07:54 G	39959206.63	39959206.83	39959207.02	0.0522	0.0138
Moon	104693-12-09 01:40 G	39959735.36	39959735.57	39959735.78	0.0533	0.0172
Earth	104693-12-09 04:33 G	39959735.47	39959735.69	39959735.92	0.0533	0.0139 *
Mercury	104697-03-12 16:18 G	39960925.07	39960925.18	39960925.29	0.0514	0.0247
Mercury	104697-06-09 20:23 G	39961014.26	39961014.35	39961014.43	0.0511	0.0372
Venus	104698-05-04 15:21 G	39961342.94	39961343.14	39961343.34	0.0502	0.0096
Mercury	104703-07-29 14:52 G	39963253.95	39963254.12	39963254.29	0.0514	0.0193
Venus	104704-03-04 06:13 G	39963472.62	39963472.76	39963472.90	0.0520	0.0368
Venus	104704-10-27 06:28 G	39963709.71	39963709.77	39963709.85	0.0527	0.0489
Mercury	104708-12-30 20:37 G	39965235.29	39965235.36	39965235.44	0.0515	0.0405
Mercury	104709-03-30 00:57 G	39965324.43	39965324.54	39965324.66	0.0512	0.0220
Venus	104710-01-08 11:45 G	39965608.79	39965608.99	39965609.19	0.0504	0.0126
Moon	104711-06-04 06:57 G	39966120.63	39966120.79	39966120.97	0.0495	0.0349
Earth	104711-06-04 10:47 G	39966120.80	39966120.95	39966121.10	0.0495	0.0379 *

Mercury	104715-05-17 11:16 G	39967563.79	39967563.97	39967564.16	0.0513	0.0039
Venus	104716-07-02 02:37 G	39967975.43	39967975.61	39967975.79	0.0524	0.0246
Mercury	104721-01-16 05:30 G	39969634.61	39969634.73	39969634.86	0.0513	0.0065
Venus	104721-09-13 07:40 G	39969874.68	39969874.82	39969874.97	0.0506	0.0351
Venus	104722-05-08 08:09 G	39970111.75	39970111.84	39970111.94	0.0501	0.0441
Earth	104723-06-08 23:59 G	39970508.27	39970508.50	39970508.74	0.0494	0.0017
Moon	104723-06-09 03:35 G	39970508.41	39970508.65	39970508.88	0.0494	0.0016 *
Mercury	104727-03-05 07:25 G	39971873.66	39971873.81	39971873.97	0.0512	0.0272
Venus	104728-03-06 23:01 G	39972241.26	39972241.46	39972241.66	0.0523	0.0013
Mercury	104732-11-04 10:33 G	39973944.82	39973944.94	39973945.07	0.0514	0.0084
Venus	104734-01-11 06:13 G	39974377.57	39974377.76	39974377.94	0.0502	0.0226
Moon	104735-06-13 08:37 G	39974895.68	39974895.86	39974896.05	0.0493	0.0318
Earth	104735-06-13 11:45 G	39974895.82	39974895.99	39974896.16	0.0493	0.0345 *
Mercury	104739-03-22 16:18 G	39976274.08	39976274.18	39976274.28	0.0514	0.0424
Venus	104739-11-10 17:59 G	39976507.08	39976507.25	39976507.43	0.0521	0.0238
Mercury	104744-08-23 15:35 G	39978255.04	39978255.15	39978255.27	0.0514	0.0229
Mercury	104744-11-20 19:40 G	39978344.24	39978344.32	39978344.41	0.0512	0.0390
Venus	104745-09-16 04:18 G	39978643.47	39978643.68	39978643.89	0.0503	0.0011
Mercury	104751-01-08 12:57 G	39980583.87	39980584.04	39980584.21	0.0514	0.0197
Venus	104751-07-16 16:33 G	39980773.11	39980773.19	39980773.28	0.0520	0.0466
Venus	104752-03-09 16:47 G	39981010.07	39981010.20	39981010.33	0.0526	0.0388
Mercury	104756-06-11 20:09 G	39982565.26	39982565.34	39982565.43	0.0515	0.0385
Mercury	104756-09-09 00:28 G	39982654.41	39982654.52	39982654.63	0.0512	0.0238
Venus	104757-05-22 00:13 G	39982909.32	39982909.51	39982909.70	0.0505	0.0213
Mercury	104762-10-27 10:04 G	39984893.74	39984893.92	39984894.11	0.0513	0.0026
Venus	104763-11-13 14:23 G	39985275.91	39985276.10	39985276.29	0.0524	0.0151
Earth	104764-12-04 14:23 G	39985662.93	39985663.10	39985663.28	0.0532	0.0345
Moon	104764-12-04 17:16 G	39985663.06	39985663.22	39985663.37	0.0532	0.0381 *
Mercury	104768-06-28 05:16 G	39986964.59	39986964.72	39986964.84	0.0513	0.0086
Venus	104769-01-24 20:09 G	39987175.24	39987175.34	39987175.45	0.0507	0.0436

Venus	104769-09-18 20:37 G	39987412.22	39987412.36	39987412.51	0.0501	0.0359
Mercury	104774-08-15 06:42 G	39989203.62	39989203.78	39989203.95	0.0512	0.0252
Venus	104775-07-19 11:16 G	39989541.77	39989541.97	39989542.17	0.0522	0.0089
Moon	104776-12-09 10:18 G	39990050.70	39990050.93	39990051.17	0.0532	0.0077
Earth	104776-12-09 12:57 G	39990050.81	39990051.04	39990051.26	0.0532	0.0095 *
Mercury	104780-04-16 09:35 G	39991274.78	39991274.90	39991275.03	0.0514	0.0074
Venus	104781-05-24 17:30 G	39991678.03	39991678.23	39991678.43	0.0503	0.0139
Mercury	104786-06-03 03:06 G	39993513.58	39993513.63	39993513.69	0.0512	0.0482
Mercury	104786-09-01 16:47 G	39993604.13	39993604.20	39993604.28	0.0514	0.0464
Venus	104787-03-24 08:09 G	39993807.69	39993807.84	39993808.00	0.0520	0.0325
Mercury	104792-02-03 14:37 G	39995584.99	39995585.11	39995585.22	0.0514	0.0221
Mercury	104792-05-02 18:42 G	39995674.20	39995674.28	39995674.36	0.0512	0.0398
Venus	104793-01-27 15:21 G	39995943.94	39995944.14	39995944.35	0.0504	0.0080
Earth	104794-06-03 22:33 G	39996436.31	39996436.44	39996436.58	0.0494	0.0399
Moon	104794-06-04 00:42 G	39996436.38	39996436.53	39996436.68	0.0494	0.0390 *
Mercury	104798-06-20 11:30 G	39997913.81	39997913.98	39997914.15	0.0514	0.0205
Venus	104799-07-22 02:37 G	39998310.44	39998310.61	39998310.78	0.0525	0.0286
Mercury	104803-11-22 19:40 G	39999895.23	39999895.32	39999895.41	0.0515	0.0368
Mercury	104804-02-19 23:59 G	39999984.39	39999984.50	39999984.61	0.0512	0.0256
Venus	104804-10-02 12:57 G	40000209.88	40000210.04	40000210.21	0.0506	0.0299
Venus	104805-05-27 12:28 G	40000446.99	40000447.02	40000447.07	0.0500	0.0490
Moon	104806-06-08 10:04 G	40000823.69	40000823.92	40000824.15	0.0494	0.0012
Earth	104806-06-08 12:28 G	40000823.78	40000824.02	40000824.26	0.0494	0.0037 *
Mercury	104810-04-08 08:09 G	40002223.66	40002223.84	40002224.03	0.0513	0.0024
Venus	104811-03-27 00:28 G	40002576.32	40002576.52	40002576.71	0.0524	0.0050
Mercury	104815-12-09 04:33 G	40004294.57	40004294.69	40004294.82	0.0513	0.0104
Venus	104817-01-30 09:35 G	40004712.72	40004712.90	40004713.07	0.0501	0.0275
Earth	104818-06-12 23:45 G	40005211.31	40005211.49	40005211.67	0.0493	0.0318
Moon	104818-06-13 02:23 G	40005211.43	40005211.60	40005211.78	0.0493	0.0340 *
Mercury	104822-01-25 05:16 G	40006533.56	40006533.72	40006533.89	0.0513	0.0242

Venus	104822-11-29 22:33 G	40006842.26	40006842.44	40006842.63	0.0522	0.0185
Mercury	104827-09-27 09:06 G	40008604.76	40008604.88	40008605.01	0.0513	0.0053
Venus	104828-10-05 06:13 G	40008978.55	40008978.76	40008978.97	0.0503	0.0055
Mercury	104833-11-13 02:09 G	40010843.52	40010843.59	40010843.67	0.0512	0.0465
Mercury	104834-02-11 15:49 G	40010934.11	40010934.16	40010934.23	0.0514	0.0482
Venus	104834-08-04 20:23 G	40011108.23	40011108.35	40011108.47	0.0520	0.0418
Venus	104835-03-29 20:09 G	40011345.23	40011345.34	40011345.45	0.0526	0.0437
Mercury	104839-07-16 13:40 G	40012914.95	40012915.07	40012915.18	0.0514	0.0211
Mercury	104839-10-13 17:45 G	40013004.16	40013004.24	40013004.31	0.0512	0.0407
Venus	104840-06-10 02:09 G	40013244.40	40013244.59	40013244.79	0.0505	0.0170
Mercury	104845-11-30 11:59 G	40015243.84	40015244.00	40015244.16	0.0514	0.0244
Venus	104846-12-02 16:04 G	40015610.99	40015611.17	40015611.36	0.0524	0.0196
Moon	104847-12-04 18:28 G	40015978.12	40015978.27	40015978.43	0.0532	0.0385
Earth	104847-12-04 21:06 G	40015978.23	40015978.38	40015978.54	0.0532	0.0394 *
Mars	104849-08-20 05:30 G	40016602.49	40016602.73	40016602.98	0.0531	0.0120
Mercury	104851-05-04 18:28 G	40017225.18	40017225.27	40017225.36	0.0515	0.0361
Mercury	104851-08-01 22:47 G	40017314.34	40017314.45	40017314.56	0.0512	0.0263
Venus	104852-02-13 23:30 G	40017510.36	40017510.48	40017510.62	0.0507	0.0391
Venus	104852-10-07 23:59 G	40017747.39	40017747.50	40017747.63	0.0501	0.0404
Mercury	104857-09-18 06:42 G	40019553.59	40019553.78	40019553.97	0.0513	0.0014
Venus	104858-08-07 10:18 G	40019876.73	40019876.93	40019877.13	0.0523	0.0052
Earth	104859-12-09 18:28 G	40020366.05	40020366.27	40020366.50	0.0533	0.0045
Moon	104859-12-09 21:49 G	40020366.18	40020366.41	40020366.65	0.0533	0.0017 *
Mercury	104863-02-20 23:30 G	40021535.46	40021535.48	40021535.49	0.0516	0.0509
Mercury	104863-05-21 03:49 G	40021624.54	40021624.66	40021624.79	0.0513	0.0120
Venus	104864-06-12 22:18 G	40022013.24	40022013.43	40022013.62	0.0502	0.0191
Mars	104867-08-04 07:54 G	40023160.54	40023160.83	40023161.13	0.0495	0.0075
Mercury	104869-07-07 03:21 G	40023863.48	40023863.64	40023863.81	0.0512	0.0240
Venus	104870-04-12 08:09 G	40024142.68	40024142.84	40024143.01	0.0521	0.0286
Moon	104871-12-14 17:45 G	40024754.14	40024754.24	40024754.35	0.0534	0.0465

Earth	104871-12-14 21:21 G	40024754.31	40024754.39	40024754.47	0.0534	0.0498	*
Mercury	104875-03-09 08:37 G	40025934.73	40025934.86	40025934.98	0.0513	0.0037	
Venus	104876-02-16 18:28 G	40026279.07	40026279.27	40026279.48	0.0504	0.0033	
Earth	104877-06-03 10:04 G	40026751.81	40026751.92	40026752.04	0.0494	0.0426	
Moon	104877-06-03 13:25 G	40026751.98	40026752.06	40026752.15	0.0494	0.0457	*
Mercury	104881-04-25 00:28 G	40028173.45	40028173.52	40028173.61	0.0512	0.0458	
Mercury	104881-07-24 14:23 G	40028264.05	40028264.10	40028264.16	0.0515	0.0490	
Venus	104881-12-16 07:11 G	40028408.77	40028408.80	40028408.83	0.0519	0.0512	
Venus	104882-08-10 06:57 G	40028645.64	40028645.79	40028645.94	0.0526	0.0340	
Mercury	104886-12-26 13:11 G	40030244.93	40030245.05	40030245.17	0.0514	0.0190	
Mercury	104887-03-25 17:16 G	40030334.15	40030334.22	40030334.29	0.0511	0.0426	
Venus	104887-10-22 14:23 G	40030544.93	40030545.10	40030545.29	0.0505	0.0256	
Moon	104889-06-07 19:11 G	40031139.07	40031139.30	40031139.54	0.0494	0.0087	
Earth	104889-06-07 22:33 G	40031139.21	40031139.44	40031139.68	0.0494	0.0069	*
Mercury	104893-05-12 10:47 G	40032573.80	40032573.95	40032574.12	0.0514	0.0259	
Venus	104894-04-15 03:35 G	40032911.45	40032911.65	40032911.85	0.0524	0.0098	
Mercury	104898-10-14 17:30 G	40034555.14	40034555.23	40034555.32	0.0515	0.0352	
Mercury	104899-01-11 21:49 G	40034644.30	40034644.41	40034644.51	0.0512	0.0271	
Venus	104899-06-27 09:35 G	40034810.85	40034810.90	40034810.97	0.0507	0.0482	
Venus	104900-02-19 10:47 G	40035047.80	40035047.95	40035048.12	0.0501	0.0318	
Earth	104901-06-13 11:01 G	40035526.77	40035526.96	40035527.15	0.0494	0.0291	
Moon	104901-06-13 14:09 G	40035526.91	40035527.09	40035527.27	0.0494	0.0310	*
Mercury	104905-03-01 06:57 G	40036883.61	40036883.79	40036883.98	0.0513	0.0023	
Venus	104905-12-19 23:59 G	40037177.31	40037177.50	40037177.69	0.0522	0.0141	
Mercury	104910-08-03 22:04 G	40038865.40	40038865.42	40038865.45	0.0516	0.0505	
Mercury	104910-11-01 02:37 G	40038954.49	40038954.61	40038954.74	0.0513	0.0125	
Venus	104911-10-26 08:52 G	40039313.67	40039313.87	40039314.08	0.0503	0.0101	
Mercury	104916-12-18 01:40 G	40041193.41	40041193.57	40041193.74	0.0512	0.0234	
Venus	104917-08-24 18:13 G	40041443.13	40041443.26	40041443.40	0.0520	0.0385	
Venus	104918-04-18 18:42 G	40041680.19	40041680.28	40041680.36	0.0526	0.0474	

Mercury	104922-08-20 07:40 G	40043264.69	40043264.82	40043264.95	0.0514	0.0023
Venus	104923-07-01 06:28 G	40043579.57	40043579.77	40043579.98	0.0504	0.0119
Mercury	104928-10-05 22:18 G	40045503.36	40045503.43	40045503.52	0.0512	0.0459
Mercury	104929-01-04 11:59 G	40045593.95	40045594.00	40045594.06	0.0514	0.0487
Venus	104929-12-22 15:35 G	40045945.97	40045946.15	40045946.33	0.0525	0.0235
Moon	104930-12-04 23:30 G	40046293.35	40046293.48	40046293.63	0.0532	0.0423
Earth	104930-12-05 02:37 G	40046293.49	40046293.61	40046293.74	0.0532	0.0447 *
Mercury	104934-06-08 12:13 G	40047574.89	40047575.01	40047575.13	0.0514	0.0177
Mercury	104934-09-05 16:18 G	40047664.12	40047664.18	40047664.24	0.0511	0.0439
Venus	104935-03-06 02:09 G	40047845.44	40047845.59	40047845.74	0.0506	0.0344
Venus	104935-10-29 02:09 G	40048082.50	40048082.59	40048082.68	0.0500	0.0449
Mercury	104940-10-23 08:52 G	40049903.71	40049903.87	40049904.03	0.0514	0.0261
Venus	104941-08-27 13:40 G	40050211.87	40050212.07	40050212.27	0.0523	0.0001
Earth	104942-12-10 04:47 G	40050681.47	40050681.70	40050681.93	0.0533	0.0008
Moon	104942-12-10 06:57 G	40050681.57	40050681.79	40050682.02	0.0533	0.0034 *
Mercury	104946-03-27 16:47 G	40051885.10	40051885.20	40051885.30	0.0515	0.0335
Mercury	104946-06-24 21:06 G	40051974.27	40051974.38	40051974.48	0.0512	0.0287
Venus	104947-07-03 22:47 G	40052348.27	40052348.45	40052348.63	0.0502	0.0232
Mercury	104952-08-11 05:30 G	40054213.55	40054213.73	40054213.92	0.0513	0.0031
Venus	104953-05-02 10:47 G	40054477.78	40054477.95	40054478.13	0.0521	0.0239
Moon	104954-12-15 01:40 G	40055069.44	40055069.57	40055069.71	0.0533	0.0439
Earth	104954-12-15 03:35 G	40055069.53	40055069.65	40055069.78	0.0533	0.0446 *
Mercury	104958-01-13 20:52 G	40056195.35	40056195.37	40056195.40	0.0516	0.0499
Mercury	104958-04-13 01:25 G	40056284.44	40056284.56	40056284.68	0.0513	0.0129
Venus	104959-03-08 18:57 G	40056614.08	40056614.29	40056614.50	0.0504	0.0010
Moon	104960-06-03 17:45 G	40057067.16	40057067.24	40057067.35	0.0495	0.0450
Earth	104960-06-03 19:11 G	40057067.22	40057067.30	40057067.39	0.0495	0.0461 *
Mercury	104964-05-30 01:40 G	40058523.40	40058523.57	40058523.74	0.0512	0.0203
Venus	104965-01-05 07:40 G	40058743.74	40058743.82	40058743.90	0.0519	0.0472
Venus	104965-08-30 07:11 G	40058980.67	40058980.80	40058980.94	0.0525	0.0381

Mercury	104970-01-30 06:13 G	40060594.64	40060594.76	40060594.89	0.0514	0.0023
Venus	104970-11-11 16:04 G	40060879.98	40060880.17	40060880.36	0.0505	0.0213
Earth	104972-06-08 08:52 G	40061454.64	40061454.87	40061455.10	0.0494	0.0096
Moon	104972-06-08 11:16 G	40061454.73	40061454.97	40061455.20	0.0494	0.0118 *
Mercury	104976-03-17 20:23 G	40062833.28	40062833.35	40062833.44	0.0511	0.0455
Mercury	104976-06-16 10:04 G	40062923.87	40062923.92	40062923.98	0.0514	0.0488
Venus	104977-05-05 00:28 G	40063246.33	40063246.52	40063246.72	0.0524	0.0132
Mercury	104981-11-18 11:01 G	40064904.84	40064904.96	40064905.09	0.0515	0.0171
Mercury	104982-02-15 15:21 G	40064994.08	40064994.14	40064994.20	0.0512	0.0448
Venus	104982-07-17 12:42 G	40065145.94	40065146.03	40065146.15	0.0507	0.0436
Venus	104983-03-11 13:54 G	40065382.94	40065383.08	40065383.22	0.0501	0.0364
Moon	104984-06-12 18:57 G	40065842.09	40065842.29	40065842.50	0.0493	0.0231
Earth	104984-06-12 21:49 G	40065842.21	40065842.41	40065842.61	0.0493	0.0261 *
Mercury	104988-04-04 06:28 G	40067233.61	40067233.77	40067233.93	0.0514	0.0253
Venus	104989-01-07 21:49 G	40067512.21	40067512.41	40067512.60	0.0522	0.0107
Mercury	104993-09-06 15:35 G	40069215.06	40069215.15	40069215.25	0.0515	0.0328
Mercury	104993-12-04 19:54 G	40069304.23	40069304.33	40069304.43	0.0512	0.0295
Venus	104994-11-14 09:49 G	40069648.71	40069648.91	40069649.11	0.0502	0.0143
Mercury	105000-01-22 03:06 G	40071543.45	40071543.63	40071543.82	0.0513	0.0029
Venus	105000-09-13 20:09 G	40071778.19	40071778.34	40071778.49	0.0520	0.0339

106TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 106th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Venus	105001-05-08 20:37 G	40072015.35	40072015.36	40072015.39	0.0527	0.0523
Mars	105003-11-16 19:25 G	40072937.14	40072937.31	40072937.51	0.0531	0.0355
Mercury	105005-06-26 20:09 G	40073525.30	40073525.34	40073525.38	0.0516	0.0486
Mercury	105005-09-24 00:28 G	40073614.40	40073614.52	40073614.65	0.0513	0.0142
Venus	105006-07-21 05:45 G	40073914.54	40073914.74	40073914.95	0.0504	0.0081
Mercury	105011-11-10 23:45 G	40075853.32	40075853.49	40075853.66	0.0512	0.0201
Venus	105013-01-11 17:01 G	40076281.04	40076281.21	40076281.38	0.0525	0.0280
Earth	105013-12-05 08:09 G	40076608.77	40076608.84	40076608.92	0.0532	0.0499
Moon	105013-12-05 09:49 G	40076608.89	40076608.91	40076608.96	0.0532	0.0525 *
Mercury	105017-07-13 04:47 G	40077924.58	40077924.70	40077924.83	0.0514	0.0026
Venus	105018-03-26 00:57 G	40078180.38	40078180.54	40078180.71	0.0506	0.0309
Venus	105018-11-18 01:11 G	40078417.50	40078417.55	40078417.60	0.0500	0.0485
Mars	105021-10-30 19:40 G	40079495.16	40079495.32	40079495.49	0.0496	0.0410
Mercury	105023-08-29 19:54 G	40080163.24	40080163.33	40080163.43	0.0511	0.0433
Mercury	105023-11-28 09:35 G	40080253.89	40080253.90	40080253.92	0.0514	0.0511
Venus	105024-09-16 12:57 G	40080546.84	40080547.04	40080547.24	0.0523	0.0037
Moon	105025-12-10 03:35 G	40080996.43	40080996.65	40080996.87	0.0532	0.0058
Earth	105025-12-10 06:28 G	40080996.54	40080996.77	40080997.00	0.0532	0.0065 *
Mercury	105029-05-01 09:35 G	40082234.78	40082234.90	40082235.02	0.0515	0.0173
Mercury	105029-07-29 13:40 G	40082324.01	40082324.07	40082324.13	0.0512	0.0445
Venus	105030-07-23 23:01 G	40082683.29	40082683.46	40082683.63	0.0502	0.0271
Mercury	105035-09-16 04:04 G	40084563.51	40084563.67	40084563.84	0.0513	0.0252
Venus	105036-05-22 06:42 G	40084812.60	40084812.78	40084812.96	0.0521	0.0210
Earth	105037-12-15 01:25 G	40085384.40	40085384.56	40085384.74	0.0533	0.0363
Moon	105037-12-15 05:01 G	40085384.56	40085384.71	40085384.87	0.0533	0.0399 *
Mercury	105041-02-17 14:23 G	40086545.00	40086545.10	40086545.19	0.0516	0.0326
Mercury	105041-05-17 18:42 G	40086634.18	40086634.28	40086634.38	0.0513	0.0298
Venus	105042-03-28 20:23 G	40086949.15	40086949.35	40086949.56	0.0504	0.0053
Moon	105043-06-05 00:42 G	40087382.48	40087382.53	40087382.60	0.0495	0.0477

Earth	105043-06-05 04:47 G	40087382.69	40087382.70	40087382.70	0.0495	0.0494
Mercury	105047-07-05 00:28 G	40088873.33	40088873.52	40088873.70	0.0513	0.0020
Venus	105048-01-26 04:04 G	40089078.57	40089078.67	40089078.78	0.0519	0.0443
Venus	105048-09-19 03:49 G	40089315.54	40089315.66	40089315.79	0.0526	0.0414
Mercury	105052-12-06 18:42 G	40090855.24	40090855.28	40090855.32	0.0516	0.0485
Mercury	105053-03-05 23:16 G	40090944.35	40090944.47	40090944.59	0.0513	0.0143
Venus	105053-12-01 15:35 G	40091214.96	40091215.15	40091215.35	0.0505	0.0174
Earth	105055-06-09 14:23 G	40091769.87	40091770.10	40091770.32	0.0494	0.0146
Moon	105055-06-09 17:30 G	40091770.01	40091770.23	40091770.46	0.0494	0.0117 *
Mercury	105059-04-22 21:06 G	40093183.21	40093183.38	40093183.55	0.0512	0.0210
Venus	105060-05-25 01:11 G	40093581.37	40093581.55	40093581.74	0.0524	0.0176
Mercury	105064-12-23 03:49 G	40095254.53	40095254.66	40095254.78	0.0514	0.0016
Venus	105065-08-06 11:01 G	40095480.84	40095480.96	40095481.09	0.0507	0.0401
Venus	105066-03-31 11:30 G	40095717.86	40095717.98	40095718.11	0.0501	0.0398
Moon	105067-06-13 22:18 G	40096157.22	40096157.43	40096157.65	0.0493	0.0207
Earth	105067-06-14 01:40 G	40096157.35	40096157.57	40096157.78	0.0493	0.0207 *
Mercury	105071-02-08 17:45 G	40097493.15	40097493.24	40097493.33	0.0512	0.0436
Mercury	105071-05-10 07:11 G	40097583.78	40097583.80	40097583.83	0.0514	0.0508
Venus	105072-01-28 22:04 G	40097847.23	40097847.42	40097847.62	0.0522	0.0067
Mercury	105076-10-11 07:54 G	40099564.71	40099564.83	40099564.95	0.0514	0.0176
Mercury	105077-01-08 11:59 G	40099653.94	40099654.00	40099654.07	0.0512	0.0441
Venus	105077-12-04 07:11 G	40099983.61	40099983.80	40099984.00	0.0503	0.0177
Mercury	105083-02-26 03:06 G	40101893.47	40101893.63	40101893.79	0.0513	0.0267
Venus	105083-10-03 18:28 G	40102113.11	40102113.27	40102113.44	0.0520	0.0305
Mercury	105088-07-30 12:28 G	40103874.93	40103875.02	40103875.12	0.0515	0.0332
Mercury	105088-10-27 16:47 G	40103964.10	40103964.20	40103964.31	0.0513	0.0292
Venus	105089-08-09 04:18 G	40104249.48	40104249.68	40104249.89	0.0504	0.0046
Mercury	105094-12-14 21:49 G	40106203.23	40106203.41	40106203.60	0.0512	0.0016
Venus	105096-01-31 11:30 G	40106615.82	40106615.98	40106616.15	0.0525	0.0307
Mercury	105100-05-19 17:01 G	40108185.17	40108185.21	40108185.25	0.0516	0.0490

Mercury	105100-08-16 21:35 G	40108274.28	40108274.40	40108274.52	0.0514	0.0140
Venus	105101-04-15 00:42 G	40108515.36	40108515.53	40108515.71	0.0506	0.0270
Mercury	105106-10-03 17:59 G	40110513.09	40110513.25	40110513.42	0.0512	0.0224
Venus	105107-10-07 08:09 G	40110881.64	40110881.84	40110882.04	0.0523	0.0065
Moon	105108-12-10 00:13 G	40111311.29	40111311.51	40111311.73	0.0533	0.0184
Earth	105108-12-10 03:21 G	40111311.42	40111311.64	40111311.86	0.0533	0.0153 *
Mercury	105112-06-05 02:09 G	40112584.46	40112584.59	40112584.72	0.0514	0.0017
Venus	105112-12-18 19:25 G	40112781.28	40112781.31	40112781.34	0.0508	0.0499
Venus	105113-08-12 20:37 G	40113018.20	40113018.36	40113018.53	0.0502	0.0305
Mercury	105118-07-22 14:37 G	40114823.03	40114823.11	40114823.20	0.0511	0.0451
Mercury	105118-10-21 04:04 G	40114913.62	40114913.67	40114913.73	0.0514	0.0491
Venus	105119-06-12 05:45 G	40115147.55	40115147.74	40115147.93	0.0521	0.0173
Earth	105120-12-15 05:16 G	40115699.53	40115699.72	40115699.91	0.0533	0.0298
Moon	105120-12-15 07:25 G	40115699.62	40115699.81	40115700.00	0.0533	0.0283 *
Mercury	105124-03-24 06:42 G	40116894.66	40116894.78	40116894.90	0.0514	0.0174
Mercury	105124-06-21 10:47 G	40116983.89	40116983.95	40116984.01	0.0512	0.0443
Venus	105125-04-17 16:47 G	40117284.00	40117284.20	40117284.41	0.0503	0.0084
Mercury	105130-08-09 00:28 G	40119223.36	40119223.52	40119223.68	0.0513	0.0257
Venus	105131-02-15 03:21 G	40119413.52	40119413.64	40119413.76	0.0519	0.0408
Venus	105131-10-10 03:06 G	40119650.53	40119650.63	40119650.73	0.0526	0.0452
Mercury	105136-01-11 10:47 G	40121204.86	40121204.95	40121205.05	0.0515	0.0339
Mercury	105136-04-09 15:06 G	40121294.03	40121294.13	40121294.24	0.0512	0.0284
Venus	105136-12-21 11:45 G	40121549.79	40121549.99	40121550.19	0.0505	0.0146
Moon	105138-06-09 15:49 G	40122084.96	40122085.16	40122085.37	0.0494	0.0205
Earth	105138-06-09 16:47 G	40122084.99	40122085.20	40122085.42	0.0494	0.0202 *
Mercury	105142-05-27 20:23 G	40123533.17	40123533.35	40123533.54	0.0513	0.0021
Venus	105143-06-14 22:18 G	40123916.25	40123916.43	40123916.62	0.0524	0.0208
Mercury	105147-10-30 15:06 G	40125515.11	40125515.13	40125515.16	0.0516	0.0499
Mercury	105148-01-27 19:40 G	40125604.20	40125604.32	40125604.45	0.0513	0.0132
Venus	105148-08-26 07:40 G	40125815.69	40125815.82	40125815.97	0.0507	0.0372

Venus	105149-04-20 08:52 G	40126052.76	40126052.87	40126052.97	0.0501	0.0430
Earth	105150-06-14 05:59 G	40126472.53	40126472.75	40126472.98	0.0494	0.0157
Moon	105150-06-14 08:09 G	40126472.61	40126472.84	40126473.07	0.0494	0.0185 *
Mercury	105154-03-15 15:35 G	40127842.98	40127843.15	40127843.31	0.0511	0.0231
Venus	105155-02-17 16:04 G	40128181.98	40128182.17	40128182.37	0.0522	0.0044
Mercury	105159-11-16 00:13 G	40129914.39	40129914.51	40129914.64	0.0514	0.0031
Venus	105160-12-24 05:45 G	40130318.55	40130318.74	40130318.93	0.0503	0.0212
Mercury	105166-01-01 11:45 G	40132152.91	40132152.99	40132153.06	0.0511	0.0464
Mercury	105166-04-02 00:57 G	40132243.47	40132243.54	40132243.61	0.0514	0.0473
Venus	105166-10-23 12:57 G	40132447.87	40132448.04	40132448.21	0.0520	0.0280
Mercury	105171-09-04 04:47 G	40134224.58	40134224.70	40134224.82	0.0515	0.0183
Mercury	105171-12-02 08:52 G	40134313.81	40134313.87	40134313.94	0.0512	0.0436
Venus	105172-08-29 00:57 G	40134584.33	40134584.54	40134584.75	0.0504	0.0016
Mercury	105178-01-18 21:06 G	40136553.21	40136553.38	40136553.54	0.0513	0.0237
Venus	105178-06-28 10:33 G	40136713.92	40136713.94	40136713.97	0.0518	0.0513
Venus	105179-02-20 09:49 G	40136950.76	40136950.91	40136951.06	0.0525	0.0343
Mercury	105183-06-23 09:21 G	40138534.79	40138534.89	40138534.98	0.0515	0.0340
Mercury	105183-09-20 13:40 G	40138623.96	40138624.07	40138624.17	0.0513	0.0283
Venus	105184-05-03 20:23 G	40138850.17	40138850.35	40138850.54	0.0506	0.0243
Mercury	105189-11-06 17:30 G	40140863.04	40140863.23	40140863.41	0.0513	0.0008
Venus	105190-10-26 06:28 G	40141216.58	40141216.77	40141216.97	0.0523	0.0101
Earth	105191-12-10 04:18 G	40141626.47	40141626.68	40141626.89	0.0532	0.0223
Moon	105191-12-10 05:59 G	40141626.53	40141626.75	40141626.97	0.0532	0.0202 *
Mercury	105195-04-11 13:11 G	40142845.04	40142845.05	40142845.08	0.0516	0.0508
Mercury	105195-07-09 17:59 G	40142934.12	40142934.25	40142934.37	0.0513	0.0123
Venus	105196-01-07 14:37 G	40143116.04	40143116.11	40143116.18	0.0508	0.0474
Venus	105196-08-31 16:04 G	40143353.02	40143353.17	40143353.33	0.0502	0.0332
Mercury	105201-08-25 13:25 G	40145172.90	40145173.06	40145173.23	0.0512	0.0230
Venus	105202-07-01 02:37 G	40145482.42	40145482.61	40145482.80	0.0521	0.0142
Moon	105203-12-14 23:16 G	40146014.27	40146014.47	40146014.68	0.0533	0.0190

Earth	105203-12-15 01:54 G	40146014.37	40146014.58	40146014.79	0.0533	0.0210	*
Mercury	105207-04-27 22:18 G	40147244.31	40147244.43	40147244.56	0.0514	0.0037	
Venus	105208-05-06 12:42 G	40147618.83	40147619.03	40147619.24	0.0503	0.0112	
Mercury	105213-06-13 08:52 G	40149482.81	40149482.87	40149482.94	0.0511	0.0473	
Mercury	105213-09-11 22:18 G	40149573.35	40149573.43	40149573.51	0.0513	0.0463	
Venus	105214-03-05 21:21 G	40149748.26	40149748.39	40149748.53	0.0519	0.0385	
Venus	105214-10-28 20:23 G	40149985.27	40149985.35	40149985.44	0.0525	0.0475	
Mercury	105219-02-14 02:52 G	40151554.50	40151554.62	40151554.74	0.0515	0.0195	
Mercury	105219-05-14 06:57 G	40151643.73	40151643.79	40151643.86	0.0513	0.0426	
Venus	105220-01-10 08:52 G	40151884.67	40151884.87	40151885.07	0.0505	0.0115	
Moon	105221-06-08 16:33 G	40152400.00	40152400.19	40152400.39	0.0495	0.0284	
Earth	105221-06-08 20:37 G	40152400.16	40152400.36	40152400.56	0.0494	0.0256	*
Mercury	105225-06-30 17:59 G	40153883.08	40153883.25	40153883.42	0.0513	0.0221	
Venus	105226-07-03 16:18 G	40154251.00	40154251.18	40154251.36	0.0524	0.0231	
Mercury	105230-12-03 07:11 G	40155864.71	40155864.80	40155864.89	0.0516	0.0354	
Mercury	105231-03-02 11:30 G	40155953.88	40155953.98	40155954.09	0.0513	0.0272	
Venus	105231-09-15 03:35 G	40156150.50	40156150.65	40156150.80	0.0507	0.0346	
Venus	105232-05-09 04:04 G	40156387.59	40156387.67	40156387.76	0.0501	0.0457	
Earth	105233-06-13 05:16 G	40156787.49	40156787.72	40156787.95	0.0494	0.0089	
Moon	105233-06-13 08:52 G	40156787.64	40156787.87	40156788.10	0.0494	0.0066	*
Mercury	105237-04-18 13:54 G	40158192.90	40158193.08	40158193.27	0.0512	0.0018	
Venus	105238-03-08 13:25 G	40158516.86	40158517.06	40158517.26	0.0522	0.0012	
Mercury	105242-09-21 11:45 G	40160174.98	40160174.99	40160175.00	0.0516	0.0511	
Mercury	105242-12-19 16:18 G	40160264.06	40160264.18	40160264.30	0.0513	0.0118	
Venus	105244-01-13 00:42 G	40160653.35	40160653.53	40160653.71	0.0502	0.0237	
Moon	105245-06-17 12:42 G	40161174.93	40161175.03	40161175.13	0.0493	0.0445	
Earth	105245-06-17 16:04 G	40161175.06	40161175.17	40161175.28	0.0493	0.0437	*
Mercury	105249-02-04 10:33 G	40162502.78	40162502.94	40162503.10	0.0512	0.0246	
Venus	105249-11-11 10:33 G	40162782.77	40162782.94	40162783.12	0.0520	0.0250	
Mercury	105254-10-07 20:37 G	40164574.23	40164574.36	40164574.48	0.0514	0.0047	

Venus	105255-09-17 19:54 G	40164919.12	40164919.33	40164919.54	0.0504	0.0011
Mercury	105260-11-23 06:57 G	40166812.72	40166812.79	40166812.85	0.0511	0.0476
Mercury	105261-02-21 20:09 G	40166903.26	40166903.34	40166903.42	0.0514	0.0462
Venus	105261-07-17 07:40 G	40167048.75	40167048.82	40167048.89	0.0518	0.0483
Venus	105262-03-11 06:28 G	40167285.63	40167285.77	40167285.91	0.0525	0.0373
Mercury	105266-07-27 00:57 G	40168884.42	40168884.54	40168884.66	0.0515	0.0203
Mercury	105266-10-24 05:16 G	40168973.65	40168973.72	40168973.79	0.0512	0.0416
Venus	105267-05-23 15:35 G	40169184.96	40169185.15	40169185.34	0.0506	0.0218
Mercury	105272-12-10 15:21 G	40171212.97	40171213.14	40171213.31	0.0513	0.0212
Venus	105273-11-14 00:28 G	40171551.33	40171551.52	40171551.71	0.0523	0.0123
Earth	105274-12-08 20:23 G	40171941.18	40171941.35	40171941.54	0.0532	0.0327
Moon	105274-12-09 00:28 G	40171941.33	40171941.52	40171941.70	0.0532	0.0316 *
Mars	105276-07-31 17:45 G	40172542.09	40172542.24	40172542.40	0.0532	0.0423
Mercury	105278-05-15 05:16 G	40173194.63	40173194.72	40173194.81	0.0516	0.0366
Mercury	105278-08-12 09:35 G	40173283.80	40173283.90	40173284.01	0.0513	0.0261
Venus	105279-01-26 10:47 G	40173450.86	40173450.95	40173451.05	0.0508	0.0447
Venus	105279-09-20 12:42 G	40173687.89	40173688.03	40173688.17	0.0502	0.0363
Mercury	105284-09-28 11:16 G	40175522.78	40175522.97	40175523.15	0.0512	0.0029
Venus	105285-07-19 20:37 G	40175817.17	40175817.36	40175817.56	0.0521	0.0119
Moon	105286-12-13 16:04 G	40176328.94	40176329.17	40176329.40	0.0533	0.0141
Earth	105286-12-13 19:25 G	40176329.09	40176329.31	40176329.54	0.0533	0.0108 *
Mercury	105290-05-31 14:23 G	40177593.97	40177594.10	40177594.22	0.0514	0.0106
Venus	105291-05-26 08:09 G	40177953.64	40177953.84	40177954.04	0.0503	0.0136
Mars	105294-07-13 01:11 G	40179097.33	40179097.55	40179097.77	0.0494	0.0342
Mercury	105296-07-17 06:57 G	40179832.64	40179832.79	40179832.95	0.0512	0.0268
Venus	105297-03-24 17:45 G	40180083.10	40180083.24	40180083.39	0.0519	0.0358
Venus	105297-11-16 17:30 G	40180320.19	40180320.23	40180320.29	0.0526	0.0507
Mercury	105302-03-20 18:57 G	40181904.16	40181904.29	40181904.42	0.0514	0.0048
Venus	105303-01-30 04:18 G	40182219.48	40182219.68	40182219.89	0.0505	0.0089
Moon	105304-06-08 18:28 G	40182715.08	40182715.27	40182715.47	0.0494	0.0301

Earth	105304-06-08 18:42 G	40182715.11	40182715.28	40182715.46	0.0494	0.0326	*
Mercury	105308-05-06 03:35 G	40184142.61	40184142.65	40184142.70	0.0511	0.0492	
Mercury	105308-08-04 17:01 G	40184233.12	40184233.21	40184233.30	0.0514	0.0445	
Venus	105309-07-23 14:09 G	40184585.93	40184586.09	40184586.27	0.0524	0.0265	
Mercury	105314-01-06 23:01 G	40186214.35	40186214.46	40186214.58	0.0515	0.0212	
Mercury	105314-04-06 03:21 G	40186303.57	40186303.64	40186303.72	0.0512	0.0408	
Venus	105314-10-04 22:47 G	40186485.30	40186485.45	40186485.61	0.0507	0.0320	
Venus	105315-05-29 23:16 G	40186722.42	40186722.47	40186722.53	0.0501	0.0483	
Moon	105316-06-13 05:16 G	40187102.49	40187102.72	40187102.95	0.0494	0.0018	
Earth	105316-06-13 05:45 G	40187102.50	40187102.74	40187102.98	0.0494	0.0025	*
Mercury	105320-05-23 13:11 G	40188542.88	40188543.05	40188543.22	0.0513	0.0209	
Venus	105321-03-28 10:33 G	40188851.74	40188851.94	40188852.14	0.0522	0.0021	
Mercury	105325-10-26 03:35 G	40190524.56	40190524.65	40190524.73	0.0516	0.0372	
Mercury	105326-01-23 07:54 G	40190613.72	40190613.83	40190613.94	0.0513	0.0253	
Venus	105327-02-01 20:09 G	40190988.16	40190988.34	40190988.52	0.0502	0.0264	
Earth	105328-06-17 18:13 G	40191490.11	40191490.26	40191490.41	0.0494	0.0381	
Moon	105328-06-17 19:40 G	40191490.15	40191490.32	40191490.50	0.0494	0.0351	*
Mercury	105332-03-11 08:37 G	40192852.68	40192852.86	40192853.05	0.0512	0.0037	
Venus	105332-12-01 05:30 G	40193117.56	40193117.73	40193117.92	0.0520	0.0225	
Mercury	105337-11-11 12:13 G	40194923.89	40194924.01	40194924.14	0.0514	0.0097	
Venus	105338-10-07 16:18 G	40195253.97	40195254.18	40195254.38	0.0504	0.0039	
Mercury	105343-12-29 04:47 G	40197162.54	40197162.70	40197162.85	0.0511	0.0271	
Venus	105344-08-06 02:23 G	40197383.52	40197383.60	40197383.70	0.0518	0.0460	
Venus	105345-03-31 00:57 G	40197620.42	40197620.54	40197620.68	0.0525	0.0399	
Mercury	105349-08-30 17:01 G	40199234.08	40199234.21	40199234.33	0.0514	0.0061	
Venus	105350-06-12 11:30 G	40199519.79	40199519.98	40199520.17	0.0506	0.0192	
Mercury	105355-10-17 00:28 G	40201472.51	40201472.52	40201472.52	0.0511	0.0510	
Mercury	105356-01-15 13:40 G	40201562.97	40201563.07	40201563.17	0.0514	0.0425	
Venus	105356-12-03 21:21 G	40201886.20	40201886.39	40201886.58	0.0523	0.0153	
Earth	105357-12-08 21:35 G	40202256.25	40202256.40	40202256.56	0.0532	0.0395	

Moon	105357-12-08 21:21 G	40202256.27	40202256.39	40202256.53	0.0532	0.0431	*
Mercury	105361-06-18 21:35 G	40203544.29	40203544.40	40203544.52	0.0515	0.0212	
Mercury	105361-09-16 01:54 G	40203633.51	40203633.58	40203633.66	0.0512	0.0407	
Venus	105362-02-15 07:40 G	40203785.71	40203785.82	40203785.94	0.0508	0.0419	
Venus	105362-10-10 08:37 G	40204022.73	40204022.86	40204022.99	0.0501	0.0389	
Mercury	105367-11-03 10:04 G	40205872.75	40205872.92	40205873.09	0.0513	0.0194	
Venus	105368-08-08 18:42 G	40206152.09	40206152.28	40206152.48	0.0522	0.0087	
Earth	105369-12-13 22:04 G	40206644.19	40206644.42	40206644.65	0.0533	0.0047	
Moon	105369-12-13 23:16 G	40206644.24	40206644.47	40206644.71	0.0533	0.0038	*
Mercury	105373-04-07 01:54 G	40207854.49	40207854.58	40207854.67	0.0516	0.0375	
Mercury	105373-07-05 06:13 G	40207943.65	40207943.76	40207943.88	0.0513	0.0250	
Venus	105374-06-15 04:04 G	40208288.48	40208288.67	40208288.87	0.0503	0.0165	
Mercury	105379-08-22 06:28 G	40210182.59	40210182.77	40210182.96	0.0512	0.0038	
Venus	105380-04-13 15:49 G	40210418.01	40210418.16	40210418.32	0.0519	0.0325	
Moon	105381-12-18 18:28 G	40211032.21	40211032.27	40211032.34	0.0533	0.0508	
Earth	105381-12-18 20:37 G	40211032.27	40211032.36	40211032.46	0.0533	0.0481	*
Mercury	105385-04-23 10:47 G	40212253.83	40212253.95	40212254.08	0.0514	0.0094	
Venus	105386-02-18 00:13 G	40212554.31	40212554.51	40212554.72	0.0505	0.0061	
Earth	105387-06-08 20:52 G	40213030.23	40213030.37	40213030.53	0.0495	0.0383	
Moon	105387-06-09 01:11 G	40213030.40	40213030.55	40213030.71	0.0495	0.0369	*
Mercury	105391-06-10 02:37 G	40214492.45	40214492.61	40214492.77	0.0511	0.0272	
Venus	105392-08-11 10:18 G	40214920.77	40214920.93	40214921.10	0.0524	0.0293	
Mercury	105397-02-09 15:06 G	40216564.01	40216564.13	40216564.26	0.0515	0.0069	
Venus	105397-10-23 19:25 G	40216820.15	40216820.31	40216820.49	0.0507	0.0292	
Moon	105399-06-13 05:45 G	40217417.50	40217417.74	40217417.98	0.0494	0.0006	
Earth	105399-06-13 09:49 G	40217417.67	40217417.91	40217418.14	0.0494	0.0027	*
Mercury	105403-03-29 22:33 G	40218802.43	40218802.44	40218802.48	0.0510	0.0505	
Mercury	105403-06-28 11:45 G	40218892.89	40218892.99	40218893.09	0.0513	0.0428	
Venus	105404-04-17 06:28 G	40219186.57	40219186.77	40219186.97	0.0522	0.0050	
Mercury	105408-11-29 19:54 G	40220874.21	40220874.33	40220874.44	0.0515	0.0222	

Mercury	105409-02-26 23:59 G	40220963.43	40220963.50	40220963.58	0.0512	0.0399
Venus	105410-02-21 16:47 G	40221323.04	40221323.20	40221323.38	0.0502	0.0292
Earth	105411-06-18 18:42 G	40221805.11	40221805.28	40221805.47	0.0493	0.0321
Moon	105411-06-18 22:47 G	40221805.28	40221805.45	40221805.62	0.0493	0.0338 *
Mercury	105415-04-16 07:11 G	40223202.62	40223202.80	40223202.97	0.0513	0.0179
Venus	105415-12-22 02:23 G	40223452.42	40223452.60	40223452.79	0.0521	0.0196
Mercury	105420-09-18 00:28 G	40225184.44	40225184.52	40225184.61	0.0516	0.0374
Mercury	105420-12-16 05:01 G	40225273.60	40225273.71	40225273.82	0.0513	0.0251
Venus	105421-10-27 13:54 G	40225588.88	40225589.08	40225589.29	0.0504	0.0070
Mercury	105427-02-02 03:49 G	40227512.47	40227512.66	40227512.84	0.0512	0.0049
Venus	105427-08-27 00:42 G	40227718.42	40227718.53	40227718.64	0.0519	0.0429
Venus	105428-04-20 00:13 G	40227955.41	40227955.51	40227955.63	0.0526	0.0436
Mars	105430-10-27 15:21 G	40228875.89	40228876.14	40228876.39	0.0532	0.0057
Mercury	105432-10-04 09:21 G	40229583.77	40229583.89	40229584.02	0.0513	0.0096
Venus	105433-07-02 09:06 G	40229854.69	40229854.88	40229855.08	0.0506	0.0159
Mercury	105438-11-21 00:28 G	40231822.37	40231822.52	40231822.68	0.0512	0.0273
Venus	105439-12-24 20:52 G	40232221.18	40232221.37	40232221.55	0.0524	0.0193
Moon	105440-12-08 20:23 G	40232571.23	40232571.35	40232571.48	0.0531	0.0445
Earth	105440-12-09 00:28 G	40232571.41	40232571.52	40232571.64	0.0531	0.0457 *
Mercury	105444-07-23 13:54 G	40233893.95	40233894.08	40233894.21	0.0514	0.0063
Venus	105445-03-07 04:33 G	40234120.56	40234120.69	40234120.83	0.0508	0.0389
Venus	105445-10-30 05:45 G	40234357.63	40234357.74	40234357.85	0.0501	0.0421
Mars	105448-10-07 16:47 G	40235430.90	40235431.20	40235431.50	0.0495	0.0041
Mercury	105450-09-08 20:52 G	40236132.34	40236132.37	40236132.41	0.0511	0.0501
Mercury	105450-12-08 09:49 G	40236222.82	40236222.91	40236223.02	0.0513	0.0432
Venus	105451-08-29 16:33 G	40236487.00	40236487.19	40236487.39	0.0521	0.0056
Earth	105452-12-13 20:23 G	40236959.12	40236959.35	40236959.58	0.0532	0.0034
Moon	105452-12-14 00:28 G	40236959.29	40236959.52	40236959.74	0.0532	0.0058 *
Mercury	105456-05-11 18:13 G	40238204.14	40238204.26	40238204.37	0.0515	0.0225
Mercury	105456-08-08 22:33 G	40238293.36	40238293.44	40238293.52	0.0513	0.0395

Venus	105457-07-05 02:09 G	40238623.40	40238623.59	40238623.78	0.0503	0.0198
Mercury	105462-09-26 05:59 G	40240532.58	40240532.75	40240532.92	0.0513	0.0192
Venus	105463-05-04 13:11 G	40240752.89	40240753.05	40240753.22	0.0519	0.0294
Moon	105464-12-18 16:04 G	40241347.01	40241347.17	40241347.34	0.0533	0.0369
Earth	105464-12-18 19:25 G	40241347.17	40241347.31	40241347.47	0.0533	0.0403 *
Mercury	105468-02-28 22:47 G	40242514.37	40242514.45	40242514.54	0.0516	0.0379
Mercury	105468-05-28 03:21 G	40242603.53	40242603.64	40242603.75	0.0513	0.0246
Venus	105469-03-09 22:33 G	40242889.24	40242889.44	40242889.65	0.0505	0.0032
Earth	105470-06-09 00:13 G	40243345.41	40243345.51	40243345.64	0.0495	0.0431
Moon	105470-06-09 00:42 G	40243345.46	40243345.53	40243345.62	0.0495	0.0464 *
Mercury	105474-07-15 01:11 G	40244842.36	40244842.55	40244842.73	0.0512	0.0057
Venus	105475-09-01 08:23 G	40245255.70	40245255.85	40245256.01	0.0525	0.0327
Mercury	105480-03-16 08:23 G	40246913.72	40246913.85	40246913.97	0.0514	0.0101
Venus	105480-11-12 19:25 G	40247155.14	40247155.31	40247155.49	0.0506	0.0254
Moon	105482-06-13 13:11 G	40247732.81	40247733.05	40247733.30	0.0494	0.0089
Earth	105482-06-13 13:25 G	40247732.82	40247733.06	40247733.29	0.0494	0.0075 *
Mercury	105486-05-02 22:04 G	40249152.26	40249152.42	40249152.57	0.0512	0.0280
Venus	105487-05-07 05:59 G	40249521.55	40249521.75	40249521.95	0.0523	0.0086
Mercury	105492-01-03 12:42 G	40251223.91	40251224.03	40251224.16	0.0514	0.0059
Venus	105492-07-18 14:23 G	40251421.05	40251421.10	40251421.16	0.0508	0.0485
Venus	105493-03-12 15:49 G	40251658.01	40251658.16	40251658.32	0.0502	0.0329
Moon	105494-06-18 00:28 G	40252120.34	40252120.52	40252120.71	0.0494	0.0294
Earth	105494-06-18 00:42 G	40252120.34	40252120.53	40252120.73	0.0494	0.0275 *
Mercury	105498-02-18 18:57 G	40253462.26	40253462.29	40253462.33	0.0511	0.0499
Mercury	105498-05-20 08:09 G	40253552.75	40253552.84	40253552.94	0.0514	0.0436
Venus	105499-01-10 03:35 G	40253787.45	40253787.65	40253787.84	0.0521	0.0153
Mercury	105503-10-23 17:16 G	40255534.10	40255534.22	40255534.34	0.0515	0.0214
Mercury	105504-01-20 21:35 G	40255623.32	40255623.40	40255623.48	0.0512	0.0404
Venus	105504-11-16 12:28 G	40255923.81	40255924.02	40255924.22	0.0504	0.0106
Mercury	105510-03-09 04:33 G	40257862.52	40257862.69	40257862.86	0.0513	0.0201

Venus	105510-09-16 00:28 G	40258053.39	40258053.52	40258053.65	0.0518	0.0392
Venus	105511-05-10 23:30 G	40258290.40	40258290.48	40258290.57	0.0525	0.0473
Mercury	105515-08-11 21:35 G	40259844.31	40259844.40	40259844.48	0.0516	0.0377
Mercury	105515-11-09 01:54 G	40259933.47	40259933.58	40259933.70	0.0513	0.0249
Venus	105516-07-22 08:09 G	40260189.64	40260189.84	40260190.04	0.0506	0.0124
Mercury	105521-12-26 00:42 G	40262172.34	40262172.53	40262172.71	0.0512	0.0036
Venus	105523-01-13 19:25 G	40262556.13	40262556.31	40262556.49	0.0523	0.0229
Moon	105523-12-10 01:54 G	40262886.50	40262886.58	40262886.67	0.0531	0.0494
Earth	105523-12-10 02:09 G	40262886.55	40262886.59	40262886.63	0.0531	0.0522 *
Mercury	105527-08-28 06:57 G	40264243.66	40264243.79	40264243.91	0.0514	0.0100
Venus	105528-03-27 04:33 G	40264455.55	40264455.69	40264455.84	0.0507	0.0353
Venus	105528-11-19 05:30 G	40264692.65	40264692.73	40264692.81	0.0501	0.0456
Mercury	105533-10-13 19:54 G	40266482.17	40266482.33	40266482.48	0.0512	0.0283
Venus	105534-09-18 15:06 G	40266821.93	40266822.13	40266822.33	0.0522	0.0022
Moon	105535-12-15 01:11 G	40267274.33	40267274.55	40267274.77	0.0533	0.0056
Earth	105535-12-15 01:40 G	40267274.34	40267274.57	40267274.80	0.0533	0.0086 *
Mercury	105539-06-16 11:59 G	40268553.87	40268554.00	40268554.12	0.0514	0.0047
Venus	105540-07-25 03:21 G	40268958.46	40268958.64	40268958.83	0.0502	0.0239
Mercury	105545-08-01 16:47 G	40270792.17	40270792.20	40270792.24	0.0511	0.0502
Mercury	105545-10-31 05:59 G	40270882.65	40270882.75	40270882.85	0.0514	0.0432
Venus	105546-05-24 13:11 G	40271087.87	40271088.05	40271088.22	0.0520	0.0257
Earth	105547-12-20 03:49 G	40271662.50	40271662.66	40271662.83	0.0533	0.0363
Moon	105547-12-20 05:30 G	40271662.55	40271662.73	40271662.90	0.0533	0.0354 *
Mercury	105551-04-04 16:18 G	40272864.07	40272864.18	40272864.30	0.0515	0.0203
Mercury	105551-07-02 20:37 G	40272953.29	40272953.36	40272953.43	0.0512	0.0415
Venus	105552-03-29 23:30 G	40273224.27	40273224.48	40273224.69	0.0504	0.0013
Moon	105553-06-09 04:33 G	40273660.61	40273660.69	40273660.77	0.0495	0.0463
Earth	105553-06-09 08:23 G	40273660.78	40273660.85	40273660.93	0.0495	0.0468
Mercury	105557-08-19 02:52 G	40275192.45	40275192.62	40275192.79	0.0513	0.0208
Venus	105558-01-27 11:30 G	40275353.92	40275353.98	40275354.05	0.0518	0.0488

Venus	105558-09-21 10:47 G	40275590.82	40275590.95	40275591.09	0.0525	0.0376
Mercury	105563-01-21 20:52 G	40277174.28	40277174.37	40277174.46	0.0516	0.0361
Mercury	105563-04-21 01:11 G	40277263.44	40277263.55	40277263.66	0.0513	0.0263
Venus	105563-12-03 19:25 G	40277490.12	40277490.31	40277490.50	0.0506	0.0215
Earth	105565-06-13 21:21 G	40278048.16	40278048.39	40278048.62	0.0494	0.0112
Moon	105565-06-14 01:25 G	40278048.33	40278048.56	40278048.79	0.0494	0.0139 *
Mercury	105569-06-06 23:30 G	40279502.29	40279502.48	40279502.66	0.0512	0.0022
Venus	105570-05-27 06:57 G	40279856.60	40279856.79	40279856.99	0.0523	0.0130
Mercury	105575-02-07 05:45 G	40281573.61	40281573.74	40281573.86	0.0514	0.0106
Venus	105575-08-08 14:37 G	40281756.02	40281756.11	40281756.21	0.0508	0.0448
Venus	105576-04-01 16:18 G	40281993.05	40281993.18	40281993.33	0.0502	0.0368
Moon	105577-06-18 06:13 G	40282435.55	40282435.76	40282435.98	0.0494	0.0210
Earth	105577-06-18 10:18 G	40282435.73	40282435.93	40282436.14	0.0494	0.0244 *
Mercury	105581-03-25 19:40 G	40283812.16	40283812.32	40283812.48	0.0511	0.0252
Venus	105582-01-30 03:35 G	40284122.46	40284122.65	40284122.85	0.0521	0.0114
Mars	105585-01-21 19:11 G	40285210.11	40285210.30	40285210.49	0.0532	0.0345
Mercury	105586-11-26 10:33 G	40285883.81	40285883.94	40285884.07	0.0514	0.0043
Venus	105587-12-06 13:40 G	40286258.87	40286259.07	40286259.27	0.0503	0.0146
Mercury	105593-01-11 14:52 G	40288122.09	40288122.12	40288122.16	0.0511	0.0499
Mercury	105593-04-12 04:04 G	40288212.58	40288212.67	40288212.77	0.0514	0.0434
Venus	105593-10-04 23:01 G	40288388.32	40288388.46	40288388.60	0.0519	0.0358
Venus	105594-05-29 23:01 G	40288625.42	40288625.46	40288625.51	0.0526	0.0512
Mercury	105598-09-14 15:35 G	40290194.03	40290194.15	40290194.27	0.0515	0.0188
Mercury	105598-12-12 19:54 G	40290283.26	40290283.33	40290283.40	0.0512	0.0429
Venus	105599-08-11 11:30 G	40290524.78	40290524.98	40290525.19	0.0505	0.0077
Mars	105603-01-02 14:52 G	40291765.03	40291765.12	40291765.24	0.0494	0.0464
Mercury	105605-01-29 00:57 G	40292522.37	40292522.54	40292522.71	0.0513	0.0208
Venus	105606-02-01 20:37 G	40292891.19	40292891.36	40292891.53	0.0525	0.0272
Mercury	105610-07-03 20:09 G	40294504.24	40294504.34	40294504.43	0.0515	0.0345
Mercury	105610-10-01 00:28 G	40294593.42	40294593.52	40294593.63	0.0513	0.0278

Venus	105611-04-16 07:11 G	40294790.64	40294790.80	40294790.97	0.0507	0.0306
Mercury	105616-11-16 22:04 G	40296832.23	40296832.42	40296832.60	0.0513	0.0014
Venus	105617-10-07 18:28 G	40297157.07	40297157.27	40297157.47	0.0522	0.0032
Moon	105618-12-14 08:09 G	40297589.62	40297589.84	40297590.06	0.0532	0.0123
Earth	105618-12-14 12:13 G	40297589.78	40297590.01	40297590.23	0.0532	0.0121 *
Mercury	105622-04-22 00:28 G	40298814.50	40298814.52	40298814.55	0.0516	0.0504
Mercury	105622-07-20 05:16 G	40298903.59	40298903.72	40298903.84	0.0513	0.0126
Venus	105623-08-14 04:18 G	40299293.51	40299293.68	40299293.85	0.0502	0.0281
Mercury	105628-09-04 18:57 G	40301142.12	40301142.29	40301142.45	0.0512	0.0236
Venus	105629-06-12 15:35 G	40301422.97	40301423.15	40301423.34	0.0520	0.0210
Earth	105630-12-19 10:18 G	40301977.74	40301977.93	40301978.11	0.0533	0.0312
Moon	105630-12-19 14:09 G	40301977.92	40301978.09	40301978.27	0.0533	0.0346 *
Mercury	105634-05-08 09:35 G	40303213.77	40303213.90	40303214.03	0.0514	0.0034
Venus	105635-04-19 00:42 G	40303559.33	40303559.53	40303559.74	0.0504	0.0055
Moon	105636-06-08 16:33 G	40303976.14	40303976.19	40303976.24	0.0495	0.0483
Earth	105636-06-08 19:11 G	40303976.30	40303976.30	40303976.30	0.0495	0.0495
Mercury	105640-06-23 15:21 G	40305452.07	40305452.14	40305452.22	0.0511	0.0463
Mercury	105640-09-22 04:18 G	40305542.61	40305542.68	40305542.76	0.0514	0.0470
Venus	105641-02-15 12:57 G	40305688.94	40305689.04	40305689.14	0.0518	0.0446
Venus	105641-10-10 11:59 G	40305925.88	40305926.00	40305926.12	0.0525	0.0419
Mercury	105646-02-24 14:23 G	40307523.98	40307524.10	40307524.22	0.0515	0.0183
Mercury	105646-05-24 18:42 G	40307613.22	40307613.28	40307613.35	0.0512	0.0435
Venus	105646-12-22 21:49 G	40307825.22	40307825.41	40307825.61	0.0506	0.0172
Earth	105648-06-13 07:54 G	40308363.60	40308363.83	40308364.05	0.0494	0.0138
Moon	105648-06-13 09:49 G	40308363.69	40308363.91	40308364.13	0.0494	0.0107 *
Mercury	105652-07-10 23:16 G	40309852.30	40309852.47	40309852.64	0.0513	0.0214
Venus	105653-06-15 06:28 G	40310191.58	40310191.77	40310191.96	0.0524	0.0168
Mercury	105657-12-13 19:25 G	40311834.21	40311834.31	40311834.41	0.0516	0.0329
Mercury	105658-03-12 23:59 G	40311923.39	40311923.50	40311923.60	0.0513	0.0294
Venus	105658-08-27 19:25 G	40312091.19	40312091.31	40312091.44	0.0508	0.0396

Venus	105659-04-21 20:23 G	40312328.24	40312328.35	40312328.46	0.0501	0.0417
Moon	105660-06-17 19:40 G	40312751.11	40312751.32	40312751.54	0.0493	0.0230
Earth	105660-06-17 21:21 G	40312751.19	40312751.39	40312751.61	0.0493	0.0219 *
Mercury	105664-04-28 20:09 G	40314162.16	40314162.34	40314162.52	0.0513	0.0009
Venus	105665-02-18 04:33 G	40314457.49	40314457.69	40314457.89	0.0522	0.0072
Mercury	105669-10-01 23:59 G	40316144.46	40316144.50	40316144.54	0.0516	0.0486
Mercury	105669-12-30 04:33 G	40316233.57	40316233.69	40316233.81	0.0513	0.0142
Venus	105670-12-25 16:47 G	40316594.01	40316594.20	40316594.39	0.0503	0.0194
Mercury	105676-02-15 17:30 G	40318472.06	40318472.23	40318472.39	0.0512	0.0226
Venus	105676-10-24 03:06 G	40318723.47	40318723.63	40318723.79	0.0520	0.0307
Mercury	105681-10-18 09:06 G	40320543.75	40320543.88	40320544.01	0.0514	0.0014
Venus	105682-08-30 13:25 G	40320859.85	40320860.06	40320860.26	0.0505	0.0034
Mercury	105687-12-04 14:23 G	40322782.02	40322782.10	40322782.19	0.0511	0.0445
Mercury	105688-03-04 03:35 G	40322872.60	40322872.65	40322872.71	0.0514	0.0488
Venus	105689-02-20 23:45 G	40323226.34	40323226.49	40323226.65	0.0524	0.0321
Mercury	105693-08-06 13:25 G	40324853.94	40324854.06	40324854.18	0.0515	0.0172
Mercury	105693-11-03 17:45 G	40324943.18	40324943.24	40324943.30	0.0512	0.0445
Venus	105694-05-05 08:52 G	40325125.70	40325125.87	40325126.05	0.0507	0.0264
Mercury	105699-12-21 23:45 G	40327182.33	40327182.49	40327182.65	0.0513	0.0253
Venus	105700-10-27 20:09 G	40327492.15	40327492.34	40327492.54	0.0522	0.0078
Moon	105701-12-14 15:06 G	40327904.92	40327905.13	40327905.35	0.0532	0.0158
Earth	105701-12-14 18:42 G	40327905.07	40327905.28	40327905.50	0.0532	0.0168 *
Mars	105703-07-15 20:52 G	40328483.29	40328483.37	40328483.46	0.0533	0.0501
Mercury	105705-05-26 18:13 G	40329164.16	40329164.26	40329164.36	0.0516	0.0322
Mercury	105705-08-23 22:47 G	40329253.35	40329253.45	40329253.55	0.0513	0.0301
Venus	105706-01-09 05:45 G	40329391.69	40329391.74	40329391.80	0.0509	0.0491
Venus	105706-09-03 07:25 G	40329628.66	40329628.81	40329628.97	0.0502	0.0327
Mercury	105711-10-10 18:42 G	40331492.09	40331492.28	40331492.46	0.0512	0.0007
Venus	105712-07-02 14:52 G	40331757.93	40331758.12	40331758.31	0.0521	0.0173
Earth	105713-12-19 16:33 G	40332293.00	40332293.19	40332293.40	0.0533	0.0266

Moon	105713-12-19 20:23 G	40332293.14	40332293.35	40332293.56	0.0533	0.0245 *
Mercury	105717-03-14 23:16 G	40333474.42	40333474.47	40333474.52	0.0516	0.0469
Mercury	105717-06-12 03:49 G	40333563.54	40333563.66	40333563.78	0.0514	0.0159
Venus	105718-05-09 05:45 G	40333894.54	40333894.74	40333894.94	0.0504	0.0108
Mars	105721-06-23 00:42 G	40335035.41	40335035.53	40335035.69	0.0493	0.0436
Mercury	105723-07-29 15:35 G	40335801.98	40335802.15	40335802.32	0.0512	0.0222
Venus	105724-03-07 13:11 G	40336023.94	40336024.05	40336024.18	0.0519	0.0407
Venus	105724-10-30 13:11 G	40336260.96	40336261.05	40336261.15	0.0526	0.0465
Mercury	105729-03-31 08:37 G	40337873.73	40337873.86	40337873.98	0.0514	0.0016
Venus	105730-01-12 01:40 G	40338160.37	40338160.57	40338160.78	0.0505	0.0121
Earth	105731-06-14 19:54 G	40338679.11	40338679.33	40338679.56	0.0494	0.0162
Moon	105731-06-14 23:59 G	40338679.28	40338679.50	40338679.72	0.0494	0.0176 *
Mercury	105735-05-17 12:57 G	40340111.95	40340112.04	40340112.14	0.0511	0.0436
Mercury	105735-08-16 02:09 G	40340202.55	40340202.59	40340202.63	0.0514	0.0499
Venus	105736-07-05 11:01 G	40340526.78	40340526.96	40340527.14	0.0524	0.0224
Mercury	105741-01-17 13:11 G	40342183.92	40342184.05	40342184.17	0.0515	0.0150
Mercury	105741-04-16 17:16 G	40342273.17	40342273.22	40342273.27	0.0512	0.0466
Venus	105741-09-16 21:35 G	40342426.26	40342426.40	40342426.55	0.0507	0.0350
Venus	105742-05-11 22:04 G	40342663.35	40342663.42	40342663.50	0.0501	0.0462
Moon	105743-06-19 04:47 G	40343066.48	40343066.70	40343066.92	0.0494	0.0160
Earth	105743-06-19 08:37 G	40343066.64	40343066.86	40343067.08	0.0494	0.0190 *
Mercury	105747-06-03 22:47 G	40344512.30	40344512.45	40344512.61	0.0513	0.0272
Venus	105748-03-10 08:23 G	40344792.65	40344792.85	40344793.05	0.0522	0.0022
Mercury	105752-11-05 17:16 G	40346494.12	40346494.22	40346494.33	0.0516	0.0311
Mercury	105753-02-02 21:49 G	40346583.31	40346583.41	40346583.51	0.0513	0.0311
Venus	105754-01-14 18:42 G	40346929.10	40346929.28	40346929.47	0.0503	0.0239
Mercury	105759-03-22 19:11 G	40348822.12	40348822.30	40348822.49	0.0512	0.0039
Venus	105759-11-14 05:01 G	40349058.54	40349058.71	40349058.89	0.0520	0.0262
Mercury	105764-08-24 22:04 G	40350804.37	40350804.42	40350804.48	0.0516	0.0462
Mercury	105764-11-22 02:52 G	40350893.50	40350893.62	40350893.74	0.0514	0.0166

Venus	105765-09-19 16:33 G	40351194.99	40351195.19	40351195.40	0.0505	0.0018
Mercury	105771-01-08 14:09 G	40353131.92	40353132.09	40353132.26	0.0512	0.0213
Venus	105771-07-19 23:59 G	40353324.46	40353324.50	40353324.55	0.0518	0.0504
Venus	105772-03-12 23:01 G	40353561.32	40353561.46	40353561.61	0.0525	0.0361
Mercury	105776-09-10 07:54 G	40355203.70	40355203.83	40355203.96	0.0514	0.0023
Venus	105777-05-25 14:09 G	40355460.90	40355461.09	40355461.28	0.0506	0.0209
Mercury	105782-10-27 11:16 G	40357441.87	40357441.97	40357442.06	0.0511	0.0432
Mercury	105783-01-26 00:13 G	40357532.47	40357532.51	40357532.55	0.0514	0.0500
Venus	105783-11-16 20:37 G	40357827.17	40357827.36	40357827.55	0.0523	0.0119
Moon	105784-12-14 02:09 G	40358220.40	40358220.59	40358220.79	0.0533	0.0245
Earth	105784-12-14 02:23 G	40358220.40	40358220.60	40358220.82	0.0533	0.0212 *
Mercury	105788-06-29 12:28 G	40359513.90	40359514.02	40359514.14	0.0515	0.0132
Mercury	105788-09-26 16:32 G	40359603.16	40359603.19	40359603.24	0.0512	0.0483
Venus	105789-01-28 09:49 G	40359726.81	40359726.91	40359727.01	0.0508	0.0440
Venus	105789-09-22 10:47 G	40359963.82	40359963.95	40359964.09	0.0501	0.0377
Mercury	105794-11-13 21:20 G	40361842.23	40361842.39	40361842.54	0.0513	0.0279
Venus	105795-07-22 19:11 G	40362093.10	40362093.30	40362093.49	0.0521	0.0119
Earth	105796-12-19 04:47 G	40362608.50	40362608.70	40362608.91	0.0533	0.0234
Moon	105796-12-19 05:01 G	40362608.50	40362608.71	40362608.94	0.0533	0.0207 *
Mercury	105800-04-18 17:01 G	40363824.10	40363824.21	40363824.31	0.0515	0.0289
Mercury	105800-07-16 21:20 G	40363913.30	40363913.39	40363913.49	0.0513	0.0332
Venus	105801-05-29 07:25 G	40364229.61	40364229.81	40364230.01	0.0503	0.0153
Mercury	105806-09-02 18:13 G	40366152.07	40366152.26	40366152.44	0.0512	0.0055
Venus	105807-03-28 17:01 G	40366359.07	40366359.21	40366359.36	0.0519	0.0357
Venus	105807-11-20 16:47 G	40366596.16	40366596.20	40366596.24	0.0526	0.0515
Mercury	105812-02-05 21:06 G	40368134.32	40368134.38	40368134.44	0.0516	0.0452
Mercury	105812-05-05 01:54 G	40368223.46	40368223.58	40368223.69	0.0513	0.0176
Venus	105813-02-01 03:20 G	40368495.43	40368495.64	40368495.84	0.0505	0.0077
Earth	105814-06-15 06:56 G	40368994.57	40368994.79	40368995.01	0.0495	0.0189
Moon	105814-06-15 10:47 G	40368994.73	40368994.95	40368995.17	0.0495	0.0192 *

Mercury	105818-06-21 14:23 G	40370461.93	40370462.10	40370462.28	0.0512	0.0177
Venus	105819-07-26 12:42 G	40370861.86	40370862.03	40370862.20	0.0524	0.0269
Mercury	105824-02-22 06:42 G	40372533.65	40372533.78	40372533.91	0.0514	0.0028
Venus	105824-10-07 00:28 G	40372761.35	40372761.52	40372761.68	0.0507	0.0305
Moon	105826-06-19 16:47 G	40373381.99	40373382.20	40373382.42	0.0493	0.0190
Earth	105826-06-19 20:37 G	40373382.14	40373382.36	40373382.59	0.0493	0.0167 *
Mercury	105830-04-09 09:35 G	40374771.80	40374771.90	40374772.00	0.0511	0.0424
Mercury	105830-07-08 22:32 G	40374862.42	40374862.44	40374862.47	0.0514	0.0507
Venus	105831-03-31 06:42 G	40375127.58	40375127.78	40375127.98	0.0522	0.0017
Mercury	105835-12-11 11:30 G	40376843.86	40376843.98	40376844.11	0.0515	0.0120
Mercury	105836-03-09 15:49 G	40376933.13	40376933.16	40376933.19	0.0512	0.0496
Venus	105837-02-03 23:16 G	40377264.30	40377264.47	40377264.64	0.0502	0.0291
Mercury	105842-04-26 19:11 G	40379172.15	40379172.30	40379172.46	0.0513	0.0278
Venus	105842-12-04 04:18 G	40379393.50	40379393.68	40379393.86	0.0520	0.0223
Mercury	105847-09-29 16:04 G	40381154.06	40381154.17	40381154.28	0.0516	0.0275
Mercury	105847-12-27 20:37 G	40381243.26	40381243.36	40381243.45	0.0513	0.0346
Venus	105848-10-09 19:25 G	40381530.11	40381530.31	40381530.52	0.0504	0.0064
Mercury	105854-02-12 16:18 G	40383481.99	40383482.18	40383482.36	0.0513	0.0057
Venus	105854-08-09 03:20 G	40383659.55	40383659.64	40383659.74	0.0518	0.0455
Venus	105855-04-03 02:52 G	40383896.50	40383896.62	40383896.74	0.0525	0.0415
Mars	105857-10-10 18:28 G	40384818.02	40384818.27	40384818.52	0.0533	0.0013
Mercury	105859-07-18 20:37 G	40385464.29	40385464.36	40385464.42	0.0516	0.0433
Mercury	105859-10-16 01:11 G	40385553.43	40385553.55	40385553.67	0.0513	0.0193
Venus	105860-06-14 15:20 G	40385795.94	40385796.14	40385796.33	0.0506	0.0165
Mercury	105865-12-01 13:11 G	40387791.88	40387792.05	40387792.22	0.0512	0.0166
Venus	105866-12-06 23:44 G	40388162.30	40388162.49	40388162.68	0.0523	0.0169
Moon	105867-12-15 08:08 G	40388535.64	40388535.84	40388536.04	0.0532	0.0224
Earth	105867-12-15 10:32 G	40388535.75	40388535.94	40388536.15	0.0532	0.0255 *
Mercury	105871-08-04 05:30 G	40389863.60	40389863.73	40389863.86	0.0514	0.0034
Venus	105872-02-18 10:04 G	40390061.80	40390061.92	40390062.06	0.0508	0.0401

Venus	105872-10-12 11:30 G	40390298.87	40390298.98	40390299.09	0.0502	0.0418
Mars	105875-09-18 22:18 G	40391370.13	40391370.43	40391370.73	0.0494	0.0096
Mercury	105877-09-19 09:35 G	40392101.79	40392101.90	40392102.02	0.0511	0.0393
Venus	105878-08-11 20:08 G	40392428.14	40392428.34	40392428.54	0.0521	0.0075
Earth	105879-12-20 09:20 G	40392923.68	40392923.89	40392924.11	0.0533	0.0177
Moon	105879-12-20 12:42 G	40392923.81	40392924.03	40392924.25	0.0533	0.0184 *
Mercury	105883-05-23 10:18 G	40394173.80	40394173.93	40394174.05	0.0515	0.0117
Mercury	105883-08-20 14:37 G	40394263.08	40394263.11	40394263.13	0.0512	0.0498
Venus	105884-06-17 09:20 G	40394564.70	40394564.89	40394565.08	0.0503	0.0198
Mercury	105889-10-06 17:30 G	40396502.07	40396502.23	40396502.38	0.0513	0.0282
Venus	105890-04-16 14:23 G	40396693.95	40396694.10	40396694.26	0.0519	0.0324
Mercury	105895-03-11 15:06 G	40398484.02	40398484.13	40398484.24	0.0516	0.0268
Mercury	105895-06-08 19:25 G	40398573.22	40398573.31	40398573.41	0.0513	0.0355
Venus	105896-02-21 06:56 G	40398830.58	40398830.79	40398830.99	0.0505	0.0027
Earth	105897-06-14 19:11 G	40399310.09	40399310.30	40399310.51	0.0494	0.0213
Moon	105897-06-14 22:47 G	40399310.24	40399310.45	40399310.66	0.0494	0.0219 *
Mercury	105901-07-26 13:54 G	40400811.90	40400812.08	40400812.27	0.0512	0.0054
Venus	105902-08-15 11:01 G	40401196.80	40401196.96	40401197.12	0.0524	0.0307
Mercury	105906-12-29 19:25 G	40402794.24	40402794.31	40402794.39	0.0516	0.0425
Mercury	105907-03-29 00:13 G	40402883.39	40402883.51	40402883.63	0.0514	0.0202
Venus	105907-10-28 02:08 G	40403096.42	40403096.59	40403096.77	0.0507	0.0259
Moon	105909-06-20 02:08 G	40403697.36	40403697.59	40403697.83	0.0493	0.0100
Earth	105909-06-20 05:30 G	40403697.51	40403697.73	40403697.96	0.0493	0.0132 *
Mercury	105913-05-14 11:01 G	40405121.78	40405121.96	40405122.13	0.0512	0.0168
Venus	105914-04-20 09:06 G	40405462.68	40405462.88	40405463.08	0.0522	0.0066
Mercury	105919-01-15 04:47 G	40407193.57	40407193.70	40407193.83	0.0514	0.0048
Venus	105919-07-02 21:20 G	40407362.34	40407362.39	40407362.45	0.0509	0.0491
Venus	105920-02-24 23:16 G	40407599.31	40407599.47	40407599.62	0.0502	0.0331
Earth	105921-06-24 16:47 G	40408085.15	40408085.20	40408085.26	0.0493	0.0477
Moon	105921-06-24 19:54 G	40408085.26	40408085.33	40408085.42	0.0493	0.0459 *

Mercury	105925-03-02 07:54 G	40409431.71	40409431.83	40409431.95	0.0511	0.0388
Venus	105925-12-24 06:28 G	40409728.58	40409728.77	40409728.96	0.0520	0.0177
Mercury	105930-11-03 08:52 G	40411503.75	40411503.87	40411504.00	0.0515	0.0115
Mercury	105931-01-31 13:11 G	40411593.03	40411593.05	40411593.08	0.0512	0.0501
Venus	105931-10-30 18:42 G	40411865.08	40411865.28	40411865.49	0.0504	0.0103
Mercury	105937-03-19 17:01 G	40413832.07	40413832.21	40413832.36	0.0513	0.0308
Venus	105937-08-29 03:35 G	40413994.53	40413994.65	40413994.77	0.0518	0.0416
Venus	105938-04-23 02:37 G	40414231.52	40414231.61	40414231.71	0.0525	0.0455
Mercury	105942-08-22 13:25 G	40415813.96	40415814.06	40415814.18	0.0516	0.0269
Mercury	105942-11-19 17:59 G	40415903.16	40415903.25	40415903.34	0.0513	0.0354
Venus	105943-07-05 15:35 G	40416130.95	40416131.15	40416131.36	0.0506	0.0125
Mercury	105949-01-05 11:59 G	40418141.82	40418142.00	40418142.18	0.0512	0.0054
Venus	105949-12-26 19:54 G	40418497.15	40418497.33	40418497.51	0.0523	0.0200
Moon	105950-12-15 05:01 G	40418850.55	40418850.71	40418850.88	0.0532	0.0365
Earth	105950-12-15 08:52 G	40418850.69	40418850.87	40418851.05	0.0532	0.0334 *
Mercury	105954-06-10 18:13 G	40420124.18	40420124.26	40420124.33	0.0517	0.0423
Mercury	105954-09-07 22:47 G	40420213.34	40420213.45	40420213.57	0.0514	0.0206
Venus	105955-03-10 12:13 G	40420396.87	40420397.01	40420397.16	0.0508	0.0355
Venus	105955-11-02 13:25 G	40420633.99	40420634.06	40420634.14	0.0501	0.0464
Mercury	105960-10-24 08:23 G	40422451.68	40422451.85	40422452.02	0.0511	0.0174
Venus	105961-08-31 17:01 G	40422763.01	40422763.21	40422763.41	0.0521	0.0043
Earth	105962-12-20 09:35 G	40423238.68	40423238.90	40423239.13	0.0533	0.0103
Moon	105962-12-20 13:11 G	40423238.83	40423239.05	40423239.27	0.0533	0.0117 *
Mercury	105966-06-27 03:20 G	40424523.52	40424523.64	40424523.77	0.0514	0.0052
Venus	105967-07-08 09:20 G	40424899.71	40424899.89	40424900.07	0.0503	0.0239
Mercury	105972-08-12 05:16 G	40426761.61	40426761.72	40426761.84	0.0511	0.0395
Venus	105973-05-06 15:06 G	40427028.97	40427029.13	40427029.30	0.0519	0.0282
Mercury	105978-04-15 07:54 G	40428833.71	40428833.83	40428833.96	0.0515	0.0105
Mercury	105978-07-13 12:13 G	40428923.00	40428923.01	40428923.02	0.0512	0.0509
Venus	105979-03-13 05:30 G	40429165.52	40429165.73	40429165.94	0.0505	0.0010

Earth	105980-06-14 23:44 G	40429625.29	40429625.49	40429625.69	0.0494	0.0264
Moon	105980-06-15 00:42 G	40429625.34	40429625.53	40429625.73	0.0494	0.0240 *
Mercury	105984-08-29 14:52 G	40431161.98	40431162.12	40431162.27	0.0513	0.0306
Venus	105985-01-09 13:11 G	40431295.04	40431295.05	40431295.06	0.0517	0.0516
Venus	105985-09-03 11:59 G	40431531.86	40431532.00	40431532.15	0.0524	0.0351
Mercury	105990-02-01 11:59 G	40433143.89	40433144.00	40433144.11	0.0516	0.0269
Mercury	105990-05-01 16:32 G	40433233.10	40433233.19	40433233.28	0.0513	0.0352
Venus	105990-11-16 00:13 G	40433431.32	40433431.51	40433431.69	0.0507	0.0225
Moon	105992-06-19 10:47 G	40434012.71	40434012.95	40434013.19	0.0494	0.0110
Earth	105992-06-19 11:01 G	40434012.73	40434012.96	40434013.20	0.0494	0.0085 *
Mercury	105996-06-17 11:01 G	40435471.78	40435471.96	40435472.15	0.0512	0.0073
Venus	105997-05-09 07:54 G	40435797.64	40435797.83	40435798.03	0.0522	0.0104

107TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 107th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	106001-11-20 16:32 G	40437454.12	40437454.19	40437454.26	0.0517	0.0427		
Mercury	106002-02-17 21:06 G	40437543.27	40437543.38	40437543.50	0.0514	0.0202		
Venus	106002-07-21 19:54 G	40437697.25	40437697.33	40437697.43	0.0509	0.0456		
Venus	106003-03-15 22:18 G	40437934.29	40437934.43	40437934.57	0.0502	0.0369		
Moon	106004-06-23 23:44 G	40438400.39	40438400.49	40438400.60	0.0493	0.0433		
Earth	106004-06-24 00:13 G	40438400.41	40438400.51	40438400.62	0.0493	0.0437 *		

Mercury	106008-04-05 06:13 G	40439781.59	40439781.76	40439781.93	0.0511	0.0177
Venus	106009-01-12 01:54 G	40440063.38	40440063.58	40440063.77	0.0520	0.0149
Mars	106012-01-05 10:47 G	40441151.77	40441151.95	40441152.15	0.0534	0.0348
Mercury	106013-12-07 01:54 G	40441853.45	40441853.58	40441853.71	0.0515	0.0049
Venus	106014-11-18 19:11 G	40442200.10	40442200.30	40442200.50	0.0504	0.0145
Mercury	106020-01-23 02:37 G	40444091.50	40444091.61	40444091.72	0.0510	0.0404
Venus	106020-09-16 23:01 G	40444329.34	40444329.46	40444329.60	0.0518	0.0388
Venus	106021-05-11 22:18 G	40444566.36	40444566.43	40444566.51	0.0525	0.0485
Mercury	106025-09-25 06:28 G	40446163.64	40446163.77	40446163.89	0.0515	0.0109
Mercury	106025-12-23 10:47 G	40446252.93	40446252.95	40446252.96	0.0512	0.0507
Venus	106026-07-24 14:23 G	40446465.90	40446466.10	40446466.30	0.0506	0.0089
Mars	106029-12-13 15:35 G	40447704.10	40447704.15	40447704.19	0.0493	0.0487
Mercury	106032-02-09 11:59 G	40448491.85	40448492.00	40448492.15	0.0513	0.0292
Venus	106033-01-14 19:40 G	40448832.14	40448832.32	40448832.49	0.0524	0.0242
Moon	106033-12-14 11:16 G	40449165.81	40449165.97	40449166.13	0.0532	0.0385
Earth	106033-12-14 13:11 G	40449165.91	40449166.05	40449166.21	0.0532	0.0392 *
Mercury	106037-07-14 10:47 G	40450473.84	40450473.95	40450474.06	0.0516	0.0265
Mercury	106037-10-11 15:20 G	40450563.05	40450563.14	40450563.23	0.0513	0.0356
Venus	106038-03-29 09:49 G	40450731.75	40450731.91	40450732.07	0.0508	0.0321
Venus	106038-11-21 10:32 G	40450968.92	40450968.94	40450968.97	0.0501	0.0496
Mercury	106043-11-28 08:37 G	40452801.67	40452801.86	40452802.04	0.0512	0.0065
Venus	106044-09-19 16:47 G	40453098.00	40453098.20	40453098.40	0.0521	0.0004
Earth	106045-12-19 12:42 G	40453553.81	40453554.03	40453554.26	0.0533	0.0043
Moon	106045-12-19 13:54 G	40453553.86	40453554.08	40453554.30	0.0533	0.0016 *
Mercury	106049-05-02 14:52 G	40454784.05	40454784.12	40454784.19	0.0517	0.0432
Mercury	106049-07-30 19:25 G	40454873.20	40454873.31	40454873.43	0.0514	0.0197
Venus	106050-07-27 05:59 G	40455234.58	40455234.75	40455234.93	0.0503	0.0270
Mercury	106055-09-16 04:47 G	40457111.53	40457111.70	40457111.88	0.0511	0.0167
Venus	106056-05-25 13:11 G	40457363.88	40457364.05	40457364.23	0.0519	0.0247
Moon	106057-12-24 10:47 G	40457941.82	40457941.95	40457942.08	0.0533	0.0445

Earth	106057-12-24 10:47 G	40457941.85	40457941.95	40457942.06	0.0533	0.0469	*
Mercury	106061-05-18 23:59 G	40459183.38	40459183.50	40459183.63	0.0515	0.0046	
Venus	106062-04-01 02:52 G	40459500.41	40459500.62	40459500.82	0.0505	0.0044	
Moon	106063-06-15 01:25 G	40459940.40	40459940.56	40459940.73	0.0495	0.0345	
Earth	106063-06-15 04:32 G	40459940.51	40459940.69	40459940.88	0.0495	0.0311	*
Mercury	106067-07-05 00:13 G	40461421.40	40461421.51	40461421.62	0.0510	0.0409	
Venus	106068-01-29 08:08 G	40461629.78	40461629.84	40461629.90	0.0517	0.0491	
Venus	106068-09-22 06:13 G	40461866.63	40461866.76	40461866.90	0.0524	0.0376	
Mercury	106073-03-07 04:32 G	40463493.57	40463493.69	40463493.81	0.0516	0.0116	
Mercury	106073-06-04 08:52 G	40463582.85	40463582.87	40463582.90	0.0513	0.0502	
Venus	106073-12-04 22:32 G	40463766.26	40463766.44	40463766.64	0.0507	0.0190	
Earth	106075-06-19 17:01 G	40464327.98	40464328.21	40464328.45	0.0494	0.0041	
Moon	106075-06-19 20:23 G	40464328.11	40464328.35	40464328.59	0.0494	0.0034	*
Mercury	106079-07-22 08:52 G	40465821.72	40465821.87	40465822.03	0.0512	0.0278	
Venus	106080-05-28 02:23 G	40466132.41	40466132.60	40466132.80	0.0522	0.0131	
Mercury	106084-12-24 08:52 G	40467803.77	40467803.87	40467803.98	0.0516	0.0274	
Mercury	106085-03-23 13:25 G	40467892.97	40467893.06	40467893.16	0.0513	0.0348	
Venus	106085-08-09 17:16 G	40468032.12	40468032.22	40468032.34	0.0509	0.0426	
Venus	106086-04-03 19:11 G	40468269.18	40468269.30	40468269.42	0.0502	0.0400	
Moon	106087-06-23 22:47 G	40468715.32	40468715.45	40468715.59	0.0493	0.0400	
Earth	106087-06-24 02:08 G	40468715.44	40468715.59	40468715.74	0.0493	0.0377	*
Mercury	106091-05-10 05:16 G	40470131.54	40470131.72	40470131.90	0.0512	0.0046	
Venus	106092-01-31 23:59 G	40470398.30	40470398.50	40470398.70	0.0521	0.0114	
Mercury	106096-10-12 13:25 G	40472113.99	40472114.06	40472114.13	0.0517	0.0432	
Mercury	106097-01-09 17:59 G	40472203.14	40472203.25	40472203.37	0.0514	0.0197	
Venus	106097-12-07 15:20 G	40472534.94	40472535.14	40472535.33	0.0504	0.0174	
Mercury	106103-02-27 01:54 G	40474441.41	40474441.58	40474441.75	0.0511	0.0180	
Venus	106103-10-07 21:35 G	40474664.26	40474664.40	40474664.55	0.0518	0.0354	
Venus	106104-05-31 21:06 G	40474901.37	40474901.38	40474901.40	0.0525	0.0523	
Mercury	106108-10-29 22:18 G	40476513.30	40476513.43	40476513.56	0.0515	0.0034	

Venus	106109-08-13 10:04 G	40476800.71	40476800.92	40476801.13	0.0506	0.0061
Mercury	106114-12-15 22:18 G	40478751.33	40478751.43	40478751.54	0.0510	0.0407
Venus	106116-02-04 16:47 G	40479167.03	40479167.20	40479167.37	0.0523	0.0275
Earth	106116-12-14 11:30 G	40479480.88	40479480.98	40479481.08	0.0531	0.0470
Moon	106116-12-14 13:40 G	40479480.95	40479481.07	40479481.21	0.0531	0.0444 *
Mercury	106120-08-18 02:37 G	40480823.49	40480823.61	40480823.74	0.0516	0.0125
Mercury	106120-11-15 06:56 G	40480912.76	40480912.79	40480912.83	0.0513	0.0493
Venus	106121-04-18 05:30 G	40481066.57	40481066.73	40481066.90	0.0508	0.0294
Mercury	106127-01-02 06:28 G	40483151.61	40483151.77	40483151.92	0.0512	0.0269
Venus	106127-10-10 10:47 G	40483432.75	40483432.95	40483433.15	0.0521	0.0022
Moon	106128-12-19 02:52 G	40483868.39	40483868.62	40483868.84	0.0532	0.0029
Earth	106128-12-19 05:16 G	40483868.49	40483868.72	40483868.95	0.0532	0.0062 *
Mercury	106132-06-06 06:56 G	40485133.69	40485133.79	40485133.90	0.0517	0.0286
Mercury	106132-09-03 11:44 G	40485222.89	40485222.99	40485223.08	0.0514	0.0339
Venus	106133-08-16 03:20 G	40485569.48	40485569.64	40485569.81	0.0503	0.0304
Mercury	106138-10-21 02:23 G	40487461.42	40487461.60	40487461.78	0.0511	0.0033
Venus	106139-06-15 07:25 G	40487698.63	40487698.81	40487698.99	0.0519	0.0223
Earth	106140-12-24 04:18 G	40488256.52	40488256.68	40488256.85	0.0533	0.0369
Moon	106140-12-24 07:40 G	40488256.65	40488256.82	40488256.98	0.0533	0.0371 *
Mercury	106144-03-25 11:16 G	40489443.91	40489443.97	40489444.04	0.0517	0.0446
Mercury	106144-06-22 16:04 G	40489533.06	40489533.17	40489533.29	0.0514	0.0185
Venus	106145-04-20 22:47 G	40489835.25	40489835.45	40489835.66	0.0505	0.0072
Moon	106146-06-15 01:11 G	40490255.39	40490255.55	40490255.72	0.0495	0.0361
Earth	106146-06-15 04:47 G	40490255.55	40490255.70	40490255.86	0.0495	0.0373 *
Mercury	106150-08-08 22:32 G	40491771.27	40491771.44	40491771.61	0.0511	0.0201
Venus	106151-02-18 05:01 G	40491964.62	40491964.71	40491964.79	0.0517	0.0463
Venus	106151-10-13 03:35 G	40492201.54	40492201.65	40492201.78	0.0525	0.0411
Mercury	106156-04-10 20:37 G	40493843.24	40493843.36	40493843.49	0.0515	0.0036
Venus	106156-12-24 18:28 G	40494101.08	40494101.27	40494101.47	0.0507	0.0162
Earth	106158-06-19 16:04 G	40494642.93	40494643.17	40494643.41	0.0494	0.0027

Moon	106158-06-19 19:25 G	40494643.08	40494643.31	40494643.54	0.0494	0.0047 *
Mercury	106162-05-27 19:11 G	40496081.21	40496081.30	40496081.41	0.0510	0.0424
Mercury	106162-08-26 08:08 G	40496171.81	40496171.84	40496171.87	0.0513	0.0503
Venus	106163-06-18 00:28 G	40496467.33	40496467.52	40496467.71	0.0523	0.0164
Mercury	106168-01-29 00:56 G	40498153.41	40498153.54	40498153.66	0.0515	0.0133
Mercury	106168-04-27 05:16 G	40498242.68	40498242.72	40498242.76	0.0513	0.0483
Venus	106168-08-29 12:28 G	40498366.90	40498367.02	40498367.15	0.0509	0.0400
Venus	106169-04-23 14:08 G	40498603.99	40498604.09	40498604.20	0.0502	0.0427
Moon	106170-06-23 23:16 G	40499030.27	40499030.47	40499030.67	0.0494	0.0283
Earth	106170-06-24 02:37 G	40499030.43	40499030.61	40499030.79	0.0494	0.0317 *
Mercury	106174-06-14 04:18 G	40500481.52	40500481.68	40500481.84	0.0512	0.0268
Venus	106175-02-20 20:52 G	40500733.18	40500733.37	40500733.57	0.0520	0.0083
Mercury	106179-11-17 05:01 G	40502463.61	40502463.71	40502463.82	0.0516	0.0294
Mercury	106180-02-14 09:49 G	40502552.81	40502552.91	40502553.00	0.0514	0.0330
Venus	106180-12-27 10:32 G	40502869.75	40502869.94	40502870.13	0.0504	0.0201
Mercury	106186-04-01 23:44 G	40504791.31	40504791.49	40504791.68	0.0511	0.0025
Venus	106186-10-26 16:04 G	40504999.02	40504999.17	40504999.33	0.0518	0.0330
Mercury	106191-09-05 09:06 G	40506773.83	40506773.88	40506773.94	0.0518	0.0460
Mercury	106191-12-03 14:08 G	40506862.97	40506863.09	40506863.21	0.0515	0.0172
Venus	106192-09-01 06:28 G	40507135.56	40507135.77	40507135.97	0.0506	0.0033
Mercury	106198-01-18 19:54 G	40509101.16	40509101.33	40509101.50	0.0510	0.0210
Venus	106199-02-23 10:32 G	40509501.78	40509501.94	40509502.11	0.0523	0.0298
Mercury	106203-09-22 18:42 G	40511173.15	40511173.28	40511173.41	0.0515	0.0019
Venus	106204-05-08 01:11 G	40511401.38	40511401.55	40511401.73	0.0508	0.0269
Mercury	106209-11-07 15:49 G	40513411.08	40513411.16	40513411.25	0.0510	0.0444
Mercury	106210-02-06 04:32 G	40513501.63	40513501.69	40513501.76	0.0513	0.0479
Venus	106210-10-30 07:25 G	40513767.61	40513767.81	40513768.01	0.0522	0.0051
Moon	106211-12-20 01:54 G	40514183.36	40514183.58	40514183.80	0.0532	0.0145
Earth	106211-12-20 05:44 G	40514183.52	40514183.74	40514183.96	0.0532	0.0132 *
Mercury	106215-07-11 23:16 G	40515483.35	40515483.47	40515483.59	0.0516	0.0137

Mercury	106215-10-09 03:35 G	40515572.61	40515572.65	40515572.69	0.0513	0.0480
Venus	106216-01-11 20:37 G	40515667.34	40515667.36	40515667.40	0.0510	0.0502
Venus	106216-09-04 22:47 G	40515904.30	40515904.45	40515904.61	0.0503	0.0330
Mercury	106221-11-25 00:56 G	40517811.38	40517811.54	40517811.71	0.0513	0.0250
Venus	106222-07-05 04:47 G	40518033.52	40518033.70	40518033.89	0.0520	0.0193
Earth	106223-12-25 05:44 G	40518571.55	40518571.74	40518571.93	0.0533	0.0302
Moon	106223-12-25 09:06 G	40518571.70	40518571.88	40518572.06	0.0533	0.0329 *
Mercury	106227-04-30 03:20 G	40519793.54	40519793.64	40519793.74	0.0516	0.0301
Mercury	106227-07-28 07:54 G	40519882.73	40519882.83	40519882.93	0.0513	0.0322
Venus	106228-05-10 17:59 G	40520170.05	40520170.25	40520170.46	0.0505	0.0098
Earth	106229-06-15 04:32 G	40520570.59	40520570.69	40520570.80	0.0495	0.0437
Moon	106229-06-15 05:16 G	40520570.59	40520570.72	40520570.85	0.0495	0.0419 *
Mercury	106233-09-12 21:35 G	40522121.21	40522121.40	40522121.58	0.0512	0.0023
Venus	106234-03-10 02:08 G	40522299.49	40522299.59	40522299.70	0.0517	0.0432
Venus	106234-11-02 00:42 G	40522536.43	40522536.53	40522536.64	0.0524	0.0443
Mercury	106239-02-16 07:25 G	40524103.76	40524103.81	40524103.87	0.0517	0.0464
Mercury	106239-05-16 12:28 G	40524192.90	40524193.02	40524193.14	0.0514	0.0166
Venus	106240-01-14 13:25 G	40524435.87	40524436.06	40524436.26	0.0507	0.0136
Moon	106241-06-19 16:18 G	40524957.95	40524958.18	40524958.41	0.0495	0.0056
Earth	106241-06-19 17:16 G	40524957.99	40524958.22	40524958.46	0.0495	0.0087 *
Mercury	106245-07-01 17:30 G	40526431.06	40526431.23	40526431.39	0.0510	0.0216
Venus	106246-07-07 19:11 G	40526802.12	40526802.30	40526802.49	0.0522	0.0189
Mercury	106251-03-04 16:47 G	40528503.07	40528503.20	40528503.32	0.0515	0.0018
Venus	106251-09-19 08:08 G	40528701.71	40528701.84	40528701.99	0.0509	0.0375
Venus	106252-05-13 10:32 G	40528938.86	40528938.94	40528939.02	0.0502	0.0457
Earth	106253-06-24 05:16 G	40529345.53	40529345.72	40529345.93	0.0494	0.0262
Moon	106253-06-24 06:42 G	40529345.58	40529345.78	40529345.99	0.0494	0.0274 *
Mercury	106257-04-19 13:40 G	40530740.98	40530741.07	40530741.16	0.0510	0.0446
Mercury	106257-07-19 02:08 G	40530831.52	40530831.59	40530831.66	0.0513	0.0473
Venus	106258-03-12 15:35 G	40531067.95	40531068.15	40531068.35	0.0520	0.0058

Mercury	106262-12-21 21:06 G	40532813.26	40532813.38	40532813.51	0.0516	0.0152
Mercury	106263-03-21 01:40 G	40532902.52	40532902.57	40532902.62	0.0513	0.0467
Venus	106264-01-17 06:13 G	40533204.58	40533204.76	40533204.95	0.0504	0.0227
Mercury	106269-05-06 21:35 G	40535141.24	40535141.40	40535141.57	0.0512	0.0229
Venus	106269-11-15 11:59 G	40535333.84	40535334.00	40535334.17	0.0519	0.0305
Mercury	106274-10-10 01:54 G	40537123.47	40537123.58	40537123.68	0.0516	0.0304
Mercury	106275-01-07 06:28 G	40537212.67	40537212.77	40537212.87	0.0513	0.0319
Venus	106275-09-22 02:52 G	40537470.41	40537470.62	40537470.83	0.0505	0.0003
Mercury	106281-02-22 18:28 G	40539451.08	40539451.27	40539451.45	0.0512	0.0010
Venus	106282-03-15 08:37 G	40539836.71	40539836.86	40539837.02	0.0524	0.0332
Mars	106284-09-20 22:04 G	40540757.24	40540757.42	40540757.60	0.0534	0.0364
Mercury	106286-07-29 05:59 G	40541433.70	40541433.75	40541433.80	0.0517	0.0468
Mercury	106286-10-26 10:47 G	40541522.83	40541522.95	40541523.07	0.0514	0.0161
Venus	106287-05-27 21:20 G	40541736.21	40541736.39	40541736.57	0.0507	0.0240
Mercury	106292-12-11 15:06 G	40543760.96	40543761.13	40543761.29	0.0511	0.0221
Venus	106293-11-18 05:16 G	40544102.52	40544102.72	40544102.92	0.0522	0.0085
Earth	106294-12-19 05:30 G	40544498.52	40544498.73	40544498.94	0.0532	0.0204
Moon	106294-12-19 05:44 G	40544498.52	40544498.74	40544498.96	0.0532	0.0224 *
Mercury	106298-08-14 15:06 G	40545833.00	40545833.13	40545833.26	0.0515	0.0006
Venus	106299-01-30 16:18 G	40546002.11	40546002.18	40546002.25	0.0510	0.0476
Venus	106299-09-24 18:28 G	40546239.13	40546239.27	40546239.42	0.0503	0.0358
Mars	106302-08-27 21:06 G	40547306.12	40547306.38	40547306.65	0.0493	0.0237
Mercury	106304-09-30 11:30 G	40548070.89	40548070.98	40548071.06	0.0510	0.0450
Mercury	106304-12-29 23:59 G	40548161.43	40548161.50	40548161.57	0.0513	0.0469
Venus	106305-07-25 00:56 G	40548368.35	40548368.54	40548368.73	0.0519	0.0165
Moon	106306-12-24 23:59 G	40548886.29	40548886.50	40548886.71	0.0532	0.0177
Earth	106306-12-25 00:42 G	40548886.32	40548886.53	40548886.74	0.0532	0.0211 *
Mercury	106310-06-03 19:11 G	40550143.18	40550143.30	40550143.43	0.0516	0.0162
Mercury	106310-08-31 23:44 G	40550232.44	40550232.49	40550232.55	0.0513	0.0459
Venus	106311-05-31 14:23 G	40550504.90	40550505.10	40550505.30	0.0505	0.0126

Earth	106312-06-15 07:25 G	40550885.78	40550885.81	40550885.85	0.0496	0.0489
Mercury	106316-10-17 19:54 G	40552471.16	40552471.33	40552471.49	0.0512	0.0231
Venus	106317-03-29 21:49 G	40552634.29	40552634.41	40552634.54	0.0517	0.0406
Venus	106317-11-21 20:08 G	40552871.26	40552871.34	40552871.43	0.0524	0.0469
Mercury	106322-03-22 23:44 G	40554453.39	40554453.49	40554453.59	0.0517	0.0316
Mercury	106322-06-20 04:32 G	40554542.59	40554542.69	40554542.79	0.0514	0.0308
Venus	106323-02-03 10:18 G	40554770.72	40554770.93	40554771.13	0.0507	0.0109
Moon	106324-06-19 14:08 G	40555272.87	40555273.09	40555273.32	0.0495	0.0160
Earth	106324-06-19 18:13 G	40555273.03	40555273.26	40555273.48	0.0495	0.0143 *
Mercury	106328-08-05 15:20 G	40556780.95	40556781.14	40556781.32	0.0512	0.0016
Venus	106329-07-27 15:49 G	40557136.98	40557137.16	40557137.35	0.0523	0.0219
Mercury	106334-01-09 04:32 G	40558763.64	40558763.69	40558763.74	0.0517	0.0469
Mercury	106334-04-08 09:20 G	40558852.77	40558852.89	40558853.01	0.0514	0.0161
Venus	106334-10-09 06:28 G	40559036.62	40559036.77	40559036.92	0.0508	0.0341
Venus	106335-06-03 07:40 G	40559273.77	40559273.82	40559273.87	0.0502	0.0486
Earth	106336-06-24 06:13 G	40559660.55	40559660.76	40559660.98	0.0494	0.0204
Moon	106336-06-24 10:18 G	40559660.72	40559660.93	40559661.15	0.0494	0.0225 *
Mercury	106340-05-24 11:59 G	40561090.84	40561091.00	40561091.17	0.0511	0.0236
Venus	106341-04-01 13:40 G	40561402.87	40561403.07	40561403.27	0.0521	0.0025
Mercury	106346-01-25 13:40 G	40563162.94	40563163.07	40563163.20	0.0515	0.0003
Venus	106347-02-06 03:20 G	40563539.47	40563539.64	40563539.82	0.0503	0.0259
Mercury	106352-03-12 09:06 G	40565400.80	40565400.88	40565400.96	0.0510	0.0454
Mercury	106352-06-10 21:49 G	40565491.33	40565491.41	40565491.48	0.0513	0.0467
Venus	106352-12-05 11:16 G	40565668.80	40565668.97	40565669.14	0.0519	0.0267
Mercury	106357-11-13 17:59 G	40567473.13	40567473.25	40567473.37	0.0516	0.0157
Mercury	106358-02-10 22:18 G	40567562.38	40567562.43	40567562.49	0.0513	0.0461
Venus	106358-10-11 23:16 G	40567805.27	40567805.47	40567805.68	0.0506	0.0029
Mercury	106364-03-29 17:59 G	40569801.08	40569801.25	40569801.41	0.0512	0.0232
Venus	106364-08-10 08:23 G	40569934.81	40569934.85	40569934.88	0.0516	0.0507
Venus	106365-04-04 05:59 G	40570171.61	40570171.75	40570171.89	0.0523	0.0364

Mercury	106369-09-01 22:04 G	40571783.32	40571783.42	40571783.52	0.0517	0.0322
Mercury	106369-11-30 02:52 G	40571872.52	40571872.62	40571872.72	0.0514	0.0304
Venus	106370-06-16 18:13 G	40572071.08	40572071.26	40572071.45	0.0508	0.0211
Mercury	106376-01-16 13:54 G	40574110.90	40574111.08	40574111.27	0.0511	0.0010
Venus	106376-12-08 01:54 G	40574437.39	40574437.58	40574437.78	0.0521	0.0116
Earth	106377-12-19 03:20 G	40574813.45	40574813.64	40574813.83	0.0531	0.0283
Moon	106377-12-19 06:56 G	40574813.59	40574813.79	40574814.00	0.0531	0.0248 *
Mercury	106381-06-21 02:37 G	40576093.56	40576093.61	40576093.66	0.0517	0.0477
Mercury	106381-09-18 07:40 G	40576182.69	40576182.82	40576182.94	0.0515	0.0154
Venus	106382-02-19 13:54 G	40576336.99	40576337.08	40576337.19	0.0510	0.0447
Venus	106382-10-14 16:18 G	40576574.05	40576574.18	40576574.31	0.0503	0.0388
Mercury	106387-11-04 09:20 G	40578420.73	40578420.89	40578421.05	0.0511	0.0246
Venus	106388-08-12 21:49 G	40578703.22	40578703.41	40578703.60	0.0520	0.0135
Moon	106389-12-23 23:16 G	40579201.25	40579201.47	40579201.68	0.0533	0.0158
Earth	106389-12-24 03:06 G	40579201.41	40579201.63	40579201.85	0.0533	0.0150 *
Mercury	106393-07-07 12:28 G	40580492.89	40580493.02	40580493.15	0.0515	0.0007
Venus	106394-06-19 13:40 G	40580839.87	40580840.07	40580840.26	0.0504	0.0163
Mercury	106399-08-23 06:28 G	40582730.70	40582730.77	40582730.85	0.0510	0.0464
Mercury	106399-11-21 18:56 G	40582821.21	40582821.29	40582821.38	0.0513	0.0457
Venus	106400-04-17 19:54 G	40582969.20	40582969.33	40582969.48	0.0518	0.0374
Venus	106400-12-10 19:25 G	40583206.27	40583206.31	40583206.36	0.0525	0.0508
Mercury	106405-04-25 16:47 G	40584803.08	40584803.20	40584803.33	0.0516	0.0152
Mercury	106405-07-23 21:20 G	40584892.34	40584892.39	40584892.44	0.0513	0.0465
Venus	106406-02-22 09:06 G	40585105.67	40585105.88	40585106.08	0.0506	0.0071
Moon	106407-06-19 21:06 G	40585588.16	40585588.38	40585588.61	0.0495	0.0202
Earth	106407-06-19 22:47 G	40585588.24	40585588.45	40585588.67	0.0495	0.0190 *
Mercury	106411-09-09 15:49 G	40587131.00	40587131.16	40587131.33	0.0512	0.0233
Venus	106412-08-15 16:32 G	40587472.02	40587472.19	40587472.36	0.0523	0.0262
Mercury	106417-02-11 21:06 G	40589113.28	40589113.38	40589113.48	0.0516	0.0311
Mercury	106417-05-12 01:54 G	40589202.48	40589202.58	40589202.68	0.0514	0.0312

Venus	106417-10-28 04:18 G	40589371.52	40589371.68	40589371.85	0.0508	0.0307
Earth	106419-06-24 11:30 G	40589975.75	40589975.98	40589976.20	0.0494	0.0158
Moon	106419-06-24 12:13 G	40589975.79	40589976.01	40589976.23	0.0494	0.0129 *
Mercury	106423-06-28 12:28 G	40591440.83	40591441.02	40591441.20	0.0511	0.0009
Venus	106424-04-20 12:42 G	40591737.83	40591738.03	40591738.23	0.0521	0.0016
Mercury	106428-12-01 01:11 G	40593423.50	40593423.55	40593423.60	0.0517	0.0478
Mercury	106429-02-28 06:13 G	40593512.63	40593512.76	40593512.88	0.0515	0.0154
Venus	106430-02-25 01:54 G	40593874.41	40593874.58	40593874.75	0.0504	0.0294
Moon	106431-06-28 23:16 G	40594363.47	40594363.47	40594363.50	0.0494	0.0493
Mercury	106435-04-16 08:37 G	40595750.70	40595750.86	40595751.03	0.0511	0.0226
Venus	106435-12-25 09:20 G	40596003.72	40596003.89	40596004.07	0.0519	0.0233
Mars	106438-12-16 13:54 G	40597090.84	40597091.08	40597091.33	0.0534	0.0039
Mercury	106440-12-17 10:47 G	40597822.83	40597822.95	40597823.08	0.0515	0.0016
Venus	106441-10-30 22:32 G	40598140.24	40598140.44	40598140.65	0.0505	0.0063
Mercury	106447-02-02 04:04 G	40600060.60	40600060.67	40600060.74	0.0510	0.0468
Mercury	106447-05-03 16:32 G	40600151.11	40600151.19	40600151.28	0.0513	0.0451
Venus	106447-08-30 05:16 G	40600269.65	40600269.72	40600269.80	0.0517	0.0478
Venus	106448-04-23 04:04 G	40600506.54	40600506.67	40600506.79	0.0524	0.0399
Mercury	106452-10-05 15:49 G	40602133.03	40602133.16	40602133.28	0.0516	0.0144
Mercury	106453-01-02 20:08 G	40602222.30	40602222.34	40602222.39	0.0513	0.0473
Venus	106453-07-05 19:40 G	40602406.13	40602406.32	40602406.52	0.0507	0.0167
Mars	106456-11-20 06:42 G	40603639.49	40603639.78	40603640.08	0.0493	0.0125
Mercury	106459-02-19 13:25 G	40604460.90	40604461.06	40604461.23	0.0512	0.0227
Venus	106459-12-28 01:25 G	40604772.37	40604772.56	40604772.76	0.0522	0.0155
Earth	106460-12-18 09:49 G	40605128.73	40605128.91	40605129.09	0.0532	0.0327
Moon	106460-12-18 11:44 G	40605128.82	40605128.99	40605129.16	0.0532	0.0344 *
Mercury	106464-07-24 20:08 G	40606443.24	40606443.34	40606443.44	0.0516	0.0301
Mercury	106464-10-22 00:42 G	40606532.44	40606532.53	40606532.63	0.0513	0.0321
Venus	106465-03-10 14:52 G	40606672.00	40606672.12	40606672.25	0.0509	0.0404
Venus	106465-11-02 16:32 G	40606909.08	40606909.19	40606909.29	0.0502	0.0428

Mercury	106470-12-08 10:32 G	40608770.76	40608770.94	40608771.12	0.0512	0.0007
Venus	106471-09-01 23:44 G	40609038.29	40609038.49	40609038.68	0.0520	0.0090
Moon	106472-12-23 09:35 G	40609516.67	40609516.90	40609517.13	0.0532	0.0126
Earth	106472-12-23 10:18 G	40609516.71	40609516.93	40609517.16	0.0532	0.0104 *
Mercury	106476-05-13 00:28 G	40610753.46	40610753.52	40610753.57	0.0517	0.0462
Mercury	106476-08-10 05:16 G	40610842.60	40610842.72	40610842.84	0.0514	0.0167
Venus	106477-07-08 12:56 G	40611174.85	40611175.04	40611175.23	0.0504	0.0202
Mercury	106482-09-26 07:25 G	40613080.64	40613080.81	40613080.98	0.0511	0.0215
Venus	106483-05-07 21:06 G	40613304.22	40613304.38	40613304.53	0.0518	0.0332
Earth	106484-12-28 08:08 G	40613904.81	40613904.84	40613904.87	0.0533	0.0526
Mercury	106488-05-29 09:35 G	40615152.77	40615152.90	40615153.03	0.0515	0.0008
Venus	106489-03-13 08:37 G	40615440.65	40615440.86	40615441.06	0.0506	0.0035
Earth	106490-06-19 06:42 G	40615903.57	40615903.78	40615903.99	0.0495	0.0226
Moon	106490-06-19 09:49 G	40615903.69	40615903.91	40615904.14	0.0495	0.0194 *
Mercury	106494-07-15 03:49 G	40617390.58	40617390.66	40617390.76	0.0510	0.0440
Mercury	106494-10-13 16:18 G	40617481.12	40617481.18	40617481.25	0.0513	0.0478
Venus	106495-09-04 16:04 G	40617807.01	40617807.17	40617807.33	0.0523	0.0301
Mercury	106500-03-18 14:23 G	40619462.98	40619463.10	40619463.22	0.0516	0.0143
Mercury	106500-06-15 18:56 G	40619552.24	40619552.29	40619552.33	0.0513	0.0474
Venus	106500-11-17 05:01 G	40619706.54	40619706.71	40619706.89	0.0508	0.0268
Moon	106502-06-24 15:35 G	40620290.93	40620291.15	40620291.38	0.0494	0.0134
Earth	106502-06-24 18:56 G	40620291.07	40620291.29	40620291.52	0.0494	0.0124 *
Mercury	106506-08-02 11:30 G	40621790.81	40621790.98	40621791.14	0.0512	0.0227
Venus	106507-05-11 11:01 G	40622072.76	40622072.96	40622073.16	0.0521	0.0048
Mercury	106512-01-05 19:11 G	40623773.20	40623773.30	40623773.41	0.0517	0.0290
Mercury	106512-04-03 23:59 G	40623862.40	40623862.50	40623862.60	0.0514	0.0333
Venus	106512-07-23 01:54 G	40623972.55	40623972.58	40623972.62	0.0510	0.0499
Venus	106513-03-17 04:18 G	40624209.53	40624209.68	40624209.84	0.0503	0.0339
Earth	106514-06-29 08:08 G	40624678.78	40624678.84	40624678.91	0.0493	0.0471
Moon	106514-06-29 12:13 G	40624678.91	40624679.01	40624679.11	0.0493	0.0446 *

Mercury	106518-05-21 08:23 G	40626100.67	40626100.85	40626101.04	0.0512	0.0007
Venus	106519-01-14 09:06 G	40626338.70	40626338.88	40626339.07	0.0520	0.0194
Mercury	106523-10-24 23:44 G	40628083.43	40628083.49	40628083.55	0.0517	0.0447
Mercury	106524-01-22 04:32 G	40628172.57	40628172.69	40628172.81	0.0514	0.0181
Venus	106524-11-20 00:28 G	40628475.32	40628475.52	40628475.72	0.0505	0.0109
Mercury	106530-03-09 05:44 G	40630410.57	40630410.74	40630410.91	0.0511	0.0209
Venus	106530-09-19 07:54 G	40630604.73	40630604.83	40630604.95	0.0517	0.0431
Venus	106531-05-14 06:56 G	40630841.70	40630841.79	40630841.90	0.0525	0.0451
Mercury	106535-11-10 09:06 G	40632482.75	40632482.88	40632483.01	0.0515	0.0027
Venus	106536-07-25 20:23 G	40632741.15	40632741.35	40632741.55	0.0507	0.0125
Mercury	106541-12-26 02:52 G	40634720.52	40634720.62	40634720.72	0.0510	0.0426
Mercury	106542-03-26 15:20 G	40634811.09	40634811.14	40634811.19	0.0513	0.0493
Venus	106543-01-17 03:35 G	40635107.47	40635107.65	40635107.83	0.0522	0.0201
Moon	106543-12-19 13:54 G	40635443.93	40635444.08	40635444.23	0.0531	0.0391
Earth	106543-12-19 16:04 G	40635444.02	40635444.17	40635444.34	0.0531	0.0373 *
Mercury	106547-08-29 13:11 G	40636792.93	40636793.05	40636793.18	0.0516	0.0137
Mercury	106547-11-26 17:44 G	40636882.20	40636882.24	40636882.28	0.0513	0.0481
Venus	106548-03-30 15:20 G	40637007.00	40637007.14	40637007.28	0.0509	0.0364
Venus	106548-11-22 17:01 G	40637244.15	40637244.21	40637244.29	0.0502	0.0470
Mercury	106554-01-12 11:30 G	40639120.83	40639120.98	40639121.14	0.0512	0.0261
Venus	106554-09-22 00:28 G	40639373.32	40639373.52	40639373.72	0.0520	0.0047
Earth	106555-12-24 15:06 G	40639831.90	40639832.13	40639832.36	0.0532	0.0050
Moon	106555-12-24 18:28 G	40639832.03	40639832.27	40639832.50	0.0532	0.0021 *
Mercury	106559-06-17 17:59 G	40641103.15	40641103.25	40641103.36	0.0517	0.0286
Mercury	106559-09-14 22:47 G	40641192.35	40641192.45	40641192.54	0.0514	0.0337
Venus	106560-07-28 14:37 G	40641509.93	40641510.11	40641510.30	0.0504	0.0245
Mercury	106565-10-31 06:42 G	40643430.60	40643430.78	40643430.96	0.0512	0.0011
Venus	106566-05-27 19:11 G	40643639.14	40643639.30	40643639.47	0.0518	0.0297
Moon	106567-12-29 10:04 G	40644219.82	40644219.92	40644220.01	0.0534	0.0477
Earth	106567-12-29 13:40 G	40644219.97	40644220.07	40644220.17	0.0534	0.0477 *

Mercury	106571-04-05 22:47 G	40645413.39	40645413.45	40645413.52	0.0517	0.0434
Mercury	106571-07-04 03:49 G	40645502.54	40645502.66	40645502.78	0.0514	0.0195
Venus	106572-04-02 12:42 G	40645775.82	40645776.03	40645776.24	0.0506	0.0018
Earth	106573-06-19 18:13 G	40646219.06	40646219.26	40646219.47	0.0495	0.0248
Moon	106573-06-19 21:20 G	40646219.20	40646219.39	40646219.59	0.0495	0.0264 *
Mercury	106577-08-19 03:49 G	40647740.49	40647740.66	40647740.83	0.0511	0.0208
Venus	106578-09-24 16:47 G	40648142.05	40648142.20	40648142.35	0.0524	0.0345
Mercury	106583-04-22 08:23 G	40649812.72	40649812.85	40649812.98	0.0515	0.0042
Venus	106583-12-07 08:08 G	40650041.66	40650041.84	40650042.04	0.0507	0.0218
Moon	106585-06-24 03:20 G	40650606.40	40650606.64	40650606.88	0.0494	0.0110
Earth	106585-06-24 05:59 G	40650606.52	40650606.75	40650606.99	0.0494	0.0096 *
Mercury	106589-06-07 01:11 G	40652050.45	40652050.55	40652050.66	0.0510	0.0419
Mercury	106589-09-05 13:40 G	40652141.04	40652141.07	40652141.11	0.0513	0.0503
Venus	106590-05-30 14:52 G	40652407.92	40652408.12	40652408.31	0.0522	0.0101
Mars	106593-03-13 10:04 G	40653425.81	40653425.92	40653426.04	0.0534	0.0470
Mercury	106595-02-08 12:56 G	40654122.91	40654123.04	40654123.16	0.0515	0.0114
Mercury	106595-05-08 17:16 G	40654212.20	40654212.22	40654212.24	0.0513	0.0501
Venus	106595-08-12 03:35 G	40654307.57	40654307.65	40654307.75	0.0510	0.0454
Venus	106596-04-05 05:44 G	40654544.61	40654544.74	40654544.87	0.0503	0.0384
Earth	106597-06-28 18:13 G	40654994.16	40654994.26	40654994.37	0.0493	0.0440
Moon	106597-06-28 19:54 G	40654994.28	40654994.33	40654994.41	0.0493	0.0470 *
Mercury	106601-06-25 10:32 G	40656450.79	40656450.94	40656451.10	0.0512	0.0278
Venus	106602-02-03 12:13 G	40656673.82	40656674.01	40656674.21	0.0519	0.0145
Mercury	106606-11-28 17:01 G	40658433.10	40658433.21	40658433.32	0.0516	0.0276
Mercury	106607-02-25 21:49 G	40658522.31	40658522.41	40658522.50	0.0514	0.0347
Venus	106607-12-11 01:40 G	40658810.38	40658810.57	40658810.77	0.0505	0.0153
Mercury	106613-04-13 07:11 G	40660760.61	40660760.80	40660760.98	0.0512	0.0048
Venus	106613-10-09 09:35 G	40660939.78	40660939.90	40660940.04	0.0517	0.0386
Venus	106614-06-03 08:23 G	40661176.79	40661176.85	40661176.92	0.0525	0.0496
Mercury	106618-09-16 21:35 G	40662743.34	40662743.40	40662743.48	0.0517	0.0428

Mercury	106618-12-15 02:37 G	40662832.49	40662832.61	40662832.73	0.0514	0.0201
Venus	106619-08-15 23:01 G	40663076.26	40663076.46	40663076.67	0.0507	0.0079
Mercury	106625-01-30 02:23 G	40665070.43	40665070.60	40665070.77	0.0511	0.0199
Venus	106626-02-06 02:37 G	40665442.43	40665442.61	40665442.79	0.0523	0.0240
Moon	106626-12-19 17:16 G	40665759.07	40665759.22	40665759.38	0.0531	0.0391
Earth	106626-12-19 20:52 G	40665759.24	40665759.37	40665759.51	0.0531	0.0427 *
Mercury	106630-10-03 07:40 G	40667142.69	40667142.82	40667142.95	0.0515	0.0058
Venus	106631-04-20 20:23 G	40667342.19	40667342.35	40667342.52	0.0509	0.0309
Mercury	106636-11-17 23:30 G	40669380.38	40669380.48	40669380.59	0.0510	0.0415
Mercury	106637-02-16 11:59 G	40669470.97	40669471.00	40669471.03	0.0513	0.0504
Venus	106637-10-12 00:42 G	40669708.33	40669708.53	40669708.73	0.0521	0.0004
Earth	106638-12-24 23:16 G	40670147.24	40670147.47	40670147.70	0.0533	0.0012
Moon	106638-12-25 02:08 G	40670147.37	40670147.59	40670147.82	0.0533	0.0025 *
Mercury	106642-07-22 12:13 G	40671452.88	40671453.01	40671453.14	0.0516	0.0096
Venus	106643-08-18 18:13 G	40671845.09	40671845.26	40671845.43	0.0503	0.0296
Mercury	106648-12-05 09:06 G	40673780.73	40673780.88	40673781.04	0.0513	0.0286
Venus	106649-06-16 23:30 G	40673974.30	40673974.48	40673974.66	0.0519	0.0244
Moon	106650-12-29 23:44 G	40674535.35	40674535.49	40674535.64	0.0533	0.0419
Earth	106650-12-30 01:40 G	40674535.45	40674535.57	40674535.70	0.0533	0.0447 *
Mercury	106654-05-10 16:47 G	40675763.09	40675763.20	40675763.31	0.0516	0.0252
Mercury	106654-08-07 21:20 G	40675852.30	40675852.39	40675852.48	0.0513	0.0368
Venus	106655-04-23 14:37 G	40676110.91	40676111.11	40676111.32	0.0505	0.0065
Moon	106656-06-20 02:52 G	40676534.44	40676534.62	40676534.80	0.0495	0.0298
Earth	106656-06-20 04:47 G	40676534.51	40676534.70	40676534.90	0.0495	0.0278 *
Mercury	106660-09-23 06:13 G	40678090.58	40678090.76	40678090.94	0.0512	0.0065
Venus	106661-02-19 21:49 G	40678240.35	40678240.41	40678240.49	0.0517	0.0482
Venus	106661-10-14 20:23 G	40678477.22	40678477.35	40678477.48	0.0524	0.0397
Mercury	106666-02-26 20:52 G	40680073.29	40680073.37	40680073.44	0.0517	0.0416
Mercury	106666-05-27 01:40 G	40680162.46	40680162.57	40680162.69	0.0514	0.0212
Venus	106666-12-27 09:49 G	40680376.72	40680376.91	40680377.11	0.0508	0.0173

Earth	106668-06-24 17:16 G	40680921.99	40680922.22	40680922.46	0.0494	0.0071
Moon	106668-06-24 19:40 G	40680922.07	40680922.32	40680922.56	0.0494	0.0040 *
Mercury	106672-07-12 02:52 G	40682400.44	40682400.62	40682400.79	0.0511	0.0161
Venus	106673-06-19 16:32 G	40682743.00	40682743.19	40682743.39	0.0522	0.0149
Mercury	106678-03-15 06:28 G	40684472.65	40684472.77	40684472.90	0.0515	0.0066
Venus	106678-09-01 06:42 G	40684642.66	40684642.78	40684642.90	0.0510	0.0407
Venus	106679-04-26 08:37 G	40684879.76	40684879.86	40684879.97	0.0503	0.0432
Moon	106680-06-29 04:04 G	40685309.55	40685309.67	40685309.79	0.0493	0.0412
Earth	106680-06-29 06:42 G	40685309.66	40685309.78	40685309.91	0.0493	0.0419 *
Mercury	106684-04-29 22:04 G	40686710.31	40686710.42	40686710.53	0.0510	0.0405
Mercury	106684-07-29 10:32 G	40686800.93	40686800.94	40686800.94	0.0513	0.0512
Venus	106685-02-22 11:01 G	40687008.77	40687008.96	40687009.16	0.0520	0.0107
Mercury	106690-01-01 11:30 G	40688782.85	40688782.98	40688783.11	0.0516	0.0081
Venus	106690-12-30 06:56 G	40689145.60	40689145.79	40689145.98	0.0504	0.0208
Mercury	106696-05-17 07:25 G	40691110.65	40691110.81	40691110.96	0.0512	0.0289
Venus	106696-10-28 09:20 G	40691274.75	40691274.89	40691275.05	0.0518	0.0346
Mercury	106701-10-21 16:04 G	40693093.05	40693093.17	40693093.28	0.0516	0.0235
Mercury	106702-01-18 20:37 G	40693182.28	40693182.36	40693182.44	0.0513	0.0385
Venus	106702-09-05 02:52 G	40693411.42	40693411.62	40693411.83	0.0506	0.0028
Mercury	106708-03-06 04:32 G	40695420.51	40695420.69	40695420.88	0.0512	0.0072
Venus	106709-02-26 06:56 G	40695777.63	40695777.79	40695777.96	0.0523	0.0296
Earth	106709-12-20 09:20 G	40696074.77	40696074.89	40696075.01	0.0531	0.0454
Moon	106709-12-20 10:32 G	40696074.83	40696074.94	40696075.06	0.0531	0.0464 *
Mars	106711-09-05 12:28 G	40696698.86	40696699.02	40696699.20	0.0535	0.0385
Mercury	106713-08-09 20:23 G	40697403.27	40697403.35	40697403.43	0.0517	0.0393
Mercury	106713-11-07 01:11 G	40697492.44	40697492.55	40697492.67	0.0514	0.0234
Venus	106714-05-10 22:32 G	40697677.27	40697677.44	40697677.62	0.0508	0.0262
Mercury	106719-12-24 01:40 G	40699730.40	40699730.57	40699730.75	0.0511	0.0147
Venus	106720-11-01 04:32 G	40700043.49	40700043.69	40700043.89	0.0521	0.0049
Moon	106721-12-25 07:11 G	40700462.58	40700462.80	40700463.02	0.0532	0.0006

Earth	106721-12-25 08:52 G	40700462.65	40700462.87	40700463.10	0.0532	0.0030	*
Mercury	106725-08-26 05:30 G	40701802.61	40701802.73	40701802.86	0.0515	0.0075	
Venus	106726-01-13 17:01 G	40701943.18	40701943.21	40701943.25	0.0510	0.0503	
Venus	106726-09-07 19:40 G	40702180.17	40702180.32	40702180.48	0.0503	0.0340	
Mars	106729-08-07 07:11 G	40703244.55	40703244.80	40703245.07	0.0492	0.0259	
Mercury	106731-10-11 22:32 G	40704040.31	40704040.44	40704040.56	0.0510	0.0369	
Venus	106732-07-07 01:25 G	40704309.38	40704309.56	40704309.75	0.0519	0.0197	
Earth	106733-12-30 07:54 G	40704850.68	40704850.83	40704850.99	0.0533	0.0397	
Moon	106733-12-30 10:18 G	40704850.80	40704850.93	40704851.08	0.0533	0.0426	*
Mercury	106737-06-14 10:18 G	40706112.80	40706112.93	40706113.06	0.0516	0.0075	
Venus	106738-05-13 17:16 G	40706446.02	40706446.22	40706446.43	0.0505	0.0113	
Moon	106739-06-21 13:25 G	40706849.86	40706850.06	40706850.26	0.0495	0.0267	
Earth	106739-06-21 17:01 G	40706850.03	40706850.21	40706850.40	0.0495	0.0299	*
Mercury	106743-10-29 05:44 G	40708440.60	40708440.74	40708440.89	0.0512	0.0297	
Venus	106744-03-11 20:08 G	40708575.25	40708575.34	40708575.45	0.0517	0.0446	
Venus	106744-11-03 18:42 G	40708812.18	40708812.28	40708812.39	0.0524	0.0436	
Mercury	106749-04-02 15:06 G	40710423.02	40710423.13	40710423.25	0.0517	0.0224	
Mercury	106749-06-30 19:54 G	40710512.25	40710512.33	40710512.41	0.0514	0.0398	
Venus	106750-01-16 14:52 G	40710711.92	40710712.12	40710712.32	0.0507	0.0118	
Earth	106751-06-26 07:11 G	40711237.56	40711237.80	40711238.03	0.0494	0.0052	
Moon	106751-06-26 10:47 G	40711237.72	40711237.95	40711238.18	0.0494	0.0062	*
Mercury	106755-08-17 02:37 G	40712750.43	40712750.61	40712750.79	0.0511	0.0074	
Venus	106756-07-09 16:04 G	40713077.99	40713078.17	40713078.36	0.0522	0.0190	
Mercury	106761-01-19 19:40 G	40714733.23	40714733.32	40714733.40	0.0517	0.0379	
Mercury	106761-04-19 00:28 G	40714822.41	40714822.52	40714822.63	0.0514	0.0247	
Venus	106761-09-21 10:18 G	40714977.78	40714977.93	40714978.08	0.0509	0.0356	
Venus	106762-05-16 11:30 G	40715214.93	40715214.98	40715215.05	0.0502	0.0481	
Moon	106763-06-30 14:23 G	40715624.95	40715625.10	40715625.27	0.0493	0.0370	
Earth	106763-06-30 17:59 G	40715625.12	40715625.25	40715625.40	0.0493	0.0392	*
Mercury	106767-06-04 23:59 G	40717060.32	40717060.50	40717060.68	0.0511	0.0142	

Venus	106768-03-14 14:52 G	40717343.92	40717344.12	40717344.32	0.0520	0.0055
Mercury	106773-02-05 05:01 G	40719132.59	40719132.71	40719132.84	0.0515	0.0095
Venus	106774-01-19 08:08 G	40719480.67	40719480.84	40719481.02	0.0504	0.0253
Mercury	106779-03-23 21:20 G	40721370.26	40721370.39	40721370.52	0.0510	0.0357
Venus	106779-11-18 12:56 G	40721609.88	40721610.04	40721610.20	0.0518	0.0296
Mercury	106784-11-24 09:20 G	40723442.76	40723442.89	40723443.02	0.0516	0.0067
Venus	106785-09-24 03:49 G	40723746.45	40723746.66	40723746.87	0.0506	0.0018
Mercury	106791-04-10 05:59 G	40725770.61	40725770.75	40725770.89	0.0512	0.0330
Venus	106792-03-17 08:08 G	40726112.70	40726112.84	40726113.00	0.0523	0.0343
Earth	106792-12-19 15:06 G	40726390.06	40726390.13	40726390.20	0.0531	0.0502
Moon	106792-12-19 18:56 G	40726390.27	40726390.29	40726390.32	0.0531	0.0527
Mercury	106796-09-12 13:54 G	40727752.96	40727753.08	40727753.20	0.0517	0.0219
Mercury	106796-12-10 18:28 G	40727842.20	40727842.27	40727842.35	0.0514	0.0402
Venus	106797-05-30 00:28 G	40728012.33	40728012.52	40728012.71	0.0508	0.0217
Mercury	106803-01-27 00:56 G	40730080.36	40730080.54	40730080.73	0.0511	0.0082
Venus	106803-11-21 02:08 G	40730378.39	40730378.59	40730378.79	0.0521	0.0084
Moon	106804-12-24 05:59 G	40730777.53	40730777.75	40730777.98	0.0532	0.0133
Earth	106804-12-24 10:04 G	40730777.69	40730777.92	40730778.15	0.0532	0.0096 *
Mercury	106808-07-01 18:28 G	40732063.19	40732063.27	40732063.36	0.0518	0.0372
Mercury	106808-09-28 23:30 G	40732152.37	40732152.48	40732152.59	0.0515	0.0256
Venus	106809-02-01 20:52 G	40732278.28	40732278.37	40732278.47	0.0510	0.0452
Venus	106809-09-26 23:44 G	40732515.36	40732515.49	40732515.62	0.0503	0.0392
Mercury	106814-11-14 21:49 G	40734390.24	40734390.41	40734390.59	0.0511	0.0143
Venus	106815-07-26 23:44 G	40734644.30	40734644.49	40734644.69	0.0519	0.0160
Earth	106816-12-29 11:30 G	40735165.80	40735165.98	40735166.16	0.0533	0.0336
Moon	106816-12-29 14:52 G	40735165.95	40735166.12	40735166.30	0.0533	0.0334 *
Mercury	106820-07-18 04:04 G	40736462.54	40736462.67	40736462.80	0.0515	0.0104
Venus	106821-06-01 19:40 G	40736781.12	40736781.32	40736781.52	0.0505	0.0160
Earth	106822-06-21 02:52 G	40737165.45	40737165.62	40737165.80	0.0495	0.0331
Moon	106822-06-21 03:49 G	40737165.48	40737165.66	40737165.84	0.0495	0.0334 *

Mercury	106826-09-02 19:11 G	40738700.17	40738700.30	40738700.43	0.0510	0.0357
Venus	106827-03-31 22:47 G	40738910.32	40738910.45	40738910.58	0.0517	0.0398
Venus	106827-11-23 21:49 G	40739147.34	40739147.41	40739147.48	0.0525	0.0488
Mercury	106832-05-06 08:37 G	40740772.73	40740772.86	40740772.98	0.0516	0.0052
Venus	106833-02-04 15:35 G	40741046.94	40741047.15	40741047.35	0.0507	0.0075
Moon	106834-06-25 13:54 G	40741552.85	40741553.08	40741553.31	0.0494	0.0038
Earth	106834-06-25 14:52 G	40741552.89	40741553.12	40741553.36	0.0494	0.0016 *
Mercury	106838-09-20 04:18 G	40743100.55	40743100.68	40743100.82	0.0512	0.0337
Venus	106839-07-29 18:42 G	40743413.11	40743413.28	40743413.46	0.0522	0.0239
Mercury	106844-02-23 12:42 G	40745082.91	40745083.03	40745083.14	0.0516	0.0214
Mercury	106844-05-22 17:16 G	40745172.15	40745172.22	40745172.30	0.0514	0.0406
Venus	106844-10-10 10:04 G	40745312.76	40745312.92	40745313.08	0.0509	0.0316
Earth	106846-06-30 02:23 G	40745940.44	40745940.60	40745940.77	0.0494	0.0355
Moon	106846-06-30 03:49 G	40745940.51	40745940.66	40745940.82	0.0494	0.0385 *
Mercury	106850-07-09 00:56 G	40747410.36	40747410.54	40747410.72	0.0511	0.0108
Venus	106851-04-03 15:20 G	40747678.94	40747679.14	40747679.34	0.0520	0.0013
Mercury	106855-12-12 17:01 G	40749393.13	40749393.21	40749393.30	0.0517	0.0371
Mercury	106856-03-10 22:04 G	40749482.31	40749482.42	40749482.53	0.0515	0.0257
Venus	106857-02-07 09:06 G	40749815.71	40749815.88	40749816.05	0.0504	0.0296
Mercury	106862-04-26 20:08 G	40751720.16	40751720.34	40751720.52	0.0510	0.0139
Venus	106862-12-07 09:49 G	40751944.74	40751944.91	40751945.08	0.0518	0.0264
Mars	106865-11-29 14:52 G	40753032.87	40753033.12	40753033.37	0.0535	0.0003
Mercury	106867-12-29 02:52 G	40753792.49	40753792.62	40753792.74	0.0516	0.0108
Venus	106868-10-13 06:13 G	40754081.56	40754081.76	40754081.97	0.0506	0.0066
Mercury	106874-02-12 17:01 G	40756030.08	40756030.21	40756030.33	0.0510	0.0360
Venus	106874-08-12 07:54 G	40756210.79	40756210.83	40756210.87	0.0516	0.0501
Venus	106875-04-06 05:44 G	40756447.60	40756447.74	40756447.88	0.0524	0.0378
Mercury	106879-10-17 07:11 G	40758102.68	40758102.80	40758102.93	0.0516	0.0050
Venus	106880-06-18 01:25 G	40758347.37	40758347.56	40758347.76	0.0508	0.0174
Mars	106883-11-01 13:54 G	40759578.81	40759579.08	40759579.37	0.0492	0.0196

Mercury	106886-03-02 01:54 G	40760430.44	40760430.58	40760430.72	0.0512	0.0330
Venus	106886-12-10 03:35 G	40760713.46	40760713.65	40760713.85	0.0522	0.0131
Earth	106887-12-24 17:44 G	40761093.02	40761093.24	40761093.46	0.0532	0.0142
Moon	106887-12-24 17:59 G	40761093.02	40761093.25	40761093.48	0.0532	0.0136 *
Mercury	106891-08-05 11:44 G	40762412.87	40762412.99	40762413.11	0.0517	0.0203
Mercury	106891-11-02 16:18 G	40762502.11	40762502.18	40762502.26	0.0514	0.0417
Venus	106892-02-21 20:37 G	40762613.25	40762613.36	40762613.49	0.0510	0.0412
Venus	106892-10-15 22:47 G	40762850.35	40762850.45	40762850.56	0.0503	0.0431
Mercury	106897-12-18 22:47 G	40764740.27	40764740.45	40764740.63	0.0512	0.0108
Venus	106898-08-15 01:25 G	40764979.36	40764979.56	40764979.75	0.0519	0.0115
Moon	106899-12-29 16:47 G	40765481.01	40765481.20	40765481.40	0.0533	0.0258
Earth	106899-12-29 17:30 G	40765481.04	40765481.23	40765481.43	0.0533	0.0287 *
Mercury	106903-05-25 15:49 G	40766723.07	40766723.16	40766723.25	0.0517	0.0369
Mercury	106903-08-22 20:37 G	40766812.25	40766812.36	40766812.47	0.0514	0.0258
Venus	106904-06-21 17:59 G	40767116.07	40767116.25	40767116.45	0.0505	0.0198
Earth	106905-06-21 08:37 G	40767480.71	40767480.86	40767481.02	0.0496	0.0374
Moon	106905-06-21 12:28 G	40767480.88	40767481.02	40767481.16	0.0496	0.0396 *
Mercury	106909-10-07 19:25 G	40769050.13	40769050.31	40769050.49	0.0511	0.0119
Venus	106910-04-20 22:18 G	40769245.30	40769245.43	40769245.58	0.0517	0.0359
Mercury	106915-06-11 01:11 G	40771122.43	40771122.55	40771122.68	0.0515	0.0106
Venus	106916-02-25 14:37 G	40771381.91	40771382.11	40771382.32	0.0507	0.0037
Moon	106917-06-25 18:42 G	40771868.05	40771868.28	40771868.52	0.0495	0.0055
Earth	106917-06-25 22:47 G	40771868.21	40771868.45	40771868.69	0.0495	0.0024 *
Mercury	106921-07-26 14:52 G	40773360.00	40773360.12	40773360.25	0.0509	0.0359
Venus	106922-08-18 14:37 G	40773747.94	40773748.11	40773748.28	0.0522	0.0269
Mercury	106927-03-30 05:44 G	40775432.61	40775432.74	40775432.87	0.0517	0.0049
Venus	106927-10-31 10:32 G	40775647.77	40775647.94	40775648.12	0.0509	0.0274
Earth	106929-06-30 11:30 G	40776255.81	40776255.98	40776256.16	0.0494	0.0321
Moon	106929-06-30 15:35 G	40776255.98	40776256.15	40776256.33	0.0494	0.0321 *
Mercury	106933-08-12 23:16 G	40777760.33	40777760.47	40777760.62	0.0512	0.0322

Venus	106934-04-23 11:30 G	40778013.78	40778013.98	40778014.18	0.0520	0.0022
Mercury	106939-01-16 10:18 G	40779742.81	40779742.93	40779743.04	0.0517	0.0206
Mercury	106939-04-15 14:52 G	40779832.05	40779832.12	40779832.20	0.0514	0.0416
Venus	106940-02-28 08:23 G	40780150.70	40780150.85	40780151.01	0.0504	0.0335
Mercury	106945-05-31 19:54 G	40782070.15	40782070.33	40782070.52	0.0511	0.0097
Venus	106945-12-27 09:35 G	40782279.72	40782279.90	40782280.08	0.0518	0.0224
Mercury	106950-11-04 14:37 G	40784053.02	40784053.11	40784053.20	0.0517	0.0363
Mercury	106951-02-01 19:25 G	40784142.20	40784142.31	40784142.42	0.0514	0.0264
Venus	106951-11-03 04:18 G	40784416.48	40784416.68	40784416.89	0.0506	0.0102
Mercury	106957-03-19 17:01 G	40786380.03	40786380.21	40786380.39	0.0511	0.0125
Venus	106957-09-01 07:54 G	40786545.75	40786545.83	40786545.92	0.0516	0.0463
Venus	106958-04-26 05:59 G	40786782.64	40786782.75	40786782.87	0.0524	0.0421
Mercury	106962-11-20 23:44 G	40788452.36	40788452.49	40788452.61	0.0515	0.0103
Venus	106963-07-08 22:47 G	40788682.25	40788682.45	40788682.65	0.0508	0.0140
Mercury	106969-01-05 13:25 G	40790689.94	40790690.06	40790690.20	0.0510	0.0349
Venus	106969-12-30 02:08 G	40791048.40	40791048.59	40791048.78	0.0521	0.0169
Earth	106970-12-24 17:59 G	40791408.05	40791408.25	40791408.47	0.0531	0.0212
Moon	106970-12-24 21:49 G	40791408.20	40791408.41	40791408.63	0.0531	0.0183 *
Mercury	106974-09-09 04:04 G	40792762.54	40792762.67	40792762.80	0.0516	0.0054
Venus	106975-03-13 18:13 G	40792948.12	40792948.26	40792948.40	0.0510	0.0380
Venus	106975-11-05 20:37 G	40793185.29	40793185.36	40793185.44	0.0503	0.0466
Mercury	106981-01-22 20:52 G	40795090.24	40795090.37	40795090.52	0.0511	0.0318
Venus	106981-09-03 20:37 G	40795314.16	40795314.36	40795314.56	0.0519	0.0088
Moon	106982-12-29 08:08 G	40795795.63	40795795.84	40795796.04	0.0532	0.0224
Earth	106982-12-29 11:59 G	40795795.79	40795796.00	40795796.22	0.0532	0.0192 *
Mercury	106986-06-28 08:23 G	40797072.73	40797072.85	40797072.97	0.0517	0.0213
Mercury	106986-09-25 13:11 G	40797161.98	40797162.05	40797162.13	0.0514	0.0410
Venus	106987-07-11 17:16 G	40797451.04	40797451.22	40797451.40	0.0505	0.0236
Earth	106988-06-20 15:20 G	40797796.02	40797796.14	40797796.27	0.0496	0.0416
Moon	106988-06-20 17:01 G	40797796.08	40797796.21	40797796.36	0.0496	0.0388 *

Mercury	106992-11-10 17:16 G	40799400.04	40799400.22	40799400.40	0.0511	0.0086
Venus	106993-05-09 17:44 G	40799580.09	40799580.24	40799580.39	0.0517	0.0332
Mercury	106998-04-16 12:42 G	40801382.94	40801383.03	40801383.12	0.0518	0.0372
Mercury	106998-07-14 17:44 G	40801472.13	40801472.24	40801472.35	0.0515	0.0257
Venus	106999-03-16 12:42 G	40801716.82	40801717.03	40801717.23	0.0507	0.0009
Moon	107000-06-26 00:28 G	40802183.28	40802183.52	40802183.77	0.0495	0.0070
Earth	107000-06-26 01:40 G	40802183.34	40802183.57	40802183.81	0.0495	0.0077 *

108TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 108th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	107004-08-30 13:54 G		40803709.90	40803710.08	40803710.26	0.0510	0.0141	
Venus	107005-09-07 13:25 G		40804082.90	40804083.06	40804083.22	0.0523	0.0307	
Mercury	107010-05-03 22:18 G		40805782.31	40805782.43	40805782.56	0.0515	0.0104	
Venus	107010-11-20 07:54 G		40805982.65	40805982.83	40805983.01	0.0509	0.0242	
Earth	107012-06-30 12:56 G		40806570.84	40806571.04	40806571.24	0.0494	0.0263	
Moon	107012-06-30 13:25 G		40806570.86	40806571.06	40806571.26	0.0494	0.0239 *	
Mercury	107016-06-18 10:47 G		40808019.83	40808019.95	40808020.08	0.0510	0.0360	
Venus	107017-05-13 10:32 G		40808348.75	40808348.94	40808349.14	0.0521	0.0060	
Mars	107020-02-25 11:44 G		40809366.80	40809366.99	40809367.17	0.0535	0.0353	
Mercury	107022-02-20 02:23 G		40810092.47	40810092.60	40810092.73	0.0516	0.0060	
Venus	107022-07-26 01:25 G		40810248.50	40810248.56	40810248.62	0.0511	0.0486	

Venus	107023-03-20 04:32 G	40810485.55	40810485.69	40810485.83	0.0504	0.0365
Mercury	107028-07-05 19:25 G	40812420.17	40812420.31	40812420.45	0.0512	0.0322
Venus	107029-01-16 07:25 G	40812614.62	40812614.81	40812615.00	0.0518	0.0189
Mercury	107033-12-09 06:42 G	40814402.66	40814402.78	40814402.90	0.0517	0.0219
Mercury	107034-03-08 11:30 G	40814491.90	40814491.98	40814492.06	0.0514	0.0403
Venus	107034-11-23 00:42 G	40814751.33	40814751.53	40814751.73	0.0506	0.0132
Mercury	107040-04-23 14:52 G	40816729.94	40816730.12	40816730.31	0.0510	0.0080
Venus	107040-09-21 02:52 G	40816880.52	40816880.62	40816880.73	0.0515	0.0438
Venus	107041-05-16 00:13 G	40817117.42	40817117.51	40817117.62	0.0523	0.0445
Mercury	107045-09-27 10:47 G	40818712.87	40818712.95	40818713.04	0.0518	0.0383
Mercury	107045-12-25 15:49 G	40818802.05	40818802.16	40818802.27	0.0515	0.0247
Venus	107046-07-28 20:08 G	40819017.14	40819017.34	40819017.54	0.0508	0.0108
Mercury	107052-02-10 11:16 G	40821039.79	40821039.97	40821040.14	0.0510	0.0150
Venus	107053-01-18 20:23 G	40821383.17	40821383.35	40821383.54	0.0521	0.0194
Earth	107053-12-24 12:13 G	40821722.82	40821723.01	40821723.20	0.0531	0.0302
Moon	107053-12-24 14:37 G	40821722.94	40821723.11	40821723.29	0.0531	0.0335 *
Mercury	107057-10-13 20:23 G	40823112.22	40823112.35	40823112.47	0.0516	0.0092
Venus	107058-04-02 14:52 G	40823282.97	40823283.12	40823283.27	0.0510	0.0351
Venus	107058-11-25 17:01 G	40823520.19	40823520.21	40823520.25	0.0503	0.0496
Mercury	107063-11-29 07:40 G	40825349.70	40825349.82	40825349.94	0.0510	0.0378
Venus	107064-09-23 17:44 G	40825649.04	40825649.24	40825649.44	0.0519	0.0056
Moon	107065-12-29 11:44 G	40826110.76	40826110.99	40826111.22	0.0532	0.0118
Earth	107065-12-29 13:11 G	40826110.83	40826111.05	40826111.28	0.0532	0.0127 *
Mercury	107069-08-02 00:56 G	40827422.41	40827422.54	40827422.66	0.0516	0.0064
Venus	107070-07-31 13:11 G	40827785.88	40827786.05	40827786.23	0.0504	0.0266
Moon	107071-06-21 12:42 G	40828111.01	40828111.03	40828111.06	0.0496	0.0493
Earth	107071-06-21 15:06 G	40828111.07	40828111.13	40828111.20	0.0496	0.0476
Mercury	107075-12-16 16:18 G	40829750.04	40829750.18	40829750.33	0.0512	0.0307
Venus	107076-05-29 15:35 G	40829914.99	40829915.15	40829915.32	0.0517	0.0299
Mercury	107081-05-21 04:47 G	40831732.59	40831732.70	40831732.82	0.0517	0.0227

Mercury	107081-08-18 09:35 G	40831821.82	40831821.90	40831821.98	0.0514	0.0395
Venus	107082-04-05 08:08 G	40832051.63	40832051.84	40832052.04	0.0507	0.0027
Earth	107083-06-26 02:08 G	40832498.36	40832498.59	40832498.82	0.0495	0.0137
Moon	107083-06-26 05:01 G	40832498.48	40832498.71	40832498.95	0.0495	0.0116 *
Mercury	107087-10-04 12:42 G	40834059.85	40834060.03	40834060.22	0.0511	0.0080
Venus	107088-09-26 10:32 G	40834417.80	40834417.94	40834418.10	0.0523	0.0341
Mercury	107093-03-09 08:52 G	40836042.79	40836042.87	40836042.96	0.0518	0.0390
Mercury	107093-06-06 14:08 G	40836131.97	40836132.09	40836132.20	0.0515	0.0240
Venus	107093-12-09 03:06 G	40836317.44	40836317.63	40836317.82	0.0509	0.0215
Moon	107095-06-30 11:30 G	40836885.78	40836885.98	40836886.19	0.0495	0.0235
Earth	107095-06-30 14:52 G	40836885.91	40836886.12	40836886.34	0.0495	0.0207 *
Mercury	107099-07-23 08:37 G	40838369.69	40838369.86	40838370.04	0.0510	0.0158
Venus	107100-06-02 05:01 G	40838683.52	40838683.71	40838683.91	0.0520	0.0084
Mercury	107105-03-26 18:13 G	40840442.14	40840442.26	40840442.39	0.0516	0.0080
Venus	107105-08-14 21:20 G	40840583.31	40840583.39	40840583.48	0.0512	0.0460
Venus	107106-04-09 00:56 G	40840820.42	40840820.54	40840820.68	0.0504	0.0396
Mercury	107111-05-12 05:01 G	40842679.60	40842679.71	40842679.83	0.0509	0.0385
Venus	107112-02-06 01:40 G	40842949.38	40842949.57	40842949.76	0.0518	0.0166
Mercury	107117-01-12 22:47 G	40844752.32	40844752.45	40844752.57	0.0517	0.0077
Venus	107117-12-12 20:37 G	40845086.16	40845086.36	40845086.55	0.0506	0.0159
Mercury	107123-05-29 12:56 G	40847079.89	40847080.04	40847080.19	0.0512	0.0285
Venus	107123-10-11 22:47 G	40847215.34	40847215.45	40847215.58	0.0516	0.0412
Venus	107124-06-04 21:06 G	40847452.30	40847452.38	40847452.46	0.0524	0.0477
Mercury	107128-11-01 03:20 G	40849062.52	40849062.64	40849062.75	0.0517	0.0231
Mercury	107129-01-29 08:08 G	40849151.76	40849151.84	40849151.92	0.0514	0.0391
Venus	107129-08-17 16:18 G	40849351.98	40849352.18	40849352.39	0.0508	0.0079
Mercury	107135-03-17 09:35 G	40851389.72	40851389.90	40851390.09	0.0511	0.0062
Venus	107136-02-08 18:13 G	40851718.08	40851718.26	40851718.44	0.0522	0.0228
Moon	107136-12-24 12:13 G	40852037.84	40852038.01	40852038.18	0.0531	0.0348
Earth	107136-12-24 13:40 G	40852037.91	40852038.07	40852038.24	0.0531	0.0365 *

Mercury	107140-08-20 07:11 G	40853372.72	40853372.80	40853372.88	0.0518	0.0397
Mercury	107140-11-17 12:13 G	40853461.90	40853462.01	40853462.13	0.0515	0.0232
Venus	107141-04-22 10:18 G	40853617.78	40853617.93	40853618.09	0.0510	0.0323
Mercury	107147-01-03 06:28 G	40855699.59	40855699.77	40855699.94	0.0510	0.0163
Venus	107147-10-14 15:06 G	40855983.93	40855984.13	40855984.33	0.0519	0.0022
Earth	107148-12-29 11:44 G	40856425.76	40856425.99	40856426.22	0.0532	0.0051
Moon	107148-12-29 14:23 G	40856425.86	40856426.10	40856426.34	0.0532	0.0028 *
Mercury	107152-09-05 16:32 G	40857772.07	40857772.19	40857772.32	0.0516	0.0075
Venus	107153-08-20 08:23 G	40858120.69	40858120.85	40858121.02	0.0505	0.0292
Mars	107156-07-16 01:54 G	40859181.55	40859181.58	40859181.61	0.0491	0.0489
Mercury	107158-10-22 02:37 G	40860009.50	40860009.61	40860009.73	0.0509	0.0391
Venus	107159-06-19 10:47 G	40860249.79	40860249.95	40860250.12	0.0517	0.0274
Moon	107161-01-03 03:06 G	40860813.50	40860813.63	40860813.77	0.0532	0.0425
Earth	107161-01-03 06:28 G	40860813.65	40860813.77	40860813.89	0.0532	0.0455 *
Mercury	107164-06-24 20:37 G	40862082.24	40862082.36	40862082.49	0.0517	0.0091
Venus	107165-04-25 03:49 G	40862386.45	40862386.66	40862386.87	0.0507	0.0053
Earth	107166-06-26 04:18 G	40862813.46	40862813.68	40862813.90	0.0496	0.0191
Moon	107166-06-26 07:54 G	40862813.62	40862813.83	40862814.03	0.0496	0.0222 *
Mercury	107170-11-08 10:32 G	40864409.79	40864409.94	40864410.09	0.0511	0.0279
Venus	107171-10-17 04:47 G	40864752.57	40864752.70	40864752.85	0.0522	0.0366
Mercury	107176-04-13 01:11 G	40866392.43	40866392.55	40866392.66	0.0518	0.0247
Mercury	107176-07-11 05:59 G	40866481.67	40866481.75	40866481.84	0.0515	0.0377
Venus	107176-12-28 22:47 G	40866652.26	40866652.45	40866652.65	0.0509	0.0190
Moon	107178-06-30 11:16 G	40867200.74	40867200.97	40867201.21	0.0495	0.0132
Earth	107178-06-30 14:37 G	40867200.88	40867201.11	40867201.33	0.0495	0.0147 *
Mercury	107182-08-27 06:13 G	40868719.58	40868719.76	40868719.95	0.0511	0.0041
Venus	107183-06-22 01:11 G	40869018.35	40869018.55	40869018.74	0.0521	0.0112
Mercury	107188-01-31 05:30 G	40870702.66	40870702.73	40870702.82	0.0518	0.0401
Mercury	107188-04-29 10:47 G	40870791.83	40870791.95	40870792.06	0.0515	0.0229
Venus	107188-09-02 18:28 G	40870918.17	40870918.27	40870918.39	0.0511	0.0430

Venus	107189-04-27 21:20 G	40871155.28	40871155.39	40871155.50	0.0503	0.0424
Earth	107190-07-05 02:08 G	40871588.55	40871588.59	40871588.64	0.0494	0.0484
Mercury	107194-06-15 03:20 G	40873029.46	40873029.64	40873029.81	0.0510	0.0181
Venus	107195-02-24 22:47 G	40873284.26	40873284.45	40873284.65	0.0519	0.0136
Mercury	107200-02-16 14:52 G	40875102.00	40875102.12	40875102.25	0.0516	0.0070
Venus	107200-12-31 16:18 G	40875420.99	40875421.18	40875421.37	0.0505	0.0188
Mercury	107206-04-03 00:13 G	40877339.40	40877339.51	40877339.62	0.0509	0.0398
Mercury	107206-07-02 12:13 G	40877430.00	40877430.01	40877430.02	0.0512	0.0510
Venus	107206-10-30 20:52 G	40877550.23	40877550.37	40877550.50	0.0516	0.0378
Venus	107207-06-24 18:42 G	40877787.25	40877787.28	40877787.33	0.0524	0.0513
Mercury	107211-12-05 19:11 G	40879412.17	40879412.30	40879412.43	0.0517	0.0091
Venus	107212-09-05 11:44 G	40879686.78	40879686.99	40879687.19	0.0508	0.0052
Mercury	107218-04-20 08:08 G	40881739.69	40881739.84	40881740.00	0.0511	0.0275
Venus	107219-02-27 13:54 G	40882052.91	40882053.08	40882053.26	0.0521	0.0255
Moon	107219-12-24 05:16 G	40882352.59	40882352.72	40882352.85	0.0530	0.0439
Earth	107219-12-24 09:20 G	40882352.77	40882352.89	40882353.01	0.0530	0.0448 *
Mercury	107223-09-23 23:01 G	40883722.35	40883722.46	40883722.58	0.0518	0.0258
Mercury	107223-12-22 04:04 G	40883811.58	40883811.67	40883811.76	0.0515	0.0367
Venus	107224-05-11 05:59 G	40883952.59	40883952.75	40883952.92	0.0510	0.0297
Mercury	107230-02-06 04:18 G	40886049.50	40886049.68	40886049.87	0.0510	0.0044
Venus	107230-11-02 10:18 G	40886318.73	40886318.93	40886319.13	0.0519	0.0008
Earth	107231-12-29 06:56 G	40886740.56	40886740.79	40886741.02	0.0531	0.0039
Moon	107231-12-29 10:32 G	40886740.71	40886740.94	40886741.17	0.0531	0.0006 *
Mercury	107235-07-13 03:35 G	40888032.57	40888032.65	40888032.72	0.0518	0.0415
Mercury	107235-10-10 08:37 G	40888121.75	40888121.86	40888121.98	0.0515	0.0216
Venus	107236-09-08 04:32 G	40888455.54	40888455.69	40888455.86	0.0505	0.0320
Mercury	107241-11-25 00:13 G	40890359.34	40890359.51	40890359.67	0.0510	0.0197
Venus	107242-07-08 06:28 G	40890584.60	40890584.77	40890584.95	0.0517	0.0248
Moon	107244-01-03 03:20 G	40891128.49	40891128.64	40891128.80	0.0533	0.0399
Earth	107244-01-03 06:42 G	40891128.62	40891128.78	40891128.94	0.0533	0.0387 *

Mercury	107247-07-29 13:25 G	40892431.93	40892432.06	40892432.19	0.0516	0.0068
Venus	107248-05-14 01:25 G	40892721.36	40892721.56	40892721.77	0.0506	0.0086
Moon	107249-06-25 04:47 G	40893128.50	40893128.70	40893128.90	0.0496	0.0231
Earth	107249-06-25 05:30 G	40893128.53	40893128.73	40893128.94	0.0496	0.0246 *
Mercury	107253-09-12 21:06 G	40894669.28	40894669.38	40894669.49	0.0509	0.0413
Mercury	107253-12-12 09:06 G	40894759.84	40894759.88	40894759.93	0.0512	0.0494
Venus	107254-03-13 05:01 G	40894850.65	40894850.71	40894850.78	0.0515	0.0487
Venus	107254-11-05 02:52 G	40895087.49	40895087.62	40895087.75	0.0523	0.0400
Mercury	107259-05-17 17:44 G	40896742.11	40896742.24	40896742.36	0.0516	0.0093
Venus	107260-01-17 20:08 G	40896987.14	40896987.34	40896987.53	0.0508	0.0157
Earth	107261-06-29 16:32 G	40897515.96	40897516.19	40897516.42	0.0495	0.0092
Moon	107261-06-29 17:30 G	40897515.99	40897516.23	40897516.48	0.0495	0.0076 *
Mercury	107265-09-30 05:44 G	40899069.59	40899069.74	40899069.90	0.0512	0.0271
Venus	107266-07-10 23:59 G	40899353.31	40899353.50	40899353.69	0.0521	0.0150
Mercury	107271-03-05 21:49 G	40901052.30	40901052.41	40901052.52	0.0517	0.0254
Mercury	107271-06-03 02:52 G	40901141.53	40901141.62	40901141.70	0.0514	0.0370
Venus	107271-09-22 14:52 G	40901252.99	40901253.12	40901253.24	0.0511	0.0400
Venus	107272-05-16 17:30 G	40901490.14	40901490.23	40901490.32	0.0503	0.0455
Moon	107273-07-04 03:20 G	40901903.51	40901903.64	40901903.77	0.0494	0.0403
Earth	107273-07-04 04:47 G	40901903.59	40901903.70	40901903.82	0.0494	0.0432 *
Mercury	107277-07-19 02:23 G	40903379.42	40903379.60	40903379.78	0.0510	0.0041
Venus	107278-03-15 20:23 G	40903619.15	40903619.35	40903619.55	0.0518	0.0103
Mercury	107282-12-23 01:40 G	40905362.50	40905362.57	40905362.65	0.0518	0.0422
Mercury	107283-03-22 06:56 G	40905451.67	40905451.79	40905451.91	0.0515	0.0210
Venus	107284-01-20 12:56 G	40905755.86	40905756.04	40905756.23	0.0506	0.0218
Mercury	107289-05-06 22:47 G	40907689.28	40907689.45	40907689.62	0.0510	0.0187
Venus	107289-11-18 17:16 G	40907885.08	40907885.22	40907885.37	0.0516	0.0349
Mars	107292-11-09 17:59 G	40908972.10	40908972.25	40908972.41	0.0536	0.0408
Mercury	107295-01-08 11:30 G	40909761.86	40909761.98	40909762.11	0.0516	0.0058
Venus	107295-09-25 09:06 G	40910021.67	40910021.88	40910022.09	0.0508	0.0022

Mercury	107301-02-23 18:28 G	40911999.17	40911999.27	40911999.37	0.0509	0.0425
Mercury	107301-05-25 06:13 G	40912089.70	40912089.76	40912089.82	0.0512	0.0480
Venus	107302-03-19 10:32 G	40912387.77	40912387.94	40912388.11	0.0522	0.0286
Earth	107302-12-24 09:35 G	40912667.85	40912667.90	40912667.96	0.0530	0.0513
Mercury	107306-10-28 16:18 G	40914072.06	40914072.18	40914072.31	0.0517	0.0091
Venus	107307-06-01 05:30 G	40914287.55	40914287.73	40914287.91	0.0509	0.0259
Mars	107310-10-10 01:40 G	40915514.29	40915514.57	40915514.86	0.0491	0.0177
Mercury	107313-03-13 03:06 G	40916399.47	40916399.63	40916399.79	0.0512	0.0258
Venus	107313-11-22 08:23 G	40916653.65	40916653.85	40916654.05	0.0520	0.0038
Earth	107314-12-29 10:47 G	40917055.73	40917055.95	40917056.18	0.0532	0.0091
Moon	107314-12-29 11:01 G	40917055.74	40917055.96	40917056.18	0.0532	0.0110 *
Mercury	107318-08-16 20:37 G	40918382.25	40918382.36	40918382.47	0.0517	0.0250
Mercury	107318-11-14 01:25 G	40918471.48	40918471.56	40918471.65	0.0514	0.0372
Venus	107319-02-03 23:44 G	40918553.46	40918553.49	40918553.53	0.0512	0.0503
Venus	107319-09-29 02:52 G	40918790.48	40918790.62	40918790.78	0.0504	0.0356
Mercury	107324-12-30 00:13 G	40920709.32	40920709.51	40920709.69	0.0511	0.0040
Venus	107325-07-28 06:28 G	40920919.59	40920919.77	40920919.95	0.0518	0.0207
Earth	107327-01-03 10:32 G	40921443.77	40921443.94	40921444.13	0.0532	0.0331
Moon	107327-01-03 11:16 G	40921443.80	40921443.97	40921444.15	0.0532	0.0349 *
Mercury	107330-06-05 00:42 G	40922692.45	40922692.53	40922692.61	0.0518	0.0412
Mercury	107330-09-02 05:44 G	40922781.63	40922781.74	40922781.86	0.0515	0.0218
Venus	107331-06-03 22:47 G	40923056.25	40923056.45	40923056.65	0.0506	0.0120
Moon	107332-06-25 05:01 G	40923443.52	40923443.71	40923443.91	0.0496	0.0279
Earth	107332-06-25 09:06 G	40923443.70	40923443.88	40923444.07	0.0496	0.0296 *
Mercury	107336-10-17 20:52 G	40925019.21	40925019.37	40925019.55	0.0510	0.0184
Venus	107337-04-02 04:18 G	40925185.58	40925185.68	40925185.77	0.0515	0.0451
Venus	107337-11-25 01:25 G	40925422.45	40925422.56	40925422.67	0.0523	0.0436
Mercury	107342-06-21 10:04 G	40927091.79	40927091.92	40927092.04	0.0516	0.0057
Venus	107343-02-06 17:30 G	40927322.03	40927322.23	40927322.43	0.0509	0.0125
Earth	107344-06-29 21:35 G	40927831.16	40927831.40	40927831.64	0.0495	0.0049

Moon	107344-06-30 01:40 G	40927831.34	40927831.57	40927831.80	0.0495	0.0084 *
Mercury	107348-08-05 17:30 G	40929329.13	40929329.23	40929329.34	0.0509	0.0407
Mercury	107348-11-04 05:16 G	40929419.68	40929419.72	40929419.76	0.0512	0.0497
Venus	107349-07-30 21:35 G	40929688.22	40929688.40	40929688.59	0.0521	0.0184
Mercury	107354-04-09 14:37 G	40931401.98	40931402.11	40931402.24	0.0517	0.0097
Venus	107354-10-12 13:25 G	40931587.92	40931588.06	40931588.20	0.0511	0.0367
Venus	107355-06-06 15:49 G	40931825.12	40931825.16	40931825.22	0.0503	0.0489
Moon	107356-07-04 05:16 G	40932218.59	40932218.72	40932218.86	0.0494	0.0404
Earth	107356-07-04 09:20 G	40932218.75	40932218.89	40932219.04	0.0494	0.0388 *
Mercury	107360-08-23 00:28 G	40933729.36	40933729.52	40933729.68	0.0511	0.0250
Venus	107361-04-04 17:01 G	40933954.01	40933954.21	40933954.41	0.0519	0.0073
Mercury	107366-01-26 19:25 G	40935712.20	40935712.31	40935712.42	0.0517	0.0245
Mercury	107366-04-26 00:13 G	40935801.43	40935801.51	40935801.60	0.0514	0.0378
Venus	107367-02-09 13:40 G	40936090.89	40936091.07	40936091.25	0.0505	0.0260
Mercury	107372-06-10 21:35 G	40938039.22	40938039.40	40938039.58	0.0511	0.0031
Venus	107372-12-08 15:35 G	40938219.99	40938220.15	40938220.31	0.0517	0.0315
Mercury	107377-11-14 23:44 G	40940022.41	40940022.49	40940022.57	0.0518	0.0404
Mercury	107378-02-12 04:47 G	40940111.59	40940111.70	40940111.82	0.0515	0.0225
Venus	107378-10-15 09:06 G	40940356.68	40940356.88	40940357.09	0.0507	0.0023
Mercury	107384-03-29 18:56 G	40942349.12	40942349.29	40942349.46	0.0510	0.0183
Venus	107385-04-07 11:44 G	40942722.85	40942722.99	40942723.15	0.0522	0.0334
Mercury	107389-12-01 09:06 G	40944421.76	40944421.88	40944422.01	0.0516	0.0071
Venus	107390-06-20 04:18 G	40944622.49	40944622.68	40944622.87	0.0509	0.0221
Mercury	107396-01-16 16:18 G	40946659.06	40946659.18	40946659.29	0.0509	0.0399
Mercury	107396-04-16 03:49 G	40946749.64	40946749.66	40946749.69	0.0512	0.0506
Venus	107396-12-11 08:52 G	40946988.67	40946988.87	40946989.06	0.0520	0.0080
Moon	107397-12-28 10:18 G	40947370.71	40947370.93	40947371.15	0.0531	0.0166
Earth	107397-12-28 14:08 G	40947370.87	40947371.09	40947371.31	0.0531	0.0147 *
Mercury	107401-09-20 13:11 G	40948731.93	40948732.05	40948732.18	0.0517	0.0096
Venus	107402-02-23 22:32 G	40948888.36	40948888.44	40948888.52	0.0512	0.0469

Venus	107402-10-19 01:54 G	40949125.46	40949125.58	40949125.71	0.0504	0.0393
Mercury	107408-02-04 00:13 G	40951059.36	40951059.51	40951059.67	0.0511	0.0275
Venus	107408-08-17 05:44 G	40951254.55	40951254.74	40951254.93	0.0518	0.0169
Earth	107410-01-03 12:28 G	40951758.82	40951759.02	40951759.22	0.0532	0.0268
Moon	107410-01-03 16:18 G	40951758.98	40951759.18	40951759.39	0.0532	0.0233 *
Mercury	107413-07-09 17:59 G	40953042.13	40953042.25	40953042.36	0.0518	0.0247
Mercury	107413-10-06 22:47 G	40953131.37	40953131.45	40953131.54	0.0515	0.0377
Venus	107414-06-23 22:47 G	40953391.26	40953391.45	40953391.65	0.0506	0.0158
Moon	107415-06-26 15:06 G	40953758.97	40953759.13	40953759.30	0.0496	0.0359
Earth	107415-06-26 16:04 G	40953759.00	40953759.17	40953759.35	0.0496	0.0329 *
Mercury	107419-11-22 19:25 G	40955369.13	40955369.31	40955369.50	0.0511	0.0030
Venus	107420-04-22 01:11 G	40955520.44	40955520.55	40955520.67	0.0516	0.0420
Venus	107420-12-14 23:16 G	40955757.39	40955757.47	40955757.56	0.0524	0.0472
Mercury	107425-04-27 22:47 G	40957352.36	40957352.45	40957352.53	0.0518	0.0395
Mercury	107425-07-26 03:49 G	40957441.55	40957441.66	40957441.77	0.0515	0.0234
Venus	107426-02-26 20:08 G	40957657.14	40957657.34	40957657.55	0.0508	0.0077
Earth	107427-07-01 06:28 G	40958146.53	40958146.77	40958147.00	0.0495	0.0019
Moon	107427-07-01 06:42 G	40958146.55	40958146.78	40958147.01	0.0495	0.0008 *
Mercury	107431-09-10 16:47 G	40959679.03	40959679.20	40959679.37	0.0510	0.0187
Venus	107432-08-19 21:06 G	40960023.20	40960023.38	40960023.56	0.0522	0.0224
Mercury	107437-05-14 08:23 G	40961751.72	40961751.85	40961751.97	0.0516	0.0081
Venus	107437-11-01 15:20 G	40961922.98	40961923.14	40961923.30	0.0510	0.0319
Earth	107439-07-05 17:59 G	40962534.08	40962534.25	40962534.41	0.0494	0.0353
Moon	107439-07-05 17:30 G	40962534.08	40962534.23	40962534.40	0.0494	0.0374 *
Mercury	107443-06-29 14:23 G	40963988.98	40963989.10	40963989.21	0.0509	0.0396
Mercury	107443-09-28 01:54 G	40964079.58	40964079.58	40964079.60	0.0512	0.0511
Venus	107444-04-24 19:40 G	40964289.11	40964289.32	40964289.52	0.0519	0.0025
Mars	107447-02-06 07:11 G	40965306.55	40965306.80	40965307.04	0.0535	0.0047
Mercury	107449-03-02 12:42 G	40966061.90	40966062.03	40966062.16	0.0516	0.0076
Venus	107450-03-01 13:40 G	40966425.91	40966426.07	40966426.24	0.0505	0.0302

Mercury	107455-07-16 23:01 G	40968389.31	40968389.46	40968389.61	0.0511	0.0287
Venus	107455-12-29 17:16 G	40968555.06	40968555.22	40968555.40	0.0517	0.0270
Mercury	107460-12-19 16:47 G	40970372.08	40970372.20	40970372.31	0.0517	0.0240
Mercury	107461-03-18 21:35 G	40970461.32	40970461.40	40970461.49	0.0515	0.0383
Venus	107461-11-04 09:06 G	40970691.67	40970691.88	40970692.08	0.0507	0.0061
Mars	107465-01-04 10:47 G	40971848.72	40971848.95	40971849.21	0.0491	0.0293
Mercury	107467-05-04 19:25 G	40972699.13	40972699.31	40972699.50	0.0511	0.0062
Venus	107467-09-03 15:06 G	40972821.11	40972821.13	40972821.16	0.0515	0.0510
Venus	107468-04-27 12:13 G	40973057.87	40973058.01	40973058.15	0.0522	0.0375
Mercury	107472-10-07 21:20 G	40974682.31	40974682.39	40974682.47	0.0518	0.0393
Mercury	107473-01-05 02:23 G	40974771.49	40974771.60	40974771.72	0.0515	0.0237
Venus	107473-07-10 05:30 G	40974957.54	40974957.73	40974957.93	0.0509	0.0179
Mercury	107479-02-20 14:52 G	40977008.95	40977009.12	40977009.29	0.0510	0.0183
Venus	107480-01-01 06:42 G	40977323.59	40977323.78	40977323.98	0.0521	0.0117
Moon	107480-12-28 15:49 G	40977685.94	40977686.16	40977686.39	0.0531	0.0170
Earth	107480-12-28 17:30 G	40977686.02	40977686.23	40977686.44	0.0531	0.0204 *
Mercury	107484-10-24 07:25 G	40979081.68	40979081.81	40979081.94	0.0516	0.0093
Venus	107485-03-15 02:37 G	40979223.49	40979223.61	40979223.73	0.0511	0.0416
Venus	107485-11-07 05:30 G	40979460.63	40979460.73	40979460.83	0.0504	0.0443
Mercury	107490-12-09 12:13 G	40981318.90	40981319.01	40981319.13	0.0509	0.0395
Mercury	107491-03-09 23:59 G	40981409.49	40981409.50	40981409.52	0.0512	0.0509
Venus	107491-09-06 05:16 G	40981589.53	40981589.72	40981589.91	0.0518	0.0129
Earth	107493-01-02 19:40 G	40982074.11	40982074.32	40982074.53	0.0533	0.0224
Moon	107493-01-02 20:37 G	40982074.16	40982074.36	40982074.56	0.0533	0.0236 *
Mercury	107496-08-12 11:59 G	40983391.87	40983392.00	40983392.13	0.0517	0.0061
Venus	107497-07-13 01:25 G	40983726.38	40983726.56	40983726.75	0.0505	0.0209
Earth	107498-06-26 02:37 G	40984074.45	40984074.61	40984074.77	0.0496	0.0358
Moon	107498-06-26 05:59 G	40984074.58	40984074.75	40984074.92	0.0496	0.0347 *
Mercury	107502-12-27 21:20 G	40985719.24	40985719.39	40985719.54	0.0512	0.0293
Venus	107503-05-13 04:18 G	40985855.55	40985855.68	40985855.82	0.0516	0.0370

Mercury	107508-06-01 16:18 G	40987702.06	40987702.18	40987702.30	0.0517	0.0218
Mercury	107508-08-29 21:06 G	40987791.31	40987791.38	40987791.46	0.0514	0.0404
Venus	107509-03-18 21:35 G	40987992.19	40987992.40	40987992.60	0.0508	0.0032
Moon	107510-07-01 11:44 G	40988461.76	40988461.99	40988462.22	0.0495	0.0040
Earth	107510-07-01 15:35 G	40988461.91	40988462.15	40988462.38	0.0495	0.0016 *
Mercury	107514-10-15 18:27 G	40990029.09	40990029.27	40990029.46	0.0511	0.0076
Venus	107515-09-09 23:59 G	40990358.33	40990358.50	40990358.67	0.0522	0.0274
Mercury	107520-03-20 20:23 G	40992012.26	40992012.35	40992012.43	0.0518	0.0383
Mercury	107520-06-18 01:25 G	40992101.45	40992101.56	40992101.68	0.0515	0.0246
Venus	107520-11-21 16:03 G	40992257.99	40992258.17	40992258.34	0.0510	0.0277
Earth	107522-07-06 03:49 G	40992849.48	40992849.66	40992849.84	0.0495	0.0326
Moon	107522-07-06 07:54 G	40992849.64	40992849.83	40992850.02	0.0495	0.0296 *
Mercury	107526-08-03 15:20 G	40994338.96	40994339.14	40994339.31	0.0510	0.0148
Venus	107527-05-15 20:51 G	40994624.17	40994624.37	40994624.57	0.0519	0.0023
Mercury	107532-04-06 06:13 G	40996411.64	40996411.76	40996411.89	0.0516	0.0098
Venus	107533-03-21 15:49 G	40996761.02	40996761.16	40996761.32	0.0505	0.0348
Mercury	107538-05-22 10:47 G	40998648.83	40998648.95	40998649.07	0.0509	0.0387
Venus	107539-01-18 15:35 G	40998889.97	40998890.15	40998890.33	0.0517	0.0233
Mercury	107544-01-24 11:15 G	41000721.84	41000721.97	41000722.09	0.0517	0.0049
Venus	107544-11-24 13:39 G	41001026.87	41001027.07	41001027.27	0.0507	0.0116
Mercury	107550-06-08 19:25 G	41003049.16	41003049.31	41003049.46	0.0511	0.0295
Venus	107550-09-23 14:37 G	41003156.03	41003156.11	41003156.19	0.0515	0.0471
Venus	107551-05-18 12:27 G	41003392.90	41003393.02	41003393.14	0.0523	0.0419
Mercury	107555-11-12 15:35 G	41005032.03	41005032.15	41005032.27	0.0517	0.0202
Mercury	107556-02-09 20:37 G	41005121.29	41005121.36	41005121.43	0.0514	0.0419
Venus	107556-07-30 09:20 G	41005292.69	41005292.89	41005293.09	0.0508	0.0125
Mercury	107562-03-27 17:01 G	41007359.02	41007359.21	41007359.39	0.0511	0.0083
Venus	107563-01-21 10:47 G	41007658.76	41007658.95	41007659.14	0.0521	0.0172
Earth	107563-12-30 05:15 G	41008001.52	41008001.72	41008001.93	0.0531	0.0232
Moon	107563-12-30 08:37 G	41008001.65	41008001.86	41008002.07	0.0531	0.0239 *

Mercury	107567-08-31 19:54 G	41009342.24	41009342.33	41009342.43	0.0518	0.0360
Mercury	107567-11-29 01:11 G	41009431.44	41009431.55	41009431.65	0.0515	0.0268
Venus	107568-04-04 04:47 G	41009558.56	41009558.70	41009558.84	0.0511	0.0368
Venus	107568-11-27 06:56 G	41009795.75	41009795.79	41009795.84	0.0503	0.0490
Mercury	107574-01-13 14:08 G	41011668.92	41011669.09	41011669.27	0.0510	0.0133
Venus	107574-09-26 08:51 G	41011924.67	41011924.87	41011925.07	0.0519	0.0077
Moon	107576-01-04 01:11 G	41012389.35	41012389.55	41012389.76	0.0532	0.0213
Earth	107576-01-04 04:47 G	41012389.49	41012389.70	41012389.92	0.0532	0.0187 *
Mercury	107579-09-17 05:15 G	41013741.60	41013741.72	41013741.85	0.0516	0.0109
Venus	107580-08-02 02:51 G	41014061.44	41014061.62	41014061.80	0.0506	0.0253
Earth	107581-06-26 12:27 G	41014389.88	41014390.02	41014390.18	0.0497	0.0386
Moon	107581-06-26 15:20 G	41014389.99	41014390.14	41014390.29	0.0497	0.0369 *
Mercury	107585-11-01 11:01 G	41015978.84	41015978.96	41015979.10	0.0509	0.0351
Venus	107586-06-01 06:13 G	41016190.61	41016190.76	41016190.92	0.0516	0.0323
Mercury	107591-07-06 10:03 G	41018051.79	41018051.92	41018052.04	0.0517	0.0043
Venus	107592-04-06 23:59 G	41018327.30	41018327.50	41018327.71	0.0508	0.0019
Moon	107593-07-01 01:25 G	41018777.32	41018777.56	41018777.81	0.0495	0.0012
Earth	107593-07-01 03:20 G	41018777.41	41018777.64	41018777.88	0.0495	0.0038 *
Mercury	107597-11-18 17:59 G	41020379.10	41020379.25	41020379.40	0.0511	0.0304
Venus	107598-09-28 22:32 G	41020693.29	41020693.44	41020693.60	0.0522	0.0314
Mars	107601-05-03 18:27 G	41021641.19	41021641.27	41021641.37	0.0536	0.0495
Mercury	107603-04-24 14:51 G	41022362.00	41022362.12	41022362.24	0.0518	0.0189
Mercury	107603-07-22 19:39 G	41022451.26	41022451.32	41022451.39	0.0515	0.0433
Venus	107603-12-11 21:06 G	41022593.20	41022593.38	41022593.57	0.0510	0.0220
Earth	107605-07-05 17:30 G	41023165.06	41023165.23	41023165.42	0.0494	0.0309
Moon	107605-07-05 18:42 G	41023165.11	41023165.28	41023165.46	0.0494	0.0311 *
Mercury	107609-09-06 15:06 G	41024688.95	41024689.13	41024689.31	0.0511	0.0085
Venus	107610-06-03 20:37 G	41024959.16	41024959.36	41024959.56	0.0520	0.0066
Mercury	107615-02-10 19:11 G	41026672.21	41026672.30	41026672.40	0.0518	0.0344
Mercury	107615-05-11 00:27 G	41026761.41	41026761.52	41026761.62	0.0515	0.0284

Venus	107615-08-16 16:18 G	41026859.10	41026859.18	41026859.27	0.0512	0.0464
Venus	107616-04-09 19:25 G	41027096.19	41027096.31	41027096.44	0.0504	0.0400
Mercury	107621-06-25 12:42 G	41028998.85	41028999.03	41028999.20	0.0510	0.0126
Venus	107622-02-06 19:25 G	41029225.13	41029225.31	41029225.50	0.0518	0.0179
Mercury	107626-11-29 23:30 G	41030982.45	41030982.48	41030982.51	0.0519	0.0503
Mercury	107627-02-27 05:01 G	41031071.58	41031071.71	41031071.83	0.0516	0.0132
Venus	107627-12-14 15:49 G	41031361.96	41031362.16	41031362.35	0.0506	0.0165
Mercury	107633-04-13 10:03 G	41033308.79	41033308.92	41033309.06	0.0509	0.0337
Venus	107633-10-12 18:13 G	41033491.15	41033491.26	41033491.38	0.0515	0.0421
Venus	107634-06-06 16:03 G	41033728.10	41033728.17	41033728.26	0.0523	0.0473
Mercury	107638-12-16 09:06 G	41035381.75	41035381.88	41035382.01	0.0517	0.0030
Venus	107639-08-19 10:32 G	41035627.74	41035627.94	41035628.15	0.0508	0.0081
Mercury	107645-04-30 18:27 G	41037709.13	41037709.27	41037709.41	0.0511	0.0340
Venus	107646-02-09 12:42 G	41037993.85	41037994.03	41037994.21	0.0521	0.0220
Earth	107646-12-29 12:13 G	41038316.82	41038317.01	41038317.21	0.0530	0.0276
Moon	107646-12-29 15:20 G	41038316.95	41038317.14	41038317.33	0.0530	0.0293 *
Mercury	107650-10-04 13:39 G	41039691.95	41039692.07	41039692.19	0.0518	0.0182
Mercury	107651-01-01 18:42 G	41039781.21	41039781.28	41039781.34	0.0515	0.0439
Venus	107651-04-24 06:56 G	41039893.64	41039893.79	41039893.96	0.0511	0.0321
Mercury	107657-02-16 13:39 G	41042018.89	41042019.07	41042019.25	0.0510	0.0094
Venus	107657-10-15 07:11 G	41042259.60	41042259.80	41042260.00	0.0519	0.0039
Moon	107659-01-03 05:01 G	41042704.48	41042704.71	41042704.95	0.0532	0.0093
Earth	107659-01-03 07:25 G	41042704.59	41042704.81	41042705.04	0.0532	0.0125 *
Mercury	107662-07-23 18:13 G	41044002.17	41044002.26	41044002.36	0.0519	0.0334
Mercury	107662-10-20 23:30 G	41044091.38	41044091.48	41044091.59	0.0515	0.0296
Venus	107663-08-22 07:39 G	41044396.66	41044396.82	41044396.98	0.0505	0.0309
Moon	107664-06-26 00:42 G	41044705.43	41044705.53	41044705.65	0.0497	0.0434
Earth	107664-06-26 03:06 G	41044705.49	41044705.63	41044705.77	0.0497	0.0401 *
Mercury	107668-12-05 10:47 G	41046328.77	41046328.95	41046329.13	0.0510	0.0123
Venus	107669-06-20 05:15 G	41046525.56	41046525.72	41046525.90	0.0517	0.0284

Mercury	107674-05-11 22:47 G	41048312.41	41048312.45	41048312.49	0.0519	0.0489
Mercury	107674-08-09 04:03 G	41048401.55	41048401.67	41048401.80	0.0516	0.0145
Venus	107675-04-27 03:35 G	41048662.45	41048662.65	41048662.86	0.0507	0.0071
Earth	107676-06-30 15:06 G	41049092.90	41049093.13	41049093.37	0.0495	0.0062
Moon	107676-06-30 17:59 G	41049093.01	41049093.25	41049093.49	0.0495	0.0065 *
Mercury	107680-09-23 08:23 G	41050638.71	41050638.85	41050638.99	0.0509	0.0332
Venus	107681-10-18 02:23 G	41051028.46	41051028.60	41051028.74	0.0523	0.0369
Mercury	107686-05-28 08:37 G	41052711.73	41052711.86	41052711.99	0.0517	0.0010
Venus	107686-12-30 23:01 G	41052928.27	41052928.46	41052928.66	0.0509	0.0173
Moon	107688-07-04 23:59 G	41053480.32	41053480.50	41053480.69	0.0494	0.0302
Earth	107688-07-05 03:20 G	41053480.45	41053480.64	41053480.84	0.0494	0.0275 *
Mercury	107692-10-10 17:15 G	41055039.09	41055039.22	41055039.35	0.0512	0.0352
Venus	107693-06-22 23:59 G	41055294.31	41055294.50	41055294.70	0.0520	0.0119
Mercury	107698-03-16 12:42 G	41057021.91	41057022.03	41057022.15	0.0517	0.0173
Mercury	107698-06-13 17:30 G	41057111.17	41057111.23	41057111.29	0.0514	0.0448
Venus	107698-09-04 17:15 G	41057194.11	41057194.22	41057194.34	0.0512	0.0421
Venus	107699-04-29 20:23 G	41057431.26	41057431.35	41057431.45	0.0504	0.0444
Mercury	107704-07-30 13:54 G	41059348.90	41059349.08	41059349.26	0.0511	0.0128
Venus	107705-02-26 21:20 G	41059560.19	41059560.39	41059560.58	0.0518	0.0132
Mercury	107710-01-03 17:01 G	41061332.12	41061332.21	41061332.31	0.0518	0.0328
Mercury	107710-04-02 22:18 G	41061421.33	41061421.43	41061421.53	0.0515	0.0300
Venus	107711-01-03 17:44 G	41061697.05	41061697.24	41061697.42	0.0506	0.0212
Mercury	107716-05-18 09:20 G	41063658.71	41063658.89	41063659.07	0.0509	0.0114
Venus	107716-11-01 16:18 G	41063826.05	41063826.18	41063826.31	0.0515	0.0385
Venus	107717-06-26 13:54 G	41064063.05	41064063.08	41064063.13	0.0523	0.0511
Mars	107719-10-25 16:18 G	41064914.01	41064914.18	41064914.34	0.0537	0.0400
Mercury	107721-10-22 21:35 G	41065642.36	41065642.40	41065642.45	0.0520	0.0482
Mercury	107722-01-20 03:06 G	41065731.51	41065731.63	41065731.75	0.0516	0.0153
Venus	107722-09-08 14:37 G	41065962.91	41065963.11	41065963.32	0.0508	0.0028
Mercury	107728-03-06 06:27 G	41067968.63	41067968.77	41067968.91	0.0509	0.0330

Venus	107729-03-01 11:15 G	41068328.80	41068328.97	41068329.14	0.0521	0.0260
Moon	107729-12-29 14:08 G	41068631.91	41068632.09	41068632.28	0.0531	0.0305
Earth	107729-12-29 15:20 G	41068631.97	41068632.14	41068632.32	0.0531	0.0336 *
Mercury	107733-11-08 07:39 G	41070041.69	41070041.82	41070041.95	0.0517	0.0010
Venus	107734-05-14 10:03 G	41070228.75	41070228.92	41070229.10	0.0510	0.0271
Mars	107737-09-20 02:51 G	41071453.33	41071453.62	41071453.92	0.0490	0.0128
Mercury	107740-03-23 15:06 G	41072369.00	41072369.13	41072369.27	0.0511	0.0353
Venus	107740-11-04 09:49 G	41072594.71	41072594.91	41072595.11	0.0519	0.0015
Earth	107742-01-03 17:44 G	41073020.01	41073020.24	41073020.47	0.0532	0.0090
Moon	107742-01-03 20:23 G	41073020.11	41073020.35	41073020.58	0.0532	0.0092 *
Mercury	107745-08-27 11:59 G	41074351.88	41074352.00	41074352.12	0.0517	0.0155
Mercury	107745-11-24 16:47 G	41074441.15	41074441.20	41074441.26	0.0514	0.0465
Venus	107746-09-11 08:37 G	41074731.71	41074731.86	41074732.01	0.0505	0.0354
Moon	107747-06-27 07:25 G	41075020.70	41075020.81	41075020.94	0.0497	0.0429
Earth	107747-06-27 11:15 G	41075020.87	41075020.97	41075021.09	0.0497	0.0437 *
Mercury	107752-01-10 12:13 G	41076678.84	41076679.01	41076679.19	0.0511	0.0136
Venus	107752-07-10 08:08 G	41076860.67	41076860.84	41076861.02	0.0517	0.0235
Moon	107754-01-08 14:37 G	41077408.02	41077408.11	41077408.21	0.0533	0.0478
Earth	107754-01-08 17:59 G	41077408.19	41077408.25	41077408.32	0.0533	0.0510 *
Mercury	107757-06-15 16:03 G	41078662.07	41078662.17	41078662.27	0.0518	0.0321
Mercury	107757-09-12 21:06 G	41078751.28	41078751.38	41078751.48	0.0515	0.0306
Venus	107758-05-17 03:35 G	41078997.45	41078997.65	41078997.86	0.0507	0.0113
Earth	107759-07-01 23:15 G	41079408.24	41079408.47	41079408.71	0.0496	0.0097
Moon	107759-07-02 02:37 G	41079408.38	41079408.61	41079408.83	0.0496	0.0121 *
Mercury	107763-10-29 09:06 G	41080988.70	41080988.88	41080989.06	0.0510	0.0087
Venus	107764-03-15 06:13 G	41081126.69	41081126.76	41081126.83	0.0514	0.0477
Venus	107764-11-07 03:20 G	41081363.52	41081363.64	41081363.76	0.0522	0.0415
Mercury	107769-04-03 20:23 G	41082972.30	41082972.35	41082972.40	0.0519	0.0479
Mercury	107769-07-02 01:39 G	41083061.45	41083061.57	41083061.70	0.0516	0.0157
Venus	107770-01-19 23:44 G	41083263.30	41083263.49	41083263.69	0.0509	0.0129

Moon	107771-07-06 10:47 G	41083795.74	41083795.95	41083796.18	0.0495	0.0220
Earth	107771-07-06 13:25 G	41083795.86	41083796.06	41083796.27	0.0495	0.0247 *
Mercury	107775-08-17 04:47 G	41085298.57	41085298.70	41085298.84	0.0509	0.0324
Venus	107776-07-12 21:06 G	41085629.19	41085629.38	41085629.58	0.0520	0.0153
Mercury	107781-04-20 06:27 G	41087371.64	41087371.77	41087371.89	0.0517	0.0017
Venus	107781-09-24 19:54 G	41087529.19	41087529.33	41087529.47	0.0512	0.0372
Venus	107782-05-19 23:15 G	41087766.44	41087766.47	41087766.51	0.0504	0.0494
Mercury	107787-09-03 12:56 G	41089698.91	41089699.04	41089699.18	0.0511	0.0350
Venus	107788-03-17 18:56 G	41089895.09	41089895.29	41089895.48	0.0518	0.0097
Mercury	107793-02-06 10:47 G	41091681.83	41091681.95	41091682.07	0.0518	0.0151
Mercury	107793-05-06 15:49 G	41091771.11	41091771.16	41091771.21	0.0515	0.0469
Venus	107794-01-22 19:11 G	41092032.12	41092032.30	41092032.48	0.0506	0.0257
Mercury	107799-06-22 10:03 G	41094008.74	41094008.92	41094009.10	0.0511	0.0130
Venus	107799-11-21 17:30 G	41094161.09	41094161.23	41094161.39	0.0516	0.0341
Mercury	107804-11-26 15:06 G	41095992.03	41095992.13	41095992.24	0.0518	0.0309
Mercury	107805-02-23 20:23 G	41096081.25	41096081.35	41096081.45	0.0515	0.0318
Venus	107805-09-28 14:51 G	41096297.92	41096298.12	41096298.33	0.0508	0.0018
Mercury	107811-04-11 07:11 G	41098318.62	41098318.80	41098318.98	0.0510	0.0086
Venus	107812-03-21 13:11 G	41098663.89	41098664.05	41098664.22	0.0522	0.0308
Moon	107812-12-29 19:11 G	41098947.15	41098947.30	41098947.46	0.0530	0.0390
Earth	107812-12-29 23:01 G	41098947.31	41098947.46	41098947.63	0.0530	0.0376 *
Mercury	107816-09-14 18:56 G	41100302.25	41100302.29	41100302.34	0.0519	0.0476
Mercury	107816-12-13 00:27 G	41100391.40	41100391.52	41100391.64	0.0516	0.0158
Venus	107817-06-03 08:51 G	41100563.69	41100563.87	41100564.06	0.0510	0.0233
Mercury	107823-01-28 04:03 G	41102628.53	41102628.67	41102628.82	0.0509	0.0304
Venus	107823-11-25 10:03 G	41102929.72	41102929.92	41102930.12	0.0519	0.0055
Earth	107825-01-03 21:06 G	41103335.15	41103335.38	41103335.61	0.0531	0.0031
Moon	107825-01-04 00:27 G	41103335.30	41103335.52	41103335.75	0.0531	0.0058 *
Mercury	107828-10-01 04:47 G	41104701.58	41104701.70	41104701.83	0.0517	0.0017
Venus	107829-02-06 04:03 G	41104829.60	41104829.67	41104829.75	0.0513	0.0478

Venus	107829-10-01 08:08 G	41105066.72	41105066.84	41105066.97	0.0505	0.0395
Earth	107830-06-27 18:42 G	41105336.22	41105336.28	41105336.36	0.0497	0.0474
Moon	107830-06-27 20:37 G	41105336.25	41105336.36	41105336.47	0.0497	0.0444 *
Mercury	107835-02-14 11:01 G	41107028.83	41107028.96	41107029.10	0.0511	0.0351
Venus	107835-07-31 04:47 G	41107195.52	41107195.70	41107195.89	0.0516	0.0203
Moon	107837-01-08 11:59 G	41107722.89	41107723.00	41107723.13	0.0533	0.0454
Earth	107837-01-08 15:06 G	41107722.99	41107723.13	41107723.26	0.0533	0.0427 *
Mercury	107840-07-20 09:20 G	41109011.76	41109011.89	41109012.01	0.0518	0.0153
Mercury	107840-10-17 14:23 G	41109101.05	41109101.10	41109101.15	0.0515	0.0469
Venus	107841-06-06 04:47 G	41109332.50	41109332.70	41109332.90	0.0507	0.0158
Moon	107842-07-02 07:25 G	41109723.59	41109723.81	41109724.04	0.0496	0.0102
Earth	107842-07-02 09:06 G	41109723.66	41109723.88	41109724.12	0.0496	0.0130 *
Mercury	107846-12-03 07:39 G	41111338.64	41111338.82	41111339.00	0.0510	0.0126
Venus	107847-04-05 02:51 G	41111461.52	41111461.62	41111461.72	0.0514	0.0446
Venus	107847-11-27 23:44 G	41111698.39	41111698.49	41111698.59	0.0522	0.0448
Mercury	107852-05-08 13:39 G	41113321.97	41113322.07	41113322.17	0.0519	0.0310
Mercury	107852-08-05 18:42 G	41113411.19	41113411.28	41113411.39	0.0516	0.0319
Venus	107853-02-08 23:59 G	41113598.30	41113598.50	41113598.71	0.0509	0.0088
Earth	107854-07-06 19:54 G	41114111.12	41114111.33	41114111.55	0.0495	0.0206
Moon	107854-07-06 22:03 G	41114111.20	41114111.42	41114111.64	0.0495	0.0204 *
Mercury	107858-09-21 04:32 G	41115648.51	41115648.69	41115648.87	0.0510	0.0095
Venus	107859-08-02 21:35 G	41115964.21	41115964.40	41115964.58	0.0521	0.0196
Mercury	107864-02-25 17:44 G	41117632.19	41117632.24	41117632.30	0.0519	0.0469
Mercury	107864-05-24 23:15 G	41117721.35	41117721.47	41117721.59	0.0516	0.0166
Venus	107864-10-14 19:11 G	41117864.14	41117864.30	41117864.45	0.0511	0.0334
Mercury	107870-07-10 01:54 G	41119958.44	41119958.58	41119958.73	0.0509	0.0308
Venus	107871-04-07 19:39 G	41120230.12	41120230.32	41120230.52	0.0518	0.0054
Mars	107874-01-19 22:03 G	41121248.17	41121248.42	41121248.66	0.0536	0.0008
Mercury	107876-03-13 03:20 G	41122031.51	41122031.64	41122031.77	0.0517	0.0011
Venus	107877-02-11 16:47 G	41122367.04	41122367.20	41122367.37	0.0506	0.0293

Mercury	107882-07-27 10:03 G	41124358.79	41124358.92	41124359.05	0.0511	0.0365
Venus	107882-12-11 16:47 G	41124496.05	41124496.20	41124496.37	0.0516	0.0302
Mercury	107887-12-31 07:39 G	41126341.70	41126341.82	41126341.94	0.0518	0.0155
Mercury	107888-03-29 12:42 G	41126430.98	41126431.03	41126431.08	0.0515	0.0466
Venus	107888-10-17 12:56 G	41126632.83	41126633.04	41126633.24	0.0508	0.0053
Mars	107891-12-16 06:27 G	41127787.54	41127787.77	41127788.02	0.0490	0.0306
Mercury	107894-05-15 05:30 G	41128668.56	41128668.73	41128668.91	0.0510	0.0125
Venus	107895-04-10 08:37 G	41128998.72	41128998.86	41128999.02	0.0521	0.0337
Moon	107895-12-29 18:13 G	41129262.16	41129262.26	41129262.36	0.0529	0.0478
Earth	107895-12-29 18:42 G	41129262.18	41129262.28	41129262.40	0.0529	0.0459 *
Mercury	107899-10-19 11:44 G	41130651.89	41130651.99	41130652.10	0.0519	0.0318
Mercury	107900-01-16 17:15 G	41130741.12	41130741.22	41130741.32	0.0516	0.0313
Venus	107900-06-23 08:08 G	41130898.65	41130898.84	41130899.03	0.0511	0.0195
Mercury	107906-03-04 02:08 G	41132978.41	41132978.59	41132978.77	0.0509	0.0101
Venus	107906-12-15 05:30 G	41133264.54	41133264.73	41133264.93	0.0519	0.0084
Earth	107908-01-04 17:30 G	41133650.00	41133650.23	41133650.46	0.0531	0.0052
Moon	107908-01-04 17:30 G	41133650.01	41133650.23	41133650.45	0.0531	0.0086 *
Mercury	107911-08-08 16:03 G	41134962.13	41134962.17	41134962.22	0.0520	0.0477
Mercury	107911-11-05 21:35 G	41135051.28	41135051.40	41135051.52	0.0517	0.0159
Venus	107912-02-27 02:37 G	41135164.52	41135164.61	41135164.72	0.0513	0.0444
Venus	107912-10-21 06:27 G	41135401.67	41135401.77	41135401.89	0.0505	0.0431
Mercury	107917-12-20 23:01 G	41137288.32	41137288.46	41137288.60	0.0509	0.0321
Venus	107918-08-20 03:35 G	41137530.46	41137530.65	41137530.84	0.0517	0.0166
Earth	107920-01-09 18:42 G	41138038.12	41138038.28	41138038.45	0.0533	0.0371
Moon	107920-01-09 19:39 G	41138038.15	41138038.32	41138038.50	0.0533	0.0367 *
Mercury	107923-08-25 02:08 G	41139361.46	41139361.59	41139361.72	0.0517	0.0006
Venus	107924-06-26 02:23 G	41139667.41	41139667.60	41139667.80	0.0507	0.0192
Moon	107925-07-02 07:25 G	41140038.59	41140038.81	41140039.03	0.0496	0.0185
Earth	107925-07-02 11:30 G	41140038.76	41140038.98	41140039.20	0.0496	0.0182 *
Mercury	107930-01-07 07:11 G	41141688.68	41141688.80	41141688.94	0.0511	0.0355

Venus	107930-04-25 01:54 G	41141796.47	41141796.58	41141796.71	0.0515	0.0410
Venus	107930-12-17 23:30 G	41142033.41	41142033.48	41142033.55	0.0523	0.0488
Mercury	107935-06-13 05:59 G	41143671.63	41143671.75	41143671.88	0.0518	0.0160
Mercury	107935-09-10 11:01 G	41143760.91	41143760.96	41143761.02	0.0515	0.0461
Venus	107936-02-29 20:37 G	41143933.16	41143933.36	41143933.57	0.0509	0.0056
Earth	107937-07-06 22:18 G	41144426.21	41144426.43	41144426.66	0.0495	0.0152
Moon	107937-07-07 02:23 G	41144426.38	41144426.60	41144426.82	0.0495	0.0181 *
Mercury	107941-10-26 04:03 G	41145998.49	41145998.67	41145998.84	0.0510	0.0130
Venus	107942-08-22 19:54 G	41146299.15	41146299.33	41146299.51	0.0520	0.0234
Mercury	107947-04-01 10:03 G	41147981.83	41147981.92	41147982.03	0.0519	0.0322
Mercury	107947-06-29 15:20 G	41148071.04	41148071.14	41148071.25	0.0516	0.0308
Venus	107947-11-04 15:35 G	41148198.98	41148199.15	41148199.31	0.0511	0.0303
Earth	107949-07-11 11:15 G	41148813.95	41148813.97	41148814.02	0.0494	0.0489
Mercury	107953-08-13 23:59 G	41150308.32	41150308.50	41150308.68	0.0509	0.0105
Venus	107954-04-27 14:51 G	41150564.92	41150565.12	41150565.32	0.0518	0.0027
Mercury	107959-01-18 14:08 G	41152292.05	41152292.09	41152292.13	0.0520	0.0488
Mercury	107959-04-17 19:39 G	41152381.20	41152381.32	41152381.45	0.0517	0.0150
Venus	107960-03-03 14:37 G	41152701.96	41152702.11	41152702.27	0.0506	0.0328
Mercury	107965-06-01 20:37 G	41154618.22	41154618.36	41154618.50	0.0508	0.0327
Venus	107965-12-31 11:44 G	41154830.83	41154830.99	41154831.17	0.0515	0.0277
Mercury	107971-02-03 23:59 G	41156691.38	41156691.50	41156691.63	0.0518	0.0020
Venus	107971-11-07 10:03 G	41156967.71	41156967.92	41156968.12	0.0508	0.0083
Mercury	107977-06-19 04:03 G	41159018.53	41159018.67	41159018.81	0.0511	0.0336
Venus	107978-04-30 06:27 G	41159333.63	41159333.77	41159333.91	0.0522	0.0372
Earth	107978-12-29 20:23 G	41159577.32	41159577.35	41159577.39	0.0529	0.0520
Moon	107978-12-29 23:59 G	41159577.42	41159577.50	41159577.60	0.0529	0.0484
Mercury	107982-11-23 04:32 G	41161001.57	41161001.69	41161001.81	0.0518	0.0162
Mercury	107983-02-20 09:35 G	41161090.84	41161090.90	41161090.95	0.0515	0.0460
Venus	107983-07-13 05:15 G	41161233.52	41161233.72	41161233.92	0.0510	0.0162
Mercury	107989-04-07 00:56 G	41163328.37	41163328.54	41163328.72	0.0510	0.0116

Venus	107990-01-03 04:03 G	41163599.47	41163599.67	41163599.86	0.0519	0.0120
Moon	107991-01-03 16:18 G	41163964.96	41163965.18	41163965.40	0.0531	0.0098
Earth	107991-01-03 20:08 G	41163965.12	41163965.34	41163965.57	0.0531	0.0110 *
Mercury	107994-09-11 08:23 G	41165311.75	41165311.85	41165311.95	0.0519	0.0328
Mercury	107994-12-09 13:39 G	41165400.97	41165401.07	41165401.18	0.0516	0.0301
Venus	107995-03-17 22:47 G	41165499.33	41165499.45	41165499.57	0.0512	0.0414
Venus	107995-11-10 02:23 G	41165736.52	41165736.60	41165736.69	0.0505	0.0460

109TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 109th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	108001-01-23 21:49 G	41167638.23	41167638.41	41167638.59	0.0509	0.0106		
Venus	108001-09-08 01:11 G	41167865.36	41167865.55	41167865.75	0.0517	0.0132		
Earth	108003-01-08 17:44 G	41168353.06	41168353.24	41168353.44	0.0532	0.0298		
Moon	108003-01-08 21:49 G	41168353.22	41168353.41	41168353.61	0.0532	0.0273 *		
Mercury	108006-06-30 12:27 G	41169621.98	41169622.02	41169622.06	0.0520	0.0493		
Mercury	108006-09-27 17:59 G	41169711.13	41169711.25	41169711.37	0.0517	0.0144		
Venus	108007-07-15 22:03 G	41170002.23	41170002.42	41170002.61	0.0507	0.0221		
Moon	108008-07-01 12:13 G	41170353.80	41170354.01	41170354.22	0.0497	0.0261		
Earth	108008-07-01 12:56 G	41170353.83	41170354.04	41170354.25	0.0497	0.0237 *		
Mercury	108012-11-11 18:13 G	41171948.13	41171948.26	41171948.40	0.0508	0.0333		
Venus	108013-05-13 21:20 G	41172131.26	41172131.39	41172131.53	0.0514	0.0384		

Venus	108014-01-05 17:59 G	41172368.22	41172368.25	41172368.29	0.0522	0.0513
Mercury	108018-07-16 22:03 G	41174021.29	41174021.42	41174021.55	0.0518	0.0019
Venus	108019-03-20 17:01 G	41174268.00	41174268.21	41174268.42	0.0509	0.0026
Earth	108020-07-06 01:39 G	41174741.34	41174741.57	41174741.81	0.0496	0.0103
Moon	108020-07-06 02:08 G	41174741.36	41174741.59	41174741.81	0.0496	0.0074 *
Mercury	108024-11-29 01:25 G	41176348.43	41176348.56	41176348.71	0.0510	0.0328
Venus	108025-09-10 14:08 G	41176633.92	41176634.09	41176634.27	0.0520	0.0258
Mars	108028-04-15 00:13 G	41177581.29	41177581.51	41177581.73	0.0537	0.0241
Mercury	108030-05-05 02:23 G	41178331.48	41178331.60	41178331.72	0.0518	0.0177
Mercury	108030-08-02 07:25 G	41178420.75	41178420.81	41178420.88	0.0515	0.0447
Venus	108030-11-23 11:44 G	41178533.82	41178533.99	41178534.16	0.0511	0.0276
Moon	108032-07-10 11:30 G	41179128.87	41179128.98	41179129.11	0.0495	0.0428
Earth	108032-07-10 11:59 G	41179128.89	41179129.00	41179129.11	0.0495	0.0433 *
Mercury	108036-09-16 21:49 G	41180658.23	41180658.41	41180658.59	0.0510	0.0096
Venus	108037-05-16 11:01 G	41180899.76	41180899.96	41180900.17	0.0518	0.0012
Mercury	108042-02-21 06:42 G	41182641.69	41182641.78	41182641.88	0.0519	0.0333
Mercury	108042-05-21 12:13 G	41182730.90	41182731.01	41182731.11	0.0516	0.0297
Venus	108043-03-23 11:01 G	41183036.82	41183036.96	41183037.11	0.0505	0.0358
Mercury	108048-07-05 18:42 G	41184968.11	41184968.28	41184968.46	0.0509	0.0123
Venus	108049-01-19 09:06 G	41185165.71	41185165.88	41185166.06	0.0516	0.0245
Mercury	108053-12-10 10:47 G	41186951.92	41186951.95	41186951.98	0.0520	0.0499
Mercury	108054-03-09 16:18 G	41187041.05	41187041.18	41187041.30	0.0517	0.0137
Venus	108054-11-26 05:30 G	41187302.53	41187302.73	41187302.93	0.0508	0.0112
Mercury	108060-04-23 15:49 G	41189278.03	41189278.16	41189278.30	0.0508	0.0338
Venus	108060-09-24 07:25 G	41189431.75	41189431.81	41189431.87	0.0514	0.0487
Venus	108061-05-19 04:03 G	41189668.55	41189668.67	41189668.79	0.0522	0.0407
Mercury	108065-12-26 20:23 G	41191351.22	41191351.35	41191351.48	0.0517	0.0025
Venus	108066-08-01 00:13 G	41191568.31	41191568.51	41191568.71	0.0510	0.0135
Mercury	108072-05-10 23:01 G	41193678.33	41193678.46	41193678.61	0.0510	0.0321
Venus	108073-01-21 23:15 G	41193934.27	41193934.47	41193934.66	0.0519	0.0146

Moon	108074-01-02 11:30 G	41194279.76	41194279.98	41194280.21	0.0530	0.0181
Earth	108074-01-02 14:08 G	41194279.88	41194280.09	41194280.30	0.0530	0.0197 *
Mercury	108077-10-15 00:13 G	41195661.39	41195661.51	41195661.63	0.0519	0.0191
Mercury	108078-01-12 05:30 G	41195750.66	41195750.73	41195750.80	0.0516	0.0435
Venus	108078-04-05 17:59 G	41195834.12	41195834.25	41195834.39	0.0513	0.0390
Venus	108078-11-28 22:18 G	41196071.38	41196071.43	41196071.48	0.0505	0.0489
Mercury	108084-02-27 19:25 G	41197988.13	41197988.31	41197988.49	0.0509	0.0091
Venus	108084-09-26 19:54 G	41198200.14	41198200.33	41198200.53	0.0517	0.0108
Earth	108086-01-07 11:30 G	41198667.77	41198667.98	41198668.19	0.0531	0.0206
Moon	108086-01-07 13:25 G	41198667.87	41198668.06	41198668.26	0.0531	0.0242 *
Mercury	108089-08-03 04:32 G	41199971.60	41199971.69	41199971.79	0.0519	0.0349
Mercury	108089-10-31 10:03 G	41200060.81	41200060.92	41200061.02	0.0516	0.0283
Venus	108090-08-03 17:44 G	41200337.06	41200337.24	41200337.43	0.0507	0.0248
Earth	108091-07-01 12:42 G	41200668.84	41200669.03	41200669.23	0.0497	0.0294
Moon	108091-07-01 15:49 G	41200668.96	41200669.16	41200669.37	0.0497	0.0263 *
Mercury	108095-12-16 15:35 G	41202297.97	41202298.15	41202298.32	0.0509	0.0142
Venus	108096-06-01 16:32 G	41202466.05	41202466.19	41202466.34	0.0515	0.0359
Mercury	108101-05-23 08:51 G	41204281.85	41204281.87	41204281.90	0.0520	0.0505
Mercury	108101-08-20 14:37 G	41204370.99	41204371.11	41204371.23	0.0517	0.0132
Venus	108102-04-09 13:54 G	41204602.88	41204603.08	41204603.29	0.0509	0.0008
Moon	108103-07-06 22:18 G	41205056.20	41205056.43	41205056.66	0.0496	0.0049
Earth	108103-07-07 01:54 G	41205056.34	41205056.58	41205056.81	0.0496	0.0045 *
Mercury	108107-10-05 12:42 G	41206607.90	41206608.03	41206608.16	0.0508	0.0356
Venus	108108-09-30 11:30 G	41206968.82	41206968.98	41206969.15	0.0521	0.0292
Mercury	108113-06-08 18:42 G	41208681.15	41208681.28	41208681.41	0.0517	0.0029
Venus	108113-12-13 07:39 G	41208868.65	41208868.82	41208869.01	0.0511	0.0246
Earth	108115-07-11 12:13 G	41209443.87	41209444.01	41209444.17	0.0495	0.0375
Moon	108115-07-11 16:18 G	41209444.01	41209444.18	41209444.35	0.0495	0.0347 *
Mercury	108119-10-22 20:37 G	41211008.22	41211008.36	41211008.51	0.0511	0.0315
Venus	108120-06-05 08:51 G	41211234.67	41211234.87	41211235.07	0.0518	0.0039

Mercury	108125-03-27 22:47 G	41212991.33	41212991.45	41212991.57	0.0518	0.0191
Mercury	108125-06-25 03:49 G	41213080.60	41213080.66	41213080.73	0.0515	0.0433
Venus	108125-08-18 01:39 G	41213134.53	41213134.57	41213134.62	0.0513	0.0497
Venus	108126-04-12 06:13 G	41213371.63	41213371.76	41213371.90	0.0506	0.0386
Mercury	108131-08-10 17:15 G	41215318.04	41215318.22	41215318.40	0.0509	0.0087
Venus	108132-02-09 05:15 G	41215500.55	41215500.72	41215500.91	0.0516	0.0217
Mercury	108137-01-14 02:37 G	41217301.52	41217301.61	41217301.70	0.0520	0.0361
Mercury	108137-04-13 08:08 G	41217390.73	41217390.84	41217390.94	0.0516	0.0272
Venus	108137-12-16 00:56 G	41217637.35	41217637.54	41217637.74	0.0508	0.0140
Mercury	108143-05-29 13:39 G	41219627.89	41219628.07	41219628.24	0.0509	0.0140
Venus	108143-10-15 02:37 G	41219766.53	41219766.61	41219766.71	0.0513	0.0462
Venus	108144-06-07 22:47 G	41220003.35	41220003.45	41220003.57	0.0521	0.0432
Mercury	108149-01-30 12:27 G	41221700.90	41221701.02	41221701.15	0.0517	0.0119
Venus	108149-08-20 20:23 G	41221903.15	41221903.35	41221903.55	0.0510	0.0109
Mercury	108155-03-17 09:35 G	41223937.78	41223937.90	41223938.02	0.0508	0.0372
Venus	108156-02-11 18:42 G	41224269.09	41224269.28	41224269.47	0.0520	0.0174
Earth	108157-01-02 13:11 G	41224594.85	41224595.05	41224595.24	0.0530	0.0265
Moon	108157-01-02 16:32 G	41224594.99	41224595.19	41224595.38	0.0530	0.0293 *
Mercury	108160-11-18 17:15 G	41226011.09	41226011.22	41226011.34	0.0518	0.0035
Venus	108161-04-25 16:03 G	41226169.03	41226169.17	41226169.32	0.0512	0.0354
Mars	108164-08-27 22:03 G	41227389.31	41227389.42	41227389.56	0.0490	0.0447
Mercury	108167-04-03 17:30 G	41228338.09	41228338.23	41228338.38	0.0511	0.0298
Venus	108167-10-17 17:01 G	41228535.01	41228535.21	41228535.40	0.0517	0.0077
Moon	108169-01-07 09:35 G	41228982.69	41228982.90	41228983.12	0.0531	0.0155
Earth	108169-01-07 13:39 G	41228982.85	41228983.07	41228983.29	0.0531	0.0147 *
Mercury	108172-09-06 21:20 G	41230321.27	41230321.39	41230321.51	0.0518	0.0193
Mercury	108172-12-05 02:23 G	41230410.53	41230410.60	41230410.67	0.0515	0.0429
Venus	108173-08-23 14:37 G	41230671.94	41230672.11	41230672.28	0.0506	0.0280
Earth	108174-07-01 14:08 G	41230983.93	41230984.09	41230984.26	0.0498	0.0349
Moon	108174-07-01 15:06 G	41230983.97	41230984.13	41230984.30	0.0498	0.0342 *

Mercury	108179-01-20 14:37 G	41232647.93	41232648.11	41232648.29	0.0510	0.0080
Venus	108179-06-22 15:06 G	41232800.98	41232801.13	41232801.29	0.0515	0.0322
Mercury	108184-06-26 01:25 G	41234631.46	41234631.56	41234631.65	0.0519	0.0357
Mercury	108184-09-23 06:42 G	41234720.67	41234720.78	41234720.89	0.0516	0.0273
Venus	108185-04-28 09:49 G	41234937.70	41234937.91	41234938.11	0.0509	0.0036
Earth	108186-07-06 03:06 G	41235371.39	41235371.63	41235371.87	0.0497	0.0012
Moon	108186-07-06 03:35 G	41235371.40	41235371.65	41235371.89	0.0497	0.0018 *
Mercury	108190-11-08 11:30 G	41236957.81	41236957.98	41236958.16	0.0509	0.0142
Venus	108191-10-20 08:37 G	41237303.70	41237303.86	41237304.02	0.0520	0.0323
Mercury	108196-07-12 10:47 G	41239030.82	41239030.95	41239031.07	0.0517	0.0111
Venus	108197-01-01 03:35 G	41239203.46	41239203.65	41239203.84	0.0511	0.0219
Moon	108198-07-10 13:54 G	41239758.91	41239759.08	41239759.25	0.0496	0.0333
Earth	108198-07-10 15:20 G	41239758.96	41239759.14	41239759.32	0.0496	0.0325 *
Mercury	108202-08-28 08:08 G	41241267.72	41241267.84	41241267.97	0.0508	0.0363
Venus	108203-06-26 05:01 G	41241569.51	41241569.71	41241569.91	0.0518	0.0068
Mercury	108208-05-01 15:06 G	41243341.00	41243341.13	41243341.26	0.0518	0.0045
Venus	108208-09-06 22:32 G	41243469.36	41243469.44	41243469.53	0.0513	0.0469
Venus	108209-05-02 03:06 G	41243706.52	41243706.63	41243706.75	0.0505	0.0415
Mercury	108214-09-14 14:37 G	41245667.96	41245668.11	41245668.26	0.0510	0.0283
Venus	108215-03-01 00:56 G	41245835.35	41245835.54	41245835.72	0.0516	0.0190
Mercury	108220-02-18 19:54 G	41247651.21	41247651.33	41247651.45	0.0519	0.0194
Mercury	108220-05-18 00:56 G	41247740.47	41247740.54	41247740.61	0.0515	0.0430
Venus	108221-01-04 23:59 G	41247972.31	41247972.50	41247972.69	0.0507	0.0177
Mercury	108226-07-03 11:44 G	41249977.81	41249977.99	41249978.17	0.0510	0.0066
Venus	108226-11-03 23:30 G	41250101.38	41250101.48	41250101.59	0.0514	0.0432
Venus	108227-06-28 20:51 G	41250338.28	41250338.37	41250338.45	0.0522	0.0469
Mercury	108231-12-07 23:59 G	41251961.40	41251961.50	41251961.59	0.0519	0.0355
Mercury	108232-03-06 05:15 G	41252050.61	41252050.72	41252050.83	0.0516	0.0275
Venus	108232-09-09 18:42 G	41252238.08	41252238.28	41252238.49	0.0510	0.0071
Mercury	108238-04-21 09:06 G	41254287.71	41254287.88	41254288.05	0.0509	0.0147

Venus	108239-03-03 18:13 G	41254604.08	41254604.26	41254604.45	0.0520	0.0216
Moon	108240-01-03 16:18 G	41254910.02	41254910.18	41254910.35	0.0529	0.0345
Earth	108240-01-03 17:01 G	41254910.03	41254910.21	41254910.40	0.0529	0.0319 *
Mercury	108243-09-26 03:49 G	41256271.66	41256271.66	41256271.66	0.0520	0.0520
Mercury	108243-12-24 09:35 G	41256360.77	41256360.90	41256361.03	0.0517	0.0118
Venus	108244-05-15 13:11 G	41256503.89	41256504.05	41256504.21	0.0512	0.0321
Mercury	108250-02-07 06:13 G	41258597.64	41258597.76	41258597.89	0.0508	0.0362
Venus	108250-11-06 15:35 G	41258869.95	41258870.15	41258870.35	0.0517	0.0040
Earth	108252-01-08 13:39 G	41259297.84	41259298.07	41259298.29	0.0530	0.0082
Moon	108252-01-08 15:35 G	41259297.91	41259298.15	41259298.38	0.0530	0.0055 *
Mercury	108255-10-12 13:25 G	41260670.94	41260671.06	41260671.19	0.0518	0.0051
Venus	108256-09-12 11:44 G	41261006.82	41261006.99	41261007.15	0.0507	0.0312
Moon	108257-07-01 14:08 G	41261298.96	41261299.09	41261299.22	0.0498	0.0422
Earth	108257-07-01 17:44 G	41261299.10	41261299.24	41261299.38	0.0498	0.0396 *
Mercury	108262-02-24 13:39 G	41262997.92	41262998.07	41262998.22	0.0510	0.0298
Venus	108262-07-12 12:27 G	41263135.86	41263136.02	41263136.19	0.0515	0.0290
Moon	108264-01-13 08:37 G	41263685.79	41263685.86	41263685.95	0.0532	0.0495
Earth	108264-01-13 11:30 G	41263685.89	41263685.98	41263686.07	0.0532	0.0484 *
Mercury	108267-07-31 17:59 G	41264981.13	41264981.25	41264981.37	0.0519	0.0202
Mercury	108267-10-28 23:15 G	41265070.40	41265070.47	41265070.54	0.0516	0.0422
Venus	108268-05-18 07:54 G	41265272.62	41265272.83	41265273.03	0.0509	0.0069
Earth	108269-07-06 06:56 G	41265686.55	41265686.79	41265687.03	0.0497	0.0055
Moon	108269-07-06 09:35 G	41265686.67	41265686.90	41265687.13	0.0497	0.0038 *
Mercury	108273-12-13 09:06 G	41267307.70	41267307.88	41267308.06	0.0510	0.0057
Venus	108274-11-09 04:47 G	41267638.56	41267638.70	41267638.85	0.0521	0.0355
Mercury	108279-05-19 22:32 G	41269291.35	41269291.44	41269291.54	0.0519	0.0353
Mercury	108279-08-17 04:03 G	41269380.56	41269380.67	41269380.78	0.0516	0.0279
Venus	108280-01-22 04:18 G	41269538.49	41269538.68	41269538.88	0.0511	0.0175
Moon	108281-07-10 18:56 G	41270074.10	41270074.29	41270074.48	0.0495	0.0315
Earth	108281-07-10 20:51 G	41270074.18	41270074.37	41270074.57	0.0495	0.0284 *

Mercury	108285-10-01 06:27 G	41271617.60	41271617.77	41271617.94	0.0509	0.0157
Venus	108286-07-15 02:51 G	41271904.43	41271904.62	41271904.82	0.0519	0.0104
Mercury	108291-03-08 02:51 G	41273601.60	41273601.62	41273601.64	0.0520	0.0513
Mercury	108291-06-05 08:23 G	41273690.73	41273690.85	41273690.98	0.0517	0.0125
Venus	108291-09-26 22:47 G	41273804.34	41273804.45	41273804.57	0.0513	0.0426
Venus	108292-05-21 02:37 G	41274041.53	41274041.61	41274041.70	0.0505	0.0456
Mercury	108297-07-20 04:03 G	41275927.55	41275927.67	41275927.80	0.0508	0.0364
Venus	108298-03-20 01:39 G	41276170.38	41276170.57	41276170.76	0.0517	0.0145
Mars	108301-01-01 04:32 G	41277187.52	41277187.69	41277187.86	0.0537	0.0381
Mercury	108303-03-25 12:42 G	41278000.90	41278001.03	41278001.16	0.0518	0.0035
Venus	108304-01-25 22:18 G	41278307.24	41278307.43	41278307.62	0.0507	0.0215
Mercury	108309-08-07 11:59 G	41280327.86	41280328.00	41280328.15	0.0510	0.0305
Venus	108309-11-23 23:44 G	41280436.37	41280436.49	41280436.63	0.0514	0.0392
Venus	108310-07-18 20:37 G	41280673.32	41280673.36	41280673.40	0.0522	0.0509
Mercury	108315-01-11 16:32 G	41282311.07	41282311.19	41282311.31	0.0519	0.0201
Mercury	108315-04-10 21:49 G	41282400.34	41282400.41	41282400.48	0.0516	0.0423
Venus	108315-09-30 16:47 G	41282572.99	41282573.20	41282573.41	0.0510	0.0036
Mars	108318-11-23 18:42 G	41283722.97	41283723.28	41283723.58	0.0490	0.0042
Mercury	108321-05-26 08:37 G	41284637.68	41284637.86	41284638.04	0.0509	0.0080
Venus	108322-03-23 17:01 G	41284939.04	41284939.21	41284939.39	0.0520	0.0253
Moon	108323-01-03 15:49 G	41285224.99	41285225.16	41285225.33	0.0529	0.0364
Earth	108323-01-03 18:42 G	41285225.12	41285225.28	41285225.44	0.0529	0.0378 *
Mercury	108326-10-30 21:06 G	41286621.28	41286621.38	41286621.47	0.0519	0.0357
Mercury	108327-01-28 02:23 G	41286710.50	41286710.60	41286710.71	0.0516	0.0275
Venus	108327-06-05 12:27 G	41286838.85	41286839.02	41286839.19	0.0512	0.0284
Mercury	108333-03-14 04:18 G	41288947.51	41288947.68	41288947.85	0.0509	0.0160
Venus	108333-11-26 12:13 G	41289204.81	41289205.01	41289205.21	0.0518	0.0007
Earth	108335-01-08 15:06 G	41289612.90	41289613.13	41289613.36	0.0531	0.0020
Moon	108335-01-08 17:01 G	41289612.98	41289613.21	41289613.43	0.0531	0.0011 *
Mercury	108338-08-19 01:39 G	41290931.54	41290931.57	41290931.59	0.0520	0.0507

Mercury	108338-11-16 07:25 G	41291020.68	41291020.81	41291020.93	0.0517	0.0131
Venus	108339-10-03 13:39 G	41291341.92	41291342.07	41291342.21	0.0506	0.0359
Earth	108340-07-02 02:23 G	41291614.48	41291614.60	41291614.72	0.0498	0.0425
Moon	108340-07-02 05:30 G	41291614.64	41291614.73	41291614.83	0.0498	0.0452 *
Mercury	108344-12-31 01:39 G	41293257.45	41293257.57	41293257.70	0.0508	0.0369
Venus	108345-08-01 10:47 G	41293470.78	41293470.95	41293471.13	0.0516	0.0254
Moon	108347-01-13 15:35 G	41294001.00	41294001.15	41294001.31	0.0532	0.0406
Earth	108347-01-13 16:32 G	41294001.07	41294001.19	41294001.33	0.0532	0.0437 *
Mercury	108350-09-04 11:44 G	41295330.86	41295330.99	41295331.12	0.0518	0.0024
Venus	108351-06-08 09:06 G	41295607.68	41295607.88	41295608.08	0.0508	0.0116
Moon	108352-07-06 11:15 G	41296001.74	41296001.97	41296002.20	0.0497	0.0112
Earth	108352-07-06 15:06 G	41296001.89	41296002.13	41296002.36	0.0497	0.0090 *
Mercury	108357-01-17 10:03 G	41297657.78	41297657.92	41297658.07	0.0511	0.0306
Venus	108357-04-06 10:18 G	41297736.88	41297736.93	41297736.99	0.0513	0.0494
Venus	108357-11-29 06:56 G	41297973.67	41297973.79	41297973.92	0.0522	0.0405
Mercury	108362-06-23 16:03 G	41299641.05	41299641.17	41299641.29	0.0518	0.0183
Mercury	108362-09-20 21:06 G	41299730.32	41299730.38	41299730.45	0.0515	0.0439
Venus	108363-02-11 04:18 G	41299873.48	41299873.68	41299873.88	0.0510	0.0132
Earth	108364-07-11 03:35 G	41300389.45	41300389.65	41300389.86	0.0496	0.0245
Moon	108364-07-11 07:39 G	41300389.62	41300389.82	41300390.02	0.0496	0.0263 *
Mercury	108368-11-05 07:25 G	41301967.63	41301967.81	41301967.99	0.0510	0.0090
Venus	108369-08-04 04:18 G	41302239.49	41302239.68	41302239.88	0.0519	0.0150
Mercury	108374-04-11 19:54 G	41303951.23	41303951.33	41303951.42	0.0519	0.0350
Mercury	108374-07-10 01:11 G	41304040.45	41304040.55	41304040.66	0.0516	0.0281
Venus	108374-10-16 22:03 G	41304139.29	41304139.42	41304139.55	0.0513	0.0388
Venus	108375-06-11 01:54 G	41304376.55	41304376.58	41304376.63	0.0505	0.0495
Mercury	108380-08-24 04:18 G	41306277.50	41306277.68	41306277.85	0.0509	0.0131
Venus	108381-04-09 01:39 G	41306505.38	41306505.57	41306505.77	0.0516	0.0103
Mercury	108386-01-29 00:13 G	41308261.48	41308261.51	41308261.53	0.0520	0.0507
Mercury	108386-04-28 05:59 G	41308350.62	41308350.75	41308350.87	0.0517	0.0131

Venus	108387-02-13 23:01 G	41308642.28	41308642.46	41308642.64	0.0507	0.0257
Mercury	108392-06-11 23:59 G	41310587.37	41310587.50	41310587.62	0.0508	0.0366
Venus	108392-12-12 21:06 G	41310771.24	41310771.38	41310771.52	0.0514	0.0359
Mercury	108398-02-14 10:47 G	41312660.82	41312660.95	41312661.08	0.0518	0.0014
Venus	108398-10-19 20:23 G	41312908.14	41312908.35	41312908.56	0.0509	0.0017
Mercury	108404-06-29 07:54 G	41314987.69	41314987.83	41314987.98	0.0510	0.0304
Venus	108405-04-11 16:18 G	41315274.02	41315274.18	41315274.35	0.0521	0.0295
Earth	108406-01-02 23:59 G	41315540.37	41315540.50	41315540.64	0.0529	0.0427
Moon	108406-01-03 03:35 G	41315540.50	41315540.65	41315540.81	0.0529	0.0392 *
Mercury	108409-12-03 15:06 G	41316971.01	41316971.13	41316971.26	0.0518	0.0170
Mercury	108410-03-02 20:23 G	41317060.29	41317060.35	41317060.41	0.0515	0.0452
Venus	108410-06-24 15:20 G	41317173.96	41317174.14	41317174.33	0.0511	0.0233
Mercury	108416-04-17 05:30 G	41319297.55	41319297.73	41319297.91	0.0510	0.0094
Venus	108416-12-15 15:06 G	41319539.93	41319540.13	41319540.33	0.0518	0.0045
Moon	108418-01-07 21:35 G	41319928.17	41319928.40	41319928.63	0.0531	0.0007
Earth	108418-01-08 01:25 G	41319928.33	41319928.56	41319928.79	0.0531	0.0016 *
Mercury	108421-09-21 19:25 G	41321281.21	41321281.31	41321281.41	0.0519	0.0329
Mercury	108421-12-20 00:42 G	41321370.43	41321370.53	41321370.64	0.0516	0.0301
Venus	108422-02-27 10:03 G	41321439.86	41321439.92	41321439.99	0.0514	0.0483
Venus	108422-10-22 14:23 G	41321676.98	41321677.10	41321677.23	0.0506	0.0404
Earth	108423-07-02 10:18 G	41321929.86	41321929.93	41321930.03	0.0498	0.0462
Moon	108423-07-02 10:47 G	41321929.86	41321929.95	41321930.04	0.0498	0.0455 *
Mercury	108428-02-04 03:06 G	41323607.45	41323607.63	41323607.81	0.0509	0.0118
Venus	108428-08-20 13:39 G	41323805.88	41323806.07	41323806.25	0.0516	0.0204
Earth	108430-01-13 00:13 G	41324316.36	41324316.51	41324316.67	0.0531	0.0395
Moon	108430-01-13 04:03 G	41324316.51	41324316.67	41324316.84	0.0531	0.0367 *
Mercury	108433-07-10 23:15 G	41325591.43	41325591.47	41325591.50	0.0520	0.0497
Mercury	108433-10-08 04:47 G	41325680.58	41325680.70	41325680.83	0.0517	0.0141
Venus	108434-06-27 09:20 G	41325942.70	41325942.89	41325943.09	0.0508	0.0158
Earth	108435-07-06 23:30 G	41326317.25	41326317.48	41326317.71	0.0497	0.0122

Moon	108435-07-07 00:42 G	41326317.30	41326317.53	41326317.77	0.0497	0.0148 *
Mercury	108439-11-23 00:13 G	41327917.37	41327917.51	41327917.64	0.0508	0.0334
Venus	108440-04-25 11:30 G	41328071.89	41328071.98	41328072.08	0.0513	0.0450
Venus	108440-12-18 07:54 G	41328308.74	41328308.83	41328308.93	0.0521	0.0450
Mercury	108445-07-27 09:35 G	41329990.77	41329990.90	41329991.03	0.0518	0.0017
Venus	108446-03-02 05:59 G	41330208.54	41330208.75	41330208.95	0.0510	0.0087
Moon	108447-07-11 11:44 G	41330704.78	41330704.99	41330705.20	0.0496	0.0198
Earth	108447-07-11 13:54 G	41330704.87	41330705.08	41330705.29	0.0496	0.0220 *
Mercury	108451-12-10 06:13 G	41332317.62	41332317.76	41332317.91	0.0510	0.0310
Venus	108452-08-23 02:23 G	41332574.42	41332574.60	41332574.79	0.0519	0.0188
Mars	108455-03-28 10:32 G	41333521.69	41333521.94	41333522.18	0.0538	0.0032
Mercury	108457-05-15 14:08 G	41334300.97	41334301.09	41334301.22	0.0519	0.0159
Mercury	108457-08-12 19:25 G	41334390.26	41334390.31	41334390.37	0.0516	0.0465
Venus	108457-11-05 02:37 G	41334474.45	41334474.61	41334474.77	0.0513	0.0332
Mercury	108463-09-28 03:35 G	41336627.47	41336627.65	41336627.83	0.0510	0.0095
Venus	108464-04-28 00:56 G	41336840.34	41336840.54	41336840.74	0.0517	0.0063
Mercury	108469-03-03 18:42 G	41338611.18	41338611.28	41338611.38	0.0519	0.0314
Mercury	108469-05-31 23:59 G	41338700.40	41338700.50	41338700.60	0.0516	0.0316
Venus	108470-03-05 02:23 G	41338977.44	41338977.60	41338977.77	0.0506	0.0311
Mars	108473-02-17 02:51 G	41340057.48	41340057.62	41340057.79	0.0490	0.0420
Mercury	108475-07-17 01:25 G	41340937.38	41340937.56	41340937.73	0.0509	0.0113
Venus	108476-01-02 00:27 G	41341106.36	41341106.52	41341106.68	0.0515	0.0307
Mercury	108480-12-20 22:47 G	41342921.40	41342921.45	41342921.50	0.0520	0.0474
Mercury	108481-03-20 04:32 G	41343010.57	41343010.69	41343010.81	0.0517	0.0162
Venus	108481-11-07 22:03 G	41343243.22	41343243.42	41343243.63	0.0509	0.0067
Mercury	108487-05-04 23:01 G	41345247.32	41345247.46	41345247.60	0.0508	0.0319
Venus	108488-04-30 19:54 G	41345609.18	41345609.33	41345609.48	0.0521	0.0348
Moon	108489-01-02 09:20 G	41345855.79	41345855.89	41345856.01	0.0528	0.0455
Earth	108489-01-02 10:03 G	41345855.81	41345855.92	41345856.04	0.0528	0.0457 *
Mercury	108493-01-06 08:37 G	41347320.73	41347320.86	41347320.99	0.0518	0.0010

Venus	108493-07-13 16:18 G	41347508.99	41347509.18	41347509.37	0.0511	0.0188
Mercury	108499-05-22 06:42 G	41349647.65	41349647.78	41349647.92	0.0510	0.0346
Venus	108500-01-04 16:47 G	41349875.01	41349875.20	41349875.40	0.0518	0.0094
Earth	108501-01-08 07:54 G	41350243.61	41350243.83	41350244.06	0.0530	0.0060
Moon	108501-01-08 10:18 G	41350243.69	41350243.93	41350244.16	0.0530	0.0026 *
Mercury	108504-10-26 12:56 G	41351630.92	41351631.04	41351631.17	0.0519	0.0154
Mercury	108505-01-23 18:13 G	41351720.21	41351720.26	41351720.31	0.0516	0.0470
Venus	108505-03-19 12:13 G	41351774.90	41351775.01	41351775.11	0.0514	0.0436
Venus	108505-11-11 16:32 G	41352012.11	41352012.19	41352012.29	0.0506	0.0453
Moon	108506-07-02 18:13 G	41352245.16	41352245.26	41352245.36	0.0499	0.0454
Earth	108506-07-02 21:35 G	41352245.35	41352245.40	41352245.46	0.0499	0.0485 *
Mercury	108511-03-11 02:08 G	41353957.41	41353957.59	41353957.77	0.0509	0.0104
Venus	108511-09-10 11:44 G	41354140.81	41354140.99	41354141.19	0.0516	0.0167
Moon	108513-01-13 00:13 G	41354631.35	41354631.51	41354631.69	0.0532	0.0350
Earth	108513-01-13 03:06 G	41354631.46	41354631.63	41354631.81	0.0532	0.0335 *
Mercury	108516-08-14 17:44 G	41355941.14	41355941.24	41355941.34	0.0520	0.0302
Mercury	108516-11-11 23:15 G	41356030.37	41356030.47	41356030.57	0.0516	0.0328
Venus	108517-07-17 14:08 G	41356277.91	41356278.09	41356278.28	0.0508	0.0216
Earth	108518-07-07 13:39 G	41356632.84	41356633.07	41356633.30	0.0497	0.0138
Moon	108518-07-07 16:03 G	41356632.95	41356633.17	41356633.39	0.0497	0.0132 *
Mercury	108522-12-27 23:30 G	41358267.31	41358267.48	41358267.66	0.0509	0.0109
Venus	108523-05-16 10:47 G	41358406.83	41358406.95	41358407.07	0.0514	0.0410
Venus	108524-01-08 07:39 G	41358643.76	41358643.82	41358643.89	0.0522	0.0494
Mercury	108528-06-02 22:03 G	41360251.36	41360251.42	41360251.48	0.0520	0.0459
Mercury	108528-08-31 03:49 G	41360340.54	41360340.66	41360340.78	0.0517	0.0177
Venus	108529-03-22 10:03 G	41360543.71	41360543.92	41360544.12	0.0510	0.0031
Moon	108530-07-12 00:27 G	41361020.29	41361020.52	41361020.75	0.0496	0.0167
Earth	108530-07-12 02:08 G	41361020.37	41361020.59	41361020.81	0.0496	0.0196 *
Mercury	108534-10-15 21:20 G	41362577.25	41362577.39	41362577.54	0.0508	0.0314
Venus	108535-09-13 06:27 G	41362909.59	41362909.77	41362909.94	0.0520	0.0244

Mercury	108540-06-19 08:08 G	41364650.71	41364650.84	41364650.97	0.0518	0.0026
Venus	108540-11-25 05:01 G	41364809.54	41364809.71	41364809.88	0.0512	0.0282
Mercury	108546-11-02 05:30 G	41366977.61	41366977.73	41366977.87	0.0511	0.0361
Venus	108547-05-19 04:47 G	41367175.50	41367175.70	41367175.90	0.0517	0.0009
Mercury	108552-04-07 12:13 G	41368960.89	41368961.01	41368961.13	0.0518	0.0141
Mercury	108552-07-05 17:30 G	41369050.18	41369050.23	41369050.27	0.0515	0.0481
Venus	108553-03-25 03:35 G	41369312.51	41369312.65	41369312.80	0.0506	0.0356
Mercury	108558-08-21 02:37 G	41371287.43	41371287.61	41371287.78	0.0510	0.0139
Venus	108559-01-22 02:37 G	41371441.43	41371441.61	41371441.78	0.0515	0.0258
Mercury	108564-01-25 16:32 G	41373271.09	41373271.19	41373271.30	0.0519	0.0296
Mercury	108564-04-23 22:03 G	41373360.32	41373360.42	41373360.52	0.0516	0.0334
Venus	108564-11-28 00:27 G	41373578.31	41373578.52	41373578.72	0.0509	0.0115
Mercury	108570-06-08 22:18 G	41375597.25	41375597.43	41375597.61	0.0508	0.0099
Venus	108570-09-26 22:03 G	41375707.41	41375707.42	41375707.44	0.0512	0.0510
Venus	108571-05-21 17:59 G	41375944.13	41375944.25	41375944.39	0.0521	0.0388
Earth	108572-01-03 12:13 G	41376170.97	41376171.01	41376171.06	0.0528	0.0517
Mercury	108575-11-13 21:06 G	41377581.32	41377581.38	41377581.44	0.0521	0.0449
Mercury	108576-02-11 02:51 G	41377670.50	41377670.62	41377670.74	0.0517	0.0188
Venus	108576-08-02 21:06 G	41377844.18	41377844.38	41377844.58	0.0511	0.0130
Mercury	108582-03-27 19:39 G	41379907.18	41379907.32	41379907.46	0.0508	0.0309
Venus	108583-01-24 16:03 G	41380209.98	41380210.17	41380210.36	0.0519	0.0135
Earth	108584-01-08 12:42 G	41380558.80	41380559.03	41380559.25	0.0530	0.0112
Moon	108584-01-08 13:39 G	41380558.85	41380559.07	41380559.29	0.0530	0.0100 *
Mercury	108587-11-30 07:25 G	41381980.68	41381980.81	41381980.94	0.0518	0.0037
Venus	108588-04-07 16:18 G	41382110.05	41382110.18	41382110.32	0.0513	0.0382
Venus	108588-11-30 20:23 G	41382347.35	41382347.35	41382347.35	0.0505	0.0505
Moon	108589-07-02 13:25 G	41382561.02	41382561.06	41382561.11	0.0499	0.0488
Mars	108591-08-08 05:59 G	41383327.69	41383327.75	41383327.85	0.0489	0.0472
Mercury	108594-04-14 03:49 G	41384307.54	41384307.66	41384307.79	0.0510	0.0364
Venus	108594-09-29 15:20 G	41384475.94	41384476.14	41384476.34	0.0516	0.0113

Earth	108596-01-13 14:51 G	41384946.94	41384947.12	41384947.31	0.0532	0.0305
Moon	108596-01-13 15:20 G	41384946.95	41384947.14	41384947.32	0.0532	0.0338 *
Mercury	108599-09-18 11:44 G	41386290.86	41386290.99	41386291.12	0.0518	0.0119
Mercury	108599-12-16 16:47 G	41386380.18	41386380.20	41386380.23	0.0515	0.0501
Venus	108600-08-06 16:18 G	41386613.00	41386613.18	41386613.35	0.0507	0.0265
Moon	108601-07-07 19:25 G	41386948.09	41386948.31	41386948.54	0.0497	0.0141
Earth	108601-07-07 23:15 G	41386948.25	41386948.47	41386948.70	0.0497	0.0169 *
Mercury	108606-02-01 01:25 G	41388617.38	41388617.56	41388617.73	0.0510	0.0151
Venus	108606-06-05 14:08 G	41388741.96	41388742.09	41388742.24	0.0514	0.0359
Mars	108609-06-24 05:30 G	41389856.66	41389856.73	41389856.80	0.0537	0.0512
Mercury	108611-07-08 15:35 G	41390601.05	41390601.15	41390601.26	0.0519	0.0285
Mercury	108611-10-05 21:06 G	41390690.29	41390690.38	41390690.47	0.0516	0.0344
Venus	108612-04-11 11:01 G	41390878.75	41390878.96	41390879.16	0.0510	0.0018
Earth	108613-07-12 11:30 G	41391335.76	41391335.98	41391336.21	0.0496	0.0166
Moon	108613-07-12 14:51 G	41391335.90	41391336.12	41391336.34	0.0496	0.0159 *
Mercury	108617-11-19 22:18 G	41392927.25	41392927.43	41392927.62	0.0509	0.0068
Venus	108618-10-03 08:23 G	41393244.68	41393244.85	41393245.01	0.0520	0.0293
Mercury	108623-04-26 19:54 G	41394911.27	41394911.33	41394911.40	0.0520	0.0442
Mercury	108623-07-25 01:39 G	41395000.45	41395000.57	41395000.69	0.0517	0.0194
Venus	108623-12-16 06:42 G	41395144.60	41395144.78	41395144.96	0.0512	0.0234
Moon	108625-07-16 23:01 G	41395723.39	41395723.46	41395723.54	0.0495	0.0468
Mercury	108629-09-07 18:13 G	41397237.12	41397237.26	41397237.41	0.0508	0.0300
Venus	108630-06-08 02:51 G	41397510.42	41397510.62	41397510.82	0.0517	0.0030
Mercury	108635-05-13 06:13 G	41399310.64	41399310.76	41399310.89	0.0518	0.0047
Venus	108635-08-21 02:23 G	41399410.54	41399410.60	41399410.67	0.0515	0.0485
Venus	108636-04-14 07:39 G	41399647.71	41399647.82	41399647.94	0.0506	0.0412
Mercury	108641-09-25 01:54 G	41401637.46	41401637.58	41401637.71	0.0510	0.0366
Venus	108642-02-11 01:11 G	41401776.37	41401776.55	41401776.73	0.0515	0.0219
Mercury	108647-03-01 10:47 G	41403620.82	41403620.95	41403621.08	0.0519	0.0110
Mercury	108647-05-29 15:49 G	41403710.16	41403710.16	41403710.18	0.0516	0.0512

Venus	108647-12-19 03:35 G	41403913.45	41403913.65	41403913.84	0.0508	0.0167
Mercury	108653-07-13 23:30 G	41405947.30	41405947.48	41405947.65	0.0510	0.0152
Venus	108653-10-17 00:42 G	41406042.45	41406042.53	41406042.62	0.0513	0.0462
Venus	108654-06-10 21:06 G	41406279.28	41406279.38	41406279.49	0.0521	0.0441
Mercury	108658-12-18 15:06 G	41407931.02	41407931.13	41407931.24	0.0519	0.0267
Mercury	108659-03-17 20:37 G	41408020.27	41408020.36	41408020.45	0.0516	0.0361
Venus	108659-08-23 22:47 G	41408179.25	41408179.45	41408179.66	0.0511	0.0083
Mercury	108665-05-01 21:06 G	41410257.19	41410257.38	41410257.56	0.0509	0.0059
Venus	108666-02-13 19:11 G	41410545.11	41410545.30	41410545.49	0.0519	0.0188
Moon	108667-01-08 19:39 G	41410874.10	41410874.32	41410874.55	0.0530	0.0159
Earth	108667-01-08 22:32 G	41410874.22	41410874.44	41410874.66	0.0530	0.0144 *
Mercury	108670-10-06 18:56 G	41412241.22	41412241.29	41412241.36	0.0520	0.0434
Mercury	108671-01-04 00:42 G	41412330.41	41412330.53	41412330.65	0.0517	0.0202
Venus	108671-04-28 16:32 G	41412445.04	41412445.19	41412445.35	0.0513	0.0338
Mercury	108677-02-17 18:13 G	41414567.11	41414567.26	41414567.41	0.0508	0.0272
Venus	108677-10-19 16:47 G	41414811.00	41414811.20	41414811.40	0.0516	0.0066
Earth	108679-01-13 20:37 G	41415262.16	41415262.36	41415262.56	0.0531	0.0255
Moon	108679-01-13 22:18 G	41415262.24	41415262.43	41415262.61	0.0531	0.0285 *
Mercury	108682-10-23 05:01 G	41416640.58	41416640.71	41416640.84	0.0518	0.0050
Venus	108683-08-26 17:15 G	41416948.06	41416948.22	41416948.38	0.0507	0.0310
Earth	108684-07-07 08:51 G	41417263.66	41417263.87	41417264.09	0.0498	0.0199
Moon	108684-07-07 12:42 G	41417263.81	41417264.03	41417264.26	0.0498	0.0166 *
Mercury	108688-12-06 14:23 G	41418877.07	41418877.10	41418877.13	0.0507	0.0499
Mercury	108689-03-07 00:27 G	41418967.40	41418967.52	41418967.65	0.0510	0.0372
Venus	108689-06-24 11:59 G	41419076.85	41419077.00	41419077.16	0.0514	0.0323
Mercury	108694-08-11 09:35 G	41420950.77	41420950.90	41420951.02	0.0519	0.0107
Venus	108695-05-01 13:39 G	41421213.87	41421214.07	41421214.28	0.0510	0.0067
Moon	108696-07-11 19:54 G	41421651.11	41421651.33	41421651.56	0.0496	0.0158
Earth	108696-07-11 23:59 G	41421651.28	41421651.50	41421651.73	0.0496	0.0143 *
Mercury	108700-12-24 21:20 G	41423277.22	41423277.39	41423277.57	0.0509	0.0153

Venus	108701-10-23 06:13 G	41423579.60	41423579.76	41423579.91	0.0520	0.0330
Mercury	108706-05-31 13:54 G	41425260.97	41425261.08	41425261.19	0.0520	0.0262
Mercury	108706-08-28 19:25 G	41425350.22	41425350.31	41425350.40	0.0517	0.0367
Venus	108707-01-05 08:51 G	41425479.68	41425479.87	41425480.06	0.0512	0.0186
Earth	108708-07-17 11:30 G	41426038.91	41426038.98	41426039.05	0.0495	0.0471
Moon	108708-07-17 15:20 G	41426039.05	41426039.14	41426039.24	0.0495	0.0452 *
Mercury	108712-10-12 18:42 G	41427587.10	41427587.28	41427587.47	0.0509	0.0062
Venus	108713-06-28 04:32 G	41427845.49	41427845.69	41427845.89	0.0518	0.0078
Mercury	108718-03-19 17:59 G	41429571.18	41429571.25	41429571.33	0.0520	0.0421
Mercury	108718-06-16 23:44 G	41429660.38	41429660.49	41429660.61	0.0517	0.0215
Venus	108718-09-10 03:35 G	41429745.55	41429745.65	41429745.76	0.0514	0.0440
Venus	108719-05-05 08:08 G	41429982.76	41429982.84	41429982.93	0.0506	0.0455
Mercury	108724-07-31 16:18 G	41431897.03	41431897.18	41431897.34	0.0508	0.0269
Venus	108725-03-03 03:06 G	41432111.45	41432111.63	41432111.83	0.0515	0.0173
Mars	108727-12-16 00:27 G	41433129.36	41433129.52	41433129.68	0.0538	0.0400
Mercury	108730-04-05 03:49 G	41433970.53	41433970.66	41433970.79	0.0518	0.0053
Venus	108731-01-08 02:37 G	41434248.43	41434248.61	41434248.81	0.0508	0.0209
Mercury	108736-05-19 13:39 G	41436207.02	41436207.07	41436207.13	0.0507	0.0479
Mercury	108736-08-17 23:59 G	41436297.39	41436297.50	41436297.62	0.0510	0.0395
Venus	108736-11-06 01:25 G	41436377.45	41436377.56	41436377.68	0.0513	0.0418
Venus	108737-06-30 21:49 G	41436614.34	41436614.41	41436614.48	0.0521	0.0487
Mercury	108742-01-22 08:08 G	41438280.71	41438280.84	41438280.97	0.0519	0.0104
Venus	108742-09-12 22:32 G	41438514.23	41438514.44	41438514.64	0.0511	0.0041
Mars	108745-11-03 21:06 G	41439662.07	41439662.38	41439662.69	0.0489	0.0009
Mercury	108748-06-05 19:39 G	41440607.15	41440607.32	41440607.50	0.0509	0.0157
Venus	108749-03-05 16:03 G	41440879.99	41440880.17	41440880.35	0.0519	0.0221
Earth	108750-01-08 20:37 G	41441189.15	41441189.36	41441189.57	0.0529	0.0218
Moon	108750-01-09 00:27 G	41441189.32	41441189.52	41441189.73	0.0529	0.0252 *
Mercury	108753-11-10 12:13 G	41442590.90	41442591.01	41442591.13	0.0520	0.0264
Mercury	108754-02-07 17:59 G	41442680.16	41442680.25	41442680.34	0.0517	0.0367

Venus	108754-05-18 17:44 G	41442780.07	41442780.24	41442780.41	0.0513	0.0294
Mercury	108760-03-24 16:47 G	41444917.02	41444917.20	41444917.38	0.0508	0.0062
Venus	108760-11-08 13:39 G	41445145.87	41445146.07	41445146.27	0.0516	0.0033
Moon	108762-01-13 15:35 G	41445576.94	41445577.15	41445577.37	0.0531	0.0167
Earth	108762-01-13 19:39 G	41445577.11	41445577.32	41445577.54	0.0531	0.0184 *
Mercury	108765-08-29 16:32 G	41446901.12	41446901.19	41446901.27	0.0521	0.0422
Mercury	108765-11-26 22:18 G	41446990.32	41446990.43	41446990.55	0.0518	0.0216
Venus	108766-09-15 17:44 G	41447283.10	41447283.24	41447283.39	0.0507	0.0353
Moon	108767-07-08 15:49 G	41447578.96	41447579.16	41447579.36	0.0498	0.0236
Earth	108767-07-08 16:32 G	41447578.98	41447579.19	41447579.40	0.0498	0.0233 *
Mercury	108772-01-11 13:54 G	41449226.93	41449227.08	41449227.24	0.0508	0.0276
Venus	108772-07-14 12:13 G	41449411.85	41449412.01	41449412.18	0.0514	0.0282
Mercury	108777-09-15 02:51 G	41451300.49	41451300.62	41451300.75	0.0518	0.0062
Venus	108778-05-21 13:25 G	41451548.86	41451549.06	41451549.26	0.0509	0.0107
Earth	108779-07-13 05:15 G	41451966.49	41451966.72	41451966.96	0.0497	0.0101
Moon	108779-07-13 07:11 G	41451966.56	41451966.80	41451967.03	0.0497	0.0130 *
Mercury	108783-10-30 11:44 G	41453536.93	41453536.99	41453537.04	0.0507	0.0481
Mercury	108784-01-28 21:49 G	41453627.30	41453627.41	41453627.53	0.0510	0.0392
Venus	108784-11-11 07:25 G	41453914.67	41453914.81	41453914.94	0.0520	0.0377
Mercury	108789-07-04 06:42 G	41455610.66	41455610.78	41455610.91	0.0519	0.0104
Venus	108790-01-24 07:11 G	41455814.60	41455814.80	41455815.00	0.0512	0.0149
Moon	108791-07-17 14:23 G	41456354.01	41456354.10	41456354.20	0.0496	0.0452
Earth	108791-07-17 16:32 G	41456354.07	41456354.19	41456354.31	0.0496	0.0427 *
Mercury	108795-11-16 18:42 G	41457937.11	41457937.28	41457937.46	0.0509	0.0172
Venus	108796-07-17 04:18 G	41458180.48	41458180.68	41458180.88	0.0518	0.0120
Mercury	108801-04-22 10:47 G	41459920.84	41459920.95	41459921.07	0.0520	0.0264
Mercury	108801-07-20 16:18 G	41460010.10	41460010.18	41460010.28	0.0517	0.0367
Venus	108801-09-29 01:39 G	41460080.45	41460080.57	41460080.70	0.0514	0.0404
Venus	108802-05-24 06:42 G	41460317.74	41460317.78	41460317.82	0.0506	0.0493
Mercury	108807-09-04 14:51 G	41462246.94	41462247.12	41462247.30	0.0508	0.0061

Venus	108808-03-21 23:44 G	41462446.30	41462446.49	41462446.68	0.0515	0.0141
Mercury	108813-02-08 14:51 G	41464231.05	41464231.12	41464231.19	0.0521	0.0429
Mercury	108813-05-08 20:37 G	41464320.25	41464320.36	41464320.48	0.0518	0.0211
Venus	108814-01-27 02:37 G	41464583.43	41464583.61	41464583.79	0.0509	0.0249
Mercury	108819-06-23 11:44 G	41466556.84	41466556.99	41466557.14	0.0507	0.0278
Venus	108819-11-25 21:49 G	41466712.28	41466712.41	41466712.54	0.0513	0.0389
Venus	108820-07-19 17:30 G	41466949.21	41466949.23	41466949.26	0.0521	0.0517
Mercury	108825-02-25 01:11 G	41468630.42	41468630.55	41468630.68	0.0519	0.0056
Venus	108825-10-01 21:35 G	41468849.20	41468849.40	41468849.61	0.0511	0.0010
Mercury	108831-04-11 08:51 G	41470866.84	41470866.87	41470866.92	0.0507	0.0492
Mercury	108831-07-10 18:56 G	41470957.17	41470957.29	41470957.42	0.0510	0.0380
Venus	108832-03-24 15:06 G	41471214.96	41471215.13	41471215.31	0.0519	0.0261
Moon	108833-01-08 00:42 G	41471504.34	41471504.53	41471504.72	0.0529	0.0268
Earth	108833-01-08 00:56 G	41471504.35	41471504.54	41471504.75	0.0529	0.0269 *
Mercury	108836-12-14 05:30 G	41472940.60	41472940.73	41472940.86	0.0519	0.0100
Venus	108837-06-06 16:32 G	41473115.02	41473115.19	41473115.37	0.0513	0.0256
Mercury	108843-04-28 16:03 G	41475267.00	41475267.17	41475267.35	0.0509	0.0165
Venus	108843-11-28 13:25 G	41475480.86	41475481.06	41475481.26	0.0517	0.0009
Earth	108845-01-13 00:42 G	41475892.31	41475892.53	41475892.76	0.0530	0.0135
Moon	108845-01-13 02:08 G	41475892.36	41475892.59	41475892.83	0.0530	0.0103 *
Mercury	108848-10-02 09:20 G	41477250.78	41477250.89	41477251.00	0.0520	0.0266
Mercury	108848-12-30 14:51 G	41477340.03	41477340.12	41477340.21	0.0517	0.0363
Venus	108849-10-04 14:51 G	41477618.00	41477618.12	41477618.26	0.0507	0.0388
Moon	108850-07-07 15:35 G	41477893.97	41477894.15	41477894.34	0.0499	0.0315
Earth	108850-07-07 18:56 G	41477894.10	41477894.29	41477894.49	0.0499	0.0285 *
Mercury	108855-02-14 13:11 G	41479576.87	41479577.05	41479577.24	0.0508	0.0055
Venus	108855-08-03 11:15 G	41479746.79	41479746.97	41479747.15	0.0514	0.0243
Moon	108857-01-17 20:37 G	41480280.30	41480280.36	41480280.42	0.0532	0.0511
Mercury	108860-07-21 13:11 G	41481560.98	41481561.05	41481561.13	0.0521	0.0430
Mercury	108860-10-18 19:11 G	41481650.18	41481650.30	41481650.41	0.0518	0.0208

Venus	108861-06-09 10:18 G	41481883.74	41481883.93	41481884.13	0.0509	0.0141
Earth	108862-07-12 09:06 G	41482281.64	41482281.88	41482282.11	0.0497	0.0052
Moon	108862-07-12 11:59 G	41482281.77	41482282.00	41482282.23	0.0497	0.0043 *
Mercury	108866-12-03 09:35 G	41483886.76	41483886.90	41483887.06	0.0507	0.0280
Venus	108867-04-08 07:54 G	41484012.78	41484012.83	41484012.88	0.0511	0.0495
Venus	108867-12-01 02:37 G	41484249.49	41484249.61	41484249.74	0.0520	0.0405
Mercury	108872-08-06 23:15 G	41485960.34	41485960.47	41485960.60	0.0519	0.0047
Venus	108873-02-12 05:01 G	41486149.51	41486149.71	41486149.91	0.0512	0.0115
Moon	108874-07-16 19:39 G	41486669.19	41486669.32	41486669.46	0.0496	0.0407
Earth	108874-07-16 22:18 G	41486669.29	41486669.43	41486669.58	0.0496	0.0386 *
Mercury	108878-09-21 06:42 G	41488196.75	41488196.78	41488196.82	0.0506	0.0494
Mercury	108878-12-20 16:32 G	41488287.07	41488287.19	41488287.32	0.0509	0.0373
Venus	108879-08-05 23:30 G	41488515.29	41488515.48	41488515.68	0.0517	0.0147
Mars	108882-03-10 10:18 G	41489462.69	41489462.93	41489463.17	0.0538	0.0124
Mercury	108884-05-26 03:35 G	41490270.52	41490270.65	41490270.77	0.0519	0.0111
Mercury	108884-08-23 08:51 G	41490359.86	41490359.87	41490359.88	0.0516	0.0512
Venus	108884-10-17 23:15 G	41490415.34	41490415.47	41490415.62	0.0514	0.0372
Mercury	108890-10-08 13:11 G	41492596.88	41492597.05	41492597.23	0.0509	0.0147
Venus	108891-04-10 21:20 G	41492781.19	41492781.39	41492781.59	0.0515	0.0108
Mercury	108896-03-14 07:54 G	41494580.72	41494580.83	41494580.94	0.0520	0.0267
Mercury	108896-06-11 13:25 G	41494669.97	41494670.06	41494670.15	0.0517	0.0363
Venus	108897-02-14 23:59 G	41494918.33	41494918.50	41494918.68	0.0508	0.0283
Mars	108900-01-28 07:39 G	41495995.62	41495995.82	41495996.03	0.0489	0.0358
Mercury	108902-07-28 10:32 G	41496906.76	41496906.94	41496907.12	0.0508	0.0067
Venus	108902-12-15 19:54 G	41497047.19	41497047.33	41497047.48	0.0513	0.0355
Mercury	108908-01-02 11:30 G	41498890.92	41498890.98	41498891.06	0.0521	0.0436
Mercury	108908-03-31 17:30 G	41498980.11	41498980.23	41498980.35	0.0517	0.0202
Venus	108908-10-21 18:13 G	41499184.05	41499184.26	41499184.46	0.0510	0.0031
Mercury	108914-05-16 07:39 G	41501216.67	41501216.82	41501216.97	0.0507	0.0280
Venus	108915-04-14 13:25 G	41501549.90	41501550.06	41501550.22	0.0519	0.0299

Moon	108916-01-08 22:18 G	41501819.25	41501819.43	41501819.63	0.0528	0.0298
Earth	108916-01-09 01:54 G	41501819.41	41501819.58	41501819.76	0.0528	0.0331 *
Mercury	108920-01-18 21:35 G	41503290.27	41503290.40	41503290.53	0.0518	0.0043
Venus	108920-06-26 12:13 G	41503449.83	41503450.01	41503450.20	0.0513	0.0227
Mercury	108926-03-04 04:32 G	41505526.66	41505526.69	41505526.72	0.0506	0.0498
Mercury	108926-06-02 14:23 G	41505616.98	41505617.10	41505617.23	0.0509	0.0368
Venus	108926-12-18 09:06 G	41505815.68	41505815.88	41505816.08	0.0516	0.0037
Earth	108928-01-13 19:11 G	41506207.07	41506207.30	41506207.53	0.0529	0.0050
Moon	108928-01-13 22:18 G	41506207.21	41506207.43	41506207.66	0.0529	0.0063 *
Mercury	108931-11-07 01:25 G	41507600.44	41507600.56	41507600.69	0.0520	0.0124
Mercury	108932-02-04 06:56 G	41507689.76	41507689.79	41507689.82	0.0517	0.0501
Venus	108932-03-01 05:30 G	41507715.67	41507715.73	41507715.80	0.0516	0.0489
Venus	108932-10-24 11:44 G	41507952.88	41507952.99	41507953.11	0.0507	0.0420
Earth	108933-07-07 21:49 G	41508209.24	41508209.41	41508209.59	0.0499	0.0333
Moon	108933-07-08 00:27 G	41508209.34	41508209.52	41508209.70	0.0499	0.0331 *
Mercury	108938-03-21 10:47 G	41509926.78	41509926.95	41509927.13	0.0508	0.0143
Venus	108938-08-23 06:13 G	41510081.58	41510081.76	41510081.95	0.0514	0.0218
Moon	108940-01-18 13:54 G	41510594.94	41510595.08	41510595.23	0.0531	0.0418
Earth	108940-01-18 16:32 G	41510595.08	41510595.19	41510595.32	0.0531	0.0446 *
Mercury	108943-08-26 05:44 G	41511910.63	41511910.74	41511910.85	0.0520	0.0283
Mercury	108943-11-23 11:15 G	41511999.88	41511999.97	41512000.07	0.0517	0.0350
Venus	108944-06-29 06:56 G	41512218.59	41512218.79	41512218.98	0.0509	0.0169
Moon	108945-07-12 07:11 G	41512596.56	41512596.80	41512597.03	0.0498	0.0031
Earth	108945-07-12 10:18 G	41512596.69	41512596.93	41512597.17	0.0498	0.0004 *
Mercury	108950-01-07 07:25 G	41514236.63	41514236.81	41514236.98	0.0508	0.0085
Venus	108950-04-28 03:49 G	41514347.59	41514347.66	41514347.75	0.0512	0.0468
Venus	108950-12-20 23:30 G	41514584.37	41514584.48	41514584.59	0.0520	0.0437
Mercury	108955-06-14 10:03 G	41516220.85	41516220.92	41516220.98	0.0521	0.0440
Mercury	108955-09-11 15:49 G	41516310.04	41516310.16	41516310.28	0.0518	0.0199
Venus	108956-03-04 02:23 G	41516484.40	41516484.60	41516484.80	0.0511	0.0081

Earth	108957-07-16 23:01 G	41516984.28	41516984.46	41516984.63	0.0496	0.0332
Moon	108957-07-17 02:51 G	41516984.44	41516984.62	41516984.81	0.0496	0.0312 *
Mercury	108961-10-26 04:32 G	41518546.55	41518546.69	41518546.84	0.0507	0.0296
Venus	108962-08-25 21:20 G	41518850.20	41518850.39	41518850.58	0.0518	0.0182
Mercury	108967-06-30 19:54 G	41520620.20	41520620.33	41520620.46	0.0518	0.0037
Venus	108967-11-07 19:39 G	41520750.17	41520750.32	41520750.47	0.0514	0.0341
Mercury	108973-08-14 02:08 G	41522856.58	41522856.59	41522856.61	0.0507	0.0503
Mercury	108973-11-12 11:59 G	41522946.88	41522947.00	41522947.13	0.0510	0.0364
Venus	108974-04-30 19:11 G	41523116.10	41523116.30	41523116.50	0.0516	0.0072
Mercury	108979-04-18 23:59 G	41524930.37	41524930.50	41524930.62	0.0519	0.0127
Mercury	108979-07-17 05:15 G	41525019.69	41525019.72	41525019.75	0.0516	0.0497
Venus	108980-03-06 19:25 G	41525253.15	41525253.31	41525253.47	0.0508	0.0312
Mercury	108985-08-31 08:37 G	41527256.68	41527256.86	41527257.03	0.0508	0.0137
Venus	108986-01-03 15:49 G	41527382.01	41527382.16	41527382.32	0.0513	0.0328
Mercury	108991-02-05 03:35 G	41529240.54	41529240.65	41529240.76	0.0521	0.0296
Mercury	108991-05-05 09:20 G	41529329.79	41529329.89	41529329.98	0.0518	0.0337
Venus	108991-11-10 13:39 G	41529518.86	41529519.07	41529519.27	0.0511	0.0057
Mercury	108997-06-19 05:15 G	41531566.54	41531566.72	41531566.90	0.0507	0.0087
Venus	108998-05-03 07:54 G	41531884.68	41531884.83	41531884.99	0.0519	0.0324
Earth	108999-01-07 20:23 G	41532134.21	41532134.35	41532134.50	0.0527	0.0412
Moon	108999-01-07 22:32 G	41532134.29	41532134.44	41532134.59	0.0527	0.0412 *

110TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 110th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mercury	109002-11-25 07:39	G	41533550.76	41533550.82	41533550.88	0.0521	0.0457	
Mercury	109003-02-22 13:39	G	41533639.95	41533640.07	41533640.19	0.0518	0.0183	
Venus	109003-07-17 08:08	G	41533784.65	41533784.84	41533785.03	0.0513	0.0200	
Mercury	109009-04-08 01:25	G	41535876.42	41535876.56	41535876.71	0.0507	0.0313	
Venus	109010-01-07 04:32	G	41536150.49	41536150.69	41536150.89	0.0517	0.0064	
Moon	109011-01-13 15:20	G	41536521.92	41536522.14	41536522.37	0.0529	0.0014	
Earth	109011-01-13 18:27	G	41536522.04	41536522.27	41536522.50	0.0529	0.0021	*
Mercury	109014-12-11 18:13	G	41537950.13	41537950.26	41537950.39	0.0519	0.0032	
Venus	109015-03-22 03:20	G	41538050.55	41538050.64	41538050.73	0.0515	0.0454	
Venus	109015-11-14 08:37	G	41538287.77	41538287.86	41538287.96	0.0507	0.0451	
Earth	109016-07-07 22:32	G	41538524.30	41538524.44	41538524.59	0.0499	0.0387	
Moon	109016-07-08 00:56	G	41538524.38	41538524.54	41538524.70	0.0499	0.0358	*
Mercury	109021-04-25 08:51	G	41540276.74	41540276.87	41540277.01	0.0510	0.0346	
Venus	109021-09-12 03:06	G	41540416.44	41540416.63	41540416.82	0.0515	0.0187	
Earth	109023-01-18 18:13	G	41540910.11	41540910.26	41540910.42	0.0531	0.0386	
Moon	109023-01-18 21:49	G	41540910.27	41540910.41	41540910.57	0.0531	0.0408	*
Mercury	109026-09-29 22:18	G	41542260.30	41542260.43	41542260.55	0.0519	0.0132	
Mercury	109026-12-28 03:35	G	41542349.62	41542349.65	41542349.69	0.0516	0.0491	
Venus	109027-07-20 03:06	G	41542553.44	41542553.63	41542553.82	0.0509	0.0201	
Moon	109028-07-12 09:06	G	41542911.64	41542911.88	41542912.13	0.0498	0.0045	
Earth	109028-07-12 10:32	G	41542911.70	41542911.94	41542912.17	0.0498	0.0058	*
Mercury	109033-02-11 05:59	G	41544586.58	41544586.75	41544586.93	0.0509	0.0129	
Venus	109033-05-18 01:39	G	41544682.47	41544682.57	41544682.68	0.0512	0.0434	
Venus	109034-01-09 21:20	G	41544919.31	41544919.39	41544919.47	0.0520	0.0474	
Mars	109036-06-05 00:42	G	41545796.30	41545796.53	41545796.77	0.0538	0.0184	
Mercury	109038-07-19 02:08	G	41546570.48	41546570.59	41546570.70	0.0520	0.0296	
Mercury	109038-10-16 07:39	G	41546659.73	41546659.82	41546659.92	0.0517	0.0336	

Venus	109039-03-24 21:35 G	41546819.19	41546819.40	41546819.60	0.0511	0.0054
Earth	109040-07-16 23:15 G	41547299.28	41547299.47	41547299.67	0.0497	0.0274
Moon	109040-07-16 23:15 G	41547299.28	41547299.47	41547299.67	0.0497	0.0249 *
Mercury	109044-11-30 02:51 G	41548896.44	41548896.62	41548896.80	0.0508	0.0092
Venus	109045-09-14 17:30 G	41549185.05	41549185.23	41549185.41	0.0518	0.0211
Mercury	109050-05-07 05:44 G	41550880.68	41550880.74	41550880.79	0.0521	0.0470
Mercury	109050-08-04 11:44 G	41550969.87	41550969.99	41550970.11	0.0518	0.0171
Venus	109050-11-27 14:37 G	41551084.94	41551085.11	41551085.27	0.0514	0.0317
Mercury	109056-09-17 23:44 G	41553206.35	41553206.49	41553206.63	0.0507	0.0310
Venus	109057-05-20 14:23 G	41553450.90	41553451.10	41553451.30	0.0515	0.0046
Mercury	109062-05-23 16:03 G	41555280.04	41555280.17	41555280.30	0.0519	0.0016
Venus	109063-03-27 15:20 G	41555587.99	41555588.14	41555588.30	0.0508	0.0339
Mercury	109068-10-05 05:44 G	41557606.60	41557606.74	41557606.88	0.0509	0.0327
Venus	109069-01-23 10:47 G	41557716.79	41557716.95	41557717.12	0.0513	0.0302
Mercury	109074-03-11 20:37 G	41559590.23	41559590.36	41559590.48	0.0520	0.0137
Mercury	109074-06-09 01:54 G	41559679.55	41559679.58	41559679.62	0.0516	0.0488
Venus	109074-11-30 11:30 G	41559853.77	41559853.98	41559854.18	0.0510	0.0092
Mercury	109080-07-24 02:51 G	41561916.44	41561916.62	41561916.80	0.0509	0.0112
Venus	109081-05-23 05:15 G	41562219.57	41562219.72	41562219.86	0.0520	0.0357
Earth	109082-01-07 21:35 G	41562449.31	41562449.40	41562449.51	0.0527	0.0471
Moon	109082-01-07 22:32 G	41562449.38	41562449.44	41562449.51	0.0527	0.0500 *
Mercury	109085-12-29 00:27 G	41563900.42	41563900.52	41563900.63	0.0520	0.0300
Mercury	109086-03-28 06:13 G	41563989.66	41563989.76	41563989.86	0.0517	0.0332
Venus	109086-08-05 05:15 G	41564119.53	41564119.72	41564119.92	0.0512	0.0166
Mercury	109092-05-12 00:13 G	41566226.33	41566226.51	41566226.69	0.0508	0.0100
Venus	109093-01-26 02:51 G	41566485.43	41566485.62	41566485.82	0.0517	0.0102
Earth	109094-01-12 20:08 G	41566837.11	41566837.34	41566837.56	0.0529	0.0078
Moon	109094-01-12 21:06 G	41566837.15	41566837.38	41566837.62	0.0529	0.0065 *
Mercury	109097-10-17 04:18 G	41568210.63	41568210.68	41568210.74	0.0521	0.0466
Mercury	109098-01-14 10:18 G	41568299.81	41568299.93	41568300.05	0.0518	0.0174

Venus	109098-04-09 23:01 G	41568385.35	41568385.46	41568385.58	0.0515	0.0425
Venus	109098-12-03 04:18 G	41568622.62	41568622.68	41568622.74	0.0507	0.0481
Moon	109099-07-07 18:56 G	41568839.18	41568839.29	41568839.42	0.0500	0.0430
Earth	109099-07-07 22:47 G	41568839.35	41568839.45	41568839.55	0.0500	0.0445 *
Mercury	109104-02-29 21:20 G	41570536.26	41570536.39	41570536.54	0.0507	0.0314
Venus	109104-10-02 00:27 G	41570751.33	41570751.52	41570751.71	0.0514	0.0155
Moon	109106-01-18 13:11 G	41571224.88	41571225.05	41571225.22	0.0530	0.0346
Earth	109106-01-18 15:20 G	41571224.96	41571225.14	41571225.33	0.0530	0.0311 *
Mercury	109109-11-03 14:08 G	41572609.96	41572610.09	41572610.22	0.0519	0.0007
Venus	109110-08-08 22:32 G	41572888.26	41572888.44	41572888.63	0.0509	0.0229
Earth	109111-07-13 11:30 G	41573226.76	41573226.98	41573227.22	0.0499	0.0110
Moon	109111-07-13 14:08 G	41573226.86	41573227.09	41573227.31	0.0499	0.0083 *
Mercury	109116-03-18 04:03 G	41574936.54	41574936.67	41574936.81	0.0509	0.0334
Venus	109116-06-06 21:49 G	41575017.29	41575017.41	41575017.54	0.0512	0.0405
Venus	109117-01-29 17:01 G	41575254.17	41575254.21	41575254.27	0.0520	0.0502
Mercury	109121-08-22 18:27 G	41576920.14	41576920.27	41576920.39	0.0520	0.0150
Mercury	109121-11-19 23:59 G	41577009.45	41577009.50	41577009.55	0.0517	0.0476
Venus	109122-04-13 17:59 G	41577154.04	41577154.25	41577154.46	0.0511	0.0024
Moon	109123-07-17 23:15 G	41577614.25	41577614.47	41577614.69	0.0497	0.0213
Earth	109123-07-18 00:42 G	41577614.32	41577614.53	41577614.74	0.0497	0.0224 *
Mercury	109128-01-04 23:59 G	41579246.32	41579246.50	41579246.68	0.0508	0.0097
Venus	109128-10-04 12:42 G	41579519.86	41579520.03	41579520.21	0.0518	0.0240
Mercury	109133-06-10 23:01 G	41581230.35	41581230.46	41581230.56	0.0521	0.0302
Mercury	109133-09-08 04:47 G	41581319.60	41581319.70	41581319.79	0.0517	0.0331
Venus	109133-12-17 13:39 G	41581419.90	41581420.07	41581420.24	0.0514	0.0276
Mercury	109139-10-23 21:20 G	41583556.21	41583556.39	41583556.57	0.0508	0.0114
Venus	109140-06-09 11:01 G	41583785.76	41583785.96	41583786.16	0.0516	0.0017
Mercury	109145-03-30 02:51 G	41585540.57	41585540.62	41585540.68	0.0521	0.0465
Mercury	109145-06-27 08:51 G	41585629.75	41585629.87	41585629.99	0.0518	0.0174
Venus	109146-04-16 13:11 G	41585922.92	41585923.05	41585923.19	0.0508	0.0376

Mercury	109151-08-11 18:56 G	41587866.15	41587866.29	41587866.43	0.0507	0.0321
Venus	109152-02-13 09:49 G	41588051.74	41588051.91	41588052.09	0.0514	0.0263
Mercury	109157-04-15 12:56 G	41589939.91	41589940.04	41589940.17	0.0519	0.0021
Venus	109157-12-20 07:54 G	41590188.64	41590188.83	41590189.04	0.0510	0.0126
Mercury	109163-08-29 02:08 G	41592266.46	41592266.59	41592266.73	0.0509	0.0334
Venus	109163-10-19 08:37 G	41592317.85	41592317.86	41592317.87	0.0511	0.0509
Venus	109164-06-12 03:20 G	41592554.51	41592554.64	41592554.77	0.0519	0.0393
Mercury	109169-02-01 16:47 G	41594250.08	41594250.20	41594250.32	0.0520	0.0155
Mercury	109169-05-01 22:18 G	41594339.38	41594339.43	41594339.48	0.0517	0.0471
Venus	109169-08-25 01:25 G	41594454.36	41594454.56	41594454.76	0.0513	0.0136
Mars	109172-10-11 11:59 G	41595597.78	41595598.00	41595598.23	0.0489	0.0329
Mercury	109175-06-16 22:47 G	41596576.28	41596576.45	41596576.63	0.0508	0.0112
Venus	109176-02-15 23:59 G	41596820.31	41596820.50	41596820.69	0.0517	0.0134
Earth	109177-01-12 18:27 G	41597152.05	41597152.27	41597152.49	0.0528	0.0145
Moon	109177-01-12 18:42 G	41597152.07	41597152.28	41597152.49	0.0528	0.0155 *
Mercury	109180-11-20 21:06 G	41598560.27	41598560.38	41598560.48	0.0521	0.0313
Mercury	109181-02-18 02:51 G	41598649.52	41598649.62	41598649.72	0.0518	0.0321
Venus	109181-04-29 20:23 G	41598720.22	41598720.35	41598720.48	0.0515	0.0393
Earth	109182-07-08 01:39 G	41599154.52	41599154.57	41599154.61	0.0500	0.0490
Moon	109182-07-08 05:15 G	41599154.67	41599154.72	41599154.78	0.0500	0.0485
Mercury	109187-04-04 18:42 G	41600886.10	41600886.28	41600886.46	0.0508	0.0124
Venus	109187-10-21 19:54 G	41601086.13	41601086.33	41601086.52	0.0515	0.0127
Earth	109189-01-17 14:51 G	41601539.91	41601540.12	41601540.32	0.0530	0.0244
Moon	109189-01-17 15:35 G	41601539.95	41601540.15	41601540.36	0.0530	0.0273 *
Mars	109190-08-30 14:08 G	41602129.99	41602130.09	41602130.20	0.0538	0.0488
Mercury	109192-09-09 01:25 G	41602870.51	41602870.56	41602870.62	0.0521	0.0465
Mercury	109192-12-07 07:25 G	41602959.69	41602959.81	41602959.94	0.0518	0.0176
Venus	109193-08-27 22:47 G	41603223.27	41603223.45	41603223.62	0.0509	0.0272
Moon	109194-07-12 13:54 G	41603541.84	41603542.08	41603542.31	0.0499	0.0118
Earth	109194-07-12 17:15 G	41603541.99	41603542.22	41603542.44	0.0499	0.0149 *

Mercury	109199-01-21 16:18 G	41605196.04	41605196.18	41605196.31	0.0507	0.0331
Venus	109199-06-26 18:42 G	41605352.14	41605352.28	41605352.42	0.0513	0.0373
Mercury	109204-09-25 11:44 G	41607269.86	41607269.99	41607270.12	0.0519	0.0021
Venus	109205-05-02 17:30 G	41607489.03	41607489.23	41607489.44	0.0511	0.0021
Earth	109206-07-17 05:30 G	41607929.51	41607929.73	41607929.95	0.0497	0.0180
Moon	109206-07-17 08:37 G	41607929.65	41607929.86	41607930.08	0.0497	0.0197 *
Mercury	109211-02-07 23:44 G	41609596.36	41609596.49	41609596.63	0.0509	0.0330
Venus	109211-10-24 13:10 G	41609854.88	41609855.05	41609855.22	0.0519	0.0285
Mercury	109216-07-14 15:49 G	41611580.04	41611580.16	41611580.29	0.0520	0.0142
Mercury	109216-10-11 21:20 G	41611669.35	41611669.39	41611669.43	0.0516	0.0482
Venus	109217-01-05 11:44 G	41611754.81	41611754.99	41611755.17	0.0513	0.0239
Moon	109218-07-21 14:51 G	41612317.10	41612317.12	41612317.17	0.0496	0.0490
Mercury	109222-11-26 21:06 G	41613906.20	41613906.38	41613906.56	0.0508	0.0115
Venus	109223-06-29 10:46 G	41614120.75	41614120.95	41614121.15	0.0516	0.0028
Mercury	109228-05-02 19:25 G	41615890.21	41615890.31	41615890.42	0.0521	0.0313
Mercury	109228-07-31 01:10 G	41615979.46	41615979.55	41615979.66	0.0517	0.0321
Venus	109228-09-10 04:18 G	41616020.65	41616020.68	41616020.73	0.0516	0.0504
Venus	109229-05-05 10:32 G	41616257.83	41616257.94	41616258.07	0.0508	0.0411
Mercury	109234-09-14 17:58 G	41618216.08	41618216.25	41618216.43	0.0508	0.0104
Venus	109235-03-04 08:22 G	41618386.67	41618386.85	41618387.03	0.0513	0.0226
Mercury	109240-02-19 23:44 G	41620200.44	41620200.49	41620200.54	0.0521	0.0471
Mercury	109240-05-19 05:44 G	41620289.62	41620289.74	41620289.86	0.0518	0.0170
Venus	109241-01-08 06:42 G	41620523.59	41620523.78	41620523.98	0.0510	0.0163
Mercury	109246-07-03 13:54 G	41622525.95	41622526.08	41622526.22	0.0507	0.0335
Venus	109246-11-07 04:18 G	41622652.62	41622652.68	41622652.75	0.0511	0.0480
Venus	109247-07-01 23:44 G	41622889.37	41622889.49	41622889.60	0.0520	0.0426
Mercury	109252-03-07 10:32 G	41624599.81	41624599.94	41624600.07	0.0519	0.0023
Venus	109252-09-13 03:20 G	41624789.44	41624789.64	41624789.84	0.0512	0.0087
Mercury	109258-07-20 21:20 G	41626926.25	41626926.39	41626926.53	0.0509	0.0322
Venus	109259-03-06 21:49 G	41627155.22	41627155.41	41627155.60	0.0518	0.0172

Moon	109260-01-12 17:58 G	41627467.05	41627467.25	41627467.47	0.0528	0.0232
Earth	109260-01-12 22:03 G	41627467.21	41627467.42	41627467.63	0.0528	0.0199 *
Mercury	109263-12-25 14:51 G	41628909.99	41628910.12	41628910.24	0.0520	0.0134
Mercury	109264-03-23 20:22 G	41628999.31	41628999.35	41628999.39	0.0516	0.0490
Venus	109264-05-18 21:49 G	41629055.26	41629055.41	41629055.56	0.0514	0.0345
Mercury	109270-05-08 18:56 G	41631236.12	41631236.29	41631236.47	0.0509	0.0114
Venus	109270-11-09 21:06 G	41631421.18	41631421.38	41631421.58	0.0515	0.0080
Earth	109272-01-17 22:18 G	41631855.22	41631855.43	41631855.65	0.0530	0.0203
Moon	109272-01-18 02:22 G	41631855.38	41631855.60	41631855.81	0.0530	0.0177 *
Mercury	109275-10-13 18:56 G	41633220.18	41633220.29	41633220.40	0.0520	0.0295
Mercury	109276-01-11 00:42 G	41633309.43	41633309.53	41633309.62	0.0517	0.0336
Venus	109276-09-15 22:03 G	41633558.26	41633558.42	41633558.58	0.0508	0.0313
Earth	109277-07-11 22:46 G	41633857.23	41633857.45	41633857.67	0.0499	0.0191
Moon	109277-07-11 23:58 G	41633857.27	41633857.50	41633857.72	0.0499	0.0205 *
Mercury	109282-02-24 16:32 G	41635546.02	41635546.19	41635546.37	0.0508	0.0096
Venus	109282-07-15 19:54 G	41635687.17	41635687.33	41635687.48	0.0513	0.0329
Mercury	109287-08-01 22:32 G	41637530.39	41637530.44	41637530.50	0.0521	0.0466
Mercury	109287-10-30 04:32 G	41637619.57	41637619.69	41637619.81	0.0518	0.0174
Venus	109288-05-21 16:03 G	41637823.97	41637824.17	41637824.38	0.0511	0.0057
Moon	109289-07-16 09:49 G	41638244.69	41638244.91	41638245.12	0.0498	0.0160
Earth	109289-07-16 11:30 G	41638244.76	41638244.98	41638245.21	0.0498	0.0141 *
Mercury	109293-12-13 13:54 G	41639855.93	41639856.08	41639856.22	0.0507	0.0309
Venus	109294-11-12 12:27 G	41640189.87	41640190.02	41640190.18	0.0519	0.0327
Mercury	109299-08-18 09:06 G	41641929.75	41641929.88	41641930.01	0.0519	0.0023
Venus	109300-01-25 11:30 G	41642089.80	41642089.98	41642090.18	0.0513	0.0198
Earth	109301-07-22 01:25 G	41642632.50	41642632.56	41642632.64	0.0496	0.0474
Mercury	109305-12-31 19:25 G	41644256.17	41644256.31	41644256.45	0.0509	0.0322
Venus	109306-07-19 07:39 G	41644455.62	41644455.82	41644456.02	0.0516	0.0062
Mars	109309-02-20 05:30 G	41645402.59	41645402.73	41645402.88	0.0539	0.0439
Mercury	109311-06-07 13:39 G	41646239.95	41646240.07	41646240.20	0.0520	0.0127

Mercury	109311-09-04 19:10 G	41646329.27	41646329.30	41646329.33	0.0517	0.0498
Venus	109311-10-01 07:39 G	41646355.73	41646355.82	41646355.92	0.0516	0.0451
Venus	109312-05-25 13:25 G	41646592.99	41646593.06	41646593.15	0.0507	0.0463
Mercury	109317-10-19 16:46 G	41648566.02	41648566.20	41648566.38	0.0508	0.0111
Venus	109318-03-24 06:27 G	41648721.59	41648721.77	41648721.96	0.0514	0.0189
Mercury	109323-03-26 17:58 G	41650550.14	41650550.25	41650550.36	0.0520	0.0284
Mercury	109323-06-23 23:44 G	41650639.40	41650639.49	41650639.58	0.0517	0.0348
Venus	109324-01-29 09:06 G	41650858.69	41650858.88	41650859.07	0.0509	0.0213
Mars	109327-01-06 10:32 G	41651931.64	41651931.94	41651932.25	0.0489	0.0081
Mercury	109329-08-07 14:37 G	41652875.93	41652876.11	41652876.29	0.0508	0.0095
Venus	109329-11-27 06:13 G	41652987.66	41652987.76	41652987.87	0.0512	0.0433
Venus	109330-07-22 01:54 G	41653224.52	41653224.58	41653224.67	0.0520	0.0480
Mercury	109335-01-12 22:03 G	41654860.35	41654860.42	41654860.49	0.0521	0.0445
Mercury	109335-04-12 04:03 G	41654949.55	41654949.67	41654949.79	0.0518	0.0193
Venus	109335-10-04 04:03 G	41655124.47	41655124.67	41655124.88	0.0512	0.0041
Mercury	109341-05-26 12:27 G	41657185.88	41657186.02	41657186.17	0.0507	0.0299
Venus	109342-03-27 00:13 G	41657490.33	41657490.51	41657490.69	0.0518	0.0222
Moon	109343-01-13 05:30 G	41657782.51	41657782.73	41657782.95	0.0528	0.0211
Earth	109343-01-13 05:58 G	41657782.55	41657782.75	41657782.96	0.0528	0.0236 *
Mercury	109347-01-29 07:54 G	41659259.70	41659259.83	41659259.96	0.0519	0.0031
Venus	109347-06-08 21:20 G	41659390.23	41659390.39	41659390.56	0.0514	0.0304
Mercury	109353-06-12 19:25 G	41661586.18	41661586.31	41661586.44	0.0509	0.0354
Venus	109353-11-29 21:49 G	41661756.21	41661756.41	41661756.61	0.0515	0.0035
Moon	109355-01-18 02:51 G	41662170.41	41662170.62	41662170.84	0.0529	0.0141
Earth	109355-01-18 03:20 G	41662170.42	41662170.64	41662170.86	0.0529	0.0154 *
Mercury	109358-11-17 12:13 G	41663569.89	41663570.01	41663570.14	0.0520	0.0126
Mercury	109359-02-14 17:58 G	41663659.22	41663659.25	41663659.28	0.0517	0.0500
Venus	109359-10-06 23:01 G	41663893.32	41663893.46	41663893.61	0.0508	0.0359
Earth	109360-07-12 07:39 G	41664172.61	41664172.82	41664173.03	0.0499	0.0220
Moon	109360-07-12 11:30 G	41664172.77	41664172.98	41664173.18	0.0499	0.0237 *

Mercury	109365-03-31 15:06 G	41665895.95	41665896.13	41665896.31	0.0508	0.0115
Venus	109365-08-04 17:15 G	41666022.06	41666022.22	41666022.39	0.0513	0.0294
Moon	109367-01-22 23:01 G	41666558.40	41666558.46	41666558.55	0.0531	0.0503
Mercury	109370-09-05 17:01 G	41667880.10	41667880.21	41667880.32	0.0521	0.0275
Mercury	109370-12-03 22:46 G	41667969.36	41667969.45	41667969.54	0.0518	0.0358
Venus	109371-06-11 20:08 G	41668159.14	41668159.34	41668159.54	0.0511	0.0113
Moon	109372-07-16 20:37 G	41668560.12	41668560.36	41668560.59	0.0498	0.0089
Earth	109372-07-16 23:58 G	41668560.28	41668560.50	41668560.73	0.0498	0.0121 *
Mercury	109377-01-17 12:42 G	41670205.85	41670206.03	41670206.21	0.0508	0.0094
Venus	109377-12-02 11:30 G	41670524.85	41670524.98	41670525.13	0.0519	0.0369
Mercury	109382-06-24 21:06 G	41672190.31	41672190.38	41672190.46	0.0521	0.0433
Mercury	109382-09-22 03:20 G	41672279.52	41672279.64	41672279.75	0.0518	0.0207
Venus	109383-02-14 15:20 G	41672424.94	41672425.14	41672425.34	0.0513	0.0143
Earth	109384-07-21 12:27 G	41672947.93	41672948.02	41672948.13	0.0496	0.0448
Moon	109384-07-21 15:49 G	41672948.07	41672948.16	41672948.27	0.0496	0.0446 *
Mercury	109388-11-05 10:46 G	41674515.80	41674515.95	41674516.09	0.0507	0.0295
Venus	109389-08-07 10:32 G	41674790.75	41674790.94	41674791.14	0.0517	0.0116
Mercury	109394-07-11 07:39 G	41676589.69	41676589.82	41676589.95	0.0519	0.0053
Venus	109394-10-20 09:49 G	41676690.78	41676690.91	41676691.04	0.0515	0.0401
Mercury	109400-08-25 08:51 G	41678825.83	41678825.87	41678825.90	0.0506	0.0495
Mercury	109400-11-23 18:27 G	41678916.14	41678916.27	41678916.39	0.0509	0.0367
Venus	109401-04-13 09:34 G	41679056.71	41679056.90	41679057.10	0.0514	0.0138
Mercury	109406-04-30 11:30 G	41680899.85	41680899.98	41680900.10	0.0520	0.0114
Mercury	109406-07-28 17:01 G	41680989.19	41680989.21	41680989.23	0.0517	0.0509
Venus	109407-02-18 09:34 G	41681193.72	41681193.90	41681194.08	0.0509	0.0258
Mercury	109412-09-11 15:20 G	41683225.97	41683226.14	41683226.32	0.0508	0.0149
Venus	109412-12-17 07:54 G	41683322.71	41683322.83	41683322.97	0.0512	0.0386
Mercury	109418-02-16 15:49 G	41685210.05	41685210.16	41685210.27	0.0521	0.0270
Mercury	109418-05-16 21:34 G	41685299.31	41685299.40	41685299.49	0.0518	0.0362
Venus	109418-10-24 05:44 G	41685459.53	41685459.74	41685459.94	0.0512	0.0008

Mercury 109424-06-30 11:15 G 41687535.79 41687535.97 41687536.15 0.0507 0.0085

Venus 109425-04-15 22:03 G 41687825.25 41687825.42 41687825.60 0.0518 0.0261

Earth 109426-01-13 07:54 G 41688097.64 41688097.83 41688098.02 0.0527 0.0295

Moon 109426-01-13 11:15 G 41688097.78 41688097.97 41688098.17 0.0527 0.0290 *

Mercury 109429-12-05 20:08 G 41689520.27 41689520.34 41689520.42 0.0522 0.0423

Mercury 109430-03-05 02:22 G 41689609.48 41689609.60 41689609.71 0.0519 0.0217

Venus 109430-06-29 01:54 G 41689725.40 41689725.58 41689725.76 0.0514 0.0246

Mercury 109436-04-18 08:51 G 41691845.73 41691845.87 41691846.02 0.0507 0.0291

Venus 109436-12-19 20:51 G 41692091.17 41692091.37 41692091.57 0.0516 0.0011

Moon 109438-01-18 04:32 G 41692485.47 41692485.69 41692485.91 0.0529 0.0134

Earth 109438-01-18 08:08 G 41692485.62 41692485.84 41692486.07 0.0529 0.0103 *

Mercury 109441-12-22 06:42 G 41693919.66 41693919.78 41693919.91 0.0519 0.0068

Venus 109442-03-03 20:51 G 41693991.33 41693991.37 41693991.41 0.0516 0.0505

Venus 109442-10-27 02:51 G 41694228.50 41694228.62 41694228.74 0.0508 0.0414

Earth 109443-07-13 19:39 G 41694488.12 41694488.32 41694488.53 0.0499 0.0243

Moon 109443-07-13 20:22 G 41694488.14 41694488.35 41694488.55 0.0499 0.0213 *

Mercury 109448-02-05 06:56 G 41696155.76 41696155.79 41696155.84 0.0506 0.0490

Mercury 109448-05-05 16:32 G 41696246.07 41696246.19 41696246.32 0.0509 0.0371

Venus 109448-08-24 20:22 G 41696357.18 41696357.35 41696357.53 0.0513 0.0242

Earth 109450-01-23 09:49 G 41696873.86 41696873.91 41696873.98 0.0531 0.0509

Moon 109450-01-23 13:54 G 41696874.05 41696874.08 41696874.12 0.0531 0.0524

Mercury 109453-10-10 11:01 G 41698229.83 41698229.96 41698230.09 0.0520 0.0091

Venus 109454-07-01 22:18 G 41698494.24 41698494.43 41698494.63 0.0510 0.0164

Earth 109455-07-18 09:49 G 41698875.67 41698875.91 41698876.14 0.0498 0.0090

Moon 109455-07-18 10:03 G 41698875.68 41698875.92 41698876.17 0.0498 0.0097 *

Mercury 109460-02-22 14:08 G 41700555.92 41700556.09 41700556.27 0.0509 0.0162

Venus 109460-04-29 20:08 G 41700623.29 41700623.34 41700623.41 0.0511 0.0486

Venus 109460-12-22 15:06 G 41700860.02 41700860.13 41700860.25 0.0519 0.0424

Mars 109463-05-18 22:46 G 41701737.21 41701737.45 41701737.70 0.0538 0.0034

Mercury 109465-07-29 14:51 G 41702540.01 41702540.12 41702540.23 0.0521 0.0258

Mercury	109465-10-26 20:37 G	41702629.27	41702629.36	41702629.45	0.0517	0.0373
Venus	109466-03-06 16:18 G	41702759.97	41702760.18	41702760.38	0.0513	0.0097
Moon	109467-07-22 20:51 G	41703263.24	41703263.37	41703263.51	0.0497	0.0395
Earth	109467-07-22 22:03 G	41703263.30	41703263.42	41703263.55	0.0497	0.0418 *
Mercury	109471-12-11 11:30 G	41704865.80	41704865.98	41704866.16	0.0508	0.0052
Venus	109472-08-27 12:42 G	41705125.84	41705126.03	41705126.22	0.0517	0.0165
Mercury	109477-05-17 18:56 G	41706850.22	41706850.29	41706850.37	0.0522	0.0416
Mercury	109477-08-15 01:10 G	41706939.43	41706939.55	41706939.66	0.0518	0.0223
Venus	109477-11-09 11:30 G	41707025.83	41707025.98	41707026.13	0.0515	0.0354
Mercury	109483-09-29 07:39 G	41709175.67	41709175.82	41709175.97	0.0506	0.0281
Venus	109484-05-02 07:54 G	41709391.64	41709391.83	41709392.03	0.0514	0.0099
Mercury	109489-06-03 05:44 G	41711249.61	41711249.74	41711249.87	0.0519	0.0075
Venus	109490-03-09 14:08 G	41711528.93	41711529.09	41711529.25	0.0509	0.0316
Mercury	109495-07-18 05:30 G	41713485.68	41713485.73	41713485.78	0.0506	0.0484
Mercury	109495-10-16 14:51 G	41713576.00	41713576.12	41713576.24	0.0509	0.0374
Venus	109496-01-06 06:56 G	41713657.65	41713657.79	41713657.94	0.0512	0.0347
Mercury	109501-03-23 10:18 G	41715559.80	41715559.93	41715560.05	0.0520	0.0081
Venus	109501-11-13 09:49 G	41715794.70	41715794.91	41715795.11	0.0511	0.0063
Mercury	109507-08-05 12:27 G	41717885.85	41717886.02	41717886.19	0.0508	0.0166
Venus	109508-05-06 01:39 G	41718160.41	41718160.57	41718160.73	0.0518	0.0316
Earth	109509-01-13 19:39 G	41718413.14	41718413.32	41718413.50	0.0527	0.0321
Moon	109509-01-13 22:32 G	41718413.27	41718413.44	41718413.61	0.0527	0.0349 *
Mercury	109513-01-09 14:22 G	41719869.99	41719870.10	41719870.22	0.0521	0.0236
Mercury	109513-04-08 20:08 G	41719959.26	41719959.34	41719959.42	0.0517	0.0394
Venus	109513-07-19 04:32 G	41720060.50	41720060.69	41720060.88	0.0514	0.0195
Mercury	109519-05-24 10:18 G	41722195.75	41722195.93	41722196.11	0.0508	0.0040
Venus	109520-01-10 00:27 G	41722426.32	41722426.52	41722426.72	0.0516	0.0062
Moon	109521-01-18 17:01 G	41722800.97	41722801.21	41722801.45	0.0529	0.0048
Earth	109521-01-18 19:10 G	41722801.07	41722801.30	41722801.53	0.0529	0.0074 *
Mercury	109524-10-28 18:13 G	41724180.18	41724180.26	41724180.34	0.0521	0.0404

Mercury	109525-01-26 00:13 G	41724269.40	41724269.51	41724269.63	0.0518	0.0234
Venus	109525-03-23 21:34 G	41724326.32	41724326.40	41724326.50	0.0516	0.0459
Venus	109525-11-16 03:34 G	41724563.57	41724563.65	41724563.74	0.0508	0.0460
Moon	109526-07-14 00:42 G	41724803.35	41724803.53	41724803.72	0.0500	0.0292
Earth	109526-07-14 04:32 G	41724803.49	41724803.69	41724803.89	0.0500	0.0274 *
Mercury	109531-03-12 07:39 G	41726505.67	41726505.82	41726505.98	0.0507	0.0250
Venus	109531-09-14 22:32 G	41726692.26	41726692.44	41726692.63	0.0513	0.0192
Earth	109533-01-23 17:01 G	41727189.10	41727189.21	41727189.32	0.0530	0.0465
Moon	109533-01-23 17:58 G	41727189.16	41727189.25	41727189.34	0.0530	0.0481 *
Mercury	109536-11-14 04:32 G	41728579.57	41728579.69	41728579.82	0.0519	0.0083
Venus	109537-07-21 23:44 G	41728829.31	41728829.49	41728829.68	0.0510	0.0213
Earth	109538-07-18 20:08 G	41729191.11	41729191.34	41729191.58	0.0499	0.0065
Moon	109538-07-18 23:58 G	41729191.27	41729191.50	41729191.74	0.0499	0.0085 *
Mercury	109542-12-29 04:03 G	41730815.62	41730815.67	41730815.74	0.0506	0.0474
Mercury	109543-03-29 13:25 G	41730905.94	41730906.06	41730906.18	0.0509	0.0383
Venus	109543-05-20 18:27 G	41730958.18	41730958.27	41730958.37	0.0511	0.0449
Venus	109544-01-12 13:10 G	41731194.97	41731195.05	41731195.15	0.0519	0.0462
Mercury	109548-09-02 09:06 G	41732889.75	41732889.88	41732890.01	0.0520	0.0072
Venus	109549-03-26 20:08 G	41733095.14	41733095.34	41733095.55	0.0513	0.0041
Moon	109550-07-23 08:08 G	41733578.73	41733578.84	41733578.96	0.0497	0.0429
Earth	109550-07-23 11:44 G	41733578.86	41733578.99	41733579.14	0.0497	0.0400 *
Mercury	109555-01-15 10:46 G	41735215.78	41735215.95	41735216.12	0.0508	0.0169
Venus	109555-09-17 11:30 G	41735460.79	41735460.98	41735461.16	0.0517	0.0206
Mercury	109560-06-21 13:25 G	41737199.95	41737200.06	41737200.18	0.0521	0.0227
Mercury	109560-09-18 19:10 G	41737289.23	41737289.30	41737289.38	0.0518	0.0404
Venus	109560-11-29 15:06 G	41737360.96	41737361.13	41737361.30	0.0515	0.0301
Mercury	109566-11-03 08:22 G	41739525.67	41739525.85	41739526.03	0.0508	0.0039
Venus	109567-05-23 10:32 G	41739726.74	41739726.94	41739727.15	0.0515	0.0049
Mercury	109572-04-09 17:30 G	41741510.15	41741510.23	41741510.32	0.0521	0.0386
Mercury	109572-07-07 23:44 G	41741599.38	41741599.49	41741599.60	0.0518	0.0252

Venus	109573-03-29 16:03 G	41741864.03	41741864.17	41741864.31	0.0509	0.0365
Mercury	109578-08-22 06:13 G	41743835.61	41743835.76	41743835.92	0.0507	0.0242
Venus	109579-01-26 09:49 G	41743992.75	41743992.91	41743993.08	0.0512	0.0296
Mercury	109584-04-26 03:34 G	41745909.53	41745909.65	41745909.78	0.0519	0.0091
Venus	109584-12-02 10:03 G	41746129.72	41746129.92	41746130.13	0.0511	0.0108
Mercury	109590-06-10 04:03 G	41748145.59	41748145.67	41748145.75	0.0506	0.0447
Mercury	109590-09-08 13:25 G	41748235.96	41748236.06	41748236.16	0.0509	0.0412
Venus	109591-05-26 03:20 G	41748495.50	41748495.64	41748495.78	0.0518	0.0365
Moon	109592-01-14 01:10 G	41748728.38	41748728.55	41748728.72	0.0527	0.0334
Earth	109592-01-14 02:37 G	41748728.45	41748728.61	41748728.78	0.0527	0.0363 *
Mercury	109596-02-13 07:54 G	41750219.70	41750219.83	41750219.96	0.0520	0.0066
Venus	109596-08-07 05:15 G	41750395.52	41750395.72	41750395.92	0.0514	0.0149
Mars	109599-09-22 08:37 G	41751536.63	41751536.86	41751537.10	0.0488	0.0306
Mercury	109602-06-27 09:20 G	41752545.72	41752545.89	41752546.06	0.0508	0.0177
Venus	109603-01-28 22:18 G	41752761.23	41752761.43	41752761.62	0.0516	0.0098
Earth	109604-01-18 19:10 G	41753116.07	41753116.30	41753116.53	0.0528	0.0009
Moon	109604-01-18 21:20 G	41753116.15	41753116.39	41753116.63	0.0528	0.0005 *
Mercury	109607-12-02 12:13 G	41754529.89	41754530.01	41754530.12	0.0521	0.0225
Mercury	109608-02-29 17:58 G	41754619.17	41754619.25	41754619.33	0.0518	0.0409
Venus	109608-04-12 00:13 G	41754661.39	41754661.51	41754661.64	0.0516	0.0410
Moon	109609-07-13 14:22 G	41755118.91	41755119.10	41755119.29	0.0501	0.0315
Earth	109609-07-13 16:46 G	41755119.01	41755119.20	41755119.39	0.0501	0.0295 *
Mercury	109614-04-15 06:42 G	41756855.60	41756855.78	41756855.96	0.0507	0.0035
Venus	109614-10-03 20:51 G	41757027.17	41757027.37	41757027.56	0.0513	0.0155
Moon	109616-01-23 15:49 G	41757504.00	41757504.16	41757504.32	0.0530	0.0370
Earth	109616-01-23 18:27 G	41757504.13	41757504.27	41757504.43	0.0530	0.0403 *
Mars	109617-08-13 06:27 G	41758071.64	41758071.77	41758071.92	0.0539	0.0438
Mercury	109619-09-20 16:18 G	41758840.10	41758840.18	41758840.27	0.0522	0.0382
Mercury	109619-12-18 22:32 G	41758929.33	41758929.44	41758929.55	0.0519	0.0258
Venus	109620-08-10 02:22 G	41759164.42	41759164.60	41759164.78	0.0510	0.0262

Earth	109621-07-18 06:27 G	41759506.53	41759506.77	41759507.01	0.0499	0.0038
Moon	109621-07-18 08:37 G	41759506.63	41759506.86	41759507.08	0.0499	0.0012 *
Mercury	109626-02-01 04:18 G	41761165.52	41761165.68	41761165.84	0.0507	0.0242
Venus	109626-06-08 19:54 G	41761293.22	41761293.33	41761293.46	0.0511	0.0404
Venus	109627-01-31 15:20 G	41761530.11	41761530.14	41761530.18	0.0520	0.0512
Mercury	109631-10-07 02:51 G	41763239.49	41763239.62	41763239.75	0.0519	0.0105
Venus	109632-04-14 21:34 G	41763430.20	41763430.40	41763430.61	0.0512	0.0009
Moon	109633-07-22 17:58 G	41763894.08	41763894.25	41763894.43	0.0497	0.0353
Earth	109633-07-22 19:54 G	41763894.17	41763894.33	41763894.49	0.0497	0.0365 *
Mercury	109637-11-20 02:22 G	41765475.51	41765475.60	41765475.68	0.0506	0.0443
Mercury	109638-02-18 11:44 G	41765565.89	41765565.99	41765566.09	0.0509	0.0416
Venus	109638-10-06 13:54 G	41765795.91	41765796.08	41765796.26	0.0517	0.0257
Mercury	109643-07-26 06:42 G	41767549.65	41767549.78	41767549.91	0.0520	0.0061
Venus	109643-12-19 14:51 G	41767695.94	41767696.12	41767696.30	0.0515	0.0258
Mercury	109649-12-07 08:51 G	41769875.70	41769875.87	41769876.04	0.0508	0.0200
Venus	109650-06-11 11:44 G	41770061.79	41770061.99	41770062.19	0.0515	0.0006
Mercury	109655-05-14 10:46 G	41771859.84	41771859.95	41771860.07	0.0521	0.0220
Mercury	109655-08-11 16:46 G	41771949.12	41771949.20	41771949.27	0.0518	0.0412
Venus	109656-04-17 15:49 G	41772199.05	41772199.16	41772199.29	0.0509	0.0409
Mercury	109661-09-25 05:01 G	41774185.53	41774185.71	41774185.90	0.0507	0.0032
Venus	109662-02-14 07:39 G	41774327.65	41774327.82	41774327.99	0.0512	0.0261
Mercury	109667-03-02 14:51 G	41776170.04	41776170.12	41776170.21	0.0522	0.0383
Mercury	109667-05-30 21:06 G	41776259.27	41776259.38	41776259.49	0.0519	0.0258
Venus	109667-12-22 11:30 G	41776464.79	41776464.98	41776465.18	0.0511	0.0156
Mercury	109673-07-14 02:22 G	41778495.45	41778495.60	41778495.76	0.0506	0.0240
Venus	109673-10-20 06:42 G	41778593.76	41778593.78	41778593.79	0.0510	0.0507
Venus	109674-06-14 00:27 G	41778830.40	41778830.52	41778830.65	0.0518	0.0400
Moon	109675-01-12 22:32 G	41779043.32	41779043.44	41779043.58	0.0526	0.0430
Earth	109675-01-13 02:37 G	41779043.48	41779043.61	41779043.75	0.0526	0.0426 *
Mercury	109679-03-19 01:25 G	41780569.44	41780569.56	41780569.69	0.0520	0.0105

Venus 109679-08-27 06:27 G 41780730.57 41780730.77 41780730.97 0.0514 0.0104
 Mercury 109685-05-01 23:58 G 41782805.42 41782805.50 41782805.59 0.0506 0.0447
 Mercury 109685-07-31 09:20 G 41782895.78 41782895.89 41782896.00 0.0509 0.0410
 Venus 109686-02-16 22:46 G 41783096.26 41783096.45 41783096.65 0.0516 0.0143
 Earth 109687-01-18 02:22 G 41783431.37 41783431.60 41783431.83 0.0528 0.0033
 Moon 109687-01-18 06:13 G 41783431.53 41783431.76 41783431.99 0.0528 0.0005 *
 Mercury 109691-01-05 05:44 G 41784879.61 41784879.74 41784879.87 0.0520 0.0051
 Venus 109691-05-02 00:56 G 41784996.40 41784996.54 41784996.69 0.0516 0.0365
 Earth 109692-07-12 22:46 G 41785434.28 41785434.45 41785434.63 0.0501 0.0334
 Moon 109692-07-13 01:25 G 41785434.37 41785434.56 41785434.76 0.0501 0.0301 *
 Mercury 109697-05-19 06:56 G 41787205.62 41787205.79 41787205.95 0.0508 0.0199
 Venus 109697-10-22 21:49 G 41787362.22 41787362.41 41787362.61 0.0514 0.0110
 Moon 109699-01-22 22:46 G 41787819.29 41787819.45 41787819.61 0.0530 0.0389
 Earth 109699-01-23 02:08 G 41787819.43 41787819.59 41787819.76 0.0530 0.0362 *
 Mercury 109702-10-25 09:34 G 41789189.78 41789189.90 41789190.02 0.0521 0.0217
 Mercury 109703-01-22 15:20 G 41789279.07 41789279.14 41789279.22 0.0518 0.0414
 Venus 109703-08-31 00:56 G 41789499.38 41789499.54 41789499.71 0.0510 0.0302
 Moon 109704-07-18 08:37 G 41789821.63 41789821.86 41789822.09 0.0499 0.0006
 Earth 109704-07-18 11:30 G 41789821.74 41789821.98 41789822.21 0.0499 0.0010 *
 Mercury 109709-03-08 04:03 G 41791515.49 41791515.67 41791515.85 0.0507 0.0017
 Venus 109709-06-28 20:08 G 41791628.21 41791628.34 41791628.49 0.0511 0.0361
 Mercury 109714-08-13 13:25 G 41793499.98 41793500.06 41793500.15 0.0522 0.0380
 Mercury 109714-11-10 19:39 G 41793589.21 41793589.32 41793589.43 0.0519 0.0259
 Venus 109715-05-05 20:08 G 41793765.13 41793765.34 41793765.54 0.0512 0.0046
 Earth 109716-07-23 01:54 G 41794209.41 41794209.58 41794209.76 0.0498 0.0326
 Moon 109716-07-23 05:01 G 41794209.52 41794209.71 41794209.90 0.0498 0.0304 *
 Mercury 109720-12-25 00:42 G 41795825.37 41795825.53 41795825.69 0.0506 0.0237
 Venus 109721-10-26 10:32 G 41796130.78 41796130.94 41796131.11 0.0517 0.0289
 Mercury 109726-08-29 23:44 G 41797899.36 41797899.49 41797899.62 0.0520 0.0100
 Venus 109727-01-08 14:08 G 41798030.91 41798031.09 41798031.28 0.0515 0.0218

Mercury	109732-10-12 22:03 G	41800135.34	41800135.42	41800135.51	0.0505	0.0446
Mercury	109733-01-11 07:10 G	41800225.70	41800225.80	41800225.91	0.0508	0.0408
Venus	109733-07-01 08:08 G	41800396.64	41800396.84	41800397.04	0.0515	0.0032
Mars	109736-02-03 14:37 G	41801344.09	41801344.11	41801344.16	0.0539	0.0533
Mercury	109738-06-18 04:03 G	41802209.54	41802209.67	41802209.80	0.0521	0.0056
Venus	109738-09-13 08:22 G	41802296.78	41802296.85	41802296.93	0.0517	0.0482
Venus	109739-05-08 15:34 G	41802534.06	41802534.15	41802534.25	0.0509	0.0448
Mercury	109744-10-30 04:18 G	41804535.51	41804535.68	41804535.84	0.0508	0.0189
Venus	109745-03-06 06:42 G	41804662.60	41804662.78	41804662.96	0.0512	0.0223
Mercury	109750-04-06 08:22 G	41806519.73	41806519.85	41806519.97	0.0521	0.0213
Mercury	109750-07-04 14:08 G	41806609.02	41806609.09	41806609.17	0.0518	0.0419
Venus	109751-01-11 10:46 G	41806799.76	41806799.95	41806800.15	0.0511	0.0196
Mars	109753-12-17 07:39 G	41807870.52	41807870.82	41807871.13	0.0488	0.0098
Mercury	109756-08-18 01:39 G	41808845.39	41808845.57	41808845.76	0.0507	0.0025
Venus	109756-11-09 06:13 G	41808928.68	41808928.76	41808928.83	0.0510	0.0468
Venus	109757-07-04 00:42 G	41809165.43	41809165.53	41809165.63	0.0519	0.0444
Moon	109758-01-13 08:08 G	41809358.76	41809358.84	41809358.93	0.0526	0.0491
Earth	109758-01-13 08:51 G	41809358.77	41809358.87	41809358.98	0.0526	0.0467 *
Mercury	109762-01-23 11:58 G	41810829.92	41810830.00	41810830.09	0.0522	0.0381
Mercury	109762-04-22 18:13 G	41810919.15	41810919.26	41810919.37	0.0519	0.0258
Venus	109762-09-16 04:18 G	41811065.48	41811065.68	41811065.88	0.0513	0.0067
Mercury	109768-06-05 23:15 G	41813155.31	41813155.47	41813155.63	0.0506	0.0229
Venus	109769-03-08 22:03 G	41813431.24	41813431.42	41813431.61	0.0516	0.0185
Earth	109770-01-18 05:30 G	41813746.50	41813746.73	41813746.96	0.0527	0.0087
Moon	109770-01-18 05:30 G	41813746.52	41813746.73	41813746.95	0.0527	0.0117 *
Mercury	109774-02-08 22:18 G	41815229.30	41815229.43	41815229.56	0.0520	0.0100
Venus	109774-05-21 22:18 G	41815331.27	41815331.43	41815331.59	0.0516	0.0330
Earth	109775-07-14 01:54 G	41815749.44	41815749.58	41815749.74	0.0501	0.0382
Moon	109775-07-14 05:44 G	41815749.60	41815749.74	41815749.88	0.0501	0.0397 *
Mercury	109780-03-24 20:08 G	41817465.26	41817465.34	41817465.43	0.0505	0.0446

Mercury	109780-06-23 05:15 G	41817555.61	41817555.72	41817555.83	0.0508	0.0406
Venus	109780-11-11 18:27 G	41817697.07	41817697.27	41817697.47	0.0513	0.0079
Earth	109782-01-22 22:03 G	41818134.24	41818134.42	41818134.62	0.0529	0.0285
Moon	109782-01-22 22:32 G	41818134.24	41818134.44	41818134.64	0.0529	0.0285 *
Mercury	109785-11-28 02:08 G	41819539.46	41819539.59	41819539.72	0.0521	0.0067
Venus	109786-09-18 23:15 G	41819834.32	41819834.47	41819834.62	0.0510	0.0338
Moon	109787-07-18 13:25 G	41820136.82	41820137.06	41820137.30	0.0500	0.0028
Earth	109787-07-18 17:01 G	41820136.97	41820137.21	41820137.44	0.0500	0.0046 *
Mercury	109792-04-11 02:08 G	41821865.42	41821865.59	41821865.76	0.0507	0.0186
Venus	109792-07-17 16:18 G	41821963.03	41821963.18	41821963.34	0.0511	0.0332
Mercury	109797-09-16 06:27 G	41823849.65	41823849.77	41823849.89	0.0522	0.0224
Mercury	109797-12-14 12:27 G	41823938.94	41823939.02	41823939.09	0.0518	0.0410
Venus	109798-05-24 18:13 G	41824100.06	41824100.26	41824100.46	0.0512	0.0081
Earth	109799-07-23 05:44 G	41824524.55	41824524.74	41824524.94	0.0498	0.0283
Moon	109799-07-23 09:06 G	41824524.71	41824524.88	41824525.06	0.0498	0.0318 *
Mercury	109804-01-29 23:01 G	41826175.28	41826175.46	41826175.64	0.0507	0.0034
Venus	109804-11-15 08:37 G	41826465.70	41826465.86	41826466.01	0.0518	0.0326
Mercury	109809-07-06 10:32 G	41828159.86	41828159.94	41828160.03	0.0522	0.0382
Mercury	109809-10-03 16:46 G	41828249.09	41828249.20	41828249.31	0.0519	0.0258
Venus	109810-01-28 12:56 G	41828365.85	41828366.04	41828366.23	0.0514	0.0180
Mercury	109815-11-17 20:37 G	41830485.20	41830485.36	41830485.52	0.0506	0.0240
Venus	109816-07-21 06:56 G	41830731.59	41830731.79	41830731.99	0.0515	0.0070
Mercury	109821-07-22 20:37 G	41832559.24	41832559.36	41832559.49	0.0520	0.0098
Venus	109821-10-03 05:44 G	41832631.64	41832631.74	41832631.84	0.0517	0.0447
Venus	109822-05-28 12:13 G	41832868.95	41832869.01	41832869.08	0.0508	0.0482
Mercury	109827-09-05 18:13 G	41834795.18	41834795.26	41834795.34	0.0505	0.0445
Mercury	109827-12-05 03:20 G	41834885.54	41834885.64	41834885.75	0.0509	0.0409
Venus	109828-03-26 05:15 G	41834997.53	41834997.72	41834997.91	0.0513	0.0185
Mercury	109833-05-11 00:42 G	41836869.40	41836869.53	41836869.66	0.0521	0.0066
Venus	109834-01-31 07:10 G	41837134.61	41837134.80	41837134.98	0.0511	0.0228

Mercury	109839-09-22 23:58 G	41839195.33	41839195.50	41839195.67	0.0507	0.0183
Venus	109839-11-30 02:37 G	41839263.52	41839263.61	41839263.72	0.0510	0.0439
Venus	109840-07-23 20:22 G	41839500.27	41839500.35	41839500.43	0.0518	0.0472
Moon	109841-01-13 08:22 G	41839673.80	41839673.85	41839673.92	0.0524	0.0505
Mercury	109845-02-27 04:18 G	41841179.57	41841179.68	41841179.80	0.0522	0.0236
Mercury	109845-05-27 10:18 G	41841268.85	41841268.93	41841269.01	0.0519	0.0399
Venus	109845-10-06 00:42 G	41841400.33	41841400.53	41841400.74	0.0514	0.0039
Mercury	109851-07-11 20:51 G	41843505.19	41843505.37	41843505.55	0.0506	0.0036
Venus	109852-03-28 17:15 G	41843766.04	41843766.22	41843766.41	0.0516	0.0212
Moon	109853-01-17 21:34 G	41844061.18	41844061.40	41844061.61	0.0526	0.0162
Earth	109853-01-18 00:56 G	41844061.33	41844061.54	41844061.76	0.0526	0.0164 *
Mercury	109856-12-16 08:22 G	41845489.77	41845489.85	41845489.94	0.0523	0.0397
Mercury	109857-03-15 14:37 G	41845579.00	41845579.11	41845579.23	0.0519	0.0245
Venus	109857-06-10 18:56 G	41845666.13	41845666.29	41845666.46	0.0516	0.0301
Earth	109858-07-14 03:49 G	41846064.54	41846064.66	41846064.78	0.0502	0.0429
Moon	109858-07-14 04:32 G	41846064.59	41846064.69	41846064.80	0.0502	0.0437 *
Mercury	109863-04-29 17:30 G	41847815.08	41847815.23	41847815.39	0.0506	0.0255
Venus	109863-12-02 14:51 G	41848031.92	41848032.12	41848032.32	0.0514	0.0048
Earth	109865-01-22 23:01 G	41848449.25	41848449.46	41848449.67	0.0529	0.0224
Moon	109865-01-23 02:51 G	41848449.41	41848449.62	41848449.84	0.0529	0.0193 *
Mercury	109869-01-01 19:10 G	41849889.17	41849889.30	41849889.42	0.0520	0.0093
Venus	109869-10-08 20:51 G	41850169.23	41850169.37	41850169.51	0.0509	0.0373
Earth	109870-07-18 18:27 G	41850452.04	41850452.27	41850452.50	0.0500	0.0095
Moon	109870-07-18 18:27 G	41850452.04	41850452.27	41850452.52	0.0500	0.0124 *
Mercury	109875-02-15 15:20 G	41852125.07	41852125.14	41852125.21	0.0505	0.0459
Mercury	109875-05-17 00:27 G	41852215.40	41852215.52	41852215.63	0.0509	0.0394
Venus	109875-08-07 13:39 G	41852297.91	41852298.07	41852298.24	0.0511	0.0299
Mercury	109880-10-20 23:01 G	41854199.33	41854199.46	41854199.59	0.0520	0.0071
Venus	109881-06-13 14:37 G	41854434.91	41854435.11	41854435.31	0.0512	0.0114
Moon	109882-07-23 05:44 G	41854839.53	41854839.74	41854839.95	0.0499	0.0215

Earth	109882-07-23 06:27 G	41854839.56	41854839.77	41854839.98	0.0499	0.0228 *
Mercury	109887-03-04 21:34 G	41856525.23	41856525.40	41856525.57	0.0508	0.0180
Venus	109887-12-05 06:42 G	41856800.64	41856800.78	41856800.92	0.0518	0.0364
Mars	109890-04-30 06:56 G	41857677.57	41857677.79	41857678.02	0.0539	0.0209
Mercury	109892-08-09 02:51 G	41858509.50	41858509.62	41858509.74	0.0521	0.0236
Mercury	109892-11-06 08:51 G	41858598.79	41858598.87	41858598.95	0.0518	0.0397
Venus	109893-02-16 08:22 G	41858700.66	41858700.85	41858701.05	0.0514	0.0150
Mercury	109898-12-21 18:42 G	41860835.10	41860835.28	41860835.46	0.0506	0.0042
Venus	109899-08-10 03:06 G	41861066.43	41861066.63	41861066.83	0.0515	0.0099
Mercury	109904-05-29 06:13 G	41862819.69	41862819.76	41862819.84	0.0523	0.0411
Mercury	109904-08-26 12:42 G	41862908.91	41862909.03	41862909.14	0.0520	0.0232
Venus	109904-10-23 00:42 G	41862966.42	41862966.53	41862966.66	0.0517	0.0423
Mars	109908-03-13 17:58 G	41864204.14	41864204.25	41864204.38	0.0488	0.0446
Mercury	109910-10-10 15:34 G	41865145.00	41865145.15	41865145.31	0.0505	0.0255
Venus	109911-04-16 00:42 G	41865332.34	41865332.53	41865332.72	0.0512	0.0158
Mercury	109916-06-14 17:01 G	41867219.08	41867219.21	41867219.33	0.0520	0.0078
Venus	109917-02-20 03:06 G	41867469.46	41867469.63	41867469.81	0.0511	0.0256
Mercury	109922-07-29 12:27 G	41869454.96	41869455.02	41869455.07	0.0505	0.0474
Mercury	109922-10-27 21:06 G	41869545.26	41869545.38	41869545.51	0.0508	0.0375
Venus	109922-12-19 21:49 G	41869598.30	41869598.41	41869598.53	0.0510	0.0413
Venus	109923-08-13 16:18 G	41869835.14	41869835.18	41869835.23	0.0519	0.0502
Mercury	109928-04-02 21:20 G	41871529.26	41871529.39	41871529.52	0.0521	0.0077
Venus	109928-10-25 22:32 G	41871735.24	41871735.44	41871735.65	0.0513	0.0011
Mercury	109934-08-15 18:27 G	41873855.10	41873855.27	41873855.45	0.0508	0.0163
Venus	109935-04-18 14:22 G	41874100.93	41874101.10	41874101.28	0.0517	0.0246
Moon	109936-01-18 23:44 G	41874376.27	41874376.49	41874376.71	0.0526	0.0203
Earth	109936-01-19 02:37 G	41874376.41	41874376.61	41874376.83	0.0526	0.0220 *
Mercury	109940-01-21 01:10 G	41875839.44	41875839.55	41875839.66	0.0521	0.0242
Mercury	109940-04-19 07:10 G	41875928.72	41875928.80	41875928.88	0.0518	0.0391
Venus	109940-06-30 15:49 G	41876000.98	41876001.16	41876001.33	0.0515	0.0267

Moon	109941-07-14 01:10 G	41876379.46	41876379.55	41876379.64	0.0502	0.0459
Earth	109941-07-14 03:49 G	41876379.61	41876379.66	41876379.73	0.0502	0.0486 *
Mercury	109946-06-03 16:03 G	41878164.99	41878165.17	41878165.35	0.0507	0.0048
Venus	109946-12-22 12:42 G	41878366.83	41878367.03	41878367.24	0.0514	0.0017
Earth	109948-01-24 00:13 G	41878764.29	41878764.51	41878764.73	0.0528	0.0162
Moon	109948-01-24 02:22 G	41878764.40	41878764.60	41878764.81	0.0528	0.0195 *
Mercury	109951-11-09 05:01 G	41880149.63	41880149.71	41880149.79	0.0522	0.0410
Mercury	109952-02-06 11:15 G	41880238.85	41880238.97	41880239.08	0.0519	0.0233
Venus	109952-10-28 16:18 G	41880504.05	41880504.18	41880504.30	0.0509	0.0403
Earth	109953-07-18 17:58 G	41880767.03	41880767.25	41880767.48	0.0501	0.0154
Moon	109953-07-18 21:20 G	41880767.16	41880767.39	41880767.62	0.0501	0.0129 *
Mercury	109958-03-22 13:25 G	41882474.90	41882475.06	41882475.21	0.0506	0.0260
Venus	109958-08-27 10:32 G	41882632.77	41882632.94	41882633.11	0.0511	0.0268
Mercury	109963-11-25 14:51 G	41884548.99	41884549.12	41884549.25	0.0520	0.0064
Venus	109964-07-03 09:34 G	41884769.71	41884769.90	41884770.10	0.0512	0.0141
Moon	109965-07-23 03:49 G	41885154.44	41885154.66	41885154.88	0.0500	0.0166
Earth	109965-07-23 07:25 G	41885154.59	41885154.81	41885155.03	0.0500	0.0176 *
Mercury	109970-01-08 10:32 G	41886784.88	41886784.94	41886785.00	0.0505	0.0471
Mercury	109970-04-08 19:25 G	41886875.19	41886875.31	41886875.43	0.0508	0.0376
Venus	109970-12-25 01:39 G	41887135.45	41887135.57	41887135.71	0.0517	0.0390
Mercury	109975-09-13 18:56 G	41888859.17	41888859.29	41888859.42	0.0521	0.0095
Venus	109976-03-08 04:18 G	41889035.48	41889035.68	41889035.88	0.0515	0.0123
Moon	109977-07-27 23:58 G	41889542.43	41889542.50	41889542.58	0.0498	0.0469
Mercury	109982-01-25 15:20 G	41891184.97	41891185.14	41891185.32	0.0507	0.0145
Venus	109982-08-29 22:03 G	41891401.23	41891401.42	41891401.62	0.0515	0.0126
Mercury	109987-07-02 23:30 G	41893169.36	41893169.48	41893169.59	0.0522	0.0248
Mercury	109987-09-30 05:30 G	41893258.64	41893258.73	41893258.81	0.0518	0.0387
Venus	109987-11-11 23:15 G	41893301.34	41893301.47	41893301.61	0.0517	0.0384
Mercury	109993-11-13 12:56 G	41895494.86	41895495.04	41895495.22	0.0507	0.0064
Venus	109994-05-04 20:51 G	41895667.18	41895667.37	41895667.57	0.0513	0.0128

Mercury 109999-04-21 03:20 G 41897479.56 41897479.64 41897479.72 0.0522 0.0413

Mercury 109999-07-19 09:34 G 41897568.78 41897568.90 41897569.01 0.0519 0.0229

Venus 110000-03-11 00:13 G 41897804.34 41897804.51 41897804.68 0.0510 0.0291

111TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 111th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	110005-09-01 10:46	G	41899804.80	41899804.95	41899805.10	0.0506	0.0269	
Venus	110006-01-07 19:54	G	41899933.20	41899933.33	41899933.47	0.0510	0.0378	
Mercury	110011-05-07 13:39	G	41901878.94	41901879.07	41901879.19	0.0520	0.0069	
Venus	110011-11-14 18:13	G	41902070.06	41902070.26	41902070.47	0.0513	0.0031	
Mercury	110017-06-20 08:22	G	41904114.79	41904114.85	41904114.91	0.0505	0.0474	
Mercury	110017-09-18 17:01	G	41904205.09	41904205.21	41904205.34	0.0508	0.0373	
Venus	110018-05-07 11:44	G	41904435.82	41904435.99	41904436.16	0.0516	0.0278	
Earth	110019-01-18 01:25	G	41904691.36	41904691.56	41904691.75	0.0525	0.0283	
Moon	110019-01-18 01:25	G	41904691.37	41904691.56	41904691.75	0.0525	0.0314	*
Mercury	110023-02-23 17:01	G	41906189.09	41906189.21	41906189.34	0.0521	0.0105	
Venus	110023-07-20 10:32	G	41906335.76	41906335.94	41906336.13	0.0516	0.0242	
Mercury	110029-07-07 13:54	G	41908514.91	41908515.08	41908515.25	0.0507	0.0152	
Venus	110030-01-10 08:51	G	41908701.67	41908701.87	41908702.07	0.0514	0.0018	
Moon	110031-01-22 19:39	G	41909079.10	41909079.32	41909079.54	0.0527	0.0074	
Earth	110031-01-22 20:37	G	41909079.14	41909079.36	41909079.59	0.0527	0.0090	*

Mercury	110034-12-12 21:20 G	41910499.27	41910499.39	41910499.50	0.0522	0.0263
Mercury	110035-03-12 03:20 G	41910588.55	41910588.64	41910588.73	0.0519	0.0373
Venus	110035-03-25 04:46 G	41910601.66	41910601.70	41910601.74	0.0518	0.0507
Venus	110035-11-17 12:27 G	41910838.92	41910839.02	41910839.13	0.0510	0.0432
Earth	110036-07-17 18:42 G	41911082.07	41911082.28	41911082.50	0.0501	0.0204
Moon	110036-07-17 22:18 G	41911082.22	41911082.43	41911082.64	0.0501	0.0209 *
Mercury	110041-04-25 10:03 G	41912824.74	41912824.92	41912825.10	0.0506	0.0078
Venus	110041-09-15 05:15 G	41912967.54	41912967.72	41912967.90	0.0512	0.0242
Earth	110043-01-27 16:46 G	41913467.10	41913467.20	41913467.30	0.0529	0.0470
Moon	110043-01-27 18:42 G	41913467.20	41913467.28	41913467.37	0.0529	0.0492 *
Mars	110044-07-24 14:22 G	41914010.85	41914011.10	41914011.34	0.0539	0.0059
Mercury	110046-10-01 01:39 G	41914809.49	41914809.57	41914809.65	0.0523	0.0418
Mercury	110046-12-29 07:54 G	41914898.72	41914898.83	41914898.95	0.0519	0.0226
Venus	110047-07-23 08:37 G	41915104.66	41915104.86	41915105.05	0.0512	0.0180
Moon	110048-07-22 07:10 G	41915469.57	41915469.80	41915470.03	0.0499	0.0152
Earth	110048-07-22 10:32 G	41915469.71	41915469.94	41915470.17	0.0499	0.0129 *
Mercury	110053-02-11 07:39 G	41917134.68	41917134.82	41917134.97	0.0506	0.0284
Venus	110053-05-21 04:46 G	41917233.64	41917233.70	41917233.75	0.0509	0.0489
Venus	110054-01-12 22:32 G	41917470.33	41917470.44	41917470.56	0.0518	0.0424
Mercury	110058-10-17 12:13 G	41919208.88	41919209.01	41919209.13	0.0520	0.0069
Venus	110059-03-28 02:37 G	41919370.41	41919370.61	41919370.81	0.0514	0.0083
Earth	110060-07-26 22:32 G	41919857.35	41919857.44	41919857.55	0.0498	0.0450
Moon	110060-07-27 01:25 G	41919857.50	41919857.56	41919857.62	0.0498	0.0477 *
Mercury	110064-11-30 05:44 G	41921444.69	41921444.74	41921444.79	0.0505	0.0483
Mercury	110065-02-28 14:37 G	41921534.98	41921535.11	41921535.23	0.0508	0.0364
Venus	110065-09-17 21:06 G	41921736.19	41921736.38	41921736.57	0.0516	0.0167
Mercury	110070-08-05 16:03 G	41923519.04	41923519.17	41923519.30	0.0521	0.0096
Venus	110070-11-30 19:54 G	41923636.18	41923636.33	41923636.48	0.0517	0.0351
Mercury	110076-12-17 11:44 G	41925844.82	41925844.99	41925845.17	0.0507	0.0152
Venus	110077-05-23 19:10 G	41926002.11	41926002.30	41926002.50	0.0513	0.0092

Mercury	110082-05-24 19:25 G	41927829.20	41927829.31	41927829.43	0.0522	0.0269
Mercury	110082-08-22 01:39 G	41927918.48	41927918.57	41927918.66	0.0519	0.0367
Venus	110083-03-30 19:54 G	41928139.18	41928139.33	41928139.50	0.0511	0.0322
Mercury	110088-10-05 08:51 G	41930154.69	41930154.87	41930155.05	0.0506	0.0066
Venus	110089-01-26 17:15 G	41930268.07	41930268.22	41930268.37	0.0510	0.0344
Mercury	110094-03-12 23:30 G	41932139.41	41932139.48	41932139.55	0.0523	0.0430
Mercury	110094-06-10 05:58 G	41932228.63	41932228.75	41932228.87	0.0520	0.0214
Venus	110094-12-03 15:20 G	41932404.93	41932405.14	41932405.34	0.0513	0.0063
Mercury	110100-07-25 05:01 G	41934464.57	41934464.71	41934464.86	0.0506	0.0293
Venus	110101-05-27 06:56 G	41934770.63	41934770.79	41934770.95	0.0517	0.0308
Earth	110102-01-17 23:30 G	41935006.31	41935006.48	41935006.65	0.0525	0.0353
Moon	110102-01-18 02:51 G	41935006.44	41935006.62	41935006.81	0.0525	0.0320 *
Mercury	110106-03-30 10:32 G	41936538.81	41936538.94	41936539.07	0.0520	0.0066
Venus	110106-08-09 10:46 G	41936670.77	41936670.95	41936671.14	0.0515	0.0197
Mercury	110112-05-13 02:51 G	41938774.59	41938774.62	41938774.66	0.0505	0.0494
Mercury	110112-08-11 11:30 G	41938864.86	41938864.98	41938865.12	0.0508	0.0353
Venus	110113-01-30 05:30 G	41939036.53	41939036.73	41939036.93	0.0514	0.0052
Moon	110114-01-22 18:56 G	41939394.07	41939394.29	41939394.52	0.0527	0.0031
Earth	110114-01-22 22:32 G	41939394.21	41939394.44	41939394.67	0.0527	0.0032 *
Mercury	110118-01-16 14:37 G	41940848.99	41940849.11	41940849.24	0.0521	0.0094
Venus	110118-04-14 04:32 G	41940936.61	41940936.69	41940936.79	0.0518	0.0464
Venus	110118-12-07 11:30 G	41941173.92	41941173.98	41941174.06	0.0509	0.0474
Earth	110119-07-18 23:15 G	41941397.26	41941397.47	41941397.67	0.0501	0.0249
Moon	110119-07-18 23:15 G	41941397.28	41941397.47	41941397.66	0.0501	0.0270 *
Mercury	110124-05-30 09:20 G	41943174.72	41943174.89	41943175.07	0.0507	0.0144
Venus	110124-10-05 05:01 G	41943302.52	41943302.71	41943302.89	0.0512	0.0200
Earth	110126-01-27 21:49 G	41943782.27	41943782.41	41943782.55	0.0529	0.0421
Moon	110126-01-28 01:25 G	41943782.41	41943782.56	41943782.72	0.0529	0.0389 *
Mercury	110129-11-04 18:42 G	41945159.16	41945159.28	41945159.39	0.0522	0.0257
Mercury	110130-02-02 00:42 G	41945248.44	41945248.53	41945248.62	0.0518	0.0378

Venus	110130-08-12 06:13 G	41945439.57	41945439.76	41945439.95	0.0511	0.0217
Moon	110131-07-23 13:10 G	41945784.81	41945785.05	41945785.30	0.0500	0.0049
Earth	110131-07-23 13:10 G	41945784.82	41945785.05	41945785.28	0.0500	0.0081 *
Mercury	110136-03-18 07:10 G	41947484.62	41947484.80	41947484.97	0.0506	0.0064
Venus	110136-06-10 04:03 G	41947568.58	41947568.67	41947568.77	0.0509	0.0449
Venus	110137-02-01 21:49 G	41947805.33	41947805.41	41947805.50	0.0518	0.0465
Mercury	110141-08-23 22:03 G	41949469.35	41949469.42	41949469.49	0.0523	0.0431
Mercury	110141-11-21 04:32 G	41949558.57	41949558.69	41949558.80	0.0520	0.0213
Venus	110142-04-16 23:15 G	41949705.27	41949705.47	41949705.68	0.0514	0.0051
Moon	110143-07-28 01:25 G	41950172.43	41950172.56	41950172.70	0.0499	0.0396
Earth	110143-07-28 01:39 G	41950172.45	41950172.57	41950172.72	0.0499	0.0406 *
Mercury	110148-01-05 04:18 G	41951794.53	41951794.68	41951794.83	0.0505	0.0275
Venus	110148-10-07 19:10 G	41952071.12	41952071.30	41952071.49	0.0515	0.0204
Mercury	110153-09-09 08:51 G	41953868.74	41953868.87	41953869.00	0.0520	0.0060
Venus	110153-12-20 17:44 G	41953971.08	41953971.24	41953971.41	0.0517	0.0315
Mercury	110159-10-24 00:42 G	41956104.51	41956104.53	41956104.56	0.0505	0.0498
Mercury	110160-01-22 09:20 G	41956194.76	41956194.89	41956195.02	0.0508	0.0345
Venus	110160-06-12 14:51 G	41956336.92	41956337.12	41956337.32	0.0513	0.0061
Mercury	110165-06-28 13:25 G	41958178.93	41958179.06	41958179.19	0.0521	0.0091
Venus	110166-04-19 21:20 G	41958474.25	41958474.39	41958474.53	0.0510	0.0369
Mercury	110171-11-10 06:56 G	41960504.61	41960504.79	41960504.96	0.0507	0.0136
Venus	110172-02-16 14:08 G	41960602.93	41960603.09	41960603.25	0.0511	0.0311
Mercury	110177-04-16 17:30 G	41962489.12	41962489.23	41962489.34	0.0522	0.0250
Mercury	110177-07-14 23:30 G	41962578.40	41962578.48	41962578.57	0.0518	0.0384
Venus	110177-12-23 16:03 G	41962739.97	41962740.17	41962740.37	0.0512	0.0110
Mars	110180-11-23 23:44 G	41963806.22	41963806.49	41963806.77	0.0488	0.0223
Mercury	110183-08-29 04:46 G	41964814.52	41964814.70	41964814.88	0.0507	0.0067
Venus	110184-06-15 07:39 G	41965105.68	41965105.82	41965105.97	0.0517	0.0356
Earth	110185-01-17 06:42 G	41965321.63	41965321.78	41965321.94	0.0525	0.0392
Moon	110185-01-17 10:18 G	41965321.78	41965321.93	41965322.07	0.0525	0.0399 *

Mercury	110189-02-02 21:20 G	41966799.31	41966799.39	41966799.47	0.0522	0.0414
Mercury	110189-05-03 03:49 G	41966888.54	41966888.66	41966888.77	0.0519	0.0228
Venus	110189-08-28 10:03 G	41967005.73	41967005.92	41967006.12	0.0515	0.0155
Mercury	110195-06-17 02:51 G	41969124.47	41969124.62	41969124.77	0.0506	0.0269
Venus	110196-02-19 06:13 G	41969371.56	41969371.76	41969371.96	0.0514	0.0097
Moon	110197-01-22 00:27 G	41969709.28	41969709.52	41969709.76	0.0526	0.0011
Earth	110197-01-22 03:49 G	41969709.43	41969709.66	41969709.89	0.0526	0.0014 *
Mars	110198-10-19 12:56 G	41970344.89	41970345.04	41970345.20	0.0539	0.0419
Mercury	110201-02-20 07:25 G	41971198.68	41971198.81	41971198.94	0.0520	0.0063
Venus	110201-05-04 02:22 G	41971271.49	41971271.60	41971271.72	0.0518	0.0427
Moon	110202-07-18 23:58 G	41971712.31	41971712.50	41971712.70	0.0502	0.0263
Earth	110202-07-19 03:06 G	41971712.45	41971712.63	41971712.83	0.0502	0.0294 *
Mercury	110207-04-06 00:13 G	41973434.46	41973434.51	41973434.57	0.0505	0.0475
Mercury	110207-07-05 08:51 G	41973524.75	41973524.87	41973525.00	0.0508	0.0370
Venus	110207-10-26 04:18 G	41973637.49	41973637.68	41973637.87	0.0512	0.0159
Earth	110209-01-28 00:13 G	41974097.34	41974097.51	41974097.68	0.0528	0.0364
Moon	110209-01-28 03:06 G	41974097.49	41974097.63	41974097.78	0.0528	0.0399 *
Mercury	110212-12-09 11:44 G	41975508.86	41975508.99	41975509.12	0.0521	0.0094
Venus	110213-09-01 05:30 G	41975774.55	41975774.73	41975774.91	0.0511	0.0259
Earth	110214-07-23 19:10 G	41976100.07	41976100.30	41976100.54	0.0500	0.0043
Moon	110214-07-23 22:46 G	41976100.22	41976100.45	41976100.69	0.0500	0.0063 *
Mercury	110219-04-23 04:46 G	41977834.53	41977834.70	41977834.87	0.0507	0.0135
Venus	110219-07-01 00:27 G	41977903.40	41977903.52	41977903.63	0.0509	0.0418
Venus	110220-02-22 18:27 G	41978140.22	41978140.27	41978140.32	0.0518	0.0500
Mercury	110224-09-27 16:18 G	41979819.06	41979819.18	41979819.29	0.0522	0.0246
Mercury	110224-12-25 22:18 G	41979908.35	41979908.43	41979908.52	0.0519	0.0390
Venus	110225-05-07 01:54 G	41980040.38	41980040.58	41980040.79	0.0514	0.0007
Moon	110226-07-28 08:08 G	41980487.69	41980487.84	41980488.00	0.0499	0.0364
Earth	110226-07-28 11:44 G	41980487.84	41980487.99	41980488.15	0.0499	0.0377 *
Mercury	110231-02-09 02:37 G	41982144.43	41982144.61	41982144.78	0.0506	0.0072

Venus	110231-10-28 17:01 G	41982406.04	41982406.21	41982406.39	0.0516	0.0243
Mercury	110236-07-16 20:22 G	41984129.27	41984129.35	41984129.43	0.0523	0.0405
Mercury	110236-10-14 02:37 G	41984218.50	41984218.61	41984218.73	0.0519	0.0239
Venus	110237-01-09 20:22 G	41984306.17	41984306.35	41984306.53	0.0516	0.0262
Mercury	110242-11-28 00:42 G	41986454.38	41986454.53	41986454.68	0.0506	0.0270
Venus	110243-07-03 16:32 G	41986671.99	41986672.19	41986672.39	0.0514	0.0013
Mercury	110248-08-02 06:56 G	41988528.66	41988528.79	41988528.92	0.0520	0.0081
Venus	110249-05-09 21:34 G	41988809.28	41988809.40	41988809.52	0.0510	0.0414
Mercury	110254-09-15 22:46 G	41990764.39	41990764.45	41990764.52	0.0505	0.0467
Mercury	110254-12-15 07:25 G	41990854.70	41990854.81	41990854.94	0.0508	0.0379
Venus	110255-03-08 15:49 G	41990937.99	41990938.16	41990938.34	0.0511	0.0263
Mercury	110260-05-21 10:32 G	41992838.81	41992838.94	41992839.07	0.0521	0.0088
Venus	110261-01-12 15:06 G	41993074.94	41993075.13	41993075.33	0.0512	0.0152
Mercury	110266-10-03 04:46 G	41995164.53	41995164.70	41995164.87	0.0507	0.0164
Venus	110267-07-06 08:08 G	41995440.72	41995440.84	41995440.97	0.0517	0.0401
Earth	110268-01-18 11:58 G	41995636.88	41995637.00	41995637.13	0.0524	0.0435
Moon	110268-01-18 12:27 G	41995636.91	41995637.02	41995637.14	0.0524	0.0448 *
Mercury	110272-03-09 14:51 G	41997149.00	41997149.12	41997149.23	0.0522	0.0245
Mercury	110272-06-06 20:51 G	41997238.29	41997238.37	41997238.46	0.0519	0.0391
Venus	110272-09-17 10:18 G	41997340.73	41997340.93	41997341.13	0.0515	0.0110
Mercury	110278-07-22 00:56 G	41999474.36	41999474.54	41999474.71	0.0506	0.0068
Venus	110279-03-11 03:20 G	41999706.44	41999706.64	41999706.83	0.0515	0.0133
Earth	110280-01-23 04:32 G	42000024.46	42000024.69	42000024.92	0.0526	0.0074
Moon	110280-01-23 04:32 G	42000024.46	42000024.69	42000024.93	0.0526	0.0107 *
Mercury	110283-12-27 19:10 G	42001459.22	42001459.30	42001459.38	0.0523	0.0398
Mercury	110284-03-26 01:39 G	42001548.46	42001548.57	42001548.68	0.0520	0.0246
Venus	110284-05-23 05:58 G	42001606.62	42001606.75	42001606.90	0.0518	0.0372
Moon	110285-07-18 11:30 G	42002027.81	42002027.98	42002028.16	0.0502	0.0343
Earth	110285-07-18 15:20 G	42002027.96	42002028.14	42002028.32	0.0502	0.0313 *
Mercury	110290-05-09 22:46 G	42003784.30	42003784.45	42003784.60	0.0505	0.0269

Venus	110290-11-14 02:37 G	42003972.41	42003972.61	42003972.80	0.0512	0.0121
Moon	110292-01-28 03:49 G	42004412.48	42004412.66	42004412.84	0.0529	0.0297
Earth	110292-01-28 04:18 G	42004412.49	42004412.68	42004412.86	0.0529	0.0313 *
Mercury	110296-01-13 05:58 G	42005858.63	42005858.75	42005858.88	0.0520	0.0093
Venus	110296-09-20 08:37 G	42006109.70	42006109.86	42006110.02	0.0511	0.0313
Earth	110297-07-23 05:58 G	42006415.51	42006415.75	42006415.98	0.0500	0.0019
Moon	110297-07-23 09:20 G	42006415.66	42006415.89	42006416.12	0.0500	0.0023 *
Mercury	110302-02-26 21:06 G	42008094.31	42008094.38	42008094.45	0.0505	0.0465
Mercury	110302-05-28 05:30 G	42008184.62	42008184.73	42008184.86	0.0508	0.0381
Venus	110302-07-21 02:37 G	42008238.47	42008238.61	42008238.75	0.0510	0.0369
Mercury	110307-11-02 10:18 G	42010168.80	42010168.93	42010169.06	0.0521	0.0066
Venus	110308-05-27 03:34 G	42010375.44	42010375.65	42010375.85	0.0513	0.0053
Moon	110309-07-28 16:32 G	42010803.04	42010803.19	42010803.35	0.0499	0.0372
Earth	110309-07-28 20:08 G	42010803.17	42010803.34	42010803.51	0.0499	0.0343 *
Mercury	110314-03-16 03:34 G	42012494.48	42012494.65	42012494.82	0.0507	0.0175
Venus	110314-11-17 19:54 G	42012741.17	42012741.33	42012741.49	0.0516	0.0296
Mars	110317-04-12 09:20 G	42013617.77	42013617.89	42013618.01	0.0539	0.0467
Mercury	110319-08-21 13:54 G	42014478.96	42014479.08	42014479.19	0.0522	0.0234
Mercury	110319-11-18 19:54 G	42014568.25	42014568.33	42014568.41	0.0519	0.0400
Venus	110320-01-30 20:22 G	42014641.16	42014641.35	42014641.53	0.0516	0.0218
Mercury	110326-01-02 00:56 G	42016804.36	42016804.54	42016804.72	0.0506	0.0036
Venus	110326-07-23 17:44 G	42017007.04	42017007.24	42017007.44	0.0514	0.0037
Mercury	110331-06-09 17:58 G	42018789.16	42018789.25	42018789.33	0.0523	0.0394
Mercury	110331-09-07 00:27 G	42018878.40	42018878.52	42018878.63	0.0520	0.0249
Venus	110331-10-05 14:37 G	42018907.05	42018907.11	42018907.19	0.0519	0.0485
Venus	110332-05-29 22:46 G	42019144.36	42019144.45	42019144.53	0.0510	0.0462
Mars	110335-02-20 10:46 G	42020140.69	42020140.95	42020141.23	0.0488	0.0237
Mercury	110337-10-20 21:20 G	42021114.23	42021114.39	42021114.54	0.0505	0.0262
Venus	110338-03-28 13:39 G	42021272.89	42021273.07	42021273.25	0.0511	0.0227
Mercury	110343-06-26 05:01 G	42023188.58	42023188.71	42023188.84	0.0521	0.0101

Venus	110344-02-02 19:25 G	42023410.12	42023410.31	42023410.49	0.0512	0.0210
Mercury	110349-08-08 19:10 G	42025424.24	42025424.30	42025424.38	0.0505	0.0461
Mercury	110349-11-07 03:49 G	42025514.54	42025514.66	42025514.78	0.0508	0.0382
Venus	110349-12-01 13:10 G	42025538.99	42025539.05	42025539.13	0.0509	0.0473
Venus	110350-07-26 06:42 G	42025775.69	42025775.78	42025775.89	0.0518	0.0444
Moon	110351-01-18 13:54 G	42025951.98	42025952.08	42025952.18	0.0524	0.0462
Earth	110351-01-18 16:03 G	42025952.09	42025952.17	42025952.26	0.0524	0.0486 *
Mercury	110355-04-14 09:20 G	42027498.76	42027498.89	42027499.02	0.0521	0.0053
Venus	110355-10-08 14:22 G	42027675.90	42027676.10	42027676.31	0.0515	0.0054
Mercury	110361-08-26 01:39 G	42029824.40	42029824.57	42029824.74	0.0507	0.0178
Venus	110362-03-31 06:13 G	42030041.58	42030041.76	42030041.95	0.0515	0.0187
Earth	110363-01-23 15:49 G	42030339.94	42030340.16	42030340.39	0.0526	0.0102
Moon	110363-01-23 18:56 G	42030340.06	42030340.29	42030340.52	0.0526	0.0077 *
Mercury	110367-01-31 13:25 G	42031808.94	42031809.06	42031809.18	0.0522	0.0212
Mercury	110367-04-30 19:25 G	42031898.24	42031898.31	42031898.39	0.0519	0.0422
Venus	110367-06-13 08:37 G	42031941.70	42031941.86	42031942.02	0.0517	0.0320
Moon	110368-07-18 22:32 G	42032343.26	42032343.44	42032343.63	0.0502	0.0326
Earth	110368-07-19 00:27 G	42032343.35	42032343.52	42032343.69	0.0502	0.0343 *
Mercury	110373-06-13 23:44 G	42034134.31	42034134.49	42034134.67	0.0506	0.0024
Venus	110373-12-04 05:44 G	42034307.54	42034307.74	42034307.94	0.0513	0.0067
Moon	110375-01-28 11:15 G	42034727.79	42034727.97	42034728.17	0.0528	0.0274
Earth	110375-01-28 14:51 G	42034727.93	42034728.12	42034728.32	0.0528	0.0284 *
Mercury	110378-11-19 17:01 G	42036119.12	42036119.21	42036119.30	0.0523	0.0382
Mercury	110379-02-16 23:30 G	42036208.37	42036208.48	42036208.59	0.0519	0.0260
Venus	110379-10-11 09:20 G	42036444.74	42036444.89	42036445.03	0.0511	0.0359
Earth	110380-07-23 14:08 G	42036730.85	42036731.09	42036731.32	0.0501	0.0017
Moon	110380-07-23 15:06 G	42036730.91	42036731.13	42036731.36	0.0501	0.0032 *
Mercury	110385-04-01 21:20 G	42038444.23	42038444.39	42038444.55	0.0506	0.0230
Venus	110385-08-09 04:18 G	42038573.53	42038573.68	42038573.85	0.0510	0.0320
Mercury	110390-12-06 03:49 G	42040518.53	42040518.66	42040518.79	0.0520	0.0107

Venus	110391-06-16 04:46 G	42040710.50	42040710.70	42040710.90	0.0513	0.0102
Moon	110392-07-28 05:44 G	42041118.54	42041118.74	42041118.95	0.0499	0.0288
Earth	110392-07-28 06:13 G	42041118.58	42041118.76	42041118.94	0.0499	0.0318 *
Mercury	110397-01-18 17:58 G	42042754.18	42042754.25	42042754.33	0.0504	0.0450
Mercury	110397-04-19 02:22 G	42042844.49	42042844.60	42042844.72	0.0508	0.0391
Venus	110397-12-06 17:44 G	42043076.09	42043076.24	42043076.40	0.0516	0.0335
Mercury	110402-09-24 08:08 G	42044828.72	42044828.84	42044828.97	0.0522	0.0049
Venus	110403-02-19 00:27 G	42044976.33	42044976.52	42044976.72	0.0516	0.0161
Mercury	110409-02-04 23:58 G	42047154.33	42047154.50	42047154.67	0.0507	0.0182
Venus	110409-08-11 16:32 G	42047341.99	42047342.19	42047342.39	0.0514	0.0078
Mercury	110414-07-13 12:27 G	42049138.90	42049139.02	42049139.15	0.0522	0.0202
Mercury	110414-10-10 18:42 G	42049228.21	42049228.28	42049228.35	0.0519	0.0433
Venus	110414-10-24 19:10 G	42049242.19	42049242.30	42049242.41	0.0518	0.0428
Mercury	110420-11-23 22:03 G	42051464.24	42051464.42	42051464.60	0.0506	0.0022
Venus	110421-04-16 16:32 G	42051608.00	42051608.19	42051608.38	0.0512	0.0175
Mercury	110426-05-01 16:32 G	42053449.10	42053449.19	42053449.29	0.0523	0.0361
Mercury	110426-07-29 23:01 G	42053538.36	42053538.46	42053538.57	0.0519	0.0281
Venus	110427-02-21 21:49 G	42053745.23	42053745.41	42053745.59	0.0512	0.0261
Mercury	110432-09-11 20:08 G	42055774.18	42055774.34	42055774.50	0.0506	0.0220
Venus	110432-12-20 16:32 G	42055874.08	42055874.19	42055874.30	0.0509	0.0422
Venus	110433-08-14 10:32 G	42056110.89	42056110.94	42056110.99	0.0518	0.0498
Earth	110434-01-18 03:49 G	42056267.61	42056267.66	42056267.71	0.0524	0.0508
Mercury	110438-05-18 02:51 G	42057848.50	42057848.62	42057848.75	0.0520	0.0119
Venus	110438-10-27 15:20 G	42058010.93	42058011.14	42058011.34	0.0514	0.0007
Mercury	110444-06-30 17:58 G	42060084.16	42060084.25	42060084.35	0.0505	0.0421
Mercury	110444-09-29 02:37 G	42060174.51	42060174.61	42060174.71	0.0508	0.0423
Venus	110445-04-19 08:22 G	42060376.67	42060376.85	42060377.03	0.0515	0.0238
Earth	110446-01-22 23:44 G	42060655.27	42060655.49	42060655.72	0.0525	0.0139
Moon	110446-01-23 03:34 G	42060655.43	42060655.65	42060655.87	0.0525	0.0153 *
Mercury	110450-03-06 07:10 G	42062158.67	42062158.80	42062158.93	0.0521	0.0038

Venus	110450-07-02 09:49 G	42062276.74	42062276.91	42062277.09	0.0517	0.0272
Earth	110451-07-19 09:49 G	42062658.76	42062658.91	42062659.07	0.0503	0.0373
Moon	110451-07-19 11:58 G	42062658.83	42062659.00	42062659.17	0.0503	0.0363 *
Mercury	110456-07-17 22:46 G	42064484.28	42064484.45	42064484.61	0.0507	0.0192
Venus	110456-12-23 04:03 G	42064642.47	42064642.67	42064642.87	0.0512	0.0029
Moon	110458-01-27 12:42 G	42065042.82	42065043.03	42065043.23	0.0527	0.0243
Earth	110458-01-27 16:03 G	42065042.97	42065043.17	42065043.38	0.0527	0.0222 *
Mercury	110461-12-23 11:15 G	42066468.85	42066468.97	42066469.10	0.0523	0.0196
Mercury	110462-03-22 17:30 G	42066558.17	42066558.23	42066558.30	0.0519	0.0441
Venus	110462-10-30 13:10 G	42066779.93	42066780.05	42066780.17	0.0511	0.0416
Moon	110463-07-24 01:25 G	42067046.33	42067046.56	42067046.79	0.0501	0.0007
Earth	110463-07-24 03:34 G	42067046.41	42067046.65	42067046.88	0.0501	0.0032 *
Mercury	110468-05-05 20:22 G	42068794.17	42068794.35	42068794.53	0.0506	0.0016
Venus	110468-08-28 03:20 G	42068908.47	42068908.64	42068908.81	0.0510	0.0281
Mars	110471-07-07 19:39 G	42069952.08	42069952.32	42069952.57	0.0540	0.0050
Mercury	110473-10-11 15:34 G	42070779.06	42070779.15	42070779.25	0.0523	0.0352
Mercury	110474-01-08 22:03 G	42070868.31	42070868.42	42070868.53	0.0520	0.0290
Venus	110474-07-05 08:22 G	42071045.66	42071045.85	42071046.05	0.0513	0.0156
Earth	110475-07-28 17:58 G	42071434.06	42071434.25	42071434.44	0.0499	0.0296
Moon	110475-07-28 20:51 G	42071434.18	42071434.37	42071434.56	0.0499	0.0314 *
Mercury	110480-02-22 18:13 G	42073104.10	42073104.26	42073104.43	0.0505	0.0218
Venus	110480-12-25 20:37 G	42073411.23	42073411.36	42073411.49	0.0517	0.0388
Mercury	110485-07-30 19:39 G	42075089.30	42075089.32	42075089.34	0.0524	0.0513
Mercury	110485-10-28 02:22 G	42075178.47	42075178.60	42075178.72	0.0520	0.0137
Venus	110486-03-10 03:06 G	42075311.43	42075311.63	42075311.84	0.0515	0.0109
Mercury	110491-12-11 16:32 G	42077414.10	42077414.19	42077414.30	0.0505	0.0413
Mercury	110492-03-11 01:10 G	42077504.46	42077504.55	42077504.65	0.0508	0.0432
Venus	110492-08-30 19:39 G	42077677.13	42077677.32	42077677.52	0.0514	0.0132
Mercury	110497-08-16 06:13 G	42079488.63	42079488.76	42079488.89	0.0521	0.0029
Venus	110497-11-12 19:54 G	42079577.19	42079577.33	42079577.47	0.0518	0.0382

Mercury	110503-12-29 22:32 G	42081814.28	42081814.44	42081814.61	0.0507	0.0220
Venus	110504-05-06 18:27 G	42081943.07	42081943.27	42081943.46	0.0512	0.0125
Mercury	110509-06-05 10:18 G	42083798.81	42083798.93	42083799.05	0.0522	0.0188
Mercury	110509-09-02 16:18 G	42083888.12	42083888.18	42083888.25	0.0519	0.0447
Venus	110510-03-13 22:46 G	42084080.28	42084080.45	42084080.61	0.0512	0.0309
Mercury	110515-10-17 19:10 G	42086124.11	42086124.30	42086124.48	0.0506	0.0015
Venus	110516-01-10 15:06 G	42086209.00	42086209.13	42086209.26	0.0509	0.0385
Mercury	110521-03-24 14:22 G	42088109.00	42088109.10	42088109.19	0.0524	0.0350
Mercury	110521-06-21 20:51 G	42088198.26	42088198.37	42088198.47	0.0520	0.0295
Venus	110521-11-16 17:58 G	42088346.05	42088346.25	42088346.46	0.0515	0.0049
Mercury	110527-08-05 16:46 G	42090434.04	42090434.20	42090434.36	0.0505	0.0211
Venus	110528-05-09 06:27 G	42090711.61	42090711.77	42090711.95	0.0515	0.0278
Earth	110529-01-23 01:54 G	42090970.37	42090970.58	42090970.79	0.0525	0.0195
Moon	110529-01-23 03:06 G	42090970.43	42090970.63	42090970.84	0.0525	0.0208 *
Mercury	110533-01-10 18:27 G	42092419.24	42092419.27	42092419.30	0.0524	0.0509
Mercury	110533-04-10 01:10 G	42092508.43	42092508.55	42092508.68	0.0521	0.0142
Venus	110533-07-22 12:42 G	42092611.84	42092612.03	42092612.21	0.0517	0.0221
Earth	110534-07-19 20:22 G	42092974.21	42092974.35	42092974.50	0.0503	0.0394
Moon	110534-07-20 00:13 G	42092974.39	42092974.51	42092974.64	0.0503	0.0427 *
Mercury	110539-05-24 14:37 G	42094744.02	42094744.11	42094744.22	0.0504	0.0413
Mercury	110539-08-22 23:01 G	42094834.37	42094834.46	42094834.56	0.0508	0.0431
Venus	110540-01-13 05:44 G	42094977.54	42094977.74	42094977.94	0.0513	0.0021
Moon	110541-01-28 01:10 G	42095358.32	42095358.55	42095358.78	0.0527	0.0158
Earth	110541-01-28 01:39 G	42095358.35	42095358.57	42095358.78	0.0527	0.0190 *
Mercury	110545-01-27 05:30 G	42096818.60	42096818.73	42096818.86	0.0521	0.0013
Venus	110545-03-27 06:42 G	42096877.72	42096877.78	42096877.85	0.0519	0.0490
Venus	110545-11-19 14:37 G	42097115.04	42097115.11	42097115.20	0.0510	0.0464
Moon	110546-07-24 07:54 G	42097361.60	42097361.83	42097362.07	0.0502	0.0090
Earth	110546-07-24 11:44 G	42097361.76	42097361.99	42097362.23	0.0502	0.0064 *
Mercury	110551-06-10 20:51 G	42099144.21	42099144.37	42099144.54	0.0507	0.0225

Venus	110551-09-18 05:30 G	42099243.55	42099243.73	42099243.91	0.0511	0.0232
Mercury	110556-11-15 09:06 G	42101128.76	42101128.88	42101129.01	0.0522	0.0181
Mercury	110557-02-12 15:20 G	42101218.08	42101218.14	42101218.20	0.0519	0.0453
Venus	110557-07-25 08:22 G	42101380.66	42101380.85	42101381.04	0.0513	0.0201
Earth	110558-07-29 00:42 G	42101749.33	42101749.53	42101749.74	0.0500	0.0259
Moon	110558-07-29 04:32 G	42101749.49	42101749.69	42101749.89	0.0500	0.0266 *
Mercury	110563-03-29 18:42 G	42103454.10	42103454.28	42103454.46	0.0506	0.0020
Venus	110563-05-24 04:46 G	42103509.64	42103509.70	42103509.77	0.0508	0.0480
Venus	110564-01-15 21:49 G	42103746.31	42103746.41	42103746.52	0.0517	0.0437
Mercury	110568-09-03 13:10 G	42105438.95	42105439.05	42105439.15	0.0523	0.0343
Mercury	110568-12-01 19:39 G	42105528.21	42105528.32	42105528.42	0.0520	0.0300
Venus	110569-03-30 03:06 G	42105646.43	42105646.63	42105646.83	0.0515	0.0064
Mercury	110575-01-15 15:20 G	42107763.98	42107764.14	42107764.30	0.0505	0.0204
Venus	110575-09-20 17:30 G	42108012.05	42108012.23	42108012.43	0.0514	0.0168
Mercury	110580-06-22 16:46 G	42109749.18	42109749.20	42109749.23	0.0525	0.0511
Mercury	110580-09-19 23:44 G	42109838.37	42109838.49	42109838.62	0.0521	0.0142
Venus	110580-12-02 20:51 G	42109912.22	42109912.37	42109912.53	0.0518	0.0337
Mercury	110586-11-03 12:56 G	42112073.94	42112074.04	42112074.15	0.0504	0.0407
Mercury	110587-02-01 21:20 G	42112164.30	42112164.39	42112164.48	0.0507	0.0432
Venus	110587-05-26 16:18 G	42112277.98	42112278.18	42112278.38	0.0511	0.0090
Mercury	110592-07-09 04:03 G	42114148.54	42114148.67	42114148.80	0.0522	0.0013
Venus	110593-04-02 00:13 G	42114415.36	42114415.51	42114415.66	0.0512	0.0356
Mercury	110598-11-20 18:42 G	42116474.12	42116474.28	42116474.45	0.0507	0.0221
Venus	110599-01-29 15:20 G	42116544.00	42116544.14	42116544.30	0.0509	0.0342
Mercury	110604-04-28 08:08 G	42118458.72	42118458.84	42118458.97	0.0522	0.0171
Mercury	110604-07-26 14:22 G	42118548.05	42118548.10	42118548.16	0.0519	0.0463
Venus	110604-12-06 19:10 G	42118681.10	42118681.30	42118681.50	0.0514	0.0094
Mars	110607-11-06 04:46 G	42119745.42	42119745.70	42119745.99	0.0488	0.0175
Mercury	110610-09-09 16:46 G	42120784.02	42120784.20	42120784.38	0.0506	0.0021
Venus	110611-05-30 08:08 G	42121046.69	42121046.84	42121047.00	0.0516	0.0326

Moon	110612-01-24 06:42 G	42121285.58	42121285.78	42121286.00	0.0525	0.0194
Earth	110612-01-24 10:32 G	42121285.74	42121285.94	42121286.15	0.0525	0.0228 *
Mercury	110616-02-15 11:44 G	42122768.90	42122768.99	42122769.09	0.0523	0.0339
Mercury	110616-05-14 18:13 G	42122858.16	42122858.26	42122858.37	0.0520	0.0304
Venus	110616-08-11 11:58 G	42122946.81	42122947.00	42122947.19	0.0516	0.0178
Moon	110617-07-20 00:27 G	42123289.40	42123289.52	42123289.64	0.0504	0.0420
Earth	110617-07-20 01:10 G	42123289.44	42123289.55	42123289.67	0.0504	0.0437 *
Mercury	110622-06-28 14:22 G	42125093.94	42125094.10	42125094.27	0.0505	0.0188
Venus	110623-02-02 06:27 G	42125312.57	42125312.77	42125312.97	0.0513	0.0066
Earth	110624-01-29 06:56 G	42125673.57	42125673.79	42125674.02	0.0526	0.0144
Moon	110624-01-29 11:01 G	42125673.74	42125673.96	42125674.18	0.0526	0.0152 *
Mars	110625-10-03 03:34 G	42126286.47	42126286.65	42126286.84	0.0539	0.0358
Mercury	110627-12-04 15:34 G	42127079.12	42127079.15	42127079.18	0.0524	0.0505
Mercury	110628-03-02 22:32 G	42127168.31	42127168.44	42127168.56	0.0521	0.0146
Venus	110628-04-16 05:30 G	42127212.63	42127212.73	42127212.83	0.0519	0.0450
Venus	110628-12-09 13:39 G	42127450.05	42127450.07	42127450.10	0.0510	0.0505
Earth	110629-07-24 17:15 G	42127676.99	42127677.22	42127677.45	0.0502	0.0104
Moon	110629-07-24 18:56 G	42127677.05	42127677.29	42127677.53	0.0502	0.0121 *
Mercury	110634-04-16 11:30 G	42129403.88	42129403.98	42129404.09	0.0504	0.0402
Mercury	110634-07-15 19:39 G	42129494.23	42129494.32	42129494.41	0.0507	0.0436
Venus	110634-10-08 03:20 G	42129578.45	42129578.64	42129578.83	0.0510	0.0197
Moon	110636-02-02 19:39 G	42130061.22	42130061.32	42130061.42	0.0528	0.0476
Earth	110636-02-02 23:15 G	42130061.41	42130061.47	42130061.54	0.0528	0.0506 *
Mercury	110639-12-21 02:22 G	42131478.47	42131478.60	42131478.73	0.0522	0.0018
Venus	110640-08-14 08:22 G	42131715.67	42131715.85	42131716.03	0.0513	0.0243
Moon	110641-07-29 06:56 G	42132064.58	42132064.79	42132065.01	0.0501	0.0197
Earth	110641-07-29 09:06 G	42132064.67	42132064.88	42132065.09	0.0501	0.0230 *
Mercury	110646-05-03 16:46 G	42133804.04	42133804.20	42133804.37	0.0506	0.0222
Venus	110646-06-13 02:08 G	42133844.50	42133844.59	42133844.69	0.0508	0.0448
Venus	110647-02-04 18:42 G	42134081.20	42134081.28	42134081.36	0.0517	0.0469

Mercury	110651-10-09 06:27 G	42135788.65	42135788.77	42135788.90	0.0523	0.0176
Mercury	110652-01-06 12:42 G	42135877.98	42135878.03	42135878.09	0.0519	0.0460
Venus	110652-04-19 03:06 G	42135981.43	42135981.63	42135981.84	0.0515	0.0023
Mercury	110658-02-19 14:08 G	42138113.91	42138114.09	42138114.28	0.0506	0.0016
Venus	110658-10-10 17:01 G	42138347.03	42138347.21	42138347.40	0.0514	0.0210
Mercury	110663-07-28 10:32 G	42140098.85	42140098.94	42140099.05	0.0523	0.0335
Mercury	110663-10-25 17:15 G	42140188.12	42140188.22	42140188.32	0.0520	0.0309
Venus	110663-12-23 21:20 G	42140247.22	42140247.39	42140247.56	0.0518	0.0292
Mercury	110669-12-08 12:13 G	42142423.84	42142424.01	42142424.17	0.0505	0.0193
Venus	110670-06-15 16:18 G	42142612.98	42142613.18	42142613.38	0.0512	0.0047
Mercury	110675-05-16 14:08 G	42144409.06	42144409.09	42144409.13	0.0524	0.0505
Mercury	110675-08-13 21:06 G	42144498.25	42144498.38	42144498.50	0.0521	0.0146
Venus	110676-04-21 22:18 G	42144750.31	42144750.43	42144750.57	0.0511	0.0395
Mercury	110681-09-26 10:03 G	42146733.81	42146733.92	42146734.03	0.0504	0.0394
Mercury	110681-12-25 18:27 G	42146824.19	42146824.27	42146824.35	0.0507	0.0447
Venus	110682-02-18 15:20 G	42146878.97	42146879.14	42146879.30	0.0509	0.0300
Mercury	110687-06-02 00:56 G	42148808.41	42148808.54	42148808.67	0.0522	0.0022
Venus	110687-12-26 16:46 G	42149016.00	42149016.20	42149016.40	0.0514	0.0131
Mercury	110693-10-13 15:06 G	42151133.97	42151134.13	42151134.29	0.0506	0.0223
Venus	110694-06-18 05:01 G	42151381.57	42151381.71	42151381.85	0.0515	0.0357
Moon	110695-01-23 08:08 G	42151600.64	42151600.84	42151601.04	0.0523	0.0289
Earth	110695-01-23 08:51 G	42151600.68	42151600.87	42151601.06	0.0523	0.0291 *
Mercury	110699-03-21 04:46 G	42153118.57	42153118.70	42153118.82	0.0523	0.0185
Mercury	110699-06-18 11:01 G	42153207.90	42153207.96	42153208.02	0.0520	0.0453
Venus	110699-08-31 09:49 G	42153281.72	42153281.91	42153282.11	0.0517	0.0143
Moon	110700-07-20 02:22 G	42153604.50	42153604.60	42153604.70	0.0505	0.0454
Earth	110700-07-20 05:44 G	42153604.68	42153604.74	42153604.83	0.0505	0.0477 *
Mercury	110705-08-02 12:13 G	42155443.83	42155444.01	42155444.19	0.0505	0.0014
Venus	110706-02-22 02:37 G	42155647.42	42155647.61	42155647.81	0.0513	0.0097
Earth	110707-01-29 04:18 G	42155988.45	42155988.68	42155988.91	0.0526	0.0075

Moon	110707-01-29 04:32 G	42155988.47	42155988.69	42155988.90	0.0526	0.0107	*
Mercury	110711-01-08 08:37 G	42157428.77	42157428.86	42157428.96	0.0524	0.0345	
Mercury	110711-04-07 15:20 G	42157518.03	42157518.14	42157518.24	0.0520	0.0300	
Venus	110711-05-07 03:49 G	42157547.54	42157547.66	42157547.78	0.0519	0.0415	
Earth	110712-07-24 21:34 G	42157992.17	42157992.40	42157992.63	0.0503	0.0143	
Moon	110712-07-25 00:56 G	42157992.31	42157992.54	42157992.76	0.0503	0.0113	*
Mercury	110717-05-21 09:34 G	42159753.73	42159753.90	42159754.06	0.0505	0.0203	
Venus	110717-10-28 01:10 G	42159913.36	42159913.55	42159913.74	0.0511	0.0162	
Earth	110719-02-03 02:22 G	42160376.49	42160376.60	42160376.72	0.0528	0.0454	
Moon	110719-02-03 03:20 G	42160376.54	42160376.64	42160376.74	0.0528	0.0473	*
Mercury	110722-10-27 12:42 G	42161739.00	42161739.03	42161739.07	0.0524	0.0505	
Mercury	110723-01-24 19:39 G	42161828.20	42161828.32	42161828.44	0.0521	0.0147	
Venus	110723-09-04 07:25 G	42162050.64	42162050.81	42162050.98	0.0513	0.0284	
Moon	110724-07-29 09:20 G	42162379.67	42162379.89	42162380.12	0.0501	0.0186	
Earth	110724-07-29 12:42 G	42162379.81	42162380.03	42162380.25	0.0501	0.0186	*
Mercury	110729-03-09 07:39 G	42164063.71	42164063.82	42164063.92	0.0504	0.0402	
Mercury	110729-06-07 15:49 G	42164154.07	42164154.16	42164154.25	0.0507	0.0437	
Venus	110729-07-03 00:42 G	42164179.41	42164179.53	42164179.65	0.0508	0.0411	
Venus	110730-02-24 17:58 G	42164416.23	42164416.25	42164416.28	0.0517	0.0511	
Mercury	110734-11-12 23:30 G	42166138.35	42166138.48	42166138.61	0.0522	0.0018	
Venus	110735-05-10 00:42 G	42166316.32	42166316.53	42166316.73	0.0515	0.0014	
Moon	110736-08-03 03:34 G	42166767.59	42166767.65	42166767.73	0.0499	0.0476	
Mercury	110741-03-26 13:10 G	42168463.89	42168464.05	42168464.21	0.0506	0.0226	
Venus	110741-10-30 16:03 G	42168682.00	42168682.17	42168682.35	0.0515	0.0251	
Mercury	110746-09-01 03:20 G	42170448.51	42170448.64	42170448.76	0.0523	0.0183	
Mercury	110746-11-29 09:34 G	42170537.84	42170537.90	42170537.96	0.0519	0.0453	
Venus	110747-01-12 17:44 G	42170582.07	42170582.24	42170582.42	0.0518	0.0259	
Mercury	110753-01-12 10:18 G	42172773.75	42172773.93	42172774.11	0.0505	0.0008	
Venus	110753-07-05 13:10 G	42172947.84	42172948.05	42172948.25	0.0511	0.0019	
Mercury	110758-06-20 06:42 G	42174758.68	42174758.78	42174758.87	0.0524	0.0357	

Mercury	110758-09-17 13:25 G	42174847.95	42174848.06	42174848.16	0.0521	0.0289
Venus	110759-05-12 19:10 G	42175085.20	42175085.30	42175085.42	0.0512	0.0428
Mars	110762-01-31 00:56 G	42176079.27	42176079.54	42176079.82	0.0488	0.0209
Mercury	110764-10-31 07:39 G	42177083.66	42177083.82	42177083.98	0.0504	0.0202
Venus	110765-03-10 11:15 G	42177213.80	42177213.97	42177214.14	0.0509	0.0271
Mercury	110770-04-08 10:32 G	42179068.93	42179068.94	42179068.96	0.0525	0.0521
Mercury	110770-07-06 17:30 G	42179158.11	42179158.23	42179158.36	0.0521	0.0135
Venus	110771-01-15 13:54 G	42179350.88	42179351.08	42179351.27	0.0514	0.0163
Mercury	110776-08-19 04:46 G	42181393.60	42181393.70	42181393.80	0.0504	0.0415
Mercury	110776-11-17 12:56 G	42181483.94	42181484.04	42181484.14	0.0507	0.0421
Venus	110777-07-08 01:54 G	42181716.45	42181716.58	42181716.71	0.0516	0.0391
Earth	110778-01-23 09:49 G	42181915.74	42181915.91	42181916.08	0.0523	0.0347
Moon	110778-01-23 13:39 G	42181915.91	42181916.07	42181916.23	0.0523	0.0380 *
Mercury	110782-04-24 21:49 G	42183468.28	42183468.41	42183468.54	0.0522	0.0023
Venus	110782-09-20 08:37 G	42183616.66	42183616.86	42183617.06	0.0516	0.0104
Mercury	110788-09-05 10:18 G	42185793.77	42185793.93	42185794.10	0.0506	0.0213
Venus	110789-03-13 00:27 G	42185982.33	42185982.52	42185982.72	0.0513	0.0133
Moon	110790-01-28 03:34 G	42186303.42	42186303.65	42186303.88	0.0525	0.0006
Earth	110790-01-28 07:25 G	42186303.58	42186303.81	42186304.05	0.0525	0.0028 *
Mercury	110794-02-11 01:39 G	42187778.45	42187778.57	42187778.69	0.0523	0.0187
Mercury	110794-05-11 07:54 G	42187867.77	42187867.83	42187867.89	0.0519	0.0448
Venus	110794-05-26 01:10 G	42187882.41	42187882.55	42187882.69	0.0519	0.0379
Moon	110795-07-24 20:51 G	42188307.16	42188307.37	42188307.58	0.0503	0.0196
Earth	110795-07-24 22:18 G	42188307.21	42188307.43	42188307.65	0.0503	0.0196 *
Mercury	110800-06-24 08:08 G	42190103.66	42190103.84	42190104.02	0.0506	0.0007
Venus	110800-11-15 23:30 G	42190248.28	42190248.48	42190248.68	0.0511	0.0124
Earth	110802-02-02 04:32 G	42190691.54	42190691.69	42190691.84	0.0527	0.0397
Moon	110802-02-02 08:22 G	42190691.71	42190691.85	42190691.99	0.0527	0.0413 *
Mercury	110805-11-30 05:15 G	42192088.63	42192088.72	42192088.82	0.0524	0.0355
Mercury	110806-02-27 11:58 G	42192177.89	42192178.00	42192178.11	0.0520	0.0290

Venus	110806-09-23 03:06 G	42192385.47	42192385.63	42192385.80	0.0512	0.0315
Earth	110807-07-29 12:56 G	42192694.81	42192695.04	42192695.27	0.0502	0.0130
Moon	110807-07-29 15:06 G	42192694.90	42192695.13	42192695.37	0.0502	0.0161 *
Mercury	110812-04-12 05:30 G	42194413.57	42194413.73	42194413.89	0.0504	0.0206
Venus	110812-07-21 21:34 G	42194514.27	42194514.40	42194514.54	0.0508	0.0380
Mercury	110817-12-16 15:34 G	42196488.02	42196488.15	42196488.27	0.0522	0.0121
Venus	110818-05-28 20:08 G	42196651.13	42196651.34	42196651.54	0.0516	0.0042
Moon	110819-08-03 00:13 G	42197082.45	42197082.51	42197082.58	0.0500	0.0480
Earth	110819-08-03 02:37 G	42197082.52	42197082.61	42197082.71	0.0500	0.0454 *
Mercury	110824-01-30 02:51 G	42198723.52	42198723.62	42198723.72	0.0503	0.0413
Mercury	110824-04-29 10:46 G	42198813.86	42198813.95	42198814.05	0.0507	0.0420
Venus	110824-11-18 11:30 G	42199016.81	42199016.98	42199017.15	0.0514	0.0278
Mercury	110829-10-04 19:39 G	42200798.19	42200798.32	42200798.45	0.0522	0.0037
Venus	110830-01-31 13:54 G	42200916.90	42200917.08	42200917.26	0.0518	0.0230
Mercury	110836-02-16 07:25 G	42203123.64	42203123.81	42203123.97	0.0506	0.0196
Venus	110836-07-24 08:37 G	42203282.66	42203282.86	42203283.06	0.0512	0.0014
Mercury	110841-07-23 23:58 G	42205108.38	42205108.50	42205108.62	0.0523	0.0193
Venus	110841-10-06 08:08 G	42205182.79	42205182.84	42205182.90	0.0520	0.0501
Mercury	110841-10-21 06:13 G	42205197.70	42205197.76	42205197.83	0.0520	0.0444
Venus	110842-05-31 17:15 G	42205420.14	42205420.22	42205420.30	0.0511	0.0464
Mercury	110847-12-05 05:01 G	42207433.53	42207433.71	42207433.89	0.0505	0.0011
Venus	110848-03-29 07:54 G	42207548.65	42207548.83	42207549.01	0.0510	0.0240
Mercury	110853-05-12 03:34 G	42209418.56	42209418.65	42209418.74	0.0524	0.0360
Mercury	110853-08-09 10:18 G	42209507.82	42209507.93	42209508.03	0.0520	0.0285
Venus	110854-02-03 10:46 G	42209685.76	42209685.95	42209686.14	0.0514	0.0198
Mercury	110859-09-23 02:51 G	42211743.46	42211743.62	42211743.79	0.0505	0.0213
Venus	110859-12-03 07:25 G	42211814.77	42211814.81	42211814.87	0.0507	0.0488
Venus	110860-07-26 23:58 G	42212051.39	42212051.50	42212051.61	0.0516	0.0430
Earth	110861-01-22 11:58 G	42212230.86	42212231.00	42212231.16	0.0523	0.0400
Moon	110861-01-22 13:25 G	42212230.92	42212231.06	42212231.22	0.0523	0.0380 *

Mercury	110865-05-28 14:08 G	42213817.96	42213818.09	42213818.21	0.0521	0.0123
Venus	110865-10-09 04:03 G	42213951.47	42213951.67	42213951.87	0.0516	0.0073
Mercury	110871-07-12 00:42 G	42216053.43	42216053.53	42216053.63	0.0503	0.0417
Mercury	110871-10-10 08:37 G	42216143.76	42216143.86	42216143.96	0.0507	0.0416
Venus	110872-03-31 21:20 G	42216317.20	42216317.39	42216317.58	0.0513	0.0164
Moon	110873-01-27 04:32 G	42216618.45	42216618.69	42216618.93	0.0524	0.0056
Earth	110873-01-27 05:15 G	42216618.49	42216618.72	42216618.95	0.0524	0.0041 *
Mercury	110877-03-16 17:30 G	42218128.10	42218128.23	42218128.36	0.0523	0.0051
Venus	110877-06-13 19:39 G	42218217.17	42218217.32	42218217.47	0.0519	0.0355
Moon	110878-07-23 17:58 G	42218622.06	42218622.25	42218622.45	0.0504	0.0279
Earth	110878-07-23 21:49 G	42218622.21	42218622.41	42218622.61	0.0504	0.0250 *
Mercury	110883-07-29 05:30 G	42220453.57	42220453.73	42220453.90	0.0506	0.0198
Venus	110883-12-05 19:10 G	42220583.10	42220583.30	42220583.50	0.0510	0.0095
Earth	110885-01-31 23:58 G	42221006.32	42221006.50	42221006.69	0.0526	0.0323
Moon	110885-02-01 00:13 G	42221006.33	42221006.51	42221006.70	0.0526	0.0290 *
Mercury	110889-01-02 21:34 G	42222438.28	42222438.40	42222438.52	0.0523	0.0210
Mercury	110889-04-02 04:03 G	42222527.60	42222527.67	42222527.74	0.0520	0.0428
Venus	110889-10-11 23:01 G	42222720.31	42222720.46	42222720.61	0.0513	0.0344
Earth	110890-07-28 12:56 G	42223009.81	42223010.04	42223010.28	0.0502	0.0081
Moon	110890-07-28 16:32 G	42223009.96	42223010.19	42223010.42	0.0502	0.0060 *
Mercury	110895-05-17 02:08 G	42224763.41	42224763.59	42224763.77	0.0505	0.0027
Venus	110895-08-10 16:18 G	42224849.04	42224849.18	42224849.33	0.0508	0.0355
Mars	110898-06-18 13:39 G	42225891.90	42225892.07	42225892.26	0.0540	0.0367
Mercury	110900-10-23 01:54 G	42226748.48	42226748.58	42226748.67	0.0524	0.0367
Mercury	110901-01-20 08:22 G	42226837.75	42226837.85	42226837.96	0.0521	0.0280
Venus	110901-06-17 18:27 G	42226986.06	42226986.27	42226986.47	0.0515	0.0081
Moon	110902-08-03 01:25 G	42227397.43	42227397.56	42227397.70	0.0500	0.0417
Earth	110902-08-03 04:46 G	42227397.57	42227397.70	42227397.84	0.0500	0.0406 *
Mercury	110907-03-05 23:58 G	42229073.34	42229073.50	42229073.66	0.0505	0.0229
Venus	110907-12-09 07:54 G	42229351.67	42229351.83	42229351.99	0.0515	0.0311

Mercury	110912-11-08 12:27 G	42231147.90	42231148.02	42231148.15	0.0521	0.0119
Venus	110913-02-20 11:30 G	42231251.79	42231251.98	42231252.17	0.0517	0.0193
Mercury	110918-12-22 22:03 G	42233383.33	42233383.42	42233383.51	0.0504	0.0427
Mercury	110919-03-23 05:58 G	42233473.65	42233473.75	42233473.86	0.0507	0.0407
Venus	110919-08-14 06:42 G	42233617.58	42233617.78	42233617.98	0.0512	0.0053
Mercury	110924-08-27 16:18 G	42235458.05	42235458.18	42235458.31	0.0522	0.0046
Venus	110924-10-26 04:03 G	42235517.59	42235517.67	42235517.76	0.0520	0.0469
Venus	110925-06-20 12:42 G	42235754.99	42235755.03	42235755.08	0.0511	0.0496
Mercury	110931-01-09 03:20 G	42237783.48	42237783.64	42237783.81	0.0506	0.0195
Venus	110931-04-19 05:15 G	42237883.54	42237883.72	42237883.91	0.0509	0.0207
Mercury	110936-06-15 19:39 G	42239768.20	42239768.32	42239768.44	0.0523	0.0221
Mercury	110936-09-13 02:08 G	42239857.51	42239857.59	42239857.66	0.0520	0.0418
Venus	110937-02-23 05:30 G	42240020.55	42240020.73	42240020.92	0.0514	0.0226
Mercury	110942-10-28 00:27 G	42242093.34	42242093.52	42242093.70	0.0505	0.0022
Venus	110942-12-23 03:49 G	42242149.58	42242149.66	42242149.75	0.0507	0.0458
Venus	110943-08-16 19:39 G	42242386.24	42242386.32	42242386.42	0.0516	0.0460
Moon	110944-01-23 06:42 G	42242545.68	42242545.78	42242545.90	0.0522	0.0452
Earth	110944-01-23 09:49 G	42242545.81	42242545.91	42242546.02	0.0522	0.0463 *
Mercury	110948-04-03 23:30 G	42244078.39	42244078.48	42244078.57	0.0524	0.0384
Mercury	110948-07-02 06:13 G	42244167.65	42244167.76	42244167.88	0.0521	0.0265
Venus	110948-10-28 23:58 G	42244286.30	42244286.50	42244286.70	0.0516	0.0044
Mercury	110954-08-15 21:06 G	42246403.22	42246403.38	42246403.54	0.0504	0.0242
Venus	110955-04-21 16:03 G	42246651.98	42246652.17	42246652.36	0.0513	0.0192
Earth	110956-01-28 02:51 G	42246933.39	42246933.62	42246933.84	0.0524	0.0110
Moon	110956-01-28 06:27 G	42246933.54	42246933.77	42246934.00	0.0524	0.0076 *
Mercury	110960-04-20 10:46 G	42248477.82	42248477.95	42248478.08	0.0522	0.0114
Venus	110960-07-03 18:42 G	42248552.12	42248552.28	42248552.45	0.0519	0.0313
Earth	110961-07-24 00:56 G	42248937.35	42248937.54	42248937.73	0.0504	0.0296
Moon	110961-07-24 01:10 G	42248937.35	42248937.55	42248937.76	0.0504	0.0273 *
Mercury	110966-06-03 18:56 G	42250713.21	42250713.29	42250713.38	0.0504	0.0441

Mercury	110966-09-02 02:51 G	42250803.51	42250803.62	42250803.74	0.0507	0.0391
Venus	110966-12-25 15:06 G	42250917.93	42250918.13	42250918.33	0.0511	0.0064
Moon	110968-02-01 20:51 G	42251321.18	42251321.37	42251321.57	0.0526	0.0271
Earth	110968-02-02 00:56 G	42251321.34	42251321.54	42251321.74	0.0526	0.0264 *
Mercury	110972-02-07 14:51 G	42252787.99	42252788.12	42252788.25	0.0522	0.0050
Venus	110972-10-31 21:06 G	42253055.25	42253055.38	42253055.52	0.0512	0.0383
Moon	110973-07-28 13:54 G	42253324.85	42253325.08	42253325.31	0.0502	0.0017
Earth	110973-07-28 15:20 G	42253324.90	42253325.14	42253325.37	0.0502	0.0032 *
Mercury	110978-06-21 00:42 G	42255113.36	42255113.53	42255113.70	0.0506	0.0185
Venus	110978-08-30 14:51 G	42255183.96	42255184.12	42255184.28	0.0509	0.0316
Mercury	110983-11-26 18:27 G	42257098.15	42257098.27	42257098.39	0.0523	0.0213
Mercury	110984-02-24 00:56 G	42257187.47	42257187.54	42257187.61	0.0520	0.0424
Venus	110984-07-06 14:51 G	42257320.92	42257321.12	42257321.32	0.0515	0.0115
Earth	110985-08-02 05:15 G	42257712.56	42257712.72	42257712.89	0.0501	0.0352
Moon	110985-08-02 07:39 G	42257712.64	42257712.82	42257713.01	0.0501	0.0321 *
Mercury	110990-04-08 22:32 G	42259423.26	42259423.44	42259423.62	0.0505	0.0023
Venus	110990-12-28 05:58 G	42259686.61	42259686.75	42259686.90	0.0515	0.0348
Mercury	110995-09-14 21:34 G	42261408.32	42261408.40	42261408.49	0.0524	0.0391
Mercury	110995-12-13 04:32 G	42261497.58	42261497.69	42261497.80	0.0521	0.0257
Venus	110996-03-11 06:42 G	42261586.59	42261586.78	42261586.98	0.0518	0.0164

112TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 112th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								

TIME

Mercury	111002-01-26 19:54	G	42263733.17	42263733.33	42263733.49	0.0504	0.0230
Venus	111002-09-03 03:34	G	42263952.45	42263952.65	42263952.85	0.0512	0.0086
Mercury	111007-10-02 08:37	G	42265807.74	42265807.86	42265807.99	0.0522	0.0102
Venus	111007-11-16 00:27	G	42265852.41	42265852.52	42265852.63	0.0520	0.0439
Mercury	111013-11-14 16:32	G	42268043.11	42268043.19	42268043.27	0.0503	0.0450
Mercury	111014-02-12 23:58	G	42268133.39	42268133.50	42268133.63	0.0507	0.0380
Venus	111014-05-08 23:58	G	42268218.32	42268218.50	42268218.70	0.0510	0.0179
Mercury	111019-07-21 13:10	G	42270117.92	42270118.05	42270118.18	0.0523	0.0051
Venus	111020-03-15 05:15	G	42270355.55	42270355.72	42270355.90	0.0513	0.0271
Mercury	111025-12-01 21:49	G	42272443.24	42272443.41	42272443.58	0.0506	0.0172
Venus	111026-01-11 23:44	G	42272484.39	42272484.49	42272484.60	0.0507	0.0428
Venus	111026-09-05 16:18	G	42272721.13	42272721.18	42272721.24	0.0516	0.0495
Earth	111027-01-23 10:32	G	42272860.93	42272860.94	42272860.95	0.0522	0.0521
Mercury	111031-05-09 17:01	G	42274428.10	42274428.21	42274428.33	0.0523	0.0212
Mercury	111031-08-06 23:30	G	42274517.41	42274517.48	42274517.56	0.0520	0.0426
Venus	111031-11-18 23:30	G	42274621.27	42274621.48	42274621.68	0.0516	0.0002
Mars	111034-10-14 03:20	G	42275681.60	42275681.64	42275681.71	0.0488	0.0480
Mercury	111037-09-19 19:54	G	42276753.15	42276753.33	42276753.51	0.0505	0.0030
Venus	111038-05-11 15:34	G	42276986.97	42276987.15	42276987.33	0.0514	0.0236
Earth	111039-01-28 07:54	G	42277248.61	42277248.83	42277249.05	0.0524	0.0155
Moon	111039-01-28 09:20	G	42277248.68	42277248.89	42277249.10	0.0524	0.0163 *
Mercury	111043-02-25 20:51	G	42278738.28	42278738.37	42278738.46	0.0524	0.0378
Mercury	111043-05-26 03:34	G	42278827.54	42278827.65	42278827.76	0.0521	0.0268
Venus	111043-07-24 16:32	G	42278887.02	42278887.19	42278887.36	0.0518	0.0275
Earth	111044-07-24 02:37	G	42279252.44	42279252.61	42279252.78	0.0505	0.0347
Moon	111044-07-24 06:27	G	42279252.60	42279252.77	42279252.95	0.0505	0.0335 *
Mercury	111049-07-08 17:58	G	42281063.09	42281063.25	42281063.41	0.0504	0.0230
Venus	111050-01-14 14:22	G	42281252.90	42281253.10	42281253.30	0.0511	0.0024
Moon	111051-02-02 03:06	G	42281636.42	42281636.63	42281636.85	0.0525	0.0240

Earth	111051-02-02 03:34 G	42281636.45	42281636.65	42281636.87	0.0525	0.0212	*
Mars	111052-09-13 05:44 G	42282225.49	42282225.74	42282225.99	0.0539	0.0052	
Mercury	111055-03-14 07:10 G	42283137.67	42283137.80	42283137.93	0.0522	0.0099	
Venus	111055-11-21 17:15 G	42283390.11	42283390.22	42283390.35	0.0512	0.0416	
Moon	111056-07-28 12:42 G	42283639.79	42283640.03	42283640.27	0.0503	0.0010	
Earth	111056-07-28 16:32 G	42283639.95	42283640.19	42283640.42	0.0503	0.0021	*
Mercury	111061-04-26 15:34 G	42285373.07	42285373.15	42285373.24	0.0503	0.0434	
Mercury	111061-07-25 23:15 G	42285463.36	42285463.47	42285463.58	0.0506	0.0396	
Venus	111061-09-19 12:56 G	42285518.87	42285519.04	42285519.21	0.0508	0.0280	
Mercury	111066-12-31 11:15 G	42287447.84	42287447.97	42287448.10	0.0523	0.0059	
Venus	111067-07-27 12:13 G	42287655.81	42287656.01	42287656.21	0.0515	0.0151	
Earth	111068-08-02 08:22 G	42288027.67	42288027.85	42288028.04	0.0501	0.0308	
Moon	111068-08-02 11:44 G	42288027.81	42288027.99	42288028.17	0.0501	0.0317	*
Mercury	111073-05-13 19:25 G	42289773.14	42289773.31	42289773.48	0.0506	0.0165	
Venus	111074-01-17 01:10 G	42290021.42	42290021.55	42290021.69	0.0515	0.0379	
Mercury	111078-10-19 15:34 G	42291758.03	42291758.15	42291758.27	0.0524	0.0213	
Mercury	111079-01-16 22:03 G	42291847.35	42291847.42	42291847.50	0.0520	0.0427	
Venus	111079-04-01 07:54 G	42291921.63	42291921.83	42291922.03	0.0517	0.0115	
Mercury	111085-03-01 17:15 G	42294083.04	42294083.22	42294083.40	0.0505	0.0038	
Venus	111085-09-22 00:13 G	42294287.32	42294287.51	42294287.71	0.0513	0.0122	
Mercury	111090-08-07 19:39 G	42296068.23	42296068.32	42296068.41	0.0524	0.0374	
Mercury	111090-11-05 02:22 G	42296157.49	42296157.60	42296157.71	0.0521	0.0272	
Venus	111090-12-05 01:25 G	42296187.43	42296187.56	42296187.70	0.0520	0.0390	
Mercury	111096-12-18 15:34 G	42298392.99	42298393.15	42298393.31	0.0504	0.0236	
Venus	111097-05-28 00:13 G	42298553.32	42298553.51	42298553.71	0.0510	0.0134	
Mercury	111102-08-25 06:27 G	42300467.64	42300467.77	42300467.89	0.0521	0.0114	
Venus	111103-04-05 04:18 G	42300690.52	42300690.68	42300690.84	0.0513	0.0312	
Mercury	111108-10-07 13:54 G	42302702.99	42302703.08	42302703.17	0.0504	0.0430	
Mercury	111109-01-05 21:34 G	42302793.29	42302793.40	42302793.51	0.0507	0.0400	
Venus	111109-01-31 23:58 G	42302819.38	42302819.50	42302819.64	0.0508	0.0386	

Mercury 111114-06-13 09:49 G 42304777.78 42304777.91 42304778.04 0.0522 0.0058
 Venus 111114-12-08 20:51 G 42304956.16 42304956.37 42304956.57 0.0516 0.0037
 Mercury 111120-10-24 18:56 G 42307103.12 42307103.29 42307103.46 0.0506 0.0187
 Venus 111121-05-31 14:22 G 42307321.94 42307322.10 42307322.27 0.0514 0.0277
 Moon 111122-01-28 07:39 G 42307563.62 42307563.82 42307564.02 0.0523 0.0232
 Earth 111122-01-28 10:46 G 42307563.74 42307563.95 42307564.16 0.0523 0.0205 *
 Mercury 111126-04-01 13:54 G 42309087.96 42309088.08 42309088.20 0.0523 0.0217
 Mercury 111126-06-29 20:22 G 42309177.28 42309177.35 42309177.43 0.0520 0.0422
 Venus 111126-08-13 14:51 G 42309221.94 42309222.12 42309222.30 0.0518 0.0235
 Earth 111127-07-25 06:56 G 42309567.64 42309567.79 42309567.94 0.0506 0.0388
 Moon 111127-07-25 07:10 G 42309567.68 42309567.80 42309567.93 0.0506 0.0422 *
 Mercury 111132-08-12 15:06 G 42311412.96 42311413.13 42311413.31 0.0505 0.0042
 Venus 111133-02-03 10:18 G 42311587.73 42311587.93 42311588.13 0.0511 0.0009
 Earth 111134-02-02 02:37 G 42311951.39 42311951.61 42311951.84 0.0525 0.0147
 Moon 111134-02-02 06:27 G 42311951.54 42311951.77 42311951.99 0.0525 0.0123 *
 Mercury 111138-01-18 18:13 G 42313398.17 42313398.26 42313398.35 0.0524 0.0372
 Mercury 111138-04-18 00:56 G 42313487.44 42313487.54 42313487.65 0.0521 0.0276
 Venus 111138-04-18 09:49 G 42313487.87 42313487.91 42313487.96 0.0521 0.0507
 Venus 111138-12-11 19:25 G 42313725.23 42313725.31 42313725.40 0.0512 0.0468
 Earth 111139-07-30 01:39 G 42313955.34 42313955.57 42313955.81 0.0503 0.0050
 Moon 111139-07-30 02:08 G 42313955.35 42313955.59 42313955.84 0.0503 0.0059 *
 Mercury 111144-05-31 13:10 G 42315722.90 42315723.05 42315723.21 0.0504 0.0240
 Venus 111144-10-09 09:49 G 42315853.74 42315853.91 42315854.09 0.0509 0.0245
 Earth 111146-02-07 01:25 G 42316339.54 42316339.56 42316339.60 0.0527 0.0522
 Mercury 111150-02-04 05:15 G 42317797.60 42317797.72 42317797.85 0.0522 0.0122
 Venus 111150-08-16 14:08 G 42317990.90 42317991.09 42317991.28 0.0514 0.0203
 Moon 111151-08-03 15:06 G 42318342.96 42318343.13 42318343.32 0.0501 0.0301
 Earth 111151-08-03 16:46 G 42318343.00 42318343.20 42318343.40 0.0501 0.0275 *
 Mercury 111156-03-19 11:44 G 42320032.90 42320032.99 42320033.08 0.0504 0.0433
 Venus 111156-06-14 10:32 G 42320119.89 42320119.94 42320119.98 0.0507 0.0492

Mercury	111156-06-17 19:25 G	42320123.20	42320123.31	42320123.42	0.0507	0.0397
Venus	111157-02-06 02:37 G	42320356.50	42320356.61	42320356.72	0.0516	0.0429
Mercury	111161-11-23 09:20 G	42322107.76	42322107.89	42322108.02	0.0522	0.0039
Venus	111162-04-21 08:08 G	42322256.64	42322256.84	42322257.05	0.0517	0.0069
Mercury	111168-04-05 17:30 G	42324433.06	42324433.23	42324433.39	0.0506	0.0194
Venus	111168-10-12 01:54 G	42324622.39	42324622.58	42324622.77	0.0513	0.0170
Mercury	111173-09-11 12:42 G	42326417.91	42326418.03	42326418.15	0.0523	0.0211
Mercury	111173-12-09 19:10 G	42326507.23	42326507.30	42326507.38	0.0520	0.0428
Venus	111173-12-24 23:58 G	42326522.35	42326522.50	42326522.65	0.0519	0.0350
Mercury	111180-01-23 15:06 G	42328742.95	42328743.13	42328743.31	0.0505	0.0018
Venus	111180-06-17 00:27 G	42328888.32	42328888.52	42328888.72	0.0510	0.0090
Mercury	111185-06-30 16:46 G	42330728.11	42330728.20	42330728.29	0.0524	0.0373
Mercury	111185-09-27 23:30 G	42330817.37	42330817.48	42330817.59	0.0521	0.0276
Venus	111186-04-24 03:49 G	42331025.52	42331025.66	42331025.81	0.0513	0.0356
Mars	111189-01-08 05:01 G	42332015.41	42332015.71	42332016.01	0.0488	0.0071
Mercury	111191-11-11 11:30 G	42333052.82	42333052.98	42333053.14	0.0504	0.0237
Venus	111192-02-20 20:51 G	42333154.22	42333154.37	42333154.51	0.0508	0.0352
Mercury	111197-07-17 04:03 G	42335127.55	42335127.67	42335127.80	0.0522	0.0127
Venus	111197-12-27 23:44 G	42335291.29	42335291.49	42335291.70	0.0516	0.0094
Mercury	111203-08-30 09:34 G	42337362.82	42337362.90	42337363.00	0.0503	0.0433
Mercury	111203-11-28 17:15 G	42337453.11	42337453.22	42337453.33	0.0506	0.0395
Venus	111204-06-19 12:27 G	42337656.86	42337657.02	42337657.18	0.0514	0.0316
Moon	111205-01-27 11:01 G	42337878.75	42337878.96	42337879.17	0.0523	0.0229
Earth	111205-01-27 13:25 G	42337878.87	42337879.06	42337879.27	0.0523	0.0259 *
Mars	111206-12-09 12:13 G	42338559.83	42338560.01	42338560.21	0.0540	0.0346
Mercury	111209-05-05 08:22 G	42339437.72	42339437.85	42339437.98	0.0523	0.0030
Venus	111209-09-01 18:13 G	42339557.07	42339557.26	42339557.45	0.0518	0.0180
Moon	111210-07-24 12:56 G	42339882.91	42339883.04	42339883.18	0.0506	0.0408
Earth	111210-07-24 17:01 G	42339883.08	42339883.21	42339883.35	0.0506	0.0413 *
Mercury	111215-09-16 15:20 G	42341762.98	42341763.14	42341763.31	0.0506	0.0193

Venus	111216-02-23 12:13 G	42341922.81	42341923.01	42341923.21	0.0512	0.0060
Earth	111217-02-01 12:27 G	42342266.80	42342267.02	42342267.25	0.0525	0.0115
Moon	111217-02-01 13:54 G	42342266.86	42342267.08	42342267.29	0.0525	0.0109 *
Mercury	111221-02-21 12:13 G	42343747.89	42343748.01	42343748.14	0.0523	0.0190
Venus	111221-05-07 11:44 G	42343822.90	42343822.99	42343823.09	0.0520	0.0455
Mercury	111221-05-21 18:42 G	42343837.22	42343837.28	42343837.35	0.0520	0.0448
Earth	111222-07-29 09:06 G	42344270.65	42344270.88	42344271.11	0.0504	0.0083
Moon	111222-07-29 13:10 G	42344270.82	42344271.05	42344271.28	0.0504	0.0110 *
Mercury	111227-07-05 13:39 G	42346072.89	42346073.07	42346073.25	0.0505	0.0007
Venus	111227-10-29 12:13 G	42346188.83	42346189.01	42346189.20	0.0509	0.0195
Moon	111229-02-06 10:32 G	42346654.83	42346654.94	42346655.06	0.0527	0.0455
Earth	111229-02-06 10:32 G	42346654.86	42346654.94	42346655.03	0.0527	0.0489 *
Mercury	111232-12-10 15:49 G	42348058.06	42348058.16	42348058.25	0.0524	0.0363
Mercury	111233-03-09 22:32 G	42348147.33	42348147.44	42348147.55	0.0521	0.0284
Venus	111233-09-04 13:39 G	42348325.89	42348326.07	42348326.25	0.0514	0.0247
Moon	111234-08-02 19:10 G	42348658.09	42348658.30	42348658.52	0.0502	0.0209
Earth	111234-08-02 23:01 G	42348658.25	42348658.46	42348658.67	0.0502	0.0239 *
Mercury	111239-04-23 11:30 G	42350382.82	42350382.98	42350383.14	0.0504	0.0208
Venus	111239-07-04 11:15 G	42350454.89	42350454.97	42350455.08	0.0507	0.0446
Venus	111240-02-26 03:34 G	42350691.58	42350691.65	42350691.73	0.0516	0.0477
Mercury	111244-12-27 02:37 G	42352457.49	42352457.61	42352457.74	0.0522	0.0131
Venus	111245-05-10 08:37 G	42352591.65	42352591.86	42352592.06	0.0517	0.0023
Mercury	111251-02-09 08:08 G	42354692.75	42354692.84	42354692.94	0.0503	0.0425
Mercury	111251-05-10 15:49 G	42354783.05	42354783.16	42354783.27	0.0506	0.0401
Venus	111251-10-31 23:15 G	42354957.29	42354957.47	42354957.66	0.0513	0.0206
Mercury	111256-10-15 07:10 G	42356767.67	42356767.80	42356767.93	0.0523	0.0024
Venus	111257-01-13 03:34 G	42356857.48	42356857.65	42356857.82	0.0520	0.0293
Mercury	111263-02-26 13:39 G	42359092.90	42359093.07	42359093.23	0.0506	0.0196
Venus	111263-07-06 22:32 G	42359223.24	42359223.44	42359223.64	0.0510	0.0051
Mercury	111268-08-03 11:15 G	42361077.85	42361077.97	42361078.10	0.0524	0.0180

Mercury	111268-10-31 17:58 G	42361167.19	42361167.25	42361167.31	0.0520	0.0458
Venus	111269-05-13 07:39 G	42361360.70	42361360.82	42361360.94	0.0513	0.0412
Mercury	111274-12-15 11:44 G	42363402.81	42363402.99	42363403.17	0.0505	0.0006
Venus	111275-03-11 22:46 G	42363489.30	42363489.45	42363489.62	0.0508	0.0302
Mercury	111280-05-22 15:20 G	42365388.04	42365388.14	42365388.24	0.0524	0.0341
Mercury	111280-08-19 22:03 G	42365477.32	42365477.42	42365477.53	0.0521	0.0306
Venus	111281-01-16 02:08 G	42365626.39	42365626.59	42365626.78	0.0515	0.0145
Mercury	111286-10-03 10:18 G	42367712.76	42367712.93	42367713.09	0.0504	0.0198
Venus	111287-07-09 15:20 G	42367992.01	42367992.14	42367992.28	0.0515	0.0371
Earth	111288-01-28 00:27 G	42368194.33	42368194.52	42368194.72	0.0522	0.0283
Moon	111288-01-28 03:34 G	42368194.46	42368194.65	42368194.86	0.0522	0.0271 *
Mercury	111292-03-10 18:42 G	42369698.26	42369698.28	42369698.30	0.0525	0.0514
Mercury	111292-06-08 01:54 G	42369787.45	42369787.58	42369787.70	0.0522	0.0141
Venus	111292-09-20 18:27 G	42369892.08	42369892.27	42369892.47	0.0518	0.0133
Moon	111293-07-23 23:44 G	42370198.35	42370198.49	42370198.63	0.0506	0.0418
Earth	111293-07-23 23:30 G	42370198.39	42370198.48	42370198.60	0.0506	0.0451 *
Mercury	111298-07-22 08:08 G	42372022.74	42372022.84	42372022.96	0.0503	0.0397
Mercury	111298-10-20 15:49 G	42372113.07	42372113.16	42372113.26	0.0507	0.0432
Venus	111299-03-14 13:39 G	42372257.88	42372258.07	42372258.27	0.0512	0.0111
Moon	111300-02-01 16:46 G	42372581.98	42372582.20	42372582.42	0.0524	0.0110
Earth	111300-02-01 20:08 G	42372582.11	42372582.34	42372582.57	0.0524	0.0077 *
Mercury	111304-03-28 05:58 G	42374097.62	42374097.75	42374097.88	0.0523	0.0017
Venus	111304-05-27 12:13 G	42374157.90	42374158.01	42374158.15	0.0520	0.0409
Moon	111305-07-29 17:15 G	42374586.00	42374586.22	42374586.44	0.0504	0.0091
Earth	111305-07-29 17:44 G	42374586.01	42374586.24	42374586.47	0.0504	0.0115 *
Mercury	111310-08-09 12:13 G	42376422.85	42376423.01	42376423.17	0.0505	0.0204
Venus	111310-11-18 10:18 G	42376523.74	42376523.93	42376524.12	0.0509	0.0157
Earth	111312-02-07 11:30 G	42376969.86	42376969.98	42376970.12	0.0526	0.0429
Moon	111312-02-07 15:20 G	42376970.02	42376970.14	42376970.27	0.0526	0.0438 *
Mercury	111316-01-15 10:18 G	42378407.80	42378407.93	42378408.05	0.0524	0.0174

Mercury	111316-04-13 16:46 G	42378497.15	42378497.20	42378497.26	0.0521	0.0466
Venus	111316-09-24 17:30 G	42378661.07	42378661.23	42378661.40	0.0514	0.0305
Earth	111317-08-03 11:58 G	42378973.79	42378974.00	42378974.22	0.0503	0.0222
Moon	111317-08-03 13:10 G	42378973.83	42378974.05	42378974.28	0.0503	0.0210 *
Mercury	111322-05-28 10:03 G	42380732.74	42380732.92	42380733.10	0.0505	0.0010
Venus	111322-07-24 10:03 G	42380789.81	42380789.92	42380790.04	0.0507	0.0407
Mercury	111327-11-03 14:22 G	42382718.00	42382718.10	42382718.20	0.0525	0.0331
Mercury	111328-01-31 21:06 G	42382807.28	42382807.38	42382807.49	0.0521	0.0316
Venus	111328-05-30 12:42 G	42382926.82	42382927.03	42382927.23	0.0516	0.0037
Mercury	111334-03-16 08:22 G	42385042.69	42385042.85	42385043.02	0.0504	0.0195
Venus	111334-11-21 01:54 G	42385292.41	42385292.58	42385292.75	0.0513	0.0260
Mercury	111339-08-22 18:13 G	42387028.22	42387028.26	42387028.30	0.0525	0.0494
Mercury	111339-11-20 01:25 G	42387117.44	42387117.56	42387117.68	0.0522	0.0161
Venus	111340-02-03 06:27 G	42387192.59	42387192.77	42387192.95	0.0519	0.0239
Mars	111343-04-05 22:32 G	42388350.27	42388350.44	42388350.61	0.0488	0.0404
Mercury	111346-01-02 06:56 G	42389352.68	42389352.79	42389352.91	0.0503	0.0387
Mercury	111346-04-02 14:37 G	42389443.02	42389443.11	42389443.20	0.0507	0.0442
Venus	111346-07-27 01:39 G	42389558.37	42389558.57	42389558.77	0.0511	0.0007
Mercury	111351-09-08 05:01 G	42391427.58	42391427.71	42391427.84	0.0523	0.0012
Venus	111351-10-08 22:32 G	42391458.43	42391458.44	42391458.44	0.0521	0.0521
Venus	111352-06-02 08:08 G	42391695.75	42391695.84	42391695.93	0.0512	0.0459
Mercury	111358-01-19 12:13 G	42393752.85	42393753.01	42393753.17	0.0506	0.0235
Venus	111358-04-01 00:56 G	42393824.37	42393824.54	42393824.72	0.0508	0.0252
Mercury	111363-06-27 09:06 G	42395737.75	42395737.88	42395738.00	0.0524	0.0165
Mercury	111363-09-24 15:34 G	42395827.10	42395827.15	42395827.20	0.0520	0.0472
Venus	111364-02-06 03:06 G	42395961.44	42395961.63	42395961.82	0.0515	0.0195
Mercury	111369-11-07 08:51 G	42398062.69	42398062.87	42398063.05	0.0504	0.0012
Venus	111370-07-29 13:25 G	42398326.95	42398327.06	42398327.19	0.0514	0.0410
Earth	111371-01-28 02:22 G	42398509.43	42398509.60	42398509.78	0.0521	0.0335
Moon	111371-01-28 04:46 G	42398509.55	42398509.70	42398509.86	0.0521	0.0370 *

Mercury	111375-04-15 13:10 G	42400047.94	42400048.05	42400048.15	0.0525	0.0327
Mercury	111375-07-13 19:54 G	42400137.23	42400137.33	42400137.44	0.0522	0.0322
Venus	111375-10-11 22:03 G	42400227.21	42400227.42	42400227.62	0.0518	0.0078
Earth	111376-07-24 12:13 G	42400513.92	42400514.01	42400514.10	0.0507	0.0467
Moon	111376-07-24 16:18 G	42400514.11	42400514.18	42400514.25	0.0507	0.0483
Mercury	111381-08-26 06:56 G	42402372.62	42402372.79	42402372.95	0.0504	0.0188
Venus	111382-04-03 12:27 G	42402592.83	42402593.02	42402593.21	0.0512	0.0150
Moon	111383-02-01 21:20 G	42402897.15	42402897.39	42402897.62	0.0524	0.0015
Earth	111383-02-01 23:15 G	42402897.24	42402897.47	42402897.70	0.0524	0.0027 *
Mercury	111387-02-01 17:01 G	42404358.17	42404358.21	42404358.26	0.0526	0.0487
Mercury	111387-05-02 00:27 G	42404447.39	42404447.52	42404447.64	0.0522	0.0170
Venus	111387-06-16 16:18 G	42404493.03	42404493.18	42404493.33	0.0520	0.0353
Moon	111388-07-29 01:39 G	42404901.34	42404901.57	42404901.80	0.0505	0.0116
Earth	111388-07-29 05:44 G	42404901.51	42404901.74	42404901.97	0.0505	0.0133 *
Mercury	111393-06-14 05:15 G	42406682.61	42406682.72	42406682.83	0.0503	0.0384
Mercury	111393-09-12 12:42 G	42406772.95	42406773.03	42406773.12	0.0506	0.0444
Venus	111393-12-07 12:27 G	42406858.82	42406859.02	42406859.22	0.0510	0.0106
Earth	111395-02-06 22:32 G	42407285.29	42407285.44	42407285.59	0.0526	0.0400
Moon	111395-02-06 23:01 G	42407285.34	42407285.46	42407285.59	0.0526	0.0426 *
Mercury	111399-02-18 04:32 G	42408757.56	42408757.69	42408757.82	0.0523	0.0014
Venus	111399-10-14 20:08 G	42408996.20	42408996.34	42408996.49	0.0513	0.0358
Earth	111400-08-03 21:34 G	42409289.18	42409289.40	42409289.62	0.0503	0.0194
Moon	111400-08-04 01:25 G	42409289.35	42409289.56	42409289.77	0.0503	0.0228 *
Mercury	111405-07-02 10:46 G	42411082.80	42411082.95	42411083.11	0.0506	0.0243
Venus	111405-08-13 12:56 G	42411124.90	42411125.04	42411125.18	0.0507	0.0357
Mercury	111410-12-08 08:08 G	42413067.72	42413067.84	42413067.97	0.0523	0.0154
Mercury	111411-03-07 14:37 G	42413157.07	42413157.11	42413157.16	0.0520	0.0483
Venus	111411-06-20 13:10 G	42413261.85	42413262.05	42413262.26	0.0516	0.0084
Mercury	111417-04-20 08:51 G	42415392.69	42415392.87	42415393.04	0.0505	0.0041
Venus	111417-12-11 03:49 G	42415627.50	42415627.66	42415627.82	0.0514	0.0312

Mercury	111422-09-26 11:58 G	42417377.90	42417378.00	42417378.11	0.0525	0.0318
Mercury	111422-12-24 18:56 G	42417467.19	42417467.29	42417467.39	0.0521	0.0329
Venus	111423-02-23 07:10 G	42417527.61	42417527.80	42417527.99	0.0519	0.0192
Mercury	111429-02-06 05:44 G	42419702.57	42419702.74	42419702.91	0.0503	0.0178
Venus	111429-08-16 00:13 G	42419893.31	42419893.51	42419893.71	0.0510	0.0042
Mercury	111434-07-15 15:49 G	42421688.11	42421688.16	42421688.21	0.0526	0.0485
Mercury	111434-10-12 23:01 G	42421777.34	42421777.46	42421777.59	0.0523	0.0173
Venus	111434-10-29 00:42 G	42421793.45	42421793.53	42421793.62	0.0522	0.0472
Mercury	111440-11-25 03:49 G	42424012.54	42424012.66	42424012.78	0.0503	0.0376
Mercury	111441-02-23 11:01 G	42424102.89	42424102.96	42424103.05	0.0506	0.0449
Venus	111441-04-20 23:30 G	42424159.30	42424159.48	42424159.67	0.0508	0.0214
Mercury	111446-08-01 03:20 G	42426087.51	42426087.64	42426087.77	0.0523	0.0020
Venus	111447-02-26 05:58 G	42426296.57	42426296.75	42426296.93	0.0515	0.0247
Mercury	111452-12-12 08:51 G	42428412.72	42428412.87	42428413.03	0.0505	0.0243
Venus	111452-12-24 23:44 G	42428425.42	42428425.49	42428425.57	0.0506	0.0464
Venus	111453-08-18 15:20 G	42428662.06	42428662.14	42428662.23	0.0515	0.0460
Moon	111454-01-28 08:51 G	42428824.71	42428824.87	42428825.04	0.0521	0.0360
Earth	111454-01-28 12:13 G	42428824.85	42428825.01	42428825.18	0.0521	0.0364 *
Mercury	111458-05-20 07:25 G	42430397.69	42430397.81	42430397.94	0.0524	0.0140
Mercury	111458-08-17 14:08 G	42430487.05	42430487.09	42430487.12	0.0520	0.0498
Venus	111458-11-01 00:27 G	42430562.32	42430562.52	42430562.73	0.0517	0.0026
Earth	111459-07-25 21:06 G	42430829.33	42430829.38	42430829.43	0.0507	0.0494
Mars	111461-09-24 05:30 G	42431620.63	42431620.73	42431620.85	0.0488	0.0453
Mercury	111464-09-30 07:10 G	42432722.62	42432722.80	42432722.98	0.0505	0.0044
Venus	111465-04-23 14:51 G	42432927.94	42432928.12	42432928.31	0.0512	0.0202
Earth	111466-02-02 09:49 G	42433212.68	42433212.91	42433213.14	0.0523	0.0003
Moon	111466-02-02 13:25 G	42433212.83	42433213.06	42433213.30	0.0523	0.0030 *
Mercury	111470-03-08 11:01 G	42434707.85	42434707.96	42434708.07	0.0524	0.0309
Mercury	111470-06-05 17:58 G	42434797.15	42434797.25	42434797.34	0.0521	0.0337
Venus	111470-07-06 16:46 G	42434828.04	42434828.20	42434828.36	0.0520	0.0307

Earth	111471-07-30 11:58 G	42435216.78	42435217.00	42435217.23	0.0505	0.0169
Moon	111471-07-30 12:56 G	42435216.82	42435217.04	42435217.27	0.0505	0.0199 *
Mercury	111476-07-19 05:15 G	42437032.55	42437032.72	42437032.89	0.0504	0.0157
Venus	111476-12-27 14:08 G	42437193.89	42437194.09	42437194.29	0.0510	0.0057
Moon	111478-02-07 02:22 G	42437600.42	42437600.60	42437600.78	0.0525	0.0332
Earth	111478-02-07 05:58 G	42437600.59	42437600.75	42437600.92	0.0525	0.0362 *
Mars	111479-08-27 16:46 G	42438166.96	42438167.20	42438167.45	0.0540	0.0125
Mercury	111481-12-25 14:37 G	42439018.06	42439018.11	42439018.17	0.0525	0.0476
Mercury	111482-03-24 21:49 G	42439107.29	42439107.41	42439107.54	0.0522	0.0181
Venus	111482-11-03 20:22 G	42439331.22	42439331.35	42439331.47	0.0514	0.0404
Moon	111483-08-04 03:20 G	42439604.43	42439604.64	42439604.86	0.0503	0.0157
Earth	111483-08-04 04:46 G	42439604.48	42439604.70	42439604.93	0.0503	0.0160 *
Mercury	111488-05-07 02:22 G	42441342.49	42441342.60	42441342.73	0.0503	0.0367
Mercury	111488-08-05 09:34 G	42441432.83	42441432.90	42441432.98	0.0506	0.0457
Venus	111488-09-01 11:30 G	42441459.83	42441459.98	42441460.14	0.0507	0.0319
Mercury	111494-01-11 01:54 G	42443417.45	42443417.58	42443417.71	0.0524	0.0018
Venus	111494-07-09 14:37 G	42443596.92	42443597.11	42443597.31	0.0517	0.0132
Earth	111495-08-08 21:49 G	42443992.36	42443992.41	42443992.46	0.0502	0.0487
Mercury	111500-05-25 07:10 G	42445742.65	42445742.80	42445742.96	0.0505	0.0248
Venus	111500-12-31 01:39 G	42445962.43	42445962.57	42445962.72	0.0513	0.0349
Mercury	111505-10-31 05:58 G	42447727.63	42447727.75	42447727.88	0.0524	0.0140
Mercury	111506-01-28 12:42 G	42447817.00	42447817.03	42447817.06	0.0521	0.0499
Venus	111506-03-15 08:51 G	42447862.68	42447862.87	42447863.07	0.0519	0.0144
Mercury	111512-03-13 05:01 G	42450052.54	42450052.71	42450052.89	0.0504	0.0043
Venus	111512-09-05 00:56 G	42450228.34	42450228.54	42450228.74	0.0511	0.0088
Mercury	111517-08-19 10:03 G	42452037.81	42452037.92	42452038.03	0.0525	0.0299
Mercury	111517-11-16 17:01 G	42452127.11	42452127.21	42452127.30	0.0521	0.0348
Venus	111517-11-18 02:51 G	42452128.50	42452128.62	42452128.74	0.0521	0.0421
Mercury	111523-12-31 03:20 G	42454362.47	42454362.64	42454362.81	0.0504	0.0155
Venus	111524-05-11 00:56 G	42454494.35	42454494.54	42454494.73	0.0509	0.0167

Mercury	111529-06-07 13:39 G	42456348.01	42456348.07	42456348.12	0.0525	0.0470
Mercury	111529-09-04 20:51 G	42456437.25	42456437.37	42456437.49	0.0522	0.0185
Venus	111530-03-18 05:30 G	42456631.57	42456631.73	42456631.91	0.0515	0.0292
Mercury	111535-10-19 01:39 G	42458672.44	42458672.57	42458672.69	0.0503	0.0351
Venus	111536-01-15 00:42 G	42458760.42	42458760.53	42458760.65	0.0506	0.0418
Mercury	111536-01-17 08:51 G	42458762.82	42458762.87	42458762.94	0.0506	0.0475
Venus	111536-09-07 16:18 G	42458997.16	42458997.18	42458997.22	0.0515	0.0509
Moon	111537-01-28 17:15 G	42459140.06	42459140.22	42459140.39	0.0521	0.0369
Earth	111537-01-28 19:10 G	42459140.17	42459140.30	42459140.46	0.0521	0.0401 *
Mercury	111541-06-24 00:42 G	42460747.40	42460747.53	42460747.66	0.0523	0.0025
Venus	111541-11-20 23:30 G	42460897.28	42460897.48	42460897.69	0.0517	0.0019
Moon	111542-07-25 22:03 G	42461144.41	42461144.42	42461144.43	0.0508	0.0507
Mercury	111547-11-05 05:44 G	42463072.59	42463072.74	42463072.90	0.0505	0.0254
Venus	111548-05-13 12:56 G	42463262.86	42463263.04	42463263.22	0.0512	0.0238
Earth	111549-02-02 10:03 G	42463527.69	42463527.92	42463528.15	0.0522	0.0057
Moon	111549-02-02 11:44 G	42463527.76	42463527.99	42463528.21	0.0522	0.0032 *
Mercury	111553-04-12 04:18 G	42465057.56	42465057.68	42465057.81	0.0525	0.0144
Mercury	111553-07-10 11:01 G	42465146.93	42465146.96	42465147.00	0.0521	0.0497
Venus	111553-07-26 16:18 G	42465163.01	42465163.18	42465163.36	0.0521	0.0266
Earth	111554-07-30 19:25 G	42465532.10	42465532.31	42465532.53	0.0506	0.0200
Moon	111554-07-30 23:01 G	42465532.26	42465532.46	42465532.68	0.0506	0.0205 *
Mercury	111559-08-24 03:34 G	42467382.47	42467382.65	42467382.82	0.0504	0.0048
Venus	111560-01-17 11:44 G	42467528.78	42467528.99	42467529.19	0.0509	0.0025
Moon	111561-02-07 04:32 G	42467915.50	42467915.69	42467915.89	0.0524	0.0290
Earth	111561-02-07 05:44 G	42467915.55	42467915.74	42467915.93	0.0524	0.0301 *
Mercury	111565-01-29 08:22 G	42469367.75	42469367.85	42469367.96	0.0525	0.0304
Mercury	111565-04-28 15:20 G	42469457.05	42469457.14	42469457.24	0.0522	0.0345
Venus	111565-11-23 20:37 G	42469666.27	42469666.36	42469666.47	0.0514	0.0448
Moon	111566-08-04 08:22 G	42469919.62	42469919.85	42469920.09	0.0504	0.0097
Earth	111566-08-04 12:13 G	42469919.78	42469920.01	42469920.23	0.0504	0.0131 *

Mercury	111571-06-12 01:10 G	42471692.38	42471692.55	42471692.72	0.0504	0.0159
Venus	111571-09-22 10:46 G	42471794.79	42471794.95	42471795.13	0.0507	0.0279
Mercury	111576-11-17 12:27 G	42473677.96	42473678.02	42473678.08	0.0526	0.0465
Mercury	111577-02-14 19:39 G	42473767.20	42473767.32	42473767.44	0.0522	0.0192
Venus	111577-07-29 15:20 G	42473931.95	42473932.14	42473932.34	0.0516	0.0179
Earth	111578-08-09 03:49 G	42474307.56	42474307.66	42474307.76	0.0502	0.0452
Moon	111578-08-09 07:10 G	42474307.69	42474307.80	42474307.92	0.0502	0.0431 *
Mercury	111583-03-30 23:30 G	42476002.36	42476002.48	42476002.61	0.0503	0.0354
Mercury	111583-06-29 06:42 G	42476092.72	42476092.78	42476092.85	0.0506	0.0472
Venus	111584-01-20 02:08 G	42476297.47	42476297.59	42476297.73	0.0514	0.0395
Mercury	111588-12-03 23:30 G	42478077.34	42478077.48	42478077.61	0.0523	0.0032
Venus	111589-04-03 08:08 G	42478197.64	42478197.84	42478198.04	0.0518	0.0101
Mercury	111595-04-17 04:32 G	42480402.54	42480402.69	42480402.84	0.0505	0.0265
Venus	111595-09-25 01:10 G	42480563.36	42480563.55	42480563.75	0.0511	0.0134
Mercury	111600-09-22 03:06 G	42482387.51	42482387.63	42482387.76	0.0524	0.0138
Venus	111600-12-07 00:42 G	42482463.40	42482463.53	42482463.67	0.0521	0.0383
Mercury	111600-12-20 09:49 G	42482476.88	42482476.91	42482476.94	0.0521	0.0500
Mercury	111607-02-03 01:39 G	42484712.40	42484712.57	42484712.75	0.0504	0.0051
Venus	111607-05-30 22:46 G	42484829.26	42484829.45	42484829.65	0.0508	0.0132
Mercury	111612-07-11 06:27 G	42486697.67	42486697.77	42486697.88	0.0525	0.0312
Mercury	111612-10-08 13:39 G	42486786.97	42486787.07	42486787.17	0.0522	0.0338
Venus	111613-04-06 04:03 G	42486966.52	42486966.67	42486966.83	0.0515	0.0330
Mars	111615-12-20 11:44 G	42487954.68	42487954.99	42487955.29	0.0488	0.0029
Mercury	111618-11-21 23:30 G	42489022.31	42489022.48	42489022.65	0.0503	0.0156
Venus	111619-02-02 22:03 G	42489095.29	42489095.42	42489095.55	0.0506	0.0386
Earth	111620-01-28 18:42 G	42489455.17	42489455.28	42489455.39	0.0519	0.0456
Moon	111620-01-28 21:34 G	42489455.32	42489455.40	42489455.51	0.0519	0.0474 *
Mercury	111624-04-29 10:18 G	42491007.88	42491007.93	42491007.99	0.0526	0.0476
Mercury	111624-07-27 17:44 G	42491097.12	42491097.24	42491097.36	0.0523	0.0183
Venus	111624-12-09 22:32 G	42491232.23	42491232.44	42491232.64	0.0518	0.0057

Mercury	111630-09-09 20:51 G	42493332.26	42493332.37	42493332.50	0.0503	0.0362
Mercury	111630-12-09 04:18 G	42493422.61	42493422.68	42493422.75	0.0506	0.0461
Venus	111631-06-02 11:15 G	42493597.80	42493597.97	42493598.14	0.0512	0.0277
Moon	111632-02-02 10:18 G	42493842.70	42493842.93	42493843.15	0.0522	0.0087
Earth	111632-02-02 13:54 G	42493842.86	42493843.08	42493843.31	0.0522	0.0103 *
Mars	111633-11-21 12:13 G	42494500.79	42494501.01	42494501.24	0.0540	0.0212
Mercury	111636-05-15 22:03 G	42495407.29	42495407.42	42495407.55	0.0523	0.0029
Venus	111636-08-14 16:18 G	42495498.00	42495498.18	42495498.37	0.0520	0.0221
Moon	111637-07-29 23:15 G	42495847.27	42495847.47	42495847.68	0.0506	0.0212
Earth	111637-07-29 23:58 G	42495847.30	42495847.50	42495847.71	0.0506	0.0239 *
Mercury	111642-09-27 02:08 G	42497732.44	42497732.59	42497732.74	0.0505	0.0257
Venus	111643-02-05 10:46 G	42497863.74	42497863.95	42497864.15	0.0510	0.0021
Earth	111644-02-07 11:01 G	42498230.77	42498230.96	42498231.17	0.0524	0.0260
Moon	111644-02-07 15:06 G	42498230.94	42498231.13	42498231.33	0.0524	0.0296 *
Mercury	111648-03-04 01:39 G	42499717.44	42499717.57	42499717.70	0.0524	0.0139
Venus	111648-04-19 08:22 G	42499763.81	42499763.85	42499763.90	0.0522	0.0505
Mercury	111648-06-01 08:22 G	42499806.81	42499806.85	42499806.88	0.0521	0.0499
Venus	111648-12-12 18:42 G	42500001.22	42500001.28	42500001.35	0.0513	0.0486
Earth	111649-08-03 14:22 G	42500234.87	42500235.10	42500235.34	0.0504	0.0083
Moon	111649-08-03 16:18 G	42500234.94	42500235.18	42500235.42	0.0504	0.0097 *
Mercury	111654-07-15 23:58 G	42502042.32	42502042.50	42502042.68	0.0504	0.0054
Venus	111654-10-11 10:18 G	42502129.75	42502129.93	42502130.11	0.0507	0.0237
Mercury	111659-12-22 05:15 G	42504027.61	42504027.72	42504027.83	0.0525	0.0307
Mercury	111660-03-20 12:13 G	42504116.92	42504117.01	42504117.11	0.0522	0.0341
Venus	111660-08-17 12:13 G	42504266.83	42504267.01	42504267.20	0.0516	0.0215
Moon	111661-08-08 03:49 G	42504622.51	42504622.66	42504622.80	0.0503	0.0386
Earth	111661-08-08 05:58 G	42504622.61	42504622.75	42504622.89	0.0503	0.0404 *
Mercury	111666-05-03 21:34 G	42506352.23	42506352.40	42506352.57	0.0503	0.0155
Venus	111666-06-16 09:06 G	42506395.84	42506395.88	42506395.92	0.0504	0.0493
Venus	111667-02-07 23:30 G	42506632.37	42506632.48	42506632.59	0.0513	0.0427

Mercury	111671-10-10 08:22 G	42508337.81	42508337.85	42508337.90	0.0526	0.0487
Mercury	111672-01-07 15:49 G	42508427.04	42508427.16	42508427.28	0.0523	0.0173
Venus	111672-04-22 04:46 G	42508532.49	42508532.70	42508532.90	0.0519	0.0070
Mercury	111678-02-19 19:10 G	42510662.19	42510662.30	42510662.43	0.0502	0.0358
Mercury	111678-05-21 02:22 G	42510752.53	42510752.60	42510752.67	0.0505	0.0462
Venus	111678-10-13 21:34 G	42510898.21	42510898.40	42510898.59	0.0511	0.0164
Mercury	111683-10-26 19:54 G	42512737.20	42512737.33	42512737.46	0.0524	0.0017
Venus	111683-12-26 21:49 G	42512798.27	42512798.41	42512798.57	0.0521	0.0351
Mercury	111690-03-08 23:15 G	42515062.32	42515062.47	42515062.63	0.0505	0.0245
Venus	111690-06-18 19:39 G	42515164.12	42515164.32	42515164.52	0.0509	0.0099
Mercury	111695-08-14 23:58 G	42517047.38	42517047.50	42517047.63	0.0524	0.0143
Mercury	111695-11-12 06:42 G	42517136.75	42517136.78	42517136.82	0.0521	0.0497
Venus	111696-04-25 03:06 G	42517301.49	42517301.63	42517301.77	0.0514	0.0371
Mercury	111701-12-26 21:20 G	42519372.21	42519372.39	42519372.57	0.0504	0.0042
Venus	111702-02-22 19:25 G	42519430.17	42519430.31	42519430.46	0.0506	0.0351
Earth	111703-01-28 22:18 G	42519770.37	42519770.43	42519770.49	0.0519	0.0501
Moon	111703-01-29 00:27 G	42519770.51	42519770.52	42519770.56	0.0519	0.0516
Mercury	111707-06-04 03:34 G	42521357.55	42521357.65	42521357.76	0.0525	0.0311
Mercury	111707-09-01 10:32 G	42521446.85	42521446.94	42521447.04	0.0522	0.0338
Venus	111707-12-30 19:54 G	42521567.13	42521567.33	42521567.54	0.0517	0.0095
Mercury	111713-10-14 19:25 G	42523682.14	42523682.31	42523682.48	0.0503	0.0158
Venus	111714-06-22 10:03 G	42523932.76	42523932.92	42523933.08	0.0513	0.0318
Moon	111715-02-02 15:49 G	42524157.94	42524158.16	42524158.39	0.0521	0.0183
Earth	111715-02-02 17:30 G	42524158.01	42524158.23	42524158.45	0.0521	0.0151 *
Mercury	111719-03-23 07:10 G	42525667.75	42525667.80	42525667.85	0.0526	0.0482
Mercury	111719-06-20 14:22 G	42525756.98	42525757.10	42525757.23	0.0523	0.0177
Venus	111719-09-04 12:27 G	42525832.84	42525833.02	42525833.22	0.0520	0.0188
Moon	111720-07-29 20:08 G	42526162.15	42526162.34	42526162.52	0.0507	0.0315
Earth	111720-07-29 23:44 G	42526162.31	42526162.49	42526162.69	0.0507	0.0294 *
Mercury	111725-08-02 17:15 G	42527992.10	42527992.22	42527992.34	0.0502	0.0359

Mercury	111725-11-01 00:27 G	42528082.44	42528082.52	42528082.59	0.0505	0.0460
Venus	111726-02-25 07:54 G	42528198.63	42528198.83	42528199.03	0.0510	0.0051
Earth	111727-02-07 09:34 G	42528545.69	42528545.90	42528546.11	0.0523	0.0197
Moon	111727-02-07 10:18 G	42528545.73	42528545.93	42528546.14	0.0523	0.0193 *
Mercury	111731-04-08 17:58 G	42530067.11	42530067.25	42530067.38	0.0524	0.0019
Venus	111731-05-10 03:34 G	42530098.57	42530098.65	42530098.73	0.0523	0.0479
Earth	111732-08-03 15:06 G	42530549.89	42530550.13	42530550.37	0.0506	0.0033
Moon	111732-08-03 18:42 G	42530550.05	42530550.28	42530550.51	0.0506	0.0055 *
Mercury	111737-08-19 21:34 G	42532392.24	42532392.40	42532392.56	0.0504	0.0246
Venus	111737-10-31 06:27 G	42532464.59	42532464.77	42532464.96	0.0507	0.0208
Mercury	111743-01-25 21:49 G	42534377.28	42534377.41	42534377.53	0.0525	0.0159
Mercury	111743-04-25 04:32 G	42534466.65	42534466.69	42534466.74	0.0521	0.0483
Venus	111743-09-07 08:51 G	42534601.69	42534601.87	42534602.05	0.0516	0.0246
Moon	111744-08-08 03:34 G	42534937.51	42534937.65	42534937.81	0.0503	0.0389
Earth	111744-08-08 07:10 G	42534937.63	42534937.80	42534937.96	0.0503	0.0358 *
Mercury	111749-06-07 18:27 G	42536702.09	42536702.27	42536702.45	0.0504	0.0028
Venus	111749-07-06 04:32 G	42536730.62	42536730.69	42536730.77	0.0505	0.0464
Venus	111750-02-27 19:25 G	42536967.22	42536967.31	42536967.40	0.0514	0.0459
Mercury	111754-11-14 01:54 G	42538687.48	42538687.58	42538687.68	0.0525	0.0317
Mercury	111755-02-11 08:51 G	42538776.78	42538776.87	42538776.97	0.0522	0.0333
Venus	111755-05-13 03:20 G	42538867.44	42538867.64	42538867.85	0.0518	0.0030
Mercury	111761-03-26 16:32 G	42541012.02	42541012.19	42541012.36	0.0503	0.0171
Venus	111761-11-02 18:27 G	42541233.09	42541233.27	42541233.46	0.0511	0.0199
Mercury	111766-09-02 05:30 G	42542997.68	42542997.73	42542997.77	0.0526	0.0487
Mercury	111766-11-30 12:56 G	42543086.91	42543087.04	42543087.16	0.0523	0.0172
Venus	111767-01-15 19:39 G	42543133.16	42543133.32	42543133.49	0.0521	0.0312
Mars	111770-03-15 13:54 G	42544287.83	42544288.08	42544288.33	0.0488	0.0274
Mercury	111773-01-12 14:51 G	42545322.00	42545322.12	42545322.24	0.0503	0.0367
Mercury	111773-04-12 21:49 G	42545412.34	42545412.41	42545412.49	0.0506	0.0454
Venus	111773-07-08 17:44 G	42545499.04	42545499.24	42545499.45	0.0509	0.0061

Mercury	111778-09-18 16:32 G	42547397.06	42547397.19	42547397.32	0.0524	0.0007
Venus	111779-05-15 22:46 G	42547636.33	42547636.45	42547636.58	0.0514	0.0403
Mercury	111785-01-29 19:25 G	42549722.15	42549722.31	42549722.47	0.0504	0.0243
Venus	111785-03-13 16:46 G	42549765.05	42549765.20	42549765.36	0.0506	0.0318
Mars	111788-02-15 18:27 G	42550834.16	42550834.27	42550834.40	0.0539	0.0471
Mercury	111790-07-07 19:39 G	42551707.20	42551707.32	42551707.45	0.0525	0.0172
Mercury	111790-10-05 02:37 G	42551796.56	42551796.61	42551796.66	0.0521	0.0471
Venus	111791-01-18 14:51 G	42551901.92	42551902.12	42551902.32	0.0517	0.0122
Mercury	111796-11-17 16:46 G	42554032.02	42554032.20	42554032.38	0.0504	0.0032
Venus	111797-07-11 05:44 G	42554267.59	42554267.74	42554267.89	0.0512	0.0347
Earth	111798-02-01 14:51 G	42554472.91	42554473.12	42554473.33	0.0520	0.0214
Moon	111798-02-01 18:13 G	42554473.05	42554473.26	42554473.48	0.0520	0.0211 *
Mercury	111802-04-26 23:30 G	42556017.38	42556017.48	42556017.58	0.0526	0.0336
Mercury	111802-07-25 06:42 G	42556106.68	42556106.78	42556106.89	0.0522	0.0316
Venus	111802-09-24 08:08 G	42556167.65	42556167.84	42556168.04	0.0520	0.0159
Earth	111803-07-30 23:15 G	42556477.30	42556477.47	42556477.65	0.0508	0.0346
Moon	111803-07-30 23:01 G	42556477.30	42556477.46	42556477.64	0.0508	0.0362 *
Mercury	111808-09-06 13:39 G	42558341.91	42558342.07	42558342.24	0.0503	0.0185
Venus	111809-03-17 02:37 G	42558533.42	42558533.61	42558533.82	0.0510	0.0081
Moon	111810-02-07 04:03 G	42558860.45	42558860.67	42558860.90	0.0523	0.0101
Earth	111810-02-07 07:54 G	42558860.61	42558860.83	42558861.05	0.0523	0.0133 *
Mercury	111814-02-13 03:34 G	42560327.61	42560327.65	42560327.69	0.0526	0.0495
Mercury	111814-05-13 11:01 G	42560416.84	42560416.96	42560417.09	0.0523	0.0165
Venus	111814-05-30 02:22 G	42560433.49	42560433.60	42560433.71	0.0522	0.0437
Moon	111815-08-04 16:46 G	42560864.97	42560865.20	42560865.42	0.0506	0.0042
Earth	111815-08-04 17:44 G	42560865.00	42560865.24	42560865.48	0.0506	0.0013 *
Mercury	111820-06-25 11:58 G	42562651.88	42562652.00	42562652.11	0.0502	0.0380
Mercury	111820-09-23 18:42 G	42562742.20	42562742.28	42562742.38	0.0506	0.0438
Venus	111820-11-20 02:22 G	42562799.41	42562799.60	42562799.79	0.0508	0.0177
Earth	111822-02-12 05:01 G	42563248.64	42563248.71	42563248.79	0.0525	0.0494

Moon	111822-02-12 08:51 G	42563248.78	42563248.87	42563248.98	0.0525	0.0471	*
Mercury	111826-03-01 14:51 G	42564726.99	42564727.12	42564727.25	0.0524	0.0012	
Venus	111826-09-27 06:13 G	42564936.60	42564936.76	42564936.94	0.0515	0.0284	
Earth	111827-08-09 08:08 G	42565252.65	42565252.84	42565253.03	0.0504	0.0306	
Moon	111827-08-09 10:18 G	42565252.74	42565252.93	42565253.12	0.0504	0.0309	*
Mercury	111832-07-12 16:46 G	42567052.04	42567052.20	42567052.36	0.0505	0.0233	
Venus	111832-07-26 02:37 G	42567065.50	42567065.61	42567065.71	0.0505	0.0428	
Venus	111833-03-19 17:44 G	42567302.19	42567302.24	42567302.28	0.0514	0.0500	
Mercury	111837-12-18 18:27 G	42569037.15	42569037.27	42569037.40	0.0524	0.0166	
Mercury	111838-03-18 01:25 G	42569126.51	42569126.56	42569126.61	0.0521	0.0475	
Venus	111838-06-01 23:15 G	42569202.27	42569202.47	42569202.68	0.0518	0.0011	
Mercury	111844-04-30 14:37 G	42571361.93	42571362.11	42571362.29	0.0504	0.0029	
Venus	111844-11-22 15:49 G	42571567.99	42571568.16	42571568.35	0.0511	0.0234	
Mercury	111849-10-06 21:34 G	42573347.30	42573347.40	42573347.50	0.0526	0.0346	
Mercury	111850-01-04 04:46 G	42573436.60	42573436.70	42573436.80	0.0522	0.0306	
Venus	111850-02-04 14:08 G	42573467.92	42573468.09	42573468.26	0.0521	0.0286	
Mercury	111856-02-17 12:13 G	42575671.84	42575672.01	42575672.17	0.0503	0.0178	
Venus	111856-07-28 14:08 G	42575833.89	42575834.09	42575834.29	0.0508	0.0028	
Mercury	111861-07-26 01:10 G	42577657.53	42577657.55	42577657.58	0.0527	0.0513	
Mercury	111861-10-23 08:51 G	42577746.74	42577746.87	42577746.99	0.0523	0.0149	
Venus	111862-06-04 18:42 G	42577971.17	42577971.28	42577971.39	0.0515	0.0434	
Mercury	111867-12-06 09:06 G	42579981.77	42579981.88	42579981.99	0.0502	0.0392	
Mercury	111868-03-05 15:49 G	42580072.07	42580072.16	42580072.26	0.0505	0.0423	
Venus	111868-04-02 11:15 G	42580099.81	42580099.97	42580100.14	0.0506	0.0292	
Mercury	111873-08-11 13:10 G	42582056.92	42582057.05	42582057.18	0.0524	0.0012	
Venus	111874-02-07 13:39 G	42582236.88	42582237.07	42582237.27	0.0517	0.0165	
Mercury	111879-12-23 13:39 G	42584381.91	42584382.07	42584382.24	0.0505	0.0218	
Venus	111880-07-31 01:39 G	42584602.44	42584602.57	42584602.71	0.0513	0.0381	
Earth	111881-02-01 15:06 G	42584787.94	42584788.13	42584788.33	0.0520	0.0272	
Moon	111881-02-01 17:30 G	42584788.03	42584788.23	42584788.42	0.0520	0.0246	*

Mercury	111885-05-30 17:01 G	42586367.08	42586367.21	42586367.33	0.0525	0.0169
Mercury	111885-08-27 23:44 G	42586456.44	42586456.49	42586456.54	0.0521	0.0473
Venus	111885-10-13 06:56 G	42586502.59	42586502.79	42586502.99	0.0519	0.0117
Earth	111886-07-30 01:10 G	42586792.41	42586792.55	42586792.70	0.0508	0.0395
Moon	111886-07-30 05:15 G	42586792.56	42586792.72	42586792.89	0.0508	0.0361 *
Mercury	111891-10-11 11:58 G	42588691.82	42588692.00	42588692.17	0.0504	0.0022
Venus	111892-04-05 01:10 G	42588868.35	42588868.55	42588868.75	0.0510	0.0120
Moon	111893-02-06 10:18 G	42589175.70	42589175.93	42589176.17	0.0522	0.0105
Earth	111893-02-06 11:30 G	42589175.75	42589175.98	42589176.21	0.0522	0.0084 *
Mercury	111897-03-18 20:22 G	42590677.25	42590677.35	42590677.45	0.0525	0.0338
Mercury	111897-06-16 03:34 G	42590766.55	42590766.65	42590766.76	0.0522	0.0313
Venus	111897-06-17 23:01 G	42590768.34	42590768.46	42590768.60	0.0522	0.0402
Moon	111898-08-03 13:39 G	42591179.84	42591180.07	42591180.31	0.0506	0.0065
Earth	111898-08-03 17:30 G	42591180.00	42591180.23	42591180.47	0.0506	0.0069 *
Mercury	111903-07-31 10:03 G	42593001.76	42593001.92	42593002.09	0.0503	0.0180
Venus	111903-12-11 00:42 G	42593134.33	42593134.53	42593134.72	0.0508	0.0139
Earth	111905-02-12 05:58 G	42593563.63	42593563.75	42593563.88	0.0524	0.0438
Moon	111905-02-12 05:58 G	42593563.63	42593563.75	42593563.89	0.0524	0.0424 *
Mars	111906-08-08 17:44 G	42594106.17	42594106.24	42594106.31	0.0539	0.0513
Mercury	111909-01-05 23:30 G	42594987.46	42594987.48	42594987.50	0.0526	0.0520
Mercury	111909-04-05 06:56 G	42595076.67	42595076.79	42595076.92	0.0523	0.0142
Venus	111909-10-17 01:25 G	42595271.40	42595271.56	42595271.72	0.0516	0.0313
Earth	111910-08-09 07:25 G	42595567.61	42595567.81	42595568.02	0.0505	0.0252
Moon	111910-08-09 10:46 G	42595567.74	42595567.95	42595568.16	0.0505	0.0224 *
Mercury	111915-05-19 07:54 G	42597311.72	42597311.83	42597311.94	0.0502	0.0382
Venus	111915-08-15 23:30 G	42597400.36	42597400.48	42597400.61	0.0505	0.0394
Mercury	111915-08-17 14:37 G	42597402.02	42597402.11	42597402.20	0.0505	0.0433
Mercury	111921-01-22 11:01 G	42599386.83	42599386.96	42599387.09	0.0524	0.0021
Venus	111921-06-21 19:25 G	42599537.10	42599537.31	42599537.51	0.0518	0.0038
Mercury	111927-06-05 11:01 G	42601711.80	42601711.96	42601712.12	0.0504	0.0207

Venus	111927-12-13 10:32 G	42601902.77	42601902.94	42601903.11	0.0511	0.0263
Mercury	111932-11-10 15:20 G	42603697.01	42603697.14	42603697.26	0.0525	0.0174
Mercury	111933-02-07 22:03 G	42603786.37	42603786.42	42603786.48	0.0522	0.0469
Venus	111933-02-24 13:54 G	42603802.90	42603803.08	42603803.26	0.0521	0.0240
Mercury	111939-03-24 09:06 G	42606021.70	42606021.88	42606022.06	0.0504	0.0007
Venus	111939-08-18 09:49 G	42606168.71	42606168.91	42606169.11	0.0509	0.0007
Mercury	111944-08-29 18:56 G	42608007.19	42608007.29	42608007.39	0.0525	0.0338
Mercury	111944-11-27 02:08 G	42608096.49	42608096.59	42608096.70	0.0522	0.0314
Venus	111945-06-24 17:44 G	42608306.17	42608306.24	42608306.32	0.0514	0.0477
Mercury	111951-01-10 07:25 G	42610331.65	42610331.81	42610331.97	0.0503	0.0190
Venus	111951-04-23 10:03 G	42610434.75	42610434.92	42610435.10	0.0507	0.0251
Mercury	111956-06-17 22:32 G	42612317.41	42612317.44	42612317.47	0.0526	0.0508
Mercury	111956-09-15 05:58 G	42612406.63	42612406.75	42612406.88	0.0523	0.0153
Venus	111957-02-27 11:01 G	42612571.78	42612571.96	42612572.16	0.0517	0.0203
Mercury	111962-10-29 05:58 G	42614641.63	42614641.75	42614641.86	0.0502	0.0382
Venus	111962-12-27 10:18 G	42614700.92	42614700.93	42614700.96	0.0504	0.0502
Mercury	111963-01-27 12:27 G	42614731.94	42614732.02	42614732.12	0.0505	0.0434
Venus	111963-08-21 00:42 G	42614937.42	42614937.53	42614937.65	0.0513	0.0422
Moon	111964-02-02 16:03 G	42615103.01	42615103.17	42615103.34	0.0519	0.0341
Earth	111964-02-02 19:10 G	42615103.12	42615103.30	42615103.48	0.0519	0.0315 *
Mercury	111968-07-04 09:20 G	42616716.76	42616716.89	42616717.02	0.0524	0.0022
Venus	111968-11-02 02:37 G	42616837.41	42616837.61	42616837.81	0.0519	0.0085
Earth	111969-07-30 00:27 G	42617107.42	42617107.52	42617107.64	0.0509	0.0450
Moon	111969-07-30 00:42 G	42617107.43	42617107.53	42617107.64	0.0509	0.0449 *
Mercury	111974-11-15 10:03 G	42619041.76	42619041.92	42619042.08	0.0504	0.0222
Venus	111975-04-25 23:01 G	42619203.26	42619203.46	42619203.65	0.0510	0.0158
Earth	111976-02-07 12:13 G	42619490.78	42619491.01	42619491.24	0.0521	0.0029
Moon	111976-02-07 15:34 G	42619490.92	42619491.15	42619491.39	0.0521	0.0048 *
Mercury	111980-04-22 13:10 G	42621026.93	42621027.05	42621027.17	0.0525	0.0184
Venus	111980-07-07 19:39 G	42621103.18	42621103.32	42621103.47	0.0522	0.0368

Mercury	111980-07-20 20:08 G	42621116.28	42621116.34	42621116.40	0.0522	0.0459
Earth	111981-08-03 18:56 G	42621495.06	42621495.29	42621495.52	0.0507	0.0118
Moon	111981-08-03 19:39 G	42621495.08	42621495.32	42621495.56	0.0507	0.0087 *
Mercury	111986-09-03 06:42 G	42623351.60	42623351.78	42623351.95	0.0503	0.0011
Venus	111986-12-29 19:25 G	42623469.12	42623469.31	42623469.51	0.0508	0.0111
Moon	111988-02-11 23:58 G	42623878.36	42623878.50	42623878.65	0.0524	0.0402
Earth	111988-02-12 03:34 G	42623878.50	42623878.65	42623878.82	0.0524	0.0370 *
Mercury	111992-02-09 17:15 G	42625337.12	42625337.22	42625337.32	0.0526	0.0341
Mercury	111992-05-09 00:42 G	42625426.42	42625426.53	42625426.63	0.0523	0.0312
Venus	111992-11-05 01:54 G	42625606.44	42625606.58	42625606.73	0.0515	0.0363
Moon	111993-08-08 12:13 G	42625882.82	42625883.01	42625883.22	0.0505	0.0233
Earth	111993-08-08 13:54 G	42625882.87	42625883.08	42625883.30	0.0505	0.0216 *
Mercury	111998-06-22 04:46 G	42627661.54	42627661.70	42627661.86	0.0503	0.0198
Venus	111998-09-03 19:39 G	42627735.18	42627735.32	42627735.46	0.0505	0.0363

113TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 113th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	112003-11-28 21:06 G	42629647.35	42629647.38	42629647.42	0.0526	0.0506		
Mercury	112004-02-26 04:46 G	42629736.57	42629736.70	42629736.82	0.0523	0.0155		
Venus	112004-07-10 19:54 G	42629872.13	42629872.33	42629872.54	0.0518	0.0086		
Mercury	112010-04-10 03:20 G	42631971.53	42631971.64	42631971.75	0.0502	0.0390		

Mercury	112010-07-09 10:03 G	42632061.83	42632061.92	42632062.02	0.0505	0.0425
Venus	112011-01-01 10:18 G	42632237.77	42632237.93	42632238.09	0.0512	0.0308
Mercury	112015-12-15 08:37 G	42634046.73	42634046.86	42634046.99	0.0524	0.0012
Venus	112016-03-15 12:56 G	42634137.85	42634138.04	42634138.23	0.0520	0.0197
Mercury	112022-04-27 08:22 G	42636371.69	42636371.85	42636372.01	0.0504	0.0225
Venus	112022-09-06 09:49 G	42636503.71	42636503.91	42636504.12	0.0509	0.0050
Mercury	112027-10-03 11:44 G	42638356.87	42638356.99	42638357.12	0.0525	0.0183
Venus	112027-11-19 03:34 G	42638403.59	42638403.65	42638403.73	0.0523	0.0489
Mercury	112027-12-31 18:42 G	42638446.22	42638446.28	42638446.34	0.0521	0.0460
Venus	112028-07-13 14:22 G	42638641.10	42638641.10	42638641.12	0.0514	0.0513
Mercury	112034-02-13 05:58 G	42640681.57	42640681.75	42640681.93	0.0504	0.0019
Venus	112034-05-12 09:06 G	42640769.69	42640769.88	42640770.06	0.0507	0.0211
Mercury	112039-07-22 15:34 G	42642667.05	42642667.15	42642667.25	0.0526	0.0347
Mercury	112039-10-19 22:46 G	42642756.35	42642756.45	42642756.56	0.0523	0.0306
Venus	112040-03-18 09:06 G	42642906.70	42642906.88	42642907.06	0.0517	0.0242
Mars	112042-11-27 09:49 G	42643890.69	42643890.91	42643891.13	0.0488	0.0336
Mercury	112045-12-02 02:37 G	42644991.45	42644991.61	42644991.78	0.0503	0.0201
Venus	112046-01-15 05:58 G	42645035.69	42645035.75	42645035.83	0.0504	0.0471
Venus	112046-09-08 20:22 G	42645272.26	42645272.35	42645272.44	0.0513	0.0453
Moon	112047-02-01 15:06 G	42645417.98	42645418.13	42645418.29	0.0519	0.0391
Earth	112047-02-01 17:44 G	42645418.09	42645418.24	42645418.40	0.0519	0.0378 *
Mercury	112051-05-10 19:39 G	42646977.29	42646977.32	42646977.35	0.0527	0.0507
Mercury	112051-08-08 03:20 G	42647066.51	42647066.64	42647066.76	0.0524	0.0156
Venus	112051-11-22 04:18 G	42647172.48	42647172.68	42647172.89	0.0519	0.0033
Earth	112052-07-29 08:51 G	42647422.80	42647422.87	42647422.95	0.0509	0.0480
Mercury	112057-09-20 01:10 G	42649301.44	42649301.55	42649301.66	0.0502	0.0394
Mercury	112057-12-19 07:39 G	42649391.73	42649391.82	42649391.92	0.0505	0.0419
Venus	112058-05-14 19:39 G	42649538.14	42649538.32	42649538.51	0.0511	0.0193
Earth	112059-02-06 13:39 G	42649805.84	42649806.07	42649806.30	0.0521	0.0028
Moon	112059-02-06 15:06 G	42649805.91	42649806.13	42649806.35	0.0521	0.0058 *

Mars	112060-11-01 16:46 G	42650439.97	42650440.20	42650440.44	0.0540	0.0157
Mercury	112063-05-27 07:25 G	42651376.68	42651376.81	42651376.94	0.0524	0.0002
Venus	112063-07-27 21:49 G	42651438.25	42651438.41	42651438.57	0.0522	0.0316
Earth	112064-08-03 02:37 G	42651810.39	42651810.61	42651810.84	0.0507	0.0149
Moon	112064-08-03 06:42 G	42651810.56	42651810.78	42651811.00	0.0507	0.0164 *
Mercury	112069-10-07 05:58 G	42653701.59	42653701.75	42653701.91	0.0505	0.0219
Venus	112070-01-17 19:54 G	42653804.13	42653804.33	42653804.53	0.0508	0.0065
Moon	112071-02-11 11:15 G	42654193.79	42654193.97	42654194.16	0.0523	0.0331
Earth	112071-02-11 11:30 G	42654193.80	42654193.98	42654194.16	0.0523	0.0333 *
Mercury	112075-03-15 11:15 G	42655686.84	42655686.97	42655687.09	0.0525	0.0165
Mercury	112075-06-12 18:13 G	42655776.21	42655776.26	42655776.31	0.0521	0.0477
Venus	112075-11-25 01:54 G	42655941.46	42655941.58	42655941.71	0.0515	0.0408
Moon	112076-08-07 15:20 G	42656197.92	42656198.14	42656198.37	0.0505	0.0193
Earth	112076-08-07 19:10 G	42656198.08	42656198.30	42656198.52	0.0505	0.0176 *
Mercury	112081-07-26 04:18 G	42658011.50	42658011.68	42658011.86	0.0504	0.0024
Venus	112081-09-22 20:37 G	42658070.20	42658070.36	42658070.52	0.0506	0.0317
Mercury	112087-01-01 14:22 G	42659997.00	42659997.10	42659997.20	0.0526	0.0341
Mercury	112087-03-31 21:34 G	42660086.30	42660086.40	42660086.51	0.0522	0.0311
Venus	112087-07-30 17:58 G	42660207.05	42660207.25	42660207.45	0.0518	0.0126
Earth	112088-08-12 08:51 G	42660585.83	42660585.87	42660585.93	0.0503	0.0490
Mercury	112093-05-14 02:22 G	42662321.43	42662321.60	42662321.76	0.0503	0.0178
Venus	112094-01-20 10:03 G	42662572.78	42662572.92	42662573.07	0.0512	0.0353
Mercury	112098-10-20 17:58 G	42664307.22	42664307.25	42664307.29	0.0527	0.0508
Mercury	112099-01-18 01:39 G	42664396.45	42664396.57	42664396.70	0.0523	0.0154
Venus	112099-04-04 11:44 G	42664472.79	42664472.99	42664473.19	0.0520	0.0154
Mercury	112105-03-02 23:15 G	42666631.36	42666631.47	42666631.58	0.0502	0.0392
Mercury	112105-06-01 05:44 G	42666721.65	42666721.74	42666721.84	0.0505	0.0420
Venus	112105-09-26 06:13 G	42666838.56	42666838.76	42666838.96	0.0509	0.0082
Mercury	112110-11-07 05:58 G	42668706.62	42668706.75	42668706.88	0.0525	0.0003
Venus	112110-12-09 05:58 G	42668738.65	42668738.75	42668738.87	0.0523	0.0436

Mercury	112117-03-20 03:49 G	42671031.50	42671031.66	42671031.82	0.0504	0.0217
Venus	112117-06-01 06:13 G	42671104.58	42671104.76	42671104.96	0.0507	0.0175
Mercury	112122-08-26 10:03 G	42673016.80	42673016.92	42673017.05	0.0525	0.0158
Mercury	112122-11-23 17:01 G	42673106.17	42673106.21	42673106.26	0.0522	0.0485
Venus	112123-04-08 11:58 G	42673241.83	42673242.00	42673242.17	0.0516	0.0297
Mercury	112129-01-06 02:08 G	42675341.42	42675341.59	42675341.77	0.0504	0.0024
Venus	112129-02-04 06:56 G	42675370.69	42675370.79	42675370.91	0.0505	0.0426
Venus	112129-09-28 21:49 G	42675607.38	42675607.41	42675607.45	0.0514	0.0505
Earth	112130-02-02 02:51 G	42675733.48	42675733.62	42675733.76	0.0519	0.0408
Moon	112130-02-02 06:13 G	42675733.60	42675733.76	42675733.93	0.0519	0.0373 *
Mercury	112134-06-14 13:54 G	42677326.98	42677327.08	42677327.18	0.0526	0.0321
Mercury	112134-09-11 21:06 G	42677416.28	42677416.38	42677416.48	0.0522	0.0330
Venus	112134-12-12 05:44 G	42677507.53	42677507.74	42677507.94	0.0519	0.0020
Moon	112135-07-30 16:32 G	42677738.16	42677738.19	42677738.21	0.0510	0.0506
Mercury	112140-10-25 00:56 G	42679651.37	42679651.54	42679651.70	0.0503	0.0171
Venus	112141-06-03 21:34 G	42679873.23	42679873.40	42679873.58	0.0511	0.0245
Moon	112142-02-06 19:39 G	42680121.09	42680121.32	42680121.54	0.0521	0.0056
Earth	112142-02-06 23:01 G	42680121.24	42680121.46	42680121.69	0.0521	0.0058 *
Mercury	112146-04-02 17:01 G	42681637.17	42681637.21	42681637.25	0.0526	0.0498
Mercury	112146-07-01 00:42 G	42681726.41	42681726.53	42681726.65	0.0523	0.0162
Venus	112146-08-16 21:06 G	42681773.20	42681773.38	42681773.55	0.0521	0.0272
Moon	112147-08-04 05:58 G	42682125.54	42682125.75	42682125.96	0.0508	0.0217
Earth	112147-08-04 07:10 G	42682125.58	42682125.80	42682126.02	0.0508	0.0190 *
Mercury	112152-08-12 23:01 G	42683961.35	42683961.46	42683961.58	0.0502	0.0366
Mercury	112152-11-11 05:44 G	42684051.66	42684051.74	42684051.82	0.0505	0.0447
Venus	112153-02-06 20:37 G	42684139.16	42684139.36	42684139.57	0.0508	0.0019
Earth	112154-02-11 17:30 G	42684509.04	42684509.23	42684509.43	0.0523	0.0292
Moon	112154-02-11 21:20 G	42684509.19	42684509.39	42684509.59	0.0523	0.0261 *
Mercury	112158-04-19 04:32 G	42686036.56	42686036.69	42686036.83	0.0524	0.0018
Venus	112158-12-15 01:39 G	42686276.48	42686276.57	42686276.67	0.0515	0.0454

Earth	112159-08-09 01:25 G	42686513.34	42686513.56	42686513.79	0.0506	0.0140
Moon	112159-08-09 03:20 G	42686513.41	42686513.64	42686513.88	0.0506	0.0112 *
Mercury	112164-08-30 02:08 G	42688361.44	42688361.59	42688361.76	0.0504	0.0223
Venus	112164-10-12 17:44 G	42688405.08	42688405.24	42688405.41	0.0506	0.0282
Mercury	112170-02-05 08:51 G	42690346.74	42690346.87	42690346.99	0.0525	0.0154
Mercury	112170-05-05 15:49 G	42690436.12	42690436.16	42690436.20	0.0522	0.0490
Venus	112170-08-19 21:06 G	42690542.19	42690542.38	42690542.57	0.0518	0.0182
Moon	112171-08-13 17:58 G	42690901.18	42690901.25	42690901.33	0.0504	0.0475
Earth	112171-08-13 20:37 G	42690901.28	42690901.36	42690901.45	0.0504	0.0469 *
Mercury	112176-06-18 00:27 G	42692671.34	42692671.52	42692671.70	0.0503	0.0023
Venus	112177-02-09 07:54 G	42692907.71	42692907.83	42692907.97	0.0512	0.0392
Mercury	112181-11-24 12:56 G	42694656.93	42694657.04	42694657.14	0.0526	0.0313
Mercury	112182-02-21 20:08 G	42694746.24	42694746.34	42694746.44	0.0523	0.0339
Venus	112182-04-24 15:20 G	42694807.94	42694808.14	42694808.35	0.0520	0.0098
Mercury	112188-04-05 23:01 G	42696981.29	42696981.46	42696981.62	0.0503	0.0170
Venus	112188-10-15 08:08 G	42697173.65	42697173.84	42697174.04	0.0510	0.0133
Mercury	112193-09-12 16:32 G	42698967.14	42698967.19	42698967.25	0.0527	0.0478
Mercury	112193-12-11 00:13 G	42699056.39	42699056.51	42699056.63	0.0523	0.0183
Venus	112193-12-28 08:37 G	42699073.72	42699073.86	42699074.00	0.0523	0.0382
Mars	112197-02-21 20:22 G	42700225.05	42700225.35	42700225.64	0.0488	0.0103
Mercury	112200-01-23 21:34 G	42701291.29	42701291.40	42701291.53	0.0502	0.0358
Mercury	112200-04-24 04:18 G	42701381.61	42701381.68	42701381.76	0.0505	0.0456
Venus	112200-06-21 08:51 G	42701439.67	42701439.87	42701440.06	0.0507	0.0123
Mercury	112205-09-30 03:49 G	42703366.53	42703366.66	42703366.79	0.0524	0.0018
Venus	112206-04-28 11:58 G	42703576.85	42703577.00	42703577.15	0.0516	0.0343
Mercury	112212-02-11 02:08 G	42705691.44	42705691.59	42705691.75	0.0504	0.0251
Venus	112212-02-25 08:22 G	42705705.72	42705705.85	42705705.99	0.0505	0.0377
Earth	112213-02-02 11:01 G	42706048.84	42706048.96	42706049.08	0.0518	0.0439
Moon	112213-02-02 12:42 G	42706048.91	42706049.03	42706049.15	0.0518	0.0434 *
Mars	112215-01-29 02:22 G	42706774.38	42706774.60	42706774.82	0.0540	0.0257

Mercury	112217-07-19 07:39 G	42707676.69	42707676.82	42707676.94	0.0525	0.0148
Mercury	112217-10-16 14:37 G	42707766.07	42707766.11	42707766.15	0.0522	0.0495
Venus	112218-01-01 05:58 G	42707842.54	42707842.75	42707842.95	0.0519	0.0066
Mercury	112223-11-29 23:01 G	42710001.28	42710001.46	42710001.64	0.0503	0.0031
Venus	112224-06-23 19:25 G	42710208.15	42710208.31	42710208.48	0.0511	0.0282
Moon	112225-02-06 23:01 G	42710436.23	42710436.46	42710436.70	0.0520	0.0080
Earth	112225-02-07 00:27 G	42710436.30	42710436.52	42710436.75	0.0520	0.0111 *
Mercury	112229-05-07 11:30 G	42711986.88	42711986.98	42711987.09	0.0526	0.0309
Mercury	112229-08-04 18:56 G	42712076.19	42712076.29	42712076.39	0.0523	0.0344
Venus	112229-09-06 00:13 G	42712108.32	42712108.51	42712108.69	0.0522	0.0216
Moon	112230-08-04 15:20 G	42712440.92	42712441.14	42712441.37	0.0508	0.0185
Earth	112230-08-04 19:10 G	42712441.08	42712441.30	42712441.51	0.0508	0.0210 *
Mercury	112235-09-17 21:20 G	42714311.22	42714311.39	42714311.56	0.0502	0.0164
Venus	112236-02-27 19:10 G	42714474.09	42714474.30	42714474.50	0.0508	0.0024
Earth	112237-02-11 20:37 G	42714824.16	42714824.36	42714824.56	0.0522	0.0241
Moon	112237-02-11 20:51 G	42714824.18	42714824.37	42714824.57	0.0522	0.0260 *
Mercury	112241-02-23 15:34 G	42716297.09	42716297.15	42716297.21	0.0527	0.0470
Venus	112241-05-11 17:58 G	42716374.19	42716374.25	42716374.31	0.0524	0.0500
Mercury	112241-05-23 23:15 G	42716386.35	42716386.47	42716386.59	0.0524	0.0192
Venus	112242-01-04 05:30 G	42716611.71	42716611.73	42716611.76	0.0515	0.0510
Earth	112242-08-09 13:10 G	42716828.82	42716829.05	42716829.28	0.0506	0.0121
Moon	112242-08-09 16:32 G	42716828.96	42716829.19	42716829.41	0.0506	0.0111 *
Mercury	112247-07-06 19:54 G	42718621.21	42718621.33	42718621.46	0.0502	0.0355
Mercury	112247-10-05 02:22 G	42718711.53	42718711.60	42718711.68	0.0505	0.0457
Venus	112247-11-02 19:39 G	42718740.15	42718740.32	42718740.50	0.0506	0.0233
Mercury	112253-03-12 03:20 G	42720696.51	42720696.64	42720696.77	0.0524	0.0037
Venus	112253-09-08 23:44 G	42720877.31	42720877.49	42720877.67	0.0517	0.0237
Moon	112254-08-14 02:51 G	42721216.49	42721216.62	42721216.77	0.0504	0.0409
Earth	112254-08-14 05:44 G	42721216.64	42721216.74	42721216.86	0.0504	0.0442 *
Venus	112259-07-08 20:51 G	42723006.31	42723006.37	42723006.43	0.0504	0.0480

Mercury	112259-07-24 00:42 G	42723021.39	42723021.53	42723021.69	0.0504	0.0261
Venus	112260-03-01 11:01 G	42723242.87	42723242.96	42723243.06	0.0513	0.0447
Mercury	112264-12-29 06:42 G	42725006.65	42725006.78	42725006.91	0.0525	0.0136
Mercury	112265-03-28 13:39 G	42725096.04	42725096.07	42725096.10	0.0522	0.0506
Venus	112265-05-14 16:03 G	42725142.97	42725143.17	42725143.37	0.0520	0.0049
Mercury	112271-05-11 23:01 G	42727331.28	42727331.46	42727331.64	0.0503	0.0060
Venus	112271-11-05 10:03 G	42727508.74	42727508.92	42727509.11	0.0510	0.0185
Mercury	112276-10-17 10:32 G	42729316.83	42729316.94	42729317.04	0.0526	0.0301
Mercury	112277-01-14 17:44 G	42729406.15	42729406.24	42729406.34	0.0523	0.0351
Venus	112277-01-17 09:06 G	42729408.72	42729408.88	42729409.04	0.0523	0.0334
Mercury	112283-02-27 20:08 G	42731641.17	42731641.34	42731641.51	0.0502	0.0155
Venus	112283-07-11 07:10 G	42731774.60	42731774.80	42731775.00	0.0507	0.0084
Mercury	112288-08-05 14:08 G	42733627.04	42733627.09	42733627.15	0.0527	0.0468
Mercury	112288-11-02 22:03 G	42733716.30	42733716.42	42733716.54	0.0524	0.0196
Venus	112289-05-17 15:06 G	42733912.00	42733912.13	42733912.26	0.0516	0.0399
Mercury	112294-12-16 18:27 G	42735951.15	42735951.27	42735951.40	0.0501	0.0348
Venus	112295-03-16 07:25 G	42736040.66	42736040.81	42736040.96	0.0505	0.0338
Mercury	112295-03-17 00:56 G	42736041.47	42736041.54	42736041.61	0.0505	0.0462
Earth	112296-02-02 14:22 G	42736364.03	42736364.10	42736364.19	0.0517	0.0484
Mercury	112300-08-23 02:08 G	42738026.46	42738026.59	42738026.72	0.0525	0.0042
Venus	112301-01-21 09:34 G	42738177.70	42738177.90	42738178.10	0.0519	0.0122
Mercury	112307-01-03 23:01 G	42740351.31	42740351.46	42740351.62	0.0504	0.0262
Venus	112307-07-14 21:34 G	42740543.25	42740543.40	42740543.55	0.0511	0.0334
Earth	112308-02-08 10:46 G	42740751.73	42740751.95	42740752.18	0.0520	0.0136
Moon	112308-02-08 14:51 G	42740751.90	42740752.12	42740752.34	0.0520	0.0149 *
Mercury	112312-06-11 06:13 G	42742336.63	42742336.76	42742336.89	0.0525	0.0118
Venus	112312-09-26 03:20 G	42742443.44	42742443.64	42742443.83	0.0521	0.0160
Earth	112313-08-05 04:32 G	42742756.48	42742756.69	42742756.90	0.0509	0.0235
Moon	112313-08-05 06:42 G	42742756.56	42742756.78	42742757.00	0.0509	0.0214 *
Mercury	112318-10-22 21:34 G	42744661.22	42744661.40	42744661.58	0.0503	0.0067

Venus	112319-03-19 21:49 G	42744809.21	42744809.41	42744809.61	0.0509	0.0076
Moon	112320-02-13 04:03 G	42745139.47	42745139.67	42745139.88	0.0522	0.0239
Earth	112320-02-13 07:54 G	42745139.63	42745139.83	42745140.05	0.0522	0.0218 *
Mercury	112324-03-30 09:34 G	42746646.79	42746646.90	42746647.01	0.0526	0.0289
Venus	112324-05-31 18:56 G	42746709.19	42746709.29	42746709.39	0.0524	0.0451
Mercury	112324-06-27 16:46 G	42746736.11	42746736.20	42746736.30	0.0523	0.0363
Moon	112325-08-09 17:30 G	42747144.01	42747144.23	42747144.45	0.0507	0.0119
Earth	112325-08-09 20:08 G	42747144.11	42747144.34	42747144.57	0.0507	0.0086 *
Mercury	112330-08-10 19:54 G	42748971.16	42748971.33	42748971.50	0.0503	0.0129
Venus	112330-11-22 21:49 G	42749075.22	42749075.41	42749075.60	0.0506	0.0181
Mercury	112336-01-17 13:10 G	42750956.99	42750957.05	42750957.12	0.0527	0.0457
Mercury	112336-04-15 20:51 G	42751046.25	42751046.37	42751046.49	0.0524	0.0204
Venus	112336-09-29 00:13 G	42751212.34	42751212.51	42751212.68	0.0517	0.0286
Earth	112337-08-14 13:39 G	42751531.93	42751532.07	42751532.21	0.0505	0.0410
Moon	112337-08-14 16:46 G	42751532.07	42751532.20	42751532.34	0.0505	0.0417 *
Mercury	112342-05-29 17:15 G	42753281.09	42753281.22	42753281.35	0.0501	0.0337
Venus	112342-07-28 19:54 G	42753341.23	42753341.33	42753341.42	0.0503	0.0441
Mercury	112342-08-27 23:44 G	42753371.43	42753371.49	42753371.55	0.0504	0.0472
Venus	112343-03-22 09:20 G	42753577.83	42753577.89	42753577.95	0.0512	0.0485
Mercury	112348-02-03 00:42 G	42755356.40	42755356.53	42755356.66	0.0525	0.0046
Venus	112348-06-03 18:13 G	42755478.06	42755478.26	42755478.47	0.0520	0.0007
Mercury	112354-06-15 21:34 G	42757681.25	42757681.40	42757681.55	0.0504	0.0268
Venus	112354-11-25 08:37 G	42757843.68	42757843.86	42757844.04	0.0510	0.0224
Mercury	112359-11-22 05:01 G	42759666.58	42759666.71	42759666.83	0.0526	0.0115
Venus	112360-02-07 11:58 G	42759743.83	42759744.00	42759744.18	0.0523	0.0281
Mercury	112366-04-03 19:39 G	42761991.15	42761991.32	42761991.50	0.0503	0.0069
Venus	112366-07-31 08:37 G	42762109.66	42762109.86	42762110.06	0.0508	0.0036
Mercury	112371-09-10 08:51 G	42763976.76	42763976.87	42763976.98	0.0526	0.0274
Mercury	112371-12-08 16:03 G	42764066.09	42764066.17	42764066.26	0.0523	0.0378
Venus	112372-06-06 17:30 G	42764247.14	42764247.23	42764247.33	0.0515	0.0452

Mercury	112378-01-20 18:13 G	42766301.09	42766301.26	42766301.44	0.0503	0.0124
Venus	112378-04-05 09:20 G	42766375.72	42766375.89	42766376.06	0.0505	0.0289
Moon	112379-02-03 00:27 G	42766679.46	42766679.52	42766679.58	0.0517	0.0497
Earth	112379-02-03 01:39 G	42766679.52	42766679.57	42766679.61	0.0517	0.0505 *
Mercury	112383-06-29 12:13 G	42768286.94	42768287.01	42768287.08	0.0527	0.0447
Mercury	112383-09-26 19:54 G	42768376.21	42768376.33	42768376.45	0.0523	0.0214
Venus	112384-02-10 10:03 G	42768512.73	42768512.92	42768513.12	0.0518	0.0171
Mercury	112389-11-08 16:46 G	42770611.07	42770611.20	42770611.34	0.0502	0.0316
Mercury	112390-02-06 23:15 G	42770701.44	42770701.47	42770701.50	0.0505	0.0496
Venus	112390-08-02 23:15 G	42770878.34	42770878.47	42770878.60	0.0512	0.0386
Earth	112391-02-07 19:39 G	42771067.10	42771067.32	42771067.54	0.0519	0.0166
Moon	112391-02-07 20:08 G	42771067.13	42771067.34	42771067.55	0.0519	0.0195 *
Mercury	112395-07-15 23:44 G	42772686.36	42772686.49	42772686.62	0.0525	0.0052
Venus	112395-10-16 03:20 G	42772778.44	42772778.64	42772778.84	0.0521	0.0113
Earth	112396-08-04 10:32 G	42773071.74	42773071.94	42773072.14	0.0509	0.0271
Moon	112396-08-04 13:39 G	42773071.89	42773072.07	42773072.26	0.0509	0.0301 *
Mercury	112401-11-25 20:22 G	42775011.20	42775011.35	42775011.50	0.0503	0.0277
Venus	112402-04-07 20:22 G	42775144.15	42775144.35	42775144.55	0.0508	0.0115
Moon	112403-02-12 09:34 G	42775454.67	42775454.90	42775455.14	0.0521	0.0137
Earth	112403-02-12 09:34 G	42775454.68	42775454.90	42775455.12	0.0521	0.0167 *
Mercury	112407-05-04 03:20 G	42776996.52	42776996.64	42776996.77	0.0526	0.0116
Venus	112407-06-20 19:39 G	42777044.20	42777044.32	42777044.45	0.0524	0.0406
Moon	112408-08-09 02:51 G	42777459.38	42777459.62	42777459.86	0.0508	0.0062
Earth	112408-08-09 05:44 G	42777459.50	42777459.74	42777459.97	0.0508	0.0063 *
Mercury	112413-09-13 18:13 G	42779321.09	42779321.26	42779321.44	0.0503	0.0076
Venus	112413-12-11 20:08 G	42779410.15	42779410.34	42779410.54	0.0506	0.0144
Moon	112415-02-17 04:18 G	42779842.67	42779842.68	42779842.69	0.0523	0.0522
Earth	112415-02-17 05:01 G	42779842.68	42779842.71	42779842.75	0.0523	0.0514 *
Mercury	112419-02-20 07:25 G	42781306.70	42781306.81	42781306.92	0.0527	0.0275
Mercury	112419-05-20 14:51 G	42781396.03	42781396.12	42781396.21	0.0523	0.0379

Venus	112419-10-19 02:22 G	42781547.44	42781547.60	42781547.75	0.0517	0.0335
Earth	112420-08-13 23:01 G	42781847.32	42781847.46	42781847.62	0.0505	0.0388
Moon	112420-08-14 01:10 G	42781847.44	42781847.55	42781847.69	0.0505	0.0421 *
Mercury	112425-07-02 16:32 G	42783631.01	42783631.19	42783631.36	0.0502	0.0125
Venus	112425-08-16 20:08 G	42783676.22	42783676.34	42783676.47	0.0504	0.0398
Mercury	112430-12-09 11:15 G	42785616.90	42785616.97	42785617.05	0.0527	0.0437
Mercury	112431-03-08 18:56 G	42785706.18	42785706.29	42785706.41	0.0524	0.0226
Venus	112431-06-23 20:37 G	42785813.15	42785813.36	42785813.56	0.0520	0.0058
Mercury	112437-04-20 15:06 G	42787940.99	42787941.13	42787941.27	0.0502	0.0313
Mercury	112437-07-19 21:20 G	42788031.37	42788031.39	42788031.43	0.0505	0.0498
Venus	112437-12-14 10:03 G	42788178.76	42788178.92	42788179.10	0.0510	0.0275
Mercury	112442-12-25 22:46 G	42790016.32	42790016.45	42790016.58	0.0524	0.0061
Venus	112443-02-26 12:13 G	42790078.84	42790079.01	42790079.20	0.0522	0.0234
Mercury	112449-05-07 19:25 G	42792341.17	42792341.31	42792341.46	0.0504	0.0295
Venus	112449-08-19 09:49 G	42792444.70	42792444.91	42792445.11	0.0508	0.0015
Mercury	112454-10-14 02:22 G	42794326.47	42794326.60	42794326.73	0.0525	0.0106
Venus	112454-11-01 04:32 G	42794344.69	42794344.69	42794344.71	0.0525	0.0524
Venus	112455-06-26 16:46 G	42794582.15	42794582.20	42794582.26	0.0515	0.0497
Mercury	112461-02-23 16:46 G	42796651.03	42796651.20	42796651.38	0.0503	0.0084
Venus	112461-04-24 08:08 G	42796710.67	42796710.84	42796711.02	0.0505	0.0251
Mercury	112466-08-02 05:44 G	42798636.63	42798636.74	42798636.85	0.0527	0.0279
Mercury	112466-10-30 13:10 G	42798725.96	42798726.05	42798726.14	0.0524	0.0376
Venus	112467-03-01 10:03 G	42798847.73	42798847.92	42798848.11	0.0519	0.0215
Mars	112469-11-07 23:44 G	42799830.25	42799830.49	42799830.75	0.0488	0.0275
Mercury	112472-12-12 14:51 G	42800960.95	42800961.12	42800961.30	0.0502	0.0117
Venus	112472-12-28 08:22 G	42800976.84	42800976.85	42800976.85	0.0502	0.0502
Venus	112473-08-21 20:51 G	42801213.26	42801213.37	42801213.49	0.0511	0.0421
Moon	112474-02-06 17:15 G	42801382.01	42801382.22	42801382.43	0.0518	0.0192
Earth	112474-02-06 21:06 G	42801382.17	42801382.38	42801382.59	0.0518	0.0216 *
Mercury	112478-05-21 09:34 G	42802946.83	42802946.90	42802946.97	0.0528	0.0442

Mercury	112478-08-18 17:15 G	42803036.11	42803036.22	42803036.34	0.0524	0.0222
Venus	112478-11-04 04:03 G	42803113.46	42803113.67	42803113.87	0.0521	0.0069
Moon	112479-08-04 15:34 G	42803386.97	42803387.15	42803387.34	0.0510	0.0305
Earth	112479-08-04 17:44 G	42803387.05	42803387.24	42803387.43	0.0510	0.0299 *
Mercury	112484-09-30 12:56 G	42805270.91	42805271.04	42805271.18	0.0501	0.0316
Mercury	112484-12-29 19:25 G	42805361.27	42805361.31	42805361.34	0.0504	0.0493
Venus	112485-04-26 20:08 G	42805479.15	42805479.34	42805479.53	0.0509	0.0158
Earth	112486-02-11 16:03 G	42805769.95	42805770.17	42805770.39	0.0521	0.0129
Moon	112486-02-11 20:08 G	42805770.11	42805770.34	42805770.56	0.0521	0.0117 *
Mars	112487-10-15 18:56 G	42806381.08	42806381.29	42806381.51	0.0540	0.0265
Mercury	112490-06-06 21:34 G	42807346.27	42807346.40	42807346.53	0.0525	0.0066
Venus	112490-07-09 21:20 G	42807379.25	42807379.39	42807379.55	0.0524	0.0355
Earth	112491-08-09 12:27 G	42807774.78	42807775.02	42807775.25	0.0508	0.0032
Moon	112491-08-09 15:34 G	42807774.91	42807775.15	42807775.39	0.0508	0.0001 *
Mercury	112496-10-17 17:30 G	42809671.08	42809671.23	42809671.37	0.0504	0.0293
Venus	112496-12-30 20:22 G	42809745.15	42809745.35	42809745.55	0.0507	0.0099
Moon	112498-02-16 09:20 G	42810157.77	42810157.89	42810158.01	0.0523	0.0446
Earth	112498-02-16 13:10 G	42810157.97	42810158.05	42810158.14	0.0523	0.0482 *
Mercury	112502-03-27 01:10 G	42811656.42	42811656.55	42811656.67	0.0525	0.0103
Venus	112502-11-08 01:39 G	42811882.44	42811882.57	42811882.71	0.0517	0.0380
Moon	112503-08-14 23:58 G	42812162.33	42812162.50	42812162.68	0.0506	0.0328
Earth	112503-08-15 03:34 G	42812162.48	42812162.65	42812162.82	0.0506	0.0347 *
Mercury	112508-08-06 15:34 G	42813980.98	42813981.15	42813981.33	0.0503	0.0094
Venus	112508-09-05 20:37 G	42814011.22	42814011.36	42814011.51	0.0504	0.0353
Mercury	112514-01-13 04:32 G	42815966.58	42815966.69	42815966.81	0.0526	0.0271
Mercury	112514-04-12 11:58 G	42816055.92	42816056.00	42816056.09	0.0523	0.0382
Venus	112514-07-13 18:42 G	42816148.08	42816148.28	42816148.49	0.0519	0.0099
Mercury	112520-05-25 13:25 G	42818290.89	42818291.06	42818291.23	0.0502	0.0112
Venus	112521-01-03 08:08 G	42818513.69	42818513.84	42818514.01	0.0510	0.0310
Mercury	112525-11-01 07:39 G	42820276.76	42820276.82	42820276.89	0.0528	0.0450

Mercury	112526-01-29 15:34 G	42820366.03	42820366.15	42820366.27	0.0525	0.0215
Venus	112526-03-18 10:32 G	42820413.75	42820413.94	42820414.13	0.0523	0.0197
Mercury	112532-03-13 11:30 G	42822600.84	42822600.98	42822601.12	0.0501	0.0309
Mercury	112532-06-11 17:30 G	42822691.21	42822691.23	42822691.27	0.0504	0.0497
Venus	112532-09-08 07:10 G	42822779.60	42822779.80	42822780.00	0.0507	0.0047
Mercury	112537-11-17 19:39 G	42824676.19	42824676.32	42824676.45	0.0525	0.0057
Venus	112537-11-21 03:20 G	42824679.58	42824679.64	42824679.72	0.0525	0.0486
Mercury	112544-03-30 15:06 G	42827000.99	42827001.13	42827001.28	0.0503	0.0286
Venus	112544-05-14 06:27 G	42827045.58	42827045.77	42827045.95	0.0505	0.0213
Mercury	112549-09-05 23:44 G	42828986.36	42828986.49	42828986.62	0.0526	0.0101
Venus	112550-03-21 10:32 G	42829182.76	42829182.94	42829183.12	0.0518	0.0262
Mercury	112556-01-17 13:25 G	42831310.88	42831311.06	42831311.23	0.0503	0.0088
Venus	112556-01-18 06:56 G	42831311.72	42831311.79	42831311.87	0.0503	0.0464
Venus	112556-09-10 20:22 G	42831548.27	42831548.35	42831548.44	0.0512	0.0465
Moon	112557-02-07 03:06 G	42831697.42	42831697.63	42831697.84	0.0518	0.0237
Earth	112557-02-07 03:20 G	42831697.44	42831697.64	42831697.84	0.0518	0.0253 *
Mercury	112561-06-25 03:20 G	42833296.52	42833296.64	42833296.75	0.0526	0.0271
Mercury	112561-09-22 10:46 G	42833385.86	42833385.95	42833386.03	0.0523	0.0382
Venus	112561-11-24 02:51 G	42833448.42	42833448.62	42833448.83	0.0521	0.0026
Moon	112562-08-04 16:46 G	42833702.02	42833702.20	42833702.40	0.0510	0.0315
Earth	112562-08-04 20:22 G	42833702.18	42833702.35	42833702.52	0.0510	0.0345 *
Mercury	112567-11-05 11:44 G	42835620.81	42835620.99	42835621.16	0.0502	0.0108
Venus	112568-05-16 19:54 G	42835814.14	42835814.33	42835814.52	0.0509	0.0203
Moon	112569-02-11 21:06 G	42836085.16	42836085.38	42836085.60	0.0520	0.0121
Earth	112569-02-11 21:34 G	42836085.18	42836085.40	42836085.63	0.0520	0.0089 *
Mercury	112573-04-13 06:42 G	42837606.71	42837606.78	42837606.85	0.0527	0.0442
Mercury	112573-07-11 14:22 G	42837695.98	42837696.10	42837696.22	0.0524	0.0220
Venus	112573-07-29 18:42 G	42837714.13	42837714.28	42837714.45	0.0523	0.0318
Earth	112574-08-09 13:54 G	42838089.85	42838090.08	42838090.32	0.0509	0.0020
Moon	112574-08-09 16:32 G	42838089.96	42838090.19	42838090.42	0.0509	0.0003 *

Mercury	112579-08-24 09:49 G	42839930.77	42839930.91	42839931.05	0.0501	0.0307
Mercury	112579-11-22 15:49 G	42840021.14	42840021.16	42840021.19	0.0504	0.0498
Venus	112580-01-20 18:27 G	42840080.07	42840080.27	42840080.47	0.0506	0.0063
Earth	112581-02-16 12:56 G	42840472.91	42840473.04	42840473.18	0.0521	0.0425
Moon	112581-02-16 13:54 G	42840472.96	42840473.08	42840473.22	0.0521	0.0434 *
Mercury	112585-04-29 17:44 G	42842006.11	42842006.24	42842006.37	0.0525	0.0048
Venus	112585-11-26 22:46 G	42842217.33	42842217.45	42842217.57	0.0517	0.0415
Moon	112586-08-14 04:03 G	42842477.48	42842477.67	42842477.88	0.0507	0.0284
Earth	112586-08-14 06:13 G	42842477.58	42842477.76	42842477.95	0.0507	0.0306 *
Mercury	112591-09-10 13:25 G	42844330.92	42844331.06	42844331.21	0.0503	0.0290
Venus	112591-09-25 17:58 G	42844346.09	42844346.25	42844346.41	0.0504	0.0320
Mercury	112597-02-15 21:34 G	42846316.27	42846316.40	42846316.53	0.0526	0.0114
Venus	112597-08-01 16:32 G	42846482.99	42846483.19	42846483.39	0.0520	0.0133
Mercury	112603-06-30 10:46 G	42848640.77	42848640.95	42848641.13	0.0503	0.0079
Venus	112604-01-24 05:15 G	42848848.58	42848848.72	42848848.88	0.0510	0.0347
Mercury	112608-12-06 01:39 G	42850626.46	42850626.57	42850626.68	0.0527	0.0274
Mercury	112609-03-05 09:06 G	42850715.79	42850715.88	42850715.97	0.0523	0.0381
Venus	112609-04-07 10:18 G	42850748.74	42850748.93	42850749.13	0.0522	0.0151
Mercury	112615-04-18 09:06 G	42852950.71	42852950.88	42852951.05	0.0502	0.0117
Venus	112615-09-29 05:15 G	42853114.52	42853114.72	42853114.92	0.0508	0.0086
Mercury	112620-09-24 05:01 G	42854936.64	42854936.71	42854936.78	0.0527	0.0445
Venus	112620-12-11 02:08 G	42855014.49	42855014.59	42855014.70	0.0524	0.0444
Mercury	112620-12-22 12:42 G	42855025.92	42855026.03	42855026.15	0.0524	0.0219
Mars	112624-02-03 11:44 G	42856163.69	42856163.99	42856164.29	0.0488	0.0062
Mercury	112627-02-04 07:39 G	42857260.68	42857260.82	42857260.96	0.0501	0.0309
Mercury	112627-05-05 13:39 G	42857351.05	42857351.07	42857351.10	0.0504	0.0499
Venus	112627-06-04 05:15 G	42857380.54	42857380.72	42857380.92	0.0505	0.0173
Mercury	112632-10-10 16:32 G	42859336.06	42859336.19	42859336.32	0.0525	0.0054
Venus	112633-04-10 07:10 G	42859517.63	42859517.80	42859517.97	0.0518	0.0298
Venus	112639-02-07 05:01 G	42861646.61	42861646.71	42861646.82	0.0503	0.0429

Mercury	112639-02-21 11:29 G	42861660.83	42861660.98	42861661.13	0.0503	0.0289
Venus	112639-10-01 17:44 G	42861883.21	42861883.24	42861883.29	0.0511	0.0499
Earth	112640-02-08 04:03 G	42862012.48	42862012.67	42862012.86	0.0516	0.0301
Moon	112640-02-08 07:39 G	42862012.65	42862012.82	42862013.00	0.0516	0.0332 *
Mars	112642-01-10 06:27 G	42862714.52	42862714.77	42862715.02	0.0539	0.0022
Mercury	112644-07-29 19:39 G	42863646.19	42863646.32	42863646.44	0.0526	0.0126
Mercury	112644-10-27 02:51 G	42863735.61	42863735.62	42863735.63	0.0523	0.0521
Venus	112644-12-13 22:17 G	42863783.23	42863783.43	42863783.64	0.0521	0.0012
Earth	112645-08-04 19:25 G	42864017.17	42864017.31	42864017.47	0.0512	0.0397
Moon	112645-08-04 20:51 G	42864017.24	42864017.37	42864017.52	0.0512	0.0413 *
Mercury	112650-12-10 09:05 G	42865970.71	42865970.88	42865971.06	0.0502	0.0083
Venus	112651-06-06 16:17 G	42866149.00	42866149.18	42866149.36	0.0509	0.0234
Moon	112652-02-12 16:17 G	42866399.95	42866400.18	42866400.41	0.0519	0.0024
Earth	112652-02-12 20:08 G	42866400.11	42866400.34	42866400.57	0.0519	0.0031 *
Mercury	112656-05-17 23:15 G	42867956.36	42867956.47	42867956.58	0.0527	0.0290
Mercury	112656-08-15 06:56 G	42868045.70	42868045.79	42868045.88	0.0524	0.0366
Venus	112656-08-18 15:05 G	42868048.96	42868049.13	42868049.30	0.0524	0.0286
Moon	112657-08-09 12:13 G	42868404.78	42868405.01	42868405.24	0.0509	0.0045
Earth	112657-08-09 14:37 G	42868404.88	42868405.11	42868405.34	0.0509	0.0065 *
Mercury	112662-09-28 06:27 G	42870280.60	42870280.77	42870280.94	0.0502	0.0128
Venus	112663-02-09 14:22 G	42870414.89	42870415.10	42870415.30	0.0506	0.0033
Earth	112664-02-17 12:56 G	42870787.88	42870788.04	42870788.21	0.0521	0.0367
Moon	112664-02-17 16:46 G	42870788.06	42870788.20	42870788.35	0.0521	0.0400 *
Mercury	112668-03-06 03:05 G	42872266.57	42872266.63	42872266.70	0.0528	0.0452
Mercury	112668-06-03 11:15 G	42872355.85	42872355.97	42872356.09	0.0524	0.0214
Venus	112668-12-16 21:49 G	42872552.32	42872552.41	42872552.50	0.0517	0.0457
Earth	112669-08-14 09:20 G	42872792.69	42872792.89	42872793.09	0.0507	0.0262
Moon	112669-08-14 12:41 G	42872792.84	42872793.03	42872793.23	0.0507	0.0290 *
Mercury	112674-07-17 05:01 G	42874590.57	42874590.71	42874590.84	0.0501	0.0320
Mercury	112674-10-15 11:01 G	42874680.92	42874680.96	42874681.01	0.0504	0.0485

Venus	112674-10-15 14:37 G	42874680.95	42874681.11	42874681.28	0.0504	0.0287	*
Mercury	112680-03-22 14:51 G	42876665.99	42876666.12	42876666.25	0.0525	0.0049	
Venus	112680-08-21 14:22 G	42876817.91	42876818.10	42876818.30	0.0519	0.0174	
Mercury	112686-08-03 09:05 G	42878990.73	42878990.88	42878991.03	0.0503	0.0283	
Venus	112687-02-12 03:49 G	42879183.54	42879183.66	42879183.80	0.0511	0.0388	
Mercury	112692-01-09 18:27 G	42880976.14	42880976.27	42880976.40	0.0526	0.0120	
Venus	112692-04-26 06:41 G	42881083.58	42881083.78	42881083.98	0.0522	0.0116	
Mercury	112698-05-22 07:10 G	42883300.62	42883300.80	42883300.97	0.0502	0.0081	
Venus	112698-10-18 02:51 G	42883449.42	42883449.62	42883449.82	0.0508	0.0121	
Mercury	112703-10-29 21:20 G	42885286.28	42885286.39	42885286.50	0.0527	0.0302	
Venus	112703-12-31 20:37 G	42885349.24	42885349.36	42885349.48	0.0525	0.0418	
Mercury	112704-01-27 05:01 G	42885375.61	42885375.71	42885375.80	0.0524	0.0355	
Mercury	112710-03-11 04:46 G	42887610.53	42887610.70	42887610.88	0.0501	0.0123	
Venus	112710-06-24 01:53 G	42887715.38	42887715.58	42887715.77	0.0505	0.0140	
Mercury	112715-08-18 00:56 G	42889596.48	42889596.54	42889596.60	0.0528	0.0470	
Mercury	112715-11-15 08:51 G	42889685.75	42889685.87	42889685.99	0.0525	0.0196	
Venus	112716-04-30 03:05 G	42889852.47	42889852.63	42889852.79	0.0518	0.0329	
Mercury	112721-12-28 02:08 G	42891920.46	42891920.59	42891920.72	0.0501	0.0332	
Venus	112722-02-26 23:44 G	42891981.38	42891981.49	42891981.62	0.0503	0.0401	
Mercury	112722-03-28 08:08 G	42892010.78	42892010.84	42892010.90	0.0504	0.0471	
Earth	112723-02-08 02:37 G	42892327.45	42892327.61	42892327.78	0.0516	0.0361	
Moon	112723-02-08 03:49 G	42892327.50	42892327.66	42892327.83	0.0516	0.0352	*
Mercury	112727-09-03 12:56 G	42893995.91	42893996.04	42893996.17	0.0525	0.0044	
Venus	112728-01-03 21:20 G	42894118.19	42894118.39	42894118.59	0.0521	0.0048	
Earth	112728-08-04 22:17 G	42894332.32	42894332.43	42894332.55	0.0512	0.0441	
Moon	112728-08-05 02:08 G	42894332.49	42894332.59	42894332.69	0.0512	0.0461	*
Mercury	112734-01-14 05:58 G	42896320.61	42896320.75	42896320.91	0.0503	0.0269	
Venus	112734-06-26 12:27 G	42896483.85	42896484.02	42896484.20	0.0509	0.0268	
Moon	112735-02-12 21:05 G	42896715.14	42896715.38	42896715.62	0.0519	0.0050	
Earth	112735-02-12 21:05 G	42896715.15	42896715.38	42896715.61	0.0519	0.0025	*

Mercury	112739-06-22 16:46 G	42898306.07	42898306.20	42898306.32	0.0526	0.0124
Venus	112739-09-08 13:25 G	42898383.89	42898384.06	42898384.25	0.0523	0.0244
Mercury	112739-09-19 23:44 G	42898395.49	42898395.49	42898395.50	0.0523	0.0522
Moon	112740-08-09 12:13 G	42898719.78	42898720.01	42898720.24	0.0510	0.0147
Earth	112740-08-09 15:34 G	42898719.93	42898720.15	42898720.39	0.0510	0.0115 *
Mercury	112745-11-02 04:17 G	42900630.51	42900630.68	42900630.86	0.0503	0.0072
Venus	112746-03-01 12:27 G	42900749.82	42900750.02	42900750.22	0.0507	0.0008
Moon	112747-02-17 15:20 G	42901102.96	42901103.14	42901103.33	0.0521	0.0297
Earth	112747-02-17 16:32 G	42901103.01	42901103.19	42901103.37	0.0521	0.0320 *
Mercury	112751-04-10 20:08 G	42902616.23	42902616.34	42902616.45	0.0527	0.0295
Mercury	112751-07-09 03:34 G	42902705.56	42902705.65	42902705.75	0.0523	0.0361
Venus	112752-01-06 17:44 G	42902887.19	42902887.24	42902887.31	0.0516	0.0491
Earth	112752-08-14 08:22 G	42903107.63	42903107.85	42903108.07	0.0508	0.0206
Moon	112752-08-14 10:46 G	42903107.75	42903107.95	42903108.16	0.0508	0.0207 *
Mercury	112757-08-21 02:37 G	42904940.44	42904940.61	42904940.79	0.0501	0.0126
Venus	112757-11-04 12:27 G	42905015.85	42905016.02	42905016.20	0.0504	0.0251
Mercury	112763-01-27 22:46 G	42906926.40	42906926.45	42906926.51	0.0528	0.0480
Mercury	112763-04-27 06:56 G	42907015.67	42907015.79	42907015.91	0.0525	0.0187
Venus	112763-09-11 08:51 G	42907152.68	42907152.87	42907153.06	0.0519	0.0201
Mercury	112769-06-09 00:41 G	42909250.40	42909250.53	42909250.67	0.0501	0.0324
Mercury	112769-09-07 06:41 G	42909340.72	42909340.78	42909340.83	0.0504	0.0477
Venus	112770-03-04 00:13 G	42909518.40	42909518.51	42909518.63	0.0510	0.0419
Mercury	112775-02-13 10:46 G	42911325.82	42911325.95	42911326.08	0.0526	0.0027
Venus	112775-05-17 02:08 G	42911418.38	42911418.59	42911418.79	0.0522	0.0087
Mars	112778-04-29 17:44 G	42912497.04	42912497.24	42912497.43	0.0488	0.0372
Mercury	112781-06-26 03:20 G	42913650.49	42913650.64	42913650.79	0.0503	0.0256
Venus	112781-11-06 21:20 G	42913784.20	42913784.39	42913784.59	0.0508	0.0150
Mercury	112786-12-02 14:51 G	42915635.99	42915636.12	42915636.25	0.0526	0.0132
Venus	112787-01-19 19:39 G	42915684.18	42915684.32	42915684.47	0.0525	0.0374
Mercury	112787-03-01 22:03 G	42915725.41	42915725.42	42915725.44	0.0523	0.0515

Mercury	112793-04-14 01:25 G	42917960.39	42917960.56	42917960.74	0.0502	0.0059
Venus	112793-07-12 21:20 G	42918050.19	42918050.39	42918050.59	0.0506	0.0109
Mars	112796-04-05 23:44 G	42919048.30	42919048.49	42919048.68	0.0540	0.0345
Mercury	112798-09-20 18:27 G	42919946.16	42919946.27	42919946.38	0.0527	0.0298
Mercury	112798-12-19 02:08 G	42920035.49	42920035.59	42920035.68	0.0524	0.0357
Venus	112799-05-20 01:25 G	42920187.42	42920187.56	42920187.70	0.0518	0.0370
Mercury	112805-01-30 23:58 G	42922270.33	42922270.50	42922270.67	0.0502	0.0136
Venus	112805-03-17 21:49 G	42922316.27	42922316.41	42922316.55	0.0503	0.0363
Moon	112806-02-07 03:20 G	42922642.49	42922642.64	42922642.79	0.0516	0.0380
Earth	112806-02-07 06:41 G	42922642.64	42922642.78	42922642.92	0.0516	0.0404 *
Mercury	112810-07-09 21:49 G	42924256.35	42924256.41	42924256.47	0.0528	0.0471
Mercury	112810-10-07 05:44 G	42924345.62	42924345.74	42924345.86	0.0524	0.0195
Venus	112811-01-22 17:58 G	42924453.05	42924453.25	42924453.45	0.0520	0.0084
Moon	112811-08-04 20:22 G	42924647.27	42924647.35	42924647.45	0.0512	0.0467
Earth	112811-08-04 21:34 G	42924647.35	42924647.40	42924647.46	0.0512	0.0497 *
Mercury	112816-11-18 22:32 G	42926580.31	42926580.44	42926580.58	0.0501	0.0327
Mercury	112817-02-17 04:32 G	42926670.63	42926670.69	42926670.75	0.0504	0.0474
Venus	112817-07-15 10:46 G	42926818.79	42926818.95	42926819.11	0.0509	0.0306
Earth	112818-02-11 23:29 G	42927030.25	42927030.48	42927030.71	0.0518	0.0071
Moon	112818-02-12 03:05 G	42927030.40	42927030.63	42927030.87	0.0518	0.0046 *
Mercury	112822-07-26 08:51 G	42928655.74	42928655.87	42928656.00	0.0526	0.0020
Venus	112822-09-27 08:08 G	42928718.65	42928718.84	42928719.02	0.0523	0.0216
Earth	112823-08-09 13:10 G	42929034.83	42929035.05	42929035.27	0.0511	0.0174
Moon	112823-08-09 14:37 G	42929034.89	42929035.11	42929035.34	0.0511	0.0170 *
Mercury	112828-12-06 02:08 G	42930980.44	42930980.59	42930980.74	0.0503	0.0266
Venus	112829-03-20 09:20 G	42931084.69	42931084.89	42931085.09	0.0507	0.0043
Moon	112830-02-16 11:58 G	42931417.80	42931418.00	42931418.20	0.0520	0.0250
Earth	112830-02-16 15:34 G	42931417.96	42931418.15	42931418.35	0.0520	0.0262 *
Mercury	112834-05-14 12:41 G	42932965.90	42932966.03	42932966.15	0.0527	0.0148
Venus	112834-06-02 00:13 G	42932984.47	42932984.51	42932984.57	0.0526	0.0509

Mercury	112834-08-11 19:53 G	42933055.30	42933055.33	42933055.37	0.0523	0.0501
Moon	112835-08-14 05:29 G	42933422.51	42933422.73	42933422.96	0.0509	0.0126
Earth	112835-08-14 07:53 G	42933422.61	42933422.83	42933423.05	0.0509	0.0154 *
Mercury	112840-09-23 22:46 G	42935290.28	42935290.45	42935290.63	0.0502	0.0048
Venus	112840-11-23 06:41 G	42935350.60	42935350.78	42935350.97	0.0504	0.0224
Mercury	112846-03-02 16:32 G	42937276.09	42937276.19	42937276.30	0.0527	0.0306
Mercury	112846-05-31 00:13 G	42937365.42	42937365.51	42937365.61	0.0524	0.0352
Venus	112846-09-30 08:22 G	42937487.67	42937487.85	42937488.03	0.0519	0.0248
Earth	112847-08-19 03:05 G	42937810.56	42937810.63	42937810.71	0.0506	0.0479
Moon	112847-08-19 06:13 G	42937810.67	42937810.76	42937810.87	0.0506	0.0462 *
Mercury	112852-07-12 21:05 G	42939600.22	42939600.38	42939600.55	0.0501	0.0149
Venus	112852-07-29 07:10 G	42939616.74	42939616.80	42939616.87	0.0502	0.0475
Venus	112853-03-22 19:53 G	42939853.25	42939853.33	42939853.43	0.0511	0.0453
Mercury	112857-12-19 20:08 G	42941586.29	42941586.34	42941586.40	0.0528	0.0473
Mercury	112858-03-19 04:17 G	42941675.56	42941675.68	42941675.80	0.0525	0.0193
Venus	112858-06-05 01:39 G	42941753.36	42941753.57	42941753.77	0.0522	0.0040
Mercury	112864-04-30 19:53 G	42943910.20	42943910.33	42943910.46	0.0501	0.0338
Mercury	112864-07-30 01:39 G	42944000.51	42944000.57	42944000.64	0.0504	0.0464
Venus	112864-11-25 20:08 G	42944119.15	42944119.34	42944119.53	0.0508	0.0191
Mercury	112870-01-05 07:53 G	42945985.70	42945985.83	42945985.96	0.0525	0.0028
Venus	112870-02-07 17:29 G	42946019.08	42946019.23	42946019.39	0.0524	0.0334
Mercury	112876-05-17 23:58 G	42948310.35	42948310.50	42948310.65	0.0503	0.0264
Venus	112876-07-31 20:08 G	42948385.14	42948385.34	42948385.54	0.0506	0.0069
Mercury	112881-10-24 11:01 G	42950295.83	42950295.96	42950296.08	0.0526	0.0151
Mercury	112882-01-21 18:13 G	42950385.23	42950385.26	42950385.30	0.0523	0.0497
Venus	112882-06-07 20:51 G	42950522.24	42950522.37	42950522.50	0.0518	0.0402
Mercury	112888-03-05 21:49 G	42952620.23	42952620.41	42952620.59	0.0502	0.0061
Venus	112888-04-05 19:39 G	42952651.17	42952651.32	42952651.47	0.0503	0.0326
Moon	112889-02-06 06:27 G	42952957.69	42952957.77	42952957.86	0.0515	0.0480
Earth	112889-02-06 08:22 G	42952957.75	42952957.85	42952957.96	0.0515	0.0452 *

Mercury	112893-08-12 14:37 G	42954606.00	42954606.11	42954606.21	0.0527	0.0318
Mercury	112893-11-09 22:17 G	42954695.33	42954695.43	42954695.53	0.0524	0.0341
Venus	112894-02-10 14:08 G	42954787.89	42954788.09	42954788.29	0.0520	0.0119
Mercury	112899-12-23 18:41 G	42956930.12	42956930.28	42956930.45	0.0501	0.0156
Venus	112900-08-04 05:15 G	42957153.57	42957153.72	42957153.88	0.0509	0.0336
Earth	112901-02-11 20:51 G	42957345.15	42957345.37	42957345.60	0.0517	0.0137
Moon	112901-02-11 22:17 G	42957345.22	42957345.43	42957345.65	0.0517	0.0132 *
Mercury	112905-06-01 18:27 G	42958916.22	42958916.27	42958916.32	0.0528	0.0479
Mercury	112905-08-30 02:37 G	42959005.49	42959005.61	42959005.73	0.0525	0.0189
Venus	112905-10-17 08:22 G	42959053.66	42959053.85	42959054.05	0.0523	0.0167
Earth	112906-08-09 18:41 G	42959350.07	42959350.28	42959350.50	0.0511	0.0212
Moon	112906-08-09 22:32 G	42959350.22	42959350.44	42959350.66	0.0511	0.0179 *
Mercury	112911-10-12 17:29 G	42961240.10	42961240.23	42961240.35	0.0501	0.0346
Mercury	112912-01-10 23:01 G	42961330.39	42961330.46	42961330.54	0.0504	0.0453
Venus	112912-04-09 05:01 G	42961419.51	42961419.71	42961419.92	0.0507	0.0076
Moon	112913-02-16 15:34 G	42961732.94	42961733.15	42961733.37	0.0520	0.0232
Earth	112913-02-16 15:49 G	42961732.95	42961733.16	42961733.37	0.0520	0.0203 *
Mercury	112917-06-18 06:27 G	42963315.64	42963315.77	42963315.90	0.0526	0.0031
Venus	112917-06-22 01:10 G	42963319.46	42963319.55	42963319.65	0.0525	0.0459
Moon	112918-08-14 09:34 G	42963737.67	42963737.90	42963738.14	0.0509	0.0140
Earth	112918-08-14 13:10 G	42963737.82	42963738.05	42963738.28	0.0509	0.0115 *
Mercury	112923-10-29 21:20 G	42965640.24	42965640.39	42965640.55	0.0503	0.0255
Venus	112923-12-14 05:58 G	42965685.56	42965685.75	42965685.94	0.0505	0.0182
Mercury	112929-04-06 10:03 G	42967625.80	42967625.92	42967626.05	0.0526	0.0138
Mercury	112929-07-04 17:29 G	42967715.21	42967715.23	42967715.26	0.0523	0.0510
Venus	112929-10-20 06:56 G	42967822.63	42967822.79	42967822.96	0.0519	0.0290
Earth	112930-08-19 05:44 G	42968125.62	42968125.74	42968125.86	0.0507	0.0433
Moon	112930-08-19 08:08 G	42968125.72	42968125.84	42968125.97	0.0507	0.0422 *
Mercury	112935-08-17 19:53 G	42969950.16	42969950.33	42969950.51	0.0502	0.0061
Venus	112935-08-19 06:56 G	42969951.69	42969951.79	42969951.89	0.0502	0.0433

Venus	112936-04-11 19:39 G	42970188.28	42970188.32	42970188.37	0.0511	0.0498
Mercury	112941-01-23 13:10 G	42971935.94	42971936.05	42971936.15	0.0527	0.0317
Mercury	112941-04-22 20:51 G	42972025.27	42972025.37	42972025.47	0.0524	0.0341
Venus	112941-06-24 22:03 G	42972088.21	42972088.42	42972088.62	0.0521	0.0009
Mercury	112947-06-05 17:58 G	42974260.08	42974260.25	42974260.42	0.0501	0.0138
Venus	112947-12-16 18:27 G	42974454.10	42974454.27	42974454.45	0.0508	0.0233
Mercury	112952-11-11 16:32 G	42976246.14	42976246.19	42976246.24	0.0528	0.0486
Mercury	112953-02-09 00:41 G	42976335.41	42976335.53	42976335.65	0.0525	0.0182
Venus	112953-02-27 14:37 G	42976353.94	42976354.11	42976354.28	0.0524	0.0297
Mercury	112959-03-24 15:20 G	42978570.01	42978570.14	42978570.26	0.0500	0.0349
Mercury	112959-06-22 20:51 G	42978660.29	42978660.37	42978660.45	0.0503	0.0448
Venus	112959-08-21 15:20 G	42978719.94	42978720.14	42978720.35	0.0506	0.0039
Mercury	112964-11-28 05:01 G	42980645.57	42980645.71	42980645.84	0.0526	0.0031
Venus	112965-06-27 22:03 G	42980857.33	42980857.42	42980857.52	0.0518	0.0454
Mercury	112971-04-10 18:56 G	42982970.14	42982970.29	42982970.45	0.0503	0.0249
Venus	112971-04-26 15:49 G	42982986.00	42982986.16	42982986.33	0.0503	0.0294
Earth	112972-02-07 09:20 G	42983272.85	42983272.89	42983272.93	0.0514	0.0505
Mercury	112976-09-16 08:51 G	42984955.74	42984955.87	42984956.00	0.0527	0.0133
Mercury	112976-12-14 16:17 G	42985045.16	42985045.18	42985045.20	0.0523	0.0514
Venus	112977-03-02 15:49 G	42985122.97	42985123.16	42985123.35	0.0520	0.0171
Mercury	112983-01-27 17:29 G	42987280.05	42987280.23	42987280.41	0.0502	0.0055
Venus	112983-08-24 05:29 G	42987488.60	42987488.73	42987488.86	0.0510	0.0383
Moon	112984-02-12 00:41 G	42987660.33	42987660.53	42987660.74	0.0517	0.0205
Earth	112984-02-12 04:17 G	42987660.47	42987660.68	42987660.90	0.0517	0.0170 *
Mercury	112988-07-05 12:27 G	42989265.91	42989266.02	42989266.13	0.0527	0.0300
Mercury	112988-10-02 20:08 G	42989355.25	42989355.34	42989355.43	0.0524	0.0357
Venus	112988-11-05 08:37 G	42989388.66	42989388.86	42989389.06	0.0522	0.0119
Moon	112989-08-08 21:34 G	42989665.21	42989665.40	42989665.59	0.0511	0.0273
Earth	112989-08-08 23:01 G	42989665.26	42989665.46	42989665.67	0.0511	0.0252 *
Mercury	112994-11-15 16:17 G	42991590.01	42991590.18	42991590.35	0.0501	0.0135

Venus	112995-04-29 05:44 G	42991754.55	42991754.74	42991754.94	0.0507	0.0123
Earth	112996-02-16 23:15 G	42992048.25	42992048.47	42992048.69	0.0519	0.0169
Moon	112996-02-17 02:51 G	42992048.40	42992048.62	42992048.85	0.0519	0.0156 *
Mercury	113000-04-24 15:20 G	42993576.09	42993576.14	42993576.19	0.0528	0.0481
Venus	113000-07-11 22:46 G	42993654.34	42993654.45	42993654.58	0.0525	0.0421
Mercury	113000-07-22 23:29 G	42993665.36	42993665.48	42993665.60	0.0525	0.0186

114TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 114th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	113001-08-14 14:51 G		42994052.89	42994053.12	42994053.35	0.0509	0.0067	
Moon	113001-08-14 16:46 G		42994052.96	42994053.20	42994053.44	0.0509	0.0084 *	
Mercury	113006-09-04 14:37 G		42995899.98	42995900.11	42995900.24	0.0501	0.0328	
Mercury	113006-12-03 20:22 G		42995990.29	42995990.35	42995990.41	0.0504	0.0471	
Venus	113007-01-03 05:29 G		42996020.53	42996020.73	42996020.92	0.0505	0.0138	
Earth	113008-02-22 16:46 G		42996436.15	42996436.20	42996436.26	0.0521	0.0504	
Mercury	113012-05-11 03:20 G		42997975.51	42997975.64	42997975.77	0.0526	0.0026	
Venus	113012-11-09 05:15 G		42998157.57	42998157.72	42998157.88	0.0519	0.0332	
Moon	113013-08-19 07:10 G		42998440.67	42998440.80	42998440.92	0.0507	0.0423	
Earth	113013-08-19 09:20 G		42998440.75	42998440.89	42998441.05	0.0507	0.0391 *	
Venus	113018-09-08 03:05 G		43000286.51	43000286.63	43000286.75	0.0502	0.0402	
Mercury	113018-09-21 17:01 G		43000300.06	43000300.21	43000300.37	0.0503	0.0249	

Mercury	113024-02-28 07:25 G	43002285.68	43002285.81	43002285.93	0.0527	0.0134
Mercury	113024-05-27 14:51 G	43002375.10	43002375.12	43002375.14	0.0524	0.0516
Venus	113024-07-14 23:58 G	43002423.29	43002423.50	43002423.70	0.0522	0.0049
Mercury	113030-07-10 15:20 G	43004609.97	43004610.14	43004610.32	0.0502	0.0054
Venus	113031-01-05 15:20 G	43004788.98	43004789.14	43004789.32	0.0509	0.0270
Mercury	113035-12-17 11:15 G	43006595.86	43006595.97	43006596.08	0.0528	0.0295
Mercury	113036-03-15 18:56 G	43006685.20	43006685.29	43006685.39	0.0524	0.0363
Venus	113036-03-19 17:15 G	43006689.05	43006689.22	43006689.41	0.0524	0.0242
Mercury	113042-04-28 14:08 G	43008919.92	43008920.09	43008920.26	0.0501	0.0138
Venus	113042-09-10 16:03 G	43009054.97	43009055.17	43009055.37	0.0506	0.0010
Mercury	113047-10-05 14:51 G	43010906.06	43010906.12	43010906.18	0.0528	0.0462
Mercury	113048-01-02 23:01 G	43010995.34	43010995.46	43010995.58	0.0525	0.0205
Venus	113048-07-17 22:46 G	43011192.41	43011192.45	43011192.50	0.0517	0.0504
Mars	113051-01-12 10:46 G	43012100.67	43012100.95	43012101.24	0.0489	0.0163
Mercury	113054-02-14 13:10 G	43013229.92	43013230.05	43013230.18	0.0501	0.0323
Mercury	113054-05-15 18:56 G	43013320.23	43013320.29	43013320.34	0.0504	0.0476
Venus	113054-05-16 17:15 G	43013321.04	43013321.22	43013321.40	0.0504	0.0245
Moon	113055-02-07 20:51 G	43013588.32	43013588.37	43013588.42	0.0514	0.0497
Mercury	113059-10-22 02:08 G	43015305.46	43015305.59	43015305.73	0.0526	0.0037
Venus	113060-03-22 14:37 G	43015457.92	43015458.11	43015458.29	0.0520	0.0215
Venus	113066-01-19 17:29 G	43017587.22	43017587.23	43017587.26	0.0501	0.0498
Mercury	113066-03-03 16:46 G	43017630.05	43017630.20	43017630.35	0.0503	0.0274
Venus	113066-09-13 05:44 G	43017823.64	43017823.74	43017823.85	0.0510	0.0431
Moon	113067-02-12 09:20 G	43017975.67	43017975.89	43017976.11	0.0516	0.0190
Earth	113067-02-12 11:01 G	43017975.75	43017975.96	43017976.18	0.0516	0.0207 *
Mars	113068-12-21 23:01 G	43018654.25	43018654.46	43018654.68	0.0539	0.0266
Mercury	113071-08-10 05:58 G	43019615.62	43019615.75	43019615.88	0.0527	0.0131
Mercury	113071-11-07 13:25 G	43019705.04	43019705.06	43019705.08	0.0523	0.0517
Venus	113071-11-26 07:39 G	43019723.62	43019723.82	43019724.03	0.0523	0.0075
Moon	113072-08-08 23:44 G	43019980.30	43019980.49	43019980.68	0.0512	0.0311

Earth	113072-08-09 03:20 G	43019980.46	43019980.64	43019980.84	0.0512	0.0293	*
Mercury	113077-12-20 13:53 G	43021939.90	43021940.08	43021940.25	0.0502	0.0058	
Venus	113078-05-19 02:37 G	43022089.42	43022089.61	43022089.81	0.0507	0.0158	
Earth	113079-02-16 23:29 G	43022363.26	43022363.48	43022363.71	0.0518	0.0114	
Moon	113079-02-17 00:56 G	43022363.32	43022363.54	43022363.76	0.0518	0.0095	*
Mercury	113083-05-29 09:49 G	43023925.80	43023925.91	43023926.02	0.0528	0.0294	
Venus	113083-08-01 01:10 G	43023989.41	43023989.55	43023989.70	0.0526	0.0367	
Mercury	113083-08-26 17:44 G	43024015.14	43024015.24	43024015.33	0.0525	0.0366	
Earth	113084-08-14 01:10 G	43024368.31	43024368.55	43024368.78	0.0510	0.0045	
Moon	113084-08-14 04:46 G	43024368.46	43024368.70	43024368.93	0.0510	0.0015	*
Mercury	113089-10-08 12:13 G	43026249.85	43026250.01	43026250.18	0.0501	0.0136	
Venus	113090-01-22 03:05 G	43026355.43	43026355.63	43026355.83	0.0505	0.0101	
Moon	113091-02-21 18:41 G	43026751.14	43026751.28	43026751.42	0.0521	0.0423	
Earth	113091-02-21 18:56 G	43026751.18	43026751.29	43026751.41	0.0521	0.0453	*
Mercury	113095-03-17 13:39 G	43028236.01	43028236.07	43028236.14	0.0529	0.0456	
Mercury	113095-06-14 21:49 G	43028325.29	43028325.41	43028325.53	0.0525	0.0212	
Venus	113095-11-29 08:37 G	43028492.73	43028492.86	43028493.00	0.0518	0.0389	
Moon	113096-08-18 16:32 G	43028756.02	43028756.19	43028756.36	0.0508	0.0356	
Earth	113096-08-18 19:53 G	43028756.17	43028756.33	43028756.49	0.0508	0.0369	*
Mercury	113101-07-28 11:01 G	43030559.83	43030559.96	43030560.10	0.0500	0.0324	
Venus	113101-09-28 04:17 G	43030621.53	43030621.68	43030621.82	0.0503	0.0355	
Mercury	113101-10-26 16:32 G	43030650.14	43030650.19	43030650.26	0.0504	0.0475	
Mercury	113107-04-04 01:39 G	43032635.44	43032635.57	43032635.70	0.0526	0.0053	
Venus	113107-08-05 02:08 G	43032758.39	43032758.59	43032758.79	0.0521	0.0103	
Mercury	113113-08-14 15:20 G	43034959.99	43034960.14	43034960.29	0.0503	0.0281	
Venus	113114-01-25 17:44 G	43035124.08	43035124.24	43035124.40	0.0509	0.0322	
Mercury	113119-01-21 05:01 G	43036945.58	43036945.71	43036945.84	0.0526	0.0121	
Venus	113119-04-09 17:15 G	43037024.03	43037024.22	43037024.41	0.0523	0.0194	
Mercury	113125-06-02 13:39 G	43039269.89	43039270.07	43039270.24	0.0502	0.0084	
Venus	113125-09-30 17:15 G	43039390.02	43039390.22	43039390.43	0.0506	0.0060	

Mercury	113130-11-09 08:37 G	43041255.75	43041255.86	43041255.97	0.0528	0.0288
Venus	113130-12-13 09:34 G	43041289.83	43041289.90	43041289.97	0.0526	0.0489
Mercury	113131-02-06 16:17 G	43041345.09	43041345.18	43041345.27	0.0524	0.0371
Mercury	113137-03-21 10:46 G	43043579.79	43043579.95	43043580.13	0.0501	0.0129
Venus	113137-06-05 15:05 G	43043655.95	43043656.13	43043656.32	0.0503	0.0209
Mercury	113142-08-28 12:13 G	43045565.95	43045566.01	43045566.08	0.0529	0.0455
Mercury	113142-11-25 20:22 G	43045655.24	43045655.35	43045655.47	0.0526	0.0216
Venus	113143-04-12 17:29 G	43045793.05	43045793.23	43045793.40	0.0520	0.0271
Mercury	113149-01-07 09:34 G	43047889.77	43047889.90	43047890.04	0.0500	0.0317
Venus	113149-02-08 16:03 G	43047922.09	43047922.17	43047922.25	0.0501	0.0460
Mercury	113149-04-07 15:05 G	43047980.08	43047980.13	43047980.18	0.0503	0.0478
Venus	113149-10-03 04:03 G	43048158.60	43048158.67	43048158.75	0.0510	0.0470
Earth	113150-02-12 14:08 G	43048290.89	43048291.09	43048291.30	0.0515	0.0251
Moon	113150-02-12 17:58 G	43048291.04	43048291.25	43048291.46	0.0515	0.0222 *
Mercury	113154-09-14 00:41 G	43049965.40	43049965.53	43049965.66	0.0526	0.0061
Venus	113154-12-16 11:29 G	43050058.77	43050058.98	43050059.18	0.0522	0.0017
Earth	113155-08-10 14:22 G	43050295.92	43050296.10	43050296.29	0.0513	0.0312
Moon	113155-08-10 15:34 G	43050295.95	43050296.15	43050296.36	0.0513	0.0281 *
Mercury	113161-01-24 13:25 G	43052289.92	43052290.06	43052290.21	0.0503	0.0282
Venus	113161-06-08 04:32 G	43052424.50	43052424.69	43052424.87	0.0508	0.0209
Moon	113162-02-17 05:58 G	43052678.53	43052678.75	43052678.98	0.0518	0.0119
Earth	113162-02-17 09:49 G	43052678.68	43052678.91	43052679.14	0.0518	0.0087 *
Mercury	113166-07-03 04:32 G	43054275.56	43054275.69	43054275.82	0.0527	0.0102
Venus	113166-08-21 04:17 G	43054324.52	43054324.68	43054324.85	0.0525	0.0310
Moon	113167-08-15 07:53 G	43054683.61	43054683.83	43054684.06	0.0510	0.0020
Earth	113167-08-15 10:03 G	43054683.68	43054683.92	43054684.15	0.0510	0.0018 *
Mercury	113172-11-12 12:13 G	43056599.84	43056600.01	43056600.18	0.0502	0.0091
Venus	113173-02-11 05:29 G	43056690.52	43056690.73	43056690.93	0.0505	0.0050
Earth	113174-02-22 05:58 G	43057066.63	43057066.75	43057066.89	0.0520	0.0430
Moon	113174-02-22 09:49 G	43057066.79	43057066.91	43057067.05	0.0520	0.0428 *

Mercury 113178-04-21 07:39 G 43058585.71 43058585.82 43058585.94 0.0527 0.0276

Mercury 113178-07-19 15:34 G 43058675.06 43058675.15 43058675.24 0.0524 0.0382

Venus 113178-12-19 08:51 G 43058827.77 43058827.87 43058827.99 0.0518 0.0438

Earth 113179-08-20 01:53 G 43059071.41 43059071.58 43059071.76 0.0508 0.0333

Moon 113179-08-20 04:32 G 43059071.49 43059071.69 43059071.88 0.0508 0.0302 *

Mercury 113184-08-31 10:46 G 43060909.78 43060909.95 43060910.12 0.0501 0.0102

Venus 113184-10-17 05:58 G 43060956.59 43060956.75 43060956.91 0.0503 0.0305

Mercury 113190-02-07 11:15 G 43062895.90 43062895.97 43062896.04 0.0528 0.0445

Mercury 113190-05-07 19:25 G 43062985.19 43062985.31 43062985.43 0.0525 0.0223

Venus 113190-08-24 02:22 G 43063093.40 43063093.60 43063093.79 0.0521 0.0152

Mercury 113196-06-19 08:22 G 43065219.71 43065219.85 43065219.99 0.0500 0.0307

Mercury 113196-09-17 13:39 G 43065310.04 43065310.07 43065310.12 0.0503 0.0487

Venus 113197-02-13 15:49 G 43065459.02 43065459.16 43065459.31 0.0509 0.0360

Mercury 113202-02-23 23:15 G 43067295.34 43067295.47 43067295.60 0.0527 0.0063

Venus 113202-04-28 19:39 G 43067359.13 43067359.32 43067359.52 0.0524 0.0141

Mars 113205-04-09 04:17 G 43068435.45 43068435.68 43068435.93 0.0488 0.0297

Mercury 113208-04-07 07:10 G 43069529.78 43069529.80 43069529.83 0.0499 0.0493

Mercury 113208-07-06 11:58 G 43069619.86 43069620.00 43069620.15 0.0502 0.0288

Venus 113208-10-19 16:03 G 43069724.97 43069725.17 43069725.37 0.0506 0.0099

Mercury 113213-12-13 03:20 G 43071605.51 43071605.64 43071605.77 0.0527 0.0096

Venus 113214-01-01 12:56 G 43071624.93 43071625.04 43071625.16 0.0526 0.0435

Mercury 113220-04-24 10:17 G 43073929.76 43073929.93 43073930.11 0.0502 0.0094

Venus 113220-06-24 16:32 G 43073991.00 43073991.19 43073991.39 0.0504 0.0160

Mars 113223-03-19 10:32 G 43074988.70 43074988.94 43074989.18 0.0540 0.0156

Mercury 113225-10-01 07:10 G 43075915.68 43075915.80 43075915.91 0.0528 0.0258

Mercury 113225-12-29 14:51 G 43076005.04 43076005.12 43076005.21 0.0524 0.0400

Venus 113226-05-01 20:37 G 43076128.20 43076128.36 43076128.52 0.0519 0.0328

Mercury 113232-02-11 09:20 G 43078239.72 43078239.89 43078240.06 0.0501 0.0095

Venus 113232-02-28 17:58 G 43078257.14 43078257.25 43078257.37 0.0502 0.0411

Earth 113233-02-12 01:39 G 43078606.38 43078606.57 43078606.77 0.0515 0.0270

Moon	113233-02-12 03:20 G	43078606.45	43078606.64	43078606.82	0.0515	0.0297	*
Mercury	113237-07-20 10:17 G	43080225.86	43080225.93	43080226.01	0.0528	0.0433	
Mercury	113237-10-17 18:27 G	43080315.16	43080315.27	43080315.39	0.0525	0.0234	
Venus	113238-01-04 12:13 G	43080393.81	43080394.01	43080394.22	0.0522	0.0035	
Earth	113238-08-09 20:22 G	43080611.19	43080611.35	43080611.53	0.0513	0.0347	
Moon	113238-08-10 00:13 G	43080611.34	43080611.51	43080611.68	0.0513	0.0347	*
Mercury	113243-11-30 07:53 G	43082549.69	43082549.83	43082549.98	0.0500	0.0284	
Venus	113244-06-27 06:27 G	43082759.60	43082759.77	43082759.94	0.0508	0.0261	
Moon	113245-02-16 18:13 G	43082994.02	43082994.26	43082994.50	0.0517	0.0065	
Earth	113245-02-16 19:10 G	43082994.07	43082994.30	43082994.53	0.0517	0.0059	*
Mercury	113249-08-05 22:17 G	43084625.30	43084625.43	43084625.56	0.0526	0.0072	
Venus	113249-09-09 04:46 G	43084659.52	43084659.70	43084659.87	0.0525	0.0261	
Moon	113250-08-14 12:56 G	43084998.80	43084999.04	43084999.28	0.0511	0.0013	
Earth	113250-08-14 16:17 G	43084998.95	43084999.18	43084999.42	0.0511	0.0019	*
Mercury	113255-09-18 05:58 G	43086859.71	43086859.75	43086859.80	0.0499	0.0483	
Mercury	113255-12-17 10:46 G	43086949.81	43086949.95	43086950.09	0.0502	0.0298	
Venus	113256-03-02 04:17 G	43087025.48	43087025.68	43087025.88	0.0505	0.0009	
Earth	113257-02-21 08:22 G	43087381.70	43087381.85	43087382.01	0.0519	0.0381	
Moon	113257-02-21 08:51 G	43087381.75	43087381.87	43087382.01	0.0519	0.0414	*
Mercury	113261-05-25 01:53 G	43088935.45	43088935.58	43088935.71	0.0528	0.0095	
Venus	113262-01-07 11:15 G	43089162.91	43089162.97	43089163.03	0.0518	0.0491	
Earth	113262-08-19 12:27 G	43089386.83	43089387.02	43089387.20	0.0509	0.0313	
Moon	113262-08-19 15:20 G	43089386.98	43089387.14	43089387.32	0.0509	0.0336	*
Mercury	113267-10-05 09:05 G	43091259.71	43091259.88	43091260.05	0.0501	0.0101	
Venus	113267-11-06 05:01 G	43091291.53	43091291.71	43091291.88	0.0502	0.0266	
Mercury	113273-03-13 05:44 G	43093245.63	43093245.74	43093245.86	0.0528	0.0256	
Mercury	113273-06-10 13:39 G	43093334.99	43093335.07	43093335.15	0.0525	0.0404	
Venus	113273-09-12 05:15 G	43093428.54	43093428.72	43093428.91	0.0521	0.0207	
Mercury	113279-07-24 07:39 G	43095569.64	43095569.82	43095569.99	0.0501	0.0093	
Venus	113280-03-04 17:15 G	43095794.11	43095794.22	43095794.34	0.0509	0.0411	

Mercury	113284-12-30 09:34 G	43097555.82	43097555.90	43097555.98	0.0529	0.0418
Mercury	113285-03-29 17:44 G	43097645.13	43097645.24	43097645.36	0.0525	0.0250
Venus	113285-05-17 23:01 G	43097694.26	43097694.46	43097694.66	0.0523	0.0083
Mercury	113291-05-12 06:27 G	43099879.63	43099879.77	43099879.92	0.0500	0.0278
Venus	113291-11-08 18:13 G	43100060.06	43100060.26	43100060.45	0.0507	0.0151
Mercury	113297-01-15 21:20 G	43101955.26	43101955.39	43101955.52	0.0526	0.0082
Venus	113297-01-20 14:08 G	43101959.95	43101960.09	43101960.23	0.0526	0.0383
Mercury	113303-03-01 05:29 G	43104189.67	43104189.73	43104189.79	0.0499	0.0463
Mercury	113303-05-30 10:17 G	43104279.80	43104279.93	43104280.07	0.0503	0.0320
Venus	113303-07-15 18:27 G	43104326.07	43104326.27	43104326.47	0.0504	0.0109
Mercury	113308-11-05 00:56 G	43106265.41	43106265.54	43106265.67	0.0527	0.0084
Venus	113309-05-21 20:37 G	43106463.22	43106463.36	43106463.50	0.0519	0.0375
Mercury	113315-03-18 07:53 G	43108589.66	43108589.83	43108590.00	0.0501	0.0111
Venus	113315-03-20 17:29 G	43108592.09	43108592.23	43108592.37	0.0501	0.0371
Moon	113316-02-13 02:37 G	43108921.44	43108921.61	43108921.79	0.0514	0.0314
Earth	113316-02-13 05:29 G	43108921.55	43108921.73	43108921.91	0.0514	0.0309 *
Mercury	113320-08-24 04:17 G	43110575.57	43110575.68	43110575.80	0.0528	0.0256
Mercury	113320-11-21 12:13 G	43110664.93	43110665.01	43110665.09	0.0525	0.0404
Venus	113321-01-24 13:10 G	43110728.85	43110729.05	43110729.25	0.0522	0.0083
Earth	113321-08-10 04:32 G	43110926.53	43110926.69	43110926.85	0.0514	0.0373
Moon	113321-08-10 05:01 G	43110926.58	43110926.71	43110926.86	0.0514	0.0398 *
Mercury	113327-01-04 06:13 G	43112899.59	43112899.76	43112899.94	0.0500	0.0084
Venus	113327-07-18 04:46 G	43113094.54	43113094.70	43113094.87	0.0508	0.0300
Earth	113328-02-17 22:03 G	43113309.19	43113309.42	43113309.65	0.0516	0.0015
Moon	113328-02-18 01:25 G	43113309.33	43113309.56	43113309.80	0.0516	0.0020 *
Mercury	113332-06-12 08:08 G	43114885.76	43114885.84	43114885.92	0.0529	0.0419
Mercury	113332-09-09 16:17 G	43114975.07	43114975.18	43114975.30	0.0526	0.0251
Venus	113332-09-29 06:41 G	43114994.59	43114994.78	43114994.96	0.0525	0.0211
Earth	113333-08-15 01:25 G	43115314.33	43115314.56	43115314.80	0.0512	0.0038
Moon	113333-08-15 01:53 G	43115314.34	43115314.58	43115314.83	0.0512	0.0062 *

Mercury	113338-10-23 04:46 G	43117209.55	43117209.70	43117209.84	0.0500	0.0276
Venus	113339-03-23 04:46 G	43117360.50	43117360.70	43117360.91	0.0505	0.0039
Moon	113340-02-22 13:10 G	43117696.88	43117697.05	43117697.23	0.0519	0.0325
Earth	113340-02-22 16:46 G	43117697.04	43117697.20	43117697.38	0.0519	0.0351 *
Venus	113344-06-03 23:29 G	43119260.43	43119260.48	43119260.54	0.0527	0.0506
Mercury	113344-06-28 20:22 G	43119285.22	43119285.35	43119285.48	0.0526	0.0094
Moon	113345-08-19 19:39 G	43119702.14	43119702.32	43119702.50	0.0509	0.0296
Earth	113345-08-19 21:05 G	43119702.19	43119702.38	43119702.58	0.0509	0.0286 *
Mercury	113350-08-11 03:49 G	43121519.60	43121519.66	43121519.73	0.0499	0.0459
Mercury	113350-11-09 08:37 G	43121609.73	43121609.86	43121610.00	0.0502	0.0323
Venus	113350-11-26 05:58 G	43121626.57	43121626.75	43121626.94	0.0503	0.0218
Mercury	113356-04-16 23:58 G	43123595.37	43123595.50	43123595.63	0.0527	0.0077
Venus	113356-10-02 05:44 G	43123763.57	43123763.74	43123763.92	0.0520	0.0256
Venus	113362-08-01 06:56 G	43125892.73	43125892.79	43125892.86	0.0501	0.0470
Mercury	113362-08-28 06:56 G	43125919.62	43125919.79	43125919.97	0.0502	0.0129
Venus	113363-03-25 18:41 G	43126129.20	43126129.28	43126129.37	0.0509	0.0462
Mercury	113368-02-04 03:20 G	43127905.52	43127905.64	43127905.76	0.0528	0.0245
Mercury	113368-05-03 11:15 G	43127994.89	43127994.97	43127995.05	0.0525	0.0413
Venus	113368-06-06 22:17 G	43128029.23	43128029.43	43128029.64	0.0523	0.0039
Mercury	113374-06-16 05:01 G	43130229.53	43130229.71	43130229.88	0.0500	0.0075
Venus	113374-11-28 17:01 G	43130395.02	43130395.21	43130395.40	0.0506	0.0190
Mars	113377-06-13 07:53 G	43131322.75	43131322.83	43131322.93	0.0539	0.0504
Mercury	113379-11-23 06:27 G	43132215.69	43132215.77	43132215.85	0.0529	0.0423
Venus	113380-02-10 13:25 G	43132294.91	43132295.06	43132295.22	0.0526	0.0342
Mercury	113380-02-20 14:51 G	43132305.00	43132305.12	43132305.23	0.0526	0.0248
Mercury	113386-04-04 03:20 G	43134539.50	43134539.64	43134539.79	0.0499	0.0267
Venus	113386-08-03 16:46 G	43134661.00	43134661.20	43134661.41	0.0504	0.0072
Mercury	113391-12-09 18:41 G	43136615.15	43136615.28	43136615.41	0.0527	0.0091
Venus	113392-06-09 21:20 G	43136798.28	43136798.39	43136798.51	0.0519	0.0423
Mercury	113398-01-21 01:53 G	43138849.52	43138849.58	43138849.65	0.0499	0.0459

Venus	113398-04-08 17:01 G	43138927.05	43138927.21	43138927.36	0.0502	0.0329
Mercury	113398-04-21 06:27 G	43138939.64	43138939.77	43138939.91	0.0502	0.0321
Moon	113399-02-12 08:37 G	43139236.68	43139236.86	43139237.05	0.0514	0.0320
Earth	113399-02-12 12:13 G	43139236.84	43139237.01	43139237.19	0.0514	0.0343 *
Mercury	113403-09-28 22:46 G	43140925.32	43140925.45	43140925.58	0.0527	0.0069
Venus	113404-02-14 15:05 G	43141063.94	43141064.13	43141064.33	0.0522	0.0137
Moon	113404-08-10 08:37 G	43141241.70	43141241.86	43141242.02	0.0514	0.0370
Earth	113404-08-10 11:58 G	43141241.86	43141242.00	43141242.15	0.0514	0.0402 *
Mercury	113410-02-08 05:01 G	43143249.54	43143249.71	43143249.89	0.0502	0.0129
Venus	113410-08-07 05:29 G	43143429.59	43143429.73	43143429.88	0.0508	0.0348
Earth	113411-02-18 06:41 G	43143624.55	43143624.78	43143625.01	0.0516	0.0015
Moon	113411-02-18 09:34 G	43143624.67	43143624.90	43143625.13	0.0516	0.0013 *
Mercury	113415-07-18 02:08 G	43145235.47	43145235.59	43145235.71	0.0528	0.0240
Mercury	113415-10-15 10:03 G	43145324.84	43145324.92	43145325.00	0.0524	0.0418
Venus	113415-10-20 06:56 G	43145329.59	43145329.79	43145329.98	0.0524	0.0163
Earth	113416-08-15 05:58 G	43145629.51	43145629.75	43145629.98	0.0512	0.0079
Moon	113416-08-15 09:34 G	43145629.66	43145629.90	43145630.13	0.0512	0.0074 *
Mercury	113421-11-27 03:49 G	43147559.48	43147559.66	43147559.83	0.0501	0.0064
Venus	113422-04-12 05:29 G	43147695.54	43147695.73	43147695.94	0.0506	0.0087
Moon	113423-02-22 21:49 G	43148012.23	43148012.41	43148012.60	0.0518	0.0309
Earth	113423-02-23 00:27 G	43148012.34	43148012.52	43148012.71	0.0518	0.0317 *
Mercury	113427-05-06 05:29 G	43149545.65	43149545.73	43149545.81	0.0529	0.0412
Venus	113427-06-24 22:17 G	43149595.34	43149595.43	43149595.53	0.0527	0.0463
Mercury	113427-08-03 13:39 G	43149634.96	43149635.07	43149635.19	0.0525	0.0257
Moon	113428-08-19 20:51 G	43150017.16	43150017.37	43150017.58	0.0510	0.0215
Earth	113428-08-20 00:27 G	43150017.32	43150017.52	43150017.73	0.0510	0.0245 *
Mercury	113433-09-15 02:08 G	43151869.44	43151869.59	43151869.73	0.0499	0.0261
Venus	113433-12-16 05:01 G	43151961.52	43151961.71	43151961.90	0.0503	0.0179
Mercury	113439-05-22 17:01 G	43153945.08	43153945.21	43153945.34	0.0527	0.0084
Venus	113439-10-23 04:17 G	43154098.51	43154098.68	43154098.85	0.0521	0.0296

Mercury	113445-07-04 00:27 G	43156179.46	43156179.52	43156179.60	0.0499	0.0451
Venus	113445-08-21 05:15 G	43156227.63	43156227.72	43156227.82	0.0500	0.0433
Mercury	113445-10-02 05:15 G	43156269.58	43156269.72	43156269.85	0.0502	0.0328
Venus	113446-04-14 16:17 G	43156464.15	43156464.18	43156464.23	0.0509	0.0497
Mercury	113451-03-10 20:51 G	43158255.24	43158255.37	43158255.50	0.0528	0.0078
Venus	113451-06-27 21:34 G	43158364.20	43158364.40	43158364.61	0.0524	0.0010
Mercury	113457-07-21 02:51 G	43160579.45	43160579.62	43160579.80	0.0501	0.0124
Venus	113457-12-18 15:34 G	43160729.97	43160730.15	43160730.33	0.0507	0.0231
Mercury	113462-12-28 00:41 G	43162565.42	43162565.53	43162565.65	0.0528	0.0239
Venus	113463-03-02 14:51 G	43162629.95	43162630.12	43162630.29	0.0526	0.0290
Mercury	113463-03-27 08:37 G	43162654.79	43162654.86	43162654.94	0.0525	0.0422
Mercury	113469-05-09 01:39 G	43164889.39	43164889.57	43164889.74	0.0501	0.0068
Venus	113469-08-23 16:03 G	43164995.97	43164996.17	43164996.37	0.0504	0.0028
Mercury	113474-10-16 04:03 G	43166875.59	43166875.67	43166875.75	0.0529	0.0411
Mercury	113475-01-13 12:27 G	43166964.90	43166965.02	43166965.13	0.0526	0.0258
Venus	113475-06-30 20:37 G	43167133.28	43167133.36	43167133.45	0.0519	0.0467
Mars	113477-12-23 17:15 G	43168039.94	43168040.22	43168040.51	0.0489	0.0148
Mercury	113481-02-25 00:27 G	43169199.37	43169199.52	43169199.67	0.0500	0.0256
Venus	113481-04-28 16:46 G	43169262.04	43169262.20	43169262.37	0.0502	0.0285
Earth	113482-02-12 19:25 G	43169552.15	43169552.31	43169552.47	0.0513	0.0374
Moon	113482-02-12 19:10 G	43169552.16	43169552.30	43169552.45	0.0513	0.0404 *
Mercury	113486-11-01 15:49 G	43171275.04	43171275.16	43171275.29	0.0526	0.0094
Venus	113487-03-05 12:56 G	43171398.85	43171399.04	43171399.24	0.0522	0.0177
Moon	113487-08-10 10:03 G	43171556.82	43171556.92	43171557.03	0.0515	0.0462
Earth	113487-08-10 13:10 G	43171556.95	43171557.05	43171557.17	0.0515	0.0450 *
Mercury	113492-12-13 22:46 G	43173509.38	43173509.45	43173509.53	0.0499	0.0447
Mercury	113493-03-14 03:20 G	43173599.51	43173599.64	43173599.78	0.0502	0.0332
Venus	113493-08-26 03:49 G	43173764.53	43173764.66	43173764.79	0.0508	0.0385
Moon	113494-02-17 08:37 G	43173939.64	43173939.86	43173940.08	0.0515	0.0062
Earth	113494-02-17 09:05 G	43173939.65	43173939.88	43173940.11	0.0515	0.0058 *

Mars	113495-12-04 07:39 G	43174594.69	43174594.82	43174594.97	0.0538	0.0446
Mercury	113498-08-20 18:56 G	43175585.16	43175585.29	43175585.42	0.0528	0.0086
Venus	113498-11-08 03:34 G	43175664.45	43175664.65	43175664.85	0.0525	0.0129
Earth	113499-08-15 07:25 G	43175944.58	43175944.81	43175945.04	0.0514	0.0122
Moon	113499-08-15 10:03 G	43175944.70	43175944.92	43175945.15	0.0513	0.0100 *
Mercury	113505-01-01 01:25 G	43177909.39	43177909.56	43177909.73	0.0501	0.0130
Venus	113505-05-02 03:05 G	43178030.43	43178030.63	43178030.83	0.0505	0.0120
Earth	113506-02-23 00:41 G	43178327.33	43178327.53	43178327.73	0.0517	0.0265
Moon	113506-02-23 02:08 G	43178327.40	43178327.59	43178327.79	0.0517	0.0292 *
Mercury	113510-06-09 22:32 G	43179895.33	43179895.44	43179895.56	0.0529	0.0252
Venus	113510-07-14 19:53 G	43179930.22	43179930.33	43179930.45	0.0527	0.0427
Mercury	113510-09-07 06:41 G	43179984.70	43179984.78	43179984.86	0.0525	0.0410
Moon	113511-08-21 01:10 G	43180332.34	43180332.55	43180332.77	0.0511	0.0235
Earth	113511-08-21 03:20 G	43180332.43	43180332.64	43180332.86	0.0511	0.0206 *
Mercury	113516-10-19 23:15 G	43182219.30	43182219.47	43182219.64	0.0500	0.0074
Venus	113517-01-05 02:08 G	43182296.40	43182296.59	43182296.79	0.0503	0.0143
Mercury	113522-03-29 02:22 G	43184205.52	43184205.60	43184205.69	0.0529	0.0414
Mercury	113522-06-26 10:46 G	43184294.84	43184294.95	43184295.07	0.0526	0.0257
Venus	113522-11-12 04:32 G	43184433.54	43184433.69	43184433.84	0.0520	0.0344
Mercury	113528-08-07 22:03 G	43186529.27	43186529.42	43186529.57	0.0500	0.0262
Venus	113528-09-10 03:05 G	43186562.51	43186562.63	43186562.75	0.0501	0.0397
Mercury	113534-04-14 14:22 G	43188604.97	43188605.10	43188605.23	0.0527	0.0092
Venus	113534-07-17 20:37 G	43188699.16	43188699.36	43188699.57	0.0523	0.0049
Mercury	113540-05-26 20:51 G	43190839.30	43190839.37	43190839.45	0.0499	0.0448
Mercury	113540-08-25 01:25 G	43190929.43	43190929.56	43190929.70	0.0502	0.0332
Venus	113541-01-07 14:51 G	43191064.95	43191065.12	43191065.29	0.0507	0.0275
Mercury	113546-01-31 17:58 G	43192915.12	43192915.25	43192915.38	0.0527	0.0079
Venus	113546-03-22 12:13 G	43192964.83	43192965.01	43192965.19	0.0526	0.0252
Mercury	113552-06-12 23:29 G	43195239.32	43195239.48	43195239.66	0.0501	0.0132
Venus	113552-09-12 14:22 G	43195330.89	43195331.10	43195331.30	0.0504	0.0010

Mercury	113557-11-19 20:37 G	43197225.25	43197225.36	43197225.48	0.0529	0.0262
Mercury	113558-02-17 04:46 G	43197314.62	43197314.70	43197314.78	0.0525	0.0401
Venus	113558-07-20 16:32 G	43197468.14	43197468.19	43197468.25	0.0519	0.0500
Mercury	113564-03-31 21:49 G	43199549.23	43199549.41	43199549.58	0.0500	0.0068
Venus	113564-05-18 14:08 G	43199596.92	43199597.09	43199597.27	0.0502	0.0250
Earth	113565-02-12 20:08 G	43199867.21	43199867.34	43199867.47	0.0512	0.0421
Moon	113565-02-12 23:44 G	43199867.36	43199867.49	43199867.64	0.0512	0.0406 *
Mercury	113569-09-08 00:13 G	43201535.43	43201535.51	43201535.59	0.0530	0.0430
Mercury	113569-12-06 08:37 G	43201624.75	43201624.86	43201624.98	0.0526	0.0242
Venus	113570-03-25 09:49 G	43201733.72	43201733.91	43201734.09	0.0522	0.0211
Earth	113570-08-10 12:56 G	43201871.99	43201872.04	43201872.11	0.0516	0.0499
Moon	113570-08-10 14:08 G	43201872.09	43201872.09	43201872.11	0.0516	0.0516 *
Mercury	113576-01-18 19:25 G	43203859.17	43203859.31	43203859.46	0.0499	0.0271
Venus	113576-09-14 23:58 G	43204099.39	43204099.50	43204099.61	0.0508	0.0419
Moon	113577-02-17 06:27 G	43204254.55	43204254.77	43204254.99	0.0514	0.0129
Earth	113577-02-17 10:03 G	43204254.69	43204254.92	43204255.15	0.0514	0.0109 *
Mercury	113581-09-24 12:41 G	43205934.90	43205935.03	43205935.16	0.0527	0.0086
Venus	113581-11-28 03:20 G	43205999.44	43205999.64	43205999.85	0.0524	0.0082
Moon	113582-08-15 09:20 G	43206259.69	43206259.89	43206260.11	0.0514	0.0197
Earth	113582-08-15 11:01 G	43206259.74	43206259.96	43206260.19	0.0514	0.0163 *
Mercury	113587-11-06 18:13 G	43208169.20	43208169.26	43208169.33	0.0499	0.0457
Mercury	113588-02-04 22:46 G	43208259.32	43208259.45	43208259.59	0.0502	0.0321
Venus	113588-05-21 00:13 G	43208365.32	43208365.51	43208365.70	0.0506	0.0157
Earth	113589-02-22 03:34 G	43208642.45	43208642.65	43208642.86	0.0517	0.0219
Moon	113589-02-22 07:25 G	43208642.59	43208642.81	43208643.02	0.0517	0.0188 *
Mercury	113593-07-13 16:17 G	43210245.05	43210245.18	43210245.31	0.0528	0.0082
Venus	113593-08-02 18:56 G	43210265.16	43210265.29	43210265.43	0.0527	0.0383
Earth	113594-08-20 05:15 G	43210647.49	43210647.72	43210647.94	0.0511	0.0159
Moon	113594-08-20 07:10 G	43210647.57	43210647.80	43210648.03	0.0511	0.0147 *
Mercury	113599-11-23 21:20 G	43212569.22	43212569.39	43212569.56	0.0501	0.0126

Venus	113600-01-25 00:41 G	43212631.33	43212631.53	43212631.73	0.0503	0.0103
Mercury	113605-05-01 19:25 G	43214555.20	43214555.31	43214555.43	0.0528	0.0255
Mercury	113605-07-30 03:34 G	43214644.57	43214644.65	43214644.73	0.0525	0.0407
Venus	113605-12-01 01:10 G	43214768.41	43214768.55	43214768.69	0.0520	0.0381
Moon	113606-08-24 20:22 G	43215035.30	43215035.35	43215035.40	0.0509	0.0496
Earth	113606-08-24 22:17 G	43215035.36	43215035.43	43215035.53	0.0509	0.0475 *
Mercury	113611-09-11 19:39 G	43216879.15	43216879.32	43216879.50	0.0500	0.0069
Venus	113611-09-30 01:25 G	43216897.42	43216897.56	43216897.70	0.0501	0.0360
Mercury	113617-02-17 22:03 G	43218865.35	43218865.42	43218865.50	0.0530	0.0442
Mercury	113617-05-18 06:41 G	43218954.66	43218954.78	43218954.90	0.0526	0.0232
Venus	113617-08-05 15:20 G	43219033.94	43219034.14	43219034.35	0.0523	0.0078
Mercury	113623-06-30 17:58 G	43221189.10	43221189.25	43221189.40	0.0499	0.0264
Venus	113624-01-27 11:29 G	43221399.82	43221399.98	43221400.14	0.0507	0.0308
Mercury	113629-03-06 10:17 G	43223264.80	43223264.93	43223265.06	0.0527	0.0070
Venus	113629-04-10 07:39 G	43223299.64	43223299.82	43223300.01	0.0526	0.0221
Mars	113632-03-19 03:49 G	43224373.39	43224373.66	43224373.94	0.0489	0.0181
Mercury	113635-04-18 15:49 G	43225499.10	43225499.16	43225499.22	0.0498	0.0465
Mercury	113635-07-17 19:53 G	43225589.20	43225589.33	43225589.48	0.0502	0.0310
Venus	113635-10-02 09:34 G	43225665.70	43225665.90	43225666.10	0.0504	0.0040
Venus	113640-12-14 00:41 G	43227565.50	43227565.53	43227565.57	0.0528	0.0518
Mercury	113640-12-23 14:22 G	43227574.97	43227575.10	43227575.23	0.0528	0.0089
Mercury	113647-05-05 18:27 G	43229899.10	43229899.27	43229899.44	0.0501	0.0114
Venus	113647-06-07 10:03 G	43229931.74	43229931.92	43229932.11	0.0502	0.0218
Earth	113648-02-12 21:20 G	43230182.31	43230182.39	43230182.49	0.0512	0.0471
Moon	113648-02-13 00:27 G	43230182.43	43230182.52	43230182.62	0.0512	0.0457 *
Mars	113650-02-28 03:20 G	43230928.39	43230928.64	43230928.89	0.0539	0.0108
Mercury	113652-10-11 17:44 G	43231885.13	43231885.24	43231885.36	0.0528	0.0259
Mercury	113653-01-09 01:53 G	43231974.50	43231974.58	43231974.66	0.0525	0.0403
Venus	113653-04-13 08:08 G	43232068.67	43232068.84	43232069.03	0.0521	0.0254
Moon	113653-08-09 18:13 G	43232187.23	43232187.26	43232187.28	0.0516	0.0513

Venus	113659-02-10 11:15 G	43234197.91	43234197.97	43234198.04	0.0500	0.0471
Mercury	113659-02-21 17:01 G	43234209.04	43234209.21	43234209.39	0.0500	0.0079
Venus	113659-10-04 22:17 G	43234434.35	43234434.43	43234434.52	0.0509	0.0461
Moon	113660-02-17 11:15 G	43234569.74	43234569.97	43234570.20	0.0514	0.0117
Earth	113660-02-17 14:22 G	43234569.88	43234570.10	43234570.32	0.0514	0.0151 *
Mercury	113664-07-30 21:05 G	43236195.30	43236195.38	43236195.45	0.0529	0.0433
Mercury	113664-10-28 05:29 G	43236284.61	43236284.73	43236284.85	0.0526	0.0239
Venus	113664-12-16 23:58 G	43236334.30	43236334.50	43236334.71	0.0524	0.0046
Moon	113665-08-14 05:58 G	43236574.53	43236574.75	43236574.96	0.0514	0.0199
Earth	113665-08-14 09:49 G	43236574.70	43236574.91	43236575.12	0.0514	0.0219 *
Mercury	113670-12-10 15:49 G	43238519.02	43238519.16	43238519.31	0.0499	0.0267
Venus	113671-06-09 22:17 G	43238700.24	43238700.43	43238700.61	0.0506	0.0195
Earth	113672-02-22 05:44 G	43238957.53	43238957.74	43238957.96	0.0516	0.0172
Moon	113672-02-22 08:37 G	43238957.65	43238957.86	43238958.07	0.0516	0.0193 *
Mercury	113676-08-16 08:22 G	43240594.72	43240594.85	43240594.98	0.0527	0.0060
Venus	113676-08-21 13:10 G	43240599.90	43240600.05	43240600.20	0.0527	0.0356
Earth	113677-08-19 01:53 G	43240962.35	43240962.58	43240962.82	0.0513	0.0101
Moon	113677-08-19 06:13 G	43240962.53	43240962.76	43240962.99	0.0513	0.0085 *
Mercury	113682-09-28 14:22 G	43242829.04	43242829.10	43242829.17	0.0498	0.0458
Mercury	113682-12-27 18:41 G	43242919.14	43242919.28	43242919.42	0.0501	0.0316
Venus	113683-02-12 21:34 G	43242966.20	43242966.40	43242966.60	0.0503	0.0068
Moon	113684-02-26 18:41 G	43243345.20	43243345.28	43243345.38	0.0518	0.0478
Earth	113684-02-26 21:20 G	43243345.32	43243345.39	43243345.46	0.0518	0.0492 *
Mercury	113688-06-04 11:58 G	43244904.87	43244905.00	43244905.13	0.0528	0.0107
Venus	113688-12-19 20:37 G	43245103.24	43245103.36	43245103.48	0.0520	0.0412
Moon	113689-08-23 17:15 G	43245350.07	43245350.22	43245350.38	0.0510	0.0386
Earth	113689-08-23 21:20 G	43245350.26	43245350.39	43245350.52	0.0510	0.0422 *
Mercury	113694-10-15 15:49 G	43247228.99	43247229.16	43247229.33	0.0501	0.0102
Venus	113694-10-18 19:53 G	43247232.18	43247232.33	43247232.48	0.0501	0.0332
Mercury	113700-03-24 15:49 G	43249215.05	43249215.16	43249215.28	0.0529	0.0268

Mercury	113700-06-21 23:58 G	43249304.42	43249304.50	43249304.59	0.0526	0.0396
Venus	113700-08-25 14:37 G	43249368.91	43249369.11	43249369.31	0.0523	0.0124
Mercury	113706-08-04 14:22 G	43251538.93	43251539.10	43251539.27	0.0500	0.0090
Venus	113707-02-16 07:10 G	43251734.65	43251734.80	43251734.95	0.0507	0.0342
Mercury	113712-01-11 19:25 G	43253525.24	43253525.31	43253525.38	0.0529	0.0437
Mercury	113712-04-10 03:49 G	43253614.54	43253614.66	43253614.78	0.0526	0.0235
Venus	113712-04-30 06:56 G	43253634.60	43253634.79	43253634.98	0.0525	0.0175
Mercury	113718-05-23 13:10 G	43255848.91	43255849.05	43255849.20	0.0499	0.0278
Venus	113718-10-22 07:39 G	43256000.62	43256000.82	43256001.02	0.0505	0.0080
Venus	113724-01-03 21:49 G	43257900.34	43257900.41	43257900.50	0.0528	0.0480
Mercury	113724-01-28 07:25 G	43257924.68	43257924.81	43257924.94	0.0527	0.0069
Mercury	113730-03-11 12:13 G	43260158.95	43260159.01	43260159.08	0.0499	0.0461
Mercury	113730-06-09 16:32 G	43260249.05	43260249.19	43260249.33	0.0502	0.0313
Venus	113730-06-27 08:22 G	43260266.66	43260266.85	43260267.04	0.0502	0.0180
Earth	113731-02-13 01:10 G	43260497.54	43260497.55	43260497.57	0.0511	0.0509
Mercury	113735-11-16 10:03 G	43262234.80	43262234.92	43262235.05	0.0528	0.0115
Venus	113736-05-03 02:51 G	43262403.45	43262403.62	43262403.79	0.0521	0.0283
Venus	113742-03-02 08:22 G	43264532.76	43264532.85	43264532.95	0.0500	0.0435
Mercury	113742-03-28 14:22 G	43264558.93	43264559.10	43264559.28	0.0501	0.0112
Venus	113742-10-24 19:10 G	43264769.27	43264769.30	43264769.35	0.0508	0.0496
Earth	113743-02-17 15:05 G	43264884.92	43264885.13	43264885.34	0.0513	0.0200
Moon	113743-02-17 16:03 G	43264884.96	43264885.17	43264885.39	0.0513	0.0223 *
Mercury	113747-09-04 13:39 G	43266544.96	43266545.07	43266545.18	0.0529	0.0284
Mercury	113747-12-02 21:49 G	43266634.32	43266634.41	43266634.50	0.0526	0.0381
Venus	113748-01-06 19:10 G	43266669.10	43266669.30	43266669.51	0.0524	0.0018
Moon	113748-08-14 04:46 G	43266889.50	43266889.70	43266889.91	0.0515	0.0279
Earth	113748-08-14 07:25 G	43266889.62	43266889.81	43266890.01	0.0515	0.0277 *
Mercury	113754-01-14 11:44 G	43268868.82	43268868.99	43268869.16	0.0500	0.0100
Venus	113754-06-29 16:32 G	43269035.01	43269035.19	43269035.37	0.0506	0.0224
Moon	113755-02-22 01:53 G	43269272.37	43269272.58	43269272.80	0.0515	0.0116

Earth 113755-02-22 03:05 G 43269272.41 43269272.63 43269272.86 0.0515 0.0108 *
 Mercury 113759-06-23 17:15 G 43270855.16 43270855.22 43270855.30 0.0530 0.0447
 Venus 113759-09-11 12:27 G 43270934.86 43270935.02 43270935.19 0.0527 0.0310
 Mercury 113759-09-21 01:53 G 43270944.47 43270944.58 43270944.70 0.0527 0.0228
 Earth 113760-08-19 05:44 G 43271277.51 43271277.74 43271277.98 0.0513 0.0059
 Moon 113760-08-19 07:25 G 43271277.59 43271277.81 43271278.04 0.0513 0.0090 *
 Mercury 113765-11-02 10:32 G 43273178.80 43273178.94 43273179.08 0.0499 0.0288
 Mercury 113766-01-31 15:20 G 43273269.12 43273269.14 43273269.16 0.0502 0.0497
 Venus 113766-03-04 16:46 G 43273301.00 43273301.20 43273301.41 0.0503 0.0039
 Earth 113767-02-26 20:51 G 43273660.25 43273660.37 43273660.50 0.0518 0.0435
 Moon 113767-02-26 22:32 G 43273660.35 43273660.44 43273660.55 0.0518 0.0467 *
 Mercury 113771-07-10 05:44 G 43275254.61 43275254.74 43275254.87 0.0527 0.0066
 Venus 113772-01-09 19:53 G 43275438.24 43275438.33 43275438.43 0.0520 0.0458
 Moon 113772-08-23 23:15 G 43275665.33 43275665.47 43275665.63 0.0510 0.0398
 Earth 113772-08-24 00:27 G 43275665.37 43275665.52 43275665.68 0.0510 0.0378 *
 Mercury 113777-08-21 09:34 G 43277488.85 43277488.90 43277488.95 0.0499 0.0472
 Venus 113777-11-07 17:58 G 43277567.09 43277567.25 43277567.42 0.0501 0.0293
 Mercury 113777-11-19 13:39 G 43277578.93 43277579.07 43277579.21 0.0502 0.0302
 Mercury 113783-04-28 09:05 G 43279564.75 43279564.88 43279565.01 0.0528 0.0104
 Venus 113783-09-14 11:58 G 43279703.81 43279704.00 43279704.20 0.0522 0.0165
 Mars 113786-06-13 11:29 G 43280706.96 43280706.98 43280707.01 0.0489 0.0487
 Mercury 113789-09-07 12:27 G 43281888.85 43281889.02 43281889.19 0.0501 0.0110
 Venus 113790-03-07 05:58 G 43282069.62 43282069.75 43282069.88 0.0507 0.0383
 Mercury 113795-02-14 11:58 G 43283874.89 43283875.00 43283875.11 0.0529 0.0287
 Mercury 113795-05-14 20:08 G 43283964.25 43283964.34 43283964.43 0.0525 0.0377
 Venus 113795-05-20 01:53 G 43283969.39 43283969.58 43283969.78 0.0525 0.0144
 Mercury 113801-06-27 10:46 G 43286198.77 43286198.95 43286199.12 0.0500 0.0088
 Venus 113801-11-11 05:15 G 43286335.53 43286335.72 43286335.92 0.0505 0.0118
 Mars 113804-05-25 11:01 G 43287261.72 43287261.96 43287262.20 0.0538 0.0170
 Mercury 113806-12-04 15:20 G 43288185.07 43288185.14 43288185.20 0.0530 0.0459

Venus	113807-01-23 17:29 G	43288235.13	43288235.23	43288235.34	0.0528	0.0447
Mercury	113807-03-03 23:58 G	43288274.38	43288274.50	43288274.62	0.0527	0.0216
Mercury	113813-04-15 08:08 G	43290508.70	43290508.84	43290508.98	0.0499	0.0295
Mercury	113813-07-14 12:41 G	43290599.00	43290599.03	43290599.07	0.0502	0.0489
Venus	113813-07-17 02:51 G	43290601.43	43290601.62	43290601.82	0.0502	0.0152
Mercury	113818-12-21 04:03 G	43292584.53	43292584.67	43292584.80	0.0528	0.0061
Venus	113819-05-24 02:51 G	43292738.46	43292738.62	43292738.78	0.0521	0.0332
Mercury	113825-02-01 06:56 G	43294818.75	43294818.79	43294818.84	0.0498	0.0479
Venus	113825-03-22 03:49 G	43294867.54	43294867.66	43294867.78	0.0500	0.0405
Mercury	113825-05-02 11:01 G	43294908.82	43294908.96	43294909.11	0.0501	0.0292
Earth	113826-02-17 14:51 G	43295199.92	43295200.12	43295200.32	0.0513	0.0255
Moon	113826-02-17 18:41 G	43295200.08	43295200.28	43295200.48	0.0513	0.0262 *
Mercury	113830-10-09 07:39 G	43296894.69	43296894.82	43296894.95	0.0528	0.0104
Venus	113831-01-26 19:39 G	43297004.12	43297004.32	43297004.53	0.0524	0.0039
Earth	113831-08-15 12:13 G	43297204.83	43297205.01	43297205.20	0.0516	0.0314
Moon	113831-08-15 14:08 G	43297204.91	43297205.09	43297205.27	0.0516	0.0340 *
Mercury	113837-02-18 09:49 G	43299218.73	43299218.91	43299219.08	0.0501	0.0100
Venus	113837-07-19 15:20 G	43299369.98	43299370.14	43299370.32	0.0506	0.0267
Moon	113838-02-22 04:46 G	43299587.47	43299587.70	43299587.94	0.0515	0.0035
Earth	113838-02-22 08:51 G	43299587.64	43299587.87	43299588.10	0.0515	0.0070 *
Mercury	113842-07-28 11:01 G	43301204.85	43301204.96	43301205.08	0.0529	0.0274
Venus	113842-10-01 11:29 G	43301269.80	43301269.98	43301270.16	0.0526	0.0265
Mercury	113842-10-25 19:10 G	43301294.22	43301294.30	43301294.39	0.0525	0.0390
Moon	113843-08-20 05:01 G	43301592.48	43301592.71	43301592.93	0.0513	0.0014
Earth	113843-08-20 07:39 G	43301592.58	43301592.82	43301593.06	0.0513	0.0012 *
Mercury	113848-12-07 08:37 G	43303528.69	43303528.86	43303529.03	0.0500	0.0088
Venus	113849-03-24 16:17 G	43303635.97	43303636.18	43303636.38	0.0504	0.0008
Earth	113850-02-27 02:22 G	43303975.46	43303975.60	43303975.75	0.0517	0.0396
Moon	113850-02-27 06:13 G	43303975.61	43303975.76	43303975.92	0.0517	0.0377 *
Mercury	113854-05-16 13:39 G	43305515.01	43305515.07	43305515.14	0.0530	0.0459

Mercury	113854-08-13 22:17 G	43305604.31	43305604.43	43305604.55	0.0526	0.0216
Venus	113855-01-29 15:49 G	43305773.10	43305773.16	43305773.23	0.0520	0.0493
Earth	113855-08-24 23:29 G	43305980.30	43305980.48	43305980.66	0.0511	0.0324
Moon	113855-08-25 02:51 G	43305980.45	43305980.62	43305980.81	0.0511	0.0340 *
Mercury	113860-09-25 07:10 G	43307838.66	43307838.80	43307838.94	0.0499	0.0279
Venus	113860-11-27 16:17 G	43307902.01	43307902.18	43307902.36	0.0501	0.0254
Mercury	113866-06-02 01:53 G	43309914.45	43309914.58	43309914.72	0.0527	0.0054
Venus	113866-10-04 08:37 G	43310038.68	43310038.86	43310039.05	0.0523	0.0202
Mercury	113872-07-14 04:46 G	43312148.67	43312148.70	43312148.74	0.0498	0.0483
Mercury	113872-10-12 08:51 G	43312238.72	43312238.87	43312239.01	0.0501	0.0287
Venus	113873-03-27 00:56 G	43312404.43	43312404.54	43312404.66	0.0507	0.0413
Mercury	113878-03-21 05:58 G	43314224.62	43314224.75	43314224.88	0.0529	0.0109
Venus	113878-06-09 02:37 G	43314304.41	43314304.61	43314304.81	0.0525	0.0094
Mercury	113884-07-31 07:25 G	43316548.63	43316548.81	43316548.98	0.0500	0.0093
Venus	113884-11-30 01:10 G	43316670.36	43316670.55	43316670.75	0.0505	0.0152
Mercury	113890-01-07 09:34 G	43318534.79	43318534.90	43318535.02	0.0529	0.0273
Venus	113890-02-11 18:56 G	43318570.16	43318570.29	43318570.43	0.0528	0.0395
Mercury	113890-04-06 17:58 G	43318624.16	43318624.25	43318624.33	0.0526	0.0391
Mercury	113896-05-19 06:13 G	43320858.59	43320858.76	43320858.93	0.0500	0.0095
Venus	113896-08-05 02:08 G	43320936.40	43320936.59	43320936.79	0.0503	0.0109
Mercury	113901-10-27 12:56 G	43322844.97	43322845.04	43322845.12	0.0530	0.0444
Mercury	113902-01-24 21:34 G	43322934.29	43322934.40	43322934.52	0.0526	0.0231
Venus	113902-06-13 02:22 G	43323073.47	43323073.60	43323073.75	0.0521	0.0379
Mars	113904-12-02 13:39 G	43323976.90	43323977.07	43323977.26	0.0490	0.0392
Mercury	113908-03-08 05:15 G	43325168.58	43325168.72	43325168.87	0.0499	0.0278
Venus	113908-04-11 03:49 G	43325202.52	43325202.66	43325202.80	0.0500	0.0362
Earth	113909-02-17 22:32 G	43325515.25	43325515.44	43325515.63	0.0512	0.0286
Moon	113909-02-17 23:44 G	43325515.30	43325515.49	43325515.68	0.0512	0.0259 *
Mercury	113913-11-13 00:41 G	43327244.40	43327244.53	43327244.66	0.0527	0.0056
Venus	113914-02-15 17:01 G	43327339.00	43327339.21	43327339.41	0.0524	0.0077

Earth	113914-08-15 12:13 G	43327519.85	43327520.01	43327520.18	0.0516	0.0367
Moon	113914-08-15 16:17 G	43327520.00	43327520.18	43327520.35	0.0516	0.0335 *
Mercury	113919-12-26 04:03 G	43329478.62	43329478.67	43329478.74	0.0498	0.0465
Mercury	113920-03-25 08:08 G	43329568.70	43329568.84	43329568.98	0.0501	0.0307
Venus	113920-08-08 14:37 G	43329704.95	43329705.11	43329705.27	0.0506	0.0311
Moon	113921-02-22 13:25 G	43329902.82	43329903.06	43329903.30	0.0514	0.0048
Earth	113921-02-22 13:39 G	43329902.84	43329903.07	43329903.30	0.0514	0.0028 *
Mercury	113925-09-01 04:17 G	43331554.55	43331554.68	43331554.81	0.0528	0.0112
Venus	113925-10-21 08:51 G	43331604.69	43331604.87	43331605.06	0.0526	0.0226
Moon	113926-08-20 05:44 G	43331907.50	43331907.74	43331907.98	0.0514	0.0039
Earth	113926-08-20 09:05 G	43331907.65	43331907.88	43331908.12	0.0514	0.0038 *
Mercury	113932-01-12 05:29 G	43333878.55	43333878.73	43333878.90	0.0500	0.0093
Venus	113932-04-13 11:58 G	43333970.80	43333971.00	43333971.21	0.0504	0.0040
Moon	113933-02-27 00:56 G	43334290.37	43334290.54	43334290.72	0.0516	0.0323
Earth	113933-02-27 01:10 G	43334290.38	43334290.55	43334290.73	0.0516	0.0337 *
Mercury	113937-06-20 08:08 G	43335864.72	43335864.84	43335864.95	0.0529	0.0276
Venus	113937-06-26 01:39 G	43335870.56	43335870.57	43335870.59	0.0529	0.0527
Mercury	113937-09-17 16:17 G	43335954.10	43335954.18	43335954.27	0.0526	0.0390
Earth	113938-08-25 07:25 G	43336295.62	43336295.81	43336296.01	0.0512	0.0296
Moon	113938-08-25 10:03 G	43336295.73	43336295.92	43336296.12	0.0512	0.0266 *
Mercury	113943-10-31 04:03 G	43338188.50	43338188.67	43338188.85	0.0500	0.0098
Venus	113943-12-18 12:56 G	43338236.86	43338237.04	43338237.23	0.0501	0.0219
Mercury	113949-04-08 11:44 G	43340174.92	43340174.99	43340175.06	0.0530	0.0441
Mercury	113949-07-06 20:22 G	43340264.23	43340264.35	43340264.47	0.0527	0.0234
Venus	113949-10-24 11:01 G	43340373.78	43340373.96	43340374.14	0.0522	0.0256
Mercury	113955-08-19 03:05 G	43342498.49	43342498.63	43342498.78	0.0499	0.0283
Venus	113955-08-23 14:22 G	43342503.04	43342503.10	43342503.17	0.0499	0.0472
Mercury	113955-11-17 07:39 G	43342588.82	43342588.82	43342588.83	0.0502	0.0502
Venus	113956-04-16 01:10 G	43342739.47	43342739.55	43342739.64	0.0508	0.0462
Mercury	113961-04-25 00:13 G	43344574.38	43344574.51	43344574.64	0.0527	0.0073

Venus	113961-06-29 03:34 G	43344639.45	43344639.65	43344639.86	0.0525	0.0042
Mercury	113967-06-07 02:22 G	43346808.54	43346808.60	43346808.67	0.0498	0.0461
Mercury	113967-09-05 06:27 G	43346898.64	43346898.77	43346898.91	0.0501	0.0310
Venus	113967-12-21 02:08 G	43347005.41	43347005.59	43347005.78	0.0505	0.0201
Mercury	113973-02-11 03:05 G	43348884.50	43348884.63	43348884.76	0.0528	0.0105
Venus	113973-03-03 17:29 G	43348905.09	43348905.23	43348905.39	0.0527	0.0351
Mercury	113979-06-24 04:46 G	43351208.53	43351208.70	43351208.88	0.0501	0.0116
Venus	113979-08-26 02:22 G	43351271.40	43351271.60	43351271.80	0.0503	0.0061
Mercury	113984-11-30 06:27 G	43353194.66	43353194.77	43353194.89	0.0529	0.0275
Mercury	113985-02-27 14:51 G	43353284.03	43353284.12	43353284.21	0.0526	0.0390
Venus	113985-07-02 01:10 G	43353408.43	43353408.55	43353408.66	0.0521	0.0423
Mercury	113991-04-12 02:22 G	43355518.43	43355518.60	43355518.78	0.0499	0.0094
Venus	113991-05-01 00:41 G	43355537.38	43355537.53	43355537.69	0.0500	0.0328
Moon	113992-02-17 20:22 G	43355830.20	43355830.35	43355830.51	0.0511	0.0361
Earth	113992-02-17 23:29 G	43355830.31	43355830.48	43355830.66	0.0511	0.0333 *
Mercury	113996-09-18 10:03 G	43357504.85	43357504.92	43357505.00	0.0530	0.0443
Mercury	113996-12-16 18:56 G	43357594.17	43357594.29	43357594.41	0.0527	0.0234
Venus	113997-03-06 18:41 G	43357674.09	43357674.28	43357674.48	0.0524	0.0131
Moon	113997-08-14 20:08 G	43357835.20	43357835.34	43357835.49	0.0517	0.0391
Earth	113997-08-14 20:37 G	43357835.22	43357835.36	43357835.52	0.0517	0.0393 *

115TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 115th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury 114003-01-29 01:25 G 43359828.41 43359828.56 43359828.70 0.0499 0.0280

Mercury 114003-04-29 05:44 G 43359918.74 43359918.74 43359918.75 0.0502 0.0501

Venus 114003-08-28 11:44 G 43360039.85 43360039.99 43360040.14 0.0506 0.0348

Earth 114004-02-22 15:49 G 43360217.93 43360218.16 43360218.39 0.0514 0.0019

Moon 114004-02-22 19:25 G 43360218.07 43360218.31 43360218.54 0.0514 0.0006 *

Mercury 114008-10-04 22:46 G 43361904.32 43361904.45 43361904.59 0.0528 0.0079

Venus 114008-11-09 11:58 G 43361939.81 43361940.00 43361940.20 0.0526 0.0169

Earth 114009-08-19 18:56 G 43362223.05 43362223.29 43362223.52 0.0515 0.0060

Moon 114009-08-19 20:08 G 43362223.09 43362223.34 43362223.58 0.0515 0.0027 *

Mercury 114014-11-17 00:27 G 43364138.46 43364138.52 43364138.59 0.0498 0.0462

Mercury 114015-02-15 04:32 G 43364228.55 43364228.69 43364228.83 0.0501 0.0308

Venus 114015-05-03 12:41 G 43364305.83 43364306.03 43364306.23 0.0504 0.0087

Moon 114016-02-27 06:27 G 43364605.60 43364605.77 43364605.95 0.0516 0.0341

Earth 114016-02-27 10:17 G 43364605.75 43364605.93 43364606.12 0.0516 0.0308 *

Venus 114020-07-15 04:17 G 43366205.59 43366205.68 43366205.77 0.0529 0.0471

Mercury 114020-07-24 02:37 G 43366214.48 43366214.61 43366214.74 0.0528 0.0087

Moon 114021-08-24 12:56 G 43366610.85 43366611.04 43366611.23 0.0512 0.0281

Earth 114021-08-24 14:51 G 43366610.92 43366611.12 43366611.33 0.0512 0.0265 *

Mercury 114026-12-04 03:20 G 43368538.47 43368538.64 43368538.81 0.0501 0.0120

Venus 114027-01-06 14:22 G 43368571.91 43368572.10 43368572.29 0.0502 0.0170

Mercury 114032-05-12 05:44 G 43370524.62 43370524.74 43370524.85 0.0529 0.0264

Mercury 114032-08-09 13:53 G 43370614.00 43370614.08 43370614.16 0.0526 0.0400

Venus 114032-11-12 10:32 G 43370708.77 43370708.94 43370709.10 0.0522 0.0303

Venus 114038-09-11 15:20 G 43372838.04 43372838.14 43372838.25 0.0499 0.0424

Mercury 114038-09-22 02:08 G 43372848.41 43372848.59 43372848.76 0.0500 0.0071

Mercury 114044-02-29 08:51 G 43374834.80 43374834.87 43374834.95 0.0530 0.0436

Mercury 114044-05-28 17:44 G 43374924.12 43374924.24 43374924.35 0.0527 0.0239

Venus 114044-07-18 02:51 G 43374974.42 43374974.62 43374974.83 0.0525 0.0012

Mercury 114050-07-10 23:58 G 43377158.35 43377158.50 43377158.64 0.0498 0.0273

Venus	114051-01-08 23:44 G	43377340.31	43377340.49	43377340.67	0.0505	0.0237
Mercury	114056-03-16 21:34 G	43379234.27	43379234.40	43379234.53	0.0528	0.0079
Venus	114056-03-22 19:25 G	43379240.15	43379240.31	43379240.48	0.0528	0.0299
Mars	114059-02-26 23:58 G	43380311.21	43380311.50	43380311.80	0.0490	0.0029
Mercury	114062-04-28 23:01 G	43381468.40	43381468.46	43381468.53	0.0498	0.0455
Mercury	114062-07-28 02:51 G	43381558.48	43381558.62	43381558.76	0.0501	0.0312
Venus	114062-09-14 00:27 G	43381606.31	43381606.52	43381606.72	0.0503	0.0024
Mercury	114068-01-04 01:25 G	43383544.43	43383544.56	43383544.69	0.0529	0.0081
Venus	114068-07-21 04:17 G	43383743.61	43383743.68	43383743.76	0.0521	0.0481
Mercury	114074-05-16 01:25 G	43385868.39	43385868.56	43385868.74	0.0500	0.0121
Venus	114074-05-20 01:39 G	43385872.41	43385872.57	43385872.74	0.0500	0.0281
Moon	114075-02-17 06:13 G	43386145.60	43386145.76	43386145.93	0.0511	0.0363
Earth	114075-02-17 09:05 G	43386145.72	43386145.88	43386146.05	0.0511	0.0357 *
Mars	114077-02-08 18:13 G	43386868.08	43386868.26	43386868.44	0.0538	0.0375
Mercury	114079-10-23 05:01 G	43387854.60	43387854.71	43387854.83	0.0529	0.0246
Mercury	114080-01-20 13:25 G	43387943.98	43387944.06	43387944.14	0.0526	0.0418
Venus	114080-03-25 21:34 G	43388009.21	43388009.40	43388009.59	0.0523	0.0188
Moon	114080-08-14 01:10 G	43388150.44	43388150.55	43388150.66	0.0517	0.0453
Earth	114080-08-14 05:15 G	43388150.59	43388150.72	43388150.86	0.0517	0.0418 *
Mercury	114086-03-04 00:41 G	43390178.35	43390178.53	43390178.70	0.0500	0.0065
Venus	114086-09-16 13:53 G	43390374.96	43390375.08	43390375.21	0.0507	0.0402
Earth	114087-02-22 02:51 G	43390533.39	43390533.62	43390533.85	0.0513	0.0040
Moon	114087-02-22 05:01 G	43390533.49	43390533.71	43390533.94	0.0513	0.0070 *
Mercury	114091-08-11 08:08 G	43392164.76	43392164.84	43392164.92	0.0530	0.0424
Mercury	114091-11-08 16:46 G	43392254.08	43392254.20	43392254.31	0.0527	0.0250
Venus	114091-11-29 12:27 G	43392274.83	43392275.02	43392275.22	0.0526	0.0119
Earth	114092-08-18 23:44 G	43392538.26	43392538.49	43392538.72	0.0515	0.0096
Moon	114092-08-19 03:49 G	43392538.43	43392538.66	43392538.89	0.0515	0.0120 *
Mercury	114097-12-20 23:29 G	43394488.33	43394488.48	43394488.63	0.0499	0.0250
Venus	114098-05-22 14:22 G	43394640.90	43394641.10	43394641.29	0.0504	0.0138

Moon	114099-02-26 17:44 G	43394921.04	43394921.24	43394921.45	0.0515	0.0261
Earth	114099-02-26 19:10 G	43394921.11	43394921.30	43394921.50	0.0515	0.0280 *
Venus	114103-08-05 04:03 G	43396540.56	43396540.67	43396540.79	0.0528	0.0424
Mercury	114103-08-28 20:22 G	43396564.22	43396564.35	43396564.48	0.0528	0.0086
Moon	114104-08-24 16:17 G	43396925.98	43396926.18	43396926.40	0.0513	0.0236
Earth	114104-08-24 20:22 G	43396926.14	43396926.35	43396926.56	0.0513	0.0228 *
Mercury	114109-10-09 21:34 G	43398798.33	43398798.40	43398798.48	0.0498	0.0447
Mercury	114110-01-08 01:25 G	43398888.43	43398888.56	43398888.70	0.0501	0.0320
Venus	114110-01-26 12:56 G	43398906.85	43398907.04	43398907.24	0.0501	0.0131
Mercury	114115-06-16 23:58 G	43400874.37	43400874.50	43400874.63	0.0529	0.0080
Venus	114115-12-03 12:41 G	43401043.88	43401044.03	43401044.18	0.0522	0.0357
Venus	114121-10-01 14:08 G	43403172.97	43403173.09	43403173.22	0.0499	0.0386
Mercury	114121-10-26 23:58 G	43403198.33	43403198.50	43403198.68	0.0500	0.0128
Mercury	114127-04-05 03:49 G	43405184.54	43405184.66	43405184.78	0.0530	0.0242
Mercury	114127-07-03 11:58 G	43405273.93	43405274.00	43405274.08	0.0526	0.0425
Venus	114127-08-08 06:13 G	43405309.56	43405309.76	43405309.97	0.0525	0.0062
Mercury	114133-08-14 22:46 G	43407508.28	43407508.45	43407508.63	0.0499	0.0063
Venus	114134-01-29 01:10 G	43407675.38	43407675.55	43407675.71	0.0506	0.0288
Mercury	114139-01-22 07:25 G	43409494.73	43409494.81	43409494.89	0.0530	0.0407
Venus	114139-04-12 23:01 G	43409575.28	43409575.46	43409575.64	0.0527	0.0239
Mercury	114139-04-21 16:03 G	43409584.06	43409584.17	43409584.29	0.0527	0.0268
Mercury	114145-06-02 22:03 G	43411818.27	43411818.42	43411818.58	0.0499	0.0243
Venus	114145-10-04 02:22 G	43411941.40	43411941.60	43411941.81	0.0503	0.0029
Mercury	114151-02-07 19:25 G	43413894.18	43413894.31	43413894.44	0.0527	0.0099
Mercury	114157-03-21 21:20 G	43416128.30	43416128.39	43416128.48	0.0498	0.0425
Venus	114157-06-09 03:34 G	43416207.47	43416207.65	43416207.83	0.0501	0.0229
Mercury	114157-06-20 01:10 G	43416218.42	43416218.55	43416218.68	0.0501	0.0344
Earth	114158-02-17 19:25 G	43416461.16	43416461.31	43416461.46	0.0510	0.0380
Moon	114158-02-17 21:05 G	43416461.21	43416461.38	43416461.56	0.0510	0.0347 *
Mercury	114162-11-26 23:01 G	43418204.33	43418204.46	43418204.59	0.0529	0.0069

Venus	114163-04-15 21:49 G	43418344.23	43418344.41	43418344.59	0.0523	0.0237
Moon	114163-08-15 08:08 G	43418465.71	43418465.84	43418465.98	0.0518	0.0428
Earth	114163-08-15 10:03 G	43418465.81	43418465.92	43418466.03	0.0518	0.0457 *
Venus	114169-02-12 03:05 G	43420473.60	43420473.63	43420473.67	0.0498	0.0490
Mercury	114169-04-07 23:01 G	43420528.29	43420528.46	43420528.63	0.0500	0.0138
Venus	114169-10-06 12:41 G	43420709.94	43420710.03	43420710.13	0.0506	0.0441
Moon	114170-02-22 05:15 G	43420848.49	43420848.72	43420848.94	0.0512	0.0052
Earth	114170-02-22 06:56 G	43420848.56	43420848.79	43420849.02	0.0512	0.0078 *
Mercury	114174-09-15 02:22 G	43422514.48	43422514.60	43422514.72	0.0530	0.0242
Mercury	114174-12-13 10:46 G	43422603.88	43422603.95	43422604.03	0.0527	0.0425
Venus	114174-12-19 13:53 G	43422609.88	43422610.08	43422610.29	0.0526	0.0069
Earth	114175-08-20 08:22 G	43422853.62	43422853.85	43422854.08	0.0516	0.0120
Moon	114175-08-20 09:20 G	43422853.67	43422853.89	43422854.11	0.0516	0.0126 *
Mercury	114181-01-24 21:34 G	43424838.23	43424838.40	43424838.58	0.0499	0.0053
Venus	114181-06-11 13:10 G	43424975.86	43424976.05	43424976.24	0.0504	0.0178
Earth	114182-02-26 22:46 G	43425236.25	43425236.45	43425236.66	0.0514	0.0239
Moon	114182-02-27 00:56 G	43425236.33	43425236.54	43425236.76	0.0514	0.0231 *
Mercury	114186-07-04 05:58 G	43426824.67	43426824.75	43426824.84	0.0531	0.0406
Venus	114186-08-24 06:41 G	43426875.64	43426875.78	43426875.93	0.0529	0.0371
Mercury	114186-10-01 14:51 G	43426914.01	43426914.12	43426914.23	0.0527	0.0271
Moon	114187-08-25 05:44 G	43427241.51	43427241.74	43427241.97	0.0514	0.0178
Earth	114187-08-25 06:27 G	43427241.56	43427241.77	43427241.99	0.0514	0.0211 *
Mercury	114192-11-12 20:22 G	43429148.20	43429148.35	43429148.51	0.0499	0.0240
Venus	114193-02-14 13:53 G	43429241.88	43429242.08	43429242.28	0.0502	0.0083
Mercury	114198-07-20 18:41 G	43431224.15	43431224.28	43431224.41	0.0528	0.0114
Venus	114198-12-22 15:49 G	43431379.04	43431379.16	43431379.29	0.0522	0.0416
Moon	114199-08-30 03:05 G	43431629.62	43431629.63	43431629.65	0.0511	0.0510
Mercury	114204-09-01 19:39 G	43433458.24	43433458.32	43433458.42	0.0498	0.0419
Venus	114204-10-21 15:49 G	43433508.01	43433508.16	43433508.31	0.0500	0.0337
Mercury	114204-11-30 23:44 G	43433548.36	43433548.49	43433548.61	0.0501	0.0350

Mercury 114210-05-09 22:03 G 43435534.29 43435534.42 43435534.55 0.0528 0.0059

Venus 114210-08-28 07:25 G 43435644.61 43435644.81 43435645.01 0.0524 0.0114

Mars 114213-05-25 10:03 G 43436645.81 43436645.92 43436646.05 0.0489 0.0447

Mercury 114216-09-18 22:17 G 43437858.27 43437858.43 43437858.60 0.0500 0.0159

Venus 114217-02-18 02:51 G 43438010.47 43438010.62 43438010.77 0.0506 0.0340

Mercury 114222-02-26 01:25 G 43439844.44 43439844.56 43439844.68 0.0529 0.0229

Venus 114222-05-02 23:15 G 43439910.28 43439910.47 43439910.66 0.0527 0.0190

Mercury 114222-05-26 09:49 G 43439933.84 43439933.91 43439933.98 0.0526 0.0436

Mercury 114228-07-07 20:22 G 43442168.18 43442168.35 43442168.53 0.0499 0.0043

Venus 114228-10-24 01:53 G 43442276.38 43442276.58 43442276.78 0.0503 0.0070

Mars 114231-05-07 18:13 G 43443202.01 43443202.26 43443202.52 0.0538 0.0013

Mercury 114233-12-15 04:32 G 43444154.61 43444154.69 43444154.77 0.0531 0.0407

Venus 114234-01-05 13:39 G 43444176.02 43444176.07 43444176.14 0.0530 0.0505

Mercury 114234-03-14 13:25 G 43444243.95 43444244.06 43444244.17 0.0528 0.0271

Mercury 114240-04-25 19:10 G 43446478.15 43446478.30 43446478.46 0.0498 0.0230

Venus 114240-06-29 02:37 G 43446542.42 43446542.61 43446542.80 0.0500 0.0190

Earth 114241-02-17 23:58 G 43446776.36 43446776.50 43446776.63 0.0509 0.0413

Moon 114241-02-18 03:34 G 43446776.55 43446776.65 43446776.77 0.0509 0.0442 *

Mercury 114245-12-31 17:15 G 43448554.09 43448554.22 43448554.35 0.0528 0.0113

Venus 114246-05-05 23:58 G 43448679.33 43448679.50 43448679.67 0.0523 0.0290

Earth 114246-08-15 18:13 G 43448781.18 43448781.26 43448781.35 0.0519 0.0478

Moon 114246-08-15 19:53 G 43448781.26 43448781.33 43448781.42 0.0519 0.0485 *

Mercury 114252-02-12 17:58 G 43450788.16 43450788.25 43450788.35 0.0498 0.0416

Venus 114252-03-04 03:20 G 43450808.56 43450808.64 43450808.74 0.0498 0.0445

Mercury 114252-05-12 21:49 G 43450878.29 43450878.41 43450878.54 0.0501 0.0351

Venus 114252-10-26 13:25 G 43451045.02 43451045.06 43451045.11 0.0507 0.0490

Moon 114253-02-22 11:15 G 43451163.75 43451163.97 43451164.20 0.0512 0.0109

Earth 114253-02-22 15:20 G 43451163.92 43451164.14 43451164.37 0.0512 0.0105 *

Mercury 114257-10-19 21:05 G 43452864.25 43452864.38 43452864.52 0.0529 0.0048

Venus 114258-01-08 17:15 G 43452945.01 43452945.22 43452945.42 0.0526 0.0014

Moon	114258-08-20 14:37 G	43453168.89	43453169.11	43453169.34	0.0516	0.0121
Earth	114258-08-20 17:15 G	43453168.99	43453169.22	43453169.44	0.0516	0.0145 *
Mercury	114264-02-29 20:37 G	43455188.20	43455188.36	43455188.53	0.0500	0.0163
Venus	114264-07-01 14:37 G	43455310.93	43455311.11	43455311.29	0.0505	0.0229
Earth	114265-02-27 09:05 G	43455551.67	43455551.88	43455552.09	0.0514	0.0214
Moon	114265-02-27 13:10 G	43455551.85	43455552.05	43455552.25	0.0514	0.0244 *
Mercury	114269-08-08 00:27 G	43457174.40	43457174.52	43457174.64	0.0529	0.0220
Venus	114269-09-13 07:53 G	43457210.68	43457210.83	43457211.00	0.0528	0.0318
Mercury	114269-11-05 08:37 G	43457263.80	43457263.86	43457263.94	0.0526	0.0445
Earth	114270-08-25 11:58 G	43457556.78	43457557.00	43457557.22	0.0514	0.0175
Moon	114270-08-25 14:51 G	43457556.91	43457557.12	43457557.35	0.0514	0.0205 *
Mercury	114275-12-18 19:39 G	43459498.14	43459498.32	43459498.49	0.0499	0.0026
Venus	114276-03-06 15:20 G	43459576.94	43459577.14	43459577.35	0.0502	0.0033
Mercury	114281-05-27 03:34 G	43461484.56	43461484.65	43461484.74	0.0530	0.0393
Mercury	114281-08-24 12:27 G	43461573.91	43461574.02	43461574.13	0.0527	0.0282
Venus	114282-01-11 15:34 G	43461714.06	43461714.15	43461714.24	0.0521	0.0462
Moon	114282-08-30 04:32 G	43461944.64	43461944.69	43461944.75	0.0512	0.0496
Earth	114282-08-30 07:39 G	43461944.76	43461944.82	43461944.88	0.0512	0.0492
Mercury	114287-10-06 17:58 G	43463808.10	43463808.25	43463808.41	0.0498	0.0220
Venus	114287-11-10 15:34 G	43463842.98	43463843.15	43463843.31	0.0499	0.0295
Mercury	114293-06-12 15:49 G	43465884.03	43465884.16	43465884.29	0.0529	0.0111
Venus	114293-09-16 06:56 G	43465979.60	43465979.79	43465979.99	0.0525	0.0159
Mercury	114299-07-25 17:01 G	43468118.11	43468118.21	43468118.31	0.0497	0.0404
Mercury	114299-10-23 20:37 G	43468208.24	43468208.36	43468208.48	0.0500	0.0361
Venus	114300-03-10 01:25 G	43468345.43	43468345.56	43468345.70	0.0505	0.0379
Mercury	114305-04-01 19:39 G	43470194.18	43470194.32	43470194.45	0.0529	0.0054
Venus	114305-05-22 23:58 G	43470245.30	43470245.50	43470245.69	0.0527	0.0143
Mercury	114311-08-12 18:56 G	43472518.12	43472518.29	43472518.45	0.0500	0.0163
Venus	114311-11-14 01:25 G	43472611.37	43472611.56	43472611.76	0.0503	0.0115
Mercury	114317-01-18 23:15 G	43474504.35	43474504.47	43474504.59	0.0530	0.0213

Venus 114317-01-25 16:17 G 43474511.08 43474511.18 43474511.30 0.0530 0.0447
 Mercury 114317-04-18 07:39 G 43474593.76 43474593.82 43474593.89 0.0526 0.0453
 Mercury 114323-05-31 17:44 G 43476828.07 43476828.24 43476828.42 0.0499 0.0026
 Venus 114323-07-20 02:51 G 43476877.43 43476877.62 43476877.82 0.0501 0.0144
 Earth 114324-02-19 08:37 G 43477091.75 43477091.86 43477091.98 0.0509 0.0440
 Moon 114324-02-19 11:44 G 43477091.87 43477091.99 43477092.13 0.0509 0.0417 *
 Mercury 114328-11-07 02:22 G 43478814.52 43478814.60 43478814.70 0.0530 0.0388
 Mercury 114329-02-04 11:15 G 43478903.86 43478903.97 43478904.08 0.0527 0.0288
 Venus 114329-05-26 00:27 G 43479014.37 43479014.52 43479014.67 0.0523 0.0339
 Earth 114329-08-15 22:46 G 43479096.43 43479096.45 43479096.48 0.0519 0.0515
 Moon 114329-08-16 02:08 G 43479096.57 43479096.59 43479096.63 0.0519 0.0515
 Mars 114331-11-14 03:34 G 43479916.46 43479916.65 43479916.86 0.0491 0.0366
 Mercury 114335-03-19 16:46 G 43481138.05 43481138.20 43481138.36 0.0499 0.0209
 Venus 114335-03-25 04:17 G 43481143.56 43481143.68 43481143.80 0.0499 0.0398
 Moon 114336-02-23 21:20 G 43481479.16 43481479.39 43481479.62 0.0511 0.0141
 Earth 114336-02-24 00:13 G 43481479.29 43481479.51 43481479.74 0.0511 0.0131 *
 Mercury 114340-11-23 14:51 G 43483213.99 43483214.12 43483214.25 0.0528 0.0122
 Venus 114341-01-28 16:03 G 43483279.97 43483280.17 43483280.38 0.0525 0.0039
 Moon 114341-08-20 16:46 G 43483483.99 43483484.20 43483484.41 0.0517 0.0217
 Earth 114341-08-20 20:08 G 43483484.12 43483484.34 43483484.56 0.0517 0.0187 *
 Mercury 114347-01-05 15:34 G 43485448.05 43485448.15 43485448.26 0.0497 0.0397
 Mercury 114347-04-05 19:10 G 43485538.18 43485538.30 43485538.42 0.0500 0.0368
 Venus 114347-07-22 13:39 G 43485645.90 43485646.07 43485646.24 0.0504 0.0269
 Earth 114348-02-28 13:10 G 43485866.83 43485867.05 43485867.27 0.0513 0.0177
 Moon 114348-02-28 15:48 G 43485866.95 43485867.16 43485867.38 0.0513 0.0145 *
 Mercury 114352-09-11 17:44 G 43487524.11 43487524.24 43487524.37 0.0529 0.0057
 Venus 114352-10-03 05:58 G 43487545.58 43487545.75 43487545.92 0.0529 0.0279
 Earth 114353-08-25 15:34 G 43487871.92 43487872.15 43487872.38 0.0515 0.0139
 Moon 114353-08-25 19:10 G 43487872.07 43487872.30 43487872.54 0.0515 0.0118 *
 Mercury 114359-01-22 17:29 G 43489848.07 43489848.23 43489848.40 0.0499 0.0172

Venus	114359-03-27 13:53 G	43489911.88	43489912.08	43489912.28	0.0502	0.0006
Moon	114360-03-04 01:10 G	43490254.46	43490254.55	43490254.66	0.0515	0.0463
Earth	114360-03-04 04:17 G	43490254.62	43490254.68	43490254.76	0.0515	0.0489 *
Mercury	114364-06-30 21:20 G	43491834.27	43491834.39	43491834.51	0.0530	0.0222
Mercury	114364-09-28 05:58 G	43491923.68	43491923.75	43491923.81	0.0527	0.0446
Venus	114365-01-31 15:20 G	43492049.09	43492049.14	43492049.18	0.0522	0.0507
Moon	114365-08-30 09:05 G	43492259.79	43492259.88	43492259.97	0.0513	0.0472
Earth	114365-08-30 12:41 G	43492259.94	43492260.03	43492260.14	0.0513	0.0462 *
Mercury	114370-11-10 15:48 G	43494157.98	43494158.16	43494158.33	0.0499	0.0026
Venus	114370-11-30 13:53 G	43494177.91	43494178.08	43494178.26	0.0500	0.0256
Mercury	114376-04-19 01:10 G	43496144.46	43496144.55	43496144.64	0.0531	0.0386
Mercury	114376-07-17 10:03 G	43496233.81	43496233.92	43496234.03	0.0527	0.0292
Venus	114376-10-06 08:36 G	43496314.68	43496314.86	43496315.05	0.0524	0.0214
Mercury	114382-08-29 14:51 G	43498467.96	43498468.12	43498468.28	0.0498	0.0210
Venus	114383-03-30 00:56 G	43498680.44	43498680.54	43498680.65	0.0506	0.0425
Mars	114385-08-02 06:27 G	43499536.61	43499536.77	43499536.93	0.0538	0.0415
Mercury	114388-05-05 13:24 G	43500543.93	43500544.06	43500544.19	0.0528	0.0125
Venus	114388-06-11 00:12 G	43500580.31	43500580.51	43500580.71	0.0527	0.0093
Mercury	114394-06-17 14:08 G	43502777.98	43502778.09	43502778.19	0.0498	0.0392
Mercury	114394-09-15 17:44 G	43502868.12	43502868.24	43502868.35	0.0501	0.0375
Venus	114394-12-03 01:53 G	43502946.39	43502946.58	43502946.77	0.0504	0.0162
Venus	114400-02-14 14:51 G	43504846.00	43504846.12	43504846.26	0.0529	0.0404
Mercury	114400-02-22 16:46 G	43504854.07	43504854.20	43504854.33	0.0529	0.0045
Mercury	114406-07-04 16:03 G	43507178.00	43507178.17	43507178.33	0.0499	0.0177
Venus	114406-08-08 01:53 G	43507212.39	43507212.58	43507212.78	0.0501	0.0104
Earth	114407-02-18 13:39 G	43507406.99	43507407.07	43507407.16	0.0508	0.0470
Moon	114407-02-18 15:34 G	43507407.10	43507407.15	43507407.21	0.0508	0.0489 *
Mercury	114411-12-11 19:39 G	43509164.20	43509164.32	43509164.44	0.0530	0.0230
Mercury	114412-03-10 04:03 G	43509253.60	43509253.67	43509253.74	0.0527	0.0439
Venus	114412-06-13 21:34 G	43509349.26	43509349.40	43509349.54	0.0523	0.0377

Venus 114418-04-13 02:36 G 43511478.47 43511478.61 43511478.75 0.0498 0.0360

Mercury 114418-04-22 14:36 G 43511487.93 43511488.11 43511488.28 0.0499 0.0021

Moon 114419-02-23 00:56 G 43511794.31 43511794.54 43511794.77 0.0510 0.0159

Earth 114419-02-23 02:51 G 43511794.40 43511794.62 43511794.84 0.0510 0.0172 *

Mercury 114423-09-29 23:00 G 43513474.37 43513474.46 43513474.55 0.0531 0.0398

Mercury 114423-12-28 07:53 G 43513563.72 43513563.83 43513563.94 0.0528 0.0281

Venus 114424-02-17 14:08 G 43513614.89 43513615.09 43513615.29 0.0526 0.0077

Moon 114424-08-19 17:58 G 43513799.04 43513799.25 43513799.47 0.0518 0.0195

Earth 114424-08-19 22:03 G 43513799.21 43513799.42 43513799.64 0.0518 0.0229 *

Mercury 114430-02-08 12:41 G 43515797.87 43515798.03 43515798.19 0.0498 0.0214

Venus 114430-08-10 11:15 G 43515980.81 43515980.97 43515981.13 0.0505 0.0308

Earth 114431-02-27 16:32 G 43516181.96 43516182.19 43516182.41 0.0513 0.0133

Moon 114431-02-27 17:58 G 43516182.04 43516182.25 43516182.46 0.0513 0.0163 *

Mercury 114435-10-16 11:58 G 43517873.87 43517874.00 43517874.13 0.0529 0.0124

Venus 114435-10-23 07:10 G 43517880.61 43517880.80 43517880.98 0.0528 0.0227

Earth 114436-08-24 20:51 G 43518187.14 43518187.37 43518187.60 0.0516 0.0103

Moon 114436-08-25 00:56 G 43518187.31 43518187.54 43518187.76 0.0516 0.0127 *

Mercury 114441-11-27 11:44 G 43520107.89 43520107.99 43520108.10 0.0497 0.0396

Mercury 114442-02-25 15:20 G 43520198.02 43520198.14 43520198.26 0.0500 0.0369

Venus 114442-04-15 11:58 G 43520246.80 43520247.00 43520247.21 0.0502 0.0048

Moon 114443-03-04 08:22 G 43520569.76 43520569.85 43520569.96 0.0515 0.0463

Earth 114443-03-04 09:34 G 43520569.80 43520569.90 43520570.02 0.0515 0.0450 *

Mercury 114447-08-04 15:20 G 43522184.01 43522184.14 43522184.27 0.0529 0.0045

Moon 114448-08-29 12:12 G 43522574.87 43522575.01 43522575.15 0.0513 0.0409

Earth 114448-08-29 15:48 G 43522575.03 43522575.16 43522575.30 0.0513 0.0420 *

Mercury 114453-12-14 14:08 G 43524507.92 43524508.09 43524508.25 0.0500 0.0178

Venus 114453-12-19 13:24 G 43524512.88 43524513.06 43524513.25 0.0500 0.0212

Mercury 114459-05-23 18:27 G 43526494.15 43526494.27 43526494.40 0.0530 0.0219

Mercury 114459-08-21 03:05 G 43526583.56 43526583.63 43526583.70 0.0527 0.0448

Venus 114459-10-26 06:12 G 43526649.58 43526649.76 43526649.94 0.0524 0.0254

Venus	114465-08-24 14:22 G	43528779.04	43528779.10	43528779.18	0.0497	0.0467
Mercury	114465-10-02 12:41 G	43528817.86	43528818.03	43528818.21	0.0499	0.0015
Venus	114466-04-17 23:29 G	43529015.41	43529015.48	43529015.56	0.0506	0.0464
Mercury	114471-03-11 21:05 G	43530804.29	43530804.38	43530804.46	0.0531	0.0408
Mercury	114471-06-09 05:58 G	43530893.64	43530893.75	43530893.86	0.0528	0.0272
Venus	114471-06-30 19:53 G	43530915.12	43530915.33	43530915.53	0.0527	0.0061
Mercury	114477-07-21 11:15 G	43533127.81	43533127.97	43533128.13	0.0498	0.0206
Venus	114477-12-21 23:15 G	43533281.29	43533281.47	43533281.66	0.0503	0.0198
Venus	114483-03-05 11:15 G	43535180.83	43535180.97	43535181.12	0.0530	0.0370
Mercury	114483-03-28 09:48 G	43535203.78	43535203.91	43535204.03	0.0529	0.0110
Mars	114486-02-06 23:44 G	43536250.19	43536250.49	43536250.79	0.0491	0.0004
Mercury	114489-05-09 09:34 G	43537437.80	43537437.90	43537438.00	0.0497	0.0401
Mercury	114489-08-07 12:56 G	43537527.92	43537528.04	43537528.16	0.0500	0.0361
Venus	114489-08-26 22:17 G	43537547.23	43537547.43	43537547.63	0.0501	0.0068
Mercury	114495-01-14 13:39 G	43539513.93	43539514.07	43539514.20	0.0530	0.0052
Venus	114495-07-03 21:34 G	43539684.29	43539684.40	43539684.52	0.0523	0.0426
Venus	114501-05-02 23:29 G	43541813.33	43541813.48	43541813.64	0.0499	0.0325
Mercury	114501-05-27 11:29 G	43541837.82	43541837.98	43541838.15	0.0500	0.0169
Moon	114502-02-23 05:44 G	43542109.53	43542109.74	43542109.95	0.0510	0.0233
Earth	114502-02-23 06:12 G	43542109.55	43542109.76	43542109.97	0.0510	0.0214 *
Mercury	114506-11-03 17:00 G	43543824.09	43543824.21	43543824.33	0.0530	0.0221
Mercury	114507-02-01 01:24 G	43543913.49	43543913.56	43543913.63	0.0527	0.0446
Venus	114507-03-09 13:24 G	43543949.86	43543950.06	43543950.26	0.0525	0.0123
Moon	114507-08-20 20:51 G	43544114.19	43544114.37	43544114.57	0.0518	0.0307
Earth	114507-08-21 00:27 G	43544114.32	43544114.52	43544114.72	0.0518	0.0272 *
Mercury	114513-03-15 10:32 G	43546147.76	43546147.94	43546148.11	0.0499	0.0023
Venus	114513-08-30 10:03 G	43546315.78	43546315.92	43546316.07	0.0505	0.0352
Earth	114514-02-27 22:03 G	43546497.20	43546497.42	43546497.65	0.0512	0.0097
Moon	114514-02-27 22:32 G	43546497.22	43546497.44	43546497.66	0.0512	0.0065 *
Mercury	114518-08-22 19:53 G	43548134.25	43548134.33	43548134.42	0.0531	0.0398

Venus	114518-11-12 04:32 G	43548215.50	43548215.69	43548215.88	0.0528	0.0187
Mercury	114518-11-20 05:00 G	43548223.60	43548223.71	43548223.82	0.0527	0.0280
Earth	114519-08-25 20:22 G	43548502.12	43548502.35	43548502.58	0.0516	0.0052
Moon	114519-08-25 23:29 G	43548502.26	43548502.48	43548502.71	0.0516	0.0038 *
Mercury	114525-01-01 09:20 G	43550457.73	43550457.89	43550458.05	0.0498	0.0206
Venus	114525-05-05 10:32 G	43550581.74	43550581.94	43550582.14	0.0502	0.0086
Moon	114526-03-04 11:58 G	43550884.86	43550885.00	43550885.17	0.0514	0.0391
Earth	114526-03-04 12:41 G	43550884.89	43550885.03	43550885.17	0.0514	0.0407 *
Venus	114530-07-17 16:46 G	43552481.15	43552481.20	43552481.25	0.0531	0.0509
Mercury	114530-09-08 07:39 G	43552533.69	43552533.82	43552533.95	0.0529	0.0101
Moon	114531-08-30 10:03 G	43552889.76	43552889.92	43552890.09	0.0514	0.0378
Earth	114531-08-30 13:39 G	43552889.91	43552890.07	43552890.24	0.0514	0.0366 *
Mercury	114536-10-20 08:08 G	43554767.74	43554767.84	43554767.95	0.0497	0.0393
Venus	114537-01-08 10:46 G	43554847.76	43554847.95	43554848.14	0.0500	0.0175
Mercury	114537-01-18 11:29 G	43554857.86	43554857.98	43554858.10	0.0500	0.0368
Mercury	114542-06-27 11:15 G	43556843.84	43556843.97	43556844.10	0.0530	0.0068
Venus	114542-11-15 02:08 G	43556984.42	43556984.59	43556984.76	0.0524	0.0288
Venus	114548-09-13 09:48 G	43559113.82	43559113.91	43559114.01	0.0497	0.0437
Mercury	114548-11-06 09:05 G	43559167.71	43559167.88	43559168.04	0.0499	0.0160
Venus	114549-05-07 18:56 G	43559350.26	43559350.29	43559350.33	0.0506	0.0496
Mercury	114554-04-15 15:05 G	43561154.01	43561154.13	43561154.25	0.0531	0.0230
Mercury	114554-07-13 23:29 G	43561243.42	43561243.48	43561243.56	0.0527	0.0440
Venus	114554-07-20 19:24 G	43561250.11	43561250.31	43561250.51	0.0527	0.0012
Mercury	114560-08-25 07:53 G	43563477.65	43563477.83	43563478.00	0.0499	0.0030
Venus	114561-01-10 19:39 G	43563616.14	43563616.32	43563616.50	0.0504	0.0234
Mercury	114566-02-01 18:12 G	43565464.18	43565464.26	43565464.35	0.0531	0.0402
Venus	114566-03-25 10:46 G	43565515.79	43565515.95	43565516.11	0.0529	0.0323
Mercury	114566-05-02 03:20 G	43565553.53	43565553.64	43565553.75	0.0528	0.0277
Mercury	114572-06-13 06:56 G	43567787.63	43567787.79	43567787.94	0.0498	0.0214
Venus	114572-09-15 20:36 G	43567882.15	43567882.36	43567882.56	0.0501	0.0029

Mercury	114578-02-18 06:41 G	43569863.65	43569863.78	43569863.91	0.0528	0.0108
Venus	114578-07-23 18:27 G	43570019.18	43570019.27	43570019.36	0.0522	0.0464
Mercury	114584-04-01 06:12 G	43572097.65	43572097.76	43572097.86	0.0497	0.0396
Venus	114584-05-21 21:48 G	43572148.25	43572148.41	43572148.58	0.0499	0.0286
Mercury	114584-06-30 09:20 G	43572187.78	43572187.89	43572188.01	0.0500	0.0366
Earth	114585-02-22 10:03 G	43572424.73	43572424.92	43572425.13	0.0509	0.0252
Moon	114585-02-22 11:29 G	43572424.77	43572424.98	43572425.20	0.0509	0.0227 *
Mercury	114589-12-07 09:20 G	43574173.76	43574173.89	43574174.02	0.0530	0.0076
Venus	114590-03-28 07:39 G	43574284.63	43574284.82	43574285.02	0.0525	0.0153
Moon	114590-08-19 16:32 G	43574429.00	43574429.19	43574429.39	0.0520	0.0305
Earth	114590-08-19 19:39 G	43574429.15	43574429.32	43574429.50	0.0520	0.0336 *
Mercury	114596-04-18 07:39 G	43576497.65	43576497.82	43576497.98	0.0499	0.0168
Venus	114596-09-18 06:56 G	43576650.67	43576650.79	43576650.92	0.0505	0.0387
Moon	114597-02-26 22:03 G	43576812.20	43576812.42	43576812.64	0.0511	0.0080
Earth	114597-02-26 23:15 G	43576812.24	43576812.47	43576812.70	0.0511	0.0048 *
Mercury	114601-09-26 12:41 G	43578483.91	43578484.03	43578484.15	0.0531	0.0248
Venus	114601-12-01 23:29 G	43578550.28	43578550.48	43578550.67	0.0528	0.0156
Mercury	114601-12-24 21:20 G	43578573.31	43578573.39	43578573.47	0.0527	0.0423
Earth	114602-08-25 17:44 G	43578817.00	43578817.24	43578817.47	0.0517	0.0007
Moon	114602-08-25 20:08 G	43578817.11	43578817.34	43578817.56	0.0517	0.0013 *
Mercury	114608-02-06 05:15 G	43580807.55	43580807.72	43580807.89	0.0498	0.0038
Venus	114608-05-25 05:15 G	43580916.52	43580916.72	43580916.92	0.0502	0.0116
Earth	114609-03-04 10:46 G	43581199.78	43581199.95	43581200.12	0.0513	0.0348
Moon	114609-03-04 11:44 G	43581199.83	43581199.99	43581200.17	0.0513	0.0360 *
Mercury	114613-07-15 16:17 G	43582794.10	43582794.18	43582794.26	0.0531	0.0412
Venus	114613-08-06 16:03 G	43582816.08	43582816.17	43582816.27	0.0531	0.0462
Mercury	114613-10-13 01:24 G	43582883.44	43582883.56	43582883.67	0.0528	0.0269
Moon	114614-08-30 14:51 G	43583204.92	43583205.12	43583205.31	0.0515	0.0303
Earth	114614-08-30 16:46 G	43583205.02	43583205.20	43583205.39	0.0515	0.0324 *
Mercury	114619-11-25 04:03 G	43585117.52	43585117.67	43585117.83	0.0498	0.0225

Venus	114620-01-29 06:12 G	43585182.57	43585182.76	43585182.96	0.0500	0.0144
Mercury	114625-08-01 05:00 G	43587193.58	43587193.71	43587193.84	0.0529	0.0104
Venus	114625-12-05 01:10 G	43587319.40	43587319.55	43587319.71	0.0524	0.0334
Mercury	114631-09-13 03:20 G	43589427.55	43589427.64	43589427.74	0.0497	0.0406
Venus	114631-10-04 07:39 G	43589448.70	43589448.82	43589448.94	0.0498	0.0400
Mercury	114631-12-12 06:41 G	43589517.66	43589517.78	43589517.90	0.0500	0.0355
Mercury	114637-05-20 08:08 G	43591503.71	43591503.84	43591503.98	0.0529	0.0070
Venus	114637-08-09 16:46 G	43591584.99	43591585.20	43591585.40	0.0526	0.0029
Mars	114640-05-04 08:36 G	43592583.62	43592583.86	43592584.09	0.0491	0.0297
Mercury	114643-09-30 05:29 G	43593827.57	43593827.73	43593827.90	0.0499	0.0165
Venus	114644-01-31 17:58 G	43593951.08	43593951.25	43593951.42	0.0504	0.0274
Mercury	114649-03-08 10:46 G	43595813.83	43595813.95	43595814.07	0.0530	0.0254
Venus	114649-04-14 05:15 G	43595850.55	43595850.72	43595850.89	0.0529	0.0293
Mercury	114649-06-05 19:24 G	43595903.23	43595903.31	43595903.39	0.0527	0.0416
Mercury	114655-07-19 04:03 G	43598137.49	43598137.67	43598137.84	0.0498	0.0031
Venus	114655-10-06 17:44 G	43598217.04	43598217.24	43598217.45	0.0501	0.0011
Mars	114658-04-18 02:51 G	43599141.42	43599141.62	43599141.84	0.0536	0.0296
Mercury	114660-12-25 13:53 G	43600124.00	43600124.08	43600124.16	0.0531	0.0429
Mercury	114661-03-24 23:00 G	43600213.35	43600213.46	43600213.58	0.0528	0.0253
Venus	114661-08-12 13:24 G	43600354.01	43600354.06	43600354.13	0.0523	0.0497
Mercury	114667-05-07 01:39 G	43602447.42	43602447.57	43602447.73	0.0498	0.0233
Venus	114667-06-11 16:17 G	43602483.01	43602483.18	43602483.36	0.0499	0.0258
Earth	114668-02-23 08:08 G	43602739.66	43602739.84	43602740.03	0.0508	0.0308
Moon	114668-02-23 10:03 G	43602739.74	43602739.92	43602740.10	0.0508	0.0328 *
Mercury	114673-01-11 03:05 G	43604523.50	43604523.63	43604523.76	0.0529	0.0096
Venus	114673-04-17 07:10 G	43604619.61	43604619.80	43604619.99	0.0525	0.0200
Moon	114673-08-19 20:36 G	43604744.22	43604744.36	43604744.52	0.0520	0.0411
Earth	114673-08-19 22:46 G	43604744.29	43604744.45	43604744.61	0.0520	0.0377 *
Mercury	114679-02-23 00:41 G	43606757.44	43606757.53	43606757.63	0.0497	0.0415
Mercury	114679-05-24 03:48 G	43606847.54	43606847.66	43606847.79	0.0500	0.0344

Venus	114679-10-09 02:22 G	43606985.49	43606985.60	43606985.71	0.0505	0.0420
Moon	114680-02-27 20:51 G	43607127.15	43607127.37	43607127.60	0.0511	0.0036
Earth	114680-02-27 23:00 G	43607127.23	43607127.46	43607127.70	0.0511	0.0009 *
Mercury	114684-10-30 06:41 G	43608833.65	43608833.78	43608833.91	0.0530	0.0071
Venus	114684-12-20 23:29 G	43608885.28	43608885.48	43608885.67	0.0528	0.0108
Earth	114685-08-24 20:51 G	43609132.13	43609132.37	43609132.60	0.0517	0.0047
Moon	114685-08-24 22:32 G	43609132.21	43609132.44	43609132.66	0.0517	0.0064 *
Mercury	114691-03-12 02:51 G	43611157.45	43611157.62	43611157.78	0.0499	0.0154
Venus	114691-06-14 03:20 G	43611251.45	43611251.64	43611251.84	0.0503	0.0157
Earth	114692-03-03 15:20 G	43611514.96	43611515.14	43611515.33	0.0513	0.0309
Moon	114692-03-03 18:12 G	43611515.07	43611515.26	43611515.45	0.0513	0.0305 *
Mercury	114696-08-18 09:48 G	43613143.79	43613143.91	43613144.03	0.0530	0.0243
Venus	114696-08-25 14:08 G	43613150.97	43613151.09	43613151.21	0.0530	0.0420
Mercury	114696-11-15 18:27 G	43613233.20	43613233.27	43613233.35	0.0527	0.0426
Moon	114697-08-29 15:34 G	43613519.95	43613520.15	43613520.35	0.0515	0.0288
Earth	114697-08-29 16:46 G	43613520.00	43613520.20	43613520.40	0.0515	0.0273 *
Mercury	114702-12-30 01:53 G	43615467.40	43615467.58	43615467.75	0.0499	0.0033
Venus	114703-02-18 04:46 G	43615517.50	43615517.70	43615517.90	0.0500	0.0103
Mercury	114708-06-07 12:12 G	43617453.94	43617454.01	43617454.09	0.0531	0.0433
Mercury	114708-09-04 21:20 G	43617543.28	43617543.39	43617543.51	0.0528	0.0249
Venus	114708-12-24 20:08 G	43617654.20	43617654.34	43617654.49	0.0524	0.0366
Mercury	114714-10-18 00:27 G	43619777.37	43619777.52	43619777.68	0.0498	0.0222
Venus	114714-10-24 05:29 G	43619783.59	43619783.73	43619783.87	0.0498	0.0361
Mercury	114720-06-24 00:56 G	43621853.41	43621853.54	43621853.67	0.0529	0.0083
Venus	114720-08-29 11:58 G	43621919.80	43621920.00	43621920.20	0.0526	0.0061
Mercury	114726-08-05 22:17 G	43624087.35	43624087.43	43624087.53	0.0497	0.0422
Mercury	114726-11-04 01:24 G	43624177.43	43624177.56	43624177.69	0.0500	0.0336
Venus	114727-02-20 12:12 G	43624285.85	43624286.01	43624286.18	0.0504	0.0303
Mercury	114732-04-12 04:32 G	43626163.56	43626163.69	43626163.83	0.0530	0.0082
Venus	114732-05-04 05:00 G	43626185.53	43626185.71	43626185.89	0.0529	0.0246

Mercury	114738-08-23 00:12 G	43628487.34	43628487.51	43628487.68	0.0499	0.0144
Venus	114738-10-26 13:10 G	43628551.85	43628552.05	43628552.25	0.0501	0.0040
Mercury	114744-01-30 08:08 G	43630473.72	43630473.84	43630473.96	0.0531	0.0246
Mercury	114744-04-28 16:46 G	43630563.13	43630563.20	43630563.28	0.0527	0.0425
Mercury	114750-06-10 23:15 G	43632797.29	43632797.47	43632797.64	0.0498	0.0044
Venus	114750-07-01 14:36 G	43632817.93	43632818.11	43632818.29	0.0499	0.0219
Earth	114751-02-23 13:24 G	43633054.90	43633055.06	43633055.24	0.0508	0.0344
Moon	114751-02-23 16:46 G	43633055.02	43633055.20	43633055.39	0.0508	0.0315 *
Mercury	114755-11-18 11:15 G	43634783.89	43634783.97	43634784.06	0.0531	0.0420
Mercury	114756-02-15 20:22 G	43634873.24	43634873.35	43634873.47	0.0528	0.0262
Venus	114756-05-07 05:44 G	43634954.56	43634954.74	43634954.92	0.0525	0.0245
Moon	114756-08-19 23:58 G	43635059.34	43635059.50	43635059.66	0.0520	0.0391
Earth	114756-08-19 23:44 G	43635059.37	43635059.49	43635059.63	0.0520	0.0425 *
Venus	114762-03-06 16:32 G	43637084.13	43637084.19	43637084.26	0.0497	0.0471
Mercury	114762-03-29 22:17 G	43637107.28	43637107.43	43637107.59	0.0498	0.0224
Venus	114762-10-29 01:39 G	43637320.50	43637320.57	43637320.65	0.0505	0.0464
Moon	114763-02-28 02:08 G	43637442.36	43637442.59	43637442.82	0.0510	0.0009
Earth	114763-02-28 05:00 G	43637442.48	43637442.71	43637442.95	0.0510	0.0040 *
Mercury	114767-12-04 23:15 G	43639183.34	43639183.47	43639183.60	0.0529	0.0082
Venus	114768-01-10 19:10 G	43639220.10	43639220.30	43639220.50	0.0527	0.0072
Earth	114768-08-24 17:58 G	43639447.02	43639447.25	43639447.48	0.0518	0.0107
Moon	114768-08-24 17:58 G	43639447.03	43639447.25	43639447.48	0.0518	0.0096 *
Mercury	114774-01-15 21:20 G	43641417.30	43641417.39	43641417.49	0.0497	0.0408
Mercury	114774-04-16 00:27 G	43641507.40	43641507.52	43641507.65	0.0500	0.0350
Venus	114774-07-04 01:39 G	43641586.38	43641586.57	43641586.76	0.0503	0.0198
Earth	114775-03-04 18:41 G	43641830.09	43641830.28	43641830.49	0.0512	0.0264
Moon	114775-03-04 22:03 G	43641830.22	43641830.42	43641830.62	0.0512	0.0269 *
Venus	114779-09-15 10:03 G	43643485.78	43643485.92	43643486.06	0.0530	0.0385
Mercury	114779-09-23 02:36 G	43643493.48	43643493.61	43643493.74	0.0530	0.0089
Moon	114780-08-29 15:34 G	43643834.92	43643835.15	43643835.38	0.0516	0.0197

Earth	114780-08-29 15:20 G	43643834.94	43643835.14	43643835.36	0.0516	0.0219	*
Mercury	114786-02-01 21:48 G	43645817.25	43645817.41	43645817.58	0.0499	0.0140	
Venus	114786-03-08 23:44 G	43645852.29	43645852.49	43645852.69	0.0500	0.0074	
Mercury	114791-07-12 06:12 G	43647803.65	43647803.76	43647803.88	0.0531	0.0254	
Mercury	114791-10-09 15:05 G	43647893.06	43647893.13	43647893.21	0.0528	0.0420	
Venus	114792-01-13 20:22 G	43647989.23	43647989.35	43647989.48	0.0524	0.0416	
Venus	114797-11-12 01:10 G	43650118.40	43650118.55	43650118.70	0.0498	0.0330	
Mercury	114797-11-20 20:51 G	43650127.20	43650127.37	43650127.54	0.0498	0.0048	
Mercury	114803-04-30 09:48 G	43652113.83	43652113.91	43652113.99	0.0532	0.0421	
Mercury	114803-07-28 19:10 G	43652203.18	43652203.30	43652203.41	0.0528	0.0262	
Venus	114803-09-18 13:10 G	43652254.85	43652255.05	43652255.25	0.0526	0.0113	
Mercury	114809-09-08 19:53 G	43654437.18	43654437.33	43654437.49	0.0498	0.0232	
Venus	114810-03-11 11:29 G	43654620.83	43654620.98	43654621.12	0.0504	0.0346	
Mars	114812-07-13 01:39 G	43655475.31	43655475.57	43655475.82	0.0537	0.0052	
Mercury	114815-05-16 22:32 G	43656513.31	43656513.44	43656513.57	0.0529	0.0096	
Venus	114815-05-24 05:00 G	43656520.52	43656520.71	43656520.89	0.0529	0.0197	
Mercury	114821-06-27 19:24 G	43658747.22	43658747.31	43658747.41	0.0497	0.0408	
Mercury	114821-09-25 22:32 G	43658837.32	43658837.44	43658837.57	0.0500	0.0351	
Venus	114821-11-14 12:56 G	43658886.84	43658887.04	43658887.24	0.0502	0.0086	
Venus	114827-01-26 17:44 G	43660786.20	43660786.24	43660786.29	0.0531	0.0517	
Mercury	114827-03-05 01:24 G	43660823.43	43660823.56	43660823.69	0.0530	0.0085	
Mercury	114833-07-14 21:05 G	43663147.22	43663147.38	43663147.55	0.0499	0.0157	
Venus	114833-07-20 13:39 G	43663152.88	43663153.07	43663153.26	0.0499	0.0176	
Earth	114834-02-22 19:10 G	43663370.15	43663370.30	43663370.45	0.0507	0.0378	
Moon	114834-02-22 23:00 G	43663370.33	43663370.46	43663370.60	0.0507	0.0410	*
Mercury	114838-12-22 04:32 G	43665133.58	43665133.69	43665133.81	0.0531	0.0258	
Mercury	114839-03-21 13:24 G	43665222.98	43665223.06	43665223.14	0.0527	0.0415	
Venus	114839-05-27 02:51 G	43665289.45	43665289.62	43665289.79	0.0525	0.0284	
Earth	114839-08-19 23:00 G	43665374.38	43665374.46	43665374.56	0.0521	0.0477	
Moon	114839-08-19 23:58 G	43665374.45	43665374.50	43665374.56	0.0521	0.0505	*

Venus	114845-03-25 12:27 G	43667418.93	43667419.02	43667419.12	0.0497	0.0440
Mercury	114845-05-02 18:56 G	43667457.11	43667457.29	43667457.46	0.0498	0.0051
Venus	114845-11-16 21:20 G	43667655.35	43667655.39	43667655.43	0.0505	0.0495
Moon	114846-02-27 00:27 G	43667757.30	43667757.52	43667757.75	0.0509	0.0121
Earth	114846-02-27 04:32 G	43667757.46	43667757.69	43667757.92	0.0509	0.0090 *
Mercury	114850-10-10 08:08 G	43669443.76	43669443.84	43669443.92	0.0532	0.0427
Mercury	114851-01-07 17:15 G	43669533.11	43669533.22	43669533.34	0.0529	0.0258
Venus	114851-01-29 19:53 G	43669555.12	43669555.33	43669555.53	0.0528	0.0025
Moon	114851-08-24 22:32 G	43669762.22	43669762.44	43669762.66	0.0519	0.0142
Earth	114851-08-25 00:12 G	43669762.28	43669762.51	43669762.74	0.0519	0.0139 *
Mercury	114857-02-18 17:58 G	43671767.10	43671767.25	43671767.40	0.0497	0.0233
Venus	114857-07-22 21:48 G	43671921.24	43671921.41	43671921.60	0.0503	0.0232
Earth	114858-03-03 19:39 G	43672145.11	43672145.32	43672145.53	0.0512	0.0214
Moon	114858-03-03 23:29 G	43672145.28	43672145.48	43672145.70	0.0512	0.0214 *
Venus	114862-10-04 11:58 G	43673820.85	43673821.00	43673821.16	0.0530	0.0331
Mercury	114862-10-26 21:05 G	43673843.25	43673843.38	43673843.51	0.0529	0.0098
Earth	114863-08-29 23:00 G	43674150.24	43674150.46	43674150.68	0.0517	0.0191
Moon	114863-08-30 01:10 G	43674150.34	43674150.55	43674150.77	0.0517	0.0220 *
Mercury	114868-12-07 17:15 G	43676077.13	43676077.22	43676077.32	0.0497	0.0413
Mercury	114869-03-07 20:08 G	43676167.22	43676167.34	43676167.47	0.0500	0.0344
Venus	114869-03-27 23:15 G	43676187.27	43676187.47	43676187.67	0.0501	0.0030
Mercury	114874-08-15 00:41 G	43678153.40	43678153.53	43678153.66	0.0530	0.0069
Venus	114875-02-01 21:05 G	43678324.29	43678324.38	43678324.47	0.0523	0.0467
Earth	114875-09-03 19:39 G	43678538.29	43678538.32	43678538.36	0.0514	0.0508
Venus	114880-12-01 01:24 G	43680453.39	43680453.56	43680453.73	0.0498	0.0285
Mercury	114880-12-24 19:24 G	43680477.14	43680477.31	43680477.47	0.0499	0.0159
Mercury	114886-06-03 03:20 G	43682463.53	43682463.64	43682463.76	0.0531	0.0251
Mercury	114886-08-31 12:12 G	43682552.93	43682553.01	43682553.09	0.0527	0.0421
Venus	114886-10-07 11:15 G	43682589.78	43682589.97	43682590.17	0.0526	0.0157
Mercury	114892-10-12 18:12 G	43684787.09	43684787.26	43684787.43	0.0498	0.0030

Venus	114893-03-30 11:15 G	43684955.85	43684955.97	43684956.10	0.0504	0.0393
Mercury	114898-03-22 06:27 G	43686773.70	43686773.77	43686773.85	0.0532	0.0426
Venus	114898-06-12 02:51 G	43686855.42	43686855.62	43686855.81	0.0529	0.0154
Mercury	114898-06-19 15:48 G	43686863.05	43686863.16	43686863.27	0.0528	0.0257
Mercury	114904-08-01 16:17 G	43689097.02	43689097.18	43689097.33	0.0497	0.0231
Venus	114904-12-04 09:34 G	43689221.70	43689221.90	43689222.10	0.0501	0.0119
Venus	114910-02-15 18:27 G	43691121.18	43691121.27	43691121.37	0.0532	0.0468
Mercury	114910-04-08 19:39 G	43691173.19	43691173.32	43691173.45	0.0530	0.0096
Mars	114913-01-17 14:36 G	43692187.84	43692188.11	43692188.37	0.0491	0.0208
Mercury	114916-05-20 15:34 G	43693407.05	43693407.15	43693407.24	0.0496	0.0410
Venus	114916-08-09 10:46 G	43693487.75	43693487.95	43693488.15	0.0499	0.0140
Mercury	114916-08-18 18:12 G	43693497.14	43693497.26	43693497.39	0.0499	0.0345
Earth	114917-02-22 21:34 G	43693685.27	43693685.40	43693685.53	0.0506	0.0420
Moon	114917-02-23 01:10 G	43693685.41	43693685.55	43693685.70	0.0506	0.0389 *
Mercury	114922-01-25 23:15 G	43695483.34	43695483.47	43695483.61	0.0530	0.0068
Venus	114922-06-16 05:29 G	43695624.58	43695624.73	43695624.89	0.0525	0.0340
Earth	114922-08-20 07:24 G	43695689.76	43695689.81	43695689.88	0.0522	0.0501
Moon	114922-08-20 10:03 G	43695689.82	43695689.92	43695690.03	0.0522	0.0467 *
Venus	114928-04-14 12:12 G	43697753.90	43697754.01	43697754.14	0.0497	0.0397
Mercury	114928-06-06 17:15 G	43697807.06	43697807.22	43697807.39	0.0499	0.0156
Moon	114929-02-27 09:05 G	43698072.66	43698072.88	43698073.12	0.0509	0.0095
Earth	114929-02-27 12:41 G	43698072.81	43698073.03	43698073.26	0.0509	0.0119 *
Mercury	114933-11-14 02:51 G	43699793.50	43699793.62	43699793.74	0.0531	0.0234
Mercury	114934-02-11 11:29 G	43699882.92	43699882.98	43699883.06	0.0527	0.0439
Venus	114934-02-18 21:48 G	43699890.21	43699890.41	43699890.61	0.0527	0.0035
Moon	114934-08-25 04:17 G	43700077.47	43700077.68	43700077.90	0.0519	0.0167
Earth	114934-08-25 06:56 G	43700077.57	43700077.79	43700078.01	0.0519	0.0169 *
Mercury	114940-03-25 16:32 G	43702117.02	43702117.19	43702117.37	0.0498	0.0027
Venus	114940-08-11 23:00 G	43702256.30	43702256.46	43702256.63	0.0503	0.0282
Earth	114941-03-04 05:29 G	43702460.52	43702460.73	43702460.95	0.0511	0.0190

Moon	114941-03-04 09:05 G	43702460.67	43702460.88	43702461.09	0.0511	0.0181	*
Mercury	114945-09-02 05:44 G	43704103.65	43704103.74	43704103.82	0.0531	0.0416	
Venus	114945-10-24 11:29 G	43704155.81	43704155.98	43704156.16	0.0530	0.0283	
Mercury	114945-11-30 14:51 G	43704193.01	43704193.12	43704193.23	0.0528	0.0267	
Earth	114946-08-30 01:39 G	43704465.35	43704465.57	43704465.80	0.0517	0.0148	
Moon	114946-08-30 04:46 G	43704465.47	43704465.70	43704465.93	0.0517	0.0120	*
Mercury	114952-01-12 15:34 G	43706427.00	43706427.15	43706427.31	0.0498	0.0211	
Venus	114952-04-16 23:44 G	43706522.29	43706522.49	43706522.70	0.0501	0.0022	
Moon	114953-03-08 16:46 G	43706848.11	43706848.20	43706848.31	0.0513	0.0463	
Earth	114953-03-08 20:51 G	43706848.32	43706848.37	43706848.43	0.0513	0.0497	
Mercury	114957-09-18 18:12 G	43708503.13	43708503.26	43708503.39	0.0529	0.0101	
Venus	114958-02-21 19:53 G	43708659.30	43708659.33	43708659.37	0.0523	0.0513	
Moon	114958-09-03 19:39 G	43708853.21	43708853.32	43708853.44	0.0515	0.0442	
Earth	114958-09-03 23:00 G	43708853.37	43708853.46	43708853.56	0.0515	0.0467	*
Mercury	114963-10-31 14:08 G	43710736.99	43710737.09	43710737.19	0.0496	0.0404	
Venus	114963-12-21 23:00 G	43710788.29	43710788.46	43710788.64	0.0498	0.0249	
Mercury	114964-01-29 16:46 G	43710827.08	43710827.20	43710827.33	0.0499	0.0349	
Mars	114966-10-07 19:24 G	43711809.14	43711809.31	43711809.50	0.0537	0.0373	
Mercury	114969-07-07 21:48 G	43712813.28	43712813.41	43712813.54	0.0531	0.0067	
Venus	114969-10-27 12:41 G	43712924.85	43712925.03	43712925.22	0.0526	0.0210	
Mercury	114975-11-17 15:34 G	43715136.99	43715137.15	43715137.32	0.0498	0.0161	
Venus	114976-04-19 08:51 G	43715290.77	43715290.87	43715290.98	0.0504	0.0431	
Mercury	114981-04-26 01:24 G	43717123.44	43717123.56	43717123.68	0.0531	0.0231	
Venus	114981-07-02 05:44 G	43717190.54	43717190.74	43717190.94	0.0529	0.0097	
Mercury	114981-07-24 10:17 G	43717212.86	43717212.93	43717213.00	0.0528	0.0442	
Mercury	114987-09-05 14:36 G	43719446.94	43719447.11	43719447.29	0.0498	0.0028	
Venus	114987-12-24 10:17 G	43719556.73	43719556.93	43719557.12	0.0502	0.0168	
Mercury	114993-02-12 05:00 G	43721433.62	43721433.71	43721433.79	0.0532	0.0399	
Venus	114993-03-06 21:48 G	43721456.28	43721456.41	43721456.53	0.0531	0.0408	
Mercury	114993-05-12 14:08 G	43721522.98	43721523.09	43721523.20	0.0528	0.0284	

Mercury	114999-06-24 14:08 G	43723756.93	43723757.09	43723757.25	0.0497	0.0204
Venus	114999-08-29 11:58 G	43723822.80	43723823.00	43723823.20	0.0500	0.0090
Earth	115000-02-23 08:08 G	43724000.74	43724000.84	43724000.96	0.0506	0.0438
Moon	115000-02-23 11:29 G	43724000.90	43724000.98	43724001.06	0.0506	0.0471 *

116TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 116th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	115005-03-01 17:15 G	43725833.09	43725833.22	43725833.35	0.0529	0.0112		
Venus	115005-07-06 05:29 G	43725959.60	43725959.73	43725959.87	0.0524	0.0390		
Mercury	115011-04-13 13:24 G	43728066.96	43728067.06	43728067.17	0.0497	0.0384		
Venus	115011-05-05 13:24 G	43728088.92	43728089.06	43728089.21	0.0497	0.0348		
Mercury	115011-07-12 16:17 G	43728157.07	43728157.18	43728157.30	0.0500	0.0373		
Moon	115012-02-28 19:10 G	43728388.08	43728388.30	43728388.53	0.0508	0.0166		
Earth	115012-02-28 22:17 G	43728388.21	43728388.43	43728388.66	0.0508	0.0143 *		
Mercury	115016-12-18 20:36 G	43730143.23	43730143.36	43730143.50	0.0530	0.0060		
Venus	115017-03-10 21:20 G	43730225.19	43730225.39	43730225.59	0.0527	0.0083		
Moon	115017-08-25 06:41 G	43730392.57	43730392.78	43730392.99	0.0520	0.0205		
Earth	115017-08-25 10:32 G	43730392.73	43730392.94	43730393.16	0.0520	0.0209 *		
Mercury	115023-04-30 14:22 G	43732466.93	43732467.10	43732467.26	0.0498	0.0168		
Venus	115023-09-01 21:05 G	43732591.23	43732591.38	43732591.54	0.0503	0.0321		
Earth	115024-03-04 08:51 G	43732775.65	43732775.87	43732776.09	0.0510	0.0151		

Moon	115024-03-04 11:44 G	43732775.77	43732775.99	43732776.20	0.0510	0.0160 *
Mercury	115028-10-06 23:58 G	43734453.38	43734453.50	43734453.62	0.0532	0.0231
Venus	115028-11-13 12:41 G	43734490.85	43734491.03	43734491.22	0.0530	0.0233
Mercury	115029-01-04 08:51 G	43734542.80	43734542.87	43734542.94	0.0528	0.0443
Earth	115029-08-30 09:48 G	43734780.69	43734780.91	43734781.14	0.0518	0.0124
Moon	115029-08-30 13:39 G	43734780.85	43734781.07	43734781.30	0.0518	0.0158 *
Mercury	115035-02-16 13:24 G	43736776.88	43736777.06	43736777.23	0.0498	0.0019
Venus	115035-05-07 22:17 G	43736857.23	43736857.43	43736857.63	0.0500	0.0058
Moon	115036-03-08 21:20 G	43737163.33	43737163.39	43737163.47	0.0512	0.0485
Earth	115036-03-09 00:12 G	43737163.41	43737163.51	43737163.61	0.0512	0.0455 *
Mercury	115040-07-26 03:34 G	43738763.56	43738763.65	43738763.74	0.0532	0.0397
Mercury	115040-10-23 12:56 G	43738852.93	43738853.04	43738853.15	0.0529	0.0287
Moon	115041-09-04 05:15 G	43739168.64	43739168.72	43739168.82	0.0516	0.0475
Earth	115041-09-04 09:05 G	43739168.77	43739168.88	43739169.00	0.0516	0.0450 *
Mercury	115046-12-05 12:27 G	43741086.86	43741087.02	43741087.18	0.0497	0.0202
Venus	115047-01-10 23:44 G	43741123.31	43741123.49	43741123.68	0.0498	0.0201
Mercury	115052-08-11 16:46 G	43743163.07	43743163.20	43743163.33	0.0529	0.0128
Venus	115052-11-16 16:03 G	43743260.00	43743260.17	43743260.35	0.0526	0.0270
Venus	115058-09-16 01:53 G	43745389.51	43745389.58	43745389.67	0.0496	0.0454
Mercury	115058-09-23 11:58 G	43745396.90	43745397.00	43745397.12	0.0497	0.0378
Mercury	115058-12-22 15:05 G	43745487.01	43745487.13	43745487.24	0.0500	0.0379
Venus	115059-05-10 10:46 G	43745625.90	43745625.95	43745626.01	0.0505	0.0484
Mercury	115064-05-30 19:53 G	43747473.20	43747473.33	43747473.46	0.0530	0.0046
Venus	115064-07-22 06:41 G	43747525.58	43747525.78	43747525.99	0.0528	0.0045
Mars	115067-04-14 21:48 G	43748522.14	43748522.41	43748522.68	0.0491	0.0190
Mercury	115070-10-10 13:53 G	43749796.92	43749797.08	43749797.24	0.0499	0.0190
Venus	115071-01-13 11:44 G	43749891.81	43749891.99	43749892.18	0.0502	0.0221
Mercury	115076-03-18 23:00 G	43751783.34	43751783.46	43751783.58	0.0531	0.0219
Venus	115076-03-26 21:34 G	43751791.26	43751791.40	43751791.56	0.0531	0.0360
Mercury	115076-06-16 07:53 G	43751872.77	43751872.83	43751872.90	0.0528	0.0454

Mercury	115082-07-29 12:12 G	43754106.83	43754107.01	43754107.18	0.0498	0.0010
Venus	115082-09-18 11:15 G	43754157.77	43754157.97	43754158.17	0.0499	0.0049
Earth	115083-02-23 13:53 G	43754316.00	43754316.08	43754316.17	0.0505	0.0467
Moon	115083-02-23 15:05 G	43754316.02	43754316.13	43754316.24	0.0505	0.0436 *
Mars	115085-03-29 19:24 G	43755081.29	43755081.31	43755081.33	0.0536	0.0534
Mercury	115088-01-06 02:08 G	43756093.50	43756093.59	43756093.68	0.0532	0.0398
Mercury	115088-04-04 11:29 G	43756182.87	43756182.98	43756183.09	0.0529	0.0288
Venus	115088-07-25 06:56 G	43756294.68	43756294.79	43756294.90	0.0525	0.0442
Mercury	115094-05-17 11:15 G	43758416.81	43758416.97	43758417.13	0.0497	0.0191
Venus	115094-05-24 12:56 G	43758423.88	43758424.04	43758424.20	0.0497	0.0306
Moon	115095-02-28 01:53 G	43758703.36	43758703.58	43758703.81	0.0507	0.0162
Earth	115095-02-28 03:20 G	43758703.42	43758703.64	43758703.86	0.0507	0.0175 *
Mercury	115100-01-22 15:20 G	43760493.01	43760493.14	43760493.27	0.0530	0.0129
Venus	115100-03-30 23:58 G	43760560.30	43760560.50	43760560.70	0.0527	0.0139
Moon	115100-08-25 15:48 G	43760707.96	43760708.16	43760708.37	0.0521	0.0248
Earth	115100-08-25 19:39 G	43760708.11	43760708.32	43760708.53	0.0521	0.0229 *
Mercury	115106-03-06 10:32 G	43762726.83	43762726.94	43762727.05	0.0496	0.0373
Mercury	115106-06-04 13:10 G	43762816.94	43762817.05	43762817.16	0.0499	0.0381
Venus	115106-09-21 22:03 G	43762926.29	43762926.42	43762926.56	0.0503	0.0370
Earth	115107-03-05 18:12 G	43763091.04	43763091.26	43763091.49	0.0510	0.0126
Moon	115107-03-05 19:24 G	43763091.10	43763091.31	43763091.53	0.0510	0.0109 *
Mercury	115111-11-11 18:56 G	43764803.16	43764803.29	43764803.43	0.0530	0.0037
Venus	115111-12-04 16:32 G	43764826.00	43764826.19	43764826.38	0.0530	0.0170
Earth	115112-08-30 19:10 G	43765096.08	43765096.30	43765096.54	0.0518	0.0103
Moon	115112-08-30 23:00 G	43765096.23	43765096.46	43765096.69	0.0518	0.0068 *
Mercury	115118-03-23 12:12 G	43767126.86	43767127.01	43767127.18	0.0499	0.0197
Venus	115118-05-27 23:58 G	43767192.30	43767192.50	43767192.70	0.0501	0.0110
Moon	115119-03-10 10:03 G	43767478.78	43767478.92	43767479.08	0.0512	0.0403
Earth	115119-03-10 11:00 G	43767478.85	43767478.96	43767479.09	0.0512	0.0435 *
Venus	115123-08-09 06:56 G	43769091.71	43769091.79	43769091.87	0.0532	0.0489

Mercury	115123-08-30 22:03 G	43769113.30	43769113.42	43769113.55	0.0531	0.0208
Mercury	115123-11-28 06:56 G	43769202.73	43769202.79	43769202.85	0.0528	0.0464
Moon	115124-09-04 11:15 G	43769483.82	43769483.97	43769484.12	0.0516	0.0398
Earth	115124-09-04 14:51 G	43769483.99	43769484.12	43769484.27	0.0516	0.0416 *
Mercury	115130-01-09 11:29 G	43771436.81	43771436.98	43771437.15	0.0498	0.0011
Venus	115130-01-31 01:24 G	43771458.37	43771458.56	43771458.76	0.0499	0.0150
Mercury	115135-06-19 01:10 G	43773423.46	43773423.55	43773423.65	0.0532	0.0383
Mercury	115135-09-16 10:32 G	43773512.83	43773512.94	43773513.05	0.0529	0.0300
Venus	115135-12-07 16:17 G	43773595.02	43773595.18	43773595.34	0.0525	0.0320
Venus	115141-10-06 02:08 G	43775724.48	43775724.59	43775724.70	0.0496	0.0411
Mercury	115141-10-28 10:03 G	43775746.76	43775746.92	43775747.08	0.0497	0.0181
Mercury	115147-07-05 13:53 G	43777822.95	43777823.08	43777823.21	0.0530	0.0129
Venus	115147-08-12 07:10 G	43777860.59	43777860.80	43777861.00	0.0529	0.0008
Mercury	115153-08-16 09:20 G	43780056.78	43780056.89	43780057.01	0.0496	0.0361
Mercury	115153-11-14 11:58 G	43780146.90	43780147.00	43780147.11	0.0499	0.0391
Venus	115154-02-02 10:46 G	43780226.78	43780226.95	43780227.12	0.0502	0.0261
Venus	115159-04-16 23:15 G	43782126.31	43782126.47	43782126.64	0.0531	0.0308
Mercury	115159-04-23 17:29 G	43782133.10	43782133.23	43782133.37	0.0531	0.0034
Mercury	115165-09-02 10:46 G	43784456.79	43784456.95	43784457.11	0.0498	0.0199
Venus	115165-10-08 11:29 G	43784492.78	43784492.98	43784493.19	0.0500	0.0010
Earth	115166-02-23 22:32 G	43784631.40	43784631.44	43784631.50	0.0505	0.0491
Mercury	115171-02-09 21:05 G	43786443.26	43786443.38	43786443.51	0.0531	0.0198
Mercury	115171-05-10 06:12 G	43786532.70	43786532.76	43786532.81	0.0528	0.0476
Venus	115171-08-15 10:03 G	43786629.87	43786629.92	43786629.98	0.0524	0.0502
Venus	115177-06-13 13:39 G	43788758.90	43788759.07	43788759.25	0.0498	0.0258
Mercury	115177-06-21 10:03 G	43788766.74	43788766.92	43788767.09	0.0498	0.0020
Earth	115178-02-28 13:24 G	43789018.85	43789019.06	43789019.28	0.0507	0.0197
Moon	115178-02-28 15:20 G	43789018.92	43789019.14	43789019.36	0.0507	0.0189 *
Mercury	115182-11-29 00:12 G	43790753.42	43790753.51	43790753.61	0.0532	0.0373
Mercury	115183-02-26 09:34 G	43790842.80	43790842.90	43790843.01	0.0529	0.0310

Venus	115183-04-20 01:10 G	43790895.37	43790895.55	43790895.75	0.0527	0.0194
Moon	115183-08-25 22:32 G	43791023.23	43791023.44	43791023.66	0.0521	0.0241
Earth	115183-08-26 01:10 G	43791023.35	43791023.55	43791023.75	0.0521	0.0263 *
Mercury	115189-04-09 09:05 G	43793076.72	43793076.88	43793077.05	0.0497	0.0166
Venus	115189-10-10 23:44 G	43793261.38	43793261.49	43793261.60	0.0504	0.0423
Moon	115190-03-05 02:51 G	43793406.40	43793406.62	43793406.83	0.0509	0.0134
Earth	115190-03-05 04:32 G	43793406.46	43793406.69	43793406.92	0.0509	0.0103 *
Mercury	115194-12-15 12:56 G	43795152.91	43795153.04	43795153.17	0.0530	0.0143
Venus	115194-12-23 16:32 G	43795160.99	43795161.19	43795161.39	0.0529	0.0121
Earth	115195-08-30 23:15 G	43795411.24	43795411.47	43795411.70	0.0519	0.0063
Moon	115195-08-31 00:56 G	43795411.32	43795411.54	43795411.77	0.0519	0.0092 *
Mercury	115201-01-26 08:08 G	43797386.72	43797386.84	43797386.97	0.0496	0.0351
Mercury	115201-04-26 10:46 G	43797476.85	43797476.95	43797477.06	0.0499	0.0401
Venus	115201-06-15 23:44 G	43797527.29	43797527.49	43797527.68	0.0501	0.0153
Earth	115202-03-09 16:17 G	43797794.04	43797794.18	43797794.32	0.0511	0.0400
Moon	115202-03-09 17:44 G	43797794.12	43797794.24	43797794.38	0.0511	0.0428 *
Venus	115206-08-28 05:44 G	43799426.64	43799426.74	43799426.85	0.0532	0.0447
Mercury	115206-10-03 16:03 G	43799463.03	43799463.17	43799463.30	0.0531	0.0038
Moon	115207-09-04 18:56 G	43799799.13	43799799.29	43799799.46	0.0517	0.0383
Earth	115207-09-04 20:08 G	43799799.20	43799799.34	43799799.50	0.0517	0.0386 *
Mercury	115213-02-12 09:34 G	43801786.74	43801786.90	43801787.06	0.0498	0.0210
Venus	115213-02-19 00:41 G	43801793.33	43801793.53	43801793.73	0.0498	0.0109
Mercury	115218-07-22 19:24 G	43803773.19	43803773.31	43803773.44	0.0532	0.0202
Mercury	115218-10-20 04:32 G	43803862.64	43803862.69	43803862.75	0.0528	0.0474
Venus	115218-12-26 17:00 G	43803930.07	43803930.21	43803930.36	0.0526	0.0371
Venus	115224-10-25 01:39 G	43806059.44	43806059.57	43806059.71	0.0496	0.0367
Mercury	115224-12-01 08:08 G	43806096.67	43806096.84	43806097.02	0.0497	0.0019
Mercury	115230-05-10 23:00 G	43808083.37	43808083.46	43808083.56	0.0532	0.0367
Mercury	115230-08-08 08:22 G	43808172.75	43808172.85	43808172.96	0.0529	0.0318
Venus	115230-08-31 10:03 G	43808195.72	43808195.92	43808196.12	0.0528	0.0064

Mercury	115236-09-19 07:24 G	43810406.65	43810406.81	43810406.98	0.0497	0.0163
Venus	115237-02-21 11:15 G	43810561.81	43810561.97	43810562.13	0.0502	0.0310
Mars	115239-06-25 11:44 G	43811415.73	43811415.99	43811416.24	0.0536	0.0080
Venus	115242-05-06 00:56 G	43812461.36	43812461.54	43812461.72	0.0530	0.0253
Mercury	115242-05-27 11:44 G	43812482.87	43812482.99	43812483.12	0.0530	0.0151
Mercury	115248-07-08 06:56 G	43814716.67	43814716.79	43814716.92	0.0496	0.0341
Mercury	115248-10-06 09:34 G	43814806.81	43814806.90	43814807.00	0.0499	0.0414
Venus	115248-10-27 12:41 G	43814827.83	43814828.03	43814828.24	0.0500	0.0048
Moon	115249-02-23 05:44 G	43814946.70	43814946.74	43814946.79	0.0504	0.0493
Mercury	115254-03-15 15:05 G	43816793.00	43816793.13	43816793.26	0.0531	0.0022
Venus	115260-07-02 13:39 G	43819093.89	43819094.07	43819094.26	0.0497	0.0215
Mercury	115260-07-25 08:08 G	43819116.69	43819116.84	43819117.00	0.0498	0.0219
Earth	115261-02-27 19:53 G	43819334.12	43819334.33	43819334.54	0.0506	0.0223
Moon	115261-02-27 23:00 G	43819334.25	43819334.46	43819334.67	0.0506	0.0237 *
Mercury	115266-01-01 17:44 G	43821103.12	43821103.24	43821103.37	0.0532	0.0206
Mercury	115266-04-01 02:51 G	43821192.56	43821192.62	43821192.68	0.0529	0.0470
Venus	115266-05-08 23:44 G	43821230.31	43821230.49	43821230.67	0.0527	0.0235
Moon	115266-08-25 02:22 G	43821338.41	43821338.60	43821338.79	0.0523	0.0333
Earth	115266-08-25 03:05 G	43821338.44	43821338.63	43821338.82	0.0523	0.0303 *
Venus	115272-03-07 15:05 G	43823360.07	43823360.13	43823360.20	0.0495	0.0470
Mercury	115272-05-13 07:10 G	43823426.62	43823426.80	43823426.97	0.0497	0.0032
Venus	115272-10-29 22:17 G	43823596.36	43823596.43	43823596.51	0.0503	0.0462
Moon	115273-03-04 05:29 G	43823721.50	43823721.73	43823721.96	0.0508	0.0037
Earth	115273-03-04 08:51 G	43823721.64	43823721.87	43823722.10	0.0508	0.0069 *
Mercury	115277-10-20 21:05 G	43825413.29	43825413.38	43825413.48	0.0533	0.0376
Venus	115278-01-11 15:48 G	43825495.96	43825496.16	43825496.36	0.0530	0.0077
Mercury	115278-01-18 06:41 G	43825502.67	43825502.78	43825502.88	0.0529	0.0311
Earth	115278-08-30 03:34 G	43825726.41	43825726.65	43825726.88	0.0520	0.0030
Moon	115278-08-30 03:20 G	43825726.42	43825726.64	43825726.87	0.0520	0.0013 *
Mercury	115284-03-01 05:44 G	43827736.58	43827736.74	43827736.90	0.0497	0.0162

Venus	115284-07-04 22:32 G	43827862.25	43827862.44	43827862.63	0.0501	0.0196
Earth	115285-03-08 22:03 G	43828109.26	43828109.42	43828109.59	0.0511	0.0365
Moon	115285-03-09 01:53 G	43828109.41	43828109.58	43828109.75	0.0511	0.0352 *
Venus	115289-09-16 08:08 G	43829761.71	43829761.84	43829761.98	0.0532	0.0389
Mercury	115289-11-06 10:32 G	43829812.81	43829812.94	43829813.07	0.0530	0.0153
Earth	115290-09-04 03:20 G	43830114.48	43830114.64	43830114.82	0.0518	0.0357
Moon	115290-09-04 04:32 G	43830114.52	43830114.69	43830114.86	0.0518	0.0369 *
Mercury	115295-12-19 05:00 G	43832046.59	43832046.71	43832046.84	0.0496	0.0340
Venus	115296-03-09 23:58 G	43832128.30	43832128.50	43832128.71	0.0499	0.0065
Mercury	115296-03-18 07:53 G	43832136.73	43832136.83	43832136.92	0.0499	0.0413
Mercury	115301-08-26 13:53 G	43834122.94	43834123.08	43834123.21	0.0531	0.0018
Venus	115302-01-15 17:44 G	43834265.12	43834265.24	43834265.36	0.0525	0.0421
Venus	115307-11-15 02:08 G	43836394.43	43836394.59	43836394.74	0.0497	0.0321
Mercury	115308-01-06 06:41 G	43836446.63	43836446.78	43836446.94	0.0498	0.0225
Mercury	115313-06-14 17:00 G	43838433.08	43838433.21	43838433.33	0.0531	0.0192
Mercury	115313-09-12 01:53 G	43838522.53	43838522.58	43838522.63	0.0528	0.0482
Venus	115313-09-20 08:51 G	43838530.67	43838530.87	43838531.07	0.0528	0.0110
Mercury	115319-10-25 05:44 G	43840756.56	43840756.74	43840756.91	0.0497	0.0038
Venus	115320-03-13 10:32 G	43840896.80	43840896.94	43840897.09	0.0502	0.0352
Mercury	115325-04-02 19:24 G	43842743.22	43842743.31	43842743.40	0.0533	0.0382
Venus	115325-05-25 21:48 G	43842796.22	43842796.41	43842796.59	0.0531	0.0217
Mercury	115325-07-01 05:00 G	43842832.60	43842832.71	43842832.81	0.0530	0.0306
Mercury	115331-08-13 04:32 G	43845066.53	43845066.69	43845066.86	0.0496	0.0151
Venus	115331-11-17 11:15 G	43845162.77	43845162.97	43845163.17	0.0500	0.0088
Mercury	115337-04-19 08:36 G	43847142.73	43847142.86	43847142.98	0.0530	0.0143
Mars	115339-12-30 04:46 G	43848127.44	43848127.70	43848127.97	0.0492	0.0193
Mercury	115343-06-01 03:05 G	43849376.51	43849376.63	43849376.76	0.0496	0.0341
Venus	115343-07-23 11:15 G	43849428.78	43849428.97	43849429.17	0.0497	0.0177
Mercury	115343-08-30 05:29 G	43849466.64	43849466.73	43849466.84	0.0499	0.0410
Earth	115344-02-28 23:58 G	43849649.31	43849649.50	43849649.70	0.0506	0.0262

Moon	115344-02-29 04:03 G	43849649.47	43849649.67	43849649.88	0.0506	0.0238	*
Mercury	115349-02-05 12:12 G	43851452.88	43851453.01	43851453.15	0.0531	0.0022	
Venus	115349-05-29 00:56 G	43851565.38	43851565.54	43851565.72	0.0527	0.0291	
Earth	115349-08-25 08:36 G	43851653.69	43851653.86	43851654.04	0.0523	0.0337	
Moon	115349-08-25 11:00 G	43851653.77	43851653.96	43851654.16	0.0523	0.0302	*
Venus	115355-03-28 13:10 G	43853694.95	43853695.05	43853695.15	0.0495	0.0431	
Mercury	115355-06-18 04:32 G	43853776.54	43853776.69	43853776.85	0.0498	0.0222	
Moon	115356-03-04 10:46 G	43854036.72	43854036.95	43854037.18	0.0508	0.0065	
Earth	115356-03-04 14:36 G	43854036.87	43854037.11	43854037.34	0.0508	0.0035	*
Mercury	115360-11-24 15:34 G	43855763.02	43855763.15	43855763.27	0.0532	0.0191	
Venus	115361-01-31 16:17 G	43855830.98	43855831.18	43855831.38	0.0529	0.0025	
Mercury	115361-02-22 00:27 G	43855852.47	43855852.52	43855852.57	0.0528	0.0483	
Moon	115361-08-30 04:46 G	43856041.47	43856041.70	43856041.92	0.0520	0.0008	
Earth	115361-08-30 07:10 G	43856041.56	43856041.80	43856042.03	0.0520	0.0011	*
Mercury	115367-04-06 03:34 G	43858086.48	43858086.65	43858086.83	0.0498	0.0039	
Venus	115367-07-25 22:17 G	43858197.25	43858197.43	43858197.61	0.0501	0.0242	
Earth	115368-03-09 05:29 G	43858424.56	43858424.73	43858424.91	0.0510	0.0334	
Moon	115368-03-09 09:05 G	43858424.72	43858424.88	43858425.06	0.0510	0.0341	*
Mercury	115372-09-12 18:27 G	43860073.18	43860073.27	43860073.37	0.0532	0.0368	
Venus	115372-10-06 06:27 G	43860096.62	43860096.77	43860096.93	0.0532	0.0345	
Mercury	115372-12-11 03:48 G	43860162.56	43860162.66	43860162.77	0.0529	0.0317	
Earth	115373-09-04 04:17 G	43860429.49	43860429.68	43860429.86	0.0518	0.0310	
Moon	115373-09-04 06:56 G	43860429.59	43860429.79	43860429.99	0.0518	0.0289	*
Mercury	115379-01-23 02:51 G	43862396.45	43862396.62	43862396.79	0.0496	0.0147	
Venus	115379-03-30 23:15 G	43862463.27	43862463.47	43862463.68	0.0499	0.0022	
Mercury	115384-09-29 06:41 G	43864472.65	43864472.78	43864472.91	0.0530	0.0135	
Venus	115385-02-03 13:39 G	43864599.98	43864600.07	43864600.18	0.0525	0.0457	
Mercury	115390-11-11 01:53 G	43866706.45	43866706.58	43866706.71	0.0496	0.0331	
Venus	115390-12-04 00:27 G	43866729.35	43866729.52	43866729.69	0.0496	0.0281	
Mercury	115391-02-09 04:17 G	43866796.59	43866796.68	43866796.78	0.0498	0.0419	

Mars	115393-09-18 23:58 G	43867749.27	43867749.50	43867749.74	0.0536	0.0223
Mercury	115396-07-18 10:03 G	43868782.79	43868782.92	43868783.05	0.0531	0.0033
Venus	115396-10-09 05:29 G	43868865.54	43868865.73	43868865.93	0.0528	0.0148
Mercury	115402-11-29 02:22 G	43871106.44	43871106.60	43871106.76	0.0498	0.0217
Venus	115403-04-03 07:10 G	43871231.68	43871231.80	43871231.93	0.0502	0.0389
Mercury	115408-05-07 13:39 G	43873092.95	43873093.07	43873093.20	0.0532	0.0197
Venus	115408-06-14 22:17 G	43873131.24	43873131.43	43873131.63	0.0531	0.0164
Mercury	115408-08-04 22:46 G	43873182.40	43873182.45	43873182.51	0.0529	0.0479
Mercury	115414-09-17 01:24 G	43875416.38	43875416.56	43875416.73	0.0497	0.0031
Venus	115414-12-07 08:36 G	43875497.66	43875497.86	43875498.06	0.0500	0.0127
Venus	115420-02-18 13:10 G	43877396.97	43877397.05	43877397.13	0.0533	0.0483
Mercury	115420-02-24 16:46 G	43877403.11	43877403.20	43877403.30	0.0532	0.0371
Mercury	115420-05-24 02:22 G	43877492.50	43877492.60	43877492.71	0.0529	0.0315
Mercury	115426-07-06 00:41 G	43879726.36	43879726.53	43879726.69	0.0497	0.0151
Venus	115426-08-12 10:17 G	43879763.73	43879763.93	43879764.12	0.0498	0.0134
Earth	115427-03-01 06:41 G	43879964.59	43879964.78	43879964.97	0.0505	0.0291
Moon	115427-03-01 09:34 G	43879964.73	43879964.90	43879965.08	0.0505	0.0324 *
Mercury	115432-03-12 05:44 G	43881802.61	43881802.74	43881802.87	0.0530	0.0146
Venus	115432-06-17 22:46 G	43881900.29	43881900.45	43881900.60	0.0526	0.0331
Earth	115432-08-25 08:08 G	43881968.69	43881968.84	43881969.00	0.0523	0.0387
Moon	115432-08-25 11:44 G	43881968.85	43881968.99	43881969.14	0.0523	0.0415 *
Venus	115438-04-17 11:58 G	43884029.88	43884030.00	43884030.13	0.0495	0.0390
Mercury	115438-04-23 23:58 G	43884036.38	43884036.50	43884036.63	0.0496	0.0330
Mercury	115438-07-23 02:36 G	43884126.51	43884126.61	43884126.70	0.0499	0.0420
Moon	115439-03-05 16:17 G	43884351.95	43884352.18	43884352.42	0.0507	0.0030
Earth	115439-03-05 19:39 G	43884352.08	43884352.32	43884352.55	0.0507	0.0009 *
Mercury	115443-12-30 08:08 G	43886112.71	43886112.84	43886112.98	0.0531	0.0042
Venus	115444-02-21 11:00 G	43886165.76	43886165.96	43886166.17	0.0529	0.0015
Moon	115444-08-29 23:29 G	43886356.25	43886356.48	43886356.71	0.0522	0.0071
Earth	115444-08-30 03:20 G	43886356.41	43886356.64	43886356.88	0.0522	0.0069 *

Mercury	115450-05-11 00:56 G	43888436.39	43888436.54	43888436.70	0.0498	0.0226
Venus	115450-08-14 19:53 G	43888532.16	43888532.33	43888532.50	0.0501	0.0280
Earth	115451-03-10 07:39 G	43888739.64	43888739.82	43888740.02	0.0509	0.0291
Moon	115451-03-10 10:46 G	43888739.77	43888739.95	43888740.14	0.0509	0.0292 *
Mercury	115455-10-18 11:15 G	43890422.85	43890422.97	43890423.10	0.0532	0.0214
Venus	115455-10-27 01:53 G	43890431.42	43890431.58	43890431.75	0.0532	0.0312
Mercury	115456-01-15 20:36 G	43890512.30	43890512.36	43890512.42	0.0529	0.0464
Earth	115456-09-04 02:22 G	43890744.40	43890744.60	43890744.81	0.0519	0.0257
Moon	115456-09-04 06:27 G	43890744.58	43890744.77	43890744.97	0.0519	0.0290 *
Mercury	115462-02-26 23:00 G	43892746.29	43892746.46	43892746.63	0.0497	0.0024
Venus	115462-04-19 18:56 G	43892798.08	43892798.29	43892798.49	0.0499	0.0012
Mercury	115467-08-06 14:51 G	43894733.03	43894733.12	43894733.22	0.0533	0.0380
Mercury	115467-11-04 00:27 G	43894822.42	43894822.52	43894822.63	0.0530	0.0308
Venus	115468-02-24 13:24 G	43894935.02	43894935.06	43894935.12	0.0525	0.0507
Mercury	115473-12-15 22:03 G	43897056.26	43897056.42	43897056.59	0.0496	0.0159
Venus	115473-12-23 20:36 G	43897064.18	43897064.36	43897064.54	0.0497	0.0247
Mercury	115479-08-23 04:03 G	43899132.54	43899132.67	43899132.80	0.0530	0.0142
Venus	115479-10-30 05:15 G	43899200.53	43899200.72	43899200.91	0.0528	0.0196
Mercury	115485-10-03 21:34 G	43901366.28	43901366.40	43901366.52	0.0496	0.0338
Mercury	115486-01-01 23:58 G	43901456.40	43901456.50	43901456.60	0.0499	0.0412
Venus	115486-04-22 05:44 G	43901566.64	43901566.74	43901566.85	0.0503	0.0432
Mercury	115491-06-11 07:10 G	43903442.66	43903442.80	43903442.93	0.0531	0.0032
Venus	115491-07-04 19:53 G	43903466.13	43903466.33	43903466.53	0.0530	0.0122
Mars	115494-03-25 16:17 G	43904460.90	43904461.18	43904461.47	0.0492	0.0119
Mercury	115497-10-20 23:00 G	43905766.30	43905766.46	43905766.61	0.0498	0.0224
Venus	115497-12-26 07:10 G	43905832.61	43905832.80	43905832.99	0.0500	0.0168
Venus	115503-03-10 07:24 G	43907731.71	43907731.81	43907731.92	0.0533	0.0454
Mercury	115503-03-31 09:20 G	43907752.77	43907752.89	43907753.02	0.0532	0.0222
Mercury	115503-06-28 18:41 G	43907842.21	43907842.28	43907842.34	0.0529	0.0456
Mercury	115509-08-09 21:34 G	43910076.23	43910076.40	43910076.58	0.0497	0.0034

Venus	115509-09-01 07:39 G	43910098.62	43910098.82	43910099.02	0.0498	0.0096
Earth	115510-03-01 09:48 G	43910279.74	43910279.91	43910280.08	0.0504	0.0331
Moon	115510-03-01 10:32 G	43910279.77	43910279.94	43910280.12	0.0504	0.0302 *
Mercury	115515-01-17 12:27 G	43912062.93	43912063.02	43912063.11	0.0533	0.0398
Mercury	115515-04-16 22:03 G	43912152.31	43912152.42	43912152.53	0.0530	0.0292
Venus	115515-07-08 17:44 G	43912235.10	43912235.24	43912235.39	0.0527	0.0365
Earth	115515-08-26 04:03 G	43912283.55	43912283.67	43912283.79	0.0525	0.0449
Moon	115515-08-26 07:39 G	43912283.69	43912283.82	43912283.97	0.0525	0.0419 *
Venus	115521-05-07 06:56 G	43914364.65	43914364.79	43914364.93	0.0495	0.0361
Mercury	115521-05-28 19:39 G	43914386.16	43914386.32	43914386.49	0.0496	0.0167
Moon	115522-03-05 17:58 G	43914667.01	43914667.25	43914667.49	0.0506	0.0037
Earth	115522-03-05 18:41 G	43914667.05	43914667.28	43914667.51	0.0506	0.0053 *
Mercury	115527-02-03 01:53 G	43916462.45	43916462.58	43916462.71	0.0531	0.0133
Venus	115527-03-13 10:32 G	43916500.74	43916500.94	43916501.14	0.0529	0.0056
Moon	115527-08-31 02:36 G	43916671.38	43916671.61	43916671.84	0.0522	0.0116
Earth	115527-08-31 06:12 G	43916671.54	43916671.76	43916672.00	0.0522	0.0112 *
Mercury	115533-03-16 18:56 G	43918696.17	43918696.29	43918696.42	0.0496	0.0346
Mercury	115533-06-14 21:20 G	43918786.29	43918786.39	43918786.49	0.0498	0.0401
Venus	115533-09-03 15:20 G	43918866.99	43918867.14	43918867.30	0.0501	0.0314
Earth	115534-03-10 08:36 G	43919054.66	43919054.86	43919055.07	0.0509	0.0242
Moon	115534-03-10 09:20 G	43919054.70	43919054.89	43919055.10	0.0509	0.0227 *
Venus	115538-11-16 01:53 G	43920766.41	43920766.58	43920766.76	0.0531	0.0263
Mercury	115538-11-22 05:29 G	43920772.59	43920772.73	43920772.86	0.0531	0.0038
Earth	115539-09-05 05:00 G	43921059.49	43921059.71	43921059.92	0.0520	0.0216
Moon	115539-09-05 08:22 G	43921059.63	43921059.85	43921060.06	0.0520	0.0183 *
Mercury	115545-04-02 20:22 G	43923096.19	43923096.35	43923096.51	0.0498	0.0214
Venus	115545-05-09 16:46 G	43923133.00	43923133.20	43923133.41	0.0499	0.0052
Moon	115546-03-14 23:00 G	43923442.45	43923442.46	43923442.49	0.0511	0.0508
Mercury	115550-09-10 08:22 G	43925082.73	43925082.85	43925082.98	0.0532	0.0211
Mercury	115550-12-08 17:44 G	43925172.18	43925172.24	43925172.30	0.0529	0.0466

Moon	115551-09-09 22:17 G	43925447.39	43925447.43	43925447.48	0.0517	0.0507
Venus	115557-01-12 18:56 G	43927399.10	43927399.29	43927399.47	0.0497	0.0207
Mercury	115557-01-19 19:39 G	43927406.14	43927406.32	43927406.49	0.0497	0.0032
Mercury	115562-06-29 10:46 G	43929392.86	43929392.95	43929393.03	0.0533	0.0404
Mercury	115562-09-26 20:22 G	43929482.24	43929482.35	43929482.46	0.0530	0.0285
Venus	115562-11-18 23:29 G	43929535.30	43929535.48	43929535.67	0.0528	0.0227
Venus	115568-09-17 20:08 G	43931665.27	43931665.34	43931665.40	0.0495	0.0464
Mercury	115568-11-07 18:27 G	43931716.11	43931716.27	43931716.43	0.0496	0.0157
Venus	115569-05-12 03:05 G	43931901.56	43931901.63	43931901.70	0.0502	0.0470
Mercury	115574-07-15 23:44 G	43933792.36	43933792.49	43933792.62	0.0531	0.0117
Venus	115574-07-24 14:36 G	43933800.91	43933801.11	43933801.31	0.0530	0.0090
Mercury	115580-08-26 16:32 G	43936026.08	43936026.19	43936026.32	0.0495	0.0354
Mercury	115580-11-24 18:41 G	43936116.18	43936116.28	43936116.39	0.0498	0.0393
Venus	115581-01-15 01:39 G	43936167.38	43936167.57	43936167.75	0.0500	0.0197
Venus	115586-03-29 06:41 G	43938066.65	43938066.78	43938066.91	0.0533	0.0407
Mercury	115586-05-04 03:20 G	43938102.51	43938102.64	43938102.78	0.0532	0.0047
Mercury	115592-09-12 17:44 G	43940426.08	43940426.24	43940426.40	0.0498	0.0203
Venus	115592-09-20 02:51 G	43940433.42	43940433.62	43940433.82	0.0498	0.0065
Moon	115593-02-28 09:05 G	43940594.76	43940594.88	43940595.02	0.0504	0.0410
Earth	115593-02-28 09:48 G	43940594.77	43940594.91	43940595.07	0.0504	0.0379 *
Mercury	115598-02-20 06:41 G	43942412.66	43942412.78	43942412.90	0.0532	0.0216
Mercury	115598-05-20 16:03 G	43942502.11	43942502.17	43942502.23	0.0529	0.0462
Venus	115598-07-27 17:29 G	43942570.11	43942570.23	43942570.36	0.0526	0.0413
Earth	115598-08-25 06:56 G	43942598.71	43942598.79	43942598.88	0.0525	0.0488
Moon	115598-08-25 10:03 G	43942598.87	43942598.92	43942598.98	0.0525	0.0509 *
Venus	115604-05-26 04:46 G	43944699.54	43944699.70	43944699.85	0.0496	0.0323
Mercury	115604-07-01 16:46 G	43944736.03	43944736.20	43944736.37	0.0497	0.0019
Earth	115605-03-04 23:29 G	43944982.26	43944982.48	43944982.71	0.0506	0.0089
Moon	115605-03-05 00:56 G	43944982.30	43944982.54	43944982.78	0.0506	0.0094 *
Mercury	115609-12-09 09:48 G	43946722.82	43946722.91	43946723.00	0.0533	0.0393

Mercury	115610-03-08 19:24 G	43946812.20	43946812.31	43946812.42	0.0529	0.0296
Venus	115610-04-01 08:36 G	43946835.66	43946835.86	43946836.06	0.0529	0.0099
Moon	115610-08-30 02:51 G	43946986.40	43946986.62	43946986.86	0.0522	0.0150
Earth	115610-08-30 05:58 G	43946986.53	43946986.75	43946986.98	0.0522	0.0161 *
Mercury	115616-04-19 16:17 G	43949046.02	43949046.18	43949046.34	0.0496	0.0160
Venus	115616-09-22 13:53 G	43949201.94	43949202.08	43949202.23	0.0502	0.0357
Moon	115617-03-09 12:12 G	43949369.82	43949370.01	43949370.21	0.0508	0.0230
Earth	115617-03-09 13:53 G	43949369.87	43949370.08	43949370.30	0.0508	0.0206 *
Venus	115621-12-04 20:51 G	43951101.18	43951101.37	43951101.55	0.0531	0.0231
Mercury	115621-12-25 22:03 G	43951122.29	43951122.42	43951122.55	0.0530	0.0113
Earth	115622-09-04 00:27 G	43951374.29	43951374.52	43951374.74	0.0520	0.0152
Moon	115622-09-04 02:51 G	43951374.41	43951374.62	43951374.83	0.0520	0.0185 *
Mercury	115628-02-06 15:20 G	43953356.02	43953356.14	43953356.27	0.0496	0.0343
Mercury	115628-05-06 17:29 G	43953446.13	43953446.23	43953446.34	0.0498	0.0404
Venus	115628-05-28 14:22 G	43953467.90	43953468.10	43953468.31	0.0499	0.0091
Earth	115629-03-14 02:36 G	43953757.56	43953757.61	43953757.66	0.0510	0.0496
Mercury	115633-10-14 01:10 G	43955432.41	43955432.55	43955432.68	0.0531	0.0060
Moon	115634-09-08 20:36 G	43955762.28	43955762.36	43955762.46	0.0518	0.0483
Earth	115634-09-08 22:32 G	43955762.35	43955762.44	43955762.54	0.0518	0.0471 *
Venus	115640-02-01 13:24 G	43957733.87	43957734.06	43957734.25	0.0497	0.0179
Mercury	115640-02-23 15:05 G	43957755.98	43957756.13	43957756.30	0.0497	0.0197
Mercury	115645-08-02 04:32 G	43959742.57	43959742.69	43959742.82	0.0533	0.0227
Mercury	115645-10-30 13:53 G	43959832.02	43959832.08	43959832.15	0.0529	0.0454
Venus	115645-12-07 23:00 G	43959870.29	43959870.46	43959870.64	0.0528	0.0275
Mars	115648-06-19 02:22 G	43960794.46	43960794.60	43960794.76	0.0492	0.0420
Venus	115651-10-07 15:05 G	43962000.04	43962000.13	43962000.23	0.0495	0.0435
Mercury	115651-12-12 14:22 G	43962065.92	43962066.10	43962066.27	0.0497	0.0012
Venus	115652-05-30 22:17 G	43962236.42	43962236.43	43962236.44	0.0503	0.0502
Mercury	115657-05-21 07:53 G	43964052.75	43964052.83	43964052.92	0.0533	0.0398
Venus	115657-08-12 15:05 G	43964135.93	43964136.13	43964136.33	0.0530	0.0040

Mercury	115657-08-18 17:44 G	43964142.13	43964142.24	43964142.35	0.0530	0.0293
Mercury	115663-09-30 13:39 G	43966375.91	43966376.07	43966376.23	0.0496	0.0171
Venus	115664-02-03 23:44 G	43966502.31	43966502.49	43966502.67	0.0501	0.0238
Mars	115666-06-05 01:24 G	43967354.41	43967354.56	43967354.72	0.0535	0.0424
Venus	115669-04-17 05:44 G	43968401.59	43968401.74	43968401.89	0.0532	0.0361
Mercury	115669-06-06 21:05 G	43968452.25	43968452.38	43968452.51	0.0530	0.0124
Mercury	115675-07-19 13:24 G	43970685.94	43970686.06	43970686.18	0.0496	0.0346
Venus	115675-10-10 01:39 G	43970768.36	43970768.57	43970768.77	0.0498	0.0023
Mercury	115675-10-17 15:34 G	43970776.05	43970776.15	43970776.25	0.0498	0.0401
Moon	115676-02-28 13:24 G	43970909.92	43970910.06	43970910.21	0.0503	0.0383
Earth	115676-02-28 16:32 G	43970910.05	43970910.19	43970910.32	0.0503	0.0409 *
Mercury	115681-03-25 23:29 G	43972762.35	43972762.48	43972762.62	0.0531	0.0064
Venus	115681-08-15 12:56 G	43972904.94	43972905.04	43972905.15	0.0526	0.0448
Venus	115687-06-15 02:51 G	43975034.45	43975034.62	43975034.79	0.0496	0.0282
Mercury	115687-08-05 14:08 G	43975085.94	43975086.09	43975086.25	0.0498	0.0209
Earth	115688-03-04 03:48 G	43975297.44	43975297.66	43975297.89	0.0505	0.0127
Moon	115688-03-04 06:56 G	43975297.56	43975297.79	43975298.02	0.0505	0.0127 *
Mercury	115693-01-12 02:36 G	43977072.49	43977072.61	43977072.73	0.0532	0.0236
Mercury	115693-04-11 11:58 G	43977161.93	43977162.00	43977162.07	0.0529	0.0444
Venus	115693-04-20 04:03 G	43977170.48	43977170.67	43977170.87	0.0529	0.0135
Moon	115693-08-29 01:53 G	43977301.37	43977301.58	43977301.80	0.0523	0.0245
Earth	115693-08-29 02:36 G	43977301.40	43977301.61	43977301.82	0.0523	0.0220 *
Mercury	115699-05-24 12:12 G	43979395.83	43979396.01	43979396.18	0.0497	0.0013
Venus	115699-10-12 08:36 G	43979536.74	43979536.86	43979537.00	0.0501	0.0386
Moon	115700-03-09 09:34 G	43979684.69	43979684.90	43979685.13	0.0507	0.0125
Earth	115700-03-09 12:27 G	43979684.80	43979685.02	43979685.25	0.0507	0.0152 *
Mercury	115704-11-01 05:58 G	43981382.67	43981382.75	43981382.84	0.0533	0.0407
Venus	115704-12-24 20:22 G	43981436.16	43981436.35	43981436.54	0.0532	0.0183
Mercury	115705-01-29 15:48 G	43981472.05	43981472.16	43981472.27	0.0530	0.0285
Earth	115705-09-04 04:17 G	43981689.46	43981689.68	43981689.91	0.0521	0.0116

Moon	115705-09-04 04:46 G	43981689.48	43981689.70	43981689.92	0.0521	0.0084	*
Mercury	115711-03-13 11:15 G	43983705.81	43983705.97	43983706.14	0.0496	0.0177	
Venus	115711-06-18 10:03 G	43983802.72	43983802.92	43983803.12	0.0499	0.0122	
Earth	115712-03-14 02:22 G	43984072.50	43984072.60	43984072.72	0.0510	0.0447	
Moon	115712-03-14 05:44 G	43984072.62	43984072.74	43984072.88	0.0510	0.0423	*
Venus	115716-08-29 11:58 G	43985701.94	43985702.00	43985702.07	0.0534	0.0502	
Mercury	115716-11-17 19:24 G	43985782.18	43985782.31	43985782.44	0.0531	0.0123	
Moon	115717-09-09 04:03 G	43986077.54	43986077.67	43986077.81	0.0519	0.0434	
Earth	115717-09-09 04:03 G	43986077.55	43986077.67	43986077.79	0.0519	0.0439	*
Mercury	115722-12-30 10:46 G	43988015.83	43988015.95	43988016.07	0.0495	0.0354	
Venus	115723-02-21 11:44 G	43988068.80	43988068.99	43988069.19	0.0497	0.0139	
Mercury	115723-03-30 12:56 G	43988105.93	43988106.04	43988106.15	0.0498	0.0391	
Mercury	115728-09-05 22:46 G	43990092.32	43990092.45	43990092.58	0.0531	0.0047	
Venus	115728-12-27 22:46 G	43990205.29	43990205.45	43990205.61	0.0527	0.0324	
Venus	115734-10-27 14:08 G	43992334.98	43992335.09	43992335.22	0.0495	0.0393	
Mercury	115735-01-16 12:12 G	43992415.85	43992416.01	43992416.17	0.0498	0.0208	
Mercury	115740-06-25 01:10 G	43994402.43	43994402.55	43994402.68	0.0532	0.0234	
Venus	115740-09-01 11:44 G	43994470.79	43994470.99	43994471.19	0.0530	0.0002	
Mercury	115740-09-22 10:32 G	43994491.88	43994491.94	43994492.01	0.0529	0.0446	
Mercury	115746-11-04 11:15 G	43996725.79	43996725.97	43996726.14	0.0497	0.0024	
Venus	115747-02-23 22:32 G	43996837.27	43996837.44	43996837.60	0.0501	0.0282	
Mercury	115752-04-13 04:03 G	43998712.59	43998712.67	43998712.76	0.0533	0.0412	
Venus	115752-05-07 02:08 G	43998736.43	43998736.59	43998736.75	0.0532	0.0323	
Mercury	115752-07-11 13:53 G	43998801.97	43998802.08	43998802.20	0.0530	0.0280	
Mercury	115758-08-23 09:20 G	44001035.73	44001035.89	44001036.05	0.0496	0.0178	
Venus	115758-10-29 21:20 G	44001103.18	44001103.39	44001103.59	0.0498	0.0010	
Moon	115759-02-28 12:56 G	44001224.96	44001225.04	44001225.12	0.0502	0.0470	
Earth	115759-02-28 16:46 G	44001225.10	44001225.20	44001225.30	0.0502	0.0452	*
Mercury	115764-04-29 17:44 G	44003112.11	44003112.24	44003112.37	0.0531	0.0117	
Venus	115764-09-04 13:24 G	44003240.00	44003240.06	44003240.12	0.0526	0.0499	

Mars	115766-12-08 17:15 G	44004065.08	44004065.22	44004065.38	0.0494	0.0420
Mercury	115770-06-11 08:51 G	44005345.75	44005345.87	44005345.99	0.0495	0.0356
Venus	115770-07-04 23:00 G	44005369.29	44005369.46	44005369.64	0.0496	0.0250
Mercury	115770-09-09 10:46 G	44005435.84	44005435.95	44005436.06	0.0498	0.0387
Earth	115771-03-05 05:00 G	44005612.50	44005612.71	44005612.93	0.0504	0.0171
Moon	115771-03-05 09:05 G	44005612.66	44005612.88	44005613.11	0.0504	0.0153 *
Mercury	115776-02-16 21:20 G	44007422.25	44007422.39	44007422.52	0.0532	0.0051
Venus	115776-05-10 05:58 G	44007505.56	44007505.75	44007505.94	0.0529	0.0189
Earth	115776-08-29 09:05 G	44007616.67	44007616.88	44007617.09	0.0524	0.0249
Moon	115776-08-29 11:00 G	44007616.74	44007616.96	44007617.18	0.0524	0.0217 *
Mercury	115782-06-28 09:48 G	44009745.75	44009745.91	44009746.07	0.0498	0.0201
Venus	115782-11-01 07:53 G	44009871.73	44009871.83	44009871.94	0.0502	0.0431
Moon	115783-03-09 15:20 G	44009999.92	44010000.14	44010000.36	0.0507	0.0154
Earth	115783-03-09 19:24 G	44010000.08	44010000.31	44010000.53	0.0507	0.0121 *
Mercury	115787-12-06 00:27 G	44011732.40	44011732.52	44011732.65	0.0532	0.0219
Venus	115788-01-13 21:20 G	44011771.20	44011771.39	44011771.59	0.0531	0.0129
Mercury	115788-03-04 09:48 G	44011821.85	44011821.91	44011821.98	0.0529	0.0461
Moon	115788-09-03 06:27 G	44012004.55	44012004.77	44012005.00	0.0521	0.0101
Earth	115788-09-03 08:51 G	44012004.64	44012004.87	44012005.10	0.0521	0.0078 *
Mercury	115794-04-16 09:20 G	44014055.72	44014055.89	44014056.06	0.0497	0.0021
Venus	115794-07-07 10:03 G	44014137.73	44014137.92	44014138.11	0.0500	0.0169
Earth	115795-03-14 10:32 G	44014387.82	44014387.94	44014388.08	0.0509	0.0419
Moon	115795-03-14 14:36 G	44014388.00	44014388.11	44014388.23	0.0509	0.0440 *
Venus	115799-09-18 10:03 G	44016036.82	44016036.92	44016037.03	0.0533	0.0458
Mercury	115799-09-24 03:05 G	44016042.54	44016042.63	44016042.71	0.0533	0.0405
Mercury	115799-12-22 12:56 G	44016131.92	44016132.04	44016132.15	0.0530	0.0286
Earth	115800-09-09 04:03 G	44016392.52	44016392.67	44016392.82	0.0519	0.0389
Moon	115800-09-09 06:27 G	44016392.62	44016392.77	44016392.95	0.0519	0.0379 *
Mercury	115806-02-03 08:36 G	44018365.70	44018365.86	44018366.02	0.0496	0.0161
Venus	115806-03-13 11:15 G	44018403.77	44018403.97	44018404.17	0.0497	0.0094

Mercury	115811-10-11 16:03 G	44020442.04	44020442.17	44020442.30	0.0531	0.0116
Venus	115812-01-17 20:08 G	44020540.20	44020540.34	44020540.49	0.0527	0.0366
Venus	115817-11-16 11:00 G	44022669.83	44022669.96	44022670.11	0.0495	0.0360
Mercury	115817-11-22 07:10 G	44022675.68	44022675.80	44022675.92	0.0495	0.0354
Mercury	115818-02-20 08:51 G	44022765.77	44022765.87	44022765.98	0.0498	0.0388
Mars	115820-08-30 13:10 G	44023687.80	44023688.05	44023688.30	0.0535	0.0135
Mercury	115823-07-30 19:24 G	44024752.18	44024752.31	44024752.45	0.0532	0.0056
Venus	115823-09-22 12:12 G	44024805.81	44024806.01	44024806.21	0.0530	0.0050
Mercury	115829-12-09 07:53 G	44027075.67	44027075.83	44027075.99	0.0497	0.0201
Venus	115830-03-15 19:10 G	44027172.15	44027172.30	44027172.46	0.0500	0.0316
Mercury	115835-05-18 23:00 G	44029062.34	44029062.46	44029062.58	0.0533	0.0219
Venus	115835-05-28 04:17 G	44029071.51	44029071.68	44029071.86	0.0532	0.0269
Mercury	115835-08-16 08:36 G	44029151.79	44029151.86	44029151.92	0.0529	0.0463
Mercury	115841-09-27 07:10 G	44031385.63	44031385.80	44031385.97	0.0497	0.0018
Venus	115841-11-18 20:51 G	44031438.17	44031438.37	44031438.58	0.0498	0.0055
Moon	115842-02-28 21:20 G	44031540.31	44031540.39	44031540.47	0.0502	0.0469
Earth	115842-03-01 00:27 G	44031540.46	44031540.52	44031540.59	0.0502	0.0478 *
Mercury	115847-03-07 02:22 G	44033372.51	44033372.60	44033372.69	0.0533	0.0390
Mercury	115847-06-04 12:12 G	44033461.90	44033462.01	44033462.12	0.0530	0.0301
Mercury	115853-07-16 06:56 G	44035695.62	44035695.79	44035695.95	0.0496	0.0158
Venus	115853-07-24 23:29 G	44035704.29	44035704.48	44035704.66	0.0496	0.0204
Earth	115854-03-05 14:22 G	44035927.89	44035928.10	44035928.32	0.0504	0.0194
Moon	115854-03-05 17:15 G	44035928.02	44035928.22	44035928.43	0.0504	0.0219 *
Mercury	115859-03-23 15:05 G	44037772.00	44037772.13	44037772.26	0.0531	0.0125
Venus	115859-05-31 05:00 G	44037840.53	44037840.71	44037840.89	0.0528	0.0236
Earth	115859-08-30 10:46 G	44037931.75	44037931.95	44037932.14	0.0524	0.0293
Moon	115859-08-30 13:53 G	44037931.89	44037932.08	44037932.26	0.0524	0.0325 *
Venus	115865-03-30 01:10 G	44039970.48	44039970.55	44039970.63	0.0494	0.0459
Mercury	115865-05-04 06:12 G	44040005.64	44040005.76	44040005.89	0.0495	0.0337
Mercury	115865-08-02 08:22 G	44040095.75	44040095.85	44040095.95	0.0498	0.0408

Venus	115865-11-21 08:22 G	44040206.80	44040206.85	44040206.91	0.0502	0.0480
Moon	115866-03-10 00:41 G	44040315.29	44040315.53	44040315.76	0.0506	0.0063
Earth	115866-03-10 03:34 G	44040315.42	44040315.65	44040315.88	0.0506	0.0094 *
Mercury	115871-01-09 18:12 G	44042082.13	44042082.26	44042082.39	0.0532	0.0048
Venus	115871-02-02 19:53 G	44042106.13	44042106.33	44042106.53	0.0531	0.0084
Moon	115871-09-04 06:41 G	44042319.55	44042319.78	44042320.02	0.0522	0.0021
Earth	115871-09-04 10:17 G	44042319.70	44042319.93	44042320.16	0.0522	0.0033 *
Mercury	115877-05-21 06:27 G	44044405.61	44044405.77	44044405.93	0.0497	0.0206
Venus	115877-07-27 07:24 G	44044472.63	44044472.81	44044473.00	0.0499	0.0205
Earth	115878-03-14 12:41 G	44044702.88	44044703.03	44044703.19	0.0508	0.0376
Moon	115878-03-14 15:48 G	44044703.01	44044703.16	44044703.32	0.0508	0.0369 *
Venus	115882-10-08 10:32 G	44046371.81	44046371.94	44046372.07	0.0534	0.0410
Mercury	115882-10-28 21:20 G	44046392.27	44046392.39	44046392.51	0.0533	0.0222
Mercury	115883-01-26 06:56 G	44046481.73	44046481.79	44046481.85	0.0530	0.0461
Earth	115883-09-09 10:32 G	44046707.78	44046707.94	44046708.12	0.0520	0.0363
Moon	115883-09-09 14:36 G	44046707.96	44046708.11	44046708.27	0.0520	0.0388 *
Mercury	115889-03-09 05:44 G	44048715.56	44048715.74	44048715.91	0.0496	0.0026
Venus	115889-04-01 09:05 G	44048738.68	44048738.88	44048739.08	0.0497	0.0056
Mercury	115894-08-17 00:56 G	44050702.45	44050702.54	44050702.63	0.0534	0.0390
Mercury	115894-11-14 10:46 G	44050791.84	44050791.95	44050792.06	0.0530	0.0303
Venus	115895-02-05 22:46 G	44050875.34	44050875.45	44050875.58	0.0527	0.0423
Venus	115900-12-06 11:15 G	44053004.81	44053004.97	44053005.12	0.0495	0.0315
Mercury	115900-12-27 05:00 G	44053025.55	44053025.71	44053025.87	0.0496	0.0159
Mercury	115906-09-03 14:22 G	44055101.97	44055102.10	44055102.23	0.0531	0.0141
Venus	115906-10-12 14:51 G	44055140.93	44055141.12	44055141.32	0.0530	0.0111
Mercury	115912-10-15 04:46 G	44057335.58	44057335.70	44057335.83	0.0495	0.0331
Mercury	115913-01-13 06:41 G	44057425.69	44057425.78	44057425.88	0.0498	0.0413
Venus	115913-04-04 20:22 G	44057507.21	44057507.35	44057507.49	0.0501	0.0368
Venus	115918-06-17 04:46 G	44059406.52	44059406.70	44059406.89	0.0532	0.0216
Mercury	115918-06-22 17:15 G	44059412.09	44059412.22	44059412.36	0.0532	0.0037

Mars	115921-03-05 18:12 G	44060398.97	44060399.26	44060399.55	0.0494	0.0056
Mercury	115924-11-01 05:44 G	44061735.59	44061735.74	44061735.90	0.0497	0.0227
Venus	115924-12-08 21:48 G	44061773.21	44061773.41	44061773.61	0.0499	0.0105
Moon	115925-03-01 08:36 G	44061855.83	44061855.86	44061855.89	0.0502	0.0496
Earth	115925-03-01 10:32 G	44061855.91	44061855.94	44061855.96	0.0502	0.0498
Mercury	115930-04-10 20:22 G	44063722.23	44063722.35	44063722.47	0.0533	0.0212
Mercury	115930-07-09 05:44 G	44063811.68	44063811.74	44063811.80	0.0529	0.0469
Venus	115936-08-13 21:48 G	44066039.22	44066039.41	44066039.61	0.0496	0.0165
Mercury	115936-08-20 04:17 G	44066045.51	44066045.68	44066045.85	0.0496	0.0030
Earth	115937-03-05 19:10 G	44066243.09	44066243.30	44066243.51	0.0503	0.0224
Moon	115937-03-05 20:36 G	44066243.16	44066243.36	44066243.57	0.0503	0.0198 *
Mercury	115942-01-27 23:15 G	44068032.38	44068032.47	44068032.56	0.0534	0.0392
Mercury	115942-04-27 09:20 G	44068121.78	44068121.89	44068122.00	0.0531	0.0303
Venus	115942-06-20 05:58 G	44068175.58	44068175.75	44068175.92	0.0529	0.0288
Earth	115942-08-30 16:17 G	44068247.00	44068247.18	44068247.36	0.0526	0.0323
Moon	115942-08-30 20:22 G	44068247.16	44068247.35	44068247.55	0.0526	0.0287 *
Venus	115948-04-18 23:58 G	44070305.40	44070305.50	44070305.61	0.0494	0.0420
Mercury	115948-06-08 03:34 G	44070355.49	44070355.65	44070355.82	0.0495	0.0151
Moon	115949-03-10 06:41 G	44070630.54	44070630.78	44070631.02	0.0505	0.0084
Earth	115949-03-10 07:53 G	44070630.60	44070630.83	44070631.06	0.0505	0.0060 *
Mercury	115954-02-13 12:56 G	44072431.91	44072432.04	44072432.17	0.0531	0.0143
Venus	115954-02-22 22:17 G	44072441.23	44072441.43	44072441.63	0.0531	0.0028
Moon	115954-09-04 15:05 G	44072634.89	44072635.13	44072635.36	0.0523	0.0023
Earth	115954-09-04 18:56 G	44072635.06	44072635.29	44072635.53	0.0523	0.0014 *
Mercury	115960-03-27 03:05 G	44074665.51	44074665.63	44074665.76	0.0495	0.0328
Mercury	115960-06-25 04:46 G	44074755.61	44074755.70	44074755.80	0.0498	0.0414
Venus	115960-08-16 07:53 G	44074807.66	44074807.83	44074808.01	0.0500	0.0254
Earth	115961-03-14 22:03 G	44075018.25	44075018.42	44075018.58	0.0508	0.0351
Moon	115961-03-14 22:32 G	44075018.28	44075018.44	44075018.61	0.0508	0.0346 *
Venus	115965-10-28 13:53 G	44076706.94	44076707.08	44076707.24	0.0533	0.0348

Mercury	115965-12-02 16:32 G	44076742.06	44076742.19	44076742.33	0.0532	0.0022
Earth	115966-09-09 19:24 G	44077023.14	44077023.31	44077023.49	0.0521	0.0339
Moon	115966-09-09 23:00 G	44077023.28	44077023.46	44077023.65	0.0521	0.0313 *
Mercury	115972-04-13 04:17 G	44079065.53	44079065.68	44079065.84	0.0497	0.0232
Venus	115972-04-21 10:17 G	44079073.72	44079073.93	44079074.13	0.0498	0.0010
Mars	115974-11-26 06:12 G	44080022.56	44080022.76	44080022.97	0.0535	0.0319
Mercury	115977-09-20 19:24 G	44081052.19	44081052.31	44081052.44	0.0533	0.0200
Mercury	115977-12-19 05:00 G	44081141.65	44081141.71	44081141.76	0.0529	0.0480
Venus	115978-02-25 23:44 G	44081210.40	44081210.49	44081210.57	0.0526	0.0476
Venus	115983-12-26 12:27 G	44083339.85	44083340.02	44083340.19	0.0496	0.0265
Mercury	115984-01-31 03:34 G	44083375.48	44083375.65	44083375.82	0.0497	0.0050
Mercury	115989-07-09 22:17 G	44085362.34	44085362.43	44085362.53	0.0533	0.0378
Mercury	115989-10-07 08:22 G	44085451.74	44085451.85	44085451.95	0.0530	0.0314
Venus	115989-10-31 14:36 G	44085475.92	44085476.11	44085476.31	0.0529	0.0161
Mercury	115995-11-19 02:22 G	44087685.44	44087685.60	44087685.77	0.0495	0.0141
Venus	115996-04-23 19:10 G	44087842.19	44087842.30	44087842.42	0.0501	0.0409

117TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 117th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	116001-07-06 05:00 G		44089741.52	44089741.71	44089741.91	0.0532	0.0168	
Mercury	116001-07-26 11:29 G		44089761.85	44089761.98	44089762.11	0.0532	0.0142	

Mercury	116007-09-07 01:53 G	44091995.45	44091995.58	44091995.72	0.0495	0.0317
Mercury	116007-12-06 03:34 G	44092085.57	44092085.65	44092085.75	0.0497	0.0423
Venus	116007-12-28 20:51 G	44092108.18	44092108.37	44092108.57	0.0498	0.0145
Venus	116013-03-10 20:36 G	44094007.29	44094007.36	44094007.45	0.0535	0.0489
Mercury	116013-05-14 15:05 G	44094072.00	44094072.13	44094072.26	0.0532	0.0021
Mercury	116019-06-26 01:24 G	44096305.56	44096305.56	44096305.57	0.0494	0.0494
Venus	116019-09-02 22:17 G	44096374.23	44096374.43	44096374.63	0.0496	0.0117
Mercury	116019-09-24 02:36 G	44096395.46	44096395.61	44096395.76	0.0497	0.0235
Moon	116020-03-05 03:34 G	44096558.47	44096558.65	44096558.84	0.0503	0.0279
Earth	116020-03-05 04:17 G	44096558.49	44096558.68	44096558.89	0.0503	0.0246 *
Mercury	116025-03-02 18:41 G	44098382.15	44098382.28	44098382.40	0.0533	0.0187
Mercury	116025-05-31 04:03 G	44098471.63	44098471.67	44098471.72	0.0530	0.0494
Venus	116025-07-09 09:34 G	44098510.75	44098510.90	44098511.05	0.0528	0.0351
Earth	116025-08-30 01:39 G	44098562.39	44098562.57	44098562.75	0.0526	0.0344
Moon	116025-08-30 04:17 G	44098562.52	44098562.68	44098562.85	0.0526	0.0369 *
Venus	116031-05-09 00:56 G	44100640.41	44100640.54	44100640.68	0.0494	0.0371
Mercury	116031-07-13 02:08 G	44100705.42	44100705.59	44100705.76	0.0496	0.0057
Earth	116032-03-09 18:41 G	44100946.05	44100946.28	44100946.51	0.0505	0.0041
Moon	116032-03-09 19:39 G	44100946.08	44100946.32	44100946.56	0.0505	0.0024 *
Mercury	116036-12-19 21:20 G	44102692.30	44102692.39	44102692.49	0.0533	0.0367
Venus	116037-03-13 23:58 G	44102776.30	44102776.50	44102776.70	0.0530	0.0030
Mercury	116037-03-19 07:24 G	44102781.70	44102781.81	44102781.91	0.0530	0.0326
Moon	116037-09-03 21:48 G	44102950.17	44102950.41	44102950.65	0.0523	0.0015
Earth	116037-09-04 00:27 G	44102950.29	44102950.52	44102950.76	0.0523	0.0022 *
Mercury	116043-05-01 01:39 G	44105015.41	44105015.57	44105015.74	0.0496	0.0123
Venus	116043-09-05 09:34 G	44105142.74	44105142.90	44105143.06	0.0500	0.0307
Moon	116044-03-14 07:24 G	44105333.65	44105333.81	44105333.97	0.0507	0.0346
Earth	116044-03-14 08:36 G	44105333.69	44105333.86	44105334.04	0.0507	0.0331 *
Venus	116048-11-16 14:22 G	44107041.93	44107042.10	44107042.27	0.0533	0.0296
Mercury	116049-01-05 10:46 G	44107091.82	44107091.95	44107092.07	0.0531	0.0157

Earth	116049-09-08 23:29 G	44107338.29	44107338.48	44107338.67	0.0521	0.0301
Moon	116049-09-09 01:53 G	44107338.41	44107338.58	44107338.76	0.0521	0.0335 *
Mercury	116055-02-17 00:56 G	44109325.41	44109325.54	44109325.67	0.0495	0.0306
Venus	116055-05-11 10:03 G	44109408.71	44109408.92	44109409.12	0.0497	0.0038
Mercury	116055-05-18 02:36 G	44109415.53	44109415.61	44109415.69	0.0497	0.0434
Mercury	116060-10-24 13:39 G	44111401.93	44111402.07	44111402.20	0.0533	0.0027
Venus	116061-03-16 23:44 G	44111545.49	44111545.49	44111545.51	0.0527	0.0526
Mercury	116066-12-06 00:27 G	44113635.49	44113635.52	44113635.56	0.0494	0.0480
Venus	116067-01-14 11:58 G	44113674.82	44113675.00	44113675.19	0.0495	0.0221
Mercury	116067-03-06 01:39 G	44113725.42	44113725.57	44113725.72	0.0497	0.0247
Mercury	116072-08-12 17:00 G	44115712.09	44115712.21	44115712.34	0.0533	0.0189
Mercury	116072-11-10 02:36 G	44115801.57	44115801.61	44115801.66	0.0530	0.0494
Venus	116072-11-19 16:17 G	44115811.00	44115811.18	44115811.37	0.0530	0.0215
Mars	116075-05-31 11:58 G	44116733.83	44116734.00	44116734.18	0.0493	0.0388
Venus	116078-09-19 13:24 G	44117941.02	44117941.06	44117941.12	0.0493	0.0478
Mercury	116078-12-23 00:41 G	44118035.35	44118035.53	44118035.70	0.0496	0.0061
Venus	116079-05-13 19:39 G	44118177.24	44118177.32	44118177.40	0.0501	0.0457
Mercury	116084-05-31 20:36 G	44120022.26	44120022.36	44120022.46	0.0534	0.0356
Venus	116084-07-25 08:51 G	44120076.67	44120076.87	44120077.07	0.0532	0.0103
Mercury	116084-08-29 06:27 G	44120111.67	44120111.77	44120111.87	0.0531	0.0337
Mercury	116090-10-11 00:12 G	44122345.34	44122345.51	44122345.68	0.0496	0.0117
Venus	116091-01-16 21:48 G	44122443.22	44122443.41	44122443.60	0.0499	0.0196
Venus	116096-03-29 23:00 G	44124342.34	44124342.46	44124342.58	0.0534	0.0430
Mercury	116096-06-17 09:34 G	44124421.78	44124421.90	44124422.03	0.0531	0.0168
Mercury	116102-07-30 23:58 G	44126655.36	44126655.50	44126655.64	0.0495	0.0292
Venus	116102-09-22 23:44 G	44126709.29	44126709.49	44126709.70	0.0497	0.0066
Mercury	116102-10-29 01:39 G	44126745.50	44126745.57	44126745.64	0.0498	0.0450
Moon	116103-03-06 12:12 G	44126873.81	44126874.01	44126874.21	0.0502	0.0236
Earth	116103-03-06 15:34 G	44126873.95	44126874.15	44126874.35	0.0502	0.0264 *
Mercury	116108-04-06 12:56 G	44128731.90	44128732.04	44128732.17	0.0532	0.0019

Venus	116108-07-29 09:20 G	44128845.77	44128845.89	44128846.03	0.0528	0.0402
Earth	116108-08-30 04:46 G	44128877.55	44128877.70	44128877.87	0.0526	0.0384
Moon	116108-08-30 05:58 G	44128877.59	44128877.75	44128877.91	0.0526	0.0368 *
Mercury	116114-05-18 23:15 G	44130965.43	44130965.47	44130965.53	0.0494	0.0470
Venus	116114-05-29 01:10 G	44130975.41	44130975.55	44130975.71	0.0494	0.0328
Mercury	116114-08-17 00:27 G	44131055.37	44131055.52	44131055.67	0.0497	0.0257
Earth	116115-03-11 01:53 G	44131261.34	44131261.58	44131261.81	0.0504	0.0019
Moon	116115-03-11 05:15 G	44131261.48	44131261.72	44131261.95	0.0504	0.0020 *
Mercury	116120-01-24 15:20 G	44133042.02	44133042.14	44133042.27	0.0534	0.0192
Venus	116120-04-02 23:00 G	44133111.26	44133111.46	44133111.66	0.0531	0.0075
Mercury	116120-04-23 00:56 G	44133131.50	44133131.54	44133131.59	0.0530	0.0493
Moon	116120-09-04 03:34 G	44133265.41	44133265.65	44133265.89	0.0525	0.0075
Earth	116120-09-04 03:48 G	44133265.43	44133265.66	44133265.89	0.0525	0.0056 *
Mercury	116126-06-04 23:29 G	44135365.31	44135365.48	44135365.65	0.0496	0.0073
Venus	116126-09-25 08:36 G	44135477.72	44135477.86	44135478.01	0.0500	0.0350
Moon	116127-03-15 11:15 G	44135648.78	44135648.97	44135649.16	0.0506	0.0275
Earth	116127-03-15 14:08 G	44135648.91	44135649.09	44135649.28	0.0506	0.0300 *
Mercury	116131-11-12 18:41 G	44137352.18	44137352.28	44137352.38	0.0534	0.0361
Venus	116131-12-07 14:51 G	44137376.94	44137377.12	44137377.30	0.0533	0.0247
Mercury	116132-02-10 04:46 G	44137441.60	44137441.70	44137441.80	0.0531	0.0334
Moon	116132-09-09 05:15 G	44137653.52	44137653.72	44137653.92	0.0522	0.0243
Earth	116132-09-09 05:29 G	44137653.54	44137653.73	44137653.93	0.0522	0.0275 *
Mercury	116138-03-23 22:32 G	44139675.27	44139675.44	44139675.61	0.0495	0.0113
Venus	116138-05-31 09:48 G	44139743.70	44139743.91	44139744.11	0.0497	0.0084
Mercury	116143-08-31 22:03 G	44141662.41	44141662.42	44141662.43	0.0535	0.0531
Mercury	116143-11-29 08:36 G	44141751.73	44141751.86	44141751.98	0.0532	0.0175
Mercury	116150-01-09 22:17 G	44143985.29	44143985.43	44143985.57	0.0495	0.0287
Venus	116150-02-03 11:58 G	44144009.82	44144010.00	44144010.20	0.0496	0.0175
Mercury	116150-04-09 23:58 G	44144075.43	44144075.50	44144075.57	0.0498	0.0454
Mercury	116155-09-17 11:44 G	44146061.86	44146061.99	44146062.12	0.0532	0.0002

Venus	116155-12-10 18:12 G	44146146.08	44146146.26	44146146.43	0.0529	0.0270
Venus	116161-10-09 14:22 G	44148276.01	44148276.10	44148276.21	0.0494	0.0431
Mercury	116161-10-28 22:03 G	44148295.37	44148295.42	44148295.49	0.0494	0.0460
Mercury	116162-01-26 23:15 G	44148385.33	44148385.47	44148385.62	0.0497	0.0269
Mercury	116167-07-06 14:36 G	44150371.99	44150372.11	44150372.24	0.0533	0.0175
Venus	116167-08-15 08:36 G	44150411.66	44150411.86	44150412.06	0.0532	0.0053
Mercury	116167-10-04 00:12 G	44150461.48	44150461.51	44150461.55	0.0530	0.0507
Mercury	116173-11-14 22:17 G	44152695.26	44152695.43	44152695.60	0.0496	0.0082
Venus	116174-02-05 21:48 G	44152778.23	44152778.41	44152778.59	0.0499	0.0241
Venus	116179-04-19 20:51 G	44154677.23	44154677.37	44154677.51	0.0535	0.0390
Mercury	116179-04-24 17:00 G	44154682.11	44154682.21	44154682.31	0.0534	0.0365
Mercury	116179-07-23 03:05 G	44154771.53	44154771.63	44154771.74	0.0531	0.0331
Mercury	116185-09-02 21:34 G	44157005.23	44157005.40	44157005.57	0.0495	0.0100
Venus	116185-10-11 23:15 G	44157044.26	44157044.47	44157044.67	0.0496	0.0022
Moon	116186-03-05 18:12 G	44157189.08	44157189.26	44157189.44	0.0501	0.0312
Earth	116186-03-05 22:03 G	44157189.23	44157189.42	44157189.61	0.0501	0.0289 *
Mercury	116191-05-11 06:41 G	44159081.66	44159081.78	44159081.91	0.0532	0.0168
Venus	116191-08-18 09:05 G	44159180.78	44159180.88	44159180.99	0.0528	0.0450
Moon	116191-08-30 06:56 G	44159192.67	44159192.79	44159192.92	0.0528	0.0432
Earth	116191-08-30 07:39 G	44159192.69	44159192.82	44159192.97	0.0528	0.0421 *
Mars	116193-11-19 15:48 G	44160005.00	44160005.16	44160005.35	0.0495	0.0395
Venus	116197-06-17 00:12 G	44161310.35	44161310.51	44161310.68	0.0494	0.0284
Mercury	116197-06-21 20:36 G	44161315.22	44161315.36	44161315.50	0.0494	0.0285
Mercury	116197-09-19 22:17 G	44161405.36	44161405.43	44161405.50	0.0497	0.0455
Earth	116198-03-10 08:22 G	44161576.62	44161576.85	44161577.08	0.0504	0.0015
Moon	116198-03-10 12:12 G	44161576.78	44161577.01	44161577.24	0.0504	0.0005 *
Mercury	116203-02-28 10:17 G	44163391.80	44163391.93	44163392.07	0.0533	0.0018
Venus	116203-04-24 01:39 G	44163446.38	44163446.57	44163446.77	0.0531	0.0136
Earth	116203-09-05 11:15 G	44163580.74	44163580.97	44163581.20	0.0525	0.0084
Moon	116203-09-05 12:56 G	44163580.80	44163581.04	44163581.28	0.0525	0.0058 *

Mercury	116209-04-10 20:22 G	44165625.29	44165625.35	44165625.42	0.0494	0.0457
Mercury	116209-07-09 21:34 G	44165715.25	44165715.40	44165715.54	0.0497	0.0271
Venus	116209-10-15 08:22 G	44165812.73	44165812.85	44165812.98	0.0500	0.0396
Moon	116210-03-15 18:12 G	44165964.08	44165964.26	44165964.45	0.0506	0.0303
Earth	116210-03-15 22:03 G	44165964.23	44165964.42	44165964.62	0.0506	0.0271 *
Mercury	116214-12-17 13:24 G	44167701.94	44167702.06	44167702.19	0.0533	0.0169
Venus	116214-12-27 16:32 G	44167712.00	44167712.19	44167712.38	0.0533	0.0190
Mercury	116215-03-16 23:00 G	44167791.43	44167791.46	44167791.49	0.0530	0.0513
Moon	116215-09-10 08:08 G	44167968.65	44167968.84	44167969.04	0.0522	0.0266
Earth	116215-09-10 10:32 G	44167968.74	44167968.94	44167969.15	0.0522	0.0240 *
Mercury	116221-04-27 20:51 G	44170025.20	44170025.37	44170025.54	0.0496	0.0089
Venus	116221-06-20 10:17 G	44170078.74	44170078.93	44170079.13	0.0498	0.0133
Venus	116226-09-01 06:12 G	44171977.72	44171977.76	44171977.81	0.0535	0.0519
Mercury	116226-10-05 16:17 G	44172012.08	44172012.18	44172012.28	0.0534	0.0348
Mercury	116227-01-03 02:22 G	44172101.50	44172101.60	44172101.70	0.0531	0.0345
Mercury	116233-02-13 20:08 G	44174335.17	44174335.34	44174335.51	0.0495	0.0093
Venus	116233-02-23 11:58 G	44174344.81	44174345.00	44174345.20	0.0495	0.0131
Mercury	116238-10-22 05:00 G	44176411.58	44176411.71	44176411.84	0.0532	0.0163
Venus	116238-12-30 15:20 G	44176480.98	44176481.14	44176481.31	0.0529	0.0310
Venus	116244-10-29 13:53 G	44178610.96	44178611.08	44178611.21	0.0493	0.0387
Mercury	116244-12-02 19:39 G	44178645.17	44178645.32	44178645.46	0.0494	0.0272
Mercury	116245-03-02 21:05 G	44178735.32	44178735.38	44178735.44	0.0497	0.0466
Mars	116247-08-12 18:27 G	44179628.04	44179628.27	44179628.50	0.0533	0.0252
Mercury	116250-08-10 08:22 G	44180721.71	44180721.85	44180721.98	0.0533	0.0010
Venus	116250-09-04 06:41 G	44180746.58	44180746.78	44180746.98	0.0532	0.0011
Mercury	116256-09-20 18:27 G	44182955.22	44182955.27	44182955.34	0.0494	0.0456
Mercury	116256-12-19 19:24 G	44183045.17	44183045.31	44183045.46	0.0496	0.0270
Venus	116257-02-25 19:39 G	44183113.16	44183113.32	44183113.49	0.0499	0.0283
Venus	116262-05-09 22:46 G	44185012.30	44185012.45	44185012.61	0.0534	0.0331
Mercury	116262-05-29 11:58 G	44185031.87	44185032.00	44185032.12	0.0534	0.0171

Mercury	116262-08-26 21:34 G	44185121.37	44185121.40	44185121.43	0.0530	0.0513
Mercury	116268-10-07 18:56 G	44187355.12	44187355.29	44187355.46	0.0496	0.0089
Venus	116268-10-31 21:48 G	44187379.20	44187379.41	44187379.61	0.0497	0.0023
Moon	116269-03-06 00:41 G	44187504.34	44187504.53	44187504.72	0.0501	0.0303
Earth	116269-03-06 04:03 G	44187504.50	44187504.67	44187504.85	0.0501	0.0321 *
Mercury	116274-03-17 14:51 G	44189342.02	44189342.12	44189342.23	0.0534	0.0346
Mercury	116274-06-15 00:56 G	44189431.44	44189431.54	44189431.64	0.0531	0.0348
Moon	116274-08-30 08:36 G	44189507.77	44189507.86	44189507.98	0.0528	0.0464
Earth	116274-08-30 12:12 G	44189507.89	44189508.01	44189508.12	0.0528	0.0456 *
Venus	116274-09-07 09:48 G	44189515.86	44189515.91	44189515.97	0.0527	0.0502
Venus	116280-07-06 23:58 G	44191645.32	44191645.50	44191645.68	0.0495	0.0239
Mercury	116280-07-26 18:27 G	44191665.10	44191665.27	44191665.44	0.0495	0.0092
Earth	116281-03-10 16:46 G	44191891.97	44191892.20	44191892.43	0.0503	0.0040
Moon	116281-03-10 19:39 G	44191892.10	44191892.32	44191892.55	0.0503	0.0056 *
Mercury	116286-01-03 17:29 G	44193652.22	44193652.23	44193652.25	0.0535	0.0529
Mercury	116286-04-03 04:03 G	44193741.55	44193741.67	44193741.80	0.0532	0.0177
Venus	116286-05-13 00:27 G	44193781.33	44193781.52	44193781.71	0.0530	0.0183
Earth	116286-09-04 12:12 G	44193895.78	44193896.01	44193896.23	0.0526	0.0129
Moon	116286-09-04 15:34 G	44193895.92	44193896.15	44193896.38	0.0526	0.0162 *
Mercury	116292-05-14 17:58 G	44195975.11	44195975.25	44195975.40	0.0494	0.0268
Mercury	116292-08-12 19:24 G	44196065.26	44196065.31	44196065.37	0.0497	0.0472
Venus	116292-11-03 07:53 G	44196147.74	44196147.83	44196147.93	0.0500	0.0440
Moon	116293-03-15 01:53 G	44196279.36	44196279.58	44196279.80	0.0505	0.0210
Earth	116293-03-15 04:32 G	44196279.49	44196279.69	44196279.90	0.0505	0.0243 *
Venus	116298-01-15 12:27 G	44198046.82	44198047.02	44198047.21	0.0533	0.0155
Mercury	116298-01-20 06:27 G	44198051.64	44198051.77	44198051.91	0.0533	0.0015
Moon	116298-09-09 05:00 G	44198283.49	44198283.71	44198283.93	0.0524	0.0161
Earth	116298-09-09 08:22 G	44198283.64	44198283.85	44198284.07	0.0524	0.0188 *
Mercury	116304-03-03 17:29 G	44200285.16	44200285.23	44200285.30	0.0494	0.0444
Mercury	116304-06-01 18:27 G	44200375.12	44200375.27	44200375.41	0.0496	0.0281

Venus	116304-07-10 08:51 G	44200413.68	44200413.87	44200414.07	0.0498	0.0175
Venus	116309-09-21 02:36 G	44202312.53	44202312.61	44202312.70	0.0535	0.0483
Mercury	116309-11-09 09:34 G	44202361.78	44202361.90	44202362.03	0.0534	0.0185
Mercury	116310-02-06 19:24 G	44202451.27	44202451.31	44202451.35	0.0531	0.0501
Earth	116310-09-15 08:51 G	44202671.82	44202671.87	44202671.92	0.0521	0.0509
Venus	116316-03-15 09:05 G	44204679.68	44204679.88	44204680.08	0.0495	0.0093
Mercury	116316-03-20 16:46 G	44204685.03	44204685.20	44204685.37	0.0496	0.0086
Mercury	116321-08-28 13:10 G	44206671.95	44206672.05	44206672.15	0.0535	0.0352
Mercury	116321-11-25 23:15 G	44206761.37	44206761.47	44206761.57	0.0531	0.0344
Venus	116322-01-19 16:17 G	44206816.04	44206816.18	44206816.33	0.0529	0.0365
Venus	116327-11-19 11:15 G	44208945.83	44208945.97	44208946.12	0.0494	0.0349
Mercury	116328-01-07 16:17 G	44208995.01	44208995.18	44208995.35	0.0495	0.0095
Mercury	116333-06-16 16:03 G	44210982.16	44210982.17	44210982.19	0.0535	0.0530
Mercury	116333-09-14 02:36 G	44211071.48	44211071.61	44211071.74	0.0532	0.0176
Venus	116333-09-24 07:10 G	44211081.60	44211081.80	44211082.01	0.0531	0.0045
Mercury	116339-10-26 15:48 G	44213305.02	44213305.16	44213305.30	0.0495	0.0271
Mercury	116340-01-24 17:29 G	44213395.17	44213395.23	44213395.28	0.0497	0.0469
Venus	116340-03-17 18:56 G	44213448.14	44213448.29	44213448.45	0.0499	0.0327
Venus	116345-05-29 21:20 G	44215347.22	44215347.39	44215347.56	0.0534	0.0286
Mercury	116345-07-03 05:44 G	44215381.60	44215381.74	44215381.87	0.0532	0.0011
Mars	116348-02-15 10:46 G	44216338.66	44216338.95	44216339.23	0.0495	0.0060
Mercury	116351-08-14 15:34 G	44217615.08	44217615.15	44217615.23	0.0494	0.0443
Mercury	116351-11-12 16:32 G	44217705.05	44217705.19	44217705.33	0.0496	0.0283
Venus	116351-11-21 20:51 G	44217714.17	44217714.37	44217714.57	0.0497	0.0064
Moon	116352-03-06 09:34 G	44217819.73	44217819.90	44217820.07	0.0500	0.0348
Earth	116352-03-06 10:46 G	44217819.79	44217819.95	44217820.12	0.0500	0.0347 *
Mercury	116357-04-21 07:53 G	44219691.70	44219691.83	44219691.95	0.0534	0.0191
Mercury	116357-07-19 17:29 G	44219781.19	44219781.23	44219781.28	0.0530	0.0494
Moon	116357-08-30 03:20 G	44219822.57	44219822.64	44219822.71	0.0529	0.0503
Earth	116357-08-30 07:10 G	44219822.76	44219822.80	44219822.84	0.0529	0.0518

Venus	116363-07-27 22:17 G	44221980.24	44221980.43	44221980.62	0.0494	0.0198
Mercury	116363-08-31 15:34 G	44222014.98	44222015.15	44222015.32	0.0496	0.0096
Earth	116364-03-10 21:05 G	44222207.15	44222207.38	44222207.61	0.0502	0.0075
Moon	116364-03-10 22:32 G	44222207.21	44222207.44	44222207.66	0.0502	0.0050 *
Mercury	116369-02-07 10:46 G	44224001.85	44224001.95	44224002.05	0.0535	0.0369
Mercury	116369-05-07 20:51 G	44224091.27	44224091.37	44224091.48	0.0531	0.0329
Venus	116369-06-01 20:22 G	44224116.17	44224116.35	44224116.54	0.0530	0.0219
Earth	116369-09-04 08:36 G	44224210.65	44224210.86	44224211.09	0.0527	0.0187
Moon	116369-09-04 12:41 G	44224210.81	44224211.03	44224211.26	0.0527	0.0150 *
Venus	116375-04-01 22:17 G	44226246.37	44226246.43	44226246.51	0.0493	0.0461
Mercury	116375-06-19 13:53 G	44226324.92	44226325.08	44226325.25	0.0495	0.0099
Venus	116375-11-24 03:48 G	44226482.61	44226482.66	44226482.73	0.0500	0.0475
Moon	116376-03-15 04:17 G	44226594.47	44226594.68	44226594.90	0.0504	0.0225
Earth	116376-03-15 05:44 G	44226594.53	44226594.74	44226594.96	0.0504	0.0196 *
Venus	116381-02-04 12:27 G	44228381.83	44228382.02	44228382.22	0.0533	0.0103
Mercury	116381-02-24 00:41 G	44228401.40	44228401.53	44228401.66	0.0532	0.0168
Moon	116381-09-09 07:53 G	44228598.61	44228598.83	44228599.06	0.0524	0.0163
Earth	116381-09-09 11:58 G	44228598.78	44228599.00	44228599.23	0.0524	0.0148 *
Mercury	116387-04-07 13:24 G	44230634.92	44230635.06	44230635.21	0.0494	0.0276
Mercury	116387-07-06 14:51 G	44230725.06	44230725.12	44230725.19	0.0497	0.0462
Venus	116387-07-30 05:29 G	44230748.55	44230748.73	44230748.92	0.0498	0.0212
Earth	116388-03-19 18:56 G	44230982.22	44230982.29	44230982.37	0.0507	0.0480
Moon	116388-03-19 19:53 G	44230982.28	44230982.33	44230982.40	0.0507	0.0486 *
Venus	116392-10-10 03:20 G	44232647.52	44232647.64	44232647.76	0.0535	0.0430
Mercury	116392-12-13 04:03 G	44232711.53	44232711.67	44232711.80	0.0533	0.0015
Earth	116393-09-14 11:29 G	44232986.89	44232986.98	44232987.09	0.0522	0.0470
Moon	116393-09-14 15:34 G	44232987.04	44232987.15	44232987.27	0.0522	0.0449 *
Mercury	116399-01-24 13:10 G	44234944.99	44234945.05	44234945.12	0.0494	0.0450
Venus	116399-04-04 07:24 G	44235014.61	44235014.81	44235015.01	0.0496	0.0051
Mercury	116399-04-24 14:08 G	44235034.95	44235035.09	44235035.23	0.0497	0.0276

Mars	116401-11-06 20:08 G	44235962.09	44235962.34	44235962.60	0.0534	0.0116
Mercury	116404-10-01 06:56 G	44237021.66	44237021.79	44237021.91	0.0533	0.0179
Mercury	116404-12-29 16:32 G	44237111.16	44237111.19	44237111.23	0.0530	0.0505
Venus	116405-02-07 13:53 G	44237150.96	44237151.08	44237151.22	0.0529	0.0409
Venus	116410-12-08 10:03 G	44239280.76	44239280.92	44239281.08	0.0494	0.0308
Mercury	116411-02-10 13:39 G	44239344.90	44239345.07	44239345.24	0.0496	0.0095
Mercury	116416-07-20 08:51 G	44241331.78	44241331.87	44241331.97	0.0534	0.0375
Venus	116416-10-13 01:53 G	44241416.38	44241416.58	44241416.78	0.0531	0.0075
Mercury	116416-10-17 19:10 G	44241421.19	44241421.30	44241421.40	0.0531	0.0322
Mercury	116422-11-29 12:41 G	44243654.86	44243655.03	44243655.20	0.0495	0.0089
Venus	116423-04-06 16:46 G	44243783.06	44243783.20	44243783.33	0.0499	0.0367
Venus	116428-06-17 16:03 G	44245682.00	44245682.17	44245682.35	0.0534	0.0254
Mercury	116428-08-05 22:17 G	44245731.30	44245731.43	44245731.56	0.0532	0.0152
Mercury	116434-09-17 11:15 G	44247964.83	44247964.97	44247965.11	0.0494	0.0281
Venus	116434-12-10 16:03 G	44248048.97	44248049.17	44248049.37	0.0497	0.0096
Mercury	116434-12-16 12:27 G	44248054.96	44248055.02	44248055.09	0.0497	0.0454
Earth	116435-03-06 11:00 G	44248134.82	44248134.96	44248135.11	0.0500	0.0392
Moon	116435-03-06 12:12 G	44248134.88	44248135.01	44248135.16	0.0500	0.0403 *
Mercury	116440-05-25 01:53 G	44250041.45	44250041.58	44250041.72	0.0533	0.0012
Mercury	116446-07-06 11:00 G	44252274.90	44252274.96	44252275.02	0.0493	0.0455
Venus	116446-08-15 17:58 G	44252315.06	44252315.25	44252315.44	0.0495	0.0165
Mercury	116446-10-04 11:29 G	44252364.84	44252364.98	44252365.13	0.0496	0.0268
Moon	116447-03-10 21:05 G	44252522.17	44252522.38	44252522.60	0.0502	0.0152
Earth	116447-03-10 22:32 G	44252522.21	44252522.44	44252522.67	0.0502	0.0119 *
Mercury	116452-03-13 05:00 G	44254351.59	44254351.71	44254351.84	0.0534	0.0185
Mercury	116452-06-10 14:51 G	44254441.08	44254441.12	44254441.16	0.0530	0.0501
Venus	116452-06-20 20:22 G	44254451.18	44254451.35	44254451.52	0.0530	0.0269
Earth	116452-09-03 11:29 G	44254525.77	44254525.98	44254526.19	0.0527	0.0225
Moon	116452-09-03 14:22 G	44254525.91	44254526.10	44254526.31	0.0527	0.0256 *
Venus	116458-04-20 20:08 G	44256581.24	44256581.34	44256581.45	0.0493	0.0422

Mercury 116458-07-23 11:00 G 44256674.79 44256674.96 44256675.13 0.0496 0.0085
 Earth 116459-03-15 11:00 G 44256909.74 44256909.96 44256910.18 0.0504 0.0163
 Moon 116459-03-15 12:12 G 44256909.79 44256910.01 44256910.25 0.0504 0.0139 *
 Mercury 116463-12-31 07:53 G 44258661.73 44258661.83 44258661.93 0.0534 0.0364
 Venus 116464-02-24 10:32 G 44258716.74 44258716.94 44258717.14 0.0532 0.0058
 Mercury 116464-03-29 18:12 G 44258751.16 44258751.26 44258751.36 0.0531 0.0333
 Moon 116464-09-08 08:36 G 44258913.63 44258913.86 44258914.10 0.0525 0.0096
 Earth 116464-09-08 11:29 G 44258913.75 44258913.98 44258914.21 0.0525 0.0099 *
 Mercury 116470-05-11 10:32 G 44260984.78 44260984.94 44260985.11 0.0495 0.0093
 Venus 116470-08-18 03:48 G 44261083.49 44261083.66 44261083.84 0.0498 0.0255
 Moon 116471-03-19 23:15 G 44261297.37 44261297.47 44261297.57 0.0506 0.0452
 Earth 116471-03-20 00:27 G 44261297.41 44261297.52 44261297.63 0.0506 0.0445 *
 Venus 116475-10-29 21:34 G 44262982.27 44262982.40 44262982.54 0.0535 0.0399
 Mercury 116476-01-16 20:36 G 44263061.23 44263061.36 44263061.49 0.0532 0.0147
 Earth 116476-09-13 06:12 G 44263301.62 44263301.76 44263301.91 0.0523 0.0406
 Moon 116476-09-13 08:36 G 44263301.74 44263301.86 44263301.99 0.0523 0.0438 *
 Mercury 116482-02-27 10:03 G 44265294.77 44265294.92 44265295.06 0.0494 0.0272
 Venus 116482-04-23 05:00 G 44265349.51 44265349.71 44265349.92 0.0496 0.0011
 Mercury 116482-05-28 11:15 G 44265384.91 44265384.97 44265385.03 0.0497 0.0464
 Mercury 116487-11-04 23:29 G 44267371.35 44267371.48 44267371.62 0.0533 0.0030
 Venus 116488-02-27 08:36 G 44267485.76 44267485.86 44267485.98 0.0529 0.0442
 Mercury 116493-12-16 08:36 G 44269604.81 44269604.86 44269604.92 0.0493 0.0461
 Venus 116493-12-27 04:46 G 44269615.53 44269615.70 44269615.87 0.0494 0.0279
 Mercury 116494-03-16 09:05 G 44269694.74 44269694.88 44269695.03 0.0496 0.0260
 Mercury 116499-08-24 02:51 G 44271681.50 44271681.62 44271681.75 0.0534 0.0197
 Venus 116499-11-02 00:56 G 44271751.35 44271751.54 44271751.74 0.0532 0.0124
 Mercury 116499-11-21 12:41 G 44271770.99 44271771.03 44271771.08 0.0531 0.0492
 Mars 116502-05-11 23:00 G 44272672.21 44272672.46 44272672.71 0.0495 0.0239
 Mercury 116506-01-03 08:22 G 44274004.68 44274004.85 44274005.02 0.0495 0.0077
 Venus 116506-04-26 11:58 G 44274117.88 44274118.00 44274118.12 0.0499 0.0400

Mercury	116511-06-13 05:58 G	44275991.66	44275991.75	44275991.85	0.0535	0.0370
Venus	116511-07-08 16:17 G	44276017.00	44276017.18	44276017.37	0.0534	0.0203
Mercury	116511-09-10 16:17 G	44276081.08	44276081.18	44276081.29	0.0531	0.0328
Mercury	116517-10-22 07:53 G	44278314.66	44278314.83	44278315.00	0.0495	0.0103
Venus	116517-12-30 13:53 G	44278383.88	44278384.08	44278384.28	0.0497	0.0136
Earth	116518-03-06 16:03 G	44278450.05	44278450.17	44278450.30	0.0499	0.0425
Moon	116518-03-06 18:56 G	44278450.16	44278450.29	44278450.43	0.0499	0.0404 *
Venus	116523-03-13 06:12 G	44280282.75	44280282.76	44280282.78	0.0536	0.0533
Mercury	116523-06-29 19:39 G	44280391.19	44280391.32	44280391.44	0.0532	0.0158
Mercury	116529-08-10 07:53 G	44282624.69	44282624.83	44282624.97	0.0494	0.0276
Venus	116529-09-04 16:17 G	44282649.98	44282650.18	44282650.38	0.0495	0.0124
Mercury	116529-11-08 09:05 G	44282714.82	44282714.88	44282714.94	0.0497	0.0460
Moon	116530-03-11 01:24 G	44282837.34	44282837.56	44282837.78	0.0501	0.0121
Earth	116530-03-11 04:32 G	44282837.47	44282837.69	44282837.91	0.0501	0.0150 *
Mercury	116535-04-17 21:48 G	44284701.28	44284701.41	44284701.55	0.0533	0.0032
Venus	116535-07-11 14:51 G	44284785.96	44284786.12	44284786.29	0.0530	0.0302
Earth	116535-09-04 05:44 G	44284840.55	44284840.74	44284840.94	0.0528	0.0291
Moon	116535-09-04 07:39 G	44284840.62	44284840.82	44284841.01	0.0528	0.0263 *
Venus	116541-05-10 17:44 G	44286916.12	44286916.24	44286916.37	0.0493	0.0383
Mercury	116541-05-29 07:24 G	44286934.74	44286934.81	44286934.87	0.0494	0.0452
Mercury	116541-08-27 07:53 G	44287024.69	44287024.83	44287024.98	0.0496	0.0271
Earth	116542-03-15 14:51 G	44287224.90	44287225.12	44287225.35	0.0503	0.0124
Moon	116542-03-15 18:27 G	44287225.04	44287225.27	44287225.50	0.0503	0.0131 *
Mercury	116547-02-04 00:41 G	44289011.41	44289011.53	44289011.66	0.0534	0.0210
Venus	116547-03-16 05:15 G	44289051.52	44289051.72	44289051.92	0.0532	0.0025
Mercury	116547-05-04 10:32 G	44289100.89	44289100.94	44289101.00	0.0531	0.0478
Moon	116547-09-09 05:15 G	44289228.48	44289228.72	44289228.96	0.0526	0.0030
Earth	116547-09-09 06:12 G	44289228.53	44289228.76	44289229.00	0.0526	0.0037 *
Mercury	116553-06-15 06:12 G	44291334.59	44291334.76	44291334.93	0.0495	0.0071
Venus	116553-09-06 22:32 G	44291418.27	44291418.44	44291418.61	0.0498	0.0283

Moon	116554-03-19 19:24 G	44291612.16	44291612.31	44291612.46	0.0505	0.0373
Earth	116554-03-19 22:46 G	44291612.31	44291612.45	44291612.60	0.0505	0.0393 *
Mars	116556-01-31 23:44 G	44292295.30	44292295.49	44292295.68	0.0534	0.0361
Venus	116558-11-18 20:36 G	44293317.21	44293317.36	44293317.51	0.0535	0.0353
Mercury	116558-11-23 04:03 G	44293321.57	44293321.67	44293321.76	0.0535	0.0383
Mercury	116559-02-20 14:22 G	44293410.99	44293411.10	44293411.20	0.0532	0.0318
Moon	116559-09-14 08:51 G	44293616.70	44293616.87	44293617.04	0.0523	0.0336
Earth	116559-09-14 08:51 G	44293616.71	44293616.87	44293617.04	0.0523	0.0366 *
Mercury	116565-04-03 05:29 G	44295644.57	44295644.73	44295644.90	0.0495	0.0110
Venus	116565-05-13 00:12 G	44295684.30	44295684.51	44295684.71	0.0496	0.0020
Mercury	116570-12-09 17:44 G	44297721.12	44297721.24	44297721.37	0.0532	0.0153
Venus	116571-03-19 08:51 G	44297820.81	44297820.87	44297820.95	0.0528	0.0493
Venus	116577-01-16 02:22 G	44299950.42	44299950.60	44299950.78	0.0494	0.0240
Mercury	116577-01-20 05:15 G	44299954.58	44299954.72	44299954.86	0.0494	0.0286
Mercury	116577-04-20 06:27 G	44300044.70	44300044.77	44300044.84	0.0497	0.0448
Mercury	116582-09-27 20:51 G	44302031.24	44302031.37	44302031.51	0.0533	0.0026
Venus	116582-11-21 23:44 G	44302086.30	44302086.49	44302086.69	0.0531	0.0171
Mercury	116588-11-08 05:15 G	44304264.66	44304264.72	44304264.78	0.0494	0.0455
Mercury	116589-02-06 05:44 G	44304354.60	44304354.74	44304354.89	0.0496	0.0268
Venus	116589-05-15 10:32 G	44304452.86	44304452.94	44304453.04	0.0500	0.0444
Mercury	116594-07-16 23:15 G	44306341.34	44306341.47	44306341.59	0.0534	0.0211
Venus	116594-07-27 11:44 G	44306351.80	44306351.99	44306352.19	0.0533	0.0168
Mercury	116594-10-14 09:05 G	44306430.82	44306430.88	44306430.94	0.0530	0.0476
Mercury	116600-11-26 05:00 G	44308664.54	44308664.71	44308664.88	0.0495	0.0082
Venus	116601-01-19 11:44 G	44308718.80	44308718.99	44308719.19	0.0497	0.0178
Earth	116601-03-06 21:20 G	44308765.30	44308765.39	44308765.48	0.0499	0.0456
Moon	116601-03-07 01:10 G	44308765.50	44308765.55	44308765.61	0.0499	0.0484
Venus	116606-04-02 01:24 G	44310617.49	44310617.56	44310617.63	0.0536	0.0500
Mercury	116606-05-06 01:53 G	44310651.49	44310651.58	44310651.67	0.0535	0.0393
Mercury	116606-08-03 12:12 G	44310740.90	44310741.01	44310741.12	0.0532	0.0308

Mercury 116612-09-14 03:20 G 44312974.47 44312974.64 44312974.81 0.0494 0.0115

Venus 116612-09-24 11:15 G 44312984.77 44312984.97 44312985.17 0.0495 0.0095

Moon 116613-03-11 00:12 G 44313152.30 44313152.51 44313152.72 0.0500 0.0226

Earth 116613-03-11 04:03 G 44313152.45 44313152.67 44313152.88 0.0500 0.0195 *

Mercury 116618-05-22 15:48 G 44315051.03 44315051.16 44315051.29 0.0533 0.0142

Venus 116618-07-31 14:22 G 44315120.95 44315121.10 44315121.25 0.0530 0.0350

Moon 116618-09-04 06:56 G 44315155.62 44315155.79 44315155.96 0.0529 0.0351

Earth 116618-09-04 07:53 G 44315155.65 44315155.83 44315156.02 0.0529 0.0332 *

Venus 116624-05-30 13:24 G 44317250.92 44317251.06 44317251.20 0.0493 0.0353

Mercury 116624-07-03 02:51 G 44317284.49 44317284.62 44317284.76 0.0494 0.0291

Mercury 116624-10-01 03:48 G 44317374.59 44317374.66 44317374.75 0.0497 0.0442

Earth 116625-03-15 15:20 G 44317539.91 44317540.14 44317540.37 0.0503 0.0078

Moon 116625-03-15 18:56 G 44317540.06 44317540.29 44317540.52 0.0503 0.0079 *

Mercury 116630-03-10 19:10 G 44319361.17 44319361.30 44319361.44 0.0533 0.0025

Venus 116630-04-05 05:58 G 44319386.55 44319386.75 44319386.96 0.0532 0.0029

Earth 116630-09-09 11:00 G 44319543.72 44319543.96 44319544.19 0.0526 0.0005

Moon 116630-09-09 12:27 G 44319543.78 44319544.02 44319544.26 0.0526 0.0022 *

Mercury 116636-04-21 02:51 G 44321594.56 44321594.62 44321594.67 0.0493 0.0464

Mercury 116636-07-20 03:05 G 44321684.49 44321684.63 44321684.78 0.0496 0.0257

Venus 116636-09-26 20:36 G 44321753.21 44321753.36 44321753.52 0.0498 0.0325

Moon 116637-03-20 00:41 G 44321927.38 44321927.53 44321927.68 0.0505 0.0387

Earth 116637-03-20 04:17 G 44321927.53 44321927.68 44321927.85 0.0505 0.0360 *

Venus 116641-12-08 20:36 G 44323652.20 44323652.36 44323652.53 0.0535 0.0302

Mercury 116641-12-27 22:17 G 44323671.30 44323671.43 44323671.55 0.0534 0.0199

Mercury 116642-03-27 08:08 G 44323760.79 44323760.84 44323760.89 0.0531 0.0489

Moon 116642-09-14 09:20 G 44323931.73 44323931.89 44323932.06 0.0524 0.0356

Earth 116642-09-14 11:15 G 44323931.79 44323931.97 44323932.15 0.0524 0.0324 *

Mercury 116648-05-08 02:51 G 44325994.45 44325994.62 44325994.79 0.0496 0.0080

Venus 116648-06-01 23:00 G 44326019.26 44326019.46 44326019.67 0.0496 0.0064

Mercury 116653-10-16 00:27 G 44327981.43 44327981.52 44327981.61 0.0534 0.0390

Mercury	116654-01-13 10:46 G	44328070.85	44328070.95	44328071.06	0.0531	0.0310
Venus	116660-02-06 00:56 G	44330285.35	44330285.54	44330285.73	0.0494	0.0198
Mercury	116660-02-25 02:08 G	44330304.43	44330304.59	44330304.76	0.0495	0.0103
Mercury	116665-11-01 13:53 G	44332380.95	44332381.08	44332381.21	0.0532	0.0137
Venus	116665-12-11 19:53 G	44332421.15	44332421.33	44332421.52	0.0531	0.0208
Venus	116671-10-12 00:56 G	44334551.48	44334551.54	44334551.61	0.0492	0.0464
Mercury	116671-12-14 00:56 G	44334614.41	44334614.54	44334614.68	0.0494	0.0293
Mercury	116672-03-13 01:53 G	44334704.50	44334704.58	44334704.66	0.0496	0.0438
Venus	116672-06-04 05:58 G	44334787.69	44334787.75	44334787.82	0.0499	0.0474
Venus	116677-08-16 11:15 G	44336686.77	44336686.97	44336687.17	0.0534	0.0120
Mercury	116677-08-20 17:15 G	44336691.09	44336691.22	44336691.35	0.0534	0.0033
Mercury	116683-10-02 00:41 G	44338924.48	44338924.53	44338924.59	0.0493	0.0465
Mercury	116683-12-31 01:10 G	44339014.40	44339014.55	44339014.70	0.0496	0.0253
Venus	116684-02-08 07:39 G	44339053.64	44339053.82	44339054.01	0.0497	0.0210
Earth	116684-03-05 23:00 G	44339080.44	44339080.46	44339080.49	0.0498	0.0494
Moon	116684-03-06 01:53 G	44339080.51	44339080.58	44339080.67	0.0498	0.0461
Venus	116689-04-21 02:36 G	44340952.51	44340952.61	44340952.72	0.0536	0.0448
Mercury	116689-06-08 20:36 G	44341001.24	44341001.36	44341001.49	0.0534	0.0202
Mercury	116689-09-06 06:41 G	44341090.73	44341090.78	44341090.83	0.0531	0.0488
Venus	116695-10-14 09:48 G	44343319.70	44343319.91	44343320.11	0.0495	0.0054
Mercury	116695-10-19 00:27 G	44343324.35	44343324.52	44343324.69	0.0495	0.0073
Moon	116696-03-10 07:10 G	44343467.58	44343467.80	44343468.02	0.0500	0.0203
Earth	116696-03-10 10:17 G	44343467.73	44343467.93	44343468.14	0.0500	0.0225 *
Mercury	116701-03-28 23:44 G	44345311.39	44345311.49	44345311.58	0.0535	0.0377
Mercury	116701-06-26 10:03 G	44345400.82	44345400.92	44345401.03	0.0532	0.0323
Venus	116701-08-20 14:51 G	44345456.00	44345456.12	44345456.26	0.0529	0.0403
Moon	116701-09-04 08:36 G	44345470.70	44345470.86	44345471.03	0.0529	0.0368
Earth	116701-09-04 11:44 G	44345470.83	44345470.99	44345471.17	0.0529	0.0368 *
Venus	116707-06-20 12:41 G	44347585.87	44347586.03	44347586.19	0.0493	0.0309
Mercury	116707-08-08 00:27 G	44347634.35	44347634.52	44347634.68	0.0495	0.0102

Earth	116708-03-15 23:15 G	44347855.24	44347855.47	44347855.70	0.0502	0.0053
Moon	116708-03-16 02:22 G	44347855.37	44347855.60	44347855.83	0.0502	0.0044 *
Mercury	116713-04-14 12:41 G	44349710.90	44349711.03	44349711.16	0.0532	0.0143
Venus	116713-04-25 03:48 G	44349721.46	44349721.66	44349721.86	0.0532	0.0071
Earth	116713-09-09 09:48 G	44349858.68	44349858.91	44349859.14	0.0527	0.0049
Moon	116713-09-09 13:24 G	44349858.83	44349859.06	44349859.30	0.0527	0.0081 *
Mercury	116719-05-26 23:58 G	44351944.36	44351944.50	44351944.64	0.0494	0.0279
Mercury	116719-08-25 00:56 G	44352034.48	44352034.54	44352034.61	0.0497	0.0455
Venus	116719-10-17 19:53 G	44352088.20	44352088.33	44352088.47	0.0499	0.0370
Moon	116720-03-20 08:08 G	44352242.65	44352242.84	44352243.04	0.0504	0.0298
Earth	116720-03-20 11:00 G	44352242.79	44352242.96	44352243.14	0.0504	0.0330 *
Venus	116724-12-28 17:44 G	44353987.07	44353987.24	44353987.42	0.0534	0.0261
Mercury	116725-01-31 15:48 G	44354021.02	44354021.16	44354021.29	0.0533	0.0037
Moon	116725-09-14 06:12 G	44354246.55	44354246.76	44354246.96	0.0524	0.0241
Earth	116725-09-14 09:48 G	44354246.72	44354246.91	44354247.11	0.0524	0.0273 *
Mercury	116731-03-14 23:00 G	44356254.41	44356254.46	44356254.52	0.0493	0.0464
Mercury	116731-06-12 23:15 G	44356344.32	44356344.47	44356344.62	0.0496	0.0254
Venus	116731-06-22 19:39 G	44356354.12	44356354.32	44356354.52	0.0496	0.0097
Mercury	116736-11-19 18:41 G	44358331.16	44358331.28	44358331.41	0.0535	0.0209
Mercury	116737-02-17 04:46 G	44358420.65	44358420.70	44358420.76	0.0531	0.0483
Venus	116743-02-25 21:48 G	44360620.21	44360620.41	44360620.60	0.0494	0.0164
Mercury	116743-03-31 22:32 G	44360654.28	44360654.44	44360654.62	0.0495	0.0074
Mercury	116748-09-07 22:03 G	44362641.32	44362641.42	44362641.51	0.0535	0.0380
Mercury	116748-12-06 08:22 G	44362730.75	44362730.85	44362730.96	0.0532	0.0323
Venus	116748-12-31 21:48 G	44362756.24	44362756.41	44362756.59	0.0531	0.0264
Venus	116754-10-31 23:58 G	44364886.40	44364886.50	44364886.61	0.0492	0.0421
Mercury	116755-01-17 22:17 G	44364964.26	44364964.43	44364964.59	0.0494	0.0106
Venus	116760-09-05 13:10 G	44367021.85	44367022.05	44367022.25	0.0533	0.0062
Mercury	116760-09-24 11:58 G	44367040.87	44367041.00	44367041.13	0.0533	0.0157
Mercury	116766-11-05 22:17 G	44369274.29	44369274.43	44369274.57	0.0494	0.0277

Mercury	116767-02-03 23:15 G	44369364.41	44369364.47	44369364.54	0.0497	0.0456
Venus	116767-02-28 07:53 G	44369388.65	44369388.83	44369389.00	0.0498	0.0258
Venus	116772-05-11 01:53 G	44371287.45	44371287.58	44371287.72	0.0535	0.0399
Mercury	116772-07-13 14:36 G	44371350.98	44371351.11	44371351.24	0.0533	0.0025
Mars	116775-01-25 09:20 G	44372276.66	44372276.89	44372277.13	0.0496	0.0282
Mercury	116778-08-24 22:03 G	44373584.36	44373584.42	44373584.49	0.0493	0.0449
Venus	116778-11-03 09:34 G	44373654.70	44373654.90	44373655.11	0.0495	0.0012
Mercury	116778-11-22 22:32 G	44373674.29	44373674.44	44373674.58	0.0496	0.0271
Moon	116779-03-11 18:12 G	44373783.06	44373783.26	44373783.47	0.0500	0.0252
Earth	116779-03-11 18:56 G	44373783.09	44373783.29	44373783.49	0.0500	0.0248 *
Mercury	116784-05-01 17:29 G	44375661.10	44375661.23	44375661.35	0.0534	0.0204
Mercury	116784-07-30 03:34 G	44375750.60	44375750.65	44375750.70	0.0531	0.0486
Moon	116784-09-03 07:39 G	44375785.68	44375785.82	44375785.97	0.0530	0.0414
Earth	116784-09-03 11:29 G	44375785.84	44375785.98	44375786.13	0.0530	0.0416 *
Venus	116784-09-08 12:56 G	44375790.94	44375791.04	44375791.15	0.0529	0.0447
Venus	116790-07-09 10:17 G	44377920.76	44377920.93	44377921.10	0.0493	0.0273
Mercury	116790-09-10 21:05 G	44377984.21	44377984.38	44377984.55	0.0495	0.0077
Earth	116791-03-16 02:36 G	44378170.37	44378170.61	44378170.84	0.0501	0.0019
Moon	116791-03-16 03:05 G	44378170.41	44378170.63	44378170.86	0.0501	0.0043 *
Mercury	116796-02-18 20:08 G	44379971.25	44379971.34	44379971.44	0.0535	0.0385
Venus	116796-05-14 03:48 G	44380056.47	44380056.66	44380056.86	0.0532	0.0121
Mercury	116796-05-18 06:41 G	44380060.68	44380060.78	44380060.89	0.0532	0.0320
Earth	116796-09-08 13:53 G	44380173.85	44380174.08	44380174.31	0.0528	0.0082
Moon	116796-09-08 17:29 G	44380174.00	44380174.23	44380174.47	0.0528	0.0048 *
Mercury	116802-06-29 20:36 G	44382294.20	44382294.36	44382294.53	0.0494	0.0102
Venus	116802-11-05 17:15 G	44382423.11	44382423.22	44382423.34	0.0498	0.0407
Moon	116803-03-20 13:24 G	44382557.88	44382558.06	44382558.25	0.0503	0.0323
Earth	116803-03-20 14:22 G	44382557.91	44382558.10	44382558.29	0.0503	0.0292 *
Venus	116808-01-17 19:53 G	44384322.14	44384322.33	44384322.51	0.0535	0.0206
Mercury	116808-03-06 10:32 G	44384370.81	44384370.94	44384371.07	0.0533	0.0157

Moon	116808-09-13 13:39 G	44384561.86	44384562.07	44384562.27	0.0525	0.0266
Earth	116808-09-13 17:15 G	44384562.02	44384562.22	44384562.43	0.0525	0.0250 *
Mercury	116814-04-17 20:22 G	44386604.21	44386604.35	44386604.49	0.0494	0.0277
Venus	116814-07-11 19:10 G	44386689.11	44386689.30	44386689.50	0.0496	0.0143
Mercury	116814-07-16 21:20 G	44386694.32	44386694.39	44386694.46	0.0496	0.0454
Venus	116819-09-22 10:46 G	44388587.94	44388587.95	44388587.97	0.0537	0.0535
Mercury	116819-12-24 13:53 G	44388680.94	44388681.08	44388681.21	0.0534	0.0013
Mercury	116826-02-03 20:36 G	44390914.29	44390914.36	44390914.43	0.0493	0.0444
Venus	116826-03-16 22:03 G	44390955.22	44390955.42	44390955.62	0.0494	0.0116
Mercury	116826-05-04 20:51 G	44391004.23	44391004.37	44391004.51	0.0496	0.0275
Mars	116828-10-17 14:22 G	44391900.85	44391901.10	44391901.35	0.0532	0.0187
Mercury	116831-10-12 16:32 G	44392991.06	44392991.19	44392991.32	0.0534	0.0193
Mercury	116832-01-10 02:36 G	44393080.56	44393080.61	44393080.65	0.0531	0.0496
Venus	116832-01-20 21:48 G	44393091.25	44393091.41	44393091.58	0.0530	0.0315
Venus	116837-11-20 00:27 G	44395221.39	44395221.52	44395221.66	0.0493	0.0374
Mercury	116838-02-20 20:22 G	44395314.18	44395314.35	44395314.52	0.0495	0.0095
Mercury	116843-07-31 19:10 G	44397301.21	44397301.30	44397301.40	0.0535	0.0374
Venus	116843-09-25 12:12 G	44397356.80	44397357.01	44397357.21	0.0533	0.0018
Mercury	116843-10-29 05:44 G	44397390.64	44397390.74	44397390.85	0.0532	0.0327
Mercury	116849-12-09 19:24 G	44399624.14	44399624.31	44399624.47	0.0494	0.0095
Venus	116850-03-19 05:58 G	44399723.59	44399723.75	44399723.92	0.0497	0.0296
Venus	116855-05-31 01:53 G	44401622.43	44401622.58	44401622.73	0.0536	0.0352
Mercury	116855-08-17 08:51 G	44401700.74	44401700.87	44401701.00	0.0533	0.0154
Mercury	116861-09-27 18:56 G	44403934.15	44403934.29	44403934.44	0.0493	0.0269
Venus	116861-11-22 08:08 G	44403989.64	44403989.84	44403990.05	0.0495	0.0034
Mercury	116861-12-26 19:39 G	44404024.27	44404024.32	44404024.39	0.0496	0.0461
Earth	116862-03-11 00:12 G	44404098.32	44404098.51	44404098.70	0.0499	0.0274
Moon	116862-03-11 02:08 G	44404098.39	44404098.59	44404098.79	0.0499	0.0284 *
Mercury	116867-06-05 12:12 G	44406010.88	44406011.01	44406011.15	0.0534	0.0021
Moon	116867-09-03 15:05 G	44406101.01	44406101.13	44406101.24	0.0531	0.0459

Earth	116867-09-03 18:27 G	44406101.14	44406101.27	44406101.40	0.0531	0.0441	*
Venus	116867-09-28 15:20 G	44406126.08	44406126.14	44406126.20	0.0530	0.0504	
Mercury	116873-07-16 18:56 G	44408244.22	44408244.29	44408244.36	0.0493	0.0441	
Venus	116873-07-28 10:17 G	44408255.75	44408255.93	44408256.11	0.0493	0.0227	
Mercury	116873-10-14 18:56 G	44408334.15	44408334.29	44408334.44	0.0496	0.0277	
Moon	116874-03-15 09:05 G	44408485.66	44408485.88	44408486.11	0.0501	0.0036	
Earth	116874-03-15 11:29 G	44408485.74	44408485.98	44408486.21	0.0501	0.0010	*
Mercury	116879-03-24 15:34 G	44410321.03	44410321.15	44410321.28	0.0535	0.0180	
Venus	116879-06-03 07:24 G	44410391.62	44410391.81	44410392.00	0.0532	0.0185	
Mercury	116879-06-22 01:39 G	44410410.54	44410410.57	44410410.61	0.0531	0.0511	
Earth	116879-09-08 22:17 G	44410489.20	44410489.43	44410489.66	0.0528	0.0106	
Moon	116879-09-09 00:41 G	44410489.32	44410489.53	44410489.75	0.0528	0.0137	*
Venus	116885-04-02 13:10 G	44412522.02	44412522.05	44412522.10	0.0492	0.0481	
Mercury	116885-08-02 18:41 G	44412644.12	44412644.28	44412644.45	0.0495	0.0101	
Venus	116885-11-24 18:12 G	44412758.19	44412758.26	44412758.35	0.0499	0.0459	
Earth	116886-03-20 00:41 G	44412873.34	44412873.53	44412873.73	0.0503	0.0273	
Moon	116886-03-20 03:20 G	44412873.44	44412873.64	44412873.85	0.0503	0.0254	*
Mercury	116891-01-10 18:12 G	44414631.17	44414631.26	44414631.36	0.0535	0.0362	
Venus	116891-02-05 21:05 G	44414657.18	44414657.38	44414657.57	0.0534	0.0150	
Mercury	116891-04-10 04:46 G	44414720.60	44414720.70	44414720.80	0.0532	0.0339	
Moon	116891-09-13 19:39 G	44414877.10	44414877.32	44414877.55	0.0526	0.0210	
Earth	116891-09-13 21:34 G	44414877.19	44414877.40	44414877.62	0.0526	0.0214	*
Mercury	116897-05-21 18:27 G	44416954.10	44416954.27	44416954.44	0.0494	0.0077	
Venus	116897-07-30 20:22 G	44417024.17	44417024.35	44417024.54	0.0497	0.0194	
Venus	116902-10-12 10:32 G	44418922.86	44418922.94	44418923.03	0.0536	0.0485	
Mercury	116903-01-28 07:53 G	44419030.70	44419030.83	44419030.96	0.0533	0.0167	
Mercury	116909-03-10 17:44 G	44421264.10	44421264.24	44421264.39	0.0493	0.0259	
Venus	116909-04-05 21:20 G	44421290.19	44421290.39	44421290.60	0.0494	0.0075	
Mercury	116909-06-08 18:41 G	44421354.23	44421354.28	44421354.33	0.0496	0.0470	
Mercury	116914-11-16 10:46 G	44423340.81	44423340.95	44423341.08	0.0534	0.0013	

Venus	116915-02-09 22:03 G	44423426.28	44423426.42	44423426.57	0.0531	0.0366
Venus	116920-12-09 23:58 G	44425556.35	44425556.50	44425556.66	0.0492	0.0332
Mercury	116920-12-27 17:44 G	44425574.16	44425574.24	44425574.33	0.0493	0.0430
Mercury	116921-03-27 17:58 G	44425664.11	44425664.25	44425664.39	0.0495	0.0287
Mercury	116926-09-04 14:08 G	44427650.96	44427651.09	44427651.22	0.0535	0.0180
Venus	116926-10-15 13:53 G	44427691.88	44427692.08	44427692.28	0.0533	0.0042
Mercury	116926-12-03 00:12 G	44427740.48	44427740.51	44427740.55	0.0532	0.0512
Mars	116929-04-22 00:56 G	44428611.28	44428611.54	44428611.82	0.0496	0.0146
Mercury	116933-01-13 17:15 G	44429974.05	44429974.22	44429974.39	0.0495	0.0104
Venus	116933-04-08 06:12 G	44430058.62	44430058.76	44430058.91	0.0498	0.0345
Venus	116938-06-20 05:44 G	44431957.57	44431957.74	44431957.91	0.0536	0.0286
Mercury	116938-06-23 17:29 G	44431961.12	44431961.23	44431961.33	0.0535	0.0351
Mercury	116938-09-21 04:03 G	44432050.57	44432050.67	44432050.77	0.0532	0.0352
Mercury	116944-11-01 17:00 G	44434284.05	44434284.21	44434284.38	0.0494	0.0071
Venus	116944-12-12 09:05 G	44434324.68	44434324.88	44434325.08	0.0496	0.0085
Earth	116945-03-11 10:32 G	44434413.76	44434413.94	44434414.13	0.0499	0.0293
Moon	116945-03-11 14:08 G	44434413.90	44434414.09	44434414.30	0.0499	0.0270 *
Mercury	116950-04-11 20:08 G	44436271.33	44436271.34	44436271.35	0.0536	0.0534
Mercury	116950-07-10 06:56 G	44436360.67	44436360.79	44436360.92	0.0533	0.0180
Moon	116950-09-03 23:29 G	44436416.35	44436416.48	44436416.62	0.0531	0.0438
Earth	116950-09-03 23:44 G	44436416.39	44436416.49	44436416.60	0.0531	0.0472 *
Venus	116956-08-17 11:29 G	44438590.79	44438590.98	44438591.18	0.0494	0.0177
Mercury	116956-08-20 17:00 G	44438594.06	44438594.21	44438594.36	0.0494	0.0243
Mercury	116956-11-18 17:44 G	44438684.22	44438684.24	44438684.27	0.0496	0.0489
Moon	116957-03-15 18:56 G	44438801.06	44438801.29	44438801.52	0.0501	0.0011
Earth	116957-03-15 22:32 G	44438801.20	44438801.44	44438801.67	0.0501	0.0023 *
Mercury	116962-04-28 10:03 G	44440670.78	44440670.92	44440671.05	0.0534	0.0004
Venus	116962-06-23 07:24 G	44440726.63	44440726.81	44440726.99	0.0532	0.0236
Earth	116962-09-09 01:24 G	44440804.33	44440804.56	44440804.78	0.0529	0.0145
Moon	116962-09-09 01:10 G	44440804.33	44440804.55	44440804.77	0.0529	0.0121 *

Venus 116968-04-22 13:24 G 44442856.97 44442857.06 44442857.16 0.0491 0.0436

Mercury 116968-06-08 16:46 G 44442904.11 44442904.20 44442904.28 0.0493 0.0419

Mercury 116968-09-06 16:46 G 44442994.06 44442994.20 44442994.34 0.0495 0.0297

Earth 116969-03-20 07:39 G 44443188.62 44443188.82 44443189.03 0.0502 0.0248

Moon 116969-03-20 11:29 G 44443188.78 44443188.98 44443189.18 0.0502 0.0252 *

Mercury 116974-02-14 12:27 G 44444980.90 44444981.02 44444981.15 0.0535 0.0182

Venus 116974-02-25 20:22 G 44444992.15 44444992.35 44444992.55 0.0535 0.0103

Mercury 116974-05-14 22:46 G 44445070.42 44445070.45 44445070.48 0.0532 0.0511

Earth 116974-09-14 01:24 G 44445192.34 44445192.56 44445192.78 0.0527 0.0181

Moon 116974-09-14 02:08 G 44445192.36 44445192.59 44445192.82 0.0527 0.0169 *

Mercury 116980-06-25 16:17 G 44447304.01 44447304.18 44447304.34 0.0494 0.0117

Venus 116980-08-19 19:53 G 44447359.15 44447359.33 44447359.51 0.0496 0.0237

Moon 116981-03-24 15:48 G 44447576.12 44447576.16 44447576.20 0.0504 0.0494

Mars 116983-01-12 12:12 G 44448234.76 44448235.01 44448235.26 0.0532 0.0168

Venus 116985-10-31 11:29 G 44449257.87 44449257.98 44449258.10 0.0537 0.0433

Mercury 116985-12-03 15:48 G 44449291.06 44449291.16 44449291.26 0.0536 0.0354

Mercury 116986-03-03 02:22 G 44449380.50 44449380.60 44449380.70 0.0533 0.0351

Moon 116986-09-19 03:05 G 44449580.53 44449580.63 44449580.72 0.0525 0.0477

Earth 116986-09-19 04:32 G 44449580.63 44449580.69 44449580.75 0.0525 0.0507 *

Mercury 116992-04-13 15:34 G 44451613.98 44451614.15 44451614.32 0.0494 0.0065

Venus 116992-04-24 21:34 G 44451625.19 44451625.40 44451625.60 0.0494 0.0028

Mercury 116997-09-21 18:56 G 44453601.27 44453601.29 44453601.32 0.0536 0.0525

Mercury 116997-12-20 05:58 G 44453690.63 44453690.75 44453690.88 0.0533 0.0190

Venus 116998-03-01 01:53 G 44453761.46 44453761.58 44453761.69 0.0531 0.0431

118TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 118th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	117003-12-31 00:27	G	44455891.36	44455891.52	44455891.69	0.0493	0.0283	
Mercury	117004-02-01 15:34	G	44455924.00	44455924.15	44455924.30	0.0493	0.0236	
Mercury	117004-05-01 16:17	G	44456014.17	44456014.18	44456014.20	0.0496	0.0494	
Mercury	117009-10-09 09:05	G	44458000.74	44458000.88	44458001.01	0.0534	0.0017	
Venus	117009-11-04 16:03	G	44458026.97	44458027.17	44458027.37	0.0533	0.0101	
Mercury	117015-11-20 15:34	G	44460234.06	44460234.15	44460234.25	0.0493	0.0406	
Mercury	117016-02-18 15:48	G	44460324.03	44460324.16	44460324.29	0.0496	0.0312	
Venus	117016-04-28 07:53	G	44460393.71	44460393.83	44460393.95	0.0498	0.0398	
Venus	117021-07-10 05:58	G	44462292.57	44462292.75	44462292.94	0.0535	0.0234	
Mercury	117021-07-28 11:58	G	44462310.87	44462311.00	44462311.13	0.0534	0.0164	
Mercury	117021-10-25 22:03	G	44462400.41	44462400.42	44462400.43	0.0531	0.0527	
Mercury	117027-12-07 15:05	G	44464633.96	44464634.13	44464634.30	0.0494	0.0127	
Venus	117028-01-02 09:20	G	44464659.69	44464659.89	44464660.09	0.0495	0.0130	
Earth	117028-03-11 19:10	G	44464729.13	44464729.30	44464729.49	0.0498	0.0311	
Moon	117028-03-11 22:46	G	44464729.29	44464729.45	44464729.62	0.0498	0.0343	*
Mercury	117033-05-16 14:08	G	44466620.99	44466621.09	44466621.19	0.0536	0.0355	
Mercury	117033-08-14 00:56	G	44466710.44	44466710.54	44466710.64	0.0533	0.0350	
Earth	117033-09-04 00:56	G	44466731.49	44466731.54	44466731.61	0.0532	0.0513	
Venus	117039-09-07 11:29	G	44468925.78	44468925.98	44468926.18	0.0493	0.0131	
Mercury	117039-09-25 14:36	G	44468943.94	44468944.11	44468944.28	0.0494	0.0051	
Moon	117040-03-16 02:08	G	44469116.36	44469116.59	44469116.83	0.0499	0.0073	
Earth	117040-03-16 05:44	G	44469116.51	44469116.74	44469116.98	0.0499	0.0046	*
Mercury	117045-03-04 17:00	G	44470931.20	44470931.21	44470931.23	0.0537	0.0532	
Mercury	117045-06-02 04:17	G	44471020.56	44471020.68	44471020.81	0.0534	0.0186	

Venus	117045-07-13 07:53 G	44471061.67	44471061.83	44471062.00	0.0532	0.0289
Moon	117045-09-09 02:36 G	44471119.40	44471119.61	44471119.83	0.0530	0.0185
Earth	117045-09-09 05:44 G	44471119.52	44471119.74	44471119.96	0.0530	0.0177 *
Venus	117051-05-13 13:10 G	44473191.93	44473192.05	44473192.18	0.0491	0.0391
Mercury	117051-07-14 14:08 G	44473253.94	44473254.09	44473254.24	0.0493	0.0231
Earth	117052-03-20 15:48 G	44473503.95	44473504.16	44473504.37	0.0502	0.0222
Moon	117052-03-20 19:10 G	44473504.10	44473504.30	44473504.50	0.0502	0.0228 *
Venus	117057-03-17 23:58 G	44475327.30	44475327.50	44475327.70	0.0534	0.0037
Mercury	117057-03-21 07:53 G	44475330.69	44475330.83	44475330.96	0.0534	0.0022
Earth	117057-09-14 10:03 G	44475507.70	44475507.92	44475508.15	0.0527	0.0157
Moon	117057-09-14 13:39 G	44475507.85	44475508.07	44475508.29	0.0527	0.0187 *
Mercury	117063-05-02 14:08 G	44477564.00	44477564.09	44477564.19	0.0493	0.0400
Mercury	117063-07-31 14:22 G	44477653.97	44477654.10	44477654.23	0.0495	0.0318
Venus	117063-09-09 20:08 G	44477694.18	44477694.34	44477694.51	0.0497	0.0288
Earth	117064-03-25 05:00 G	44477891.69	44477891.71	44477891.75	0.0504	0.0498
Venus	117068-11-20 14:08 G	44479592.95	44479593.09	44479593.23	0.0536	0.0372
Mercury	117069-01-07 10:46 G	44479640.82	44479640.95	44479641.08	0.0535	0.0155
Moon	117069-09-19 06:56 G	44479895.74	44479895.79	44479895.85	0.0525	0.0507
Earth	117069-09-19 10:32 G	44479895.84	44479895.94	44479896.04	0.0525	0.0475 *
Venus	117075-05-15 22:32 G	44481960.24	44481960.44	44481960.65	0.0495	0.0025
Mercury	117075-05-19 13:53 G	44481963.92	44481964.08	44481964.25	0.0495	0.0139
Mercury	117080-10-26 13:39 G	44483950.96	44483951.07	44483951.17	0.0535	0.0336
Mercury	117081-01-24 00:12 G	44484040.41	44484040.51	44484040.61	0.0532	0.0367
Venus	117081-03-21 01:39 G	44484096.49	44484096.57	44484096.66	0.0530	0.0482
Venus	117087-01-19 00:56 G	44486226.36	44486226.54	44486226.72	0.0492	0.0237
Mercury	117087-03-07 13:24 G	44486273.89	44486274.06	44486274.23	0.0494	0.0041
Mercury	117092-08-14 15:34 G	44488261.14	44488261.15	44488261.16	0.0537	0.0533
Mercury	117092-11-12 02:36 G	44488350.49	44488350.61	44488350.74	0.0534	0.0184
Venus	117092-11-23 14:08 G	44488361.90	44488362.09	44488362.29	0.0533	0.0145
Mercury	117098-12-24 13:10 G	44490583.90	44490584.05	44490584.20	0.0493	0.0216

Venus	117099-05-18 07:10 G	44490728.72	44490728.80	44490728.90	0.0497	0.0443
Venus	117104-07-30 05:15 G	44492627.53	44492627.72	44492627.91	0.0536	0.0186
Mercury	117104-09-01 05:58 G	44492660.62	44492660.75	44492660.89	0.0535	0.0016
Mercury	117110-10-13 12:27 G	44494893.93	44494894.02	44494894.13	0.0492	0.0395
Mercury	117111-01-11 12:41 G	44494983.90	44494984.03	44494984.16	0.0495	0.0320
Venus	117111-01-22 08:22 G	44494994.66	44494994.85	44494995.04	0.0495	0.0176
Earth	117111-03-13 02:51 G	44495044.45	44495044.62	44495044.79	0.0497	0.0337
Moon	117111-03-13 03:34 G	44495044.48	44495044.65	44495044.83	0.0497	0.0309 *
Venus	117116-04-03 20:36 G	44496893.31	44496893.36	44496893.42	0.0538	0.0516
Mercury	117116-06-20 09:20 G	44496970.76	44496970.89	44496971.02	0.0535	0.0153
Moon	117116-09-04 12:12 G	44497046.95	44497047.01	44497047.08	0.0532	0.0510
Venus	117122-09-27 10:46 G	44499260.75	44499260.95	44499261.16	0.0494	0.0086
Mercury	117122-10-30 12:12 G	44499293.84	44499294.01	44499294.17	0.0495	0.0142
Moon	117123-03-17 13:10 G	44499431.81	44499432.05	44499432.29	0.0499	0.0063
Earth	117123-03-17 14:08 G	44499431.86	44499432.09	44499432.32	0.0499	0.0071 *
Mercury	117128-04-08 12:27 G	44501280.91	44501281.02	44501281.12	0.0535	0.0330
Mercury	117128-07-06 23:00 G	44501370.36	44501370.46	44501370.55	0.0532	0.0373
Venus	117128-08-02 09:48 G	44501396.76	44501396.91	44501397.06	0.0531	0.0347
Moon	117128-09-09 07:39 G	44501434.61	44501434.82	44501435.03	0.0530	0.0216
Earth	117128-09-09 11:29 G	44501434.77	44501434.98	44501435.19	0.0530	0.0207 *
Venus	117134-06-02 13:39 G	44503526.93	44503527.07	44503527.22	0.0492	0.0343
Mercury	117134-08-18 11:58 G	44503603.83	44503604.00	44503604.17	0.0494	0.0034
Earth	117135-03-22 01:53 G	44503819.37	44503819.58	44503819.80	0.0501	0.0202
Moon	117135-03-22 02:51 G	44503819.41	44503819.62	44503819.83	0.0501	0.0181 *
Mercury	117140-01-26 14:51 G	44505591.09	44505591.12	44505591.16	0.0536	0.0514
Venus	117140-04-06 23:44 G	44505662.29	44505662.49	44505662.69	0.0534	0.0015
Mercury	117140-04-25 01:53 G	44505680.46	44505680.58	44505680.71	0.0533	0.0201
Earth	117140-09-14 12:27 G	44505822.79	44505823.02	44505823.25	0.0528	0.0117
Moon	117140-09-14 16:17 G	44505822.95	44505823.18	44505823.41	0.0528	0.0083 *
Mercury	117146-06-06 11:44 G	44507913.84	44507913.99	44507914.15	0.0493	0.0209

Venus	117146-09-29 20:08 G	44508029.20	44508029.34	44508029.50	0.0497	0.0334
Moon	117147-03-26 11:44 G	44508206.89	44508206.99	44508207.12	0.0503	0.0442
Earth	117147-03-26 12:56 G	44508206.97	44508207.04	44508207.12	0.0503	0.0474 *
Venus	117151-12-11 11:00 G	44509927.81	44509927.96	44509928.12	0.0537	0.0333
Mercury	117152-02-12 04:17 G	44509990.55	44509990.68	44509990.82	0.0534	0.0011
Moon	117152-09-19 05:58 G	44510210.61	44510210.75	44510210.91	0.0526	0.0407
Earth	117152-09-19 10:03 G	44510210.79	44510210.92	44510211.06	0.0526	0.0430 *
Mercury	117158-03-25 11:29 G	44512223.88	44512223.98	44512224.09	0.0492	0.0382
Venus	117158-06-04 22:03 G	44512295.22	44512295.42	44512295.62	0.0494	0.0070
Mercury	117158-06-23 11:29 G	44512313.86	44512313.98	44512314.11	0.0495	0.0334
Mercury	117163-12-01 07:24 G	44514300.68	44514300.81	44514300.94	0.0535	0.0162
Mercury	117164-02-28 17:44 G	44514390.24	44514390.24	44514390.24	0.0532	0.0532
Venus	117164-04-10 00:12 G	44514431.49	44514431.51	44514431.52	0.0531	0.0528
Venus	117170-02-07 23:15 G	44516561.28	44516561.47	44516561.66	0.0492	0.0195
Mercury	117170-04-11 10:17 G	44516623.77	44516623.93	44516624.10	0.0494	0.0145
Mercury	117175-09-19 10:46 G	44518610.84	44518610.95	44518611.05	0.0536	0.0332
Venus	117175-12-14 16:17 G	44518697.00	44518697.18	44518697.37	0.0533	0.0206
Mercury	117175-12-17 21:20 G	44518700.30	44518700.39	44518700.49	0.0533	0.0374
Venus	117181-10-14 01:53 G	44520827.50	44520827.58	44520827.66	0.0491	0.0450
Mercury	117182-01-28 10:03 G	44520933.75	44520933.92	44520934.10	0.0494	0.0035
Venus	117182-06-07 05:58 G	44521063.72	44521063.75	44521063.79	0.0498	0.0488
Mercury	117187-07-08 13:24 G	44522921.03	44522921.06	44522921.10	0.0536	0.0511
Venus	117187-08-19 06:56 G	44522962.60	44522962.79	44522962.99	0.0535	0.0127
Mercury	117187-10-06 00:41 G	44523010.41	44523010.53	44523010.65	0.0533	0.0204
Mercury	117193-11-16 10:03 G	44525243.77	44525243.92	44525244.07	0.0493	0.0206
Venus	117194-02-10 08:22 G	44525329.67	44525329.85	44525330.03	0.0496	0.0224
Moon	117194-03-12 10:17 G	44525359.79	44525359.93	44525360.07	0.0497	0.0379
Earth	117194-03-12 11:44 G	44525359.84	44525359.99	44525360.16	0.0497	0.0358 *
Venus	117199-04-23 20:22 G	44527228.26	44527228.35	44527228.45	0.0537	0.0466
Mercury	117199-07-25 03:34 G	44527320.52	44527320.65	44527320.79	0.0534	0.0028

Mars	117202-01-06 13:53 G	44528216.85	44528217.08	44528217.33	0.0498	0.0253
Mercury	117205-09-04 10:03 G	44529553.82	44529553.92	44529554.03	0.0492	0.0376
Venus	117205-10-16 10:46 G	44529595.75	44529595.95	44529596.15	0.0494	0.0039
Mercury	117205-12-03 10:03 G	44529643.80	44529643.92	44529644.05	0.0495	0.0340
Earth	117206-03-16 22:17 G	44529747.20	44529747.43	44529747.66	0.0498	0.0093
Moon	117206-03-17 00:27 G	44529747.28	44529747.52	44529747.76	0.0498	0.0081 *
Mercury	117211-05-13 05:44 G	44531630.61	44531630.74	44531630.87	0.0535	0.0167
Mercury	117211-08-10 16:03 G	44531720.15	44531720.17	44531720.18	0.0532	0.0527
Venus	117211-08-22 05:58 G	44531731.62	44531731.75	44531731.89	0.0532	0.0385
Moon	117211-09-09 04:32 G	44531749.48	44531749.69	44531749.90	0.0531	0.0252
Earth	117211-09-09 08:08 G	44531749.63	44531749.84	44531750.04	0.0531	0.0264 *
Venus	117217-06-21 12:56 G	44533861.88	44533862.04	44533862.21	0.0492	0.0299
Mercury	117217-09-21 09:20 G	44533953.73	44533953.89	44533954.05	0.0494	0.0156
Moon	117218-03-21 05:58 G	44534134.54	44534134.75	44534134.96	0.0500	0.0203
Earth	117218-03-21 08:08 G	44534134.62	44534134.84	44534135.06	0.0500	0.0172 *
Mercury	117223-03-01 08:22 G	44535940.75	44535940.85	44535940.96	0.0536	0.0346
Venus	117223-04-26 20:36 G	44535997.16	44535997.36	44535997.56	0.0534	0.0055
Mercury	117223-05-29 19:24 G	44536030.21	44536030.31	44536030.40	0.0533	0.0362
Earth	117223-09-14 11:00 G	44536137.73	44536137.96	44536138.19	0.0529	0.0065
Moon	117223-09-14 13:39 G	44536137.85	44536138.07	44536138.30	0.0529	0.0098 *
Mercury	117229-07-10 08:08 G	44538263.67	44538263.84	44538264.01	0.0493	0.0035
Venus	117229-10-18 17:29 G	44538364.10	44538364.23	44538364.36	0.0497	0.0373
Earth	117230-03-25 16:46 G	44538522.08	44538522.20	44538522.31	0.0502	0.0435
Moon	117230-03-25 18:41 G	44538522.19	44538522.28	44538522.39	0.0502	0.0459 *
Mercury	117234-12-18 11:44 G	44540250.95	44540250.99	44540251.02	0.0537	0.0518
Venus	117234-12-30 12:27 G	44540262.85	44540263.02	44540263.19	0.0536	0.0276
Mercury	117235-03-17 23:00 G	44540340.33	44540340.46	44540340.58	0.0534	0.0200
Moon	117235-09-19 13:10 G	44540525.90	44540526.05	44540526.21	0.0526	0.0399
Earth	117235-09-19 15:20 G	44540525.99	44540526.14	44540526.29	0.0526	0.0396 *
Mercury	117241-04-28 08:08 G	44542573.68	44542573.84	44542573.99	0.0493	0.0207

Venus	117241-06-23 19:53 G	44542630.13	44542630.33	44542630.52	0.0495	0.0111
Mercury	117247-01-04 02:08 G	44544650.45	44544650.59	44544650.72	0.0534	0.0030
Mercury	117253-02-14 07:53 G	44546883.73	44546883.83	44546883.94	0.0493	0.0379
Venus	117253-02-26 22:17 G	44546896.23	44546896.43	44546896.63	0.0493	0.0151
Mercury	117253-05-15 07:53 G	44546973.71	44546973.83	44546973.96	0.0495	0.0338
Mars	117255-09-29 05:29 G	44547840.54	44547840.73	44547840.94	0.0530	0.0339
Mercury	117258-10-23 04:46 G	44548960.57	44548960.70	44548960.83	0.0535	0.0152
Venus	117259-01-02 15:05 G	44549031.96	44549032.13	44549032.31	0.0532	0.0254
Venus	117264-11-02 01:10 G	44551162.44	44551162.55	44551162.67	0.0491	0.0407
Mercury	117265-03-03 07:39 G	44551283.66	44551283.82	44551283.98	0.0494	0.0159
Mercury	117270-08-11 06:41 G	44553270.68	44553270.78	44553270.88	0.0536	0.0351
Venus	117270-09-07 02:22 G	44553297.40	44553297.60	44553297.79	0.0535	0.0094
Mercury	117270-11-08 17:29 G	44553360.13	44553360.23	44553360.33	0.0533	0.0356
Mercury	117276-12-20 07:10 G	44555593.62	44555593.80	44555593.97	0.0493	0.0026
Venus	117277-03-01 06:56 G	44555664.62	44555664.79	44555664.96	0.0496	0.0267
Moon	117277-03-11 14:36 G	44555674.97	44555675.11	44555675.27	0.0496	0.0373
Earth	117277-03-11 17:58 G	44555675.12	44555675.25	44555675.41	0.0496	0.0386 *
Venus	117282-05-12 16:03 G	44557563.05	44557563.17	44557563.29	0.0537	0.0430
Mercury	117282-05-30 09:20 G	44557580.88	44557580.89	44557580.90	0.0537	0.0534
Mercury	117282-08-27 20:36 G	44557670.23	44557670.36	44557670.49	0.0534	0.0185
Mercury	117288-10-08 05:58 G	44559903.60	44559903.75	44559903.90	0.0493	0.0209
Venus	117288-11-04 07:10 G	44559930.59	44559930.80	44559931.00	0.0494	0.0004
Earth	117289-03-16 00:56 G	44560062.31	44560062.54	44560062.76	0.0498	0.0132
Moon	117289-03-16 04:17 G	44560062.45	44560062.68	44560062.91	0.0498	0.0151 *
Mercury	117294-06-15 23:58 G	44561980.37	44561980.50	44561980.64	0.0535	0.0026
Moon	117294-09-08 10:03 G	44562064.74	44562064.92	44562065.11	0.0532	0.0332
Earth	117294-09-08 11:29 G	44562064.79	44562064.98	44562065.17	0.0532	0.0303 *
Venus	117294-09-10 06:27 G	44562066.66	44562066.77	44562066.88	0.0532	0.0439
Venus	117300-07-11 09:34 G	44564196.73	44564196.90	44564197.08	0.0492	0.0263
Mercury	117300-07-28 05:44 G	44564213.64	44564213.74	44564213.85	0.0492	0.0382

Mercury	117300-10-26 05:44 G	44564303.62	44564303.74	44564303.87	0.0495	0.0333
Moon	117301-03-21 07:53 G	44564449.61	44564449.83	44564450.06	0.0500	0.0104
Earth	117301-03-21 11:29 G	44564449.76	44564449.98	44564450.21	0.0500	0.0134 *
Mercury	117306-04-05 03:05 G	44566290.50	44566290.63	44566290.76	0.0535	0.0155
Venus	117306-05-16 21:20 G	44566332.20	44566332.39	44566332.59	0.0534	0.0110
Earth	117306-09-14 14:36 G	44566452.87	44566453.11	44566453.34	0.0529	0.0029
Moon	117306-09-14 15:05 G	44566452.91	44566453.13	44566453.36	0.0529	0.0007 *
Mercury	117312-08-14 05:15 G	44568613.56	44568613.72	44568613.89	0.0494	0.0153
Venus	117312-11-07 16:17 G	44568699.07	44568699.18	44568699.29	0.0497	0.0418
Earth	117313-03-25 23:15 G	44568837.34	44568837.47	44568837.61	0.0502	0.0406
Moon	117313-03-26 03:05 G	44568837.50	44568837.63	44568837.77	0.0502	0.0400 *
Venus	117318-01-19 11:15 G	44570597.78	44570597.97	44570598.15	0.0536	0.0228
Mercury	117318-01-22 05:44 G	44570600.64	44570600.74	44570600.85	0.0536	0.0337
Mercury	117318-04-21 16:32 G	44570690.10	44570690.19	44570690.29	0.0533	0.0369
Earth	117318-09-19 15:05 G	44570840.96	44570841.13	44570841.31	0.0527	0.0349
Moon	117318-09-19 15:20 G	44570840.97	44570841.14	44570841.32	0.0527	0.0355 *
Mercury	117324-06-02 05:15 G	44572923.55	44572923.72	44572923.89	0.0494	0.0023
Venus	117324-07-13 18:41 G	44572965.09	44572965.28	44572965.48	0.0495	0.0155
Mercury	117330-02-07 18:56 G	44575000.16	44575000.29	44575000.41	0.0534	0.0180
Venus	117336-03-18 20:22 G	44577231.15	44577231.35	44577231.56	0.0493	0.0110
Mercury	117336-03-21 04:46 G	44577233.55	44577233.70	44577233.86	0.0493	0.0199
Mercury	117341-11-26 21:48 G	44579310.27	44579310.41	44579310.54	0.0535	0.0009
Venus	117342-01-22 10:17 G	44579366.76	44579366.93	44579367.10	0.0533	0.0289
Venus	117347-11-22 20:51 G	44581497.25	44581497.37	44581497.51	0.0491	0.0375
Mercury	117348-01-08 03:48 G	44581543.56	44581543.66	44581543.76	0.0492	0.0385
Mercury	117348-04-07 03:20 G	44581633.52	44581633.64	44581633.78	0.0495	0.0328
Mercury	117353-09-15 00:56 G	44583620.42	44583620.54	44583620.67	0.0536	0.0167
Venus	117353-09-27 01:53 G	44583632.38	44583632.58	44583632.78	0.0535	0.0042
Mercury	117353-12-13 11:29 G	44583709.97	44583709.98	44583709.99	0.0532	0.0529
Mars	117356-04-02 05:15 G	44584550.44	44584550.72	44584551.01	0.0498	0.0060

Mercury	117360-01-25 02:51 G	44585943.46	44585943.62	44585943.79	0.0494	0.0147
Moon	117360-03-11 16:32 G	44585990.07	44585990.19	44585990.32	0.0496	0.0419
Earth	117360-03-11 20:22 G	44585990.24	44585990.35	44585990.47	0.0496	0.0424 *
Venus	117360-03-21 02:36 G	44585999.46	44585999.61	44585999.78	0.0496	0.0302
Venus	117365-06-01 16:32 G	44587898.05	44587898.19	44587898.34	0.0537	0.0377
Mercury	117365-07-04 04:03 G	44587930.57	44587930.67	44587930.77	0.0536	0.0342
Mercury	117365-10-01 14:51 G	44588020.02	44588020.12	44588020.22	0.0533	0.0364
Mercury	117371-11-13 02:36 G	44590253.44	44590253.61	44590253.78	0.0494	0.0031
Venus	117371-11-25 05:00 G	44590265.51	44590265.71	44590265.92	0.0494	0.0039
Earth	117372-03-16 06:27 G	44590377.55	44590377.77	44590377.99	0.0498	0.0162
Moon	117372-03-16 10:17 G	44590377.71	44590377.93	44590378.15	0.0498	0.0132 *
Mercury	117377-04-22 06:27 G	44592240.75	44592240.77	44592240.80	0.0537	0.0527
Mercury	117377-07-20 17:58 G	44592330.12	44592330.25	44592330.37	0.0534	0.0192
Earth	117377-09-08 11:00 G	44592379.79	44592379.96	44592380.13	0.0532	0.0351
Moon	117377-09-08 13:10 G	44592379.86	44592380.05	44592380.24	0.0532	0.0316 *
Venus	117377-09-30 04:46 G	44592401.62	44592401.70	44592401.78	0.0531	0.0484
Venus	117383-07-31 08:08 G	44594531.66	44594531.84	44594532.02	0.0492	0.0221
Mercury	117383-09-01 02:36 G	44594563.46	44594563.61	44594563.77	0.0493	0.0202
Moon	117384-03-20 14:22 G	44594764.87	44594765.10	44594765.33	0.0499	0.0131
Earth	117384-03-20 17:58 G	44594765.02	44594765.25	44594765.48	0.0499	0.0104 *
Mercury	117389-05-08 19:53 G	44596640.20	44596640.33	44596640.47	0.0534	0.0008
Venus	117389-06-04 16:03 G	44596666.97	44596667.17	44596667.36	0.0534	0.0143
Moon	117389-09-13 05:44 G	44596767.52	44596767.74	44596767.97	0.0530	0.0022
Earth	117389-09-13 08:08 G	44596767.61	44596767.84	44596768.07	0.0530	0.0037 *
Venus	117395-04-05 10:03 G	44598797.89	44598797.92	44598797.97	0.0490	0.0479
Mercury	117395-06-20 02:22 G	44598873.50	44598873.60	44598873.71	0.0492	0.0376
Mercury	117395-09-18 02:08 G	44598963.47	44598963.59	44598963.72	0.0495	0.0337
Venus	117395-11-27 13:53 G	44599034.01	44599034.08	44599034.16	0.0497	0.0459
Earth	117396-03-25 03:34 G	44599152.50	44599152.65	44599152.81	0.0501	0.0369
Moon	117396-03-25 06:56 G	44599152.64	44599152.79	44599152.94	0.0501	0.0366 *

Venus	117401-02-08 05:29 G	44600932.55	44600932.73	44600932.92	0.0536	0.0196
Mercury	117401-02-25 22:32 G	44600950.32	44600950.44	44600950.57	0.0535	0.0183
Mercury	117401-05-26 09:05 G	44601039.85	44601039.88	44601039.91	0.0532	0.0514
Earth	117401-09-19 09:20 G	44601155.70	44601155.89	44601156.09	0.0528	0.0286
Moon	117401-09-19 12:12 G	44601155.81	44601156.01	44601156.22	0.0528	0.0264 *
Mercury	117407-07-08 00:41 G	44603273.36	44603273.53	44603273.69	0.0494	0.0141
Venus	117407-08-03 13:39 G	44603299.88	44603300.07	44603300.26	0.0495	0.0186
Mars	117409-12-24 09:20 G	44604173.63	44604173.89	44604174.16	0.0530	0.0082
Venus	117412-10-13 20:22 G	44605198.33	44605198.35	44605198.38	0.0538	0.0532
Mercury	117412-12-15 01:39 G	44605260.47	44605260.57	44605260.68	0.0536	0.0357
Mercury	117413-03-14 12:41 G	44605349.93	44605350.03	44605350.13	0.0533	0.0353
Venus	117419-04-08 15:48 G	44607565.96	44607566.16	44607566.37	0.0493	0.0077
Mercury	117419-04-26 00:12 G	44607583.34	44607583.51	44607583.68	0.0493	0.0038
Mercury	117424-10-03 04:32 G	44609570.69	44609570.69	44609570.71	0.0537	0.0534
Mercury	117424-12-31 16:03 G	44609660.05	44609660.17	44609660.30	0.0534	0.0186
Venus	117425-02-11 10:32 G	44609701.79	44609701.94	44609702.10	0.0532	0.0340
Venus	117430-12-12 18:12 G	44611832.12	44611832.26	44611832.42	0.0491	0.0338
Mercury	117431-02-11 23:58 G	44611893.35	44611893.50	44611893.66	0.0493	0.0213
Venus	117436-10-17 00:27 G	44613967.32	44613967.52	44613967.72	0.0535	0.0009
Mercury	117436-10-19 18:56 G	44613970.16	44613970.29	44613970.43	0.0534	0.0016
Mercury	117442-12-01 00:12 G	44616203.41	44616203.51	44616203.62	0.0492	0.0380
Mercury	117443-02-28 23:58 G	44616293.38	44616293.50	44616293.63	0.0495	0.0334
Moon	117443-03-13 01:10 G	44616305.49	44616305.55	44616305.63	0.0495	0.0471
Earth	117443-03-13 02:36 G	44616305.52	44616305.61	44616305.71	0.0495	0.0451 *
Venus	117443-04-11 01:10 G	44616334.41	44616334.55	44616334.70	0.0496	0.0344
Venus	117448-06-21 11:29 G	44618232.83	44618232.98	44618233.14	0.0537	0.0344
Mercury	117448-08-07 21:05 G	44618280.25	44618280.38	44618280.50	0.0535	0.0185
Mercury	117448-11-05 07:24 G	44618369.78	44618369.81	44618369.85	0.0532	0.0511
Venus	117454-12-15 02:51 G	44620600.42	44620600.62	44620600.83	0.0494	0.0079
Mercury	117454-12-17 23:15 G	44620603.31	44620603.47	44620603.64	0.0494	0.0151

Earth	117455-03-17 11:29 G	44620692.77	44620692.98	44620693.19	0.0497	0.0194
Moon	117455-03-17 12:41 G	44620692.83	44620693.03	44620693.23	0.0497	0.0226 *
Mercury	117460-05-26 23:29 G	44622590.38	44622590.48	44622590.58	0.0536	0.0370
Mercury	117460-08-24 10:32 G	44622679.84	44622679.94	44622680.04	0.0533	0.0339
Earth	117460-09-08 04:17 G	44622694.54	44622694.68	44622694.83	0.0533	0.0417
Moon	117460-09-08 07:53 G	44622694.70	44622694.83	44622694.96	0.0533	0.0446 *
Venus	117460-10-19 23:00 G	44622736.43	44622736.46	44622736.51	0.0531	0.0518
Venus	117466-08-20 03:05 G	44624866.44	44624866.63	44624866.82	0.0492	0.0192
Mercury	117466-10-05 22:03 G	44624913.25	44624913.42	44624913.59	0.0493	0.0044
Moon	117467-03-21 15:48 G	44625079.92	44625080.16	44625080.40	0.0499	0.0044
Earth	117467-03-21 17:29 G	44625080.00	44625080.23	44625080.46	0.0499	0.0059 *
Mercury	117472-06-12 13:53 G	44626989.95	44626990.08	44626990.21	0.0534	0.0173
Venus	117472-06-24 14:51 G	44627001.93	44627002.12	44627002.31	0.0534	0.0190
Moon	117472-09-13 05:29 G	44627082.50	44627082.73	44627082.96	0.0531	0.0078
Earth	117472-09-13 09:20 G	44627082.66	44627082.89	44627083.12	0.0531	0.0080 *
Venus	117478-04-25 05:15 G	44629132.65	44629132.72	44629132.81	0.0490	0.0450
Mercury	117478-07-24 21:48 G	44629223.26	44629223.41	44629223.56	0.0493	0.0218
Venus	117478-12-17 09:05 G	44629368.86	44629368.88	44629368.92	0.0497	0.0490
Earth	117479-03-26 03:48 G	44629467.49	44629467.66	44629467.84	0.0501	0.0324
Moon	117479-03-26 05:29 G	44629467.57	44629467.73	44629467.90	0.0501	0.0341 *
Venus	117484-02-28 05:58 G	44631267.55	44631267.75	44631267.94	0.0536	0.0144
Mercury	117484-03-31 17:15 G	44631300.08	44631300.22	44631300.35	0.0535	0.0012
Earth	117484-09-18 12:56 G	44631470.84	44631471.04	44631471.25	0.0528	0.0249
Moon	117484-09-18 17:00 G	44631471.02	44631471.21	44631471.41	0.0528	0.0286 *
Mercury	117490-05-12 21:48 G	44633533.31	44633533.41	44633533.51	0.0492	0.0389
Mercury	117490-08-10 21:20 G	44633623.26	44633623.39	44633623.52	0.0495	0.0322
Venus	117490-08-22 11:15 G	44633634.79	44633634.97	44633635.15	0.0495	0.0225
Venus	117495-11-02 19:39 G	44635533.24	44635533.32	44635533.41	0.0538	0.0483
Mercury	117496-01-18 20:08 G	44635610.21	44635610.34	44635610.46	0.0535	0.0175
Mercury	117496-04-17 06:27 G	44635699.75	44635699.77	44635699.80	0.0532	0.0522

Venus	117502-04-28 14:08 G	44637900.88	44637901.09	44637901.29	0.0493	0.0036
Mercury	117502-05-30 21:05 G	44637933.22	44637933.38	44637933.55	0.0494	0.0147
Mercury	117507-11-07 21:48 G	44639920.32	44639920.41	44639920.51	0.0536	0.0371
Mercury	117508-02-05 08:51 G	44640009.77	44640009.87	44640009.98	0.0533	0.0339
Venus	117508-03-03 05:44 G	44640036.60	44640036.74	44640036.89	0.0532	0.0376
Mars	117510-06-28 09:20 G	44640883.67	44640883.89	44640884.11	0.0498	0.0315
Venus	117514-01-01 16:17 G	44642167.02	44642167.18	44642167.34	0.0491	0.0297
Mercury	117514-03-18 20:36 G	44642243.19	44642243.36	44642243.53	0.0493	0.0035
Venus	117519-11-06 19:24 G	44644302.11	44644302.31	44644302.51	0.0535	0.0040
Mercury	117519-11-24 11:44 G	44644319.87	44644319.99	44644320.12	0.0534	0.0163
Mercury	117526-01-04 19:39 G	44646553.17	44646553.32	44646553.47	0.0492	0.0223
Moon	117526-03-13 04:17 G	44646620.60	44646620.68	44646620.77	0.0494	0.0461
Earth	117526-03-13 03:05 G	44646620.61	44646620.63	44646620.67	0.0494	0.0490 *
Venus	117526-04-30 19:53 G	44646669.21	44646669.33	44646669.47	0.0496	0.0374
Venus	117531-07-12 10:03 G	44648567.76	44648567.92	44648568.09	0.0537	0.0299
Mercury	117531-09-12 15:05 G	44648629.99	44648630.13	44648630.26	0.0535	0.0017
Mercury	117537-10-23 19:39 G	44650863.22	44650863.32	44650863.42	0.0492	0.0393
Venus	117538-01-03 22:17 G	44650935.23	44650935.43	44650935.63	0.0494	0.0110
Mercury	117538-01-21 18:56 G	44650953.16	44650953.29	44650953.43	0.0494	0.0316
Moon	117538-03-17 11:15 G	44651007.77	44651007.97	44651008.17	0.0496	0.0212
Earth	117538-03-17 12:27 G	44651007.82	44651008.02	44651008.23	0.0496	0.0234 *
Mercury	117543-07-01 18:12 G	44652940.13	44652940.26	44652940.39	0.0536	0.0180
Earth	117543-09-09 08:08 G	44653009.72	44653009.84	44653009.96	0.0533	0.0451
Moon	117543-09-09 11:58 G	44653009.86	44653010.00	44653010.14	0.0533	0.0423 *
Mercury	117543-09-29 04:46 G	44653029.67	44653029.70	44653029.73	0.0533	0.0518
Venus	117549-09-09 00:27 G	44655201.33	44655201.52	44655201.72	0.0492	0.0153
Mercury	117549-11-09 18:41 G	44655263.11	44655263.28	44655263.44	0.0494	0.0136
Earth	117550-03-21 22:46 G	44655395.22	44655395.45	44655395.69	0.0498	0.0029
Moon	117550-03-22 00:27 G	44655395.28	44655395.52	44655395.77	0.0498	0.0024 *
Mercury	117555-04-19 21:05 G	44657250.28	44657250.38	44657250.48	0.0536	0.0359

Venus	117555-07-15 14:36 G	44657336.93	44657337.11	44657337.29	0.0533	0.0241
Mercury	117555-07-18 08:08 G	44657339.74	44657339.84	44657339.94	0.0533	0.0351
Moon	117555-09-14 07:39 G	44657397.60	44657397.82	44657398.05	0.0531	0.0132
Earth	117555-09-14 11:15 G	44657397.75	44657397.97	44657398.20	0.0531	0.0121 *
Venus	117561-05-15 03:34 G	44659467.54	44659467.65	44659467.77	0.0491	0.0409
Mercury	117561-08-28 18:41 G	44659573.11	44659573.28	44659573.45	0.0493	0.0036
Moon	117562-03-26 09:05 G	44659782.70	44659782.88	44659783.08	0.0500	0.0267
Earth	117562-03-26 10:46 G	44659782.77	44659782.95	44659783.14	0.0500	0.0296 *
Mars	117564-03-20 07:53 G	44660507.61	44660507.83	44660508.07	0.0530	0.0270
Venus	117567-03-20 02:22 G	44661602.40	44661602.60	44661602.80	0.0535	0.0104
Mercury	117567-05-06 10:32 G	44661649.81	44661649.94	44661650.06	0.0534	0.0165
Earth	117567-09-19 09:20 G	44661785.67	44661785.89	44661786.11	0.0529	0.0193
Moon	117567-09-19 12:12 G	44661785.79	44661786.01	44661786.23	0.0529	0.0161 *
Mercury	117573-06-16 18:27 G	44663883.12	44663883.27	44663883.42	0.0493	0.0211
Venus	117573-09-11 09:34 G	44663969.73	44663969.90	44663970.07	0.0495	0.0268
Venus	117578-11-22 15:34 G	44665868.04	44665868.15	44665868.26	0.0538	0.0447
Mercury	117579-02-22 13:10 G	44665959.91	44665960.05	44665960.19	0.0535	0.0014
Moon	117579-09-24 07:10 G	44666173.73	44666173.80	44666173.89	0.0527	0.0495
Earth	117579-09-24 09:48 G	44666173.86	44666173.91	44666173.98	0.0527	0.0509 *
Mercury	117585-04-04 17:29 G	44668193.14	44668193.23	44668193.33	0.0492	0.0396
Venus	117585-05-17 09:34 G	44668235.70	44668235.90	44668236.11	0.0493	0.0013
Mercury	117585-07-03 17:00 G	44668283.08	44668283.21	44668283.34	0.0494	0.0313
Mercury	117590-12-11 16:03 G	44670270.05	44670270.17	44670270.30	0.0536	0.0192
Mercury	117591-03-11 02:51 G	44670359.58	44670359.62	44670359.65	0.0533	0.0509
Venus	117591-03-23 04:46 G	44670371.58	44670371.70	44670371.83	0.0532	0.0424
Venus	117597-01-20 12:12 G	44672501.84	44672502.01	44672502.19	0.0491	0.0265
Mercury	117597-04-21 16:32 G	44672593.03	44672593.19	44672593.36	0.0494	0.0133
Mercury	117602-09-29 19:10 G	44674580.20	44674580.30	44674580.40	0.0537	0.0365
Venus	117602-11-25 20:22 G	44674637.15	44674637.35	44674637.55	0.0535	0.0094
Mercury	117602-12-28 06:12 G	44674669.66	44674669.76	44674669.87	0.0534	0.0347

Mercury	117609-02-07 16:17 G	44676903.01	44676903.18	44676903.35	0.0493	0.0044
Venus	117609-05-19 18:12 G	44677004.16	44677004.26	44677004.37	0.0496	0.0416
Venus	117614-07-31 11:00 G	44678902.78	44678902.96	44678903.14	0.0537	0.0243
Mercury	117614-10-16 09:34 G	44678979.77	44678979.90	44678980.02	0.0534	0.0177
Mercury	117620-11-26 16:32 G	44681213.03	44681213.19	44681213.34	0.0493	0.0213
Venus	117621-01-22 21:20 G	44681270.19	44681270.39	44681270.58	0.0494	0.0155
Moon	117621-03-16 17:00 G	44681323.02	44681323.21	44681323.40	0.0496	0.0276
Earth	117621-03-16 20:08 G	44681323.14	44681323.34	44681323.54	0.0496	0.0258 *
Mercury	117626-08-04 11:58 G	44683289.86	44683290.00	44683290.13	0.0535	0.0014
Earth	117626-09-08 06:27 G	44683324.69	44683324.77	44683324.84	0.0533	0.0501
Moon	117626-09-08 08:36 G	44683324.81	44683324.86	44683324.92	0.0533	0.0514 *
Mars	117628-12-16 11:44 G	44684154.97	44684154.99	44684155.03	0.0500	0.0497
Mercury	117632-09-14 16:32 G	44685523.08	44685523.19	44685523.29	0.0492	0.0384
Venus	117632-09-27 23:29 G	44685536.28	44685536.48	44685536.68	0.0492	0.0109
Mercury	117632-12-13 15:48 G	44685613.04	44685613.16	44685613.29	0.0495	0.0327
Earth	117633-03-21 05:58 G	44685710.51	44685710.75	44685710.98	0.0498	0.0004
Moon	117633-03-21 09:20 G	44685710.65	44685710.89	44685711.13	0.0498	0.0020 *
Mercury	117638-05-23 14:36 G	44687599.98	44687600.11	44687600.23	0.0536	0.0192
Venus	117638-08-03 11:15 G	44687671.80	44687671.97	44687672.14	0.0533	0.0282
Mercury	117638-08-21 01:10 G	44687689.51	44687689.55	44687689.59	0.0532	0.0507
Moon	117638-09-13 06:12 G	44687712.53	44687712.76	44687712.99	0.0532	0.0154
Earth	117638-09-13 08:22 G	44687712.63	44687712.85	44687713.07	0.0532	0.0176 *
Venus	117644-06-03 00:12 G	44689802.39	44689802.51	44689802.65	0.0490	0.0376
Mercury	117644-10-01 14:36 G	44689922.95	44689923.11	44689923.28	0.0494	0.0133
Moon	117645-03-25 09:05 G	44690097.70	44690097.88	44690098.07	0.0499	0.0289
Earth	117645-03-25 12:41 G	44690097.83	44690098.03	44690098.23	0.0499	0.0258 *
Mercury	117650-03-11 17:15 G	44691910.12	44691910.22	44691910.31	0.0537	0.0374
Venus	117650-04-08 01:24 G	44691937.36	44691937.56	44691937.76	0.0536	0.0058
Mercury	117650-06-09 04:17 G	44691999.58	44691999.68	44691999.79	0.0534	0.0339
Earth	117650-09-18 11:44 G	44692100.77	44692100.99	44692101.21	0.0530	0.0155

Moon	117650-09-18 12:56 G	44692100.83	44692101.04	44692101.26	0.0530	0.0187 *
Mercury	117656-07-20 14:22 G	44694232.93	44694233.10	44694233.27	0.0493	0.0044
Venus	117656-09-30 05:58 G	44694304.59	44694304.75	44694304.92	0.0495	0.0303
Venus	117661-12-11 16:32 G	44696203.06	44696203.19	44696203.33	0.0538	0.0394
Mercury	117662-03-28 07:53 G	44696309.70	44696309.83	44696309.95	0.0535	0.0174
Moon	117662-09-23 15:34 G	44696489.05	44696489.15	44696489.25	0.0527	0.0479
Earth	117662-09-23 15:48 G	44696489.07	44696489.16	44696489.26	0.0527	0.0482 *
Mercury	117668-05-08 14:22 G	44698542.95	44698543.10	44698543.25	0.0492	0.0216
Venus	117668-06-05 08:22 G	44698570.64	44698570.85	44698571.05	0.0493	0.0038
Mercury	117674-01-14 11:00 G	44700619.82	44700619.96	44700620.10	0.0535	0.0004
Venus	117674-04-11 06:12 G	44700706.68	44700706.76	44700706.85	0.0532	0.0482
Venus	117680-02-09 11:29 G	44702836.80	44702836.98	44702837.17	0.0492	0.0220
Mercury	117680-02-25 14:36 G	44702853.01	44702853.11	44702853.22	0.0492	0.0382
Mercury	117680-05-25 14:08 G	44702942.96	44702943.09	44702943.22	0.0495	0.0328
Mercury	117685-11-02 13:24 G	44704929.93	44704930.06	44704930.19	0.0535	0.0183
Venus	117685-12-14 19:10 G	44704972.11	44704972.30	44704972.50	0.0534	0.0142
Mercury	117686-01-30 23:58 G	44705019.47	44705019.50	44705019.54	0.0532	0.0515
Venus	117691-10-15 14:08 G	44707103.05	44707103.09	44707103.14	0.0490	0.0478
Mercury	117692-03-13 13:39 G	44707252.91	44707253.07	44707253.24	0.0494	0.0149
Venus	117692-06-07 17:58 G	44707339.18	44707339.25	44707339.32	0.0497	0.0463
Venus	117697-08-19 08:36 G	44709237.68	44709237.86	44709238.05	0.0536	0.0200
Mercury	117697-08-21 15:48 G	44709240.07	44709240.16	44709240.26	0.0536	0.0369
Mercury	117697-11-19 03:05 G	44709329.53	44709329.63	44709329.73	0.0533	0.0343
Mercury	117704-01-01 12:56 G	44711562.87	44711563.04	44711563.21	0.0493	0.0041
Venus	117704-02-12 18:27 G	44711605.09	44711605.27	44711605.46	0.0494	0.0191
Moon	117704-03-16 20:22 G	44711638.16	44711638.35	44711638.54	0.0495	0.0281
Earth	117704-03-17 00:12 G	44711638.33	44711638.51	44711638.71	0.0495	0.0287 *
Mercury	117709-09-08 05:58 G	44713639.63	44713639.75	44713639.88	0.0535	0.0169
Venus	117715-10-18 21:05 G	44715871.17	44715871.38	44715871.58	0.0492	0.0072
Mercury	117715-10-20 12:41 G	44715872.88	44715873.03	44715873.19	0.0492	0.0212

Earth	117716-03-21 10:03 G	44716025.69	44716025.92	44716026.15	0.0497	0.0029
Moon	117716-03-21 13:53 G	44716025.85	44716026.08	44716026.31	0.0497	0.0053 *
Mercury	117721-06-27 09:20 G	44717949.76	44717949.89	44717950.03	0.0535	0.0013
Venus	117721-08-23 12:56 G	44718006.88	44718007.04	44718007.19	0.0533	0.0338
Earth	117721-09-13 13:53 G	44718027.87	44718028.08	44718028.30	0.0533	0.0202
Moon	117721-09-13 14:51 G	44718027.91	44718028.12	44718028.35	0.0533	0.0236 *
Venus	117727-06-23 23:29 G	44720137.33	44720137.48	44720137.63	0.0490	0.0332
Mercury	117727-08-08 12:41 G	44720182.93	44720183.03	44720183.14	0.0492	0.0383
Mercury	117727-11-06 11:58 G	44720272.88	44720273.00	44720273.13	0.0494	0.0326
Moon	117728-03-25 16:46 G	44720412.98	44720413.20	44720413.41	0.0499	0.0202
Earth	117728-03-25 20:22 G	44720413.15	44720413.35	44720413.56	0.0499	0.0233 *
Mercury	117733-04-15 12:27 G	44722259.89	44722260.02	44722260.15	0.0536	0.0171
Venus	117733-04-28 04:03 G	44722272.47	44722272.67	44722272.87	0.0536	0.0005
Mercury	117733-07-13 23:15 G	44722349.46	44722349.47	44722349.48	0.0533	0.0529
Moon	117733-09-18 17:00 G	44722415.99	44722416.21	44722416.43	0.0530	0.0104
Earth	117733-09-18 18:27 G	44722416.05	44722416.27	44722416.50	0.0530	0.0128 *
Mercury	117739-08-25 11:58 G	44724582.84	44724583.00	44724583.17	0.0494	0.0152
Venus	117739-10-21 06:12 G	44724639.62	44724639.76	44724639.90	0.0496	0.0351
Earth	117740-03-30 08:51 G	44724800.86	44724800.87	44724800.88	0.0501	0.0500
Moon	117740-03-30 12:12 G	44724801.01	44724801.01	44724801.03	0.0501	0.0500
Venus	117744-12-31 17:00 G	44726538.06	44726538.21	44726538.37	0.0537	0.0340
Mercury	117745-02-01 14:51 G	44726570.02	44726570.12	44726570.22	0.0536	0.0358
Mercury	117745-05-02 02:08 G	44726659.49	44726659.59	44726659.69	0.0533	0.0353
Earth	117745-09-23 17:58 G	44726804.13	44726804.25	44726804.38	0.0528	0.0442
Moon	117745-09-23 20:08 G	44726804.22	44726804.34	44726804.46	0.0528	0.0454 *
Mercury	117751-06-13 11:58 G	44728892.83	44728893.00	44728893.17	0.0493	0.0024
Venus	117751-06-26 08:36 G	44728905.66	44728905.86	44728906.06	0.0494	0.0087
Mercury	117757-02-18 05:00 G	44730969.58	44730969.71	44730969.84	0.0534	0.0178
Venus	117757-05-01 05:00 G	44731041.69	44731041.71	44731041.73	0.0532	0.0528
Venus	117763-03-01 10:03 G	44733171.73	44733171.92	44733172.11	0.0491	0.0181

Mercury	117763-04-01 11:15 G	44733202.82	44733202.97	44733203.13	0.0492	0.0206
Mercury	117768-12-07 07:39 G	44735279.68	44735279.82	44735279.96	0.0536	0.0003
Venus	117769-01-03 18:55 G	44735307.10	44735307.29	44735307.48	0.0535	0.0191
Venus	117774-11-04 12:55 G	44737437.96	44737438.04	44737438.14	0.0489	0.0438
Mercury	117775-01-18 11:29 G	44737512.88	44737512.98	44737513.09	0.0491	0.0374
Mercury	117775-04-18 10:46 G	44737602.82	44737602.95	44737603.08	0.0494	0.0333
Venus	117780-09-08 10:17 G	44739572.73	44739572.93	44739573.12	0.0537	0.0144
Mercury	117780-09-25 10:46 G	44739589.83	44739589.95	44739590.08	0.0536	0.0174
Mercury	117780-12-23 21:34 G	44739679.39	44739679.40	44739679.42	0.0533	0.0529
Mars	117783-03-13 22:17 G	44740489.16	44740489.43	44740489.71	0.0499	0.0098
Mercury	117787-02-04 10:17 G	44741912.77	44741912.93	44741913.09	0.0493	0.0153
Venus	117787-03-03 18:12 G	44741940.08	44741940.26	44741940.44	0.0494	0.0238
Moon	117787-03-17 06:27 G	44741953.58	44741953.77	44741953.97	0.0495	0.0294
Earth	117787-03-17 08:51 G	44741953.70	44741953.87	44741954.06	0.0495	0.0308 *
Venus	117792-05-14 01:10 G	44743838.47	44743838.55	44743838.64	0.0539	0.0481
Mercury	117792-07-14 13:53 G	44743899.98	44743900.08	44743900.19	0.0537	0.0347
Mercury	117792-10-12 01:10 G	44743989.45	44743989.55	44743989.65	0.0534	0.0366
Venus	117798-11-06 21:19 G	44746206.18	44746206.39	44746206.59	0.0493	0.0023
Mercury	117798-11-23 10:31 G	44746222.77	44746222.94	44746223.11	0.0493	0.0022
Earth	117799-03-21 19:53 G	44746341.10	44746341.33	44746341.57	0.0497	0.0049
Moon	117799-03-21 22:31 G	44746341.21	44746341.44	44746341.66	0.0497	0.0017 *
Mercury	117804-05-03 16:17 G	44748210.17	44748210.18	44748210.20	0.0537	0.0534
Mercury	117804-08-01 04:03 G	44748299.54	44748299.67	44748299.80	0.0534	0.0189
Venus	117804-09-12 13:53 G	44748341.95	44748342.08	44748342.22	0.0533	0.0393
Earth	117804-09-13 17:58 G	44748343.04	44748343.25	44748343.46	0.0533	0.0238
Moon	117804-09-13 21:05 G	44748343.16	44748343.38	44748343.60	0.0533	0.0204 *
Venus	117810-07-14 00:12 G	44750472.35	44750472.51	44750472.68	0.0491	0.0283
Mercury	117810-09-12 10:31 G	44750532.78	44750532.94	44750533.10	0.0492	0.0190
Moon	117811-03-27 04:03 G	44750728.46	44750728.67	44750728.88	0.0499	0.0238
Earth	117811-03-27 06:41 G	44750728.57	44750728.78	44750728.99	0.0499	0.0215 *

Venus	117816-05-18 03:34 G	44752607.45	44752607.65	44752607.85	0.0535	0.0056
Mercury	117816-05-20 06:55 G	44752609.65	44752609.79	44752609.92	0.0535	0.0019
Moon	117816-09-18 16:31 G	44752730.97	44752731.19	44752731.42	0.0531	0.0094
Earth	117816-09-18 20:07 G	44752731.11	44752731.34	44752731.57	0.0531	0.0087 *
Mercury	117822-07-01 10:17 G	44754842.82	44754842.93	44754843.04	0.0491	0.0365
Mercury	117822-09-29 09:19 G	44754932.77	44754932.89	44754933.02	0.0494	0.0342
Venus	117822-11-10 05:15 G	44754974.60	44754974.72	44754974.84	0.0495	0.0393
Earth	117823-03-31 15:05 G	44755116.06	44755116.13	44755116.20	0.0500	0.0474
Moon	117823-03-31 17:43 G	44755116.17	44755116.24	44755116.31	0.0500	0.0470 *
Venus	117828-01-21 16:17 G	44756873.01	44756873.18	44756873.35	0.0538	0.0294
Mercury	117828-03-08 09:19 G	44756919.76	44756919.89	44756920.02	0.0537	0.0176
Mercury	117828-06-05 20:07 G	44757009.32	44757009.34	44757009.36	0.0533	0.0527
Earth	117828-09-23 21:19 G	44757119.25	44757119.39	44757119.54	0.0529	0.0409
Moon	117828-09-24 01:24 G	44757119.40	44757119.56	44757119.72	0.0529	0.0381 *
Venus	117834-07-16 07:53 G	44759240.63	44759240.83	44759241.03	0.0493	0.0130
Mercury	117834-07-18 09:05 G	44759242.72	44759242.88	44759243.05	0.0493	0.0164
Mars	117836-12-04 02:51 G	44760112.42	44760112.62	44760112.83	0.0528	0.0334
Mercury	117839-12-26 12:27 G	44761229.91	44761230.02	44761230.12	0.0537	0.0350
Mercury	117840-03-24 23:43 G	44761319.39	44761319.49	44761319.58	0.0534	0.0366
Venus	117846-03-21 10:03 G	44763506.72	44763506.92	44763507.12	0.0491	0.0133
Mercury	117846-05-06 08:51 G	44763552.70	44763552.87	44763553.04	0.0493	0.0015
Mercury	117851-10-14 15:19 G	44765540.11	44765540.14	44765540.17	0.0538	0.0524
Mercury	117852-01-12 03:05 G	44765629.51	44765629.63	44765629.76	0.0535	0.0201
Venus	117852-01-24 22:31 G	44765642.27	44765642.44	44765642.62	0.0534	0.0258
Venus	117857-11-24 13:24 G	44767772.94	44767773.06	44767773.18	0.0490	0.0389
Mercury	117858-02-22 09:05 G	44767862.72	44767862.88	44767863.04	0.0492	0.0183
Venus	117863-09-29 12:12 G	44769907.81	44769908.01	44769908.21	0.0536	0.0085
Mercury	117863-10-31 05:58 G	44769939.61	44769939.75	44769939.88	0.0535	0.0024
Mercury	117869-12-11 09:19 G	44772172.77	44772172.89	44772173.01	0.0492	0.0351
Mercury	117870-03-11 08:36 G	44772262.74	44772262.86	44772262.98	0.0494	0.0358

Earth	117870-03-17 20:07 G	44772269.16	44772269.34	44772269.52	0.0495	0.0321
Moon	117870-03-17 19:53 G	44772269.16	44772269.33	44772269.51	0.0495	0.0342 *
Venus	117870-03-23 19:24 G	44772275.15	44772275.31	44772275.48	0.0495	0.0290
Venus	117875-06-04 01:39 G	44774173.45	44774173.57	44774173.69	0.0538	0.0428
Mercury	117875-08-19 08:36 G	44774249.73	44774249.86	44774249.99	0.0536	0.0157
Venus	117881-11-26 21:19 G	44776541.19	44776541.39	44776541.60	0.0492	0.0023
Mercury	117881-12-28 07:53 G	44776572.67	44776572.83	44776572.99	0.0493	0.0174
Earth	117882-03-22 04:17 G	44776656.45	44776656.68	44776656.92	0.0496	0.0067
Moon	117882-03-22 04:17 G	44776656.46	44776656.68	44776656.90	0.0496	0.0095 *
Mercury	117887-06-07 10:46 G	44778559.85	44778559.95	44778560.05	0.0537	0.0351
Mercury	117887-09-04 22:03 G	44778649.32	44778649.42	44778649.52	0.0534	0.0364
Earth	117887-09-13 19:10 G	44778658.11	44778658.30	44778658.51	0.0534	0.0277
Moon	117887-09-13 23:15 G	44778658.28	44778658.47	44778658.66	0.0534	0.0309 *
Venus	117887-10-02 13:10 G	44778676.95	44778677.05	44778677.17	0.0533	0.0443
Venus	117893-08-02 00:12 G	44780807.33	44780807.51	44780807.69	0.0490	0.0238
Mercury	117893-10-16 07:53 G	44780882.66	44780882.83	44780883.00	0.0492	0.0002
Moon	117894-03-26 14:22 G	44781043.87	44781044.10	44781044.32	0.0497	0.0183
Earth	117894-03-26 14:07 G	44781043.88	44781044.09	44781044.31	0.0497	0.0192 *
Mercury	117899-03-26 13:39 G	44782870.05	44782870.07	44782870.09	0.0538	0.0528
Venus	117899-06-07 04:46 G	44782942.50	44782942.70	44782942.89	0.0536	0.0111
Mercury	117899-06-24 01:24 G	44782959.44	44782959.56	44782959.69	0.0535	0.0199
Moon	117899-09-18 21:19 G	44783046.16	44783046.39	44783046.62	0.0532	0.0056
Earth	117899-09-19 01:10 G	44783046.32	44783046.55	44783046.78	0.0532	0.0057 *
Mercury	117905-08-05 07:39 G	44785192.66	44785192.82	44785192.98	0.0492	0.0177
Venus	117905-11-30 05:15 G	44785309.63	44785309.72	44785309.81	0.0495	0.0442
Earth	117906-03-31 23:58 G	44785431.40	44785431.50	44785431.60	0.0500	0.0450
Moon	117906-03-31 23:58 G	44785431.43	44785431.50	44785431.57	0.0500	0.0472 *
Venus	117911-02-10 20:07 G	44787208.16	44787208.34	44787208.52	0.0538	0.0226
Mercury	117911-04-13 04:46 G	44787269.57	44787269.70	44787269.84	0.0536	0.0034
Earth	117911-09-25 06:27 G	44787434.61	44787434.77	44787434.93	0.0529	0.0386

Moon	117911-09-25 10:03 G	44787434.78	44787434.92	44787435.06	0.0529	0.0421	*
Mercury	117917-05-24 07:53 G	44789502.71	44789502.83	44789502.95	0.0491	0.0343	
Venus	117917-08-05 08:22 G	44789575.66	44789575.85	44789576.04	0.0494	0.0180	
Mercury	117917-08-22 07:10 G	44789592.69	44789592.80	44789592.91	0.0494	0.0364	
Mercury	117923-01-30 07:39 G	44791579.69	44791579.82	44791579.95	0.0536	0.0146	
Venus	117929-04-10 11:15 G	44793841.76	44793841.97	44793842.17	0.0492	0.0083	
Mercury	117929-06-10 06:55 G	44793902.64	44793902.79	44793902.95	0.0494	0.0188	
Mercury	117934-11-18 10:17 G	44795889.82	44795889.93	44795890.03	0.0537	0.0330	
Venus	117935-02-13 23:00 G	44795977.30	44795977.46	44795977.62	0.0534	0.0312	
Mercury	117935-02-15 21:19 G	44795979.30	44795979.39	44795979.49	0.0534	0.0383	
Mars	117937-06-09 06:27 G	44796823.55	44796823.77	44796824.01	0.0499	0.0284	
Venus	117940-12-14 13:53 G	44798107.94	44798108.08	44798108.23	0.0490	0.0343	
Mercury	117941-03-29 06:41 G	44798212.61	44798212.78	44798212.95	0.0492	0.0013	
Mercury	117946-09-06 11:58 G	44800199.98	44800200.00	44800200.03	0.0538	0.0529	
Venus	117946-10-19 10:46 G	44800242.75	44800242.95	44800243.15	0.0537	0.0038	
Mercury	117946-12-04 23:58 G	44800289.37	44800289.50	44800289.62	0.0535	0.0198	
Mercury	117953-01-15 06:41 G	44802522.62	44802522.78	44802522.94	0.0492	0.0162	
Earth	117953-03-18 05:00 G	44802584.55	44802584.71	44802584.88	0.0493	0.0340	
Moon	117953-03-18 06:55 G	44802584.61	44802584.79	44802584.98	0.0493	0.0310	*
Venus	117953-04-12 19:10 G	44802610.16	44802610.30	44802610.46	0.0494	0.0336	
Venus	117958-06-24 01:24 G	44804508.42	44804508.56	44804508.71	0.0539	0.0378	
Mercury	117958-09-23 03:05 G	44804599.49	44804599.63	44804599.77	0.0536	0.0028	
Mercury	117964-11-03 06:27 G	44806832.65	44806832.77	44806832.90	0.0491	0.0337	
Venus	117964-12-16 21:05 G	44806876.18	44806876.38	44806876.59	0.0492	0.0070	
Mercury	117965-02-01 05:29 G	44806922.62	44806922.73	44806922.85	0.0494	0.0370	
Moon	117965-03-22 11:00 G	44806971.74	44806971.96	44806972.19	0.0495	0.0066	
Earth	117965-03-22 12:55 G	44806971.81	44806972.04	44806972.27	0.0495	0.0090	*
Mercury	117970-07-12 06:27 G	44808909.64	44808909.77	44808909.90	0.0537	0.0141	
Earth	117970-09-14 03:48 G	44808973.47	44808973.66	44808973.86	0.0534	0.0302	
Moon	117970-09-14 07:24 G	44808973.62	44808973.81	44808974.01	0.0534	0.0275	*

Venus	117970-10-22 16:46 G	44809012.15	44809012.20	44809012.26	0.0533	0.0509
Venus	117976-08-22 00:12 G	44811142.32	44811142.51	44811142.70	0.0491	0.0190
Mercury	117976-11-20 05:29 G	44811232.58	44811232.73	44811232.89	0.0493	0.0195
Earth	117977-03-26 23:43 G	44811359.27	44811359.49	44811359.71	0.0497	0.0170
Moon	117977-03-27 02:07 G	44811359.36	44811359.59	44811359.82	0.0497	0.0164 *
Mercury	117982-04-30 09:05 G	44813219.77	44813219.88	44813219.99	0.0537	0.0321
Venus	117982-06-27 07:10 G	44813277.61	44813277.80	44813278.00	0.0535	0.0173
Mercury	117982-07-28 20:22 G	44813309.26	44813309.35	44813309.44	0.0534	0.0392
Moon	117982-09-19 04:03 G	44813361.44	44813361.67	44813361.91	0.0532	0.0022
Earth	117982-09-19 07:39 G	44813361.58	44813361.82	44813362.05	0.0532	0.0030 *
Venus	117988-04-27 03:05 G	44815408.56	44815408.63	44815408.72	0.0489	0.0448
Mercury	117988-09-08 05:29 G	44815542.56	44815542.73	44815542.90	0.0493	0.0021
Venus	117988-12-19 06:41 G	44815644.77	44815644.78	44815644.79	0.0496	0.0495
Moon	117989-03-31 08:22 G	44815746.72	44815746.85	44815746.98	0.0499	0.0405
Earth	117989-03-31 10:46 G	44815746.84	44815746.95	44815747.07	0.0499	0.0434 *
Mars	117991-03-01 21:34 G	44816447.14	44816447.40	44816447.66	0.0529	0.0120
Mercury	117994-02-16 11:29 G	44817529.94	44817529.98	44817530.03	0.0538	0.0507
Venus	117994-03-01 20:36 G	44817543.18	44817543.36	44817543.56	0.0537	0.0172
Mercury	117994-05-16 23:15 G	44817619.35	44817619.47	44817619.60	0.0535	0.0218
Earth	117994-09-24 09:19 G	44817749.73	44817749.89	44817750.07	0.0530	0.0350
Moon	117994-09-24 12:12 G	44817749.83	44817750.01	44817750.19	0.0530	0.0318 *
Mercury	118000-06-27 05:29 G	44819852.57	44819852.73	44819852.89	0.0492	0.0152
Venus	118000-08-24 08:51 G	44819910.69	44819910.87	44819911.05	0.0493	0.0229

119TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 119th millennium

CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	118005-11-04 07:24	G	44821808.77	44821808.81	44821808.85	0.0540	0.0527	
Mercury	118006-03-05 01:24	G	44821929.43	44821929.56	44821929.70	0.0536	0.0029	
Mercury	118012-04-15 05:43	G	44824162.61	44824162.74	44824162.87	0.0491	0.0321	
Venus	118012-04-29 11:29	G	44824176.77	44824176.98	44824177.18	0.0491	0.0036	
Mercury	118012-07-14 04:46	G	44824252.59	44824252.70	44824252.81	0.0494	0.0384	
Mercury	118017-12-22 04:31	G	44826239.56	44826239.69	44826239.82	0.0537	0.0148	
Venus	118018-03-04 22:17	G	44826312.29	44826312.43	44826312.58	0.0534	0.0362	
Venus	118024-01-03 13:10	G	44828442.89	44828443.05	44828443.22	0.0490	0.0297	
Mercury	118024-05-02 04:03	G	44828562.51	44828562.67	44828562.82	0.0493	0.0199	
Mercury	118029-10-10 07:39	G	44830549.71	44830549.82	44830549.93	0.0537	0.0319	
Venus	118029-11-07 13:53	G	44830577.88	44830578.08	44830578.29	0.0537	0.0032	
Mercury	118030-01-07 18:55	G	44830639.21	44830639.29	44830639.38	0.0534	0.0396	
Mercury	118036-02-19 04:03	G	44832872.50	44832872.67	44832872.84	0.0492	0.0028	
Earth	118036-03-17 13:24	G	44832899.91	44832900.06	44832900.23	0.0493	0.0362	
Moon	118036-03-17 17:29	G	44832900.09	44832900.23	44832900.37	0.0493	0.0393	*
Venus	118036-05-01 18:41	G	44832945.16	44832945.28	44832945.42	0.0495	0.0385	
Venus	118041-07-13 04:17	G	44834843.52	44834843.68	44834843.84	0.0538	0.0315	
Mercury	118041-07-29 10:17	G	44834859.89	44834859.93	44834859.98	0.0538	0.0500	
Mercury	118041-10-26 22:03	G	44834949.30	44834949.42	44834949.55	0.0535	0.0225	
Mercury	118047-12-08 04:03	G	44837182.51	44837182.67	44837182.83	0.0492	0.0145	
Venus	118048-01-05 21:48	G	44837211.21	44837211.41	44837211.61	0.0493	0.0121	
Moon	118048-03-21 19:53	G	44837287.11	44837287.33	44837287.55	0.0495	0.0128	
Earth	118048-03-21 23:29	G	44837287.25	44837287.48	44837287.71	0.0495	0.0106	*
Mercury	118053-08-15 00:55	G	44839259.40	44839259.54	44839259.68	0.0536	0.0047	
Earth	118053-09-13 06:41	G	44839288.60	44839288.78	44839288.96	0.0535	0.0339	

Moon	118053-09-13 08:07 G	44839288.68	44839288.84	44839289.01	0.0535	0.0354	*
Mars	118055-11-28 23:00 G	44840095.37	44840095.46	44840095.57	0.0501	0.0468	
Venus	118059-09-11 00:41 G	44841477.34	44841477.53	44841477.73	0.0491	0.0141	
Mercury	118059-09-26 04:31 G	44841492.56	44841492.69	44841492.81	0.0491	0.0313	
Mercury	118059-12-25 03:34 G	44841582.55	44841582.65	44841582.75	0.0494	0.0394	
Earth	118060-03-26 09:05 G	44841674.66	44841674.88	44841675.10	0.0497	0.0151	
Moon	118060-03-26 12:41 G	44841674.80	44841675.03	44841675.25	0.0497	0.0163	*
Mercury	118065-06-03 02:51 G	44843569.49	44843569.62	44843569.75	0.0537	0.0149	
Venus	118065-07-16 04:31 G	44843612.50	44843612.69	44843612.87	0.0535	0.0215	
Moon	118065-09-18 04:03 G	44843676.43	44843676.67	44843676.92	0.0533	0.0008	
Earth	118065-09-18 05:29 G	44843676.50	44843676.73	44843676.97	0.0533	0.0026	*
Venus	118071-05-17 03:34 G	44845743.53	44845743.65	44845743.77	0.0489	0.0399	
Mercury	118071-07-15 04:31 G	44845802.67	44845802.69	44845802.73	0.0490	0.0479	
Mercury	118071-10-13 03:05 G	44845892.48	44845892.63	44845892.78	0.0493	0.0214	
Moon	118072-03-30 14:51 G	44846062.03	44846062.12	44846062.24	0.0498	0.0439	
Earth	118072-03-30 18:27 G	44846062.14	44846062.27	44846062.41	0.0498	0.0408	*
Venus	118077-03-20 18:41 G	44847878.08	44847878.28	44847878.47	0.0538	0.0126	
Mercury	118077-03-22 05:29 G	44847879.63	44847879.73	44847879.84	0.0538	0.0330	
Mercury	118077-06-19 17:00 G	44847969.12	44847969.21	44847969.30	0.0535	0.0388	
Earth	118077-09-23 10:03 G	44848064.73	44848064.92	44848065.11	0.0531	0.0305	
Moon	118077-09-23 11:00 G	44848064.79	44848064.96	44848065.13	0.0531	0.0340	*
Mercury	118083-08-01 02:22 G	44850202.43	44850202.60	44850202.77	0.0492	0.0030	
Venus	118083-09-13 07:10 G	44850245.64	44850245.80	44850245.98	0.0493	0.0273	
Venus	118088-11-23 09:48 G	44852143.81	44852143.91	44852144.01	0.0540	0.0465	
Mercury	118089-01-08 08:36 G	44852189.82	44852189.86	44852189.91	0.0538	0.0503	
Mercury	118089-04-07 20:36 G	44852279.24	44852279.36	44852279.48	0.0535	0.0224	
Venus	118095-05-19 10:03 G	44854511.72	44854511.92	44854512.13	0.0492	0.0011	
Mercury	118095-05-20 02:22 G	44854512.44	44854512.60	44854512.77	0.0492	0.0141	
Mercury	118101-01-25 23:43 G	44856589.35	44856589.49	44856589.62	0.0536	0.0054	
Venus	118101-03-25 00:27 G	44856647.39	44856647.52	44856647.64	0.0534	0.0422	

Venus	118107-01-23 13:10 G	44858777.87	44858778.05	44858778.23	0.0490	0.0250
Mercury	118107-03-09 02:36 G	44858822.48	44858822.61	44858822.74	0.0491	0.0310
Mercury	118107-06-07 01:39 G	44858912.48	44858912.57	44858912.68	0.0494	0.0397
Mercury	118112-11-14 02:07 G	44860899.46	44860899.59	44860899.73	0.0536	0.0132
Venus	118112-11-27 13:53 G	44860912.88	44860913.08	44860913.28	0.0536	0.0082
Mercury	118118-12-26 03:05 G	44863132.59	44863132.63	44863132.68	0.0491	0.0473
Earth	118119-03-18 23:00 G	44863215.32	44863215.46	44863215.62	0.0493	0.0379
Moon	118119-03-19 02:36 G	44863215.46	44863215.61	44863215.78	0.0493	0.0350 *
Mercury	118119-03-26 01:39 G	44863222.42	44863222.57	44863222.72	0.0493	0.0221
Venus	118119-05-22 18:55 G	44863280.20	44863280.29	44863280.39	0.0495	0.0433
Venus	118124-08-02 00:27 G	44865178.35	44865178.52	44865178.69	0.0538	0.0276
Mercury	118124-09-02 03:48 G	44865209.56	44865209.66	44865209.77	0.0537	0.0332
Mercury	118124-11-30 15:19 G	44865299.05	44865299.14	44865299.23	0.0534	0.0384
Mercury	118131-01-12 01:24 G	44867532.39	44867532.56	44867532.73	0.0492	0.0044
Venus	118131-01-25 21:19 G	44867546.20	44867546.39	44867546.58	0.0493	0.0167
Moon	118131-03-23 03:34 G	44867602.42	44867602.65	44867602.88	0.0494	0.0123
Earth	118131-03-23 07:24 G	44867602.59	44867602.81	44867603.04	0.0494	0.0130 *
Mercury	118136-06-21 06:27 G	44869519.73	44869519.77	44869519.81	0.0538	0.0516
Earth	118136-09-13 03:48 G	44869603.50	44869603.66	44869603.81	0.0536	0.0394
Moon	118136-09-13 03:48 G	44869603.51	44869603.66	44869603.82	0.0536	0.0385 *
Mercury	118136-09-18 18:27 G	44869609.14	44869609.27	44869609.39	0.0535	0.0213
Venus	118142-09-30 22:17 G	44871812.23	44871812.43	44871812.63	0.0491	0.0101
Mercury	118142-10-31 00:41 G	44871842.37	44871842.53	44871842.69	0.0492	0.0140
Earth	118143-03-27 13:53 G	44871989.86	44871990.08	44871990.31	0.0496	0.0120
Moon	118143-03-27 17:58 G	44871990.02	44871990.25	44871990.48	0.0496	0.0098 *
Mars	118145-05-26 14:36 G	44872780.98	44872781.11	44872781.27	0.0529	0.0447
Mercury	118148-07-07 21:48 G	44873919.27	44873919.41	44873919.54	0.0536	0.0047
Venus	118148-08-05 05:58 G	44873947.58	44873947.75	44873947.92	0.0535	0.0275
Earth	118148-09-18 10:31 G	44873991.71	44873991.94	44873992.18	0.0534	0.0057
Moon	118148-09-18 11:29 G	44873991.74	44873991.98	44873992.22	0.0534	0.0083 *

Venus	118154-06-06 01:10 G	44876078.42	44876078.55	44876078.70	0.0489	0.0360
Mercury	118154-08-19 00:55 G	44876152.41	44876152.54	44876152.67	0.0491	0.0308
Mercury	118154-11-16 23:43 G	44876242.39	44876242.49	44876242.59	0.0494	0.0397
Moon	118155-03-31 20:07 G	44876377.17	44876377.34	44876377.51	0.0498	0.0342
Earth	118155-03-31 23:58 G	44876377.36	44876377.50	44876377.66	0.0498	0.0377 *
Venus	118160-04-09 20:22 G	44878213.15	44878213.35	44878213.55	0.0537	0.0066
Mercury	118160-04-26 00:41 G	44878229.40	44878229.53	44878229.66	0.0537	0.0130
Moon	118160-09-23 13:24 G	44878379.86	44878380.06	44878380.26	0.0531	0.0245
Earth	118160-09-23 14:51 G	44878379.92	44878380.12	44878380.32	0.0531	0.0273 *
Mercury	118166-06-07 01:10 G	44880462.51	44880462.55	44880462.59	0.0491	0.0474
Mercury	118166-09-04 23:29 G	44880552.33	44880552.48	44880552.64	0.0493	0.0220
Venus	118166-10-03 06:41 G	44880580.63	44880580.78	44880580.94	0.0494	0.0320
Venus	118171-12-14 09:34 G	44882478.78	44882478.90	44882479.03	0.0539	0.0413
Mercury	118172-02-13 03:19 G	44882539.53	44882539.64	44882539.75	0.0537	0.0314
Mercury	118172-05-12 14:36 G	44882629.02	44882629.11	44882629.20	0.0534	0.0400
Venus	118178-06-08 09:48 G	44884846.70	44884846.91	44884847.11	0.0492	0.0058
Mercury	118178-06-23 23:43 G	44884862.32	44884862.49	44884862.66	0.0492	0.0047
Mercury	118183-12-02 04:31 G	44886849.67	44886849.69	44886849.73	0.0538	0.0520
Mercury	118184-02-29 16:46 G	44886939.07	44886939.20	44886939.32	0.0535	0.0209
Venus	118184-04-12 19:53 G	44886982.23	44886982.33	44886982.43	0.0534	0.0459
Venus	118190-02-11 12:12 G	44889112.83	44889113.01	44889113.20	0.0490	0.0205
Mercury	118190-04-11 23:29 G	44889172.32	44889172.48	44889172.65	0.0492	0.0128
Venus	118195-12-17 09:48 G	44891247.71	44891247.91	44891248.11	0.0536	0.0120
Mercury	118195-12-18 19:24 G	44891249.18	44891249.31	44891249.45	0.0536	0.0036
Venus	118201-10-18 13:10 G	44893379.01	44893379.05	44893379.11	0.0488	0.0470
Mercury	118202-01-29 23:00 G	44893482.33	44893482.46	44893482.59	0.0491	0.0309
Earth	118202-03-19 03:05 G	44893530.50	44893530.63	44893530.76	0.0492	0.0410
Moon	118202-03-19 05:43 G	44893530.64	44893530.74	44893530.85	0.0492	0.0436 *
Mercury	118202-04-29 21:48 G	44893572.31	44893572.41	44893572.51	0.0493	0.0395
Venus	118202-06-11 15:34 G	44893615.09	44893615.15	44893615.22	0.0495	0.0470

Venus 118207-08-23 00:55 G 44895513.36 44895513.54 44895513.73 0.0538 0.0221
 Mercury 118207-10-07 22:46 G 44895559.32 44895559.45 44895559.58 0.0537 0.0139
 Mars 118210-02-23 21:48 G 44896429.14 44896429.41 44896429.68 0.0501 0.0132
 Mercury 118213-11-17 23:15 G 44897792.43 44897792.47 44897792.51 0.0490 0.0475
 Venus 118214-02-14 18:12 G 44897881.07 44897881.26 44897881.45 0.0493 0.0206
 Mercury 118214-02-15 21:34 G 44897882.25 44897882.40 44897882.55 0.0493 0.0217
 Moon 118214-03-23 09:05 G 44897917.65 44897917.88 44897918.10 0.0494 0.0161
 Earth 118214-03-23 11:43 G 44897917.77 44897917.99 44897918.21 0.0494 0.0162 *
 Mercury 118219-07-27 01:39 G 44899869.46 44899869.57 44899869.68 0.0537 0.0317
 Moon 118219-09-14 06:12 G 44899918.63 44899918.76 44899918.89 0.0536 0.0430
 Earth 118219-09-14 07:53 G 44899918.69 44899918.83 44899918.97 0.0536 0.0427 *
 Mercury 118219-10-24 12:55 G 44899958.96 44899959.04 44899959.13 0.0534 0.0399
 Venus 118225-10-20 20:51 G 44902147.17 44902147.37 44902147.58 0.0491 0.0058
 Mercury 118225-12-04 21:19 G 44902192.23 44902192.39 44902192.56 0.0492 0.0044
 Earth 118226-03-27 21:05 G 44902305.15 44902305.38 44902305.61 0.0496 0.0093
 Moon 118226-03-27 23:29 G 44902305.26 44902305.48 44902305.70 0.0496 0.0122 *
 Mercury 118231-05-15 03:48 G 44904179.62 44904179.66 44904179.71 0.0538 0.0504
 Mercury 118231-08-12 15:48 G 44904269.04 44904269.16 44904269.29 0.0535 0.0224
 Venus 118231-08-26 05:00 G 44904282.55 44904282.71 44904282.87 0.0535 0.0325
 Earth 118231-09-19 11:15 G 44904306.74 44904306.97 44904307.19 0.0534 0.0101
 Moon 118231-09-19 13:24 G 44904306.82 44904307.06 44904307.30 0.0534 0.0069 *
 Venus 118237-06-26 00:12 G 44906413.36 44906413.51 44906413.67 0.0489 0.0316
 Mercury 118237-09-22 21:48 G 44906502.24 44906502.41 44906502.57 0.0492 0.0127
 Moon 118238-04-01 05:00 G 44906692.56 44906692.71 44906692.87 0.0497 0.0377
 Earth 118238-04-01 07:39 G 44906692.66 44906692.82 44906692.99 0.0497 0.0350 *
 Venus 118243-04-30 15:19 G 44908547.94 44908548.14 44908548.35 0.0537 0.0033
 Mercury 118243-05-31 17:43 G 44908579.11 44908579.24 44908579.38 0.0536 0.0028
 Moon 118243-09-24 06:12 G 44908694.56 44908694.76 44908694.96 0.0532 0.0231
 Earth 118243-09-24 08:51 G 44908694.66 44908694.87 44908695.09 0.0532 0.0209 *
 Mercury 118249-07-11 21:48 G 44910812.27 44910812.41 44910812.54 0.0491 0.0298

Mercury	118249-10-09 20:36 G	44910902.27	44910902.36	44910902.46	0.0493	0.0406
Venus	118249-10-23 05:00 G	44910915.58	44910915.71	44910915.85	0.0494	0.0364
Venus	118255-01-03 04:31 G	44912813.55	44912813.69	44912813.84	0.0539	0.0379
Mercury	118255-03-19 20:22 G	44912889.22	44912889.35	44912889.48	0.0537	0.0154
Earth	118255-09-29 11:15 G	44913082.96	44913082.97	44913082.99	0.0530	0.0528
Moon	118255-09-29 14:51 G	44913083.07	44913083.12	44913083.19	0.0530	0.0510
Mercury	118261-04-29 21:05 G	44915122.35	44915122.38	44915122.42	0.0490	0.0477
Venus	118261-06-28 05:43 G	44915181.54	44915181.74	44915181.94	0.0492	0.0091
Mercury	118261-07-28 19:24 G	44915212.16	44915212.31	44915212.46	0.0493	0.0214
Mars	118263-11-15 08:07 G	44916051.80	44916051.84	44916051.90	0.0526	0.0515
Mercury	118267-01-05 23:15 G	44917199.37	44917199.47	44917199.58	0.0538	0.0330
Mercury	118267-04-05 10:46 G	44917288.86	44917288.95	44917289.05	0.0535	0.0389
Venus	118267-05-03 19:39 G	44917317.27	44917317.32	44917317.38	0.0534	0.0512
Venus	118273-03-03 08:22 G	44919447.66	44919447.85	44919448.04	0.0490	0.0170
Mercury	118273-05-16 19:10 G	44919522.13	44919522.30	44919522.47	0.0492	0.0039
Mercury	118278-10-25 02:07 G	44921509.55	44921509.59	44921509.63	0.0538	0.0510
Venus	118279-01-06 10:31 G	44921582.75	44921582.94	44921583.14	0.0536	0.0176
Mercury	118279-01-22 14:07 G	44921598.97	44921599.09	44921599.21	0.0535	0.0219
Venus	118284-11-06 11:00 G	44923713.87	44923713.96	44923714.06	0.0489	0.0430
Mercury	118285-03-04 19:10 G	44923832.14	44923832.30	44923832.47	0.0492	0.0135
Earth	118285-03-18 08:51 G	44923845.77	44923845.87	44923845.98	0.0492	0.0438
Moon	118285-03-18 10:03 G	44923845.81	44923845.92	44923846.04	0.0492	0.0419 *
Venus	118290-09-11 00:12 G	44925848.32	44925848.51	44925848.70	0.0538	0.0171
Mercury	118290-11-10 16:46 G	44925909.07	44925909.20	44925909.34	0.0536	0.0044
Mercury	118296-12-21 19:39 G	44928142.19	44928142.32	44928142.46	0.0491	0.0300
Venus	118297-03-05 16:46 G	44928216.03	44928216.20	44928216.38	0.0493	0.0251
Mercury	118297-03-21 18:41 G	44928232.18	44928232.28	44928232.37	0.0494	0.0405
Moon	118297-03-22 16:31 G	44928232.97	44928233.19	44928233.42	0.0494	0.0189
Earth	118297-03-22 18:41 G	44928233.06	44928233.28	44928233.50	0.0494	0.0187 *
Venus	118302-05-17 10:17 G	44930113.90	44930113.93	44930113.97	0.0540	0.0530

Mercury 118302-08-30 18:41 G 44930219.15 44930219.28 44930219.41 0.0537 0.0159
 Moon 118302-09-13 22:17 G 44930233.35 44930233.43 44930233.52 0.0536 0.0494
 Earth 118302-09-14 00:55 G 44930233.46 44930233.54 44930233.64 0.0536 0.0492 *
 Mercury 118308-10-10 19:53 G 44932452.29 44932452.33 44932452.38 0.0490 0.0468
 Venus 118308-11-09 18:55 G 44932482.09 44932482.29 44932482.50 0.0491 0.0016
 Mercury 118309-01-08 18:12 G 44932542.11 44932542.26 44932542.41 0.0493 0.0224
 Earth 118309-03-28 02:51 G 44932620.39 44932620.62 44932620.85 0.0495 0.0063
 Moon 118309-03-28 05:15 G 44932620.50 44932620.72 44932620.95 0.0495 0.0042 *
 Mercury 118314-06-18 20:51 G 44934529.27 44934529.37 44934529.48 0.0538 0.0346
 Venus 118314-09-14 23:29 G 44934617.33 44934617.48 44934617.63 0.0535 0.0358
 Mercury 118314-09-16 08:36 G 44934618.77 44934618.86 44934618.96 0.0535 0.0374
 Earth 118314-09-19 04:03 G 44934621.45 44934621.67 44934621.90 0.0535 0.0166
 Moon 118314-09-19 06:41 G 44934621.56 44934621.78 44934622.00 0.0535 0.0194 *
 Venus 118320-07-15 19:53 G 44936748.16 44936748.33 44936748.50 0.0489 0.0284
 Mercury 118320-10-27 17:00 G 44936852.04 44936852.21 44936852.38 0.0492 0.0034
 Moon 118321-04-01 05:29 G 44937007.53 44937007.73 44937007.93 0.0497 0.0278
 Earth 118321-04-01 08:22 G 44937007.67 44937007.85 44937008.04 0.0497 0.0310 *
 Mercury 118326-04-06 23:43 G 44938839.47 44938839.49 44938839.52 0.0539 0.0525
 Venus 118326-05-20 14:36 G 44938882.90 44938883.11 44938883.31 0.0537 0.0021
 Mercury 118326-07-05 11:58 G 44938928.87 44938929.00 44938929.12 0.0536 0.0206
 Moon 118326-09-24 08:07 G 44939009.62 44939009.84 44939010.06 0.0533 0.0133
 Earth 118326-09-24 10:03 G 44939009.70 44939009.92 44939010.15 0.0533 0.0168 *
 Mercury 118332-08-15 17:00 G 44941162.05 44941162.21 44941162.37 0.0491 0.0140
 Venus 118332-11-12 00:41 G 44941250.41 44941250.53 44941250.65 0.0494 0.0396
 Venus 118338-01-23 05:15 G 44943148.56 44943148.72 44943148.88 0.0539 0.0325
 Mercury 118338-04-23 15:05 G 44943238.99 44943239.13 44943239.26 0.0536 0.0036
 Earth 118338-09-29 14:22 G 44943398.02 44943398.10 44943398.19 0.0530 0.0492
 Moon 118338-09-29 16:17 G 44943398.09 44943398.18 44943398.29 0.0530 0.0479 *
 Mercury 118344-06-03 17:15 G 44945472.09 44945472.22 44945472.35 0.0491 0.0309
 Venus 118344-07-18 03:05 G 44945516.44 44945516.63 44945516.83 0.0492 0.0132

Mercury	118344-09-01 16:03 G	44945562.07	44945562.17	44945562.27	0.0494	0.0394
Mercury	118350-02-09 17:43 G	44947549.11	44947549.24	44947549.37	0.0537	0.0146
Mercury	118356-03-22 17:43 G	44949782.20	44949782.24	44949782.29	0.0490	0.0472
Venus	118356-03-23 06:27 G	44949782.57	44949782.77	44949782.97	0.0491	0.0129
Mercury	118356-06-20 16:03 G	44949872.02	44949872.17	44949872.32	0.0493	0.0220
Mercury	118361-11-28 19:24 G	44951859.20	44951859.31	44951859.41	0.0537	0.0347
Venus	118362-01-26 05:29 G	44951917.55	44951917.73	44951917.92	0.0536	0.0210
Mercury	118362-02-26 06:55 G	44951948.70	44951948.79	44951948.89	0.0534	0.0371
Mars	118364-05-20 03:19 G	44952762.37	44952762.64	44952762.91	0.0501	0.0120
Venus	118367-11-27 08:51 G	44954048.76	44954048.87	44954049.00	0.0489	0.0390
Earth	118368-03-18 14:36 G	44954161.04	44954161.11	44954161.19	0.0492	0.0465
Mercury	118368-04-08 15:48 G	44954181.99	44954182.16	44954182.33	0.0492	0.0043
Venus	118373-09-30 18:27 G	44956183.08	44956183.27	44956183.47	0.0538	0.0138
Mercury	118373-12-15 09:34 G	44956258.78	44956258.90	44956259.03	0.0535	0.0194
Mercury	118380-01-26 14:51 G	44958491.96	44958492.12	44958492.28	0.0491	0.0145
Moon	118380-03-22 15:48 G	44958547.96	44958548.16	44958548.36	0.0493	0.0251
Earth	118380-03-22 19:24 G	44958548.11	44958548.31	44958548.52	0.0493	0.0225 *
Venus	118380-03-25 11:43 G	44958550.83	44958550.99	44958551.16	0.0493	0.0280
Venus	118385-06-05 08:36 G	44960448.78	44960448.86	44960448.95	0.0540	0.0485
Earth	118385-09-13 00:27 G	44960548.52	44960548.52	44960548.53	0.0537	0.0537
Mercury	118385-10-03 12:41 G	44960568.89	44960569.03	44960569.17	0.0537	0.0020
Mercury	118391-11-14 15:05 G	44962802.00	44962802.13	44962802.25	0.0491	0.0314
Venus	118391-11-29 14:22 G	44962816.89	44962817.10	44962817.31	0.0491	0.0016
Mercury	118392-02-12 13:39 G	44962891.97	44962892.07	44962892.17	0.0493	0.0387
Earth	118392-03-27 04:03 G	44962935.43	44962935.67	44962935.90	0.0494	0.0025
Moon	118392-03-27 07:53 G	44962935.60	44962935.83	44962936.07	0.0494	0.0021 *
Mercury	118397-07-22 15:48 G	44964879.03	44964879.16	44964879.29	0.0537	0.0155
Moon	118397-09-18 05:29 G	44964936.52	44964936.73	44964936.96	0.0535	0.0215
Earth	118397-09-18 06:55 G	44964936.58	44964936.79	44964937.01	0.0535	0.0202 *
Venus	118397-10-03 23:43 G	44964952.37	44964952.49	44964952.63	0.0535	0.0412

Venus	118403-08-04 17:00 G	44967083.03	44967083.21	44967083.39	0.0490	0.0246
Mercury	118403-09-02 15:19 G	44967112.11	44967112.14	44967112.17	0.0490	0.0481
Mercury	118403-12-01 13:24 G	44967201.90	44967202.06	44967202.21	0.0493	0.0209
Moon	118404-03-31 09:19 G	44967322.71	44967322.89	44967323.08	0.0497	0.0295
Earth	118404-03-31 13:24 G	44967322.87	44967323.06	44967323.25	0.0497	0.0277 *
Mercury	118409-05-10 18:12 G	44969189.16	44969189.26	44969189.37	0.0538	0.0337
Venus	118409-06-08 13:53 G	44969217.88	44969218.08	44969218.28	0.0537	0.0070
Mercury	118409-08-08 05:58 G	44969278.66	44969278.75	44969278.84	0.0535	0.0382
Earth	118409-09-23 10:46 G	44969324.72	44969324.95	44969325.18	0.0533	0.0124
Moon	118409-09-23 11:58 G	44969324.78	44969325.00	44969325.21	0.0533	0.0144 *
Mercury	118415-09-19 13:39 G	44971511.90	44971512.07	44971512.24	0.0492	0.0039
Venus	118415-12-01 23:00 G	44971585.37	44971585.46	44971585.55	0.0494	0.0440
Mars	118418-02-09 06:12 G	44972385.51	44972385.76	44972386.02	0.0526	0.0171
Venus	118421-02-11 00:55 G	44973483.37	44973483.54	44973483.71	0.0538	0.0288
Mercury	118421-05-27 08:07 G	44973588.71	44973588.84	44973588.96	0.0535	0.0192
Moon	118421-09-28 07:24 G	44973712.70	44973712.81	44973712.94	0.0531	0.0462
Earth	118421-09-28 08:51 G	44973712.74	44973712.87	44973713.01	0.0531	0.0430 *
Mercury	118427-07-08 13:24 G	44975821.90	44975822.06	44975822.23	0.0492	0.0136
Venus	118427-08-07 01:10 G	44975851.36	44975851.55	44975851.74	0.0492	0.0173
Mercury	118433-03-15 10:31 G	44977898.81	44977898.94	44977899.08	0.0536	0.0021
Venus	118439-04-12 01:39 G	44980117.37	44980117.57	44980117.78	0.0490	0.0100
Mercury	118439-04-26 12:41 G	44980131.91	44980132.03	44980132.16	0.0491	0.0319
Mercury	118439-07-25 11:29 G	44980221.87	44980221.98	44980222.09	0.0493	0.0382
Mercury	118445-01-01 13:24 G	44982208.93	44982209.06	44982209.19	0.0537	0.0169
Venus	118445-02-14 04:03 G	44982252.49	44982252.67	44982252.85	0.0536	0.0256
Venus	118450-12-16 04:31 G	44984383.56	44984383.69	44984383.84	0.0489	0.0359
Mercury	118451-02-12 13:10 G	44984442.03	44984442.05	44984442.08	0.0490	0.0484
Moon	118451-03-18 20:07 G	44984476.33	44984476.34	44984476.35	0.0491	0.0490
Mercury	118451-05-13 11:15 G	44984531.81	44984531.97	44984532.12	0.0492	0.0204
Venus	118456-10-19 18:55 G	44986518.09	44986518.29	44986518.49	0.0538	0.0086

Mercury	118456-10-20 16:17 G	44986519.08	44986519.18	44986519.29	0.0538	0.0345
Mercury	118457-01-18 04:03 G	44986608.58	44986608.67	44986608.77	0.0535	0.0376
Mercury	118463-03-01 11:00 G	44988841.79	44988841.96	44988842.13	0.0492	0.0029
Moon	118463-03-22 21:48 G	44988863.21	44988863.41	44988863.62	0.0493	0.0231
Earth	118463-03-23 00:27 G	44988863.33	44988863.52	44988863.73	0.0493	0.0255 *
Venus	118463-04-14 09:19 G	44988885.74	44988885.89	44988886.05	0.0493	0.0320
Venus	118468-06-24 08:51 G	44990783.75	44990783.87	44990783.99	0.0540	0.0432
Mercury	118468-08-08 18:55 G	44990829.27	44990829.29	44990829.31	0.0538	0.0529
Mercury	118468-11-06 07:10 G	44990918.67	44990918.80	44990918.92	0.0536	0.0203
Mercury	118474-12-18 11:29 G	44993151.82	44993151.98	44993152.14	0.0492	0.0139
Venus	118474-12-18 12:27 G	44993151.82	44993152.02	44993152.23	0.0492	0.0060 *
Earth	118475-03-27 10:31 G	44993250.70	44993250.94	44993251.17	0.0494	0.0008
Moon	118475-03-27 12:41 G	44993250.79	44993251.03	44993251.27	0.0494	0.0027 *
Mercury	118480-08-25 09:19 G	44995228.75	44995228.89	44995229.02	0.0536	0.0020
Moon	118480-09-16 23:00 G	44995251.25	44995251.46	44995251.68	0.0535	0.0223
Earth	118480-09-17 02:51 G	44995251.42	44995251.62	44995251.82	0.0535	0.0259 *
Venus	118480-10-22 19:53 G	44995287.23	44995287.33	44995287.45	0.0534	0.0451
Venus	118486-08-23 15:05 G	44997417.94	44997418.13	44997418.32	0.0490	0.0205
Mercury	118486-10-06 11:29 G	44997461.85	44997461.98	44997462.11	0.0491	0.0309
Mercury	118487-01-04 10:03 G	44997551.83	44997551.92	44997552.03	0.0493	0.0393
Moon	118487-03-31 17:43 G	44997638.05	44997638.24	44997638.43	0.0496	0.0264
Earth	118487-03-31 19:24 G	44997638.11	44997638.31	44997638.51	0.0496	0.0248 *
Mercury	118492-06-13 11:29 G	44999538.86	44999538.98	44999539.11	0.0537	0.0175
Venus	118492-06-27 09:19 G	44999552.69	44999552.89	44999553.09	0.0536	0.0105
Earth	118492-09-22 05:15 G	44999639.49	44999639.72	44999639.95	0.0534	0.0063
Moon	118492-09-22 09:05 G	44999639.66	44999639.88	44999640.11	0.0534	0.0085 *
Venus	118498-04-28 16:17 G	45001684.13	45001684.18	45001684.23	0.0488	0.0471
Mercury	118498-07-25 11:15 G	45001771.95	45001771.97	45001771.98	0.0490	0.0486
Mercury	118498-10-23 09:05 G	45001861.72	45001861.88	45001862.03	0.0492	0.0201
Venus	118498-12-20 18:27 G	45001920.21	45001920.27	45001920.33	0.0494	0.0470

Earth	118499-04-05 01:10 G	45002025.54	45002025.55	45002025.57	0.0497	0.0496
Moon	118499-04-05 02:22 G	45002025.55	45002025.60	45002025.65	0.0497	0.0487 *
Venus	118504-03-02 23:00 G	45003818.28	45003818.46	45003818.64	0.0539	0.0245
Mercury	118504-04-02 14:07 G	45003848.99	45003849.09	45003849.19	0.0538	0.0358
Mercury	118504-07-01 01:53 G	45003938.49	45003938.58	45003938.68	0.0535	0.0365
Moon	118504-09-28 05:29 G	45004027.58	45004027.73	45004027.90	0.0532	0.0380
Earth	118504-09-28 09:48 G	45004027.75	45004027.91	45004028.06	0.0532	0.0390 *
Mercury	118510-08-12 09:05 G	45006171.71	45006171.88	45006172.05	0.0492	0.0028
Venus	118510-08-26 20:51 G	45006186.19	45006186.37	45006186.56	0.0492	0.0205
Mercury	118516-01-20 17:00 G	45008159.20	45008159.21	45008159.22	0.0539	0.0537
Mercury	118516-04-19 05:15 G	45008248.59	45008248.72	45008248.85	0.0536	0.0197
Mars	118518-08-14 23:43 G	45009096.37	45009096.49	45009096.63	0.0500	0.0442
Venus	118522-05-01 23:29 G	45010452.27	45010452.48	45010452.68	0.0490	0.0059
Mercury	118522-05-31 09:05 G	45010481.72	45010481.88	45010482.04	0.0491	0.0146
Mercury	118528-02-06 08:07 G	45012558.71	45012558.84	45012558.98	0.0536	0.0026
Venus	118528-03-06 04:31 G	45012587.53	45012587.69	45012587.86	0.0535	0.0312
Venus	118534-01-05 02:51 G	45014718.47	45014718.62	45014718.78	0.0489	0.0318
Mercury	118534-03-19 09:34 G	45014791.77	45014791.90	45014792.03	0.0491	0.0311
Mercury	118534-06-17 08:07 G	45014881.74	45014881.84	45014881.94	0.0493	0.0391
Venus	118539-11-09 16:31 G	45016852.99	45016853.19	45016853.39	0.0537	0.0042
Mercury	118539-11-25 10:17 G	45016868.80	45016868.93	45016869.06	0.0537	0.0169
Mercury	118546-01-05 10:03 G	45019101.88	45019101.92	45019101.95	0.0490	0.0477
Moon	118546-03-23 07:10 G	45019178.62	45019178.80	45019178.99	0.0492	0.0278
Earth	118546-03-23 07:39 G	45019178.63	45019178.82	45019179.02	0.0492	0.0278 *
Mercury	118546-04-05 07:53 G	45019191.68	45019191.83	45019191.98	0.0493	0.0213
Venus	118546-05-04 07:53 G	45019220.70	45019220.83	45019220.97	0.0494	0.0365
Venus	118551-07-15 05:15 G	45021118.59	45021118.72	45021118.86	0.0539	0.0393
Mercury	118551-09-13 12:41 G	45021178.92	45021179.03	45021179.13	0.0538	0.0358
Mercury	118551-12-12 00:27 G	45021268.42	45021268.52	45021268.62	0.0535	0.0364
Venus	118558-01-07 08:51 G	45023486.67	45023486.87	45023487.08	0.0491	0.0092

Mercury	118558-01-22 07:10 G	45023501.63	45023501.80	45023501.97	0.0492	0.0026
Moon	118558-03-27 12:41 G	45023565.79	45023566.03	45023566.28	0.0493	0.0054
Earth	118558-03-27 13:10 G	45023565.82	45023566.05	45023566.29	0.0493	0.0036 *
Moon	118563-09-17 23:43 G	45025566.31	45025566.49	45025566.67	0.0537	0.0315
Earth	118563-09-18 02:36 G	45025566.42	45025566.61	45025566.81	0.0537	0.0301 *
Mercury	118563-09-30 03:19 G	45025578.51	45025578.64	45025578.76	0.0536	0.0188
Venus	118563-11-12 18:41 G	45025622.22	45025622.28	45025622.36	0.0535	0.0498
Venus	118569-09-12 11:43 G	45027752.80	45027752.99	45027753.19	0.0489	0.0171
Mercury	118569-11-10 07:10 G	45027811.64	45027811.80	45027811.97	0.0491	0.0146
Earth	118570-03-31 22:03 G	45027953.22	45027953.42	45027953.63	0.0495	0.0216
Moon	118570-03-31 23:29 G	45027953.27	45027953.48	45027953.69	0.0495	0.0185 *
Mars	118572-05-05 13:53 G	45028718.81	45028719.08	45028719.34	0.0527	0.0108
Venus	118575-07-18 10:03 G	45029887.73	45029887.92	45029888.12	0.0537	0.0160
Mercury	118575-07-19 06:27 G	45029888.63	45029888.77	45029888.91	0.0537	0.0018
Earth	118575-09-23 09:19 G	45029954.66	45029954.89	45029955.12	0.0535	0.0033
Moon	118575-09-23 12:27 G	45029954.78	45029955.02	45029955.26	0.0535	0.0005 *
Venus	118581-05-18 14:22 G	45032019.01	45032019.10	45032019.20	0.0488	0.0430
Mercury	118581-08-29 07:24 G	45032121.69	45032121.81	45032121.94	0.0491	0.0315
Mercury	118581-11-27 05:43 G	45032211.64	45032211.74	45032211.85	0.0493	0.0386
Moon	118582-04-05 05:00 G	45032340.61	45032340.71	45032340.83	0.0497	0.0439
Earth	118582-04-05 07:24 G	45032340.74	45032340.81	45032340.89	0.0497	0.0468 *
Venus	118587-03-23 00:27 G	45034153.34	45034153.52	45034153.72	0.0539	0.0185
Mercury	118587-05-07 09:19 G	45034198.76	45034198.89	45034199.02	0.0537	0.0158
Moon	118587-09-28 11:00 G	45034342.79	45034342.96	45034343.14	0.0532	0.0339
Earth	118587-09-28 14:22 G	45034342.93	45034343.10	45034343.28	0.0532	0.0358 *
Mercury	118593-06-17 08:07 G	45036431.81	45036431.84	45036431.88	0.0490	0.0475
Venus	118593-09-14 19:53 G	45036521.16	45036521.33	45036521.51	0.0493	0.0251
Mercury	118593-09-15 05:58 G	45036521.60	45036521.75	45036521.91	0.0493	0.0213
Venus	118598-11-25 12:41 G	45038419.03	45038419.03	45038419.04	0.0540	0.0539
Mercury	118599-02-23 11:29 G	45038508.88	45038508.98	45038509.08	0.0538	0.0350

Mercury	118599-05-23 23:15 G	45038598.37	45038598.47	45038598.57	0.0535	0.0371
Venus	118605-05-21 22:31 G	45040787.24	45040787.44	45040787.65	0.0491	0.0015
Mercury	118605-07-05 05:58 G	45040831.58	45040831.75	45040831.92	0.0492	0.0039
Mercury	118611-03-13 01:53 G	45042908.45	45042908.58	45042908.71	0.0536	0.0192
Venus	118611-03-27 01:53 G	45042922.43	45042922.58	45042922.73	0.0535	0.0355
Venus	118617-01-25 00:27 G	45045053.35	45045053.52	45045053.69	0.0489	0.0281
Mercury	118617-04-23 05:29 G	45045141.57	45045141.73	45045141.90	0.0491	0.0143
Venus	118622-11-29 15:05 G	45047187.93	45047188.13	45047188.33	0.0538	0.0006
Mercury	118622-12-30 04:31 G	45047218.55	45047218.69	45047218.83	0.0537	0.0010
Mercury	118629-02-09 05:58 G	45049451.62	45049451.75	45049451.88	0.0490	0.0309
Earth	118629-03-23 12:41 G	45049493.85	45049494.03	45049494.22	0.0491	0.0302
Moon	118629-03-23 15:48 G	45049494.00	45049494.16	45049494.33	0.0491	0.0333 *
Mercury	118629-05-10 04:17 G	45049541.58	45049541.68	45049541.78	0.0493	0.0388
Venus	118629-05-24 05:15 G	45049555.60	45049555.72	45049555.84	0.0493	0.0401
Venus	118634-08-04 05:58 G	45051453.59	45051453.75	45051453.91	0.0540	0.0340
Mercury	118634-10-18 07:39 G	45051528.69	45051528.82	45051528.95	0.0538	0.0164
Mars	118637-02-03 12:41 G	45052367.83	45052368.03	45052368.24	0.0503	0.0335
Mercury	118640-11-28 06:12 G	45053761.73	45053761.76	45053761.80	0.0490	0.0476
Venus	118641-01-27 07:39 G	45053821.63	45053821.82	45053822.02	0.0491	0.0137
Mercury	118641-02-26 04:03 G	45053851.52	45053851.67	45053851.82	0.0492	0.0210
Moon	118641-03-27 17:00 G	45053880.98	45053881.21	45053881.45	0.0493	0.0078
Earth	118641-03-27 20:51 G	45053881.13	45053881.37	45053881.60	0.0493	0.0058 *
Mercury	118646-08-06 10:17 G	45055838.83	45055838.93	45055839.04	0.0538	0.0340
Moon	118646-09-18 08:07 G	45055881.68	45055881.84	45055882.01	0.0537	0.0350
Earth	118646-09-18 08:51 G	45055881.69	45055881.87	45055882.06	0.0537	0.0330 *
Mercury	118646-11-03 22:17 G	45055928.34	45055928.43	45055928.52	0.0535	0.0383
Venus	118652-10-02 11:00 G	45058087.77	45058087.96	45058088.16	0.0490	0.0125
Mercury	118652-12-15 04:17 G	45058161.51	45058161.68	45058161.85	0.0492	0.0042
Earth	118653-04-01 06:41 G	45058268.57	45058268.78	45058269.00	0.0495	0.0194
Moon	118653-04-01 10:31 G	45058268.73	45058268.94	45058269.15	0.0495	0.0203 *

Mercury	118658-05-25 12:27 G	45060149.01	45060149.02	45060149.04	0.0538	0.0532
Venus	118658-08-07 10:03 G	45060222.74	45060222.92	45060223.11	0.0536	0.0213
Mercury	118658-08-23 00:55 G	45060238.41	45060238.54	45060238.66	0.0536	0.0202
Earth	118658-09-23 11:15 G	45060269.74	45060269.97	45060270.21	0.0535	0.0012
Moon	118658-09-23 11:43 G	45060269.74	45060269.99	45060270.23	0.0535	0.0011 *
Venus	118664-06-07 14:07 G	45062353.97	45062354.09	45062354.22	0.0489	0.0386
Mercury	118664-10-03 04:31 G	45062471.53	45062471.69	45062471.85	0.0491	0.0129
Moon	118665-04-05 12:55 G	45062655.98	45062656.04	45062656.11	0.0497	0.0474
Earth	118665-04-05 16:31 G	45062656.10	45062656.19	45062656.30	0.0497	0.0447 *
Venus	118670-04-11 23:00 G	45064488.27	45064488.46	45064488.66	0.0538	0.0138
Mercury	118670-06-11 03:34 G	45064548.51	45064548.65	45064548.78	0.0536	0.0028
Earth	118670-09-28 14:07 G	45064657.90	45064658.09	45064658.28	0.0533	0.0312
Moon	118670-09-28 14:07 G	45064657.93	45064658.09	45064658.27	0.0533	0.0346 *
Mercury	118676-07-22 04:31 G	45066781.56	45066781.69	45066781.82	0.0490	0.0304
Venus	118676-10-04 18:12 G	45066856.09	45066856.26	45066856.42	0.0492	0.0291
Mercury	118676-10-20 02:51 G	45066871.52	45066871.62	45066871.72	0.0493	0.0394
Venus	118681-12-15 11:00 G	45068753.89	45068753.96	45068754.05	0.0541	0.0496
Mercury	118682-03-30 05:43 G	45068858.61	45068858.74	45068858.87	0.0538	0.0168
Mercury	118688-05-10 05:00 G	45071091.67	45071091.71	45071091.76	0.0490	0.0467
Venus	118688-06-09 21:05 G	45071122.17	45071122.38	45071122.58	0.0490	0.0027
Mercury	118688-08-08 02:36 G	45071181.46	45071181.61	45071181.77	0.0492	0.0219
Mercury	118694-01-16 08:36 G	45073168.76	45073168.86	45073168.97	0.0539	0.0345
Venus	118694-04-15 03:05 G	45073257.51	45073257.63	45073257.76	0.0536	0.0412
Mercury	118694-04-15 20:36 G	45073258.27	45073258.36	45073258.45	0.0536	0.0381
Venus	118700-02-13 23:43 G	45075388.31	45075388.49	45075388.67	0.0489	0.0235
Mercury	118700-05-28 02:36 G	45075491.44	45075491.61	45075491.78	0.0491	0.0043
Mercury	118705-11-05 11:29 G	45077478.95	45077478.98	45077479.01	0.0539	0.0522
Venus	118705-12-19 18:12 G	45077523.06	45077523.26	45077523.46	0.0538	0.0072
Mercury	118706-02-02 23:58 G	45077568.37	45077568.50	45077568.62	0.0536	0.0214
Mercury	118712-03-16 03:05 G	45079801.47	45079801.63	45079801.79	0.0491	0.0124

Earth	118712-03-23 21:48 G	45079809.25	45079809.41	45079809.60	0.0491	0.0323
Moon	118712-03-24 01:53 G	45079809.39	45079809.58	45079809.77	0.0491	0.0295 *
Venus	118712-06-13 05:15 G	45079890.64	45079890.72	45079890.80	0.0494	0.0451
Venus	118717-08-24 07:24 G	45081788.64	45081788.81	45081788.98	0.0539	0.0281
Mercury	118717-11-22 02:36 G	45081878.47	45081878.61	45081878.74	0.0536	0.0035
Mercury	118724-01-03 03:34 G	45084111.51	45084111.65	45084111.78	0.0491	0.0291
Venus	118724-02-17 08:07 G	45084156.66	45084156.84	45084157.04	0.0492	0.0187
Moon	118724-03-28 03:05 G	45084196.40	45084196.63	45084196.87	0.0493	0.0044
Earth	118724-03-28 06:55 G	45084196.56	45084196.79	45084197.02	0.0493	0.0074 *
Mercury	118724-04-02 01:53 G	45084201.49	45084201.58	45084201.67	0.0493	0.0409
Mars	118726-08-02 01:10 G	45085053.53	45085053.55	45085053.58	0.0527	0.0524
Mercury	118729-09-10 05:00 G	45086188.58	45086188.71	45086188.84	0.0537	0.0153
Earth	118729-09-18 09:48 G	45086196.75	45086196.91	45086197.08	0.0537	0.0372
Moon	118729-09-18 12:55 G	45086196.87	45086197.04	45086197.21	0.0537	0.0339 *
Mercury	118735-10-22 03:48 G	45088421.60	45088421.66	45088421.71	0.0490	0.0459
Venus	118735-10-23 10:31 G	45088422.73	45088422.94	45088423.14	0.0490	0.0082
Mercury	118736-01-20 01:24 G	45088511.41	45088511.56	45088511.71	0.0492	0.0226
Earth	118736-04-01 14:22 G	45088583.88	45088584.10	45088584.32	0.0494	0.0173
Moon	118736-04-01 17:58 G	45088584.03	45088584.25	45088584.47	0.0494	0.0193 *
Mercury	118741-06-29 06:55 G	45090498.69	45090498.79	45090498.90	0.0539	0.0348
Venus	118741-08-27 09:05 G	45090557.71	45090557.88	45090558.06	0.0537	0.0262
Moon	118741-09-23 09:05 G	45090584.64	45090584.88	45090585.12	0.0536	0.0021
Earth	118741-09-23 12:12 G	45090584.78	45090585.01	45090585.24	0.0536	0.0048 *
Mercury	118741-09-26 18:55 G	45090588.20	45090588.29	45090588.39	0.0536	0.0378
Venus	118747-06-28 13:53 G	45092688.93	45092689.08	45092689.22	0.0488	0.0341
Mercury	118747-11-08 01:24 G	45092821.40	45092821.56	45092821.73	0.0491	0.0055
Moon	118748-04-05 20:36 G	45092971.24	45092971.36	45092971.48	0.0496	0.0422
Earth	118748-04-05 23:29 G	45092971.36	45092971.48	45092971.60	0.0496	0.0423 *
Mercury	118753-04-17 09:34 G	45094808.88	45094808.90	45094808.93	0.0539	0.0528
Venus	118753-05-01 23:58 G	45094823.30	45094823.50	45094823.70	0.0539	0.0083

Mercury	118753-07-15 22:17 G	45094898.30	45094898.43	45094898.55	0.0537	0.0211
Earth	118753-09-28 18:41 G	45094973.09	45094973.28	45094973.48	0.0534	0.0283
Moon	118753-09-28 21:19 G	45094973.20	45094973.39	45094973.59	0.0534	0.0278 *
Mercury	118759-08-27 01:24 G	45097131.40	45097131.56	45097131.73	0.0491	0.0120
Venus	118759-10-25 17:43 G	45097191.10	45097191.24	45097191.39	0.0492	0.0339
Venus	118765-01-04 15:05 G	45099089.01	45099089.13	45099089.25	0.0541	0.0427
Mercury	118765-05-04 01:24 G	45099208.42	45099208.56	45099208.70	0.0537	0.0042
Mercury	118771-06-15 02:07 G	45101441.45	45101441.59	45101441.72	0.0490	0.0283
Venus	118771-06-30 21:05 G	45101457.18	45101457.38	45101457.59	0.0491	0.0078
Mercury	118771-09-13 00:27 G	45101531.43	45101531.52	45101531.61	0.0493	0.0415
Mercury	118777-02-20 04:03 G	45103518.54	45103518.67	45103518.80	0.0537	0.0141
Venus	118777-05-05 05:00 G	45103592.62	45103592.71	45103592.81	0.0535	0.0471
Venus	118783-03-06 00:27 G	45105723.33	45105723.52	45105723.71	0.0489	0.0186
Mercury	118783-04-03 02:36 G	45105751.55	45105751.61	45105751.68	0.0490	0.0447
Mercury	118783-07-02 00:27 G	45105841.37	45105841.52	45105841.67	0.0492	0.0241
Mercury	118788-12-09 06:12 G	45107828.66	45107828.76	45107828.88	0.0538	0.0329
Venus	118789-01-07 18:27 G	45107858.08	45107858.27	45107858.47	0.0537	0.0125
Mercury	118789-03-08 18:12 G	45107918.17	45107918.26	45107918.35	0.0535	0.0395
Mars	118791-05-01 17:15 G	45108701.95	45108702.22	45108702.50	0.0502	0.0025
Venus	118794-11-09 03:19 G	45109989.57	45109989.64	45109989.73	0.0487	0.0446
Earth	118795-03-24 07:24 G	45110124.65	45110124.81	45110124.99	0.0491	0.0336
Moon	118795-03-24 09:48 G	45110124.73	45110124.91	45110125.09	0.0491	0.0326 *
Mercury	118795-04-20 00:12 G	45110151.35	45110151.51	45110151.68	0.0491	0.0065
Venus	118800-09-12 05:58 G	45112123.57	45112123.75	45112123.93	0.0540	0.0235
Mercury	118800-09-27 08:07 G	45112138.82	45112138.84	45112138.86	0.0539	0.0529
Mercury	118800-12-25 20:36 G	45112228.24	45112228.36	45112228.49	0.0537	0.0210
Mercury	118807-02-06 00:27 G	45114461.36	45114461.52	45114461.69	0.0491	0.0106
Venus	118807-03-08 07:53 G	45114491.65	45114491.83	45114492.02	0.0491	0.0233
Moon	118807-03-28 14:36 G	45114511.89	45114512.11	45114512.33	0.0492	0.0106
Earth	118807-03-28 15:48 G	45114511.93	45114512.16	45114512.39	0.0492	0.0092 *

Earth	118812-09-17 12:27 G	45116511.88	45116512.02	45116512.18	0.0538	0.0408
Moon	118812-09-17 16:31 G	45116512.05	45116512.19	45116512.34	0.0538	0.0419 *
Mercury	118812-10-13 23:43 G	45116538.35	45116538.49	45116538.63	0.0537	0.0038
Venus	118818-11-11 10:17 G	45118757.72	45118757.93	45118758.14	0.0490	0.0033
Mercury	118818-11-25 00:41 G	45118771.39	45118771.53	45118771.67	0.0490	0.0277
Mercury	118819-02-22 22:46 G	45118861.37	45118861.45	45118861.54	0.0493	0.0421
Earth	118819-04-01 23:15 G	45118899.25	45118899.47	45118899.70	0.0494	0.0153
Moon	118819-04-01 23:58 G	45118899.27	45118899.50	45118899.74	0.0494	0.0124 *
Mercury	118824-08-02 02:51 G	45120848.49	45120848.62	45120848.75	0.0538	0.0133
Venus	118824-09-15 12:55 G	45120892.88	45120893.04	45120893.20	0.0537	0.0331
Moon	118824-09-22 16:46 G	45120899.97	45120900.20	45120900.43	0.0536	0.0106
Earth	118824-09-22 20:51 G	45120900.14	45120900.37	45120900.60	0.0536	0.0070 *
Venus	118830-07-17 13:53 G	45123023.92	45123024.08	45123024.25	0.0488	0.0292
Mercury	118830-09-13 01:24 G	45123081.49	45123081.56	45123081.63	0.0490	0.0438
Mercury	118830-12-11 23:00 G	45123171.32	45123171.46	45123171.61	0.0492	0.0248
Moon	118831-04-06 09:19 G	45123286.75	45123286.89	45123287.04	0.0496	0.0381
Earth	118831-04-06 09:19 G	45123286.76	45123286.89	45123287.03	0.0496	0.0404 *
Venus	118836-05-21 02:51 G	45125158.42	45125158.62	45125158.82	0.0538	0.0020
Mercury	118836-05-21 05:29 G	45125158.62	45125158.73	45125158.84	0.0538	0.0316 *
Mercury	118836-08-18 17:15 G	45125248.14	45125248.22	45125248.31	0.0535	0.0407
Earth	118836-09-28 00:55 G	45125288.34	45125288.54	45125288.75	0.0534	0.0256
Moon	118836-09-28 05:00 G	45125288.50	45125288.71	45125288.93	0.0534	0.0225 *
Mercury	118842-09-29 23:15 G	45127481.30	45127481.47	45127481.64	0.0492	0.0077
Venus	118842-11-13 18:55 G	45127526.17	45127526.29	45127526.42	0.0493	0.0391
Mars	118845-01-20 03:48 G	45128324.47	45128324.66	45128324.86	0.0525	0.0366
Venus	118848-01-24 15:48 G	45129424.02	45129424.16	45129424.31	0.0540	0.0371
Mercury	118848-03-09 07:39 G	45129468.78	45129468.82	45129468.87	0.0539	0.0506
Mercury	118848-06-06 20:07 G	45129558.22	45129558.34	45129558.46	0.0536	0.0230
Mercury	118854-07-18 23:29 G	45131791.31	45131791.48	45131791.64	0.0491	0.0095
Venus	118854-07-19 21:48 G	45131792.21	45131792.41	45131792.61	0.0491	0.0125

Mercury	118860-03-25 22:03 G	45133868.29	45133868.42	45133868.56	0.0537	0.0042
Venus	118860-05-24 03:48 G	45133927.61	45133927.66	45133927.70	0.0535	0.0520
Venus	118866-03-25 00:55 G	45136058.34	45136058.54	45136058.74	0.0489	0.0137
Mercury	118866-05-06 23:43 G	45136101.35	45136101.49	45136101.63	0.0490	0.0261
Mercury	118866-08-04 22:03 G	45136191.34	45136191.42	45136191.50	0.0492	0.0435
Mercury	118872-01-13 00:55 G	45138178.41	45138178.54	45138178.68	0.0538	0.0139
Venus	118872-01-27 18:27 G	45138193.08	45138193.27	45138193.46	0.0538	0.0179
Venus	118877-11-28 03:19 G	45140324.52	45140324.64	45140324.76	0.0487	0.0398
Mercury	118878-02-22 23:58 G	45140411.42	45140411.50	45140411.58	0.0489	0.0430
Moon	118878-03-23 16:03 G	45140440.02	45140440.17	45140440.32	0.0490	0.0381
Earth	118878-03-23 16:31 G	45140440.03	45140440.19	45140440.36	0.0490	0.0355 *
Mercury	118878-05-23 21:34 G	45140501.25	45140501.40	45140501.54	0.0492	0.0254
Venus	118883-10-02 09:48 G	45142458.72	45142458.91	45142459.10	0.0540	0.0166
Mercury	118883-11-01 04:03 G	45142488.56	45142488.67	45142488.78	0.0539	0.0312
Mercury	118884-01-29 16:03 G	45142578.09	45142578.17	45142578.26	0.0536	0.0414
Mercury	118890-03-11 21:48 G	45144811.24	45144811.41	45144811.58	0.0491	0.0084
Venus	118890-03-27 07:53 G	45144826.67	45144826.83	45144827.01	0.0492	0.0283
Earth	118890-03-28 01:24 G	45144827.33	45144827.56	45144827.79	0.0492	0.0111
Moon	118890-03-28 02:36 G	45144827.39	45144827.61	45144827.83	0.0492	0.0124 *
Venus	118895-06-06 23:29 G	45146724.43	45146724.48	45146724.55	0.0541	0.0516
Mercury	118895-08-20 06:27 G	45146798.72	45146798.77	45146798.83	0.0539	0.0497
Earth	118895-09-17 19:39 G	45146827.19	45146827.32	45146827.46	0.0538	0.0431
Moon	118895-09-17 21:48 G	45146827.28	45146827.41	45146827.53	0.0538	0.0457 *
Mercury	118895-11-17 18:55 G	45146888.17	45146888.29	45146888.42	0.0536	0.0240
Venus	118901-12-01 11:15 G	45149092.76	45149092.97	45149093.18	0.0490	0.0019
Mercury	118901-12-29 22:03 G	45149121.26	45149121.42	45149121.59	0.0491	0.0086
Moon	118902-04-02 08:22 G	45149214.63	45149214.85	45149215.09	0.0494	0.0147
Earth	118902-04-02 10:31 G	45149214.72	45149214.94	45149215.17	0.0494	0.0138 *
Mercury	118907-09-06 21:34 G	45151198.27	45151198.40	45151198.54	0.0537	0.0062
Moon	118907-09-23 22:03 G	45151215.20	45151215.42	45151215.65	0.0536	0.0106

Earth	118907-09-23 23:58 G	45151215.27	45151215.50	45151215.73	0.0536	0.0107	*
Venus	118907-10-06 13:39 G	45151227.93	45151228.07	45151228.21	0.0536	0.0387	
Venus	118913-08-06 14:51 G	45153358.94	45153359.12	45153359.29	0.0488	0.0243	
Mercury	118913-10-17 22:31 G	45153431.30	45153431.44	45153431.59	0.0490	0.0251	
Mercury	118914-01-15 20:51 G	45153521.30	45153521.37	45153521.44	0.0492	0.0446	
Earth	118914-04-06 19:24 G	45153602.17	45153602.31	45153602.46	0.0495	0.0386	
Moon	118914-04-06 22:17 G	45153602.31	45153602.43	45153602.55	0.0495	0.0416	*
Venus	118919-06-11 00:41 G	45155493.33	45155493.53	45155493.73	0.0539	0.0028	
Mercury	118919-06-25 23:29 G	45155508.35	45155508.48	45155508.61	0.0538	0.0138	
Earth	118919-09-28 23:58 G	45155603.29	45155603.50	45155603.72	0.0535	0.0209	
Moon	118919-09-29 02:07 G	45155603.38	45155603.59	45155603.81	0.0535	0.0237	*
Mercury	118925-08-05 23:15 G	45157741.38	45157741.47	45157741.56	0.0489	0.0414	
Mercury	118925-11-03 20:51 G	45157831.23	45157831.37	45157831.51	0.0492	0.0271	
Venus	118925-12-03 19:10 G	45157861.21	45157861.30	45157861.39	0.0492	0.0440	
Venus	118931-02-13 14:36 G	45159758.95	45159759.11	45159759.27	0.0541	0.0322	
Mercury	118931-04-14 02:07 G	45159818.48	45159818.59	45159818.70	0.0539	0.0319	
Mercury	118931-07-12 14:07 G	45159908.01	45159908.09	45159908.18	0.0536	0.0409	
Earth	118931-10-04 05:29 G	45159991.72	45159991.73	45159991.76	0.0533	0.0531	
Venus	118937-08-08 21:05 G	45162127.19	45162127.38	45162127.57	0.0491	0.0173	
Mercury	118937-08-22 20:22 G	45162141.19	45162141.35	45162141.52	0.0491	0.0091	
Mercury	118943-01-31 05:00 G	45164128.66	45164128.71	45164128.76	0.0540	0.0495	
Mercury	118943-04-30 17:29 G	45164218.12	45164218.23	45164218.36	0.0537	0.0244	
Mars	118945-07-27 06:41 G	45165036.64	45165036.78	45165036.93	0.0502	0.0428	
Venus	118949-04-14 00:27 G	45166393.32	45166393.52	45166393.72	0.0489	0.0089	
Mercury	118949-06-10 20:51 G	45166451.20	45166451.37	45166451.53	0.0491	0.0078	
Mercury	118955-02-16 20:36 G	45168528.22	45168528.36	45168528.49	0.0537	0.0068	
Venus	118955-02-16 21:19 G	45168528.22	45168528.39	45168528.57	0.0537	0.0244	*
Venus	118960-12-18 03:48 G	45170659.52	45170659.66	45170659.80	0.0488	0.0350	
Moon	118961-03-23 23:29 G	45170755.32	45170755.48	45170755.65	0.0490	0.0350	
Earth	118961-03-24 03:05 G	45170755.48	45170755.63	45170755.79	0.0490	0.0370	*

Mercury	118961-03-29 21:05 G	45170761.24	45170761.38	45170761.53	0.0490	0.0245
Mercury	118961-06-27 19:24 G	45170851.25	45170851.31	45170851.38	0.0493	0.0455
Venus	118966-10-22 10:31 G	45172793.74	45172793.94	45172794.14	0.0539	0.0108
Mercury	118966-12-05 23:00 G	45172838.33	45172838.46	45172838.60	0.0538	0.0116
Mercury	118973-01-15 21:48 G	45175071.33	45175071.41	45175071.51	0.0489	0.0406
Earth	118973-03-28 11:58 G	45175142.77	45175143.00	45175143.22	0.0491	0.0127
Moon	118973-03-28 15:34 G	45175142.93	45175143.15	45175143.38	0.0491	0.0095 *
Mercury	118973-04-15 19:24 G	45175161.18	45175161.31	45175161.45	0.0492	0.0281
Venus	118973-04-16 08:36 G	45175161.71	45175161.86	45175162.01	0.0492	0.0333
Venus	118978-06-26 20:36 G	45177059.27	45177059.36	45177059.46	0.0541	0.0474
Moon	118978-09-17 15:48 G	45177142.03	45177142.16	45177142.28	0.0539	0.0454
Earth	118978-09-17 16:31 G	45177142.10	45177142.19	45177142.30	0.0539	0.0486 *
Mercury	118978-09-24 00:27 G	45177148.41	45177148.52	45177148.64	0.0539	0.0320
Mercury	118978-12-22 12:41 G	45177237.94	45177238.03	45177238.12	0.0536	0.0407
Venus	118984-12-20 11:43 G	45179427.78	45179427.99	45179428.19	0.0490	0.0069
Mercury	118985-02-01 19:39 G	45179471.15	45179471.32	45179471.48	0.0491	0.0107
Moon	118985-04-01 16:17 G	45179529.95	45179530.18	45179530.40	0.0493	0.0143
Earth	118985-04-01 20:07 G	45179530.11	45179530.34	45179530.56	0.0493	0.0118 *
Mercury	118990-07-13 02:51 G	45181458.58	45181458.62	45181458.67	0.0540	0.0506
Earth	118990-09-22 22:46 G	45181530.23	45181530.45	45181530.67	0.0538	0.0156
Moon	118990-09-22 23:58 G	45181530.28	45181530.50	45181530.72	0.0538	0.0126 *
Mercury	118990-10-10 15:34 G	45181548.03	45181548.15	45181548.27	0.0537	0.0235
Venus	118990-10-25 11:58 G	45181562.88	45181563.00	45181563.11	0.0536	0.0435
Venus	118996-08-25 13:24 G	45183693.88	45183694.06	45183694.25	0.0488	0.0198
Mercury	118996-11-20 19:10 G	45183781.14	45183781.30	45183781.47	0.0490	0.0073
Earth	118997-04-06 02:22 G	45183917.45	45183917.60	45183917.76	0.0494	0.0359
Moon	118997-04-06 05:58 G	45183917.60	45183917.75	45183917.92	0.0494	0.0362 *
Mars	118999-04-17 01:39 G	45184658.30	45184658.57	45184658.84	0.0525	0.0014

120TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 120th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	119002-07-01 03:19	G	45185828.44	45185828.64	45185828.84	0.0539	0.0093	
Mercury	119002-07-30 18:55	G	45185858.15	45185858.29	45185858.42	0.0538	0.0067	
Moon	119002-09-29 05:15	G	45185918.49	45185918.72	45185918.95	0.0536	0.0183	
Earth	119002-09-29 06:41	G	45185918.56	45185918.78	45185919.00	0.0536	0.0180	*
Venus	119008-05-01 16:46	G	45187960.13	45187960.20	45187960.27	0.0487	0.0456	
Mercury	119008-09-09 19:39	G	45188091.18	45188091.32	45188091.47	0.0490	0.0238	
Mercury	119008-12-08 17:43	G	45188181.19	45188181.24	45188181.30	0.0492	0.0459	
Venus	119008-12-23 18:12	G	45188196.24	45188196.26	45188196.29	0.0493	0.0487	
Venus	119014-03-05 17:29	G	45190094.06	45190094.23	45190094.41	0.0540	0.0257	
Mercury	119014-05-18 21:34	G	45190168.27	45190168.40	45190168.54	0.0538	0.0113	
Earth	119014-10-04 11:43	G	45190306.92	45190306.99	45190307.07	0.0533	0.0503	
Moon	119014-10-04 13:10	G	45190306.96	45190307.05	45190307.15	0.0533	0.0478	*
Mercury	119020-06-28 20:07	G	45192401.25	45192401.34	45192401.44	0.0490	0.0403	
Venus	119020-08-28 21:19	G	45192462.21	45192462.39	45192462.57	0.0491	0.0222	
Mercury	119020-09-26 17:43	G	45192491.11	45192491.24	45192491.38	0.0492	0.0284	
Mercury	119026-03-06 23:58	G	45194478.39	45194478.50	45194478.62	0.0539	0.0298	
Mercury	119026-06-04 11:58	G	45194567.93	45194568.00	45194568.09	0.0536	0.0427	
Venus	119032-05-04 00:41	G	45196728.33	45196728.53	45196728.74	0.0489	0.0040	
Mercury	119032-07-15 18:12	G	45196801.09	45196801.26	45196801.42	0.0491	0.0114	

Mercury	119037-12-24 01:10 G	45198788.51	45198788.55	45198788.60	0.0539	0.0507
Venus	119038-03-08 17:58 G	45198863.08	45198863.25	45198863.42	0.0537	0.0285
Mercury	119038-03-23 13:53 G	45198877.96	45198878.08	45198878.21	0.0537	0.0234
Venus	119044-01-08 03:48 G	45200994.50	45200994.66	45200994.83	0.0488	0.0301
Moon	119044-03-24 08:51 G	45201070.74	45201070.87	45201071.02	0.0489	0.0387
Earth	119044-03-24 12:41 G	45201070.89	45201071.03	45201071.18	0.0489	0.0388 *
Mercury	119044-05-03 18:12 G	45201111.10	45201111.26	45201111.43	0.0490	0.0059
Venus	119049-11-11 07:24 G	45203128.61	45203128.81	45203129.01	0.0539	0.0065
Mercury	119050-01-09 16:46 G	45203188.06	45203188.20	45203188.34	0.0538	0.0056
Mercury	119056-02-20 17:58 G	45205421.11	45205421.25	45205421.40	0.0490	0.0235
Earth	119056-03-28 17:58 G	45205458.03	45205458.25	45205458.47	0.0491	0.0152
Moon	119056-03-28 21:48 G	45205458.19	45205458.41	45205458.63	0.0491	0.0177 *
Venus	119056-05-06 06:27 G	45205496.65	45205496.77	45205496.91	0.0492	0.0375
Mercury	119056-05-20 16:03 G	45205511.12	45205511.17	45205511.23	0.0492	0.0461
Venus	119061-07-16 22:17 G	45207394.31	45207394.43	45207394.56	0.0541	0.0414
Moon	119061-09-17 18:12 G	45207457.20	45207457.26	45207457.32	0.0540	0.0520
Earth	119061-09-17 21:34 G	45207457.34	45207457.40	45207457.46	0.0540	0.0518
Mercury	119061-10-28 19:53 G	45207498.19	45207498.33	45207498.46	0.0538	0.0118
Mars	119064-01-16 21:48 G	45208308.21	45208308.41	45208308.61	0.0505	0.0346
Mercury	119067-12-09 18:41 G	45209731.18	45209731.28	45209731.37	0.0489	0.0398
Venus	119068-01-10 09:48 G	45209762.71	45209762.91	45209763.11	0.0490	0.0112
Mercury	119068-03-08 16:03 G	45209821.03	45209821.17	45209821.31	0.0492	0.0286
Moon	119068-04-01 22:31 G	45209845.21	45209845.44	45209845.67	0.0492	0.0057
Earth	119068-04-02 02:22 G	45209845.37	45209845.60	45209845.83	0.0492	0.0091 *
Mercury	119073-08-16 22:31 G	45211808.33	45211808.44	45211808.56	0.0539	0.0297
Earth	119073-09-23 04:31 G	45211845.47	45211845.69	45211845.91	0.0538	0.0184
Moon	119073-09-23 07:24 G	45211845.61	45211845.81	45211846.02	0.0538	0.0215 *
Mercury	119073-11-14 10:31 G	45211897.87	45211897.94	45211898.02	0.0536	0.0429
Venus	119073-11-14 13:53 G	45211898.01	45211898.08	45211898.16	0.0536	0.0496 *
Venus	119079-09-15 12:41 G	45214028.84	45214029.03	45214029.23	0.0489	0.0152

Mercury	119079-12-26 16:17 G	45214131.01	45214131.18	45214131.34	0.0491	0.0114
Earth	119080-04-06 11:00 G	45214232.80	45214232.96	45214233.14	0.0494	0.0339
Moon	119080-04-06 14:36 G	45214232.94	45214233.11	45214233.30	0.0494	0.0318 *
Mercury	119085-06-05 00:41 G	45216118.48	45216118.53	45216118.59	0.0539	0.0486
Venus	119085-07-20 03:19 G	45216163.45	45216163.64	45216163.84	0.0538	0.0148
Mercury	119085-09-02 13:24 G	45216207.94	45216208.06	45216208.18	0.0537	0.0252
Moon	119085-09-28 05:58 G	45216233.52	45216233.75	45216233.98	0.0536	0.0114
Earth	119085-09-28 08:36 G	45216233.64	45216233.86	45216234.09	0.0536	0.0139 *
Venus	119091-05-21 16:31 G	45218295.08	45218295.19	45218295.30	0.0487	0.0409
Mercury	119091-10-14 16:46 G	45218441.03	45218441.20	45218441.37	0.0490	0.0053
Venus	119097-03-24 13:10 G	45220428.87	45220429.05	45220429.24	0.0540	0.0219
Mercury	119097-06-21 15:05 G	45220517.99	45220518.13	45220518.27	0.0537	0.0053
Earth	119097-10-03 07:10 G	45220621.67	45220621.80	45220621.93	0.0534	0.0444
Moon	119097-10-03 09:34 G	45220621.79	45220621.90	45220622.02	0.0534	0.0457 *
Mercury	119103-08-03 17:00 G	45222751.06	45222751.21	45222751.36	0.0490	0.0222
Venus	119103-09-18 20:36 G	45222797.19	45222797.36	45222797.53	0.0491	0.0270
Mercury	119103-11-01 15:05 G	45222841.09	45222841.13	45222841.17	0.0492	0.0474
Mercury	119109-04-10 17:29 G	45224828.10	45224828.23	45224828.37	0.0538	0.0131
Mercury	119115-05-22 16:46 G	45227061.11	45227061.20	45227061.30	0.0489	0.0397
Venus	119115-05-24 21:48 G	45227063.21	45227063.41	45227063.62	0.0489	0.0006
Mercury	119115-08-20 14:07 G	45227150.96	45227151.09	45227151.23	0.0491	0.0286
Mercury	119121-01-27 20:22 G	45229138.24	45229138.35	45229138.47	0.0539	0.0308
Venus	119121-03-28 18:41 G	45229198.13	45229198.28	45229198.44	0.0537	0.0343
Mercury	119121-04-27 08:36 G	45229227.78	45229227.86	45229227.94	0.0536	0.0421
Venus	119127-01-28 00:55 G	45231329.37	45231329.54	45231329.72	0.0488	0.0263
Moon	119127-03-25 14:22 G	45231386.01	45231386.10	45231386.20	0.0489	0.0440
Earth	119127-03-25 17:43 G	45231386.12	45231386.24	45231386.37	0.0489	0.0415 *
Mercury	119127-06-08 14:22 G	45231460.93	45231461.10	45231461.26	0.0491	0.0114
Mercury	119132-11-15 23:00 G	45233448.41	45233448.46	45233448.52	0.0539	0.0489
Venus	119132-12-01 09:05 G	45233463.68	45233463.88	45233464.08	0.0539	0.0005

Mercury	119133-02-13 11:43 G	45233537.87	45233537.99	45233538.11	0.0537	0.0250
Mercury	119139-03-27 14:36 G	45235770.94	45235771.11	45235771.27	0.0491	0.0058
Earth	119139-03-30 01:24 G	45235773.34	45235773.56	45235773.78	0.0491	0.0176
Moon	119139-03-30 04:31 G	45235773.47	45235773.69	45235773.92	0.0491	0.0172 *
Venus	119139-05-27 05:29 G	45235831.62	45235831.73	45235831.83	0.0492	0.0420
Venus	119144-08-05 22:17 G	45237729.28	45237729.43	45237729.58	0.0541	0.0360
Mercury	119144-12-02 14:22 G	45237847.96	45237848.10	45237848.23	0.0537	0.0070
Mercury	119151-01-13 15:05 G	45240080.99	45240081.13	45240081.28	0.0490	0.0221
Venus	119151-01-30 08:51 G	45240097.68	45240097.87	45240098.07	0.0490	0.0158
Moon	119151-04-03 07:53 G	45240160.61	45240160.83	45240161.05	0.0492	0.0093
Earth	119151-04-03 10:31 G	45240160.71	45240160.94	45240161.18	0.0492	0.0069 *
Mercury	119151-04-13 13:10 G	45240171.02	45240171.05	45240171.09	0.0492	0.0477
Mars	119153-07-13 03:19 G	45240992.45	45240992.64	45240992.85	0.0525	0.0357
Mercury	119156-09-20 15:48 G	45242158.03	45242158.16	45242158.30	0.0538	0.0133
Earth	119156-09-22 22:17 G	45242160.23	45242160.43	45242160.64	0.0538	0.0248
Moon	119156-09-23 02:22 G	45242160.39	45242160.60	45242160.81	0.0538	0.0224 *
Venus	119156-12-04 09:05 G	45242232.87	45242232.88	45242232.90	0.0536	0.0533
Venus	119162-10-05 11:43 G	45244363.79	45244363.99	45244364.19	0.0489	0.0107
Mercury	119162-11-01 15:34 G	45244391.05	45244391.15	45244391.25	0.0489	0.0387
Mercury	119163-01-30 12:55 G	45244480.91	45244481.04	45244481.18	0.0492	0.0298
Earth	119163-04-07 18:12 G	45244548.09	45244548.26	45244548.45	0.0493	0.0312
Moon	119163-04-07 21:05 G	45244548.21	45244548.38	45244548.56	0.0493	0.0338 *
Mercury	119168-07-09 18:12 G	45246468.15	45246468.26	45246468.37	0.0539	0.0321
Venus	119168-08-08 22:31 G	45246498.25	45246498.44	45246498.63	0.0538	0.0185
Moon	119168-09-27 22:31 G	45246548.21	45246548.44	45246548.67	0.0537	0.0112
Earth	119168-09-28 02:36 G	45246548.38	45246548.61	45246548.84	0.0537	0.0076 *
Mercury	119168-10-07 06:12 G	45246557.68	45246557.76	45246557.85	0.0536	0.0409
Venus	119174-06-10 12:55 G	45248629.91	45248630.04	45248630.18	0.0487	0.0375
Mercury	119174-11-18 12:12 G	45248790.85	45248791.01	45248791.18	0.0491	0.0112
Venus	119180-04-13 12:55 G	45250763.85	45250764.04	45250764.23	0.0540	0.0166

Mercury	119180-04-27 20:51 G	45250778.32	45250778.37	45250778.42	0.0540	0.0503
Mercury	119180-07-26 09:34 G	45250867.78	45250867.90	45250868.02	0.0537	0.0239
Earth	119180-10-03 09:19 G	45250936.75	45250936.89	45250937.05	0.0535	0.0406
Moon	119180-10-03 12:55 G	45250936.91	45250937.04	45250937.19	0.0535	0.0425 *
Mercury	119186-09-06 12:27 G	45253100.86	45253101.02	45253101.19	0.0490	0.0060
Venus	119186-10-07 17:00 G	45253132.05	45253132.21	45253132.37	0.0491	0.0306
Venus	119191-12-18 03:19 G	45255029.58	45255029.64	45255029.70	0.0542	0.0517
Mercury	119192-05-14 12:27 G	45255177.89	45255178.02	45255178.16	0.0538	0.0067
Venus	119198-06-12 19:53 G	45257398.12	45257398.33	45257398.53	0.0490	0.0042
Mercury	119198-06-25 12:55 G	45257410.89	45257411.04	45257411.19	0.0490	0.0227
Mercury	119198-09-23 10:46 G	45257500.91	45257500.95	45257501.00	0.0492	0.0469
Mercury	119204-03-02 15:05 G	45259488.00	45259488.13	45259488.26	0.0538	0.0118
Venus	119204-04-16 17:58 G	45259533.11	45259533.25	45259533.38	0.0537	0.0395
Venus	119210-02-15 23:29 G	45261664.30	45261664.48	45261664.67	0.0488	0.0219
Moon	119210-03-24 22:03 G	45261701.30	45261701.42	45261701.55	0.0489	0.0411
Earth	119210-03-25 01:10 G	45261701.45	45261701.55	45261701.65	0.0489	0.0438 *
Mercury	119210-04-13 13:39 G	45261720.97	45261721.07	45261721.17	0.0489	0.0388
Mercury	119210-07-12 11:00 G	45261810.83	45261810.96	45261811.10	0.0492	0.0297
Mercury	119215-12-20 16:31 G	45263798.08	45263798.19	45263798.30	0.0539	0.0324
Venus	119215-12-21 04:03 G	45263798.47	45263798.67	45263798.88	0.0539	0.0033
Mercury	119216-03-19 04:46 G	45263887.61	45263887.70	45263887.79	0.0536	0.0405
Mars	119218-04-12 05:43 G	45264641.47	45264641.74	45264642.01	0.0505	0.0087
Venus	119221-10-22 02:22 G	45265930.57	45265930.60	45265930.63	0.0487	0.0480
Earth	119222-03-29 08:22 G	45266088.64	45266088.85	45266089.06	0.0490	0.0201
Moon	119222-03-29 11:00 G	45266088.74	45266088.96	45266089.19	0.0490	0.0190 *
Mercury	119222-04-30 11:00 G	45266120.80	45266120.96	45266121.12	0.0491	0.0122
Venus	119222-06-15 03:34 G	45266166.59	45266166.65	45266166.72	0.0492	0.0465
Venus	119227-08-25 16:46 G	45268064.04	45268064.20	45268064.36	0.0541	0.0326
Mercury	119227-10-08 18:27 G	45268108.24	45268108.27	45268108.31	0.0540	0.0517
Mercury	119228-01-06 07:10 G	45268197.68	45268197.80	45268197.93	0.0537	0.0226

Mercury	119234-02-16 10:31 G	45270430.77	45270430.94	45270431.10	0.0490	0.0063
Venus	119234-02-18 04:31 G	45270432.50	45270432.69	45270432.88	0.0490	0.0191
Moon	119234-04-02 11:00 G	45270475.73	45270475.96	45270476.18	0.0491	0.0023
Earth	119234-04-02 12:55 G	45270475.80	45270476.04	45270476.27	0.0491	0.0036 *
Earth	119239-09-22 22:31 G	45272475.25	45272475.44	45272475.64	0.0539	0.0291
Moon	119239-09-23 02:22 G	45272475.40	45272475.60	45272475.79	0.0539	0.0291 *
Mercury	119239-10-25 10:17 G	45272507.79	45272507.93	45272508.07	0.0538	0.0051
Venus	119245-10-24 07:24 G	45274698.61	45274698.81	45274699.02	0.0489	0.0073
Mercury	119245-12-05 10:46 G	45274740.80	45274740.95	45274741.10	0.0490	0.0230
Mercury	119246-03-05 08:36 G	45274830.81	45274830.86	45274830.92	0.0492	0.0464
Earth	119246-04-06 20:51 G	45274863.17	45274863.37	45274863.56	0.0493	0.0276
Moon	119246-04-06 22:03 G	45274863.21	45274863.42	45274863.63	0.0493	0.0246 *
Mercury	119251-08-13 13:10 G	45276817.91	45276818.05	45276818.18	0.0538	0.0126
Venus	119251-08-28 23:00 G	45276833.28	45276833.46	45276833.64	0.0538	0.0240
Moon	119251-09-28 01:53 G	45276863.35	45276863.58	45276863.81	0.0537	0.0010
Earth	119251-09-28 05:43 G	45276863.51	45276863.74	45276863.97	0.0537	0.0042 *
Venus	119257-06-29 10:17 G	45278964.78	45278964.93	45278965.08	0.0487	0.0336
Mercury	119257-09-23 11:15 G	45279050.88	45279050.97	45279051.07	0.0489	0.0396
Mercury	119257-12-22 08:22 G	45279140.72	45279140.85	45279140.99	0.0492	0.0288
Venus	119263-05-03 12:27 G	45281098.82	45281099.02	45281099.22	0.0540	0.0113
Mercury	119263-06-01 15:34 G	45281128.04	45281128.15	45281128.26	0.0539	0.0311
Mercury	119263-08-30 03:48 G	45281217.57	45281217.66	45281217.74	0.0536	0.0417
Earth	119263-10-03 10:03 G	45281251.75	45281251.92	45281252.09	0.0535	0.0363
Moon	119263-10-03 13:53 G	45281251.91	45281252.08	45281252.27	0.0535	0.0335 *
Mercury	119269-10-10 08:51 G	45283450.71	45283450.87	45283451.04	0.0491	0.0119
Venus	119269-10-26 15:05 G	45283467.00	45283467.13	45283467.28	0.0491	0.0351
Venus	119275-01-05 22:46 G	45285364.36	45285364.45	45285364.54	0.0541	0.0480
Mercury	119275-03-20 16:46 G	45285438.17	45285438.20	45285438.24	0.0539	0.0518
Mercury	119275-06-18 05:29 G	45285527.61	45285527.73	45285527.86	0.0537	0.0224
Venus	119281-07-01 17:43 G	45287733.04	45287733.24	45287733.45	0.0490	0.0084

Mercury	119281-07-29 09:05 G	45287760.71	45287760.88	45287761.04	0.0490	0.0054
Mercury	119287-04-06 08:07 G	45289837.70	45289837.84	45289837.97	0.0538	0.0042
Venus	119287-05-06 12:12 G	45289867.89	45289868.01	45289868.13	0.0537	0.0428
Venus	119293-03-06 18:55 G	45291999.10	45291999.29	45291999.48	0.0488	0.0188
Earth	119293-03-24 03:05 G	45292016.58	45292016.63	45292016.70	0.0488	0.0469
Mercury	119293-05-17 08:36 G	45292070.72	45292070.86	45292071.01	0.0489	0.0235
Mercury	119293-08-15 06:12 G	45292160.71	45292160.76	45292160.83	0.0492	0.0459
Venus	119299-01-09 02:36 G	45294133.41	45294133.61	45294133.81	0.0539	0.0078
Mercury	119299-01-23 10:46 G	45294147.82	45294147.95	45294148.08	0.0539	0.0142
Venus	119304-11-10 21:48 G	45296265.34	45296265.41	45296265.50	0.0487	0.0449
Mercury	119305-03-06 09:05 G	45296380.79	45296380.88	45296380.98	0.0489	0.0399
Earth	119305-03-29 10:17 G	45296403.73	45296403.93	45296404.14	0.0489	0.0234
Moon	119305-03-29 11:29 G	45296403.78	45296403.98	45296404.19	0.0489	0.0257 *
Mercury	119305-06-04 06:12 G	45296470.63	45296470.76	45296470.90	0.0491	0.0283
Venus	119310-09-14 17:00 G	45298399.04	45298399.21	45298399.39	0.0541	0.0274
Mercury	119310-11-12 13:24 G	45298457.95	45298458.06	45298458.17	0.0539	0.0321
Mercury	119311-02-10 01:53 G	45298547.49	45298547.58	45298547.66	0.0536	0.0410
Venus	119317-03-10 01:53 G	45300767.40	45300767.58	45300767.76	0.0491	0.0231
Mercury	119317-03-23 06:27 G	45300780.60	45300780.77	45300780.93	0.0491	0.0108
Moon	119317-04-02 17:00 G	45300790.99	45300791.21	45300791.44	0.0491	0.0002
Earth	119317-04-02 17:43 G	45300791.01	45300791.24	45300791.48	0.0491	0.0009 *
Mercury	119322-08-31 15:48 G	45302768.12	45302768.16	45302768.20	0.0540	0.0508
Earth	119322-09-22 23:29 G	45302790.30	45302790.48	45302790.67	0.0539	0.0332
Moon	119322-09-23 03:05 G	45302790.46	45302790.63	45302790.81	0.0539	0.0353 *
Mercury	119322-11-29 04:31 G	45302857.57	45302857.69	45302857.82	0.0537	0.0235
Venus	119328-11-13 05:15 G	45305033.51	45305033.72	45305033.93	0.0489	0.0032
Mercury	119329-01-09 06:55 G	45305090.62	45305090.79	45305090.96	0.0490	0.0058
Earth	119329-04-07 03:05 G	45305178.43	45305178.63	45305178.83	0.0493	0.0249
Moon	119329-04-07 03:34 G	45305178.45	45305178.65	45305178.86	0.0493	0.0269 *
Mercury	119334-09-17 06:27 G	45307167.63	45307167.77	45307167.91	0.0537	0.0038

Venus	119334-09-17 18:27 G	45307168.10	45307168.27	45307168.45	0.0537	0.0278
Moon	119334-09-27 20:36 G	45307178.14	45307178.36	45307178.59	0.0537	0.0013
Earth	119334-09-27 23:58 G	45307178.27	45307178.50	45307178.73	0.0537	0.0018 *
Venus	119340-07-19 08:07 G	45309299.68	45309299.84	45309300.00	0.0488	0.0296
Mercury	119340-10-28 07:10 G	45309400.66	45309400.80	45309400.95	0.0490	0.0227
Mercury	119341-01-26 05:00 G	45309490.66	45309490.71	45309490.76	0.0492	0.0468
Earth	119341-04-11 11:00 G	45309565.95	45309565.96	45309565.99	0.0494	0.0491
Venus	119346-05-23 07:10 G	45311433.60	45311433.80	45311434.00	0.0539	0.0080
Mercury	119346-07-06 08:36 G	45311477.73	45311477.86	45311478.00	0.0538	0.0152
Earth	119346-10-03 02:51 G	45311566.43	45311566.62	45311566.82	0.0535	0.0298
Moon	119346-10-03 06:12 G	45311566.58	45311566.76	45311566.95	0.0535	0.0333 *
Mercury	119352-08-16 06:55 G	45313710.70	45313710.79	45313710.89	0.0489	0.0403
Mercury	119352-11-14 04:03 G	45313800.54	45313800.67	45313800.81	0.0491	0.0278
Venus	119352-11-15 10:17 G	45313801.81	45313801.93	45313802.07	0.0491	0.0380
Venus	119358-01-25 20:22 G	45315699.24	45315699.35	45315699.47	0.0542	0.0438
Mercury	119358-04-24 11:00 G	45315787.86	45315787.96	45315788.07	0.0539	0.0337
Mercury	119358-07-22 23:29 G	45315877.39	45315877.48	45315877.57	0.0537	0.0397
Venus	119364-07-21 13:24 G	45318067.86	45318068.06	45318068.26	0.0489	0.0115
Mercury	119364-09-02 04:17 G	45318110.51	45318110.68	45318110.84	0.0491	0.0104
Mercury	119370-02-10 13:39 G	45320098.04	45320098.07	45320098.11	0.0540	0.0519
Mercury	119370-05-11 02:36 G	45320187.49	45320187.61	45320187.74	0.0537	0.0226
Venus	119370-05-26 12:27 G	45320202.94	45320203.02	45320203.11	0.0537	0.0482
Mars	119372-07-06 23:29 G	45320975.23	45320975.48	45320975.72	0.0504	0.0220
Moon	119376-03-24 07:39 G	45322331.78	45322331.82	45322331.86	0.0488	0.0477
Venus	119376-03-26 16:03 G	45322333.98	45322334.17	45322334.37	0.0488	0.0150
Mercury	119376-06-21 04:31 G	45322420.52	45322420.69	45322420.85	0.0490	0.0068
Venus	119382-01-29 02:36 G	45324468.42	45324468.61	45324468.81	0.0539	0.0132
Mercury	119382-02-27 05:29 G	45324497.59	45324497.73	45324497.86	0.0538	0.0049
Venus	119387-11-30 19:39 G	45326600.21	45326600.32	45326600.44	0.0487	0.0409
Moon	119388-03-28 16:17 G	45326718.97	45326719.18	45326719.40	0.0489	0.0228

Earth	119388-03-28 16:31 G	45326718.99	45326719.19	45326719.39	0.0489	0.0260 *
Mercury	119388-04-09 05:00 G	45326730.57	45326730.71	45326730.86	0.0490	0.0231
Mercury	119388-07-08 02:51 G	45326820.57	45326820.62	45326820.68	0.0492	0.0464
Venus	119393-10-03 13:39 G	45328733.89	45328734.07	45328734.25	0.0540	0.0233
Mercury	119393-12-16 07:10 G	45328807.67	45328807.80	45328807.93	0.0538	0.0149
Mercury	119400-01-27 05:43 G	45331040.64	45331040.74	45331040.83	0.0489	0.0396
Venus	119400-03-29 23:43 G	45331102.32	45331102.49	45331102.66	0.0491	0.0273
Earth	119400-04-02 23:58 G	45331106.27	45331106.50	45331106.74	0.0491	0.0021
Moon	119400-04-03 00:55 G	45331106.31	45331106.54	45331106.76	0.0491	0.0005 *
Mercury	119400-04-27 02:51 G	45331130.48	45331130.62	45331130.75	0.0491	0.0287
Earth	119405-09-22 17:15 G	45333105.06	45333105.22	45333105.38	0.0539	0.0392
Moon	119405-09-22 19:53 G	45333105.15	45333105.33	45333105.51	0.0539	0.0360 *
Mercury	119405-10-05 09:19 G	45333117.78	45333117.89	45333117.99	0.0539	0.0342
Mercury	119406-01-02 21:34 G	45333207.31	45333207.40	45333207.50	0.0536	0.0391
Venus	119411-12-04 01:10 G	45335368.34	45335368.55	45335368.75	0.0489	0.0008
Mercury	119412-02-14 02:07 G	45335440.43	45335440.59	45335440.76	0.0490	0.0101
Moon	119412-04-07 03:19 G	45335493.43	45335493.64	45335493.86	0.0492	0.0218
Earth	119412-04-07 05:00 G	45335493.50	45335493.71	45335493.92	0.0492	0.0216 *
Mercury	119417-07-24 11:15 G	45337427.96	45337427.97	45337427.99	0.0540	0.0534
Moon	119417-09-27 19:39 G	45337493.09	45337493.32	45337493.54	0.0538	0.0059
Earth	119417-09-27 22:31 G	45337493.21	45337493.44	45337493.67	0.0538	0.0065 *
Venus	119417-10-07 16:31 G	45337503.03	45337503.19	45337503.35	0.0538	0.0322
Mercury	119417-10-22 00:27 G	45337517.39	45337517.52	45337517.65	0.0538	0.0213
Venus	119423-08-09 04:17 G	45339634.51	45339634.68	45339634.85	0.0487	0.0263
Mercury	119423-12-03 02:22 G	45339750.44	45339750.60	45339750.77	0.0490	0.0070
Earth	119424-04-11 12:55 G	45339880.96	45339881.04	45339881.13	0.0493	0.0457
Moon	119424-04-11 14:36 G	45339881.02	45339881.11	45339881.22	0.0493	0.0438 *
Mars	119426-03-27 18:55 G	45340596.08	45340596.29	45340596.50	0.0523	0.0333
Venus	119429-06-12 07:10 G	45341768.60	45341768.80	45341769.01	0.0540	0.0030
Mercury	119429-08-10 03:19 G	45341827.51	45341827.64	45341827.78	0.0538	0.0044

Earth	119429-10-03 05:43 G	45341881.53	45341881.74	45341881.94	0.0536	0.0266
Moon	119429-10-03 08:36 G	45341881.65	45341881.86	45341882.08	0.0536	0.0238 *
Mercury	119435-09-21 02:51 G	45344060.47	45344060.62	45344060.76	0.0490	0.0237
Venus	119435-12-06 08:07 G	45344136.73	45344136.84	45344136.94	0.0491	0.0421
Mercury	119435-12-20 00:27 G	45344150.46	45344150.52	45344150.58	0.0492	0.0455
Venus	119441-02-14 21:05 G	45346034.25	45346034.38	45346034.53	0.0541	0.0382
Mercury	119441-05-29 06:12 G	45346137.62	45346137.76	45346137.89	0.0539	0.0140
Mercury	119447-07-10 03:34 G	45348370.56	45348370.65	45348370.75	0.0489	0.0397
Venus	119447-08-11 11:29 G	45348402.79	45348402.98	45348403.18	0.0490	0.0158
Mercury	119447-10-08 00:41 G	45348460.40	45348460.53	45348460.67	0.0491	0.0284
Mercury	119453-03-17 07:53 G	45350447.73	45350447.83	45350447.94	0.0539	0.0337
Mercury	119453-06-14 20:22 G	45350537.26	45350537.35	45350537.44	0.0536	0.0394
Venus	119453-06-15 10:03 G	45350537.88	45350537.92	45350537.96	0.0536	0.0524
Venus	119459-04-16 14:22 G	45352668.90	45352669.10	45352669.30	0.0488	0.0108
Mercury	119459-07-27 00:55 G	45352770.38	45352770.54	45352770.70	0.0491	0.0111
Mercury	119465-01-03 09:48 G	45354757.89	45354757.91	45354757.93	0.0540	0.0533
Venus	119465-02-17 22:46 G	45354803.26	45354803.45	45354803.64	0.0538	0.0171
Mercury	119465-04-02 22:46 G	45354847.33	45354847.45	45354847.58	0.0537	0.0213
Venus	119470-12-20 16:17 G	45356935.05	45356935.18	45356935.32	0.0487	0.0375
Moon	119471-03-29 18:55 G	45357034.10	45357034.29	45357034.48	0.0489	0.0307
Earth	119471-03-29 20:07 G	45357034.15	45357034.34	45357034.53	0.0489	0.0285 *
Mercury	119471-05-15 00:41 G	45357080.36	45357080.53	45357080.69	0.0490	0.0071
Venus	119476-10-23 11:29 G	45359068.79	45359068.98	45359069.16	0.0541	0.0190
Mercury	119477-01-20 01:24 G	45359157.42	45359157.56	45359157.69	0.0538	0.0030
Mercury	119483-03-03 00:55 G	45361390.40	45361390.54	45361390.69	0.0489	0.0236
Earth	119483-04-03 03:48 G	45361421.42	45361421.66	45361421.89	0.0490	0.0049
Moon	119483-04-03 05:14 G	45361421.49	45361421.72	45361421.94	0.0490	0.0077 *
Venus	119483-04-18 20:07 G	45361437.19	45361437.34	45361437.50	0.0490	0.0307
Mercury	119483-05-31 22:31 G	45361480.38	45361480.44	45361480.51	0.0492	0.0455
Venus	119488-06-28 01:53 G	45363334.57	45363334.58	45363334.59	0.0542	0.0542

Earth	119488-09-21 19:10 G	45363420.17	45363420.30	45363420.45	0.0540	0.0428
Moon	119488-09-21 20:07 G	45363420.22	45363420.34	45363420.47	0.0540	0.0457 *
Mercury	119488-11-08 04:17 G	45363467.54	45363467.68	45363467.81	0.0539	0.0148
Mercury	119494-12-20 01:38 G	45365700.48	45365700.57	45365700.66	0.0489	0.0401
Venus	119494-12-22 23:00 G	45365703.25	45365703.46	45365703.67	0.0489	0.0041
Mercury	119495-03-19 22:31 G	45365790.30	45365790.44	45365790.58	0.0491	0.0278
Moon	119495-04-07 08:50 G	45365808.65	45365808.87	45365809.10	0.0492	0.0174
Earth	119495-04-07 11:00 G	45365808.75	45365808.96	45365809.18	0.0492	0.0190 *
Mercury	119500-08-28 06:55 G	45367777.68	45367777.79	45367777.90	0.0539	0.0329
Moon	119500-09-28 01:24 G	45367808.35	45367808.56	45367808.78	0.0538	0.0124
Earth	119500-09-28 02:36 G	45367808.39	45367808.61	45367808.84	0.0538	0.0098 *
Venus	119500-10-27 17:58 G	45367838.11	45367838.25	45367838.39	0.0538	0.0382
Mercury	119500-11-25 19:24 G	45367867.22	45367867.31	45367867.40	0.0537	0.0405
Venus	119506-08-29 02:36 G	45369969.43	45369969.61	45369969.80	0.0488	0.0220
Mercury	119507-01-06 23:00 G	45370100.30	45370100.46	45370100.62	0.0491	0.0110
Earth	119507-04-12 20:22 G	45370196.24	45370196.35	45370196.46	0.0493	0.0433
Moon	119507-04-12 23:00 G	45370196.37	45370196.46	45370196.56	0.0493	0.0446 *
Mercury	119512-06-16 08:36 G	45372087.83	45372087.86	45372087.89	0.0540	0.0526
Venus	119512-07-02 06:12 G	45372103.56	45372103.76	45372103.96	0.0539	0.0023
Mercury	119512-09-13 21:34 G	45372177.28	45372177.40	45372177.53	0.0537	0.0219
Earth	119512-10-03 05:00 G	45372196.50	45372196.71	45372196.93	0.0536	0.0221
Moon	119512-10-03 06:41 G	45372196.57	45372196.78	45372197.00	0.0536	0.0228 *
Venus	119518-05-04 05:29 G	45374235.71	45374235.73	45374235.76	0.0487	0.0482
Mercury	119518-10-25 23:14 G	45374410.31	45374410.47	45374410.64	0.0490	0.0060
Venus	119518-12-26 06:55 G	45374471.74	45374471.79	45374471.86	0.0492	0.0467
Venus	119524-03-06 18:41 G	45376369.12	45376369.28	45376369.43	0.0541	0.0338
Mercury	119524-07-02 23:58 G	45376487.36	45376487.50	45376487.64	0.0538	0.0034
Earth	119524-10-08 08:07 G	45376584.83	45376584.84	45376584.86	0.0535	0.0533
Mars	119526-10-02 12:41 G	45377309.01	45377309.03	45377309.06	0.0504	0.0501
Mercury	119530-08-13 23:14 G	45378720.33	45378720.47	45378720.62	0.0489	0.0234

Venus	119530-08-31 08:36 G	45378737.68	45378737.86	45378738.06	0.0490	0.0195
Mercury	119530-11-11 20:50 G	45378810.31	45378810.37	45378810.43	0.0491	0.0456
Mercury	119536-04-21 02:07 G	45380797.46	45380797.59	45380797.72	0.0539	0.0157
Venus	119542-05-06 11:58 G	45383003.79	45383004.00	45383004.20	0.0488	0.0070
Mercury	119542-06-01 23:58 G	45383030.41	45383030.50	45383030.60	0.0489	0.0396
Mercury	119542-08-30 20:50 G	45383120.24	45383120.37	45383120.51	0.0491	0.0282
Mercury	119548-02-08 05:00 G	45385107.60	45385107.71	45385107.81	0.0540	0.0336
Venus	119548-03-09 23:14 G	45385138.29	45385138.47	45385138.65	0.0539	0.0226
Mercury	119548-05-07 17:29 G	45385197.14	45385197.23	45385197.32	0.0537	0.0400
Venus	119554-01-09 14:36 G	45387269.97	45387270.11	45387270.27	0.0487	0.0333
Moon	119554-03-30 00:41 G	45387349.34	45387349.53	45387349.72	0.0488	0.0300
Earth	119554-03-30 03:19 G	45387349.46	45387349.64	45387349.82	0.0488	0.0308 *
Mercury	119554-06-18 21:05 G	45387430.21	45387430.38	45387430.54	0.0490	0.0109
Venus	119559-11-13 13:38 G	45389403.88	45389404.07	45389404.27	0.0541	0.0126
Mercury	119559-11-27 07:24 G	45389417.78	45389417.81	45389417.85	0.0540	0.0518
Mercury	119560-02-24 20:36 G	45389507.24	45389507.36	45389507.48	0.0538	0.0229
Earth	119566-04-03 11:43 G	45391736.76	45391736.99	45391737.22	0.0490	0.0071
Moon	119566-04-03 14:36 G	45391736.89	45391737.11	45391737.34	0.0490	0.0044 *
Mercury	119566-04-06 21:34 G	45391740.24	45391740.40	45391740.57	0.0490	0.0058
Venus	119566-05-08 19:10 G	45391772.17	45391772.30	45391772.45	0.0491	0.0354
Venus	119571-07-19 02:22 G	45393669.52	45393669.60	45393669.69	0.0542	0.0486
Moon	119571-09-22 21:34 G	45393735.27	45393735.40	45393735.54	0.0540	0.0441
Earth	119571-09-22 21:19 G	45393735.28	45393735.39	45393735.51	0.0540	0.0464 *
Mercury	119571-12-13 23:00 G	45393817.32	45393817.46	45393817.59	0.0538	0.0045
Venus	119578-01-11 22:31 G	45396038.24	45396038.44	45396038.64	0.0489	0.0088
Mercury	119578-01-23 22:02 G	45396050.28	45396050.42	45396050.57	0.0490	0.0224
Moon	119578-04-07 16:46 G	45396123.98	45396124.20	45396124.42	0.0491	0.0198
Earth	119578-04-07 19:53 G	45396124.11	45396124.33	45396124.55	0.0491	0.0171 *
Mercury	119578-04-23 19:53 G	45396140.28	45396140.33	45396140.37	0.0492	0.0469
Mars	119580-06-21 23:29 G	45396930.21	45396930.48	45396930.76	0.0523	0.0053

Moon	119583-09-28 01:24 G	45398123.34	45398123.56	45398123.78	0.0539	0.0109
Earth	119583-09-28 01:38 G	45398123.35	45398123.57	45398123.79	0.0539	0.0143 *
Mercury	119583-10-02 01:10 G	45398127.42	45398127.55	45398127.68	0.0539	0.0145
Venus	119583-11-16 16:02 G	45398173.06	45398173.17	45398173.29	0.0537	0.0429
Venus	119589-09-17 00:55 G	45400304.35	45400304.54	45400304.73	0.0487	0.0180
Mercury	119589-11-11 22:31 G	45400360.34	45400360.44	45400360.54	0.0489	0.0391
Mercury	119590-02-09 19:24 G	45400450.17	45400450.31	45400450.45	0.0491	0.0287
Earth	119590-04-12 02:22 G	45400511.47	45400511.60	45400511.73	0.0492	0.0409
Moon	119590-04-12 05:29 G	45400511.61	45400511.73	45400511.85	0.0492	0.0415 *
Mercury	119595-07-21 03:05 G	45402437.52	45402437.63	45402437.74	0.0540	0.0342
Venus	119595-07-22 04:17 G	45402438.48	45402438.68	45402438.88	0.0540	0.0069
Earth	119595-10-03 04:31 G	45402511.47	45402511.69	45402511.91	0.0538	0.0177
Moon	119595-10-03 04:31 G	45402511.47	45402511.69	45402511.92	0.0538	0.0194 *
Mercury	119595-10-18 15:34 G	45402527.07	45402527.15	45402527.25	0.0537	0.0396
Venus	119601-05-23 04:17 G	45404570.60	45404570.68	45404570.77	0.0486	0.0439
Mercury	119601-11-28 19:38 G	45404760.16	45404760.32	45404760.48	0.0490	0.0116
Venus	119607-03-26 18:41 G	45406704.11	45406704.28	45406704.45	0.0542	0.0285
Mercury	119607-05-09 05:43 G	45406747.71	45406747.74	45406747.77	0.0541	0.0525
Mercury	119607-08-06 18:55 G	45406837.16	45406837.29	45406837.41	0.0538	0.0225
Moon	119607-10-08 11:29 G	45406899.90	45406899.98	45406900.08	0.0536	0.0487
Earth	119607-10-08 11:43 G	45406899.92	45406899.99	45406900.08	0.0536	0.0503 *
Mercury	119613-09-16 19:53 G	45409070.16	45409070.33	45409070.50	0.0490	0.0055
Venus	119613-09-19 07:38 G	45409072.65	45409072.82	45409073.00	0.0490	0.0240
Mercury	119619-05-25 21:48 G	45411147.27	45411147.41	45411147.55	0.0538	0.0052
Venus	119625-05-25 11:14 G	45413338.77	45413338.97	45413339.18	0.0488	0.0023
Mercury	119625-07-05 20:36 G	45413380.21	45413380.36	45413380.51	0.0489	0.0218
Mercury	119625-10-03 17:58 G	45413470.22	45413470.25	45413470.30	0.0492	0.0474
Mercury	119631-03-14 00:12 G	45415457.37	45415457.51	45415457.64	0.0539	0.0135
Venus	119631-03-30 00:26 G	45415473.35	45415473.52	45415473.69	0.0538	0.0284
Venus	119637-01-28 14:36 G	45417604.95	45417605.11	45417605.28	0.0487	0.0286

Moon	119637-03-29 10:02 G	45417664.75	45417664.92	45417665.11	0.0488	0.0321
Earth	119637-03-29 13:10 G	45417664.88	45417665.05	45417665.23	0.0488	0.0323 *
Mercury	119637-04-23 21:19 G	45417690.29	45417690.39	45417690.50	0.0489	0.0380
Mercury	119637-07-22 18:12 G	45417780.13	45417780.26	45417780.40	0.0491	0.0300
Venus	119642-12-02 12:55 G	45419738.85	45419739.04	45419739.24	0.0540	0.0075
Mercury	119642-12-31 02:22 G	45419767.49	45419767.60	45419767.71	0.0539	0.0326
Mercury	119643-03-30 14:50 G	45419857.03	45419857.12	45419857.21	0.0537	0.0408
Mars	119645-03-23 10:31 G	45420580.71	45420580.94	45420581.18	0.0506	0.0246
Earth	119649-04-02 19:53 G	45422052.10	45422052.33	45422052.56	0.0489	0.0087
Moon	119649-04-02 23:14 G	45422052.24	45422052.47	45422052.69	0.0489	0.0110 *
Mercury	119649-05-10 18:12 G	45422090.10	45422090.26	45422090.43	0.0490	0.0124
Venus	119649-05-27 18:26 G	45422107.15	45422107.27	45422107.39	0.0491	0.0397
Venus	119654-08-07 00:12 G	45424004.40	45424004.51	45424004.63	0.0542	0.0442
Moon	119654-09-21 17:58 G	45424050.17	45424050.25	45424050.34	0.0541	0.0505
Earth	119654-09-21 19:53 G	45424050.26	45424050.33	45424050.41	0.0541	0.0511 *
Mercury	119654-10-19 03:48 G	45424077.64	45424077.66	45424077.69	0.0541	0.0528
Mercury	119655-01-16 17:00 G	45424167.09	45424167.21	45424167.34	0.0538	0.0222
Venus	119661-01-30 21:48 G	45426373.21	45426373.41	45426373.61	0.0489	0.0133
Mercury	119661-02-26 18:41 G	45426400.12	45426400.28	45426400.45	0.0489	0.0045
Moon	119661-04-06 23:58 G	45426439.27	45426439.50	45426439.73	0.0490	0.0117
Earth	119661-04-07 03:48 G	45426439.44	45426439.66	45426439.88	0.0490	0.0151 *
Earth	119666-09-27 04:02 G	45428438.45	45428438.67	45428438.89	0.0540	0.0179
Moon	119666-09-27 05:14 G	45428438.51	45428438.72	45428438.92	0.0540	0.0207 *
Mercury	119666-11-04 20:07 G	45428477.20	45428477.34	45428477.47	0.0539	0.0051
Venus	119666-12-05 16:31 G	45428508.12	45428508.19	45428508.28	0.0538	0.0486
Venus	119672-10-06 00:26 G	45430639.32	45430639.52	45430639.72	0.0487	0.0132
Mercury	119672-12-15 19:10 G	45430710.15	45430710.30	45430710.45	0.0489	0.0213
Mercury	119673-03-15 16:31 G	45430800.15	45430800.19	45430800.23	0.0491	0.0476
Earth	119673-04-11 11:00 G	45430826.81	45430826.96	45430827.10	0.0492	0.0388
Moon	119673-04-11 14:50 G	45430826.97	45430827.12	45430827.27	0.0492	0.0366 *

Venus	119678-08-10 07:53 G	45432773.64	45432773.83	45432774.02	0.0540	0.0138
Mercury	119678-08-23 23:00 G	45432787.32	45432787.46	45432787.59	0.0539	0.0127
Moon	119678-10-02 11:43 G	45432826.76	45432826.99	45432827.23	0.0538	0.0127
Earth	119678-10-02 12:26 G	45432826.80	45432827.02	45432827.24	0.0538	0.0153 *
Venus	119684-06-11 04:02 G	45434905.55	45434905.67	45434905.80	0.0486	0.0392
Mercury	119684-10-03 19:53 G	45435020.23	45435020.33	45435020.44	0.0489	0.0373
Mercury	119685-01-01 16:46 G	45435110.07	45435110.20	45435110.34	0.0491	0.0307
Venus	119690-04-14 21:05 G	45437039.20	45437039.38	45437039.57	0.0541	0.0221
Mercury	119690-06-12 01:10 G	45437097.44	45437097.55	45437097.67	0.0539	0.0315
Mercury	119690-09-09 13:53 G	45437187.00	45437187.08	45437187.16	0.0537	0.0420
Earth	119690-10-07 17:00 G	45437215.11	45437215.21	45437215.33	0.0536	0.0473
Moon	119690-10-07 17:29 G	45437215.14	45437215.23	45437215.33	0.0536	0.0480 *
Venus	119696-10-08 08:22 G	45439407.68	45439407.85	45439408.01	0.0490	0.0291
Mercury	119696-10-20 17:14 G	45439420.06	45439420.22	45439420.38	0.0491	0.0136
Mercury	119702-04-01 03:19 G	45441407.60	45441407.64	45441407.69	0.0540	0.0507
Mercury	119702-06-29 16:31 G	45441497.07	45441497.19	45441497.31	0.0537	0.0240
Venus	119708-06-14 11:14 G	45443673.77	45443673.97	45443674.18	0.0488	0.0025
Mercury	119708-08-09 17:29 G	45443730.07	45443730.23	45443730.40	0.0490	0.0036
Mercury	119714-04-17 18:26 G	45445807.13	45445807.27	45445807.41	0.0539	0.0047
Venus	119714-04-18 22:46 G	45445808.29	45445808.45	45445808.61	0.0539	0.0333
Venus	119720-02-18 14:50 G	45447939.95	45447940.12	45447940.31	0.0487	0.0237
Moon	119720-03-29 19:24 G	45447980.15	45447980.31	45447980.47	0.0488	0.0360
Earth	119720-03-29 23:00 G	45447980.30	45447980.46	45447980.64	0.0488	0.0337 *
Mercury	119720-05-28 18:12 G	45448040.11	45448040.26	45448040.41	0.0489	0.0199
Mercury	119720-08-26 15:34 G	45448130.14	45448130.15	45448130.16	0.0491	0.0490
Venus	119725-12-22 12:55 G	45450073.84	45450074.04	45450074.24	0.0541	0.0021
Mercury	119726-02-03 21:05 G	45450117.25	45450117.38	45450117.52	0.0540	0.0132
Mercury	119732-03-16 18:41 G	45452350.17	45452350.28	45452350.39	0.0488	0.0365
Earth	119732-04-03 05:14 G	45452367.49	45452367.72	45452367.95	0.0489	0.0106
Moon	119732-04-03 08:50 G	45452367.64	45452367.87	45452368.10	0.0489	0.0100 *

Mercury	119732-06-14 15:19 G	45452440.01	45452440.14	45452440.27	0.0491	0.0312
Venus	119732-06-16 17:58 G	45452442.17	45452442.25	45452442.34	0.0491	0.0446
Mars	119734-09-16 23:00 G	45453264.29	45453264.46	45453264.63	0.0523	0.0411
Venus	119737-08-27 04:02 G	45454339.52	45454339.67	45454339.81	0.0542	0.0372
Earth	119737-09-22 04:02 G	45454365.64	45454365.67	45454365.71	0.0542	0.0534
Mercury	119737-11-22 23:58 G	45454427.39	45454427.50	45454427.62	0.0540	0.0308
Mercury	119738-02-20 12:41 G	45454516.95	45454517.03	45454517.11	0.0537	0.0429
Venus	119744-02-20 21:48 G	45456708.22	45456708.41	45456708.60	0.0489	0.0183
Mercury	119744-04-02 15:48 G	45456750.00	45456750.16	45456750.32	0.0490	0.0145
Moon	119744-04-07 09:48 G	45456754.69	45456754.91	45456755.14	0.0490	0.0159
Earth	119744-04-07 13:38 G	45456754.84	45456755.07	45456755.29	0.0490	0.0132 *
Mercury	119749-09-11 02:22 G	45458737.55	45458737.60	45458737.65	0.0540	0.0496
Earth	119749-09-27 10:46 G	45458753.74	45458753.95	45458754.17	0.0540	0.0205
Moon	119749-09-27 13:10 G	45458753.84	45458754.05	45458754.26	0.0540	0.0187 *
Mercury	119749-12-09 15:34 G	45458827.03	45458827.15	45458827.27	0.0538	0.0252
Venus	119755-10-27 01:10 G	45460974.34	45460974.55	45460974.75	0.0488	0.0082
Mercury	119756-01-20 16:31 G	45461060.02	45461060.19	45461060.35	0.0490	0.0026
Earth	119756-04-11 22:02 G	45461142.27	45461142.42	45461142.57	0.0492	0.0373
Moon	119756-04-12 01:53 G	45461142.45	45461142.58	45461142.72	0.0492	0.0402 *
Venus	119761-08-30 08:36 G	45463108.67	45463108.86	45463109.05	0.0539	0.0196
Mercury	119761-09-27 17:58 G	45463137.11	45463137.25	45463137.38	0.0538	0.0069
Moon	119761-10-02 12:55 G	45463141.82	45463142.04	45463142.28	0.0538	0.0151
Earth	119761-10-02 15:34 G	45463141.92	45463142.15	45463142.37	0.0538	0.0117 *
Venus	119767-07-02 04:31 G	45465240.55	45465240.69	45465240.84	0.0486	0.0344
Mercury	119767-11-08 17:00 G	45465370.06	45465370.21	45465370.36	0.0489	0.0188
Venus	119773-05-04 19:10 G	45467374.11	45467374.30	45467374.49	0.0541	0.0175
Mercury	119773-07-16 19:38 G	45467447.18	45467447.32	45467447.45	0.0539	0.0132
Earth	119773-10-07 16:31 G	45467530.05	45467530.19	45467530.33	0.0537	0.0428
Moon	119773-10-07 18:41 G	45467530.16	45467530.28	45467530.40	0.0537	0.0448 *
Mercury	119779-08-27 17:43 G	45469680.13	45469680.24	45469680.36	0.0488	0.0350

Venus	119779-10-29 08:36 G	45469742.72	45469742.86	45469743.01	0.0490	0.0341
Mercury	119779-11-25 14:36 G	45469769.98	45469770.11	45469770.23	0.0490	0.0328
Venus	119785-01-07 08:50 G	45471639.84	45471639.87	45471639.91	0.0543	0.0531
Mercury	119785-05-04 22:02 G	45471757.31	45471757.42	45471757.54	0.0540	0.0314
Mercury	119785-08-02 11:00 G	45471846.87	45471846.96	45471847.04	0.0538	0.0425
Venus	119791-07-04 11:00 G	45474008.76	45474008.96	45474009.17	0.0488	0.0074
Mercury	119791-09-13 14:22 G	45474079.95	45474080.10	45474080.26	0.0490	0.0152
Mercury	119797-02-21 00:55 G	45476067.48	45476067.54	45476067.59	0.0541	0.0493
Venus	119797-05-08 02:22 G	45476143.47	45476143.60	45476143.74	0.0539	0.0404
Mercury	119797-05-21 14:07 G	45476156.97	45476157.09	45476157.21	0.0538	0.0257
Mars	119799-06-19 02:07 G	45476915.33	45476915.59	45476915.85	0.0506	0.0158
Venus	119803-03-10 14:50 G	45478274.93	45478275.12	45478275.31	0.0487	0.0188
Moon	119803-03-31 04:46 G	45478295.53	45478295.70	45478295.88	0.0487	0.0324
Earth	119803-03-31 08:36 G	45478295.71	45478295.86	45478296.03	0.0487	0.0355 *
Mercury	119803-07-03 15:05 G	45478389.96	45478390.13	45478390.30	0.0490	0.0014
Venus	119809-01-11 16:31 G	45480408.99	45480409.19	45480409.39	0.0540	0.0049
Mercury	119809-03-10 17:00 G	45480467.07	45480467.21	45480467.34	0.0538	0.0081
Venus	119814-11-13 18:12 G	45482541.19	45482541.26	45482541.34	0.0486	0.0449
Earth	119815-04-04 16:17 G	45482682.95	45482683.18	45482683.41	0.0489	0.0119
Moon	119815-04-04 20:22 G	45482683.12	45482683.35	45482683.58	0.0489	0.0104 *
Mercury	119815-04-21 15:48 G	45482700.01	45482700.16	45482700.31	0.0489	0.0179
Venus	119820-09-16 05:14 G	45484674.56	45484674.72	45484674.89	0.0542	0.0312
Moon	119820-09-22 04:02 G	45484680.64	45484680.67	45484680.71	0.0542	0.0533
Mercury	119820-12-27 19:10 G	45484777.17	45484777.30	45484777.44	0.0539	0.0108
Mercury	119827-02-07 16:31 G	45487010.08	45487010.19	45487010.31	0.0488	0.0340
Venus	119827-03-12 22:31 G	45487043.26	45487043.44	45487043.62	0.0489	0.0234
Moon	119827-04-08 21:05 G	45487070.16	45487070.38	45487070.61	0.0490	0.0115
Earth	119827-04-09 00:26 G	45487070.29	45487070.52	45487070.75	0.0490	0.0119 *
Mercury	119827-05-08 13:24 G	45487099.94	45487100.06	45487100.18	0.0491	0.0339
Earth	119832-09-27 08:36 G	45489068.65	45489068.86	45489069.06	0.0541	0.0256

Moon	119832-09-27 12:12 G	45489068.81	45489069.01	45489069.22	0.0541	0.0239	*
Mercury	119832-10-15 20:36 G	45489087.25	45489087.36	45489087.47	0.0540	0.0313	
Mercury	119833-01-13 09:19 G	45489176.81	45489176.89	45489176.98	0.0537	0.0426	
Venus	119838-11-16 01:53 G	45491309.37	45491309.58	45491309.79	0.0488	0.0030	
Mercury	119839-02-24 13:38 G	45491409.92	45491410.07	45491410.23	0.0490	0.0169	
Earth	119839-04-13 08:07 G	45491457.69	45491457.84	45491458.01	0.0491	0.0356	
Moon	119839-04-13 10:46 G	45491457.78	45491457.95	45491458.13	0.0491	0.0331	*
Mercury	119844-08-03 23:00 G	45493397.41	45493397.46	45493397.51	0.0541	0.0500	
Venus	119844-09-19 07:24 G	45493443.64	45493443.81	45493443.99	0.0540	0.0247	
Moon	119844-10-02 11:43 G	45493456.76	45493456.99	45493457.22	0.0539	0.0056	
Earth	119844-10-02 15:34 G	45493456.92	45493457.15	45493457.38	0.0539	0.0073	*
Mercury	119844-11-01 12:12 G	45493486.89	45493487.01	45493487.13	0.0538	0.0252	
Venus	119850-07-22 04:17 G	45495575.52	45495575.68	45495575.85	0.0486	0.0295	
Mercury	119850-12-13 13:38 G	45495719.91	45495720.07	45495720.24	0.0489	0.0014	
Mars	119853-03-07 19:10 G	45496535.20	45496535.30	45496535.41	0.0521	0.0479	
Venus	119856-05-24 22:31 G	45497709.24	45497709.44	45497709.64	0.0541	0.0105	
Mercury	119856-08-20 15:19 G	45497797.01	45497797.14	45497797.28	0.0539	0.0082	
Earth	119856-10-07 23:58 G	45497845.36	45497845.50	45497845.66	0.0537	0.0404	
Moon	119856-10-08 04:17 G	45497845.51	45497845.68	45497845.85	0.0537	0.0367	*
Mercury	119862-10-01 14:22 G	45500029.95	45500030.10	45500030.26	0.0489	0.0170	
Venus	119862-11-18 08:07 G	45500077.72	45500077.84	45500077.97	0.0490	0.0390	
Venus	119868-01-28 12:41 G	45501974.93	45501975.03	45501975.13	0.0542	0.0463	
Mercury	119868-06-08 17:58 G	45502107.12	45502107.25	45502107.39	0.0539	0.0100	
Mercury	119874-07-20 15:05 G	45504340.02	45504340.13	45504340.26	0.0489	0.0333	
Venus	119874-07-24 11:43 G	45504343.79	45504343.99	45504344.19	0.0489	0.0125	
Mercury	119874-10-18 11:58 G	45504429.88	45504430.00	45504430.12	0.0491	0.0347	
Mercury	119880-03-27 20:07 G	45506417.23	45506417.34	45506417.46	0.0540	0.0289	
Venus	119880-05-28 03:19 G	45506478.55	45506478.64	45506478.75	0.0538	0.0462	
Mercury	119880-06-25 08:50 G	45506506.80	45506506.87	45506506.95	0.0537	0.0448	
Venus	119886-03-29 15:34 G	45508609.95	45508610.15	45508610.35	0.0487	0.0137	

Moon	119886-03-30 18:41 G	45508611.15	45508611.28	45508611.43	0.0487	0.0377
Earth	119886-03-30 19:53 G	45508611.17	45508611.33	45508611.48	0.0487	0.0366 *
Mercury	119886-08-06 12:26 G	45508739.87	45508740.02	45508740.18	0.0490	0.0178
Mercury	119892-01-14 21:19 G	45510727.34	45510727.39	45510727.44	0.0541	0.0499
Venus	119892-01-31 13:38 G	45510743.88	45510744.07	45510744.27	0.0540	0.0094
Mercury	119892-04-13 10:46 G	45510816.83	45510816.95	45510817.07	0.0538	0.0252
Venus	119897-12-02 19:10 G	45512876.18	45512876.30	45512876.42	0.0486	0.0397
Moon	119898-04-04 02:50 G	45512998.40	45512998.62	45512998.86	0.0488	0.0158
Earth	119898-04-04 03:05 G	45512998.41	45512998.63	45512998.86	0.0488	0.0134 *
Mercury	119898-05-25 12:55 G	45513049.87	45513050.04	45513050.21	0.0489	0.0010
Venus	119903-10-07 03:05 G	45515009.46	45515009.63	45515009.80	0.0542	0.0266
Mercury	119904-02-01 13:24 G	45515126.92	45515127.06	45515127.19	0.0539	0.0073
Mercury	119910-03-14 12:55 G	45517359.89	45517360.04	45517360.20	0.0489	0.0164
Venus	119910-04-01 21:34 G	45517378.23	45517378.40	45517378.56	0.0489	0.0280
Earth	119910-04-09 08:22 G	45517385.62	45517385.85	45517386.08	0.0489	0.0097
Moon	119910-04-09 09:19 G	45517385.67	45517385.89	45517386.11	0.0489	0.0070 *
Earth	119915-09-28 14:50 G	45519383.92	45519384.12	45519384.31	0.0541	0.0283
Moon	119915-09-28 16:31 G	45519383.99	45519384.19	45519384.38	0.0541	0.0314 *
Mercury	119915-11-20 16:17 G	45519437.05	45519437.18	45519437.32	0.0540	0.0102
Venus	119921-12-06 00:55 G	45521644.33	45521644.54	45521644.75	0.0488	0.0017
Mercury	119921-12-31 13:38 G	45521669.96	45521670.07	45521670.20	0.0488	0.0326
Mercury	119922-03-31 10:31 G	45521759.82	45521759.94	45521760.06	0.0490	0.0353
Moon	119922-04-13 14:22 G	45521772.92	45521773.10	45521773.29	0.0491	0.0315
Earth	119922-04-13 16:17 G	45521773.01	45521773.18	45521773.36	0.0491	0.0333 *
Mercury	119927-09-08 18:55 G	45523747.17	45523747.29	45523747.41	0.0540	0.0283
Moon	119927-10-03 21:19 G	45523772.17	45523772.39	45523772.62	0.0539	0.0016
Earth	119927-10-03 22:31 G	45523772.21	45523772.44	45523772.67	0.0539	0.0048 *
Venus	119927-10-10 10:31 G	45523778.78	45523778.94	45523779.11	0.0539	0.0314
Mercury	119927-12-07 07:38 G	45523836.75	45523836.82	45523836.89	0.0537	0.0453
Venus	119933-08-11 04:17 G	45525910.51	45525910.68	45525910.86	0.0487	0.0247

Mercury	119933-10-19 14:36 G	45525980.10	45525980.11	45525980.13	0.0488	0.0485
Mercury	119934-01-17 10:46 G	45526069.80	45526069.95	45526070.11	0.0490	0.0183
Venus	119939-06-14 23:43 G	45528044.29	45528044.49	45528044.69	0.0541	0.0046
Mercury	119939-06-27 21:05 G	45528057.31	45528057.38	45528057.44	0.0540	0.0475
Mercury	119939-09-25 10:17 G	45528146.81	45528146.93	45528147.05	0.0538	0.0274
Earth	119939-10-09 03:19 G	45528160.47	45528160.64	45528160.81	0.0537	0.0367
Moon	119939-10-09 04:02 G	45528160.49	45528160.67	45528160.85	0.0537	0.0356 *
Mercury	119945-11-05 11:29 G	45530379.82	45530379.98	45530380.15	0.0489	0.0023
Venus	119945-12-08 08:50 G	45530412.78	45530412.87	45530412.96	0.0490	0.0441
Venus	119951-02-17 09:19 G	45532309.77	45532309.89	45532310.01	0.0542	0.0421
Mercury	119951-07-14 11:43 G	45532456.86	45532456.99	45532457.13	0.0539	0.0075
Mars	119953-09-14 01:24 G	45533249.49	45533249.56	45533249.65	0.0506	0.0483
Venus	119957-08-13 11:58 G	45534678.81	45534679.00	45534679.20	0.0488	0.0176
Mercury	119957-08-24 12:12 G	45534689.85	45534690.01	45534690.17	0.0489	0.0148
Mercury	119963-05-02 14:22 G	45536766.96	45536767.10	45536767.23	0.0540	0.0112
Venus	119963-06-18 00:41 G	45536813.47	45536813.53	45536813.59	0.0538	0.0507
Earth	119969-03-31 02:50 G	45538926.49	45538926.62	45538926.77	0.0487	0.0388
Moon	119969-03-31 05:43 G	45538926.63	45538926.74	45538926.86	0.0487	0.0415 *
Venus	119969-04-18 13:53 G	45538944.88	45538945.08	45538945.29	0.0487	0.0094
Mercury	119969-06-12 12:12 G	45538999.89	45539000.01	45539000.14	0.0488	0.0320
Mercury	119969-09-10 08:50 G	45539089.76	45539089.87	45539089.99	0.0490	0.0357
Mercury	119975-02-18 17:00 G	45541077.09	45541077.21	45541077.33	0.0540	0.0290
Venus	119975-02-20 15:34 G	45541078.96	45541079.15	45541079.35	0.0540	0.0157
Mercury	119975-05-19 05:43 G	45541166.67	45541166.74	45541166.82	0.0538	0.0450
Venus	119980-12-22 17:29 G	45543211.09	45543211.23	45543211.37	0.0486	0.0354
Mercury	119981-03-31 13:10 G	45543310.03	45543310.05	45543310.08	0.0488	0.0479
Moon	119981-04-04 06:26 G	45543313.55	45543313.77	45543313.99	0.0488	0.0169
Earth	119981-04-04 10:02 G	45543313.70	45543313.92	45543314.14	0.0488	0.0157 *
Mercury	119981-06-29 09:19 G	45543399.73	45543399.89	45543400.04	0.0490	0.0187
Venus	119986-10-26 05:43 G	45545344.56	45545344.74	45545344.93	0.0542	0.0201

Mercury	119986-12-07 19:24 G	45545387.25	45545387.31	45545387.38	0.0541	0.0474
Mercury	119987-03-07 08:50 G	45545476.75	45545476.87	45545476.99	0.0538	0.0276
Earth	119993-04-08 17:14 G	45547700.99	45547701.22	45547701.45	0.0489	0.0077
Moon	119993-04-08 21:19 G	45547701.16	45547701.39	45547701.62	0.0489	0.0090 *
Mercury	119993-04-17 09:48 G	45547709.74	45547709.91	45547710.07	0.0489	0.0020
Venus	119993-04-20 20:50 G	45547713.23	45547713.37	45547713.53	0.0490	0.0329
Moon	119998-09-27 14:22 G	45549698.91	45549699.10	45549699.28	0.0541	0.0342
Earth	119998-09-27 17:29 G	45549699.05	45549699.23	45549699.42	0.0541	0.0320 *
Mercury	119998-12-24 11:14 G	45549786.84	45549786.97	45549787.11	0.0539	0.0094

121ST MILLENNIUM CE

This is a list of transits visible from Jupiter in the 121st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	120004-12-25 00:55 G	45551979.34	45551979.54	45551979.75	0.0488	0.0066		
Mercury	120005-02-03 10:31 G	45552019.78	45552019.94	45552020.10	0.0489	0.0143		
Moon	120005-04-12 22:02 G	45552088.26	45552088.42	45552088.59	0.0491	0.0342		
Earth	120005-04-13 02:07 G	45552088.41	45552088.59	45552088.77	0.0491	0.0315 *		
Mars	120007-06-03 03:19 G	45552869.36	45552869.64	45552869.91	0.0520	0.0083		
Earth	120010-10-02 17:29 G	45554086.99	45554087.23	45554087.46	0.0540	0.0015		
Moon	120010-10-02 20:36 G	45554087.14	45554087.36	45554087.59	0.0540	0.0007 *		
Mercury	120010-10-12 12:41 G	45554096.89	45554097.03	45554097.16	0.0539	0.0112		
Venus	120010-10-29 06:41 G	45554113.63	45554113.78	45554113.93	0.0539	0.0354		
Venus	120016-08-30 04:17 G	45556245.49	45556245.68	45556245.87	0.0487	0.0198		

Mercury	120016-11-22 11:14 G	45556329.85	45556329.97	45556330.10	0.0488	0.0306
Mercury	120017-02-20 07:53 G	45556419.72	45556419.83	45556419.94	0.0490	0.0371
Venus	120022-07-03 19:38 G	45558379.12	45558379.32	45558379.52	0.0541	0.0005
Mercury	120022-07-31 14:50 G	45558407.00	45558407.12	45558407.23	0.0540	0.0302
Moon	120022-10-07 19:10 G	45558475.12	45558475.30	45558475.48	0.0538	0.0341
Earth	120022-10-07 22:31 G	45558475.25	45558475.44	45558475.63	0.0538	0.0309 *
Mercury	120022-10-29 03:34 G	45558496.58	45558496.65	45558496.73	0.0538	0.0439
Venus	120028-05-05 06:12 G	45560511.70	45560511.76	45560511.81	0.0485	0.0465
Mercury	120028-09-10 11:29 G	45560639.95	45560639.98	45560640.02	0.0488	0.0476
Mercury	120028-12-09 07:24 G	45560729.66	45560729.81	45560729.97	0.0490	0.0189
Venus	120028-12-27 06:12 G	45560747.73	45560747.76	45560747.80	0.0490	0.0482
Venus	120034-03-08 10:02 G	45562644.77	45562644.92	45562645.07	0.0543	0.0364
Mercury	120034-05-19 17:14 G	45562717.16	45562717.22	45562717.28	0.0541	0.0485
Mercury	120034-08-17 06:41 G	45562806.67	45562806.78	45562806.90	0.0539	0.0269
Venus	120040-09-01 09:34 G	45565013.71	45565013.90	45565014.08	0.0489	0.0217
Mercury	120040-09-27 07:53 G	45565039.67	45565039.83	45565040.00	0.0489	0.0022
Mercury	120046-06-05 09:34 G	45567116.77	45567116.90	45567117.04	0.0539	0.0093
Earth	120052-03-30 10:31 G	45569241.82	45569241.94	45569242.07	0.0487	0.0409
Moon	120052-03-30 13:38 G	45569241.93	45569242.07	45569242.21	0.0487	0.0393 *
Venus	120052-05-07 12:41 G	45569279.82	45569280.03	45569280.23	0.0487	0.0049
Mercury	120052-07-16 08:36 G	45569349.70	45569349.86	45569350.02	0.0489	0.0146
Venus	120058-03-11 15:48 G	45571413.98	45571414.16	45571414.35	0.0540	0.0213
Mercury	120058-03-24 11:58 G	45571426.86	45571427.00	45571427.14	0.0539	0.0093
Venus	120064-01-11 16:31 G	45573546.04	45573546.19	45573546.36	0.0486	0.0309
Moon	120064-04-03 16:46 G	45573628.98	45573629.20	45573629.42	0.0488	0.0150
Earth	120064-04-03 18:41 G	45573629.06	45573629.28	45573629.50	0.0488	0.0177 *
Mercury	120064-05-04 09:34 G	45573659.77	45573659.90	45573660.03	0.0488	0.0304
Mercury	120064-08-02 06:12 G	45573749.65	45573749.76	45573749.87	0.0490	0.0374
Venus	120069-11-14 01:24 G	45575679.37	45575679.56	45575679.76	0.0541	0.0162
Mercury	120070-01-10 13:10 G	45575736.94	45575737.05	45575737.17	0.0540	0.0302

Mercury 120070-04-10 02:07 G 45575826.51 45575826.59 45575826.67 0.0537 0.0437

Mars 120072-03-04 16:02 G 45576520.97 45576521.17 45576521.39 0.0509 0.0315

Mercury 120076-02-21 10:31 G 45577969.89 45577969.94 45577969.98 0.0488 0.0465

Earth 120076-04-08 01:38 G 45578016.34 45578016.57 45578016.80 0.0489 0.0056

Moon 120076-04-08 02:36 G 45578016.37 45578016.61 45578016.85 0.0489 0.0084 *

Venus 120076-05-09 20:07 G 45578048.21 45578048.34 45578048.47 0.0490 0.0376

Mercury 120076-05-21 06:26 G 45578059.62 45578059.77 45578059.92 0.0490 0.0201

Venus 120081-07-19 13:53 G 45579945.04 45579945.08 45579945.13 0.0543 0.0526

Moon 120081-09-26 07:53 G 45580013.66 45580013.83 45580014.00 0.0542 0.0353

Earth 120081-09-26 11:00 G 45580013.80 45580013.96 45580014.12 0.0542 0.0383 *

Mercury 120081-10-29 15:05 G 45580047.08 45580047.13 45580047.18 0.0541 0.0497

Mercury 120082-01-27 04:31 G 45580136.57 45580136.69 45580136.81 0.0538 0.0256

Venus 120088-01-13 21:48 G 45582314.21 45582314.41 45582314.61 0.0488 0.0104

Mercury 120088-03-09 06:12 G 45582369.59 45582369.76 45582369.92 0.0489 0.0023

Earth 120088-04-12 05:58 G 45582403.56 45582403.75 45582403.94 0.0490 0.0285

Moon 120088-04-12 05:58 G 45582403.58 45582403.75 45582403.93 0.0490 0.0302 *

Earth 120093-10-01 18:55 G 45584402.06 45584402.29 45584402.52 0.0541 0.0051

Moon 120093-10-01 22:02 G 45584402.18 45584402.42 45584402.65 0.0541 0.0020 *

Mercury 120093-11-15 07:24 G 45584446.68 45584446.81 45584446.95 0.0539 0.0080

Venus 120093-11-17 06:41 G 45584448.65 45584448.78 45584448.91 0.0539 0.0410

Venus 120099-09-19 00:55 G 45586580.35 45586580.54 45586580.74 0.0487 0.0161

Mercury 120099-12-27 06:41 G 45586679.62 45586679.78 45586679.94 0.0489 0.0146

Venus 120105-07-23 21:05 G 45588714.18 45588714.38 45588714.58 0.0541 0.0055

Mercury 120105-09-04 10:17 G 45588756.79 45588756.93 45588757.06 0.0540 0.0100

Moon 120105-10-08 00:12 G 45588790.32 45588790.51 45588790.70 0.0539 0.0289

Earth 120105-10-08 02:36 G 45588790.42 45588790.61 45588790.81 0.0539 0.0277 *

Venus 120111-05-26 03:48 G 45590846.57 45590846.66 45590846.77 0.0486 0.0424

Mercury 120111-10-16 07:24 G 45590989.68 45590989.81 45590989.94 0.0488 0.0310

Mercury 120112-01-14 03:48 G 45591079.55 45591079.66 45591079.77 0.0490 0.0368

Venus 120117-03-28 10:02 G 45592979.76 45592979.92 45592980.09 0.0542 0.0308

Mercury	120117-06-23 12:26 G	45593066.90	45593067.02	45593067.14	0.0540	0.0287
Mercury	120117-09-21 01:10 G	45593156.48	45593156.55	45593156.63	0.0537	0.0452
Mercury	120123-08-04 08:22 G	45595299.81	45595299.85	45595299.90	0.0488	0.0466
Venus	120123-09-22 08:07 G	45595348.67	45595348.84	45595349.02	0.0489	0.0263
Mercury	120123-11-02 04:31 G	45595389.54	45595389.69	45595389.84	0.0490	0.0201
Mercury	120129-04-11 13:24 G	45597377.01	45597377.06	45597377.11	0.0541	0.0498
Mercury	120129-07-10 02:50 G	45597466.50	45597466.62	45597466.74	0.0538	0.0254
Moon	120135-03-31 16:31 G	45599557.06	45599557.19	45599557.32	0.0486	0.0404
Earth	120135-03-31 17:58 G	45599557.15	45599557.25	45599557.36	0.0486	0.0430 *
Venus	120135-05-28 11:14 G	45599614.76	45599614.97	45599615.17	0.0487	0.0008
Mercury	120135-08-21 04:46 G	45599699.54	45599699.70	45599699.87	0.0489	0.0031
Venus	120141-03-31 10:31 G	45601748.76	45601748.94	45601749.12	0.0540	0.0248
Mercury	120141-04-28 05:14 G	45601776.58	45601776.72	45601776.85	0.0539	0.0069
Venus	120147-01-31 12:55 G	45603880.87	45603881.04	45603881.21	0.0486	0.0275
Earth	120147-04-04 22:02 G	45603944.21	45603944.42	45603944.63	0.0487	0.0204
Moon	120147-04-05 00:12 G	45603944.30	45603944.51	45603944.72	0.0487	0.0195 *
Mercury	120147-06-09 04:31 G	45604009.54	45604009.69	45604009.85	0.0488	0.0149
Venus	120152-12-04 00:12 G	45606014.32	45606014.51	45606014.71	0.0542	0.0113
Mercury	120153-02-14 07:38 G	45606086.69	45606086.82	45606086.96	0.0540	0.0115
Mercury	120159-03-28 05:29 G	45608319.60	45608319.73	45608319.85	0.0488	0.0311
Moon	120159-04-09 01:53 G	45608331.34	45608331.58	45608331.82	0.0488	0.0013
Earth	120159-04-09 05:00 G	45608331.47	45608331.71	45608331.94	0.0488	0.0027 *
Venus	120159-05-30 16:02 G	45608383.07	45608383.17	45608383.29	0.0489	0.0411
Mercury	120159-06-26 01:53 G	45608409.47	45608409.58	45608409.69	0.0490	0.0364
Mars	120161-08-27 16:46 G	45609202.95	45609203.20	45609203.46	0.0521	0.0220
Venus	120164-08-08 14:36 G	45610280.02	45610280.11	45610280.21	0.0543	0.0470
Earth	120164-09-26 13:53 G	45610328.93	45610329.08	45610329.22	0.0542	0.0416
Moon	120164-09-26 15:34 G	45610329.01	45610329.15	45610329.31	0.0542	0.0397 *
Mercury	120164-12-03 10:17 G	45610396.82	45610396.93	45610397.05	0.0540	0.0295
Mercury	120165-03-02 23:14 G	45610486.40	45610486.47	45610486.55	0.0538	0.0446

Mercury	120171-01-14 06:12 G	45612629.72	45612629.76	45612629.80	0.0488	0.0473
Venus	120171-02-02 19:10 G	45612649.11	45612649.30	45612649.50	0.0488	0.0144
Earth	120171-04-13 11:29 G	45612718.79	45612718.98	45612719.19	0.0490	0.0259
Moon	120171-04-13 15:05 G	45612718.93	45612719.13	45612719.34	0.0490	0.0229 *
Mercury	120171-04-14 02:07 G	45612719.43	45612719.59	45612719.74	0.0490	0.0192
Mercury	120176-09-21 12:26 G	45614706.96	45614707.02	45614707.08	0.0541	0.0486
Moon	120176-10-01 17:58 G	45614717.01	45614717.25	45614717.48	0.0540	0.0100
Earth	120176-10-01 20:07 G	45614717.12	45614717.34	45614717.57	0.0540	0.0092 *
Venus	120176-12-07 05:58 G	45614783.66	45614783.75	45614783.86	0.0539	0.0464
Mercury	120176-12-20 01:53 G	45614796.47	45614796.58	45614796.70	0.0538	0.0268
Venus	120182-10-08 23:00 G	45616915.26	45616915.46	45616915.66	0.0487	0.0118
Mercury	120183-01-31 02:50 G	45617029.45	45617029.62	45617029.78	0.0489	0.0028
Moon	120183-04-17 16:31 G	45617106.11	45617106.19	45617106.27	0.0491	0.0461
Venus	120188-08-11 16:31 G	45619048.99	45619049.19	45619049.39	0.0540	0.0092
Earth	120188-10-06 20:22 G	45619105.14	45619105.35	45619105.56	0.0539	0.0217
Moon	120188-10-06 22:31 G	45619105.23	45619105.44	45619105.65	0.0539	0.0187 *
Mercury	120188-10-08 03:34 G	45619106.51	45619106.65	45619106.79	0.0539	0.0067
Venus	120194-06-14 01:53 G	45621181.46	45621181.58	45621181.71	0.0486	0.0383
Mercury	120194-11-19 03:19 G	45621339.48	45621339.64	45621339.80	0.0489	0.0140
Venus	120200-04-17 04:31 G	45623314.52	45623314.69	45623314.87	0.0542	0.0274
Mercury	120200-07-28 05:29 G	45623416.60	45623416.73	45623416.87	0.0540	0.0126
Moon	120200-10-12 21:34 G	45623493.33	45623493.40	45623493.49	0.0537	0.0502
Earth	120200-10-12 23:58 G	45623493.47	45623493.50	45623493.54	0.0537	0.0529 *
Mercury	120206-09-08 03:19 G	45625649.52	45625649.64	45625649.77	0.0488	0.0314
Venus	120206-10-12 03:48 G	45625683.50	45625683.66	45625683.82	0.0489	0.0295
Mercury	120206-12-06 23:43 G	45625739.38	45625739.49	45625739.60	0.0490	0.0360
Mercury	120212-05-16 07:53 G	45627726.72	45627726.83	45627726.95	0.0541	0.0312
Mercury	120212-08-13 21:05 G	45627816.30	45627816.38	45627816.46	0.0538	0.0431
Moon	120218-03-31 17:00 G	45629872.18	45629872.21	45629872.25	0.0486	0.0479
Earth	120218-03-31 21:05 G	45629872.31	45629872.38	45629872.46	0.0486	0.0457

Venus	120218-06-17 06:55 G	45629949.58	45629949.79	45629949.99	0.0487	0.0029
Mercury	120218-06-27 04:17 G	45629959.64	45629959.68	45629959.71	0.0487	0.0475
Mercury	120218-09-24 23:58 G	45630049.35	45630049.50	45630049.65	0.0489	0.0189
Mercury	120224-03-04 10:31 G	45632036.88	45632036.94	45632036.99	0.0541	0.0497
Venus	120224-04-20 10:46 G	45632083.79	45632083.95	45632084.12	0.0540	0.0304
Mercury	120224-06-01 23:58 G	45632126.38	45632126.50	45632126.62	0.0539	0.0259
Mars	120226-05-31 12:26 G	45632854.75	45632855.02	45632855.29	0.0508	0.0009
Venus	120230-02-20 09:48 G	45634215.74	45634215.91	45634216.10	0.0486	0.0236
Earth	120230-04-05 03:05 G	45634259.42	45634259.63	45634259.84	0.0487	0.0231
Moon	120230-04-05 06:55 G	45634259.60	45634259.79	45634259.99	0.0487	0.0263 *
Mercury	120230-07-14 00:26 G	45634359.35	45634359.52	45634359.68	0.0489	0.0023
Venus	120235-12-25 00:12 G	45636349.31	45636349.51	45636349.71	0.0541	0.0057
Mercury	120236-03-21 02:36 G	45636436.47	45636436.61	45636436.74	0.0539	0.0078
Moon	120242-04-09 07:38 G	45638646.59	45638646.82	45638647.05	0.0488	0.0029
Earth	120242-04-09 11:00 G	45638646.73	45638646.96	45638647.20	0.0488	0.0008 *
Mercury	120242-05-02 01:10 G	45638669.39	45638669.55	45638669.71	0.0489	0.0143
Venus	120242-06-19 14:07 G	45638718.01	45638718.09	45638718.16	0.0490	0.0454
Venus	120247-08-29 10:46 G	45640614.84	45640614.95	45640615.08	0.0542	0.0431
Earth	120247-09-27 08:36 G	45640643.75	45640643.86	45640643.97	0.0542	0.0471
Moon	120247-09-27 12:26 G	45640643.94	45640644.02	45640644.10	0.0542	0.0503 *
Mercury	120248-01-08 04:02 G	45640746.53	45640746.67	45640746.80	0.0539	0.0125
Mercury	120254-02-18 01:53 G	45642979.45	45642979.58	45642979.71	0.0488	0.0308
Venus	120254-02-22 17:00 G	45642984.02	45642984.21	45642984.40	0.0488	0.0186
Earth	120254-04-13 17:43 G	45643034.04	45643034.24	45643034.45	0.0490	0.0234
Moon	120254-04-13 20:36 G	45643034.15	45643034.36	45643034.57	0.0490	0.0225 *
Mercury	120254-05-18 22:17 G	45643069.32	45643069.43	45643069.54	0.0490	0.0369
Moon	120259-10-02 08:50 G	45645031.65	45645031.87	45645032.08	0.0541	0.0185
Earth	120259-10-02 12:41 G	45645031.81	45645032.03	45645032.25	0.0541	0.0154 *
Mercury	120259-10-27 05:58 G	45645056.64	45645056.75	45645056.86	0.0540	0.0321
Venus	120259-12-28 00:41 G	45645118.46	45645118.53	45645118.61	0.0538	0.0497

Mercury	120260-01-24 18:55 G	45645146.21	45645146.29	45645146.38	0.0538	0.0422
Venus	120265-10-28 18:26 G	45647250.07	45647250.27	45647250.48	0.0487	0.0088
Mercury	120265-12-07 02:07 G	45647289.56	45647289.59	45647289.62	0.0487	0.0478
Mercury	120266-03-06 21:48 G	45647379.26	45647379.41	45647379.57	0.0489	0.0184
Moon	120266-04-17 20:22 G	45647421.30	45647421.35	45647421.41	0.0490	0.0475
Earth	120266-04-17 22:17 G	45647421.36	45647421.43	45647421.51	0.0490	0.0461 *
Mercury	120271-08-15 07:53 G	45649366.79	45649366.83	45649366.87	0.0541	0.0514
Venus	120271-09-01 14:07 G	45649383.90	45649384.09	45649384.29	0.0541	0.0137
Earth	120271-10-07 18:26 G	45649420.05	45649420.27	45649420.49	0.0540	0.0171
Moon	120271-10-07 22:31 G	45649420.22	45649420.44	45649420.66	0.0540	0.0172 *
Mercury	120271-11-12 21:34 G	45649456.28	45649456.40	45649456.52	0.0539	0.0244
Venus	120277-07-03 21:48 G	45651516.27	45651516.41	45651516.56	0.0486	0.0350
Mercury	120277-12-23 22:17 G	45651689.26	45651689.43	45651689.59	0.0489	0.0016
Venus	120283-05-07 04:17 G	45653649.50	45653649.68	45653649.87	0.0542	0.0222
Mercury	120283-09-01 00:26 G	45653766.38	45653766.52	45653766.66	0.0539	0.0068
Moon	120283-10-12 22:17 G	45653808.38	45653808.43	45653808.49	0.0538	0.0521
Earth	120283-10-13 02:07 G	45653808.51	45653808.59	45653808.69	0.0538	0.0494
Mercury	120289-10-11 22:46 G	45655999.29	45655999.45	45655999.61	0.0489	0.0152
Venus	120289-10-31 00:41 G	45656018.39	45656018.53	45656018.69	0.0489	0.0335
Mercury	120295-06-20 02:50 G	45658076.49	45658076.62	45658076.76	0.0540	0.0116
Earth	120301-04-01 02:36 G	45660187.59	45660187.61	45660187.65	0.0486	0.0482
Venus	120301-07-07 04:31 G	45660284.49	45660284.69	45660284.89	0.0488	0.0070
Mercury	120301-07-31 23:43 G	45660309.37	45660309.49	45660309.62	0.0488	0.0311
Mercury	120301-10-29 20:07 G	45660399.23	45660399.34	45660399.45	0.0490	0.0365
Mercury	120307-04-09 04:17 G	45662386.57	45662386.68	45662386.80	0.0540	0.0319
Venus	120307-05-11 07:10 G	45662418.65	45662418.80	45662418.96	0.0539	0.0344
Mercury	120307-07-07 17:29 G	45662476.15	45662476.23	45662476.31	0.0537	0.0424
Venus	120313-03-12 07:24 G	45664550.63	45664550.81	45664551.01	0.0487	0.0197
Earth	120313-04-05 09:05 G	45664574.68	45664574.88	45664575.08	0.0487	0.0254
Moon	120313-04-05 10:02 G	45664574.72	45664574.92	45664575.14	0.0487	0.0250 *

Mercury	120313-05-20 00:41 G	45664619.49	45664619.53	45664619.57	0.0488	0.0472
Mercury	120313-08-17 20:22 G	45664709.20	45664709.35	45664709.51	0.0490	0.0192
Venus	120319-01-13 19:24 G	45666684.11	45666684.31	45666684.51	0.0541	0.0022
Mercury	120319-01-26 05:58 G	45666696.72	45666696.75	45666696.79	0.0541	0.0518
Mercury	120319-04-25 19:38 G	45666786.20	45666786.32	45666786.45	0.0538	0.0239
Venus	120324-11-15 09:34 G	45668816.85	45668816.90	45668816.96	0.0485	0.0464
Moon	120325-04-09 13:24 G	45668961.84	45668962.06	45668962.29	0.0488	0.0012
Earth	120325-04-09 13:53 G	45668961.84	45668962.08	45668962.31	0.0488	0.0027 *
Mercury	120325-06-05 20:07 G	45669019.18	45669019.34	45669019.51	0.0489	0.0018
Venus	120325-07-09 09:34 G	45669052.88	45669052.90	45669052.93	0.0490	0.0485
Venus	120330-09-18 07:53 G	45670949.69	45670949.83	45670949.97	0.0543	0.0390
Earth	120330-09-27 05:00 G	45670958.66	45670958.71	45670958.78	0.0543	0.0521
Moon	120330-09-27 06:41 G	45670958.73	45670958.78	45670958.84	0.0543	0.0525 *
Mercury	120331-02-11 22:02 G	45671096.29	45671096.42	45671096.56	0.0540	0.0056
Venus	120337-03-14 12:55 G	45673318.86	45673319.04	45673319.22	0.0488	0.0219
Mercury	120337-03-24 20:50 G	45673329.21	45673329.37	45673329.53	0.0488	0.0153
Earth	120337-04-13 20:36 G	45673349.15	45673349.36	45673349.58	0.0489	0.0203
Moon	120337-04-13 20:36 G	45673349.15	45673349.36	45673349.58	0.0489	0.0232 *
Moon	120342-10-02 11:58 G	45675346.79	45675347.00	45675347.22	0.0542	0.0167
Earth	120342-10-02 13:38 G	45675346.86	45675347.07	45675347.29	0.0542	0.0193 *
Mercury	120342-12-01 00:55 G	45675406.40	45675406.54	45675406.67	0.0540	0.0126
Venus	120348-11-17 15:34 G	45677584.95	45677585.15	45677585.36	0.0487	0.0049
Mercury	120349-01-10 21:34 G	45677639.27	45677639.40	45677639.52	0.0488	0.0317
Mercury	120349-04-10 17:43 G	45677729.13	45677729.24	45677729.35	0.0490	0.0356
Earth	120349-04-18 03:19 G	45677736.54	45677736.64	45677736.75	0.0490	0.0433
Moon	120349-04-18 03:48 G	45677736.58	45677736.66	45677736.75	0.0490	0.0449 *
Mercury	120354-09-19 03:05 G	45679716.52	45679716.63	45679716.75	0.0541	0.0312
Venus	120354-09-21 14:50 G	45679718.93	45679719.12	45679719.31	0.0540	0.0195
Earth	120354-10-07 21:05 G	45679735.16	45679735.38	45679735.61	0.0540	0.0133
Moon	120354-10-07 23:14 G	45679735.25	45679735.47	45679735.70	0.0540	0.0163 *

Mercury	120354-12-17 16:31 G	45679806.11	45679806.19	45679806.27	0.0538	0.0433
Venus	120360-07-23 19:24 G	45681851.16	45681851.31	45681851.47	0.0486	0.0310
Mercury	120360-10-29 22:46 G	45681949.41	45681949.45	45681949.48	0.0488	0.0474
Mercury	120361-01-27 18:26 G	45682039.11	45682039.27	45682039.42	0.0490	0.0190
Venus	120366-05-27 02:07 G	45683984.41	45683984.59	45683984.79	0.0542	0.0177
Mercury	120366-07-08 04:46 G	45684026.66	45684026.70	45684026.74	0.0541	0.0514
Mercury	120366-10-05 18:26 G	45684116.15	45684116.27	45684116.39	0.0538	0.0242
Moon	120366-10-12 20:50 G	45684123.25	45684123.37	45684123.50	0.0538	0.0442
Earth	120366-10-12 23:29 G	45684123.35	45684123.48	45684123.61	0.0538	0.0444 *
Mercury	120372-11-15 18:55 G	45686349.12	45686349.29	45686349.45	0.0489	0.0024
Venus	120372-11-19 22:46 G	45686353.33	45686353.45	45686353.59	0.0489	0.0378
Mercury	120378-07-24 20:36 G	45688426.22	45688426.36	45688426.50	0.0539	0.0054
Mars	120380-08-24 20:50 G	45689188.14	45689188.37	45689188.61	0.0508	0.0242
Moon	120384-03-31 05:58 G	45690502.72	45690502.75	45690502.79	0.0485	0.0477
Venus	120384-07-26 00:55 G	45690619.34	45690619.54	45690619.74	0.0487	0.0104
Mercury	120384-09-03 18:55 G	45690659.13	45690659.29	45690659.45	0.0488	0.0154
Mercury	120390-05-12 22:31 G	45692736.31	45692736.44	45692736.58	0.0540	0.0139
Venus	120390-05-30 04:46 G	45692753.56	45692753.70	45692753.84	0.0540	0.0388
Venus	120396-03-31 04:17 G	45694885.49	45694885.68	45694885.88	0.0486	0.0160
Moon	120396-04-04 13:53 G	45694889.87	45694890.08	45694890.28	0.0486	0.0266
Earth	120396-04-04 13:38 G	45694889.88	45694890.07	45694890.26	0.0486	0.0278 *
Mercury	120396-06-22 19:38 G	45694969.20	45694969.32	45694969.45	0.0488	0.0316
Mercury	120396-09-20 15:48 G	45695059.05	45695059.16	45695059.28	0.0490	0.0356
Venus	120402-02-01 19:10 G	45697019.10	45697019.30	45697019.50	0.0542	0.0032
Mercury	120402-03-01 01:10 G	45697046.44	45697046.55	45697046.66	0.0541	0.0321
Mercury	120402-05-29 14:22 G	45697136.02	45697136.10	45697136.18	0.0538	0.0425
Venus	120407-12-05 07:10 G	45699151.71	45699151.80	45699151.90	0.0485	0.0424
Earth	120408-04-08 19:38 G	45699277.09	45699277.32	45699277.55	0.0487	0.0052
Moon	120408-04-08 20:07 G	45699277.11	45699277.34	45699277.56	0.0487	0.0066 *
Mercury	120408-04-10 20:36 G	45699279.33	45699279.36	45699279.39	0.0487	0.0477

Mercury	120408-07-09 16:02 G	45699369.02	45699369.17	45699369.33	0.0489	0.0184
Moon	120413-09-26 10:31 G	45701273.93	45701273.94	45701273.96	0.0543	0.0540
Venus	120413-10-07 09:19 G	45701284.73	45701284.89	45701285.05	0.0543	0.0329
Mercury	120413-12-18 03:34 G	45701356.60	45701356.65	45701356.69	0.0541	0.0508
Mercury	120414-03-17 17:14 G	45701446.10	45701446.22	45701446.34	0.0539	0.0251
Venus	120420-04-02 11:00 G	45703653.79	45703653.96	45703654.14	0.0488	0.0263
Moon	120420-04-13 02:36 G	45703664.39	45703664.61	45703664.85	0.0489	0.0152
Earth	120420-04-13 03:34 G	45703664.43	45703664.65	45703664.87	0.0489	0.0180 *
Mercury	120420-04-27 17:00 G	45703679.04	45703679.21	45703679.37	0.0489	0.0023
Moon	120425-10-01 11:29 G	45705661.79	45705661.98	45705662.18	0.0541	0.0257
Earth	120425-10-01 13:24 G	45705661.85	45705662.06	45705662.27	0.0541	0.0234 *
Mercury	120426-01-03 19:10 G	45705756.17	45705756.30	45705756.44	0.0539	0.0062
Venus	120431-12-07 14:07 G	45707919.89	45707920.09	45707920.30	0.0487	0.0008
Mercury	120432-02-14 17:29 G	45707989.08	45707989.23	45707989.39	0.0489	0.0147
Earth	120432-04-17 10:46 G	45708051.83	45708051.95	45708052.08	0.0490	0.0413
Moon	120432-04-17 11:43 G	45708051.85	45708051.99	45708052.12	0.0490	0.0393 *
Mars	120434-05-12 17:00 G	45708807.03	45708807.21	45708807.39	0.0519	0.0391
Earth	120437-10-06 17:29 G	45710050.00	45710050.23	45710050.46	0.0540	0.0083
Moon	120437-10-06 19:38 G	45710050.08	45710050.32	45710050.56	0.0540	0.0047 *
Venus	120437-10-10 11:43 G	45710053.81	45710053.99	45710054.17	0.0540	0.0238
Mercury	120437-10-22 21:19 G	45710066.25	45710066.39	45710066.52	0.0540	0.0133
Venus	120443-08-12 16:46 G	45712186.03	45712186.20	45712186.37	0.0486	0.0273
Mercury	120443-12-03 17:58 G	45712299.13	45712299.25	45712299.38	0.0488	0.0315
Mercury	120444-03-02 14:07 G	45712388.98	45712389.09	45712389.20	0.0490	0.0357
Venus	120449-06-14 23:29 G	45714319.29	45714319.48	45714319.68	0.0542	0.0133
Mercury	120449-08-10 23:00 G	45714376.35	45714376.46	45714376.57	0.0541	0.0332
Moon	120449-10-11 19:24 G	45714438.15	45714438.31	45714438.47	0.0539	0.0385
Earth	120449-10-11 21:19 G	45714438.24	45714438.39	45714438.55	0.0539	0.0399 *
Mercury	120449-11-08 12:26 G	45714465.93	45714466.02	45714466.10	0.0538	0.0416
Mercury	120455-09-21 19:10 G	45716609.26	45716609.30	45716609.33	0.0487	0.0473

Venus	120455-12-09 20:07 G	45716688.24	45716688.34	45716688.45	0.0489	0.0415
Mercury	120455-12-20 14:36 G	45716698.95	45716699.11	45716699.26	0.0489	0.0188
Venus	120461-02-17 13:38 G	45718584.99	45718585.07	45718585.16	0.0544	0.0494
Mercury	120461-05-30 01:24 G	45718686.52	45718686.56	45718686.60	0.0542	0.0517
Mercury	120461-08-27 15:19 G	45718776.02	45718776.14	45718776.26	0.0539	0.0244
Venus	120467-08-14 23:00 G	45720954.27	45720954.46	45720954.66	0.0488	0.0148
Mercury	120467-10-08 14:50 G	45721008.96	45721009.12	45721009.29	0.0489	0.0021
Mercury	120473-06-15 18:12 G	45723086.12	45723086.26	45723086.39	0.0540	0.0069
Venus	120473-06-18 06:41 G	45723088.68	45723088.78	45723088.89	0.0540	0.0453
Earth	120479-04-04 21:05 G	45725205.20	45725205.38	45725205.56	0.0486	0.0300
Moon	120479-04-04 21:34 G	45725205.22	45725205.40	45725205.59	0.0486	0.0313 *
Venus	120479-04-20 02:50 G	45725220.42	45725220.62	45725220.82	0.0486	0.0116
Mercury	120479-07-27 15:48 G	45725319.01	45725319.16	45725319.32	0.0488	0.0144
Venus	120485-02-20 19:24 G	45727354.11	45727354.31	45727354.51	0.0541	0.0087
Mercury	120485-04-03 20:07 G	45727396.21	45727396.34	45727396.48	0.0540	0.0125
Venus	120490-12-24 06:12 G	45729486.63	45729486.76	45729486.89	0.0486	0.0381
Moon	120491-04-09 03:48 G	45729592.43	45729592.66	45729592.88	0.0487	0.0060
Earth	120491-04-09 03:48 G	45729592.43	45729592.66	45729592.90	0.0487	0.0070 *
Mercury	120491-05-15 16:46 G	45729629.07	45729629.20	45729629.33	0.0488	0.0306
Mercury	120491-08-13 12:55 G	45729718.93	45729719.04	45729719.15	0.0490	0.0368
Venus	120496-10-26 07:38 G	45731619.65	45731619.82	45731619.99	0.0542	0.0282
Mercury	120497-01-20 22:02 G	45731706.31	45731706.42	45731706.53	0.0540	0.0320
Mercury	120497-04-20 11:14 G	45731795.89	45731795.97	45731796.06	0.0538	0.0426
Mercury	120503-03-04 17:29 G	45733939.19	45733939.23	45733939.27	0.0487	0.0469
Moon	120503-04-14 09:19 G	45733979.67	45733979.89	45733980.12	0.0488	0.0187
Earth	120503-04-14 09:48 G	45733979.69	45733979.91	45733980.14	0.0488	0.0159 *
Venus	120503-04-23 09:05 G	45733988.72	45733988.88	45733989.04	0.0488	0.0303
Mercury	120503-06-02 12:55 G	45734028.89	45734029.04	45734029.19	0.0489	0.0192
Moon	120508-10-01 09:34 G	45735976.71	45735976.90	45735977.09	0.0542	0.0279
Earth	120508-10-01 10:31 G	45735976.74	45735976.94	45735977.14	0.0542	0.0283 *

Mercury	120508-11-09 23:29 G	45736016.45	45736016.48	45736016.51	0.0542	0.0524
Mercury	120509-02-07 13:24 G	45736105.94	45736106.06	45736106.18	0.0539	0.0237
Venus	120514-12-27 12:41 G	45738254.82	45738255.03	45738255.24	0.0487	0.0039
Mercury	120515-03-21 13:38 G	45738338.90	45738339.07	45738339.23	0.0488	0.0026
Earth	120515-04-18 17:00 G	45738367.08	45738367.21	45738367.36	0.0489	0.0390
Moon	120515-04-18 18:12 G	45738367.16	45738367.26	45738367.38	0.0489	0.0419 *
Earth	120520-10-06 18:55 G	45740365.06	45740365.29	45740365.52	0.0541	0.0044
Moon	120520-10-06 20:36 G	45740365.13	45740365.36	45740365.60	0.0541	0.0078 *
Venus	120520-10-30 11:43 G	45740388.82	45740388.99	45740389.16	0.0541	0.0292
Mercury	120520-11-26 16:02 G	45740416.04	45740416.17	45740416.31	0.0540	0.0063
Venus	120526-09-01 15:34 G	45742520.97	45742521.15	45742521.34	0.0486	0.0228
Mercury	120527-01-07 14:07 G	45742648.93	45742649.09	45742649.25	0.0488	0.0142
Venus	120532-07-05 02:22 G	45744654.40	45744654.60	45744654.80	0.0542	0.0066
Mercury	120532-09-14 18:55 G	45744726.15	45744726.29	45744726.42	0.0540	0.0118
Moon	120532-10-12 01:10 G	45744753.40	45744753.55	45744753.71	0.0540	0.0389
Earth	120532-10-12 03:34 G	45744753.48	45744753.65	45744753.82	0.0540	0.0371 *
Mercury	120538-10-26 15:05 G	45746959.01	45746959.13	45746959.26	0.0488	0.0301
Venus	120538-12-29 19:24 G	45747023.25	45747023.31	45747023.38	0.0489	0.0463
Mercury	120539-01-24 11:14 G	45747048.86	45747048.97	45747049.08	0.0490	0.0372
Venus	120544-03-09 15:19 G	45748920.02	45748920.14	45748920.26	0.0543	0.0433
Mercury	120544-07-03 20:50 G	45749036.26	45749036.37	45749036.49	0.0540	0.0310
Mercury	120544-10-01 10:17 G	45749125.85	45749125.93	45749126.01	0.0538	0.0436
Mercury	120550-08-14 16:17 G	45751269.13	45751269.18	45751269.23	0.0488	0.0460
Venus	120550-09-03 22:46 G	45751289.26	45751289.45	45751289.64	0.0488	0.0196
Mercury	120550-11-12 11:43 G	45751358.84	45751358.99	45751359.14	0.0489	0.0203
Mercury	120556-04-21 22:46 G	45753346.40	45753346.45	45753346.50	0.0541	0.0506
Venus	120556-07-08 05:58 G	45753423.68	45753423.75	45753423.82	0.0539	0.0503
Mercury	120556-07-20 12:26 G	45753435.90	45753436.02	45753436.15	0.0539	0.0253
Moon	120562-04-05 05:14 G	45755520.53	45755520.72	45755520.92	0.0486	0.0291
Earth	120562-04-05 05:29 G	45755520.55	45755520.73	45755520.91	0.0486	0.0315 *

Venus	120562-05-10 01:53 G	45755555.38	45755555.58	45755555.79	0.0486	0.0072
Mercury	120562-08-31 12:12 G	45755668.84	45755669.01	45755669.18	0.0489	0.0032
Venus	120568-03-12 17:00 G	45757689.02	45757689.21	45757689.41	0.0541	0.0134
Mercury	120568-05-08 14:22 G	45757745.96	45757746.10	45757746.24	0.0540	0.0057
Venus	120574-01-13 05:43 G	45759821.59	45759821.74	45759821.89	0.0485	0.0334
Earth	120574-04-09 12:26 G	45759907.80	45759908.02	45759908.26	0.0486	0.0088
Moon	120574-04-09 12:55 G	45759907.82	45759908.04	45759908.26	0.0486	0.0087 *
Mercury	120574-06-19 12:55 G	45759978.89	45759979.04	45759979.20	0.0488	0.0131
Venus	120579-11-16 06:55 G	45761954.61	45761954.79	45761954.98	0.0543	0.0229
Mercury	120580-02-25 17:00 G	45762056.07	45762056.21	45762056.35	0.0541	0.0124
Mercury	120586-04-07 13:38 G	45764288.94	45764289.07	45764289.20	0.0487	0.0296
Moon	120586-04-13 17:58 G	45764295.01	45764295.25	45764295.49	0.0488	0.0116
Earth	120586-04-13 18:26 G	45764295.05	45764295.27	45764295.50	0.0488	0.0139 *
Venus	120586-05-12 08:22 G	45764323.70	45764323.85	45764323.99	0.0488	0.0351
Mercury	120586-07-06 09:34 G	45764378.80	45764378.90	45764379.01	0.0490	0.0376
Mars	120588-08-06 11:29 G	45765140.70	45765140.98	45765141.26	0.0519	0.0055
Moon	120591-10-01 16:31 G	45766292.01	45766292.19	45766292.38	0.0543	0.0308
Earth	120591-10-01 17:43 G	45766292.05	45766292.24	45766292.43	0.0543	0.0309 *
Mercury	120591-12-14 19:38 G	45766366.21	45766366.32	45766366.44	0.0541	0.0304
Mercury	120592-03-13 09:05 G	45766455.80	45766455.88	45766455.95	0.0539	0.0444
Venus	120598-01-15 12:12 G	45768589.81	45768590.01	45768590.21	0.0487	0.0087
Mercury	120598-01-24 14:50 G	45768599.07	45768599.12	45768599.18	0.0487	0.0451
Earth	120598-04-18 02:07 G	45768682.45	45768682.59	45768682.75	0.0489	0.0371
Moon	120598-04-18 03:05 G	45768682.47	45768682.63	45768682.79	0.0489	0.0343 *
Mercury	120598-04-24 10:17 G	45768688.78	45768688.93	45768689.08	0.0489	0.0210
Mercury	120603-10-03 21:48 G	45770676.35	45770676.41	45770676.46	0.0541	0.0496
Earth	120603-10-08 00:26 G	45770680.29	45770680.52	45770680.75	0.0541	0.0019
Moon	120603-10-08 01:53 G	45770680.34	45770680.58	45770680.82	0.0541	0.0016 *
Venus	120603-11-20 13:53 G	45770723.93	45770724.08	45770724.23	0.0540	0.0356
Mercury	120604-01-01 11:29 G	45770765.87	45770765.98	45770766.11	0.0539	0.0264

Venus	120609-09-21 15:34 G	45772855.96	45772856.15	45772856.35	0.0486	0.0179
Mercury	120610-02-11 11:00 G	45772998.80	45772998.96	45772999.13	0.0489	0.0043
Venus	120615-07-26 02:36 G	45774989.41	45774989.61	45774989.81	0.0542	0.0011
Moon	120615-10-13 03:48 G	45775068.48	45775068.66	45775068.85	0.0540	0.0306
Earth	120615-10-13 05:14 G	45775068.54	45775068.72	45775068.91	0.0540	0.0334 *
Mercury	120615-10-20 13:53 G	45775075.94	45775076.08	45775076.22	0.0539	0.0077
Venus	120621-05-27 19:10 G	45777122.22	45777122.30	45777122.39	0.0485	0.0441
Mercury	120621-11-30 11:43 G	45777308.83	45777308.99	45777309.15	0.0488	0.0122
Venus	120627-03-30 12:55 G	45779254.90	45779255.04	45779255.18	0.0543	0.0387
Mercury	120627-08-08 15:19 G	45779386.01	45779386.14	45779386.28	0.0541	0.0125
Mercury	120633-09-18 12:41 G	45781618.90	45781619.03	45781619.17	0.0487	0.0282
Venus	120633-09-23 22:46 G	45781624.27	45781624.45	45781624.63	0.0487	0.0245
Mercury	120633-12-17 08:36 G	45781708.76	45781708.86	45781708.96	0.0489	0.0389
Mercury	120639-05-27 17:43 G	45783696.13	45783696.24	45783696.36	0.0541	0.0310
Mercury	120639-08-25 07:10 G	45783785.73	45783785.80	45783785.88	0.0539	0.0440
Earth	120645-04-05 15:05 G	45785835.96	45785836.13	45785836.30	0.0485	0.0331
Moon	120645-04-05 15:05 G	45785835.97	45785836.13	45785836.30	0.0485	0.0358 *
Venus	120645-05-30 01:24 G	45785890.36	45785890.56	45785890.77	0.0486	0.0026
Mercury	120645-07-07 13:24 G	45785929.00	45785929.06	45785929.13	0.0487	0.0444
Mercury	120645-10-05 08:50 G	45786018.72	45786018.87	45786019.02	0.0489	0.0216
Mercury	120651-03-15 20:22 G	45788006.29	45788006.35	45788006.40	0.0542	0.0492
Venus	120651-04-02 20:50 G	45788024.18	45788024.37	45788024.55	0.0541	0.0205
Mercury	120651-06-13 10:17 G	45788095.81	45788095.93	45788096.05	0.0539	0.0270
Mars	120653-05-12 08:07 G	45788794.58	45788794.84	45788795.10	0.0510	0.0132
Venus	120657-02-02 05:29 G	45790156.57	45790156.73	45790156.90	0.0485	0.0285
Earth	120657-04-09 22:17 G	45790223.20	45790223.43	45790223.66	0.0486	0.0104
Moon	120657-04-09 22:31 G	45790223.23	45790223.44	45790223.67	0.0486	0.0114 *
Mercury	120657-07-24 09:34 G	45790328.74	45790328.90	45790329.07	0.0489	0.0054
Venus	120662-12-06 10:17 G	45792289.74	45792289.93	45792290.12	0.0542	0.0160
Mercury	120663-04-01 12:41 G	45792405.90	45792406.03	45792406.17	0.0540	0.0090

Moon	120669-04-14 04:17 G	45794610.44	45794610.68	45794610.91	0.0488	0.0141
Earth	120669-04-14 05:14 G	45794610.50	45794610.72	45794610.95	0.0488	0.0126 *
Mercury	120669-05-12 10:31 G	45794638.78	45794638.94	45794639.10	0.0488	0.0112
Venus	120669-06-01 08:50 G	45794658.76	45794658.87	45794658.99	0.0489	0.0403
Venus	120674-08-10 23:00 G	45796555.42	45796555.46	45796555.51	0.0544	0.0527
Moon	120674-10-01 19:53 G	45796607.17	45796607.33	45796607.50	0.0543	0.0354
Earth	120674-10-01 20:50 G	45796607.20	45796607.37	45796607.56	0.0543	0.0343 *
Mercury	120675-01-18 14:50 G	45796715.99	45796716.12	45796716.26	0.0540	0.0103
Venus	120681-02-04 12:41 G	45798924.83	45798925.03	45798925.23	0.0487	0.0137
Mercury	120681-02-28 11:29 G	45798948.85	45798948.98	45798949.12	0.0487	0.0272
Earth	120681-04-18 12:41 G	45798997.87	45798998.03	45798998.19	0.0489	0.0356
Moon	120681-04-18 13:53 G	45798997.95	45798998.08	45798998.23	0.0489	0.0386 *
Mercury	120681-05-29 07:24 G	45799038.72	45799038.81	45799038.91	0.0489	0.0400
Earth	120686-10-06 22:17 G	45800995.20	45800995.43	45800995.66	0.0542	0.0034
Moon	120686-10-06 23:43 G	45800995.25	45800995.49	45800995.73	0.0542	0.0009 *
Mercury	120686-11-06 16:17 G	45801026.06	45801026.18	45801026.29	0.0541	0.0309
Venus	120686-12-09 11:43 G	45801058.86	45801058.99	45801059.13	0.0540	0.0405
Mercury	120687-02-04 05:43 G	45801115.66	45801115.74	45801115.82	0.0539	0.0441
Venus	120692-10-10 16:17 G	45803190.99	45803191.18	45803191.39	0.0486	0.0127
Mercury	120692-12-17 12:41 G	45803258.96	45803259.03	45803259.11	0.0487	0.0428
Mercury	120693-03-17 08:07 G	45803348.69	45803348.84	45803348.98	0.0489	0.0232
Venus	120698-08-14 01:38 G	45805324.37	45805324.57	45805324.77	0.0542	0.0044
Mercury	120698-08-25 18:26 G	45805336.21	45805336.27	45805336.32	0.0542	0.0498
Moon	120698-10-12 04:17 G	45805383.51	45805383.68	45805383.86	0.0541	0.0326
Earth	120698-10-12 05:58 G	45805383.55	45805383.75	45805383.94	0.0541	0.0290 *
Mercury	120698-11-23 08:22 G	45805425.73	45805425.85	45805425.97	0.0540	0.0265
Venus	120704-06-16 18:55 G	45807457.18	45807457.29	45807457.42	0.0485	0.0393
Mercury	120705-01-04 08:22 G	45807658.69	45807658.85	45807659.01	0.0488	0.0060
Venus	120710-04-19 16:31 G	45809590.02	45809590.19	45809590.35	0.0544	0.0317
Mercury	120710-09-12 11:29 G	45809735.84	45809735.98	45809736.11	0.0540	0.0093

Venus	120716-10-13 22:31 G	45811959.28	45811959.44	45811959.61	0.0488	0.0295
Mercury	120716-10-23 09:19 G	45811968.73	45811968.89	45811969.05	0.0488	0.0102
Mercury	120722-07-01 13:53 G	45814045.94	45814046.08	45814046.22	0.0540	0.0091
Moon	120728-04-06 01:38 G	45816151.39	45816151.57	45816151.76	0.0485	0.0316
Earth	120728-04-06 01:38 G	45816151.41	45816151.57	45816151.74	0.0485	0.0344 *
Venus	120728-06-19 02:07 G	45816225.38	45816225.59	45816225.80	0.0487	0.0029
Mercury	120728-08-11 10:17 G	45816278.79	45816278.93	45816279.07	0.0488	0.0263
Mercury	120728-11-09 06:12 G	45816368.67	45816368.76	45816368.85	0.0490	0.0410
Mercury	120734-04-19 15:48 G	45818356.05	45818356.16	45818356.28	0.0541	0.0283
Venus	120734-04-22 22:02 G	45818359.24	45818359.42	45818359.59	0.0541	0.0266
Mercury	120734-07-18 05:14 G	45818445.66	45818445.72	45818445.79	0.0538	0.0464
Venus	120740-02-23 06:12 G	45820491.58	45820491.76	45820491.94	0.0485	0.0234
Earth	120740-04-10 09:19 G	45820538.66	45820538.89	45820539.12	0.0486	0.0116
Moon	120740-04-10 09:19 G	45820538.68	45820538.89	45820539.12	0.0486	0.0105 *
Mercury	120740-05-30 11:29 G	45820588.90	45820588.98	45820589.06	0.0487	0.0418
Mercury	120740-08-28 06:55 G	45820678.64	45820678.79	45820678.93	0.0489	0.0243
Mars	120742-11-02 20:36 G	45821475.17	45821475.36	45821475.58	0.0519	0.0349
Venus	120745-12-26 07:53 G	45822624.63	45822624.83	45822625.02	0.0543	0.0114
Mercury	120746-02-05 16:46 G	45822666.15	45822666.20	45822666.26	0.0542	0.0497
Mercury	120746-05-06 06:55 G	45822755.67	45822755.79	45822755.91	0.0540	0.0267
Moon	120752-04-14 16:02 G	45824925.93	45824926.17	45824926.41	0.0487	0.0100
Earth	120752-04-14 16:46 G	45824925.97	45824926.20	45824926.43	0.0487	0.0112 *
Mercury	120752-06-16 07:38 G	45824988.65	45824988.82	45824988.98	0.0488	0.0077
Venus	120752-06-21 09:34 G	45824993.83	45824993.90	45824993.98	0.0488	0.0456
Venus	120757-08-30 21:05 G	45826890.29	45826890.38	45826890.48	0.0544	0.0479
Earth	120757-10-01 19:24 G	45826922.16	45826922.31	45826922.48	0.0544	0.0392
Moon	120757-10-01 19:38 G	45826922.16	45826922.32	45826922.49	0.0544	0.0366 *
Mercury	120758-02-22 09:34 G	45827065.76	45827065.90	45827066.03	0.0540	0.0087
Venus	120764-02-25 12:12 G	45829259.82	45829260.01	45829260.20	0.0487	0.0186
Mercury	120764-04-04 07:53 G	45829298.67	45829298.83	45829299.00	0.0488	0.0094

Earth	120764-04-18 21:48 G	45829313.25	45829313.41	45829313.58	0.0488	0.0337
Moon	120764-04-18 23:00 G	45829313.29	45829313.46	45829313.64	0.0488	0.0308 *
Earth	120769-10-07 05:29 G	45831310.50	45831310.73	45831310.96	0.0542	0.0059
Moon	120769-10-07 06:41 G	45831310.54	45831310.78	45831311.02	0.0542	0.0073 *
Mercury	120769-12-11 12:12 G	45831375.88	45831376.01	45831376.15	0.0541	0.0091
Venus	120769-12-29 15:05 G	45831394.04	45831394.13	45831394.23	0.0540	0.0475
Venus	120775-10-31 16:02 G	45833525.96	45833526.17	45833526.37	0.0486	0.0078
Mercury	120776-01-22 09:05 G	45833608.74	45833608.88	45833609.02	0.0487	0.0253
Mercury	120776-04-21 05:00 G	45833698.62	45833698.71	45833698.79	0.0489	0.0419
Venus	120781-09-03 05:29 G	45835659.53	45835659.73	45835659.92	0.0542	0.0115
Mercury	120781-09-29 14:36 G	45835685.99	45835686.11	45835686.23	0.0541	0.0275
Moon	120781-10-12 11:14 G	45835698.77	45835698.97	45835699.18	0.0541	0.0238
Earth	120781-10-12 13:38 G	45835698.88	45835699.07	45835699.28	0.0541	0.0269 *
Mercury	120781-12-28 04:02 G	45835775.61	45835775.67	45835775.74	0.0539	0.0473
Venus	120787-07-06 19:24 G	45837792.17	45837792.31	45837792.46	0.0485	0.0343
Mercury	120787-11-10 10:02 G	45837918.84	45837918.92	45837919.01	0.0487	0.0411
Mercury	120788-02-08 05:29 G	45838008.59	45838008.73	45838008.87	0.0489	0.0250
Venus	120793-05-08 18:12 G	45839925.08	45839925.26	45839925.43	0.0543	0.0254
Mercury	120793-07-18 16:31 G	45839996.13	45839996.19	45839996.26	0.0541	0.0470
Mercury	120793-10-16 06:41 G	45840085.66	45840085.78	45840085.89	0.0539	0.0291
Venus	120799-11-02 23:29 G	45842294.33	45842294.48	45842294.62	0.0488	0.0348
Mercury	120799-11-27 06:26 G	45842318.60	45842318.77	45842318.93	0.0488	0.0087
Mercury	120805-08-04 07:53 G	45844395.70	45844395.83	45844395.97	0.0540	0.0090
Mars	120807-08-07 09:19 G	45845128.65	45845128.89	45845129.14	0.0510	0.0200
Earth	120811-04-06 13:24 G	45846466.90	45846467.06	45846467.22	0.0485	0.0355
Moon	120811-04-06 15:19 G	45846467.00	45846467.14	45846467.30	0.0485	0.0381 *
Venus	120811-07-09 03:05 G	45846560.42	45846560.63	45846560.83	0.0486	0.0083
Mercury	120811-09-15 07:10 G	45846628.64	45846628.80	45846628.97	0.0488	0.0077
Venus	120817-05-11 19:53 G	45848694.17	45848694.33	45848694.49	0.0541	0.0315
Mercury	120817-05-23 10:17 G	45848705.79	45848705.93	45848706.07	0.0541	0.0098

Venus	120823-03-14 05:43 G	45850826.55	45850826.74	45850826.93	0.0485	0.0186
Moon	120823-04-10 16:17 G	45850853.96	45850854.18	45850854.40	0.0486	0.0135
Earth	120823-04-10 18:12 G	45850854.04	45850854.26	45850854.49	0.0486	0.0134 *
Mercury	120823-07-04 07:38 G	45850938.68	45850938.82	45850938.96	0.0487	0.0245
Mercury	120823-10-02 03:34 G	45851028.57	45851028.65	45851028.73	0.0489	0.0426
Venus	120829-01-14 10:31 G	45852959.74	45852959.94	45852960.14	0.0543	0.0047
Mercury	120829-03-11 12:55 G	45853015.92	45853016.04	45853016.16	0.0542	0.0278
Mercury	120829-06-09 02:36 G	45853105.54	45853105.61	45853105.67	0.0539	0.0472
Venus	120834-11-17 09:05 G	45855092.81	45855092.88	45855092.97	0.0484	0.0449
Earth	120835-04-15 01:10 G	45855241.32	45855241.55	45855241.79	0.0487	0.0093
Moon	120835-04-15 03:48 G	45855241.43	45855241.66	45855241.90	0.0487	0.0120 *
Mercury	120835-04-22 08:50 G	45855248.78	45855248.87	45855248.96	0.0487	0.0402
Mercury	120835-07-21 04:02 G	45855338.53	45855338.67	45855338.82	0.0489	0.0258
Venus	120840-09-19 00:55 G	45857225.41	45857225.54	45857225.67	0.0544	0.0409
Moon	120840-09-30 23:58 G	45857237.36	45857237.50	45857237.65	0.0544	0.0417
Earth	120840-10-01 03:19 G	45857237.50	45857237.64	45857237.79	0.0544	0.0412 *
Mercury	120840-12-28 15:19 G	45857326.07	45857326.14	45857326.21	0.0542	0.0464
Mercury	120841-03-28 05:14 G	45857415.61	45857415.72	45857415.84	0.0539	0.0298
Venus	120847-03-16 12:12 G	45859594.84	45859595.01	45859595.20	0.0487	0.0238
Moon	120847-04-19 05:14 G	45859628.57	45859628.72	45859628.89	0.0488	0.0347
Earth	120847-04-19 08:07 G	45859628.67	45859628.84	45859629.02	0.0488	0.0321 *
Mercury	120847-05-09 04:46 G	45859648.54	45859648.70	45859648.87	0.0488	0.0092
Earth	120852-10-06 09:34 G	45861625.68	45861625.90	45861626.13	0.0542	0.0093
Moon	120852-10-06 13:24 G	45861625.83	45861626.06	45861626.29	0.0542	0.0058 *
Mercury	120853-01-14 07:38 G	45861725.68	45861725.82	45861725.96	0.0540	0.0112
Venus	120853-01-17 16:31 G	45861729.17	45861729.19	45861729.21	0.0540	0.0536
Venus	120858-11-19 16:31 G	45863860.98	45863861.19	45863861.40	0.0486	0.0026
Mercury	120859-02-25 05:58 G	45863958.58	45863958.75	45863958.91	0.0488	0.0068
Venus	120864-09-22 02:07 G	45865994.40	45865994.59	45865994.79	0.0542	0.0160
Moon	120864-10-11 06:12 G	45866013.56	45866013.76	45866013.97	0.0541	0.0240

Earth 120864-10-11 09:48 G 45866013.70 45866013.91 45866014.13 0.0541 0.0214 *
 Mercury 120864-11-02 08:50 G 45866035.73 45866035.87 45866036.01 0.0541 0.0096
 Venus 120870-07-25 20:07 G 45868127.18 45868127.34 45868127.51 0.0485 0.0290
 Mercury 120870-12-14 06:55 G 45868268.64 45868268.79 45868268.93 0.0487 0.0229
 Mercury 120871-03-14 02:36 G 45868358.55 45868358.61 45868358.68 0.0489 0.0443
 Venus 120876-05-27 15:05 G 45870259.94 45870260.13 45870260.31 0.0543 0.0210
 Mercury 120876-08-21 10:46 G 45870345.84 45870345.95 45870346.07 0.0541 0.0287
 Earth 120876-10-16 15:48 G 45870402.13 45870402.16 45870402.21 0.0540 0.0530
 Moon 120876-10-16 19:38 G 45870402.26 45870402.32 45870402.40 0.0540 0.0513
 Mercury 120876-11-19 00:26 G 45870435.45 45870435.52 45870435.59 0.0539 0.0464
 Mercury 120882-10-02 07:24 G 45872578.72 45872578.81 45872578.90 0.0487 0.0396
 Venus 120882-11-21 21:48 G 45872629.30 45872629.41 45872629.54 0.0488 0.0393
 Mercury 120882-12-31 02:36 G 45872668.47 45872668.61 45872668.75 0.0489 0.0264
 Mercury 120888-06-09 13:10 G 45874655.99 45874656.05 45874656.12 0.0542 0.0472
 Mercury 120888-09-07 03:19 G 45874745.53 45874745.64 45874745.76 0.0540 0.0293
 Earth 120894-04-05 21:05 G 45876782.23 45876782.38 45876782.53 0.0485 0.0375
 Moon 120894-04-06 00:55 G 45876782.40 45876782.54 45876782.71 0.0485 0.0364 *
 Venus 120894-07-28 01:38 G 45876895.37 45876895.57 45876895.77 0.0486 0.0127
 Mercury 120894-10-19 03:19 G 45876978.48 45876978.64 45876978.80 0.0488 0.0098
 Venus 120900-05-31 22:46 G 45879029.32 45879029.45 45879029.60 0.0541 0.0383
 Mercury 120900-06-27 06:12 G 45879055.62 45879055.76 45879055.89 0.0540 0.0115
 Venus 120906-04-03 05:00 G 45881161.51 45881161.71 45881161.91 0.0486 0.0139
 Moon 120906-04-10 23:29 G 45881169.26 45881169.48 45881169.70 0.0486 0.0168
 Earth 120906-04-11 03:19 G 45881169.42 45881169.64 45881169.87 0.0486 0.0151 *
 Mercury 120906-08-08 04:02 G 45881288.51 45881288.67 45881288.84 0.0488 0.0067
 Venus 120912-02-04 11:58 G 45883294.80 45883295.00 45883295.20 0.0542 0.0016
 Mercury 120912-04-15 08:22 G 45883365.71 45883365.85 45883365.99 0.0541 0.0073
 Venus 120917-12-07 09:05 G 45885427.77 45885427.88 45885428.00 0.0485 0.0400
 Earth 120918-04-15 11:14 G 45885556.74 45885556.97 45885557.20 0.0487 0.0077
 Moon 120918-04-15 15:05 G 45885556.90 45885557.13 45885557.36 0.0487 0.0047 *

Mercury	120918-05-27 05:14 G	45885598.58	45885598.72	45885598.87	0.0487	0.0224
Mercury	120918-08-25 01:10 G	45885688.49	45885688.55	45885688.62	0.0489	0.0449
Moon	120923-10-01 18:55 G	45887552.20	45887552.29	45887552.40	0.0544	0.0487
Earth	120923-10-01 22:46 G	45887552.34	45887552.45	45887552.57	0.0544	0.0468 *
Venus	120923-10-09 21:19 G	45887560.25	45887560.39	45887560.54	0.0543	0.0367
Mercury	120924-02-02 09:19 G	45887675.77	45887675.89	45887676.01	0.0541	0.0286
Mercury	120924-05-01 23:00 G	45887765.39	45887765.46	45887765.52	0.0539	0.0465
Mercury	120930-03-15 06:26 G	45889908.67	45889908.77	45889908.87	0.0487	0.0382
Venus	120930-04-05 12:26 G	45889929.86	45889930.02	45889930.19	0.0487	0.0288
Moon	120930-04-19 14:22 G	45889943.92	45889944.10	45889944.29	0.0488	0.0291
Earth	120930-04-19 18:12 G	45889944.08	45889944.26	45889944.45	0.0488	0.0304 *
Mercury	120930-06-13 01:38 G	45889998.44	45889998.57	45889998.71	0.0489	0.0279
Earth	120935-10-07 04:17 G	45891940.46	45891940.68	45891940.91	0.0543	0.0150
Moon	120935-10-07 07:53 G	45891940.62	45891940.83	45891941.04	0.0543	0.0185 *
Mercury	120935-11-21 11:00 G	45891985.90	45891985.96	45891986.03	0.0542	0.0482
Mercury	120936-02-19 01:24 G	45892075.44	45892075.56	45892075.67	0.0540	0.0283
Venus	120941-12-09 14:36 G	45894195.90	45894196.11	45894196.31	0.0486	0.0018
Mercury	120942-04-01 01:38 G	45894308.41	45894308.57	45894308.74	0.0488	0.0102
Moon	120947-10-12 10:02 G	45896328.69	45896328.92	45896329.15	0.0542	0.0168
Earth	120947-10-12 13:10 G	45896328.84	45896329.05	45896329.27	0.0542	0.0180 *
Venus	120947-10-13 03:19 G	45896329.45	45896329.64	45896329.82	0.0542	0.0219
Mercury	120947-12-08 04:02 G	45896385.54	45896385.67	45896385.81	0.0540	0.0106
Venus	120953-08-14 18:12 G	45898462.08	45898462.26	45898462.44	0.0485	0.0249
Mercury	120954-01-18 02:36 G	45898618.44	45898618.61	45898618.77	0.0488	0.0063
Venus	120959-06-17 17:29 G	45900595.04	45900595.23	45900595.43	0.0543	0.0144
Mercury	120959-09-26 06:41 G	45900695.64	45900695.78	45900695.92	0.0541	0.0075
Earth	120959-10-17 21:34 G	45900717.32	45900717.40	45900717.49	0.0540	0.0502
Moon	120959-10-17 23:58 G	45900717.46	45900717.50	45900717.53	0.0540	0.0532 *
Mercury	120965-11-06 03:19 G	45902928.50	45902928.64	45902928.79	0.0487	0.0225
Venus	120965-12-11 20:50 G	45902964.29	45902964.37	45902964.46	0.0488	0.0440

Mercury	120966-02-03 23:00 G	45903018.40	45903018.46	45903018.53	0.0489	0.0448
Venus	120971-02-20 06:41 G	45904860.72	45904860.78	45904860.85	0.0544	0.0512
Mercury	120971-07-15 08:50 G	45905005.75	45905005.87	45905005.99	0.0541	0.0266
Mercury	120971-10-12 22:17 G	45905095.38	45905095.43	45905095.49	0.0539	0.0484
Earth	120977-04-06 05:43 G	45907097.61	45907097.74	45907097.88	0.0485	0.0393
Moon	120977-04-06 07:38 G	45907097.69	45907097.82	45907097.97	0.0485	0.0381 *
Venus	120977-08-17 01:10 G	45907230.36	45907230.55	45907230.74	0.0487	0.0176
Mercury	120977-08-25 04:46 G	45907238.60	45907238.70	45907238.80	0.0487	0.0379
Mercury	120977-11-22 23:58 G	45907328.37	45907328.50	45907328.64	0.0489	0.0282
Mercury	120983-05-03 09:34 G	45909315.84	45909315.90	45909315.96	0.0542	0.0481
Venus	120983-06-20 18:41 G	45909364.17	45909364.28	45909364.41	0.0540	0.0424
Mercury	120983-07-31 23:43 G	45909405.38	45909405.49	45909405.61	0.0539	0.0283
Moon	120989-04-10 10:02 G	45911484.69	45911484.92	45911485.15	0.0486	0.0138
Earth	120989-04-10 12:26 G	45911484.80	45911485.02	45911485.24	0.0486	0.0169 *
Venus	120989-04-22 04:31 G	45911496.49	45911496.69	45911496.89	0.0486	0.0091
Mercury	120989-09-11 00:41 G	45911638.37	45911638.53	45911638.69	0.0488	0.0114
Venus	120995-02-23 07:24 G	45913629.61	45913629.81	45913630.01	0.0542	0.0055
Mercury	120995-05-20 01:53 G	45913715.44	45913715.58	45913715.72	0.0540	0.0095
Venus	121000-12-27 06:26 G	45915762.64	45915762.77	45915762.92	0.0485	0.0362

122ND MILLENNIUM CE

This is a list of transits visible from Jupiter in the 122nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Earth	121001-04-15 16:31 G	45915871.96	45915872.19	45915872.43	0.0486	0.0053
Moon	121001-04-15 18:55 G	45915872.07	45915872.29	45915872.52	0.0486	0.0078 *
Mercury	121001-07-01 00:41 G	45915948.37	45915948.53	45915948.70	0.0488	0.0061
Moon	121006-10-01 21:48 G	45917867.31	45917867.41	45917867.53	0.0544	0.0479
Earth	121006-10-01 23:43 G	45917867.41	45917867.49	45917867.57	0.0544	0.0507 *
Venus	121006-10-29 21:05 G	45917895.22	45917895.38	45917895.55	0.0544	0.0314
Mercury	121007-03-09 04:31 G	45918025.55	45918025.69	45918025.82	0.0541	0.0089
Mercury	121013-04-19 01:38 G	45920258.43	45920258.57	45920258.72	0.0487	0.0223
Moon	121013-04-19 20:36 G	45920259.16	45920259.36	45920259.56	0.0487	0.0274
Earth	121013-04-19 23:00 G	45920259.28	45920259.46	45920259.66	0.0487	0.0278 *
Venus	121013-04-25 09:34 G	45920264.74	45920264.90	45920265.05	0.0487	0.0327
Mercury	121013-07-17 21:19 G	45920348.33	45920348.39	45920348.46	0.0489	0.0447
Mars	121015-07-19 07:24 G	45921079.55	45921079.81	45921080.08	0.0517	0.0194
Earth	121018-10-07 08:50 G	45922255.65	45922255.87	45922256.09	0.0543	0.0180
Moon	121018-10-07 09:05 G	45922255.67	45922255.88	45922256.10	0.0543	0.0158 *
Mercury	121018-12-26 06:55 G	45922335.67	45922335.79	45922335.91	0.0541	0.0271
Mercury	121019-03-25 20:22 G	45922425.30	45922425.35	45922425.42	0.0539	0.0481
Venus	121024-12-29 12:41 G	45924530.82	45924531.03	45924531.24	0.0486	0.0059
Mercury	121025-02-05 02:36 G	45924568.51	45924568.61	45924568.71	0.0487	0.0383
Moon	121025-04-24 07:53 G	45924646.78	45924646.83	45924646.87	0.0489	0.0478
Mercury	121025-05-05 21:48 G	45924658.27	45924658.41	45924658.55	0.0489	0.0277
Earth	121030-10-12 15:19 G	45926643.92	45926644.14	45926644.37	0.0542	0.0142
Moon	121030-10-12 15:48 G	45926643.93	45926644.16	45926644.40	0.0542	0.0123 *
Mercury	121030-10-14 08:36 G	45926645.80	45926645.86	45926645.94	0.0542	0.0465
Venus	121030-11-02 03:34 G	45926664.48	45926664.65	45926664.83	0.0541	0.0277
Mercury	121031-01-11 23:00 G	45926735.35	45926735.46	45926735.57	0.0539	0.0299
Venus	121036-09-03 16:46 G	45928797.01	45928797.20	45928797.39	0.0485	0.0204
Mercury	121037-02-21 22:46 G	45928968.29	45928968.45	45928968.61	0.0488	0.0115
Venus	121042-07-07 13:24 G	45930929.87	45930930.06	45930930.26	0.0543	0.0105

Moon	121042-10-17 15:05 G	45931031.98	45931032.13	45931032.27	0.0540	0.0410
Earth	121042-10-17 15:34 G	45931032.03	45931032.15	45931032.29	0.0540	0.0445 *
Mercury	121042-10-31 00:12 G	45931045.38	45931045.51	45931045.65	0.0540	0.0095
Venus	121048-05-09 19:53 G	45933063.28	45933063.33	45933063.38	0.0485	0.0469
Mercury	121048-12-10 23:29 G	45933278.32	45933278.48	45933278.64	0.0488	0.0051
Venus	121048-12-31 19:38 G	45933299.31	45933299.32	45933299.34	0.0488	0.0487
Venus	121054-03-12 01:38 G	45935195.48	45935195.57	45935195.66	0.0544	0.0477
Mercury	121054-08-19 02:07 G	45935355.46	45935355.59	45935355.73	0.0541	0.0099
Moon	121060-04-06 09:19 G	45937412.80	45937412.89	45937412.99	0.0484	0.0440
Earth	121060-04-06 10:17 G	45937412.81	45937412.93	45937413.05	0.0484	0.0415 *
Venus	121060-09-05 21:34 G	45937565.22	45937565.40	45937565.59	0.0487	0.0212
Mercury	121060-09-28 23:43 G	45937588.35	45937588.49	45937588.64	0.0487	0.0224
Mercury	121060-12-27 19:24 G	45937678.25	45937678.31	45937678.38	0.0489	0.0446
Mercury	121066-06-07 04:31 G	45939665.57	45939665.69	45939665.81	0.0542	0.0287
Venus	121066-07-10 17:58 G	45939699.16	45939699.25	45939699.35	0.0541	0.0475
Mercury	121066-09-04 18:12 G	45939755.20	45939755.26	45939755.33	0.0539	0.0467
Earth	121072-04-10 16:31 G	45941799.98	45941800.19	45941800.41	0.0485	0.0194
Moon	121072-04-10 17:58 G	45941800.03	45941800.25	45941800.47	0.0485	0.0218 *
Venus	121072-05-12 00:55 G	45941831.33	45941831.54	45941831.75	0.0485	0.0055
Mercury	121072-07-18 00:55 G	45941898.44	45941898.54	45941898.64	0.0487	0.0383
Mercury	121072-10-15 19:53 G	45941988.19	45941988.33	45941988.47	0.0488	0.0276
Venus	121078-03-15 08:22 G	45943964.65	45943964.85	45943965.04	0.0542	0.0113
Mercury	121078-03-26 06:41 G	45943975.72	45943975.78	45943975.85	0.0542	0.0474
Mercury	121078-06-23 21:05 G	45944065.26	45944065.38	45944065.49	0.0540	0.0293
Mars	121080-04-23 06:41 G	45944734.55	45944734.78	45944735.01	0.0512	0.0258
Venus	121084-01-16 04:02 G	45946097.52	45946097.67	45946097.83	0.0485	0.0321
Moon	121084-04-14 21:05 G	45946187.15	45946187.38	45946187.61	0.0486	0.0026
Earth	121084-04-14 22:31 G	45946187.20	45946187.44	45946187.67	0.0486	0.0029 *
Mercury	121084-08-03 20:22 G	45946298.19	45946298.35	45946298.52	0.0488	0.0108
Earth	121089-10-01 01:38 G	45948182.57	45948182.57	45948182.59	0.0544	0.0543

Venus	121089-11-17 21:34 G	45948230.22	45948230.40	45948230.57	0.0543	0.0255
Mercury	121090-04-11 23:29 G	45948375.34	45948375.48	45948375.61	0.0540	0.0109
Earth	121096-04-19 05:58 G	45950574.56	45950574.75	45950574.96	0.0487	0.0254
Moon	121096-04-19 07:24 G	45950574.61	45950574.81	45950575.01	0.0487	0.0279 *
Venus	121096-05-14 07:38 G	45950599.69	45950599.82	45950599.95	0.0488	0.0371
Mercury	121096-05-22 21:34 G	45950608.24	45950608.40	45950608.56	0.0488	0.0053
Moon	121101-10-07 01:24 G	45952570.36	45952570.56	45952570.76	0.0543	0.0244
Earth	121101-10-07 03:19 G	45952570.44	45952570.64	45952570.85	0.0543	0.0235 *
Mercury	121102-01-30 00:41 G	45952685.39	45952685.53	45952685.67	0.0540	0.0099
Venus	121108-01-19 10:46 G	45954865.75	45954865.95	45954866.16	0.0486	0.0104
Mercury	121108-03-11 22:17 G	45954918.29	45954918.43	45954918.58	0.0487	0.0217
Earth	121108-04-24 12:26 G	45954961.99	45954962.02	45954962.07	0.0488	0.0480
Mercury	121108-06-09 17:58 G	45955008.20	45955008.25	45955008.31	0.0489	0.0455
Earth	121113-10-12 07:38 G	45956958.59	45956958.82	45956959.05	0.0542	0.0078
Moon	121113-10-12 10:46 G	45956958.72	45956958.95	45956959.18	0.0542	0.0110 *
Mercury	121113-11-18 02:22 G	45956995.48	45956995.60	45956995.72	0.0541	0.0297
Venus	121113-11-21 22:17 G	45956999.26	45956999.43	45956999.59	0.0541	0.0312
Mercury	121114-02-15 16:02 G	45957085.10	45957085.17	45957085.24	0.0539	0.0457
Venus	121119-09-24 12:41 G	45959131.84	45959132.03	45959132.23	0.0485	0.0172
Mercury	121119-12-29 22:46 G	45959228.36	45959228.45	45959228.55	0.0487	0.0386
Mercury	121120-03-28 17:43 G	45959318.11	45959318.24	45959318.38	0.0488	0.0273
Venus	121125-07-27 11:29 G	45961264.78	45961264.98	45961265.18	0.0543	0.0058
Mercury	121125-09-06 04:17 G	45961305.62	45961305.68	45961305.74	0.0542	0.0491
Moon	121125-10-17 10:31 G	45961346.81	45961346.94	45961347.09	0.0541	0.0426
Earth	121125-10-17 14:22 G	45961346.95	45961347.10	45961347.26	0.0541	0.0400 *
Mercury	121125-12-04 18:41 G	45961395.16	45961395.28	45961395.40	0.0540	0.0277
Venus	121131-05-30 16:02 G	45963398.09	45963398.17	45963398.27	0.0484	0.0435
Mercury	121132-01-15 18:26 G	45963628.11	45963628.27	45963628.43	0.0488	0.0105
Venus	121137-04-01 01:38 G	45965530.45	45965530.57	45965530.69	0.0544	0.0423
Mercury	121137-09-22 21:19 G	45965705.25	45965705.39	45965705.53	0.0541	0.0099

Moon	121143-04-07 11:58 G	45967727.89	45967728.00	45967728.13	0.0484	0.0412
Earth	121143-04-07 15:19 G	45967728.05	45967728.14	45967728.24	0.0484	0.0441 *
Venus	121143-09-26 18:41 G	45967900.11	45967900.28	45967900.46	0.0487	0.0252
Mercury	121143-11-03 19:10 G	45967938.13	45967938.30	45967938.46	0.0488	0.0061
Mercury	121149-07-11 23:29 G	45970015.35	45970015.48	45970015.62	0.0541	0.0089
Venus	121149-07-30 17:58 G	45970034.22	45970034.25	45970034.29	0.0540	0.0531
Earth	121155-04-11 22:31 G	45972115.23	45972115.44	45972115.65	0.0485	0.0218
Moon	121155-04-12 01:53 G	45972115.37	45972115.58	45972115.80	0.0485	0.0205 *
Venus	121155-06-01 22:31 G	45972166.23	45972166.44	45972166.65	0.0486	0.0013
Mercury	121155-08-22 20:22 G	45972248.20	45972248.35	45972248.49	0.0487	0.0219
Mercury	121155-11-20 15:48 G	45972338.10	45972338.16	45972338.23	0.0489	0.0452
Venus	121161-04-04 04:31 G	45974299.50	45974299.69	45974299.88	0.0542	0.0153
Mercury	121161-04-30 00:41 G	45974325.42	45974325.53	45974325.65	0.0541	0.0296
Mercury	121161-07-28 14:36 G	45974415.04	45974415.11	45974415.18	0.0539	0.0457
Venus	121167-02-05 01:38 G	45976432.41	45976432.57	45976432.74	0.0485	0.0281
Moon	121167-04-16 01:10 G	45976502.32	45976502.55	45976502.78	0.0486	0.0012
Earth	121167-04-16 04:46 G	45976502.46	45976502.70	45976502.93	0.0486	0.0007 *
Mercury	121167-06-10 21:19 G	45976558.29	45976558.39	45976558.49	0.0487	0.0380
Mercury	121167-09-08 16:17 G	45976648.05	45976648.18	45976648.32	0.0489	0.0281
Mars	121169-10-13 02:07 G	45977413.32	45977413.59	45977413.87	0.0516	0.0136
Venus	121172-12-07 16:17 G	45978565.00	45978565.18	45978565.36	0.0543	0.0221
Mercury	121173-02-16 02:07 G	45978635.54	45978635.59	45978635.65	0.0542	0.0499
Mercury	121173-05-16 16:31 G	45978725.07	45978725.19	45978725.31	0.0540	0.0269
Earth	121179-04-20 08:50 G	45980889.67	45980889.87	45980890.08	0.0487	0.0228
Moon	121179-04-20 12:41 G	45980889.82	45980890.03	45980890.25	0.0487	0.0197 *
Venus	121179-06-04 03:19 G	45980934.53	45980934.64	45980934.76	0.0487	0.0404
Mercury	121179-06-27 16:17 G	45980958.02	45980958.18	45980958.34	0.0488	0.0102
Moon	121184-10-05 20:07 G	45982885.15	45982885.34	45982885.54	0.0544	0.0292
Earth	121184-10-05 23:57 G	45982885.31	45982885.50	45982885.70	0.0544	0.0284 *
Mercury	121185-03-04 18:55 G	45983035.15	45983035.29	45983035.43	0.0541	0.0083

Venus	121191-02-07 06:41 G	45985200.59	45985200.78	45985200.98	0.0486	0.0137
Mercury	121191-04-15 17:14 G	45985268.05	45985268.22	45985268.38	0.0487	0.0064
Moon	121191-04-24 11:29 G	45985276.88	45985276.98	45985277.09	0.0488	0.0432
Earth	121191-04-24 15:19 G	45985277.06	45985277.14	45985277.23	0.0488	0.0451 *
Earth	121196-10-11 08:50 G	45987273.64	45987273.87	45987274.10	0.0543	0.0043
Moon	121196-10-11 12:26 G	45987273.79	45987274.02	45987274.25	0.0543	0.0012 *
Venus	121196-12-10 22:02 G	45987334.27	45987334.42	45987334.57	0.0541	0.0366
Mercury	121196-12-21 21:19 G	45987345.26	45987345.39	45987345.53	0.0541	0.0100
Venus	121202-10-13 09:33 G	45989466.71	45989466.90	45989467.10	0.0485	0.0132
Mercury	121203-02-01 17:57 G	45989578.11	45989578.25	45989578.40	0.0487	0.0227
Mercury	121203-05-02 13:24 G	45989668.00	45989668.06	45989668.13	0.0489	0.0442
Venus	121208-08-15 11:43 G	45991599.79	45991599.99	45991600.19	0.0543	0.0003
Mercury	121208-10-09 23:29 G	45991655.37	45991655.48	45991655.60	0.0542	0.0288
Moon	121208-10-16 12:41 G	45991661.85	45991662.03	45991662.21	0.0541	0.0349
Earth	121208-10-16 16:17 G	45991662.01	45991662.18	45991662.35	0.0541	0.0361 *
Mercury	121209-01-07 13:24 G	45991745.00	45991745.06	45991745.13	0.0539	0.0467
Venus	121214-06-18 13:09 G	45993732.94	45993733.05	45993733.18	0.0485	0.0396
Mercury	121214-11-20 19:09 G	45993888.21	45993888.30	45993888.41	0.0487	0.0383
Mercury	121215-02-18 14:21 G	45993977.96	45993978.10	45993978.23	0.0489	0.0277
Venus	121220-04-19 22:45 G	45995865.31	45995865.45	45995865.59	0.0543	0.0379
Mercury	121220-07-29 00:41 G	45995965.48	45995965.53	45995965.59	0.0542	0.0496
Mercury	121220-10-26 15:05 G	45996055.01	45996055.13	45996055.25	0.0539	0.0271
Earth	121226-04-06 20:50 G	45998043.31	45998043.37	45998043.45	0.0485	0.0462
Venus	121226-10-15 16:17 G	45998235.02	45998235.18	45998235.35	0.0487	0.0294
Mercury	121226-12-07 14:50 G	45998287.96	45998288.12	45998288.28	0.0488	0.0108
Mercury	121232-08-14 17:00 G	46000365.07	46000365.21	46000365.35	0.0540	0.0078
Mars	121234-07-18 12:12 G	46001067.74	46001068.01	46001068.27	0.0512	0.0026
Earth	121238-04-11 01:53 G	46002430.38	46002430.58	46002430.79	0.0485	0.0242
Moon	121238-04-11 05:43 G	46002430.54	46002430.74	46002430.94	0.0485	0.0241 *
Venus	121238-06-20 18:26 G	46002501.06	46002501.27	46002501.48	0.0486	0.0020

Mercury	121238-09-25 15:05 G	46002597.97	46002598.13	46002598.29	0.0487	0.0066
Venus	121244-04-23 01:24 G	46004634.38	46004634.56	46004634.75	0.0542	0.0197
Mercury	121244-06-02 18:55 G	46004675.16	46004675.29	46004675.43	0.0541	0.0116
Venus	121250-02-23 22:02 G	46006767.24	46006767.42	46006767.60	0.0485	0.0246
Moon	121250-04-15 04:45 G	46006817.47	46006817.70	46006817.94	0.0485	0.0011
Earth	121250-04-15 08:21 G	46006817.62	46006817.85	46006818.09	0.0485	0.0021 *
Mercury	121250-07-14 16:02 G	46006908.03	46006908.17	46006908.32	0.0487	0.0227
Mercury	121250-10-12 11:29 G	46006997.91	46006997.98	46006998.05	0.0489	0.0440
Venus	121255-12-27 15:19 G	46008899.96	46008900.14	46008900.34	0.0544	0.0171
Mercury	121256-03-21 21:19 G	46008985.28	46008985.39	46008985.51	0.0542	0.0300
Mercury	121256-06-19 11:14 G	46009074.90	46009074.97	46009075.04	0.0540	0.0457
Earth	121262-04-19 14:07 G	46011204.87	46011205.09	46011205.30	0.0486	0.0201
Moon	121262-04-19 17:14 G	46011205.01	46011205.22	46011205.42	0.0486	0.0226 *
Mercury	121262-05-02 17:00 G	46011218.12	46011218.21	46011218.31	0.0487	0.0389
Venus	121262-06-23 00:12 G	46011269.43	46011269.51	46011269.60	0.0488	0.0444
Mercury	121262-07-31 11:57 G	46011307.86	46011308.00	46011308.13	0.0488	0.0269
Venus	121267-09-01 05:29 G	46013165.70	46013165.73	46013165.76	0.0544	0.0536
Moon	121267-10-05 23:29 G	46013200.29	46013200.48	46013200.69	0.0544	0.0291
Earth	121267-10-06 02:36 G	46013200.43	46013200.61	46013200.80	0.0544	0.0320 *
Mercury	121268-01-08 23:29 G	46013295.42	46013295.48	46013295.54	0.0542	0.0490
Mercury	121268-04-07 13:53 G	46013384.96	46013385.08	46013385.20	0.0540	0.0279
Venus	121274-02-26 04:17 G	46015535.49	46015535.68	46015535.87	0.0486	0.0178
Moon	121274-04-23 17:57 G	46015592.15	46015592.25	46015592.38	0.0488	0.0423
Earth	121274-04-23 21:19 G	46015592.28	46015592.39	46015592.51	0.0488	0.0426 *
Mercury	121274-05-19 12:55 G	46015617.87	46015618.04	46015618.20	0.0488	0.0106
Earth	121279-10-11 06:41 G	46017588.55	46017588.78	46017589.01	0.0542	0.0007
Moon	121279-10-11 09:05 G	46017588.66	46017588.88	46017589.11	0.0542	0.0030 *
Venus	121279-12-30 19:24 G	46017669.19	46017669.31	46017669.45	0.0541	0.0412
Mercury	121280-01-25 15:33 G	46017695.02	46017695.15	46017695.29	0.0540	0.0083
Venus	121285-11-01 07:24 G	46019801.60	46019801.81	46019802.01	0.0486	0.0091

Mercury	121286-03-07 13:38 G	46019927.91	46019928.07	46019928.23	0.0488	0.0060
Venus	121291-09-04 07:38 G	46021934.62	46021934.82	46021935.02	0.0542	0.0039
Moon	121291-10-16 08:36 G	46021976.67	46021976.86	46021977.06	0.0541	0.0303
Earth	121291-10-16 10:31 G	46021976.76	46021976.94	46021977.14	0.0541	0.0307 *
Mercury	121291-11-13 17:29 G	46022005.09	46022005.23	46022005.36	0.0541	0.0115
Venus	121297-07-07 09:48 G	46024067.78	46024067.91	46024068.05	0.0484	0.0361
Mercury	121297-12-24 14:07 G	46024237.95	46024238.09	46024238.23	0.0487	0.0229
Mercury	121298-03-24 09:33 G	46024327.83	46024327.90	46024327.97	0.0489	0.0438
Venus	121303-05-10 19:09 G	46026200.15	46026200.30	46026200.46	0.0544	0.0340
Mercury	121303-09-02 18:55 G	46026315.18	46026315.29	46026315.41	0.0542	0.0315
Mercury	121303-12-01 09:05 G	46026404.80	46026404.88	46026404.96	0.0540	0.0444
Moon	121309-04-07 01:09 G	46028358.52	46028358.55	46028358.61	0.0484	0.0475
Earth	121309-04-07 02:07 G	46028358.58	46028358.59	46028358.61	0.0484	0.0483 *
Mercury	121309-10-13 15:19 G	46028548.04	46028548.14	46028548.24	0.0486	0.0387
Venus	121309-11-04 12:55 G	46028569.89	46028570.04	46028570.19	0.0487	0.0330
Mercury	121310-01-11 10:02 G	46028637.78	46028637.92	46028638.06	0.0488	0.0269
Mercury	121315-06-21 21:05 G	46030625.34	46030625.38	46030625.44	0.0543	0.0504
Mercury	121315-09-19 11:43 G	46030714.87	46030714.99	46030715.11	0.0540	0.0269
Earth	121321-04-11 07:38 G	46032745.63	46032745.82	46032746.02	0.0484	0.0266
Moon	121321-04-11 08:36 G	46032745.68	46032745.86	46032746.05	0.0484	0.0287 *
Venus	121321-07-10 15:48 G	46032835.95	46032836.16	46032836.37	0.0486	0.0061
Mercury	121321-10-30 10:45 G	46032947.78	46032947.95	46032948.11	0.0488	0.0101
Mars	121324-01-07 10:02 G	46033746.76	46033746.92	46033747.08	0.0517	0.0422
Venus	121327-05-14 02:36 G	46034969.43	46034969.61	46034969.78	0.0542	0.0258
Mercury	121327-07-08 14:21 G	46035024.96	46035025.10	46035025.24	0.0541	0.0089
Venus	121333-03-15 19:38 G	46037102.13	46037102.32	46037102.51	0.0485	0.0204
Moon	121333-04-15 13:24 G	46037132.82	46037133.06	46037133.30	0.0485	0.0074
Earth	121333-04-15 14:36 G	46037132.88	46037133.11	46037133.35	0.0485	0.0043 *
Mercury	121333-08-18 11:43 G	46037257.83	46037257.99	46037258.15	0.0488	0.0060
Venus	121339-01-16 14:36 G	46039234.91	46039235.11	46039235.30	0.0543	0.0118

Mercury	121339-04-26 16:02 G	46039335.04	46039335.17	46039335.31	0.0541	0.0110
Venus	121344-11-18 22:45 G	46041368.40	46041368.45	46041368.49	0.0484	0.0472
Earth	121345-04-19 20:50 G	46041520.16	46041520.37	46041520.59	0.0486	0.0181
Moon	121345-04-19 22:02 G	46041520.21	46041520.42	46041520.63	0.0486	0.0168 *
Mercury	121345-06-06 12:41 G	46041567.89	46041568.03	46041568.18	0.0487	0.0223
Venus	121345-07-12 22:31 G	46041604.44	46041604.44	46041604.46	0.0488	0.0487
Mercury	121345-09-04 08:07 G	46041657.77	46041657.84	46041657.91	0.0489	0.0446
Venus	121350-09-21 02:36 G	46043500.53	46043500.61	46043500.70	0.0544	0.0492
Earth	121350-10-05 23:14 G	46043515.30	46043515.47	46043515.64	0.0544	0.0368
Moon	121350-10-05 23:14 G	46043515.31	46043515.47	46043515.63	0.0544	0.0399 *
Mercury	121351-02-12 17:43 G	46043645.13	46043645.24	46043645.36	0.0541	0.0308
Mercury	121351-05-13 07:38 G	46043734.75	46043734.82	46043734.90	0.0539	0.0449
Venus	121357-03-18 01:24 G	46045870.37	46045870.56	46045870.74	0.0486	0.0216
Mercury	121357-03-25 13:24 G	46045877.97	46045878.06	46045878.16	0.0486	0.0387
Moon	121357-04-24 01:24 G	46045907.44	46045907.56	46045907.69	0.0487	0.0416
Earth	121357-04-24 02:21 G	46045907.47	46045907.60	46045907.73	0.0487	0.0402 *
Mercury	121357-06-23 08:07 G	46045967.71	46045967.84	46045967.98	0.0488	0.0271
Moon	121362-10-11 01:53 G	46047903.36	46047903.58	46047903.80	0.0543	0.0073
Earth	121362-10-11 02:36 G	46047903.38	46047903.61	46047903.84	0.0543	0.0057 *
Mercury	121362-12-01 19:09 G	46047955.26	46047955.30	46047955.34	0.0543	0.0515
Venus	121363-01-19 16:31 G	46048004.09	46048004.19	46048004.30	0.0541	0.0456
Mercury	121363-03-01 09:48 G	46048044.79	46048044.91	46048045.03	0.0540	0.0259
Venus	121368-11-21 04:45 G	46050136.50	46050136.70	46050136.91	0.0485	0.0052
Mercury	121369-04-11 09:05 G	46050277.72	46050277.88	46050278.04	0.0488	0.0104
Venus	121374-09-24 06:41 G	46052269.59	46052269.78	46052269.98	0.0543	0.0092
Earth	121374-10-16 10:45 G	46052291.76	46052291.95	46052292.16	0.0543	0.0267
Moon	121374-10-16 12:12 G	46052291.81	46052292.01	46052292.22	0.0543	0.0290 *
Mercury	121374-12-18 12:12 G	46052354.88	46052355.01	46052355.15	0.0541	0.0080
Venus	121380-07-27 07:53 G	46054402.68	46054402.83	46054402.99	0.0484	0.0318
Mercury	121381-01-28 09:48 G	46054587.74	46054587.91	46054588.07	0.0487	0.0063

Venus	121386-05-29 21:05 G	46056535.21	46056535.38	46056535.55	0.0544	0.0276
Mercury	121386-10-06 14:50 G	46056664.98	46056665.12	46056665.26	0.0541	0.0103
Mars	121388-10-12 14:21 G	46057401.90	46057402.10	46057402.32	0.0512	0.0311
Mercury	121392-11-16 11:00 G	46058897.81	46058897.96	46058898.10	0.0487	0.0220
Venus	121392-11-23 11:14 G	46058904.84	46058904.97	46058905.10	0.0487	0.0375
Mercury	121393-02-14 06:12 G	46058987.70	46058987.76	46058987.83	0.0489	0.0448
Mercury	121398-07-25 16:31 G	46060975.07	46060975.19	46060975.31	0.0541	0.0300
Mercury	121398-10-23 06:26 G	46061064.70	46061064.77	46061064.85	0.0539	0.0457
Moon	121404-04-11 12:41 G	46063060.84	46063061.03	46063061.22	0.0485	0.0255
Earth	121404-04-11 15:05 G	46063060.94	46063061.13	46063061.32	0.0485	0.0284 *
Venus	121404-07-30 14:36 G	46063170.90	46063171.11	46063171.31	0.0486	0.0106
Mercury	121404-09-05 11:57 G	46063207.91	46063208.00	46063208.11	0.0487	0.0380
Mercury	121404-12-04 06:55 G	46063297.65	46063297.79	46063297.92	0.0489	0.0278
Mercury	121410-05-14 17:57 G	46065285.20	46065285.25	46065285.30	0.0542	0.0502
Venus	121410-06-03 00:26 G	46065304.36	46065304.52	46065304.69	0.0542	0.0305
Mercury	121410-08-12 08:36 G	46065374.74	46065374.86	46065374.98	0.0540	0.0269
Venus	121416-04-04 17:43 G	46067437.04	46067437.24	46067437.43	0.0485	0.0164
Earth	121416-04-15 21:05 G	46067448.15	46067448.38	46067448.62	0.0485	0.0063
Moon	121416-04-15 23:43 G	46067448.25	46067448.49	46067448.74	0.0485	0.0042 *
Mercury	121416-09-22 07:24 G	46067607.65	46067607.81	46067607.97	0.0488	0.0107
Venus	121422-02-05 11:29 G	46069569.78	46069569.98	46069570.18	0.0544	0.0075
Mercury	121422-05-31 10:17 G	46069684.79	46069684.93	46069685.07	0.0541	0.0071
Venus	121427-12-09 21:19 G	46071703.30	46071703.39	46071703.49	0.0484	0.0427
Moon	121428-04-20 01:53 G	46071835.36	46071835.58	46071835.80	0.0486	0.0154
Earth	121428-04-20 04:02 G	46071835.45	46071835.67	46071835.90	0.0486	0.0161 *
Mercury	121428-07-11 08:21 G	46071917.69	46071917.85	46071918.01	0.0487	0.0055
Earth	121433-10-05 22:17 G	46073830.29	46073830.43	46073830.58	0.0545	0.0413
Moon	121433-10-06 00:55 G	46073830.37	46073830.54	46073830.71	0.0545	0.0381 *
Venus	121433-10-11 01:09 G	46073835.44	46073835.55	46073835.67	0.0545	0.0444
Mercury	121434-03-19 12:41 G	46073994.89	46073995.03	46073995.17	0.0542	0.0112

Venus	121440-04-06 23:43 G	46076205.32	46076205.49	46076205.67	0.0486	0.0261
Earth	121440-04-24 09:33 G	46076222.76	46076222.90	46076223.05	0.0487	0.0381
Moon	121440-04-24 11:43 G	46076222.83	46076222.99	46076223.16	0.0487	0.0352 *
Mercury	121440-04-29 09:19 G	46076227.74	46076227.89	46076228.03	0.0487	0.0219
Mercury	121440-07-28 04:31 G	46076317.62	46076317.69	46076317.75	0.0489	0.0448
Mars	121442-06-27 11:00 G	46077016.90	46077016.96	46077017.03	0.0514	0.0500
Moon	121445-10-11 04:45 G	46078218.48	46078218.70	46078218.93	0.0544	0.0094
Earth	121445-10-11 08:07 G	46078218.61	46078218.84	46078219.07	0.0544	0.0086 *
Mercury	121446-01-05 15:05 G	46078305.02	46078305.13	46078305.25	0.0542	0.0296
Venus	121446-02-08 19:09 G	46078339.25	46078339.30	46078339.35	0.0541	0.0523
Mercury	121446-04-05 05:14 G	46078394.65	46078394.72	46078394.79	0.0540	0.0464
Venus	121451-12-12 03:33 G	46080471.45	46080471.65	46080471.86	0.0485	0.0008
Mercury	121452-02-16 10:31 G	46080537.84	46080537.94	46080538.05	0.0486	0.0374
Mercury	121452-05-16 05:14 G	46080627.59	46080627.72	46080627.86	0.0488	0.0283
Venus	121457-10-14 08:07 G	46082604.65	46082604.84	46082605.03	0.0542	0.0152
Earth	121457-10-16 14:36 G	46082606.90	46082607.11	46082607.32	0.0542	0.0235
Moon	121457-10-16 18:26 G	46082607.06	46082607.27	46082607.49	0.0542	0.0199 *
Mercury	121457-10-24 17:00 G	46082615.15	46082615.21	46082615.26	0.0542	0.0492
Mercury	121458-01-22 07:24 G	46082704.70	46082704.81	46082704.93	0.0540	0.0279
Venus	121463-08-17 06:55 G	46084737.62	46084737.79	46084737.96	0.0485	0.0273
Mercury	121464-03-04 06:12 G	46084937.60	46084937.76	46084937.92	0.0488	0.0117
Venus	121469-06-18 20:21 G	46086870.17	46086870.35	46086870.54	0.0543	0.0223
Moon	121469-10-21 15:33 G	46086995.09	46086995.15	46086995.21	0.0541	0.0522
Mercury	121469-11-10 09:33 G	46087014.76	46087014.90	46087015.04	0.0540	0.0088
Venus	121475-12-14 09:48 G	46089239.81	46089239.91	46089240.02	0.0487	0.0419
Mercury	121475-12-22 06:55 G	46089247.63	46089247.79	46089247.95	0.0487	0.0049
Mercury	121481-08-29 11:00 G	46091324.82	46091324.96	46091325.09	0.0542	0.0116
Moon	121487-04-11 20:36 G	46093376.19	46093376.36	46093376.54	0.0484	0.0327
Earth	121487-04-12 00:26 G	46093376.34	46093376.52	46093376.71	0.0484	0.0298 *
Venus	121487-08-19 13:53 G	46093505.88	46093506.08	46093506.27	0.0486	0.0153

Mercury	121487-10-10 08:07 G	46093557.69	46093557.84	46093557.99	0.0487	0.0208
Mercury	121488-01-08 03:05 G	46093647.58	46093647.63	46093647.69	0.0488	0.0459
Mercury	121493-06-17 13:09 G	46095634.93	46095635.05	46095635.17	0.0542	0.0304
Venus	121493-06-21 23:43 G	46095639.35	46095639.49	46095639.64	0.0542	0.0360
Mercury	121493-09-15 03:19 G	46095724.57	46095724.64	46095724.71	0.0540	0.0458
Earth	121499-04-16 05:43 G	46097763.51	46097763.74	46097763.98	0.0485	0.0080
Moon	121499-04-16 09:33 G	46097763.67	46097763.90	46097764.14	0.0485	0.0080 *
Venus	121499-04-24 16:45 G	46097772.00	46097772.20	46097772.40	0.0485	0.0116
Mercury	121499-07-29 09:05 G	46097867.78	46097867.88	46097867.99	0.0486	0.0369
Mercury	121499-10-27 03:48 G	46097957.52	46097957.66	46097957.79	0.0488	0.0286
Venus	121505-02-25 14:36 G	46099904.91	46099905.11	46099905.31	0.0544	0.0007
Mercury	121505-04-06 15:19 G	46099945.09	46099945.14	46099945.21	0.0543	0.0490
Mercury	121505-07-05 06:12 G	46100034.64	46100034.76	46100034.88	0.0541	0.0284
Mars	121507-04-05 18:12 G	46100674.13	46100674.26	46100674.40	0.0515	0.0444
Venus	121510-12-29 20:36 G	46102038.24	46102038.36	46102038.49	0.0484	0.0380
Moon	121511-04-21 08:50 G	46102150.65	46102150.87	46102151.09	0.0485	0.0168
Earth	121511-04-21 12:55 G	46102150.81	46102151.04	46102151.26	0.0485	0.0142 *
Mercury	121511-08-16 04:45 G	46102267.54	46102267.70	46102267.86	0.0488	0.0124
Earth	121516-10-06 04:31 G	46104145.55	46104145.69	46104145.82	0.0544	0.0437
Moon	121516-10-06 08:21 G	46104145.73	46104145.85	46104145.98	0.0544	0.0458 *
Venus	121516-10-31 04:02 G	46104170.53	46104170.67	46104170.81	0.0544	0.0377
Mercury	121517-04-23 08:21 G	46104344.72	46104344.85	46104344.99	0.0541	0.0100
Earth	121523-04-25 19:24 G	46106538.16	46106538.31	46106538.46	0.0487	0.0365
Moon	121523-04-25 23:29 G	46106538.35	46106538.48	46106538.61	0.0487	0.0397 *
Venus	121523-04-27 23:29 G	46106540.33	46106540.48	46106540.64	0.0487	0.0310
Mercury	121523-06-04 05:43 G	46106577.57	46106577.74	46106577.90	0.0487	0.0041
Moon	121528-10-11 06:12 G	46108533.54	46108533.76	46108533.99	0.0544	0.0105
Earth	121528-10-11 10:02 G	46108533.70	46108533.92	46108534.15	0.0544	0.0122 *
Mercury	121529-02-09 10:17 G	46108654.80	46108654.93	46108655.07	0.0541	0.0096
Venus	121535-01-01 03:19 G	46110806.43	46110806.64	46110806.85	0.0485	0.0043

Mercury 121535-03-23 06:41 G 46110887.64 46110887.78 46110887.93 0.0487 0.0200

Mercury 121535-06-21 01:53 G 46110977.54 46110977.58 46110977.63 0.0489 0.0467

Earth 121540-10-16 11:43 G 46112921.77 46112921.99 46112922.20 0.0543 0.0183

Moon 121540-10-16 14:50 G 46112921.92 46112922.12 46112922.33 0.0543 0.0217 *

Venus 121540-11-03 05:29 G 46112939.55 46112939.73 46112939.92 0.0543 0.0200

Mercury 121540-11-28 11:29 G 46112964.86 46112964.98 46112965.09 0.0542 0.0305

Mercury 121541-02-26 01:38 G 46113054.50 46113054.57 46113054.64 0.0540 0.0457

Venus 121546-09-06 07:24 G 46115072.63 46115072.81 46115072.99 0.0484 0.0222

Mercury 121547-01-09 08:07 G 46115197.73 46115197.84 46115197.95 0.0486 0.0355

Mercury 121547-04-09 02:36 G 46115287.49 46115287.61 46115287.75 0.0488 0.0300

Venus 121552-07-08 19:09 G 46117205.11 46117205.30 46117205.49 0.0544 0.0171

Mercury 121552-09-16 13:24 G 46117275.01 46117275.06 46117275.12 0.0543 0.0497

Moon 121552-10-21 16:45 G 46117310.11 46117310.20 46117310.29 0.0542 0.0500

Earth 121552-10-21 19:38 G 46117310.24 46117310.32 46117310.41 0.0542 0.0503 *

Mercury 121552-12-15 04:17 G 46117364.56 46117364.68 46117364.80 0.0541 0.0279

Venus 121559-01-03 09:19 G 46119574.84 46119574.89 46119574.95 0.0487 0.0467

Mercury 121559-01-26 03:19 G 46119597.48 46119597.64 46119597.80 0.0487 0.0130

Venus 121564-03-13 10:02 G 46121470.89 46121470.92 46121470.95 0.0545 0.0536

Mercury 121564-10-03 07:09 G 46121674.66 46121674.80 46121674.93 0.0541 0.0104

Moon 121570-04-12 06:41 G 46123691.59 46123691.78 46123691.97 0.0484 0.0295

Earth 121570-04-12 09:33 G 46123691.73 46123691.90 46123692.09 0.0484 0.0315 *

Venus 121570-09-08 13:24 G 46123840.87 46123841.06 46123841.25 0.0486 0.0202

Mercury 121570-11-14 04:31 G 46123907.52 46123907.69 46123907.85 0.0487 0.0033

Venus 121576-07-12 02:50 G 46125974.51 46125974.62 46125974.75 0.0542 0.0429

Mercury 121576-07-22 09:19 G 46125984.75 46125984.89 46125985.03 0.0541 0.0084

Earth 121582-04-16 15:48 G 46128078.93 46128079.16 46128079.40 0.0485 0.0095

Moon 121582-04-16 18:26 G 46128079.05 46128079.27 46128079.50 0.0485 0.0106 *

Venus 121582-05-14 17:00 G 46128107.00 46128107.21 46128107.41 0.0485 0.0067

Mercury 121582-09-02 05:29 G 46128217.58 46128217.73 46128217.88 0.0487 0.0191

Mercury 121582-12-01 00:41 G 46128307.50 46128307.53 46128307.57 0.0489 0.0477

Venus	121588-03-16 15:33 G	46130239.95	46130240.15	46130240.35	0.0543	0.0057
Mercury	121588-05-10 11:14 G	46130294.85	46130294.97	46130295.09	0.0542	0.0280
Mercury	121588-08-08 01:09 G	46130384.49	46130384.55	46130384.62	0.0540	0.0480
Venus	121594-01-17 20:50 G	46132373.23	46132373.37	46132373.53	0.0484	0.0330
Moon	121594-04-20 20:50 G	46132466.13	46132466.37	46132466.61	0.0485	0.0100
Earth	121594-04-20 23:14 G	46132466.24	46132466.47	46132466.70	0.0485	0.0129 *
Mercury	121594-06-21 06:55 G	46132527.68	46132527.79	46132527.90	0.0486	0.0346
Mercury	121594-09-19 01:38 G	46132617.44	46132617.57	46132617.69	0.0488	0.0310
Mars	121596-09-21 17:57 G	46133350.98	46133351.25	46133351.54	0.0514	0.0112
Earth	121599-10-06 01:24 G	46134460.46	46134460.56	46134460.66	0.0545	0.0488
Moon	121599-10-06 04:02 G	46134460.58	46134460.67	46134460.77	0.0545	0.0489 *
Venus	121599-11-20 01:24 G	46134505.40	46134505.56	46134505.72	0.0544	0.0331
Mercury	121600-02-27 11:57 G	46134604.94	46134605.00	46134605.05	0.0543	0.0495
Mercury	121600-05-27 02:50 G	46134694.50	46134694.62	46134694.74	0.0541	0.0280
Earth	121606-04-25 06:26 G	46136853.61	46136853.77	46136853.93	0.0486	0.0351
Moon	121606-04-25 08:21 G	46136853.69	46136853.85	46136854.02	0.0486	0.0338 *
Venus	121606-05-17 00:12 G	46136875.37	46136875.51	46136875.65	0.0486	0.0363
Mercury	121606-07-08 02:21 G	46136927.45	46136927.60	46136927.76	0.0487	0.0147
Moon	121611-10-11 06:26 G	46138848.55	46138848.77	46138848.99	0.0544	0.0201
Earth	121611-10-11 08:50 G	46138848.65	46138848.87	46138849.09	0.0544	0.0169 *
Mercury	121612-03-15 05:14 G	46139004.58	46139004.72	46139004.85	0.0541	0.0098
Venus	121618-01-20 03:05 G	46141141.43	46141141.63	46141141.84	0.0485	0.0093
Mercury	121618-04-26 03:05 G	46141237.47	46141237.63	46141237.79	0.0487	0.0022
Earth	121623-10-16 18:55 G	46143237.07	46143237.29	46143237.51	0.0544	0.0159
Moon	121623-10-16 20:07 G	46143237.13	46143237.34	46143237.56	0.0544	0.0138 *
Venus	121623-11-23 09:05 G	46143274.71	46143274.88	46143275.05	0.0543	0.0271
Mercury	121624-01-02 07:53 G	46143314.69	46143314.83	46143314.97	0.0542	0.0083
Venus	121629-09-25 07:09 G	46145407.60	46145407.80	46145407.99	0.0484	0.0173
Mercury	121630-02-12 04:17 G	46145547.53	46145547.68	46145547.83	0.0487	0.0180
Mercury	121630-05-12 23:29 G	46145637.47	46145637.48	46145637.49	0.0488	0.0486

Venus	121635-07-28 23:14 G	46147540.27	46147540.47	46147540.66	0.0544	0.0099
Mercury	121635-10-21 10:02 G	46147624.80	46147624.92	46147625.04	0.0542	0.0270
Earth	121635-10-22 03:19 G	46147625.54	46147625.64	46147625.75	0.0542	0.0480
Moon	121635-10-22 03:05 G	46147625.55	46147625.63	46147625.73	0.0542	0.0497 *
Mercury	121636-01-19 00:12 G	46147714.46	46147714.51	46147714.57	0.0540	0.0490
Venus	121641-05-31 10:17 G	46149673.85	46149673.93	46149674.02	0.0484	0.0439
Mercury	121641-12-01 05:29 G	46149857.62	46149857.73	46149857.85	0.0486	0.0338
Mercury	121642-03-01 00:12 G	46149947.39	46149947.51	46149947.63	0.0488	0.0319
Venus	121647-04-02 11:57 G	46151805.90	46151806.00	46151806.09	0.0544	0.0472
Mercury	121647-08-09 11:43 G	46151934.92	46151934.99	46151935.06	0.0542	0.0467
Mercury	121647-11-07 02:21 G	46152024.49	46152024.60	46152024.72	0.0540	0.0305
Earth	121653-04-11 20:36 G	46154007.19	46154007.36	46154007.54	0.0484	0.0326
Moon	121653-04-11 21:05 G	46154007.20	46154007.38	46154007.57	0.0484	0.0321 *
Venus	121653-09-27 14:07 G	46154175.91	46154176.09	46154176.27	0.0486	0.0255
Mercury	121653-12-18 01:09 G	46154257.40	46154257.55	46154257.71	0.0487	0.0157
Venus	121659-08-01 00:41 G	46156309.44	46156309.53	46156309.62	0.0542	0.0477
Mercury	121659-08-26 03:33 G	46156334.52	46156334.65	46156334.79	0.0541	0.0101
Mars	121661-06-29 20:21 G	46157008.10	46157008.35	46157008.61	0.0515	0.0118
Moon	121665-04-16 03:33 G	46158394.43	46158394.65	46158394.88	0.0484	0.0079
Earth	121665-04-16 04:02 G	46158394.44	46158394.67	46158394.90	0.0484	0.0105 *
Venus	121665-06-02 17:57 G	46158442.05	46158442.25	46158442.46	0.0485	0.0013
Mercury	121665-10-06 02:21 G	46158567.43	46158567.60	46158567.76	0.0487	0.0006
Venus	121671-04-05 13:53 G	46160574.88	46160575.08	46160575.28	0.0543	0.0107
Mercury	121671-06-14 05:43 G	46160644.61	46160644.74	46160644.88	0.0542	0.0089
Venus	121677-02-05 20:50 G	46162708.21	46162708.37	46162708.55	0.0484	0.0281
Earth	121677-04-20 08:50 G	46162781.65	46162781.87	46162782.10	0.0485	0.0114
Moon	121677-04-20 09:33 G	46162781.67	46162781.90	46162782.14	0.0485	0.0137 *
Mercury	121677-07-25 03:05 G	46162877.48	46162877.63	46162877.78	0.0486	0.0170
Moon	121682-10-05 07:24 G	46164775.72	46164775.81	46164775.90	0.0545	0.0494
Earth	121682-10-05 08:07 G	46164775.77	46164775.84	46164775.91	0.0545	0.0514 *

Venus	121682-12-09 04:31 G	46164840.51	46164840.69	46164840.86	0.0545	0.0261
Mercury	121683-04-02 08:21 G	46164954.73	46164954.85	46164954.97	0.0543	0.0271
Mercury	121683-06-30 22:31 G	46165044.39	46165044.44	46165044.50	0.0540	0.0492
Moon	121689-04-24 15:05 G	46167168.97	46167169.13	46167169.30	0.0486	0.0335
Earth	121689-04-24 15:48 G	46167169.00	46167169.16	46167169.33	0.0486	0.0335 *
Mercury	121689-05-13 04:31 G	46167187.57	46167187.69	46167187.81	0.0486	0.0326
Venus	121689-06-04 23:43 G	46167210.39	46167210.49	46167210.60	0.0486	0.0413
Mercury	121689-08-10 23:00 G	46167277.34	46167277.46	46167277.58	0.0488	0.0329
Earth	121694-10-10 17:14 G	46169164.00	46169164.22	46169164.44	0.0544	0.0189
Moon	121694-10-10 18:26 G	46169164.04	46169164.27	46169164.50	0.0544	0.0154 *
Mercury	121695-01-19 10:31 G	46169264.87	46169264.94	46169265.01	0.0543	0.0460
Mercury	121695-04-19 01:09 G	46169354.44	46169354.55	46169354.67	0.0540	0.0315
Venus	121701-02-09 03:33 G	46171476.45	46171476.65	46171476.85	0.0486	0.0145
Mercury	121701-03-02 05:43 G	46171497.73	46171497.74	46171497.76	0.0486	0.0482
Mercury	121701-05-30 23:57 G	46171587.34	46171587.50	46171587.65	0.0488	0.0165
Moon	121706-10-16 22:17 G	46173552.22	46173552.43	46173552.65	0.0543	0.0139
Earth	121706-10-16 23:43 G	46173552.27	46173552.49	46173552.72	0.0543	0.0128 *
Venus	121706-12-13 10:45 G	46173609.80	46173609.95	46173610.11	0.0542	0.0336
Mercury	121707-02-06 03:19 G	46173664.51	46173664.64	46173664.78	0.0541	0.0128
Venus	121712-10-15 07:53 G	46175742.62	46175742.83	46175743.03	0.0485	0.0120
Mercury	121713-03-19 01:09 G	46175897.38	46175897.55	46175897.71	0.0487	0.0007
Venus	121718-08-17 20:21 G	46177875.15	46177875.35	46177875.55	0.0544	0.0052
Earth	121718-10-22 00:12 G	46177940.37	46177940.51	46177940.65	0.0543	0.0428
Moon	121718-10-22 01:38 G	46177940.42	46177940.57	46177940.74	0.0543	0.0403 *
Mercury	121718-11-25 04:31 G	46177974.55	46177974.69	46177974.82	0.0542	0.0086
Venus	121724-06-20 11:43 G	46180008.86	46180008.99	46180009.11	0.0484	0.0384
Mercury	121725-01-05 02:21 G	46180207.45	46180207.60	46180207.75	0.0486	0.0153
Venus	121730-04-22 09:19 G	46182140.77	46182140.89	46182141.01	0.0545	0.0425
Mercury	121730-09-13 06:26 G	46182284.65	46182284.77	46182284.89	0.0542	0.0277
Mercury	121730-12-11 20:36 G	46182374.31	46182374.36	46182374.42	0.0540	0.0486

Earth	121736-04-12 06:12 G	46184322.60	46184322.76	46184322.93	0.0484	0.0339
Moon	121736-04-12 09:05 G	46184322.71	46184322.88	46184323.04	0.0484	0.0354 *
Venus	121736-10-17 13:24 G	46184510.91	46184511.06	46184511.23	0.0486	0.0304
Mercury	121736-10-24 03:05 G	46184517.51	46184517.63	46184517.76	0.0486	0.0318
Mercury	121737-01-21 21:33 G	46184607.29	46184607.40	46184607.52	0.0488	0.0338
Mercury	121742-07-02 08:36 G	46186594.79	46186594.86	46186594.94	0.0543	0.0464
Mercury	121742-09-29 23:29 G	46186684.37	46186684.48	46186684.60	0.0541	0.0313
Moon	121748-04-16 10:45 G	46188709.73	46188709.95	46188710.17	0.0484	0.0152
Earth	121748-04-16 13:09 G	46188709.82	46188710.05	46188710.28	0.0484	0.0120 *
Venus	121748-06-22 17:14 G	46188777.02	46188777.22	46188777.43	0.0485	0.0039
Mercury	121748-08-12 04:45 G	46188827.66	46188827.70	46188827.73	0.0486	0.0471
Mercury	121748-11-09 22:31 G	46188917.29	46188917.44	46188917.60	0.0487	0.0174
Mars	121750-12-18 05:14 G	46189685.49	46189685.72	46189685.96	0.0515	0.0291
Venus	121754-04-25 17:43 G	46190910.05	46190910.24	46190910.43	0.0543	0.0180
Mercury	121754-07-19 02:07 G	46190994.45	46190994.59	46190994.72	0.0541	0.0133
Venus	121760-02-26 20:50 G	46193043.19	46193043.37	46193043.56	0.0484	0.0231
Earth	121760-04-20 19:09 G	46193097.06	46193097.30	46193097.53	0.0485	0.0099
Moon	121760-04-20 21:05 G	46193097.14	46193097.38	46193097.62	0.0485	0.0075 *
Mercury	121760-08-28 23:29 G	46193227.32	46193227.48	46193227.65	0.0487	0.0017
Earth	121765-10-05 13:24 G	46195091.04	46195091.06	46195091.08	0.0545	0.0541
Venus	121765-12-29 06:26 G	46195175.59	46195175.77	46195175.96	0.0544	0.0195
Mercury	121766-05-07 04:02 G	46195304.53	46195304.67	46195304.81	0.0542	0.0059
Moon	121772-04-25 01:24 G	46197484.39	46197484.56	46197484.73	0.0486	0.0321
Earth	121772-04-25 02:50 G	46197484.45	46197484.62	46197484.80	0.0486	0.0321 *
Mercury	121772-06-17 00:55 G	46197537.39	46197537.54	46197537.70	0.0487	0.0145
Venus	121772-06-25 00:26 G	46197545.47	46197545.52	46197545.58	0.0487	0.0466
Earth	121777-10-10 13:53 G	46199478.87	46199479.08	46199479.28	0.0544	0.0241
Moon	121777-10-10 15:19 G	46199478.94	46199479.14	46199479.35	0.0544	0.0272 *
Mercury	121778-02-23 04:45 G	46199614.58	46199614.70	46199614.83	0.0542	0.0274
Mercury	121778-05-23 19:09 G	46199704.25	46199704.30	46199704.36	0.0540	0.0489

Venus	121784-02-29 04:17 G	46201811.50	46201811.68	46201811.87	0.0486	0.0200
Mercury	121784-04-05 02:21 G	46201847.47	46201847.60	46201847.73	0.0486	0.0302
Mercury	121784-07-03 20:50 G	46201937.26	46201937.37	46201937.48	0.0488	0.0355
Moon	121789-10-15 17:43 G	46203867.02	46203867.24	46203867.46	0.0544	0.0068
Earth	121789-10-15 20:07 G	46203867.11	46203867.34	46203867.57	0.0544	0.0075 *
Mercury	121789-12-12 06:26 G	46203924.71	46203924.77	46203924.84	0.0543	0.0472
Venus	121790-01-01 07:53 G	46203944.69	46203944.83	46203944.97	0.0542	0.0383
Mercury	121790-03-11 21:33 G	46204014.28	46204014.40	46204014.51	0.0541	0.0305
Venus	121795-11-04 06:55 G	46206077.58	46206077.79	46206077.99	0.0484	0.0073
Mercury	121796-01-23 03:19 G	46206157.60	46206157.64	46206157.68	0.0486	0.0464
Mercury	121796-04-21 21:05 G	46206247.23	46206247.38	46206247.54	0.0487	0.0181
Venus	121801-09-06 22:17 G	46208210.23	46208210.43	46208210.64	0.0544	0.0019
Earth	121801-10-22 05:14 G	46208255.57	46208255.72	46208255.88	0.0543	0.0399
Moon	121801-10-22 08:07 G	46208255.70	46208255.84	46208255.99	0.0543	0.0429 *
Mercury	121801-12-30 00:12 G	46208324.37	46208324.51	46208324.64	0.0542	0.0127
Venus	121807-07-11 10:31 G	46210343.80	46210343.94	46210344.09	0.0484	0.0339
Mercury	121808-02-09 22:17 G	46210557.26	46210557.43	46210557.59	0.0487	0.0019
Venus	121813-05-12 12:41 G	46212475.88	46212476.03	46212476.18	0.0545	0.0355
Mercury	121813-10-18 02:36 G	46212634.47	46212634.61	46212634.75	0.0542	0.0056
Mars	121815-09-26 07:09 G	46213342.57	46213342.80	46213343.03	0.0514	0.0248
Earth	121819-04-13 15:19 G	46214637.98	46214638.14	46214638.30	0.0484	0.0356
Moon	121819-04-13 18:12 G	46214638.10	46214638.26	46214638.44	0.0484	0.0342 *
Venus	121819-11-07 13:09 G	46214845.91	46214846.05	46214846.19	0.0486	0.0353
Mercury	121819-11-28 23:14 G	46214867.32	46214867.47	46214867.63	0.0487	0.0143
Mercury	121825-08-06 04:31 G	46216944.57	46216944.69	46216944.82	0.0542	0.0249
Mercury	121825-11-03 18:55 G	46217034.25	46217034.29	46217034.33	0.0540	0.0512
Moon	121831-04-17 20:07 G	46219025.11	46219025.34	46219025.56	0.0484	0.0108
Earth	121831-04-17 23:00 G	46219025.24	46219025.46	46219025.69	0.0484	0.0136 *
Venus	121831-07-13 17:29 G	46219112.03	46219112.23	46219112.43	0.0485	0.0088
Mercury	121831-09-17 00:55 G	46219177.41	46219177.54	46219177.67	0.0486	0.0295

Mercury	121831-12-15 19:24 G	46219267.20	46219267.31	46219267.42	0.0488	0.0362
Venus	121837-05-15 14:21 G	46221244.92	46221245.10	46221245.28	0.0543	0.0224
Mercury	121837-05-25 05:00 G	46221254.65	46221254.71	46221254.79	0.0543	0.0469
Mercury	121837-08-22 20:07 G	46221344.22	46221344.34	46221344.45	0.0541	0.0308
Venus	121843-03-18 21:19 G	46223378.20	46223378.39	46223378.58	0.0484	0.0179
Earth	121843-04-22 05:43 G	46223412.51	46223412.74	46223412.97	0.0485	0.0085
Moon	121843-04-22 08:50 G	46223412.64	46223412.87	46223413.11	0.0485	0.0104 *
Mercury	121843-07-06 02:21 G	46223487.54	46223487.60	46223487.66	0.0486	0.0450
Mercury	121843-10-03 20:21 G	46223577.20	46223577.35	46223577.50	0.0487	0.0196
Venus	121849-01-18 02:50 G	46225510.43	46225510.62	46225510.81	0.0544	0.0153
Mercury	121849-06-10 22:02 G	46225654.29	46225654.42	46225654.56	0.0541	0.0119
Venus	121854-11-21 23:43 G	46227644.42	46227644.49	46227644.56	0.0484	0.0450
Moon	121855-04-26 07:09 G	46227799.63	46227799.80	46227799.99	0.0485	0.0296
Earth	121855-04-26 10:17 G	46227799.75	46227799.93	46227800.11	0.0485	0.0302 *
Mercury	121855-07-22 20:50 G	46227887.20	46227887.37	46227887.53	0.0487	0.0027
Venus	121860-09-22 16:45 G	46229776.15	46229776.20	46229776.26	0.0545	0.0524
Earth	121860-10-10 16:31 G	46229793.99	46229794.19	46229794.39	0.0545	0.0275
Moon	121860-10-10 18:55 G	46229794.08	46229794.29	46229794.50	0.0545	0.0238 *
Mercury	121861-03-30 00:26 G	46229964.38	46229964.52	46229964.66	0.0542	0.0067
Venus	121867-03-21 02:36 G	46232146.43	46232146.61	46232146.79	0.0485	0.0243
Mercury	121867-05-10 21:48 G	46232197.26	46232197.41	46232197.57	0.0486	0.0137
Moon	121872-10-15 23:29 G	46234182.25	46234182.48	46234182.70	0.0544	0.0060
Earth	121872-10-16 02:07 G	46234182.36	46234182.59	46234182.82	0.0544	0.0049 *
Mercury	121873-01-16 02:50 G	46234274.50	46234274.62	46234274.75	0.0542	0.0250
Venus	121873-01-21 10:31 G	46234279.84	46234279.94	46234280.06	0.0542	0.0450
Mercury	121873-04-15 17:14 G	46234364.18	46234364.22	46234364.26	0.0540	0.0512
Venus	121878-11-24 05:43 G	46236412.53	46236412.74	46236412.95	0.0485	0.0027
Mercury	121879-02-26 23:00 G	46236507.34	46236507.46	46236507.59	0.0486	0.0295
Mercury	121879-05-27 17:29 G	46236597.12	46236597.23	46236597.34	0.0488	0.0361
Venus	121884-09-25 23:43 G	46238545.29	46238545.49	46238545.69	0.0543	0.0078

Earth	121884-10-21 08:50 G	46238570.71	46238570.87	46238571.05	0.0543	0.0366
Moon	121884-10-21 12:12 G	46238570.83	46238571.01	46238571.20	0.0543	0.0337 *
Mercury	121884-11-04 04:31 G	46238584.62	46238584.69	46238584.77	0.0543	0.0447
Mercury	121885-02-01 19:24 G	46238674.21	46238674.31	46238674.42	0.0541	0.0329
Venus	121890-07-30 09:48 G	46240678.75	46240678.91	46240679.08	0.0484	0.0291
Mercury	121890-12-16 00:41 G	46240817.47	46240817.53	46240817.59	0.0486	0.0446
Mercury	121891-03-15 18:41 G	46240907.13	46240907.28	46240907.43	0.0487	0.0200
Venus	121896-05-31 09:19 G	46242810.73	46242810.89	46242811.05	0.0544	0.0312
Mercury	121896-11-20 20:36 G	46242984.22	46242984.36	46242984.50	0.0541	0.0121
Earth	121902-04-14 00:41 G	46244953.38	46244953.53	46244953.68	0.0484	0.0370
Moon	121902-04-14 04:17 G	46244953.55	46244953.68	46244953.83	0.0484	0.0386 *
Venus	121902-11-27 12:55 G	46245180.93	46245181.04	46245181.15	0.0486	0.0404
Mercury	121903-01-02 19:38 G	46245217.16	46245217.32	46245217.48	0.0487	0.0037
Mercury	121908-09-09 22:17 G	46247294.29	46247294.43	46247294.57	0.0542	0.0075
Moon	121914-04-18 01:53 G	46249340.37	46249340.58	46249340.80	0.0484	0.0186
Earth	121914-04-18 05:29 G	46249340.50	46249340.73	46249340.95	0.0484	0.0154 *
Venus	121914-08-02 15:05 G	46249446.93	46249447.13	46249447.33	0.0485	0.0129
Mercury	121914-10-21 20:07 G	46249527.19	46249527.34	46249527.50	0.0486	0.0134
Venus	121920-06-04 14:21 G	46251579.93	46251580.10	46251580.27	0.0543	0.0281
Mercury	121920-06-29 00:26 G	46251604.40	46251604.52	46251604.65	0.0543	0.0264
Mercury	121920-09-26 15:05 G	46251694.08	46251694.13	46251694.18	0.0540	0.0502
Venus	121926-04-07 18:41 G	46253713.09	46253713.28	46253713.48	0.0484	0.0139
Earth	121926-04-22 11:29 G	46253727.75	46253727.98	46253728.22	0.0484	0.0065
Moon	121926-04-22 14:50 G	46253727.89	46253728.12	46253728.36	0.0484	0.0043 *
Mercury	121926-08-09 21:19 G	46253837.27	46253837.39	46253837.52	0.0486	0.0292
Mercury	121926-11-07 15:48 G	46253927.05	46253927.16	46253927.27	0.0488	0.0363
Venus	121932-02-08 04:45 G	46255845.50	46255845.70	46255845.90	0.0544	0.0089
Mercury	121932-04-17 02:36 G	46255914.54	46255914.61	46255914.69	0.0543	0.0453
Mercury	121932-07-15 17:43 G	46256004.13	46256004.24	46256004.35	0.0541	0.0325
Venus	121937-12-11 21:48 G	46257979.30	46257979.41	46257979.52	0.0484	0.0407

Moon	121938-04-26 14:07 G	46258114.90	46258115.09	46258115.28	0.0485	0.0285
Earth	121938-04-26 17:14 G	46258115.03	46258115.22	46258115.42	0.0485	0.0280 *
Mercury	121938-05-28 22:45 G	46258147.39	46258147.45	46258147.51	0.0486	0.0449
Mercury	121938-08-26 16:31 G	46258237.04	46258237.19	46258237.34	0.0487	0.0197
Earth	121943-10-11 19:53 G	46260109.15	46260109.33	46260109.52	0.0545	0.0308
Moon	121943-10-11 23:29 G	46260109.30	46260109.48	46260109.66	0.0545	0.0342 *
Venus	121943-10-13 17:57 G	46260111.15	46260111.25	46260111.36	0.0545	0.0462
Mercury	121944-05-03 19:53 G	46260314.20	46260314.33	46260314.47	0.0541	0.0139
Venus	121950-04-10 01:24 G	46262481.39	46262481.56	46262481.72	0.0486	0.0290
Mercury	121950-06-14 17:57 G	46262547.08	46262547.25	46262547.41	0.0487	0.0039
Moon	121955-10-16 17:43 G	46264497.02	46264497.24	46264497.47	0.0544	0.0019
Earth	121955-10-16 21:19 G	46264497.16	46264497.39	46264497.62	0.0544	0.0005 *
Venus	121956-02-11 06:41 G	46264614.70	46264614.78	46264614.87	0.0542	0.0491
Mercury	121956-02-20 20:50 G	46264624.23	46264624.37	46264624.51	0.0542	0.0073
Venus	121961-12-14 04:45 G	46266747.49	46266747.70	46266747.91	0.0485	0.0020
Mercury	121962-04-02 18:55 G	46266857.14	46266857.29	46266857.45	0.0487	0.0124
Venus	121967-10-16 18:55 G	46268880.09	46268880.29	46268880.48	0.0543	0.0115
Earth	121967-10-22 01:53 G	46268885.39	46268885.58	46268885.77	0.0543	0.0305
Moon	121967-10-22 05:29 G	46268885.55	46268885.73	46268885.92	0.0543	0.0331 *
Mercury	121967-12-09 22:31 G	46268934.31	46268934.44	46268934.56	0.0542	0.0273
Mercury	121968-03-08 12:55 G	46269023.98	46269024.04	46269024.09	0.0540	0.0491
Mars	121969-12-20 19:53 G	46269676.30	46269676.33	46269676.39	0.0514	0.0506
Venus	121973-08-19 06:55 G	46271013.62	46271013.79	46271013.97	0.0484	0.0254
Mercury	121974-01-19 19:38 G	46271167.19	46271167.32	46271167.45	0.0486	0.0291
Mercury	121974-04-19 13:53 G	46271256.98	46271257.08	46271257.19	0.0488	0.0364
Venus	121979-06-21 08:07 G	46273145.66	46273145.84	46273146.01	0.0545	0.0262
Mercury	121979-09-28 00:12 G	46273244.44	46273244.51	46273244.58	0.0543	0.0469
Mercury	121979-12-26 15:19 G	46273334.03	46273334.14	46273334.26	0.0541	0.0311
Earth	121985-04-13 05:29 G	46275268.61	46275268.73	46275268.88	0.0483	0.0393
Moon	121985-04-13 09:33 G	46275268.75	46275268.90	46275269.05	0.0483	0.0370 *

Mercury	121985-11-07 21:05 G	46275477.32	46275477.38	46275477.44	0.0485	0.0447
Venus	121985-12-16 09:33 G	46275515.82	46275515.90	46275515.99	0.0486	0.0441
Mercury	121986-02-05 14:50 G	46275566.97	46275567.12	46275567.27	0.0487	0.0197
Mercury	121991-10-14 17:57 G	46277644.11	46277644.25	46277644.38	0.0542	0.0131
Moon	121997-04-17 07:09 G	46279655.58	46279655.80	46279656.03	0.0484	0.0146
Earth	121997-04-17 11:14 G	46279655.75	46279655.97	46279656.19	0.0484	0.0178 *
Venus	121997-08-21 12:41 G	46279781.84	46279782.03	46279782.23	0.0485	0.0172
Mercury	121997-11-24 15:33 G	46279876.99	46279877.15	46279877.32	0.0487	0.0034

123RD MILLENNIUM CE

This is a list of transits visible from Jupiter in the 123rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	122003-06-24 14:50 G	46281914.97	46281915.12	46281915.28	0.0543	0.0341		
Mercury	122003-08-02 19:53 G	46281954.19	46281954.33	46281954.47	0.0542	0.0060		
Earth	122009-04-21 18:12 G	46284043.03	46284043.26	46284043.50	0.0484	0.0042		
Moon	122009-04-21 22:17 G	46284043.20	46284043.43	46284043.67	0.0484	0.0062 *		
Venus	122009-04-26 16:45 G	46284048.00	46284048.20	46284048.41	0.0485	0.0095		
Mercury	122009-09-12 17:00 G	46284187.05	46284187.21	46284187.37	0.0487	0.0125		
Venus	122015-02-27 01:09 G	46286180.35	46286180.55	46286180.75	0.0543	0.0047		
Mercury	122015-05-21 20:50 G	46286264.25	46286264.37	46286264.49	0.0542	0.0272		
Mercury	122015-08-19 11:14 G	46286353.92	46286353.97	46286354.03	0.0540	0.0492		
Venus	122020-12-30 19:53 G	46288314.20	46288314.33	46288314.47	0.0484	0.0365		

Moon	122021-04-25 20:36 G	46288430.16	46288430.36	46288430.56	0.0485	0.0255
Earth	122021-04-26 00:26 G	46288430.33	46288430.52	46288430.72	0.0485	0.0261 *
Mercury	122021-07-01 18:12 G	46288497.13	46288497.26	46288497.39	0.0486	0.0284
Mercury	122021-09-29 12:41 G	46288586.92	46288587.03	46288587.13	0.0488	0.0372
Mars	122023-09-02 09:19 G	46289289.65	46289289.89	46289290.14	0.0512	0.0261
Earth	122026-10-10 12:41 G	46290423.87	46290424.03	46290424.21	0.0544	0.0367
Moon	122026-10-10 16:17 G	46290424.00	46290424.18	46290424.37	0.0544	0.0332 *
Venus	122026-11-01 12:55 G	46290445.92	46290446.04	46290446.17	0.0544	0.0428
Mercury	122027-03-09 22:02 G	46290574.36	46290574.42	46290574.49	0.0543	0.0477
Mercury	122027-06-07 13:09 G	46290663.94	46290664.05	46290664.17	0.0541	0.0302
Mercury	122033-04-19 19:09 G	46292807.24	46292807.30	46292807.36	0.0486	0.0449
Venus	122033-04-28 21:33 G	46292816.25	46292816.40	46292816.56	0.0486	0.0325
Earth	122033-04-30 04:31 G	46292817.65	46292817.69	46292817.74	0.0486	0.0476
Moon	122033-04-30 08:07 G	46292817.76	46292817.84	46292817.94	0.0486	0.0448
Mercury	122033-07-18 12:41 G	46292896.88	46292897.03	46292897.19	0.0487	0.0196
Moon	122038-10-15 15:05 G	46294811.90	46294812.13	46294812.35	0.0545	0.0047
Earth	122038-10-15 18:41 G	46294812.06	46294812.28	46294812.52	0.0545	0.0052 *
Venus	122039-03-02 04:45 G	46294949.70	46294949.70	46294949.73	0.0542	0.0541
Mercury	122039-03-26 15:19 G	46294974.01	46294974.14	46294974.28	0.0542	0.0116
Venus	122045-01-02 01:09 G	46297082.34	46297082.55	46297082.76	0.0485	0.0056
Mercury	122045-05-06 13:38 G	46297206.91	46297207.07	46297207.24	0.0487	0.0035
Earth	122050-10-21 03:33 G	46299200.45	46299200.65	46299200.85	0.0544	0.0270
Moon	122050-10-21 07:38 G	46299200.61	46299200.82	46299201.03	0.0544	0.0238 *
Venus	122050-11-04 19:09 G	46299215.11	46299215.30	46299215.49	0.0544	0.0171
Mercury	122051-01-12 17:43 G	46299284.10	46299284.24	46299284.38	0.0542	0.0070
Venus	122056-09-07 04:02 G	46301348.49	46301348.67	46301348.86	0.0484	0.0214
Mercury	122057-02-22 14:36 G	46301516.96	46301517.11	46301517.27	0.0486	0.0133
Venus	122062-07-10 08:36 G	46303480.68	46303480.86	46303481.05	0.0544	0.0203
Mercury	122062-10-31 19:38 G	46303594.20	46303594.32	46303594.45	0.0542	0.0262
Mercury	122063-01-29 10:17 G	46303683.89	46303683.93	46303683.98	0.0540	0.0504

Earth	122068-04-12 11:14 G	46305583.85	46305583.97	46305584.09	0.0484	0.0415
Moon	122068-04-12 14:36 G	46305584.02	46305584.11	46305584.22	0.0484	0.0434 *
Venus	122068-05-13 07:38 G	46305614.80	46305614.82	46305614.85	0.0484	0.0480
Mercury	122068-12-11 16:17 G	46305827.05	46305827.18	46305827.31	0.0486	0.0286
Venus	122069-01-04 07:09 G	46305850.80	46305850.80	46305850.83	0.0487	0.0485
Mercury	122069-03-11 10:31 G	46305916.84	46305916.94	46305917.05	0.0488	0.0369
Mercury	122074-08-19 20:36 G	46307904.30	46307904.36	46307904.43	0.0542	0.0475
Mercury	122074-11-17 11:43 G	46307993.88	46307993.99	46307994.10	0.0540	0.0303
Moon	122080-04-16 13:38 G	46309970.86	46309971.07	46309971.28	0.0484	0.0227
Earth	122080-04-16 17:14 G	46309971.00	46309971.22	46309971.43	0.0484	0.0197 *
Venus	122080-09-09 10:45 G	46310116.76	46310116.95	46310117.13	0.0486	0.0214
Mercury	122080-09-29 17:29 G	46310137.17	46310137.23	46310137.30	0.0486	0.0444
Mercury	122080-12-28 11:14 G	46310226.83	46310226.97	46310227.12	0.0487	0.0202
Venus	122086-07-13 09:48 G	46312249.77	46312249.91	46312250.05	0.0542	0.0376
Mercury	122086-09-05 13:24 G	46312303.93	46312304.06	46312304.20	0.0541	0.0108
Mars	122088-06-10 14:21 G	46312947.90	46312948.10	46312948.31	0.0517	0.0309
Earth	122092-04-20 21:48 G	46314358.18	46314358.41	46314358.65	0.0484	0.0020
Moon	122092-04-21 01:24 G	46314358.33	46314358.56	46314358.79	0.0484	0.0007 *
Venus	122092-05-15 12:55 G	46314382.83	46314383.04	46314383.24	0.0484	0.0062
Mercury	122092-10-16 11:43 G	46314536.83	46314536.99	46314537.15	0.0487	0.0029
Venus	122098-03-17 22:17 G	46316515.23	46316515.43	46316515.63	0.0544	0.0004
Mercury	122098-06-24 15:19 G	46316614.00	46316614.14	46316614.28	0.0542	0.0087
Venus	122104-01-20 16:17 G	46318649.04	46318649.18	46318649.34	0.0484	0.0329
Moon	122104-04-26 00:12 G	46318745.31	46318745.51	46318745.72	0.0485	0.0249
Earth	122104-04-26 04:02 G	46318745.47	46318745.67	46318745.88	0.0485	0.0235 *
Mercury	122104-08-05 12:55 G	46318846.88	46318847.04	46318847.19	0.0486	0.0133
Earth	122109-10-10 12:41 G	46320738.89	46320739.03	46320739.19	0.0545	0.0405
Moon	122109-10-10 16:45 G	46320739.07	46320739.20	46320739.34	0.0545	0.0441 *
Venus	122109-11-21 12:12 G	46320780.87	46320781.01	46320781.16	0.0545	0.0376
Mercury	122110-04-13 17:29 G	46320924.11	46320924.23	46320924.35	0.0543	0.0274

Mercury	122110-07-12 08:07 G	46321013.79	46321013.84	46321013.90	0.0541	0.0494
Earth	122116-04-30 09:19 G	46323132.81	46323132.89	46323132.98	0.0486	0.0449
Moon	122116-04-30 13:09 G	46323133.04	46323133.05	46323133.08	0.0486	0.0483
Venus	122116-05-18 18:26 G	46323151.14	46323151.27	46323151.41	0.0486	0.0365
Mercury	122116-05-24 13:53 G	46323156.96	46323157.08	46323157.21	0.0486	0.0293
Mercury	122116-08-22 08:07 G	46323246.73	46323246.84	46323246.95	0.0488	0.0361
Moon	122121-10-15 17:00 G	46325126.99	46325127.21	46325127.44	0.0545	0.0098
Earth	122121-10-15 20:50 G	46325127.15	46325127.37	46325127.60	0.0545	0.0088 *
Mercury	122122-01-30 19:24 G	46325234.24	46325234.31	46325234.38	0.0543	0.0468
Mercury	122122-04-30 10:31 G	46325323.83	46325323.94	46325324.06	0.0541	0.0312
Venus	122128-01-22 22:31 G	46327417.24	46327417.44	46327417.64	0.0485	0.0098
Mercury	122128-03-12 15:33 G	46327467.09	46327467.15	46327467.21	0.0486	0.0446
Mercury	122128-06-10 09:05 G	46327556.74	46327556.88	46327557.04	0.0487	0.0200
Earth	122133-10-21 00:12 G	46329515.30	46329515.51	46329515.72	0.0543	0.0221
Moon	122133-10-21 03:48 G	46329515.46	46329515.66	46329515.86	0.0543	0.0252 *
Venus	122133-11-24 16:02 G	46329549.99	46329550.17	46329550.36	0.0543	0.0216
Mercury	122134-02-16 11:57 G	46329633.86	46329634.00	46329634.14	0.0541	0.0110
Venus	122139-09-28 01:38 G	46331683.37	46331683.57	46331683.76	0.0484	0.0175
Mercury	122140-03-29 10:02 G	46331866.76	46331866.92	46331867.09	0.0487	0.0036
Venus	122145-07-30 04:02 G	46333815.48	46333815.67	46333815.86	0.0544	0.0166
Earth	122145-10-26 04:17 G	46333903.63	46333903.68	46333903.73	0.0542	0.0526
Mercury	122145-12-05 13:24 G	46333943.92	46333944.06	46333944.20	0.0542	0.0091
Earth	122151-04-13 14:36 G	46335899.02	46335899.11	46335899.22	0.0483	0.0438
Moon	122151-04-13 17:43 G	46335899.12	46335899.24	46335899.36	0.0483	0.0414 *
Venus	122151-06-03 04:02 G	46335949.59	46335949.67	46335949.74	0.0484	0.0446
Mercury	122152-01-16 10:45 G	46336176.80	46336176.95	46336177.11	0.0486	0.0136
Mercury	122157-09-23 15:05 G	46338254.01	46338254.13	46338254.25	0.0543	0.0291
Mercury	122157-12-22 05:43 G	46338343.68	46338343.74	46338343.80	0.0541	0.0479
Moon	122163-04-17 18:12 G	46340286.04	46340286.26	46340286.49	0.0483	0.0191
Earth	122163-04-17 21:33 G	46340286.19	46340286.40	46340286.61	0.0483	0.0221 *

Venus	122163-09-30 06:55 G	46340451.61	46340451.79	46340451.97	0.0485	0.0249
Mercury	122163-11-04 11:57 G	46340486.88	46340487.00	46340487.13	0.0486	0.0294
Mercury	122164-02-02 06:12 G	46340576.65	46340576.76	46340576.87	0.0487	0.0360
Mercury	122169-07-12 17:00 G	46342564.15	46342564.21	46342564.27	0.0543	0.0483
Venus	122169-08-02 09:05 G	46342584.76	46342584.88	46342585.00	0.0543	0.0429
Mercury	122169-10-10 08:21 G	46342653.73	46342653.85	46342653.96	0.0541	0.0300
Earth	122175-04-22 02:50 G	46344673.38	46344673.62	46344673.86	0.0484	0.0007
Moon	122175-04-22 05:57 G	46344673.52	46344673.75	46344673.98	0.0484	0.0011 *
Venus	122175-06-05 09:48 G	46344717.70	46344717.91	46344718.12	0.0484	0.0022
Mercury	122175-08-23 13:24 G	46344797.00	46344797.06	46344797.12	0.0485	0.0451
Mercury	122175-11-21 06:55 G	46344886.64	46344886.79	46344886.94	0.0487	0.0191
Mars	122177-11-26 16:31 G	46345622.90	46345623.19	46345623.48	0.0513	0.0020
Venus	122181-04-06 22:45 G	46346850.25	46346850.45	46346850.65	0.0544	0.0057
Mercury	122181-07-29 10:31 G	46346963.81	46346963.94	46346964.08	0.0542	0.0118
Venus	122187-02-08 13:38 G	46348983.90	46348984.07	46348984.23	0.0484	0.0289
Moon	122187-04-26 05:57 G	46349060.54	46349060.75	46349060.98	0.0485	0.0202
Earth	122187-04-26 09:33 G	46349060.69	46349060.90	46349061.11	0.0485	0.0211 *
Mercury	122187-09-09 08:07 G	46349196.68	46349196.84	46349197.01	0.0487	0.0032
Earth	122192-10-09 11:43 G	46351053.87	46351053.99	46351054.13	0.0545	0.0446
Moon	122192-10-09 15:48 G	46351054.01	46351054.16	46351054.31	0.0545	0.0409 *
Venus	122192-12-10 10:31 G	46351115.78	46351115.94	46351116.10	0.0544	0.0327
Mercury	122193-05-17 11:57 G	46351273.87	46351274.00	46351274.14	0.0542	0.0088
Earth	122199-04-30 15:19 G	46353448.04	46353448.14	46353448.25	0.0486	0.0429
Moon	122199-04-30 18:55 G	46353448.16	46353448.29	46353448.42	0.0486	0.0400 *
Venus	122199-06-07 16:02 G	46353486.06	46353486.17	46353486.29	0.0486	0.0406
Mercury	122199-06-28 09:19 G	46353506.73	46353506.89	46353507.04	0.0487	0.0131
Moon	122204-10-15 11:43 G	46355441.76	46355441.99	46355442.21	0.0544	0.0122
Earth	122204-10-15 15:48 G	46355441.94	46355442.16	46355442.38	0.0544	0.0139 *
Mercury	122205-03-06 13:24 G	46355583.94	46355584.06	46355584.18	0.0542	0.0289
Mercury	122205-06-04 04:02 G	46355673.61	46355673.67	46355673.74	0.0540	0.0479

Venus	122211-02-11 18:41 G	46357752.09	46357752.28	46357752.49	0.0485	0.0133
Mercury	122211-04-17 10:02 G	46357816.80	46357816.92	46357817.05	0.0486	0.0296
Mercury	122211-07-16 04:17 G	46357906.57	46357906.68	46357906.79	0.0487	0.0358
Earth	122216-10-20 19:09 G	46359830.09	46359830.30	46359830.52	0.0544	0.0169
Moon	122216-10-20 23:14 G	46359830.25	46359830.47	46359830.70	0.0544	0.0153 *
Venus	122216-12-14 12:26 G	46359884.85	46359885.02	46359885.20	0.0543	0.0258
Mercury	122216-12-23 14:36 G	46359894.06	46359894.11	46359894.17	0.0543	0.0498
Mercury	122217-03-23 05:57 G	46359983.64	46359983.75	46359983.87	0.0541	0.0287
Venus	122222-10-17 22:17 G	46362018.24	46362018.43	46362018.63	0.0484	0.0136
Mercury	122223-02-03 11:43 G	46362126.93	46362126.99	46362127.05	0.0485	0.0449
Mercury	122223-05-04 05:14 G	46362216.57	46362216.72	46362216.87	0.0487	0.0192
Venus	122228-08-19 02:36 G	46364150.41	46364150.61	46364150.80	0.0545	0.0116
Moon	122228-10-25 23:57 G	46364218.37	46364218.50	46364218.63	0.0544	0.0449
Earth	122228-10-26 03:48 G	46364218.56	46364218.66	46364218.76	0.0544	0.0486 *
Mercury	122229-01-09 08:21 G	46364293.72	46364293.85	46364293.99	0.0542	0.0105
Earth	122234-04-13 20:07 G	46366214.28	46366214.34	46366214.42	0.0483	0.0460
Moon	122234-04-13 23:43 G	46366214.44	46366214.49	46366214.54	0.0483	0.0470
Venus	122234-06-23 01:09 G	46366284.44	46366284.55	46366284.66	0.0483	0.0405
Mercury	122235-02-20 05:57 G	46366526.59	46366526.75	46366526.92	0.0487	0.0027
Venus	122240-04-23 16:31 G	46368416.11	46368416.19	46368416.28	0.0545	0.0488
Mercury	122240-10-28 10:45 G	46368603.81	46368603.95	46368604.09	0.0542	0.0082
Mars	122242-09-06 13:53 G	46369281.82	46369282.08	46369282.34	0.0516	0.0007
Moon	122246-04-17 23:14 G	46370601.28	46370601.47	46370601.67	0.0484	0.0274
Earth	122246-04-18 03:05 G	46370601.43	46370601.63	46370601.84	0.0484	0.0244 *
Venus	122246-10-20 04:17 G	46370786.52	46370786.68	46370786.85	0.0485	0.0292
Mercury	122246-12-09 07:24 G	46370836.65	46370836.81	46370836.96	0.0486	0.0131
Mercury	122252-08-16 12:12 G	46372913.89	46372914.01	46372914.13	0.0542	0.0284
Venus	122252-08-22 07:53 G	46372919.74	46372919.83	46372919.92	0.0542	0.0479
Mercury	122252-11-14 02:50 G	46373003.56	46373003.62	46373003.68	0.0540	0.0484
Earth	122258-04-22 08:50 G	46374988.63	46374988.87	46374989.11	0.0484	0.0027

Moon	122258-04-22 12:55 G	46374988.80	46374989.04	46374989.27	0.0484	0.0056	*
Venus	122258-06-25 07:24 G	46375052.60	46375052.81	46375053.02	0.0485	0.0020	
Mercury	122258-09-27 08:36 G	46375146.73	46375146.86	46375146.99	0.0486	0.0291	
Mercury	122258-12-26 02:36 G	46375236.51	46375236.61	46375236.72	0.0488	0.0364	
Venus	122264-04-26 19:38 G	46377185.13	46377185.32	46377185.52	0.0543	0.0100	
Mercury	122264-06-04 13:24 G	46377224.00	46377224.06	46377224.12	0.0543	0.0490	
Mercury	122264-09-02 04:45 G	46377313.58	46377313.70	46377313.81	0.0541	0.0292	
Venus	122270-02-28 10:31 G	46379318.77	46379318.94	46379319.12	0.0484	0.0252	
Moon	122270-04-26 10:31 G	46379375.72	46379375.94	46379376.16	0.0484	0.0173	
Earth	122270-04-26 14:36 G	46379375.89	46379376.11	46379376.33	0.0484	0.0189	*
Mercury	122270-07-16 09:48 G	46379456.85	46379456.91	46379456.97	0.0485	0.0450	
Mercury	122270-10-14 03:19 G	46379546.49	46379546.64	46379546.79	0.0487	0.0192	
Earth	122275-10-10 06:12 G	46381368.67	46381368.76	46381368.85	0.0545	0.0500	
Moon	122275-10-10 09:05 G	46381368.82	46381368.88	46381368.96	0.0545	0.0521	*
Venus	122275-12-31 06:26 G	46381450.61	46381450.77	46381450.94	0.0545	0.0287	
Mercury	122276-06-21 06:12 G	46381623.62	46381623.76	46381623.90	0.0542	0.0093	
Earth	122282-04-30 21:05 G	46383763.26	46383763.38	46383763.51	0.0485	0.0405	
Moon	122282-05-01 00:55 G	46383763.42	46383763.54	46383763.66	0.0485	0.0416	*
Venus	122282-06-27 13:09 G	46383820.98	46383821.05	46383821.14	0.0486	0.0446	
Mercury	122282-08-02 04:17 G	46383856.52	46383856.68	46383856.85	0.0486	0.0033	
Moon	122287-10-15 10:45 G	46385756.75	46385756.95	46385757.16	0.0545	0.0220	
Earth	122287-10-15 14:07 G	46385756.87	46385757.09	46385757.30	0.0545	0.0184	*
Mercury	122288-04-09 08:21 G	46385933.71	46385933.85	46385933.99	0.0543	0.0094	
Venus	122294-03-02 16:31 G	46388087.00	46388087.19	46388087.38	0.0485	0.0175	
Mercury	122294-05-21 05:29 G	46388166.57	46388166.73	46388166.88	0.0486	0.0133	
Earth	122299-10-20 23:14 G	46390145.25	46390145.47	46390145.69	0.0545	0.0136	
Moon	122299-10-21 02:50 G	46390145.39	46390145.62	46390145.85	0.0545	0.0133	*
Venus	122300-01-03 13:53 G	46390219.93	46390220.08	46390220.25	0.0543	0.0322	
Mercury	122300-01-27 10:31 G	46390243.82	46390243.94	46390244.06	0.0543	0.0282	
Mercury	122300-04-27 01:24 G	46390333.51	46390333.56	46390333.62	0.0541	0.0490	

Venus	122305-11-06 20:07 G	46392353.14	46392353.34	46392353.55	0.0484	0.0093
Mercury	122306-03-10 06:55 G	46392476.66	46392476.79	46392476.92	0.0486	0.0288
Mercury	122306-06-08 00:55 G	46392566.43	46392566.54	46392566.65	0.0487	0.0365
Venus	122311-09-09 02:50 G	46394485.42	46394485.62	46394485.82	0.0544	0.0058
Moon	122311-10-27 01:38 G	46394533.47	46394533.57	46394533.68	0.0543	0.0476
Earth	122311-10-27 05:29 G	46394533.60	46394533.73	46394533.86	0.0543	0.0449 *
Mercury	122311-11-16 11:57 G	46394553.94	46394554.00	46394554.07	0.0543	0.0484
Mercury	122312-02-14 03:19 G	46394643.53	46394643.64	46394643.76	0.0541	0.0300
Earth	122317-04-14 02:36 G	46396529.59	46396529.61	46396529.65	0.0483	0.0479
Venus	122317-07-12 23:14 G	46396619.33	46396619.47	46396619.60	0.0484	0.0364
Mercury	122317-12-27 08:21 G	46396786.79	46396786.85	46396786.91	0.0486	0.0445
Mercury	122318-03-27 01:53 G	46396876.43	46396876.58	46396876.73	0.0487	0.0199
Venus	122323-05-14 14:50 G	46398751.01	46398751.12	46398751.24	0.0545	0.0439
Mercury	122323-12-03 05:14 G	46398953.58	46398953.72	46398953.86	0.0541	0.0105
Moon	122329-04-18 05:43 G	46400916.55	46400916.74	46400916.94	0.0483	0.0258
Earth	122329-04-18 09:19 G	46400916.70	46400916.89	46400917.09	0.0483	0.0263 *
Venus	122329-11-09 01:53 G	46401121.44	46401121.58	46401121.74	0.0485	0.0333
Mercury	122330-01-13 02:36 G	46401186.45	46401186.61	46401186.78	0.0486	0.0036
Mars	122332-02-22 05:43 G	46401956.52	46401956.74	46401956.96	0.0512	0.0327
Venus	122335-09-12 04:31 G	46403254.64	46403254.69	46403254.74	0.0543	0.0524
Mercury	122335-09-21 06:26 G	46403263.63	46403263.77	46403263.91	0.0543	0.0102
Earth	122341-04-22 16:31 G	46405303.95	46405304.19	46405304.43	0.0484	0.0046
Moon	122341-04-22 19:53 G	46405304.09	46405304.33	46405304.57	0.0484	0.0018 *
Venus	122341-07-15 05:43 G	46405387.54	46405387.74	46405387.95	0.0484	0.0065
Mercury	122341-11-01 04:02 G	46405496.51	46405496.67	46405496.83	0.0486	0.0126
Venus	122347-05-17 18:12 G	46407520.07	46407520.26	46407520.45	0.0544	0.0152
Mercury	122347-07-10 08:21 G	46407573.74	46407573.85	46407573.97	0.0543	0.0293
Mercury	122347-10-07 23:29 G	46407663.42	46407663.48	46407663.54	0.0541	0.0481
Venus	122353-03-20 08:50 G	46409653.69	46409653.87	46409654.06	0.0484	0.0206
Moon	122353-04-26 18:41 G	46409691.07	46409691.28	46409691.49	0.0484	0.0195

Earth	122353-04-26 21:48 G	46409691.19	46409691.41	46409691.63	0.0484	0.0169	*
Mercury	122353-08-20 05:14 G	46409806.59	46409806.72	46409806.85	0.0486	0.0286	
Mercury	122353-11-17 23:00 G	46409896.36	46409896.46	46409896.57	0.0487	0.0365	
Earth	122358-10-10 11:00 G	46411683.92	46411683.96	46411684.02	0.0546	0.0530	
Moon	122358-10-10 13:09 G	46411683.99	46411684.05	46411684.11	0.0546	0.0526	*
Venus	122359-01-20 08:36 G	46411785.68	46411785.86	46411786.04	0.0545	0.0221	
Mercury	122359-04-28 10:31 G	46411883.88	46411883.94	46411884.01	0.0543	0.0482	
Mercury	122359-07-27 01:53 G	46411973.47	46411973.58	46411973.70	0.0541	0.0305	
Venus	122364-11-23 12:26 G	46413919.99	46413920.02	46413920.07	0.0483	0.0473	
Earth	122365-05-01 04:31 G	46414078.55	46414078.69	46414078.84	0.0485	0.0385	
Moon	122365-05-01 07:38 G	46414078.68	46414078.82	46414078.97	0.0485	0.0390	*
Mercury	122365-06-08 06:55 G	46414116.72	46414116.79	46414116.85	0.0485	0.0439	
Mercury	122365-09-06 00:12 G	46414206.36	46414206.51	46414206.66	0.0487	0.0203	
Moon	122370-10-15 16:31 G	46416071.98	46416072.19	46416072.40	0.0545	0.0184	
Earth	122370-10-15 18:26 G	46416072.06	46416072.27	46416072.48	0.0545	0.0214	*
Mercury	122371-05-15 04:02 G	46416283.53	46416283.67	46416283.81	0.0542	0.0113	
Venus	122377-03-22 15:19 G	46418421.96	46418422.14	46418422.32	0.0485	0.0222	
Mercury	122377-06-25 01:24 G	46418516.39	46418516.56	46418516.72	0.0487	0.0041	
Earth	122382-10-20 23:29 G	46420460.25	46420460.48	46420460.71	0.0544	0.0095	
Moon	122382-10-21 01:09 G	46420460.32	46420460.55	46420460.79	0.0544	0.0129	*
Venus	122383-01-23 13:09 G	46420554.90	46420555.05	46420555.19	0.0543	0.0374	
Mercury	122383-03-03 05:43 G	46420593.60	46420593.74	46420593.88	0.0542	0.0085	
Venus	122388-11-25 18:41 G	46422688.08	46422688.28	46422688.49	0.0484	0.0049	
Mercury	122389-04-13 02:21 G	46422826.45	46422826.60	46422826.76	0.0486	0.0122	
Venus	122394-09-27 23:29 G	46424820.28	46424820.48	46424820.68	0.0544	0.0016	
Moon	122394-10-25 23:29 G	46424848.34	46424848.48	46424848.64	0.0544	0.0404	
Earth	122394-10-26 01:09 G	46424848.40	46424848.55	46424848.71	0.0544	0.0397	*
Mercury	122394-12-20 06:41 G	46424903.66	46424903.78	46424903.89	0.0543	0.0297	
Mercury	122395-03-19 21:33 G	46424993.34	46424993.40	46424993.46	0.0541	0.0477	
Mars	122396-12-01 07:24 G	46425615.59	46425615.81	46425616.02	0.0517	0.0293	

Moon	122400-04-13 15:33 G	46426845.10	46426845.15	46426845.22	0.0483	0.0465
Venus	122400-07-31 22:45 G	46426954.30	46426954.45	46426954.61	0.0483	0.0315
Mercury	122401-01-30 04:02 G	46427136.54	46427136.67	46427136.80	0.0485	0.0276
Mercury	122401-04-29 21:48 G	46427226.31	46427226.41	46427226.52	0.0487	0.0375
Venus	122406-06-02 12:55 G	46429085.90	46429086.04	46429086.18	0.0545	0.0390
Mercury	122406-10-08 08:21 G	46429213.79	46429213.85	46429213.91	0.0544	0.0492
Mercury	122407-01-05 23:57 G	46429303.38	46429303.50	46429303.62	0.0542	0.0296
Moon	122412-04-17 14:50 G	46431231.93	46431232.12	46431232.31	0.0483	0.0270
Earth	122412-04-17 17:57 G	46431232.06	46431232.25	46431232.45	0.0483	0.0279 *
Mercury	122412-11-18 05:14 G	46431446.65	46431446.72	46431446.79	0.0485	0.0434
Venus	122412-11-28 00:41 G	46431456.41	46431456.53	46431456.66	0.0485	0.0380
Mercury	122413-02-15 22:31 G	46431536.30	46431536.44	46431536.59	0.0487	0.0207
Mercury	122418-10-25 02:36 G	46433613.47	46433613.61	46433613.74	0.0542	0.0118
Earth	122424-04-22 00:55 G	46435619.30	46435619.54	46435619.77	0.0483	0.0064
Moon	122424-04-22 03:19 G	46435619.40	46435619.64	46435619.88	0.0483	0.0077 *
Venus	122424-08-03 04:45 G	46435722.50	46435722.70	46435722.90	0.0484	0.0112
Mercury	122424-12-04 23:57 G	46435846.34	46435846.50	46435846.66	0.0486	0.0048
Venus	122430-06-05 20:36 G	46437855.17	46437855.36	46437855.54	0.0544	0.0219
Mercury	122430-08-13 04:31 G	46437923.55	46437923.69	46437923.83	0.0542	0.0075
Venus	122436-04-08 08:07 G	46439988.65	46439988.84	46439989.04	0.0484	0.0159
Moon	122436-04-26 05:00 G	46440006.49	46440006.71	46440006.94	0.0484	0.0125
Earth	122436-04-26 06:41 G	46440006.56	46440006.78	46440007.01	0.0484	0.0153 *
Mercury	122436-09-23 01:09 G	46440156.39	46440156.55	46440156.71	0.0486	0.0113
Moon	122441-10-09 13:09 G	46441999.01	46441999.05	46441999.09	0.0545	0.0536
Venus	122442-02-08 09:05 G	46442120.69	46442120.88	46442121.07	0.0544	0.0162
Mercury	122442-06-01 05:57 G	46442233.63	46442233.75	46442233.88	0.0543	0.0275
Mercury	122442-08-29 20:50 G	46442323.32	46442323.37	46442323.43	0.0541	0.0497
Venus	122447-12-13 11:57 G	46444254.90	46444255.00	46444255.10	0.0483	0.0426
Earth	122448-04-30 13:24 G	46444393.92	46444394.06	46444394.22	0.0485	0.0370
Moon	122448-04-30 14:36 G	46444393.94	46444394.11	46444394.28	0.0485	0.0341 *

Mercury	122448-07-12 02:36 G	46444466.48	46444466.61	46444466.74	0.0486	0.0269
Mercury	122448-10-09 20:21 G	46444556.26	46444556.35	46444556.46	0.0487	0.0383
Earth	122453-10-14 14:21 G	46446386.90	46446387.10	46446387.30	0.0545	0.0267
Moon	122453-10-14 14:36 G	46446386.92	46446387.11	46446387.30	0.0545	0.0272 *
Mercury	122454-03-20 06:41 G	46446543.72	46446543.78	46446543.84	0.0544	0.0493
Mercury	122454-06-17 22:17 G	46446633.31	46446633.43	46446633.55	0.0542	0.0295
Venus	122460-04-10 15:19 G	46448756.97	46448757.14	46448757.31	0.0485	0.0273
Mercury	122460-04-30 04:17 G	46448776.61	46448776.68	46448776.76	0.0485	0.0421
Mercury	122460-07-28 21:33 G	46448866.26	46448866.40	46448866.55	0.0487	0.0220
Moon	122465-10-19 21:48 G	46450775.17	46450775.41	46450775.65	0.0545	0.0020
Earth	122465-10-19 21:48 G	46450775.18	46450775.41	46450775.64	0.0545	0.0049 *
Venus	122466-02-11 11:43 G	46450889.87	46450889.99	46450890.11	0.0543	0.0428
Mercury	122466-04-06 00:26 G	46450943.39	46450943.52	46450943.66	0.0542	0.0110
Venus	122471-12-15 18:12 G	46453023.06	46453023.26	46453023.47	0.0484	0.0009
Mercury	122472-05-16 22:31 G	46453176.28	46453176.44	46453176.60	0.0486	0.0054
Venus	122477-10-17 02:21 G	46455155.40	46455155.60	46455155.80	0.0545	0.0057
Moon	122477-10-25 07:24 G	46455163.64	46455163.81	46455163.98	0.0544	0.0348
Earth	122477-10-25 07:38 G	46455163.66	46455163.82	46455163.99	0.0544	0.0372 *
Mercury	122478-01-23 03:05 G	46455253.49	46455253.63	46455253.77	0.0543	0.0075
Venus	122483-08-20 22:17 G	46457289.26	46457289.43	46457289.60	0.0483	0.0266
Mercury	122484-03-04 23:57 G	46457486.34	46457486.50	46457486.66	0.0486	0.0103
Venus	122489-06-21 16:17 G	46459421.02	46459421.18	46459421.35	0.0545	0.0319
Mercury	122489-11-11 05:00 G	46459563.58	46459563.71	46459563.83	0.0543	0.0264
Mercury	122490-02-08 19:53 G	46459653.28	46459653.33	46459653.37	0.0541	0.0507
Moon	122495-04-18 02:07 G	46461547.42	46461547.59	46461547.76	0.0483	0.0320
Earth	122495-04-18 03:19 G	46461547.45	46461547.64	46461547.82	0.0483	0.0294 *
Venus	122495-12-18 00:41 G	46461791.44	46461791.53	46461791.63	0.0486	0.0430
Mercury	122495-12-23 01:24 G	46461796.42	46461796.56	46461796.69	0.0486	0.0261
Mercury	122496-03-21 19:09 G	46461886.21	46461886.30	46461886.40	0.0487	0.0392
Mercury	122501-08-31 06:26 G	46463873.70	46463873.77	46463873.84	0.0543	0.0466

Mercury	122501-11-28 21:48 G	46463963.30	46463963.41	46463963.53	0.0541	0.0319
Earth	122507-04-23 10:45 G	46465934.72	46465934.95	46465935.18	0.0483	0.0077
Moon	122507-04-23 11:29 G	46465934.74	46465934.98	46465935.23	0.0483	0.0083 *
Venus	122507-08-24 04:45 G	46466057.51	46466057.70	46466057.90	0.0485	0.0164
Mercury	122507-10-12 03:05 G	46466106.55	46466106.63	46466106.71	0.0485	0.0412
Mercury	122508-01-09 20:21 G	46466196.21	46466196.35	46466196.49	0.0487	0.0229
Venus	122513-06-25 17:43 G	46468190.07	46468190.24	46468190.42	0.0544	0.0267
Mercury	122513-09-16 23:00 G	46468273.32	46468273.46	46468273.60	0.0542	0.0111
Mars	122515-05-24 15:05 G	46468888.02	46468888.13	46468888.25	0.0519	0.0462
Moon	122519-04-27 17:43 G	46470322.03	46470322.24	46470322.46	0.0484	0.0158
Earth	122519-04-27 18:12 G	46470322.03	46470322.26	46470322.49	0.0484	0.0141 *
Venus	122519-04-29 09:05 G	46470323.68	46470323.88	46470324.08	0.0484	0.0104
Mercury	122519-10-28 21:33 G	46470506.24	46470506.40	46470506.56	0.0486	0.0070
Venus	122525-02-28 07:09 G	46472455.61	46472455.80	46472456.00	0.0545	0.0111
Mercury	122525-07-06 00:55 G	46472583.40	46472583.54	46472583.68	0.0543	0.0079
Venus	122531-01-02 11:57 G	46474589.88	46474590.00	46474590.13	0.0483	0.0375
Moon	122531-05-01 23:00 G	46474709.32	46474709.46	46474709.61	0.0484	0.0382
Earth	122531-05-01 23:14 G	46474709.32	46474709.47	46474709.64	0.0484	0.0354 *
Mercury	122531-08-16 22:31 G	46474816.29	46474816.44	46474816.60	0.0486	0.0095
Earth	122536-10-14 20:50 G	46476702.17	46476702.37	46476702.56	0.0546	0.0292
Moon	122536-10-14 23:00 G	46476702.28	46476702.46	46476702.64	0.0546	0.0313 *
Venus	122536-11-02 21:48 G	46476721.32	46476721.41	46476721.50	0.0546	0.0484
Mercury	122537-04-24 03:19 G	46476893.51	46476893.64	46476893.76	0.0543	0.0265
Mercury	122537-07-22 18:12 G	46476983.22	46476983.26	46476983.31	0.0541	0.0510
Venus	122543-05-01 14:50 G	46479091.97	46479092.12	46479092.28	0.0485	0.0323
Mercury	122543-06-05 00:12 G	46479126.37	46479126.51	46479126.65	0.0485	0.0249
Mercury	122543-09-02 17:57 G	46479216.16	46479216.25	46479216.34	0.0487	0.0402
Moon	122548-10-20 03:33 G	46481090.41	46481090.65	46481090.89	0.0545	0.0040
Earth	122548-10-20 05:57 G	46481090.52	46481090.75	46481090.98	0.0545	0.0028 *
Mercury	122549-02-10 05:14 G	46481203.64	46481203.72	46481203.79	0.0543	0.0457

Venus	122549-03-03 15:33 G	46481225.08	46481225.15	46481225.22	0.0543	0.0500
Mercury	122549-05-10 20:36 G	46481293.26	46481293.36	46481293.48	0.0541	0.0330
Venus	122555-01-04 18:26 G	46483358.06	46483358.27	46483358.48	0.0484	0.0053
Mercury	122555-03-24 01:38 G	46483436.49	46483436.57	46483436.66	0.0485	0.0404
Mercury	122555-06-21 18:55 G	46483526.15	46483526.29	46483526.44	0.0487	0.0238
Earth	122560-10-25 12:12 G	46485478.83	46485479.01	46485479.19	0.0544	0.0339
Moon	122560-10-25 14:07 G	46485478.93	46485479.09	46485479.26	0.0544	0.0373 *
Venus	122560-11-06 04:17 G	46485490.48	46485490.68	46485490.87	0.0544	0.0122
Mercury	122561-02-26 22:45 G	46485603.31	46485603.45	46485603.58	0.0542	0.0138
Venus	122566-09-09 22:45 G	46487624.26	46487624.45	46487624.64	0.0484	0.0214
Mercury	122567-04-09 20:21 G	46487836.19	46487836.35	46487836.51	0.0486	0.0080
Venus	122572-07-11 13:38 G	46489755.90	46489756.07	46489756.25	0.0545	0.0272
Mercury	122572-12-15 23:29 G	46489913.34	46489913.48	46489913.62	0.0543	0.0076
Earth	122578-04-18 15:33 G	46491862.96	46491863.15	46491863.33	0.0483	0.0304
Moon	122578-04-18 15:33 G	46491862.97	46491863.15	46491863.34	0.0483	0.0274 *
Venus	122578-05-16 02:36 G	46491890.60	46491890.61	46491890.63	0.0483	0.0480
Mercury	122579-01-26 21:48 G	46492146.25	46492146.41	46492146.57	0.0486	0.0078
Mercury	122584-10-04 01:24 G	46494223.43	46494223.56	46494223.68	0.0543	0.0271
Mercury	122585-01-01 16:17 G	46494313.14	46494313.18	46494313.23	0.0541	0.0506
Moon	122590-04-22 19:38 G	46496250.08	46496250.32	46496250.57	0.0483	0.0062
Earth	122590-04-22 21:05 G	46496250.14	46496250.38	46496250.61	0.0483	0.0089 *
Venus	122590-09-12 05:00 G	46496392.52	46496392.71	46496392.89	0.0484	0.0214
Mercury	122590-11-14 23:00 G	46496456.32	46496456.46	46496456.60	0.0485	0.0240
Mercury	122591-02-12 16:45 G	46496546.11	46496546.20	46496546.29	0.0487	0.0411
Venus	122596-07-14 21:05 G	46498525.22	46498525.38	46498525.53	0.0544	0.0338
Mercury	122596-07-23 03:19 G	46498533.57	46498533.64	46498533.72	0.0544	0.0460
Mercury	122596-10-20 19:09 G	46498623.19	46498623.30	46498623.41	0.0542	0.0329
Earth	122602-04-28 03:48 G	46500637.43	46500637.66	46500637.89	0.0484	0.0126
Moon	122602-04-28 05:43 G	46500637.52	46500637.74	46500637.96	0.0484	0.0134 *
Venus	122602-05-19 08:50 G	46500658.66	46500658.87	46500659.07	0.0484	0.0055

Mercury	122602-09-04 00:41 G	46500766.44	46500766.53	46500766.62	0.0485	0.0392
Mercury	122602-12-02 17:57 G	46500856.11	46500856.25	46500856.39	0.0487	0.0249
Mars	122604-11-06 20:21 G	46501561.08	46501561.35	46501561.63	0.0510	0.0151
Venus	122608-03-20 11:14 G	46502790.77	46502790.97	46502791.17	0.0545	0.0038
Mercury	122608-08-09 21:33 G	46502933.26	46502933.40	46502933.53	0.0542	0.0147
Venus	122614-01-22 12:12 G	46504924.85	46504925.01	46504925.16	0.0483	0.0325
Moon	122614-05-02 07:09 G	46505024.62	46505024.80	46505024.98	0.0484	0.0325
Earth	122614-05-02 09:48 G	46505024.74	46505024.91	46505025.07	0.0484	0.0341 *
Mercury	122614-09-20 19:09 G	46505166.14	46505166.30	46505166.46	0.0486	0.0088
Earth	122619-10-16 02:36 G	46507017.43	46507017.61	46507017.80	0.0545	0.0320
Moon	122619-10-16 05:43 G	46507017.55	46507017.74	46507017.93	0.0545	0.0287 *
Venus	122619-11-24 00:26 G	46507056.39	46507056.52	46507056.64	0.0545	0.0416
Mercury	122620-05-28 23:14 G	46507243.33	46507243.47	46507243.62	0.0542	0.0050
Venus	122626-05-21 15:33 G	46509427.03	46509427.15	46509427.28	0.0485	0.0377
Mercury	122626-07-09 20:36 G	46509476.20	46509476.36	46509476.52	0.0486	0.0068
Moon	122631-10-20 23:43 G	46511405.25	46511405.49	46511405.72	0.0545	0.0015
Earth	122631-10-21 02:50 G	46511405.39	46511405.62	46511405.85	0.0545	0.0025 *
Mercury	122632-03-16 23:57 G	46511553.37	46511553.50	46511553.62	0.0543	0.0266
Mercury	122632-06-14 15:05 G	46511643.08	46511643.13	46511643.17	0.0541	0.0509
Venus	122638-01-24 19:53 G	46513693.12	46513693.33	46513693.53	0.0484	0.0109
Mercury	122638-04-27 22:02 G	46513786.28	46513786.42	46513786.57	0.0485	0.0223
Mercury	122638-07-26 15:48 G	46513876.09	46513876.16	46513876.24	0.0487	0.0430
Earth	122643-10-26 09:19 G	46515793.70	46515793.89	46515794.09	0.0545	0.0290
Moon	122643-10-26 12:41 G	46515793.83	46515794.03	46515794.23	0.0545	0.0263 *
Venus	122643-11-27 01:53 G	46515825.39	46515825.58	46515825.77	0.0544	0.0172
Mercury	122644-01-04 01:24 G	46515863.49	46515863.56	46515863.64	0.0544	0.0466
Mercury	122644-04-02 17:14 G	46515953.11	46515953.22	46515953.33	0.0542	0.0324
Venus	122649-09-29 22:45 G	46517959.25	46517959.45	46517959.64	0.0483	0.0165
Mercury	122650-02-13 23:14 G	46518096.38	46518096.47	46518096.57	0.0485	0.0383
Mercury	122650-05-14 16:31 G	46518186.06	46518186.19	46518186.33	0.0486	0.0259

Venus	122655-08-01 16:17 G	46520091.00	46520091.18	46520091.37	0.0545	0.0204
Mercury	122656-01-20 19:38 G	46520263.19	46520263.32	46520263.46	0.0543	0.0144
Earth	122661-04-19 00:55 G	46522178.36	46522178.54	46522178.72	0.0483	0.0316
Moon	122661-04-19 02:21 G	46522178.45	46522178.60	46522178.78	0.0483	0.0335 *
Venus	122661-06-05 02:21 G	46522225.51	46522225.60	46522225.69	0.0483	0.0432
Mercury	122662-03-02 17:43 G	46522496.09	46522496.24	46522496.40	0.0486	0.0099
Mercury	122667-11-08 22:02 G	46524573.28	46524573.42	46524573.56	0.0543	0.0042
Mars	122669-08-19 04:02 G	46525222.41	46525222.67	46525222.93	0.0518	0.0086
Moon	122673-04-23 04:45 G	46526565.46	46526565.70	46526565.93	0.0483	0.0132
Earth	122673-04-23 06:55 G	46526565.55	46526565.79	46526566.02	0.0483	0.0103 *
Venus	122673-10-02 04:45 G	46526727.54	46526727.70	46526727.88	0.0485	0.0266
Mercury	122673-12-19 19:09 G	46526806.14	46526806.30	46526806.46	0.0486	0.0062
Venus	122679-08-04 23:14 G	46528860.34	46528860.47	46528860.60	0.0543	0.0406
Mercury	122679-08-27 23:43 G	46528883.36	46528883.49	46528883.62	0.0543	0.0238
Mercury	122679-11-25 14:36 G	46528973.10	46528973.11	46528973.13	0.0541	0.0536
Earth	122685-04-27 14:36 G	46530952.88	46530953.11	46530953.34	0.0484	0.0113
Moon	122685-04-27 17:00 G	46530952.98	46530953.21	46530953.43	0.0484	0.0096 *
Venus	122685-06-07 09:19 G	46530993.68	46530993.89	46530994.10	0.0484	0.0007
Mercury	122685-10-07 20:50 G	46531116.23	46531116.37	46531116.52	0.0485	0.0214
Mercury	122686-01-05 14:36 G	46531206.05	46531206.11	46531206.18	0.0487	0.0439
Venus	122691-04-09 08:36 G	46533125.66	46533125.86	46533126.06	0.0544	0.0014
Mercury	122691-06-15 23:57 G	46533193.43	46533193.50	46533193.58	0.0543	0.0460
Mercury	122691-09-13 15:48 G	46533283.05	46533283.16	46533283.27	0.0542	0.0329
Venus	122697-02-10 13:09 G	46535259.88	46535260.05	46535260.23	0.0484	0.0270
Moon	122697-05-01 18:26 G	46535340.10	46535340.27	46535340.45	0.0484	0.0333
Earth	122697-05-01 21:33 G	46535340.23	46535340.40	46535340.58	0.0484	0.0329 *
Mercury	122697-07-26 22:31 G	46535426.34	46535426.44	46535426.55	0.0485	0.0367
Mercury	122697-10-24 15:48 G	46535516.03	46535516.16	46535516.30	0.0487	0.0276
Earth	122702-10-15 23:00 G	46537332.29	46537332.46	46537332.63	0.0545	0.0369
Moon	122702-10-16 03:05 G	46537332.48	46537332.63	46537332.78	0.0545	0.0401 *

Venus	122702-12-13 21:19 G	46537391.24	46537391.39	46537391.53	0.0545	0.0370
Mercury	122703-07-03 17:43 G	46537593.10	46537593.24	46537593.38	0.0542	0.0138
Venus	122709-06-10 14:50 G	46539762.03	46539762.12	46539762.22	0.0485	0.0425
Mercury	122709-08-13 16:31 G	46539826.03	46539826.19	46539826.35	0.0486	0.0106
Moon	122714-10-21 03:33 G	46541720.42	46541720.65	46541720.88	0.0545	0.0084
Earth	122714-10-21 07:24 G	46541720.58	46541720.81	46541721.04	0.0545	0.0052 *
Mercury	122715-04-21 20:07 G	46541903.19	46541903.34	46541903.48	0.0543	0.0050
Venus	122721-02-13 18:55 G	46544028.09	46544028.29	46544028.49	0.0484	0.0156
Mercury	122721-06-01 17:57 G	46544136.09	46544136.25	46544136.41	0.0486	0.0052
Earth	122726-10-26 17:00 G	46546109.01	46546109.21	46546109.41	0.0545	0.0268
Moon	122726-10-26 20:36 G	46546109.17	46546109.36	46546109.56	0.0545	0.0275 *
Venus	122726-12-17 05:29 G	46546160.55	46546160.73	46546160.90	0.0544	0.0244
Mercury	122727-02-07 22:17 G	46546213.30	46546213.43	46546213.56	0.0543	0.0235
Mercury	122727-05-08 13:09 G	46546303.05	46546303.05	46546303.06	0.0541	0.0540
Venus	122732-10-19 22:17 G	46548294.22	46548294.43	46548294.63	0.0484	0.0115
Mercury	122733-03-20 19:24 G	46548446.16	46548446.31	46548446.45	0.0485	0.0211
Mercury	122733-06-18 13:09 G	46548535.98	46548536.05	46548536.11	0.0487	0.0442
Venus	122738-08-21 18:41 G	46550426.09	46550426.28	46550426.47	0.0545	0.0135
Mercury	122738-11-26 23:43 G	46550523.41	46550523.49	46550523.58	0.0543	0.0434
Mercury	122739-02-24 15:33 G	46550613.04	46550613.15	46550613.25	0.0542	0.0354
Earth	122744-04-19 10:31 G	46552493.77	46552493.94	46552494.12	0.0483	0.0331
Moon	122744-04-19 13:24 G	46552493.90	46552494.06	46552494.24	0.0483	0.0327 *
Venus	122744-06-25 02:07 G	46552560.47	46552560.59	46552560.72	0.0483	0.0381
Mercury	122745-01-06 21:05 G	46552756.28	46552756.38	46552756.49	0.0485	0.0360
Mercury	122745-04-06 14:21 G	46552845.97	46552846.10	46552846.23	0.0487	0.0283
Venus	122750-04-26 04:17 G	46554691.64	46554691.68	46554691.73	0.0545	0.0529
Mercury	122750-12-13 16:17 G	46554923.05	46554923.18	46554923.32	0.0542	0.0142
Moon	122756-04-23 14:21 G	46556880.86	46556881.10	46556881.33	0.0483	0.0092
Earth	122756-04-23 17:43 G	46556881.01	46556881.24	46556881.47	0.0483	0.0115 *
Venus	122756-10-22 05:29 G	46557062.58	46557062.73	46557062.89	0.0485	0.0319

Mercury 122757-01-23 15:33 G 46557156.00 46557156.15 46557156.31 0.0486 0.0122

Mars 122759-02-02 04:45 G 46557895.45 46557895.70 46557895.96 0.0510 0.0235

Venus 122762-08-24 19:53 G 46559195.22 46559195.33 46559195.44 0.0543 0.0450

Mercury 122762-10-01 17:57 G 46559233.11 46559233.25 46559233.39 0.0543 0.0055

Earth 122768-04-27 22:45 G 46561268.22 46561268.45 46561268.69 0.0483 0.0099

Moon 122768-04-28 02:21 G 46561268.38 46561268.60 46561268.83 0.0483 0.0129 *

Venus 122768-06-27 08:07 G 46561328.63 46561328.84 46561329.05 0.0484 0.0044

Mercury 122768-11-11 16:31 G 46561466.03 46561466.19 46561466.35 0.0486 0.0046

Venus 122774-04-29 09:33 G 46563460.71 46563460.90 46563461.10 0.0545 0.0074

Mercury 122774-07-20 20:07 G 46563543.21 46563543.34 46563543.46 0.0544 0.0245

Mercury 122774-10-18 11:14 G 46563632.95 46563632.97 46563632.99 0.0542 0.0532

Venus 122780-03-02 11:57 G 46565594.81 46565595.00 46565595.18 0.0483 0.0225

Moon 122780-05-02 01:24 G 46565655.40 46565655.56 46565655.74 0.0484 0.0328

Earth 122780-05-02 05:14 G 46565655.54 46565655.72 46565655.90 0.0484 0.0312 *

Mercury 122780-08-30 17:57 G 46565776.10 46565776.25 46565776.39 0.0485 0.0203

Mercury 122780-11-28 11:29 G 46565865.93 46565865.98 46565866.05 0.0487 0.0449

Earth 122785-10-15 05:14 G 46567647.57 46567647.72 46567647.89 0.0546 0.0394

Moon 122785-10-15 09:19 G 46567647.72 46567647.89 46567648.06 0.0546 0.0369 *

Venus 122786-01-01 23:57 G 46567726.34 46567726.50 46567726.67 0.0545 0.0302

Mercury 122786-05-08 22:02 G 46567853.34 46567853.42 46567853.51 0.0544 0.0435

Mercury 122786-08-06 13:53 G 46567942.97 46567943.08 46567943.18 0.0542 0.0354

Mercury 122792-06-18 19:24 G 46570086.21 46570086.31 46570086.42 0.0485 0.0359

Venus 122792-06-29 14:07 G 46570097.05 46570097.09 46570097.13 0.0485 0.0473

Mercury 122792-09-16 12:41 G 46570175.89 46570176.03 46570176.16 0.0487 0.0284

Moon 122797-10-20 08:36 G 46572035.63 46572035.86 46572036.09 0.0545 0.0045

Earth 122797-10-20 12:26 G 46572035.80 46572036.02 46572036.25 0.0545 0.0083 *

Mercury 122798-05-25 15:48 G 46572253.03 46572253.16 46572253.29 0.0542 0.0165

Venus 122804-03-04 18:26 G 46574363.09 46574363.27 46574363.46 0.0484 0.0207

Mercury 122804-07-05 14:07 G 46574485.93 46574486.09 46574486.25 0.0486 0.0127

Earth 122809-10-25 13:24 G 46576423.85 46576424.06 46576424.28 0.0544 0.0218

Moon	122809-10-25 17:29 G	46576424.02	46576424.23	46576424.44	0.0544	0.0236	*
Venus	122810-01-05 02:07 G	46576495.43	46576495.59	46576495.76	0.0544	0.0290	
Mercury	122810-03-13 16:31 G	46576563.05	46576563.19	46576563.33	0.0542	0.0051	
Venus	122815-11-08 22:02 G	46578629.22	46578629.42	46578629.63	0.0484	0.0064	
Mercury	122816-04-23 15:19 G	46578795.98	46578796.14	46578796.31	0.0486	0.0036	
Venus	122821-09-09 14:36 G	46580760.91	46580761.11	46580761.31	0.0545	0.0095	
Moon	122821-10-30 14:50 G	46580812.04	46580812.12	46580812.20	0.0544	0.0507	
Earth	122821-10-30 18:26 G	46580812.22	46580812.27	46580812.34	0.0544	0.0523	
Mercury	122821-12-30 17:57 G	46580873.13	46580873.25	46580873.38	0.0543	0.0252	
Mercury	122822-03-30 09:05 G	46580962.85	46580962.88	46580962.92	0.0541	0.0524	
Mars	122823-11-13 21:05 G	46581556.14	46581556.38	46581556.62	0.0519	0.0188	
Earth	122827-04-19 17:43 G	46582809.08	46582809.24	46582809.41	0.0483	0.0346	
Moon	122827-04-19 21:05 G	46582809.21	46582809.38	46582809.55	0.0483	0.0335	*
Venus	122827-07-15 00:26 G	46582895.38	46582895.52	46582895.67	0.0483	0.0339	
Mercury	122828-02-10 16:17 G	46583106.04	46583106.18	46583106.33	0.0485	0.0199	
Mercury	122828-05-10 10:02 G	46583195.86	46583195.92	46583195.98	0.0487	0.0453	
Venus	122833-05-15 04:02 G	46585026.57	46585026.67	46585026.76	0.0545	0.0475	
Mercury	122833-10-18 19:38 G	46585183.25	46585183.32	46585183.40	0.0544	0.0449	
Mercury	122834-01-16 11:29 G	46585272.88	46585272.98	46585273.09	0.0542	0.0343	
Moon	122839-04-23 20:50 G	46587196.14	46587196.37	46587196.60	0.0483	0.0147	
Earth	122839-04-24 00:41 G	46587196.30	46587196.53	46587196.76	0.0483	0.0132	*
Venus	122839-11-11 03:19 G	46587397.50	46587397.64	46587397.78	0.0485	0.0361	
Mercury	122839-11-29 17:57 G	46587416.14	46587416.25	46587416.36	0.0485	0.0353	
Mercury	122840-02-27 11:00 G	46587505.83	46587505.96	46587506.09	0.0486	0.0288	
Venus	122845-09-12 21:48 G	46589530.36	46589530.41	46589530.47	0.0544	0.0516	
Mercury	122845-11-04 14:07 G	46589582.95	46589583.09	46589583.22	0.0542	0.0162	
Earth	122851-04-28 06:12 G	46591583.52	46591583.76	46591583.99	0.0483	0.0079	
Moon	122851-04-28 10:02 G	46591583.69	46591583.92	46591584.16	0.0483	0.0049	*
Venus	122851-07-17 06:26 G	46591663.57	46591663.77	46591663.98	0.0484	0.0090	
Mercury	122851-12-16 12:12 G	46591815.85	46591816.01	46591816.16	0.0486	0.0125	

Venus	122857-05-18 11:00 G	46593795.77	46593795.96	46593796.16	0.0544	0.0139
Mercury	122857-08-23 15:48 G	46593893.02	46593893.16	46593893.31	0.0543	0.0036
Venus	122863-03-22 10:31 G	46595929.75	46595929.94	46595930.14	0.0484	0.0179
Moon	122863-05-02 09:19 G	46595970.70	46595970.89	46595971.09	0.0484	0.0264
Earth	122863-05-02 13:24 G	46595970.88	46595971.06	46595971.25	0.0484	0.0294 *
Mercury	122863-10-04 13:38 G	46596125.91	46596126.07	46596126.23	0.0486	0.0032
Earth	122868-10-14 02:36 G	46597962.48	46597962.61	46597962.74	0.0545	0.0438
Moon	122868-10-14 05:14 G	46597962.58	46597962.72	46597962.87	0.0545	0.0429 *
Venus	122869-01-20 21:05 G	46598061.21	46598061.38	46598061.56	0.0545	0.0257
Mercury	122869-06-11 16:31 G	46598203.06	46598203.19	46598203.32	0.0543	0.0249
Mercury	122869-09-09 07:38 G	46598292.80	46598292.82	46598292.85	0.0541	0.0527
Venus	122874-11-25 13:38 G	46600196.00	46600196.07	46600196.15	0.0484	0.0450
Mercury	122875-07-23 15:05 G	46600435.99	46600436.13	46600436.28	0.0486	0.0189
Mercury	122875-10-21 08:50 G	46600525.82	46600525.87	46600525.92	0.0487	0.0464
Moon	122880-10-19 04:02 G	46602350.45	46602350.67	46602350.88	0.0545	0.0161
Earth	122880-10-19 06:41 G	46602350.55	46602350.78	46602351.00	0.0545	0.0135 *
Mercury	122881-03-30 17:43 G	46602513.16	46602513.24	46602513.32	0.0543	0.0456
Mercury	122881-06-28 09:33 G	46602602.79	46602602.90	46602603.01	0.0542	0.0335
Venus	122887-03-24 15:48 G	46604697.98	46604698.16	46604698.34	0.0484	0.0246
Mercury	122887-05-11 16:17 G	46604746.07	46604746.18	46604746.29	0.0485	0.0352
Mercury	122887-08-09 09:19 G	46604835.76	46604835.89	46604836.02	0.0486	0.0290
Earth	122892-10-24 12:55 G	46606738.82	46606739.04	46606739.26	0.0545	0.0177
Moon	122892-10-24 16:02 G	46606738.95	46606739.17	46606739.40	0.0545	0.0148 *
Venus	122893-01-24 01:09 G	46606830.40	46606830.55	46606830.71	0.0544	0.0342
Mercury	122893-04-16 11:29 G	46606912.85	46606912.98	46606913.12	0.0543	0.0148
Venus	122898-11-27 19:24 G	46608964.10	46608964.31	46608964.51	0.0484	0.0025
Mercury	122899-05-28 10:31 G	46609145.78	46609145.94	46609146.09	0.0486	0.0127
Venus	122904-09-29 15:33 G	46611095.95	46611096.15	46611096.35	0.0545	0.0033
Moon	122904-10-30 18:26 G	46611127.18	46611127.27	46611127.37	0.0545	0.0493
Earth	122904-10-30 22:02 G	46611127.32	46611127.42	46611127.52	0.0545	0.0492 *

Mercury	122905-02-03 13:53 G	46611222.94	46611223.08	46611223.22	0.0543	0.0040
Earth	122910-04-19 23:43 G	46613124.34	46613124.49	46613124.65	0.0483	0.0367
Moon	122910-04-20 03:48 G	46613124.53	46613124.66	46613124.80	0.0483	0.0395 *
Venus	122910-08-03 22:17 G	46613230.27	46613230.43	46613230.59	0.0483	0.0297
Mercury	122911-03-17 11:29 G	46613455.82	46613455.98	46613456.15	0.0486	0.0038
Venus	122916-06-04 05:00 G	46615361.59	46615361.71	46615361.85	0.0545	0.0413
Mercury	122916-11-22 15:33 G	46615533.02	46615533.15	46615533.28	0.0543	0.0234
Moon	122922-04-24 03:19 G	46617511.42	46617511.64	46617511.86	0.0483	0.0165
Earth	122922-04-24 07:09 G	46617511.57	46617511.80	46617512.02	0.0483	0.0153 *
Venus	122922-12-01 01:38 G	46617732.46	46617732.57	46617732.68	0.0485	0.0407
Mercury	122923-01-03 13:09 G	46617765.91	46617766.05	46617766.20	0.0485	0.0190
Mercury	122923-04-03 06:55 G	46617855.74	46617855.79	46617855.84	0.0487	0.0464
Mercury	122928-09-10 16:02 G	46619843.10	46619843.17	46619843.25	0.0543	0.0454
Mercury	122928-12-09 07:53 G	46619932.73	46619932.83	46619932.94	0.0541	0.0337
Earth	122934-04-28 13:09 G	46621898.82	46621899.05	46621899.29	0.0484	0.0062
Moon	122934-04-28 16:45 G	46621898.97	46621899.20	46621899.44	0.0484	0.0080 *
Venus	122934-08-06 04:45 G	46621998.51	46621998.70	46621998.91	0.0484	0.0135
Mercury	122934-10-22 14:50 G	46622076.01	46622076.12	46622076.23	0.0485	0.0346
Mercury	122935-01-20 07:53 G	46622165.70	46622165.83	46622165.96	0.0487	0.0298
Venus	122940-06-07 06:12 G	46624130.57	46624130.76	46624130.95	0.0544	0.0175
Mercury	122940-09-27 09:33 G	46624242.76	46624242.90	46624243.04	0.0542	0.0139
Venus	122946-04-11 07:24 G	46626264.61	46626264.81	46626265.01	0.0484	0.0142
Moon	122946-05-02 14:50 G	46626285.94	46626286.12	46626286.30	0.0484	0.0302
Earth	122946-05-02 18:12 G	46626286.07	46626286.26	46626286.45	0.0484	0.0273 *
Mercury	122946-11-08 08:36 G	46626475.70	46626475.86	46626476.02	0.0486	0.0126
Earth	122951-10-14 23:43 G	46628277.39	46628277.49	46628277.59	0.0545	0.0483
Moon	122951-10-15 01:24 G	46628277.48	46628277.56	46628277.65	0.0545	0.0505 *
Venus	122952-02-10 18:55 G	46628396.11	46628396.29	46628396.47	0.0545	0.0210
Mercury	122952-07-16 11:29 G	46628552.83	46628552.98	46628553.12	0.0543	0.0058
Venus	122957-12-15 10:31 G	46630530.84	46630530.94	46630531.06	0.0483	0.0412

Earth	122958-05-07 00:12 G	46630673.51	46630673.51	46630673.53	0.0484	0.0483
Mercury	122958-08-27 09:48 G	46630785.75	46630785.91	46630786.07	0.0485	0.0035
Moon	122963-10-20 05:57 G	46632665.54	46632665.75	46632665.97	0.0546	0.0164
Earth	122963-10-20 07:53 G	46632665.61	46632665.83	46632666.05	0.0546	0.0172 *
Mercury	122964-05-04 13:24 G	46632862.93	46632863.06	46632863.19	0.0543	0.0246
Mercury	122964-08-02 04:45 G	46632952.68	46632952.70	46632952.72	0.0542	0.0533
Venus	122970-04-13 12:55 G	46635032.88	46635033.04	46635033.21	0.0484	0.0288
Mercury	122970-06-15 11:00 G	46635095.82	46635095.96	46635096.11	0.0485	0.0195
Mercury	122970-09-13 04:45 G	46635185.64	46635185.70	46635185.75	0.0487	0.0457
Earth	122975-10-25 15:33 G	46637053.93	46637054.15	46637054.38	0.0545	0.0142
Moon	122975-10-25 17:29 G	46637054.00	46637054.23	46637054.45	0.0545	0.0176 *
Venus	122976-02-14 01:53 G	46637165.45	46637165.58	46637165.71	0.0544	0.0403
Mercury	122976-02-21 15:05 G	46637173.05	46637173.13	46637173.21	0.0544	0.0443
Mercury	122976-05-21 06:55 G	46637262.69	46637262.79	46637262.90	0.0542	0.0349
Mars	122978-02-07 19:09 G	46637890.24	46637890.30	46637890.38	0.0518	0.0497
Venus	122981-12-17 17:00 G	46639299.00	46639299.21	46639299.41	0.0484	0.0021
Mercury	122982-04-03 12:55 G	46639405.93	46639406.04	46639406.15	0.0485	0.0346
Mercury	122982-07-02 05:57 G	46639495.62	46639495.75	46639495.88	0.0487	0.0296
Venus	122987-10-19 12:41 G	46641430.83	46641431.03	46641431.23	0.0544	0.0012
Moon	122987-10-30 16:45 G	46641442.09	46641442.20	46641442.31	0.0544	0.0471
Earth	122987-10-30 18:12 G	46641442.14	46641442.26	46641442.40	0.0544	0.0443 *
Mercury	122988-03-09 08:07 G	46641572.70	46641572.84	46641572.98	0.0542	0.0142
Earth	122993-04-19 05:00 G	46643439.58	46643439.71	46643439.86	0.0484	0.0387
Moon	122993-04-19 08:50 G	46643439.72	46643439.87	46643440.04	0.0484	0.0355 *
Venus	122993-08-22 19:53 G	46643565.16	46643565.33	46643565.51	0.0484	0.0256
Mercury	122994-04-20 06:55 G	46643805.64	46643805.79	46643805.95	0.0486	0.0133
Venus	122999-06-24 00:26 G	46645696.38	46645696.52	46645696.67	0.0545	0.0376
Mercury	122999-12-27 09:33 G	46645882.76	46645882.90	46645883.04	0.0542	0.0062

124TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 124th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	123005-04-24 07:24	G	46647826.59	46647826.81	46647827.03	0.0483	0.0153	
Earth	123005-04-24 11:00	G	46647826.74	46647826.96	46647827.18	0.0483	0.0175	*
Venus	123005-12-20 21:33	G	46648067.33	46648067.40	46648067.49	0.0485	0.0442	
Mercury	123006-02-07 07:53	G	46648115.67	46648115.83	46648115.99	0.0486	0.0037	
Mercury	123011-10-16 10:45	G	46650192.83	46650192.95	46650193.08	0.0543	0.0264	
Mercury	123012-01-14 02:21	G	46650282.56	46650282.60	46650282.64	0.0542	0.0518	
Earth	123017-04-28 17:43	G	46652214.00	46652214.24	46652214.47	0.0483	0.0039	
Moon	123017-04-28 21:05	G	46652214.14	46652214.38	46652214.62	0.0483	0.0039	*
Venus	123017-08-26 01:24	G	46652333.37	46652333.56	46652333.75	0.0484	0.0171	
Mercury	123017-11-26 09:19	G	46652425.74	46652425.89	46652426.04	0.0485	0.0194	
Mercury	123018-02-24 02:36	G	46652515.56	46652515.61	46652515.67	0.0487	0.0456	
Venus	123023-06-28 05:29	G	46654465.55	46654465.73	46654465.92	0.0544	0.0230	
Mercury	123023-08-04 12:41	G	46654502.96	46654503.03	46654503.11	0.0544	0.0457	
Mercury	123023-11-02 04:45	G	46654592.59	46654592.70	46654592.81	0.0542	0.0337	
Venus	123029-05-01 04:17	G	46656599.48	46656599.68	46656599.88	0.0484	0.0102	
Moon	123029-05-02 20:36	G	46656601.16	46656601.36	46656601.56	0.0484	0.0228	
Earth	123029-05-02 23:00	G	46656601.26	46656601.46	46656601.67	0.0484	0.0249	*
Mercury	123029-09-14 10:45	G	46656735.84	46656735.95	46656736.06	0.0485	0.0352	
Mercury	123029-12-13 03:33	G	46656825.52	46656825.65	46656825.78	0.0486	0.0289	

Mars	123031-10-17 12:26 G	46657498.82	46657499.02	46657499.23	0.0508	0.0366
Moon	123034-10-15 01:38 G	46658592.47	46658592.57	46658592.69	0.0545	0.0484
Earth	123034-10-15 02:21 G	46658592.53	46658592.60	46658592.67	0.0545	0.0518 *
Venus	123035-03-02 19:24 G	46658731.12	46658731.31	46658731.51	0.0545	0.0150
Mercury	123035-08-21 06:55 G	46658902.65	46658902.79	46658902.92	0.0542	0.0150
Venus	123041-01-04 07:53 G	46660865.70	46660865.83	46660865.96	0.0483	0.0372
Earth	123041-05-07 05:43 G	46660988.67	46660988.74	46660988.81	0.0484	0.0461
Moon	123041-05-07 07:38 G	46660988.72	46660988.82	46660988.94	0.0484	0.0429 *
Mercury	123041-10-01 05:00 G	46661135.55	46661135.71	46661135.87	0.0486	0.0129
Earth	123046-10-20 05:57 G	46662980.54	46662980.75	46662980.96	0.0545	0.0214
Moon	123046-10-20 05:57 G	46662980.55	46662980.75	46662980.96	0.0545	0.0200 *
Venus	123046-11-05 07:09 G	46662996.78	46662996.80	46662996.83	0.0545	0.0538
Mercury	123047-06-09 07:53 G	46663212.69	46663212.83	46663212.97	0.0542	0.0059
Venus	123053-05-03 10:31 G	46665367.79	46665367.94	46665368.09	0.0485	0.0329
Mercury	123053-07-20 06:12 G	46665445.60	46665445.76	46665445.92	0.0486	0.0033
Earth	123058-10-25 09:33 G	46667368.67	46667368.90	46667369.13	0.0545	0.0089
Moon	123058-10-25 10:02 G	46667368.68	46667368.92	46667369.15	0.0545	0.0069 *
Venus	123059-03-05 21:05 G	46667500.27	46667500.38	46667500.50	0.0543	0.0441
Mercury	123059-03-28 09:05 G	46667522.76	46667522.88	46667523.01	0.0543	0.0265
Mercury	123059-06-26 00:26 G	46667612.48	46667612.52	46667612.56	0.0541	0.0514
Venus	123065-01-06 13:09 G	46669633.84	46669634.05	46669634.25	0.0484	0.0054
Mercury	123065-05-08 07:24 G	46669755.66	46669755.81	46669755.95	0.0485	0.0198
Mercury	123065-08-06 00:41 G	46669845.48	46669845.53	46669845.59	0.0487	0.0453
Moon	123070-10-30 12:41 G	46671756.87	46671757.03	46671757.21	0.0545	0.0359
Earth	123070-10-30 13:24 G	46671756.90	46671757.06	46671757.22	0.0545	0.0392 *
Venus	123070-11-08 09:05 G	46671765.68	46671765.88	46671766.07	0.0545	0.0054
Mercury	123071-01-14 10:02 G	46671832.86	46671832.92	46671833.00	0.0544	0.0475
Mercury	123071-04-14 02:21 G	46671922.48	46671922.60	46671922.71	0.0542	0.0322
Earth	123076-04-19 10:02 G	46673754.79	46673754.92	46673755.05	0.0483	0.0407
Moon	123076-04-19 12:26 G	46673754.92	46673755.02	46673755.15	0.0483	0.0429 *

Venus	123076-09-11 16:31 G	46673900.01	46673900.19	46673900.38	0.0483	0.0219
Mercury	123077-02-24 08:50 G	46674065.76	46674065.87	46674065.98	0.0485	0.0352
Mercury	123077-05-25 01:53 G	46674155.45	46674155.58	46674155.71	0.0486	0.0288
Venus	123082-07-13 23:00 G	46676031.30	46676031.46	46676031.62	0.0545	0.0326
Mercury	123083-01-31 04:31 G	46676232.55	46676232.69	46676232.83	0.0543	0.0136
Moon	123088-04-23 13:38 G	46678141.87	46678142.07	46678142.27	0.0483	0.0227
Earth	123088-04-23 15:48 G	46678141.95	46678142.16	46678142.38	0.0483	0.0198 *
Venus	123089-01-08 18:26 G	46678402.26	46678402.27	46678402.30	0.0485	0.0482
Mercury	123089-03-13 02:50 G	46678465.46	46678465.62	46678465.77	0.0486	0.0123
Mercury	123094-11-19 06:26 G	46680542.63	46680542.77	46680542.92	0.0543	0.0056
Mars	123096-07-30 17:00 G	46681162.01	46681162.21	46681162.42	0.0521	0.0313
Earth	123100-04-28 22:45 G	46682529.21	46682529.45	46682529.68	0.0483	0.0018
Moon	123100-04-29 00:55 G	46682529.29	46682529.54	46682529.78	0.0483	0.0004 *
Venus	123100-09-14 22:31 G	46682668.26	46682668.44	46682668.63	0.0484	0.0213
Mercury	123100-12-31 04:17 G	46682775.52	46682775.68	46682775.84	0.0486	0.0034
Venus	123106-07-18 03:48 G	46684800.49	46684800.66	46684800.83	0.0544	0.0278
Mercury	123106-09-08 07:38 G	46684852.70	46684852.82	46684852.95	0.0543	0.0262
Mercury	123106-12-06 23:00 G	46684942.43	46684942.46	46684942.50	0.0541	0.0518
Moon	123112-05-03 02:21 G	46686916.41	46686916.60	46686916.80	0.0484	0.0237
Earth	123112-05-03 04:17 G	46686916.47	46686916.68	46686916.89	0.0484	0.0227 *
Venus	123112-05-21 01:24 G	46686934.36	46686934.56	46686934.77	0.0484	0.0063
Mercury	123112-10-19 05:43 G	46687085.59	46687085.74	46687085.88	0.0486	0.0194
Mercury	123113-01-16 23:00 G	46687175.41	46687175.46	46687175.52	0.0487	0.0458
Venus	123118-03-22 15:33 G	46689065.96	46689066.15	46689066.35	0.0544	0.0110
Mercury	123118-06-27 08:36 G	46689162.80	46689162.86	46689162.93	0.0543	0.0472
Mercury	123118-09-25 00:41 G	46689252.42	46689252.53	46689252.64	0.0542	0.0322
Venus	123124-01-25 04:17 G	46691200.53	46691200.68	46691200.83	0.0483	0.0336
Earth	123124-05-07 09:33 G	46691303.81	46691303.90	46691304.00	0.0484	0.0437
Moon	123124-05-07 11:00 G	46691303.90	46691303.96	46691304.03	0.0484	0.0464 *
Mercury	123124-08-07 06:55 G	46691395.68	46691395.79	46691395.90	0.0485	0.0354

Mercury	123124-11-04 23:43 G	46691485.36	46691485.49	46691485.62	0.0486	0.0286
Earth	123129-10-19 23:57 G	46693295.30	46693295.50	46693295.70	0.0545	0.0269
Moon	123129-10-20 01:38 G	46693295.39	46693295.57	46693295.75	0.0545	0.0302 *
Venus	123129-11-25 02:36 G	46693331.54	46693331.61	46693331.69	0.0545	0.0500
Mercury	123130-07-14 02:07 G	46693562.45	46693562.59	46693562.73	0.0543	0.0122
Venus	123136-05-23 07:09 G	46695702.67	46695702.80	46695702.94	0.0484	0.0367
Mercury	123136-08-24 00:55 G	46695795.39	46695795.54	46695795.70	0.0486	0.0125
Moon	123141-10-25 05:57 G	46697683.51	46697683.75	46697683.98	0.0545	0.0038
Earth	123141-10-25 07:24 G	46697683.58	46697683.81	46697684.04	0.0545	0.0043 *
Venus	123142-03-25 19:38 G	46697835.24	46697835.32	46697835.41	0.0544	0.0493
Mercury	123142-05-02 04:17 G	46697872.53	46697872.68	46697872.82	0.0543	0.0069
Venus	123148-01-27 10:17 G	46699968.72	46699968.93	46699969.13	0.0484	0.0094
Mercury	123148-06-12 02:07 G	46700105.43	46700105.59	46700105.75	0.0485	0.0039
Earth	123153-10-30 16:02 G	46702072.00	46702072.17	46702072.35	0.0545	0.0357
Moon	123153-10-30 17:00 G	46702072.06	46702072.21	46702072.37	0.0545	0.0386 *
Venus	123153-11-28 09:48 G	46702100.71	46702100.91	46702101.10	0.0545	0.0115
Mercury	123154-02-18 06:12 G	46702182.63	46702182.76	46702182.88	0.0544	0.0260
Mercury	123154-05-18 21:33 G	46702272.37	46702272.40	46702272.44	0.0542	0.0523
Earth	123159-04-20 15:05 G	46704070.03	46704070.13	46704070.24	0.0483	0.0431
Moon	123159-04-20 17:43 G	46704070.12	46704070.24	46704070.37	0.0483	0.0414 *
Venus	123159-10-02 13:53 G	46704234.89	46704235.08	46704235.27	0.0483	0.0177
Mercury	123160-03-31 03:48 G	46704415.51	46704415.66	46704415.81	0.0485	0.0194
Mercury	123160-06-28 21:05 G	46704505.33	46704505.38	46704505.44	0.0487	0.0457
Venus	123165-08-02 22:17 G	46706366.26	46706366.43	46706366.61	0.0545	0.0272
Mercury	123165-12-07 07:09 G	46706492.73	46706492.80	46706492.88	0.0543	0.0467
Mercury	123166-03-06 23:14 G	46706582.36	46706582.47	46706582.58	0.0542	0.0327
Moon	123171-04-24 18:55 G	46708457.08	46708457.29	46708457.50	0.0483	0.0191
Earth	123171-04-24 20:50 G	46708457.16	46708457.37	46708457.58	0.0483	0.0220 *
Venus	123171-06-07 16:17 G	46708501.11	46708501.18	46708501.26	0.0484	0.0452
Mercury	123172-01-18 05:14 G	46708725.61	46708725.72	46708725.83	0.0485	0.0351

Mercury 123172-04-16 22:02 G 46708815.29 46708815.42 46708815.55 0.0487 0.0290

Mercury 123177-12-24 00:41 G 46710892.40 46710892.53 46710892.67 0.0542 0.0129

Earth 123183-04-29 03:19 G 46712844.40 46712844.64 46712844.88 0.0483 0.0007

Moon 123183-04-29 04:45 G 46712844.45 46712844.70 46712844.94 0.0483 0.0021 *

Venus 123183-10-04 19:24 G 46713003.13 46713003.31 46713003.48 0.0484 0.0251

Mercury 123184-02-03 23:00 G 46713125.31 46713125.46 46713125.62 0.0486 0.0124

Mars 123186-01-10 20:50 G 46713832.08 46713832.37 46713832.66 0.0508 0.0077

Venus 123189-08-05 23:43 G 46715135.33 46715135.49 46715135.65 0.0544 0.0320

Mercury 123189-10-12 01:53 G 46715202.44 46715202.58 46715202.72 0.0543 0.0080

Moon 123195-05-03 09:33 G 46717231.70 46717231.90 46717232.11 0.0483 0.0213

Earth 123195-05-03 10:17 G 46717231.72 46717231.93 46717232.15 0.0483 0.0206 *

Venus 123195-06-09 23:00 G 46717269.25 46717269.46 46717269.67 0.0484 0.0020

Mercury 123195-11-23 00:26 G 46717435.36 46717435.52 46717435.69 0.0485 0.0038

Venus 123201-04-10 13:24 G 46719400.86 46719401.06 46719401.26 0.0545 0.0060

Mercury 123201-07-31 03:48 G 46719512.54 46719512.66 46719512.78 0.0544 0.0273

Mercury 123201-10-28 19:24 G 46719602.27 46719602.31 46719602.35 0.0542 0.0512

Venus 123207-02-13 01:53 G 46721535.42 46721535.58 46721535.75 0.0483 0.0294

Earth 123207-05-07 15:19 G 46721619.03 46721619.14 46721619.27 0.0484 0.0416

Moon 123207-05-07 16:17 G 46721619.04 46721619.18 46721619.31 0.0484 0.0396 *

Mercury 123207-09-11 01:53 G 46721745.43 46721745.58 46721745.73 0.0485 0.0196

Mercury 123207-12-09 18:55 G 46721835.24 46721835.29 46721835.36 0.0486 0.0454

Earth 123212-10-19 03:33 G 46723610.46 46723610.65 46723610.84 0.0546 0.0302

Moon 123212-10-19 05:00 G 46723610.52 46723610.71 46723610.91 0.0546 0.0269 *

Venus 123212-12-14 03:48 G 46723666.55 46723666.66 46723666.78 0.0545 0.0437

Mercury 123213-05-19 05:29 G 46723822.66 46723822.73 46723822.81 0.0544 0.0467

Mercury 123213-08-16 21:48 G 46723912.30 46723912.41 46723912.52 0.0542 0.0331

Venus 123219-06-12 04:45 G 46726037.60 46726037.70 46726037.81 0.0485 0.0410

Mercury 123219-06-30 03:33 G 46726055.54 46726055.65 46726055.76 0.0485 0.0348

Mercury 123219-09-27 20:21 G 46726145.22 46726145.35 46726145.48 0.0486 0.0292

Moon 123224-10-24 08:36 G 46727998.62 46727998.86 46727999.10 0.0545 0.0021

Earth 123224-10-24 09:48 G 46727998.68 46727998.91 46727999.14 0.0545 0.0014 *
 Mercury 123225-06-04 23:29 G 46728222.34 46728222.48 46728222.62 0.0542 0.0135
 Venus 123231-02-15 07:53 G 46730303.64 46730303.83 46730304.04 0.0484 0.0138
 Mercury 123231-07-16 21:33 G 46730455.24 46730455.40 46730455.56 0.0486 0.0128
 Earth 123236-10-29 14:21 G 46732386.91 46732387.10 46732387.29 0.0545 0.0313
 Moon 123236-10-29 15:33 G 46732386.97 46732387.15 46732387.34 0.0545 0.0291 *
 Venus 123236-12-17 07:38 G 46732435.63 46732435.82 46732436.01 0.0544 0.0164
 Mercury 123237-03-24 00:55 G 46732532.40 46732532.54 46732532.68 0.0543 0.0067
 Earth 123242-04-19 20:21 G 46734385.28 46734385.35 46734385.44 0.0483 0.0451
 Moon 123242-04-19 22:31 G 46734385.36 46734385.44 46734385.53 0.0483 0.0452 *
 Venus 123242-10-21 11:14 G 46734569.77 46734569.97 46734570.17 0.0483 0.0136
 Mercury 123243-05-04 22:45 G 46734765.29 46734765.45 46734765.61 0.0485 0.0034
 Venus 123248-08-21 18:12 G 46736701.08 46736701.26 46736701.44 0.0545 0.0231
 Mercury 123249-01-10 01:38 G 46736842.45 46736842.57 46736842.69 0.0544 0.0282
 Mercury 123249-04-09 17:14 G 46736932.18 46736932.22 46736932.27 0.0542 0.0504
 Mars 123250-10-25 05:00 G 46737495.45 46737495.71 46737495.96 0.0521 0.0059
 Moon 123254-04-24 02:50 G 46738772.43 46738772.62 46738772.81 0.0483 0.0261
 Earth 123254-04-24 04:31 G 46738772.49 46738772.69 46738772.90 0.0483 0.0237 *
 Venus 123254-06-26 15:05 G 46738836.02 46738836.13 46738836.24 0.0483 0.0405
 Mercury 123255-02-21 00:26 G 46739075.37 46739075.52 46739075.67 0.0485 0.0189
 Mercury 123255-05-21 17:43 G 46739165.19 46739165.24 46739165.29 0.0486 0.0459
 Mercury 123260-10-29 03:19 G 46741152.57 46741152.64 46741152.71 0.0544 0.0480
 Mercury 123261-01-26 19:38 G 46741242.21 46741242.32 46741242.43 0.0543 0.0320
 Earth 123266-04-28 10:31 G 46743159.70 46743159.94 46743160.18 0.0483 0.0025
 Moon 123266-04-28 12:12 G 46743159.77 46743160.01 46743160.25 0.0483 0.0053 *
 Venus 123266-10-23 17:14 G 46743338.06 46743338.22 46743338.39 0.0484 0.0295
 Mercury 123266-12-10 01:53 G 46743385.47 46743385.58 46743385.69 0.0485 0.0347
 Mercury 123267-03-09 18:26 G 46743475.15 46743475.27 46743475.40 0.0486 0.0292
 Venus 123272-08-25 01:38 G 46745470.43 46745470.57 46745470.71 0.0544 0.0387
 Mercury 123272-11-14 21:48 G 46745552.28 46745552.41 46745552.55 0.0543 0.0137

Moon	123278-05-02 16:17 G	46747546.97	46747547.18	46747547.39	0.0483	0.0175
Earth	123278-05-02 17:29 G	46747547.01	46747547.23	46747547.44	0.0483	0.0187 *
Venus	123278-06-28 21:05 G	46747604.17	46747604.38	46747604.59	0.0484	0.0026
Mercury	123278-12-26 19:53 G	46747785.18	46747785.33	46747785.49	0.0486	0.0133
Venus	123284-04-29 14:50 G	46749735.92	46749736.12	46749736.32	0.0545	0.0005
Mercury	123284-09-02 23:43 G	46749862.34	46749862.49	46749862.63	0.0543	0.0062
Venus	123290-03-04 00:12 G	46751870.33	46751870.51	46751870.69	0.0484	0.0250
Earth	123290-05-06 22:45 G	46751934.32	46751934.45	46751934.59	0.0484	0.0397
Moon	123290-05-06 23:14 G	46751934.35	46751934.47	46751934.60	0.0484	0.0408 *
Mercury	123290-10-14 21:19 G	46752095.23	46752095.39	46752095.55	0.0486	0.0028
Earth	123295-10-19 04:17 G	46753925.51	46753925.68	46753925.86	0.0545	0.0338
Moon	123295-10-19 06:55 G	46753925.63	46753925.79	46753925.95	0.0545	0.0370 *
Venus	123296-01-03 03:05 G	46754001.49	46754001.63	46754001.77	0.0545	0.0382
Mercury	123296-06-22 00:55 G	46754172.42	46754172.54	46754172.66	0.0543	0.0264
Mercury	123296-09-19 16:31 G	46754262.15	46754262.19	46754262.23	0.0541	0.0519
Venus	123302-07-02 03:05 G	46756372.56	46756372.63	46756372.70	0.0485	0.0455
Mercury	123302-08-03 22:45 G	46756405.30	46756405.45	46756405.60	0.0485	0.0185
Mercury	123302-11-01 16:02 G	46756495.12	46756495.17	46756495.22	0.0486	0.0464
Moon	123307-10-25 02:21 G	46758313.36	46758313.60	46758313.83	0.0545	0.0073
Earth	123307-10-25 04:45 G	46758313.47	46758313.70	46758313.93	0.0545	0.0046 *
Mercury	123308-04-11 01:24 G	46758482.50	46758482.56	46758482.62	0.0544	0.0485
Mercury	123308-07-09 17:43 G	46758572.13	46758572.24	46758572.35	0.0542	0.0315
Venus	123314-03-07 07:09 G	46760638.61	46760638.80	46760639.00	0.0484	0.0186
Mercury	123314-05-23 00:41 G	46760715.42	46760715.53	46760715.64	0.0485	0.0337
Mercury	123314-08-20 17:14 G	46760805.10	46760805.22	46760805.35	0.0486	0.0302
Earth	123319-10-30 11:43 G	46762701.80	46762701.99	46762702.20	0.0545	0.0265
Moon	123319-10-30 13:24 G	46762701.87	46762702.06	46762702.25	0.0545	0.0276 *
Venus	123320-01-07 05:29 G	46762770.55	46762770.73	46762770.92	0.0545	0.0215
Mercury	123320-04-27 19:38 G	46762882.19	46762882.32	46762882.46	0.0543	0.0128
Earth	123325-04-20 05:00 G	46764700.65	46764700.71	46764700.78	0.0483	0.0465

Moon	123325-04-20 06:55 G	46764700.74	46764700.79	46764700.84	0.0483	0.0471	*
Venus	123325-11-10 10:02 G	46764904.72	46764904.92	46764905.13	0.0483	0.0089	
Mercury	123326-06-08 18:26 G	46765115.11	46765115.27	46765115.42	0.0486	0.0137	
Venus	123331-09-11 20:21 G	46767036.16	46767036.35	46767036.54	0.0545	0.0163	
Mercury	123332-02-14 22:02 G	46767192.28	46767192.42	46767192.56	0.0544	0.0060	
Moon	123337-04-24 11:14 G	46769087.78	46769087.97	46769088.18	0.0483	0.0239	
Earth	123337-04-24 12:26 G	46769087.82	46769088.02	46769088.23	0.0483	0.0254	*
Venus	123337-07-16 13:38 G	46769170.94	46769171.07	46769171.21	0.0483	0.0359	
Mercury	123338-03-27 19:53 G	46769425.17	46769425.33	46769425.49	0.0485	0.0022	
Mars	123340-04-06 23:14 G	46770166.23	46770166.47	46770166.72	0.0509	0.0285	
Venus	123343-05-17 10:17 G	46771301.92	46771301.93	46771301.95	0.0545	0.0542	
Mercury	123343-12-03 23:43 G	46771502.36	46771502.49	46771502.62	0.0543	0.0255	
Mercury	123344-03-02 15:19 G	46771592.12	46771592.14	46771592.17	0.0542	0.0528	
Earth	123349-04-28 18:12 G	46773475.03	46773475.26	46773475.50	0.0483	0.0044	
Moon	123349-04-28 19:09 G	46773475.05	46773475.30	46773475.55	0.0483	0.0014	*
Venus	123349-11-12 16:17 G	46773673.04	46773673.18	46773673.33	0.0484	0.0344	
Mercury	123350-01-13 21:19 G	46773735.25	46773735.39	46773735.54	0.0485	0.0179	
Mercury	123350-04-13 14:36 G	46773825.08	46773825.11	46773825.15	0.0487	0.0471	
Venus	123355-09-15 01:38 G	46775805.46	46775805.57	46775805.68	0.0544	0.0445	
Mercury	123355-09-22 00:55 G	46775812.47	46775812.54	46775812.61	0.0544	0.0461	
Mercury	123355-12-20 17:14 G	46775902.11	46775902.22	46775902.33	0.0542	0.0336	
Moon	123361-05-03 01:09 G	46777862.34	46777862.55	46777862.76	0.0483	0.0189	
Earth	123361-05-03 01:38 G	46777862.35	46777862.57	46777862.80	0.0483	0.0170	*
Venus	123361-07-18 20:07 G	46777939.14	46777939.34	46777939.55	0.0484	0.0073	
Mercury	123361-11-01 23:14 G	46778045.35	46778045.47	46778045.58	0.0485	0.0331	
Mercury	123362-01-30 15:48 G	46778135.04	46778135.16	46778135.29	0.0486	0.0308	
Venus	123367-05-20 11:14 G	46780070.77	46780070.97	46780071.17	0.0545	0.0050	
Mercury	123367-10-08 17:57 G	46780212.12	46780212.25	46780212.39	0.0543	0.0127	
Venus	123373-03-24 00:12 G	46782205.33	46782205.51	46782205.71	0.0483	0.0197	
Earth	123373-05-07 09:05 G	46782249.74	46782249.88	46782250.03	0.0483	0.0383	

Moon	123373-05-07 09:48 G	46782249.76	46782249.91	46782250.06	0.0483	0.0375	*
Mercury	123373-08-21 01:09 G	46782355.53	46782355.55	46782355.57	0.0484	0.0480	
Mercury	123373-11-18 17:14 G	46782445.07	46782445.22	46782445.38	0.0485	0.0149	
Earth	123378-10-19 01:24 G	46784240.41	46784240.56	46784240.73	0.0545	0.0388	
Moon	123378-10-19 04:02 G	46784240.50	46784240.67	46784240.84	0.0545	0.0359	*
Venus	123379-01-23 00:41 G	46784336.38	46784336.53	46784336.69	0.0546	0.0334	
Mercury	123379-07-27 19:53 G	46784522.19	46784522.33	46784522.47	0.0544	0.0067	
Venus	123384-11-27 03:05 G	46786471.59	46786471.63	46786471.68	0.0483	0.0470	
Mercury	123385-09-06 18:26 G	46786755.11	46786755.27	46786755.43	0.0485	0.0015	
Moon	123390-10-24 07:53 G	46788628.59	46788628.83	46788629.07	0.0546	0.0040	
Earth	123390-10-24 10:31 G	46788628.71	46788628.94	46788629.16	0.0546	0.0074	*
Mercury	123391-05-15 22:02 G	46788832.29	46788832.42	46788832.54	0.0544	0.0256	
Mercury	123391-08-13 13:38 G	46788922.05	46788922.07	46788922.10	0.0542	0.0531	
Venus	123397-03-26 06:26 G	46790973.59	46790973.77	46790973.95	0.0484	0.0234	
Mercury	123397-06-25 20:07 G	46791065.19	46791065.34	46791065.49	0.0485	0.0169	
Mercury	123397-09-23 13:09 G	46791155.04	46791155.05	46791155.08	0.0486	0.0481	
Earth	123402-10-30 19:09 G	46793017.09	46793017.30	46793017.50	0.0545	0.0242	
Moon	123402-10-30 21:19 G	46793017.19	46793017.39	46793017.59	0.0545	0.0246	*
Venus	123403-01-27 08:50 G	46793105.70	46793105.87	46793106.04	0.0544	0.0287	
Mercury	123403-03-04 23:43 G	46793142.41	46793142.49	46793142.57	0.0544	0.0452	
Mercury	123403-06-02 16:02 G	46793232.06	46793232.17	46793232.27	0.0542	0.0346	
Mars	123405-01-20 11:57 G	46793829.79	46793830.00	46793830.22	0.0520	0.0286	
Earth	123408-04-20 13:09 G	46795016.04	46795016.05	46795016.07	0.0483	0.0482	
Moon	123408-04-20 15:19 G	46795016.09	46795016.14	46795016.20	0.0483	0.0469	
Venus	123408-11-30 09:33 G	46795239.69	46795239.90	46795240.11	0.0484	0.0039	
Mercury	123409-04-14 21:48 G	46795375.29	46795375.41	46795375.53	0.0485	0.0324	
Mercury	123409-07-13 14:21 G	46795464.98	46795465.10	46795465.23	0.0486	0.0317	
Venus	123414-10-01 21:33 G	46797371.20	46797371.40	46797371.60	0.0545	0.0099	
Moon	123414-11-04 23:00 G	46797405.39	46797405.46	46797405.54	0.0545	0.0517	
Mercury	123415-03-21 17:43 G	46797542.10	46797542.24	46797542.37	0.0543	0.0151	

Moon	123420-04-24 19:53 G	46799403.15	46799403.33	46799403.52	0.0483	0.0283
Earth	123420-04-24 21:33 G	46799403.21	46799403.40	46799403.60	0.0483	0.0269 *
Venus	123420-08-05 13:24 G	46799505.91	46799506.06	46799506.22	0.0483	0.0309
Mercury	123421-01-31 23:43 G	46799685.46	46799685.49	46799685.53	0.0484	0.0472
Mercury	123421-05-01 16:02 G	46799775.01	46799775.17	46799775.32	0.0486	0.0158
Venus	123426-06-06 07:09 G	46801636.72	46801636.80	46801636.88	0.0545	0.0497
Mercury	123427-01-07 18:12 G	46801852.12	46801852.26	46801852.41	0.0543	0.0067
Earth	123432-04-29 05:43 G	46803790.51	46803790.74	46803790.98	0.0483	0.0053
Moon	123432-04-29 06:55 G	46803790.55	46803790.79	46803791.03	0.0483	0.0083 *
Venus	123432-12-02 17:00 G	46804008.09	46804008.21	46804008.33	0.0484	0.0398
Mercury	123433-02-17 17:29 G	46804085.07	46804085.23	46804085.40	0.0485	0.0014
Venus	123438-10-04 23:29 G	46806140.41	46806140.48	46806140.56	0.0544	0.0498
Mercury	123438-10-26 19:53 G	46806162.21	46806162.33	46806162.46	0.0544	0.0263
Mercury	123439-01-24 11:43 G	46806251.96	46806251.99	46806252.02	0.0542	0.0525
Moon	123444-05-03 11:14 G	46808177.75	46808177.97	46808178.19	0.0483	0.0131
Earth	123444-05-03 11:43 G	46808177.77	46808177.99	46808178.22	0.0483	0.0158 *
Venus	123444-08-07 20:07 G	46808274.14	46808274.34	46808274.54	0.0483	0.0124
Mercury	123444-12-06 18:55 G	46808395.14	46808395.29	46808395.44	0.0485	0.0159
Venus	123450-06-09 14:07 G	46810405.90	46810406.09	46810406.28	0.0545	0.0120
Mercury	123450-08-14 21:48 G	46810472.34	46810472.41	46810472.49	0.0544	0.0455
Mercury	123450-11-12 14:21 G	46810561.99	46810562.10	46810562.21	0.0543	0.0347
Venus	123456-04-12 23:57 G	46812540.30	46812540.50	46812540.70	0.0483	0.0147
Moon	123456-05-07 18:12 G	46812565.11	46812565.26	46812565.43	0.0483	0.0361
Earth	123456-05-07 18:26 G	46812565.12	46812565.27	46812565.43	0.0483	0.0368 *
Mercury	123456-09-24 20:50 G	46812705.25	46812705.37	46812705.49	0.0485	0.0312
Mercury	123456-12-23 13:24 G	46812794.94	46812795.06	46812795.18	0.0486	0.0327
Earth	123461-10-19 09:48 G	46814555.76	46814555.91	46814556.07	0.0545	0.0406
Moon	123461-10-19 12:41 G	46814555.90	46814556.03	46814556.17	0.0545	0.0422 *
Venus	123462-02-12 04:31 G	46814671.52	46814671.69	46814671.87	0.0545	0.0260
Mercury	123462-08-31 16:31 G	46814872.06	46814872.19	46814872.33	0.0543	0.0160

Venus	123467-12-18 02:50 G	46816806.52	46816806.62	46816806.72	0.0483	0.0421
Mercury	123468-07-13 22:31 G	46817015.40	46817015.44	46817015.48	0.0484	0.0464
Mercury	123468-10-11 14:36 G	46817104.96	46817105.11	46817105.26	0.0486	0.0166
Moon	123473-10-24 13:24 G	46818943.83	46818944.06	46818944.29	0.0545	0.0134
Earth	123473-10-24 15:48 G	46818943.94	46818944.16	46818944.39	0.0545	0.0101 *
Mercury	123474-06-19 18:12 G	46819182.11	46819182.26	46819182.40	0.0543	0.0039
Venus	123480-04-15 06:41 G	46821308.62	46821308.78	46821308.95	0.0484	0.0288
Mercury	123480-07-30 16:17 G	46821415.02	46821415.18	46821415.34	0.0485	0.0014
Earth	123485-10-29 15:48 G	46823331.95	46823332.16	46823332.38	0.0545	0.0191
Moon	123485-10-29 17:57 G	46823332.04	46823332.25	46823332.46	0.0545	0.0181 *
Venus	123486-02-15 05:57 G	46823440.60	46823440.75	46823440.91	0.0544	0.0335
Mercury	123486-04-07 18:26 G	46823492.15	46823492.27	46823492.40	0.0544	0.0259
Mercury	123486-07-06 10:17 G	46823581.91	46823581.93	46823581.96	0.0542	0.0529
Venus	123491-12-20 10:45 G	46825574.74	46825574.95	46825575.16	0.0483	0.0018
Mercury	123492-05-18 18:12 G	46825725.10	46825725.26	46825725.41	0.0485	0.0143
Venus	123497-10-20 19:09 G	46827706.10	46827706.30	46827706.50	0.0545	0.0049
Moon	123497-11-03 20:07 G	46827720.28	46827720.34	46827720.41	0.0545	0.0519
Earth	123497-11-03 22:31 G	46827720.35	46827720.44	46827720.53	0.0545	0.0497 *
Mercury	123498-01-24 19:53 G	46827802.26	46827802.33	46827802.41	0.0544	0.0461
Mercury	123498-04-24 12:26 G	46827891.91	46827892.02	46827892.13	0.0543	0.0342
Moon	123503-04-26 07:09 G	46829718.61	46829718.80	46829718.98	0.0483	0.0278
Earth	123503-04-26 08:07 G	46829718.65	46829718.84	46829719.03	0.0483	0.0278 *
Venus	123503-08-26 13:53 G	46829840.90	46829841.08	46829841.25	0.0483	0.0257
Mercury	123504-03-07 19:38 G	46830035.19	46830035.32	46830035.44	0.0484	0.0302
Mercury	123504-06-05 12:12 G	46830124.89	46830125.01	46830125.12	0.0486	0.0337
Venus	123509-06-26 09:48 G	46831971.79	46831971.91	46831972.03	0.0546	0.0428
Mercury	123510-02-11 14:50 G	46832201.98	46832202.12	46832202.25	0.0543	0.0160
Earth	123515-04-30 15:33 G	46834105.91	46834106.15	46834106.38	0.0483	0.0067
Moon	123515-04-30 16:31 G	46834105.94	46834106.19	46834106.44	0.0483	0.0042 *
Venus	123515-12-23 16:31 G	46834343.12	46834343.19	46834343.27	0.0484	0.0448

Mercury	123515-12-25 21:33 G	46834345.35	46834345.40	46834345.45	0.0484	0.0451
Mercury	123516-03-24 13:24 G	46834434.92	46834435.06	46834435.22	0.0485	0.0179
Mercury	123521-11-30 16:45 G	46836512.06	46836512.20	46836512.35	0.0543	0.0033
Mars	123523-07-14 01:38 G	46837102.45	46837102.57	46837102.69	0.0523	0.0458
Moon	123527-05-04 20:50 G	46838493.16	46838493.37	46838493.58	0.0483	0.0170
Earth	123527-05-04 21:19 G	46838493.17	46838493.39	46838493.62	0.0483	0.0144 *
Venus	123527-08-28 20:07 G	46838609.15	46838609.34	46838609.54	0.0484	0.0176
Mercury	123528-01-11 15:05 G	46838744.96	46838745.13	46838745.29	0.0485	0.0022
Venus	123533-06-29 16:31 G	46840741.01	46840741.19	46840741.38	0.0545	0.0190
Mercury	123533-09-18 18:26 G	46840822.14	46840822.27	46840822.40	0.0544	0.0229
Venus	123539-05-04 00:26 G	46842875.32	46842875.52	46842875.72	0.0483	0.0093
Earth	123539-05-09 05:00 G	46842880.56	46842880.71	46842880.88	0.0483	0.0356
Moon	123539-05-09 05:29 G	46842880.58	46842880.73	46842880.90	0.0483	0.0364 *
Mercury	123539-10-30 16:45 G	46843055.05	46843055.20	46843055.36	0.0485	0.0134
Earth	123544-10-19 07:38 G	46844870.70	46844870.82	46844870.95	0.0545	0.0451
Moon	123544-10-19 11:14 G	46844870.84	46844870.97	46844871.10	0.0545	0.0444 *
Venus	123545-03-04 02:07 G	46845006.41	46845006.59	46845006.78	0.0545	0.0211
Mercury	123545-07-07 18:26 G	46845132.20	46845132.27	46845132.35	0.0544	0.0455
Mercury	123545-10-05 11:00 G	46845221.85	46845221.96	46845222.07	0.0543	0.0347
Venus	123551-01-07 04:17 G	46847141.55	46847141.68	46847141.82	0.0483	0.0364
Mercury	123551-08-18 18:41 G	46847365.16	46847365.28	46847365.41	0.0485	0.0285
Mercury	123551-11-16 11:14 G	46847454.86	46847454.97	46847455.08	0.0486	0.0355
Moon	123556-10-24 09:33 G	46849258.67	46849258.90	46849259.13	0.0545	0.0118
Earth	123556-10-24 12:55 G	46849258.82	46849259.04	46849259.26	0.0545	0.0150 *
Mercury	123557-07-24 12:41 G	46849531.90	46849532.03	46849532.17	0.0543	0.0155
Venus	123563-05-06 06:26 G	46851643.63	46851643.77	46851643.93	0.0484	0.0339
Mercury	123563-06-06 20:21 G	46851675.29	46851675.35	46851675.41	0.0484	0.0442
Mercury	123563-09-04 12:12 G	46851764.87	46851765.01	46851765.16	0.0485	0.0188
Earth	123568-10-29 21:19 G	46853647.17	46853647.39	46853647.61	0.0546	0.0165
Moon	123568-10-29 23:57 G	46853647.30	46853647.50	46853647.72	0.0546	0.0192 *

Venus	123569-03-07 08:36 G	46853775.73	46853775.86	46853776.00	0.0545	0.0405
Mercury	123569-05-12 15:05 G	46853841.98	46853842.13	46853842.27	0.0544	0.0036
Moon	123574-04-21 12:26 G	46855646.98	46855647.02	46855647.08	0.0483	0.0474
Venus	123575-01-09 10:31 G	46855909.73	46855909.94	46855910.15	0.0483	0.0067
Mercury	123575-06-23 13:53 G	46856074.92	46856075.08	46856075.24	0.0485	0.0030
Moon	123580-11-04 04:31 G	46858035.57	46858035.69	46858035.81	0.0545	0.0466
Earth	123580-11-04 06:41 G	46858035.68	46858035.78	46858035.90	0.0545	0.0479 *
Venus	123580-11-09 23:14 G	46858041.27	46858041.47	46858041.67	0.0545	0.0027
Mercury	123581-02-28 17:00 G	46858152.08	46858152.21	46858152.34	0.0544	0.0223
Moon	123586-04-25 16:17 G	46860034.00	46860034.18	46860034.37	0.0483	0.0286
Earth	123586-04-25 17:29 G	46860034.04	46860034.23	46860034.42	0.0483	0.0292 *
Venus	123586-09-14 13:38 G	46860175.89	46860176.07	46860176.26	0.0483	0.0206
Mercury	123587-04-11 15:19 G	46860384.99	46860385.14	46860385.30	0.0485	0.0128
Venus	123592-07-15 12:41 G	46862306.88	46862307.03	46862307.18	0.0545	0.0357
Mercury	123592-12-17 18:26 G	46862462.18	46862462.27	46862462.36	0.0544	0.0425
Mercury	123593-03-17 10:45 G	46862551.85	46862551.95	46862552.05	0.0542	0.0375
Earth	123598-04-30 01:38 G	46864421.34	46864421.57	46864421.81	0.0483	0.0080
Moon	123598-04-30 01:53 G	46864421.34	46864421.58	46864421.83	0.0483	0.0097 *
Venus	123598-05-20 17:43 G	46864442.20	46864442.24	46864442.27	0.0483	0.0476
Mercury	123599-01-28 17:29 G	46864695.10	46864695.23	46864695.36	0.0485	0.0276
Mercury	123599-04-28 10:02 G	46864784.82	46864784.92	46864785.03	0.0486	0.0364
Mercury	123605-01-03 11:29 G	46866861.85	46866861.98	46866862.12	0.0543	0.0160
Earth	123610-05-04 09:19 G	46868808.66	46868808.89	46868809.12	0.0483	0.0135
Moon	123610-05-04 09:19 G	46868808.67	46868808.89	46868809.12	0.0483	0.0107 *
Venus	123610-09-16 21:19 G	46868944.21	46868944.39	46868944.58	0.0484	0.0233
Mercury	123610-11-16 19:24 G	46869005.24	46869005.31	46869005.39	0.0484	0.0426
Mercury	123611-02-14 11:29 G	46869094.84	46869094.98	46869095.13	0.0486	0.0205
Mars	123612-12-21 11:43 G	46869770.72	46869770.99	46869771.26	0.0506	0.0189
Venus	123616-07-18 13:38 G	46871075.89	46871076.07	46871076.25	0.0545	0.0237
Mercury	123616-10-22 13:09 G	46871171.90	46871172.05	46871172.19	0.0544	0.0042

Moon	123622-05-08 14:36 G	46873195.93	46873196.11	46873196.29	0.0483	0.0323
Earth	123622-05-08 14:50 G	46873195.96	46873196.12	46873196.29	0.0483	0.0344 *
Venus	123622-05-23 00:12 G	46873210.30	46873210.51	46873210.72	0.0483	0.0044
Mercury	123622-12-03 12:41 G	46873404.87	46873405.03	46873405.19	0.0485	0.0039
Earth	123627-10-19 11:57 G	46875185.89	46875186.00	46875186.11	0.0545	0.0479
Moon	123627-10-19 14:50 G	46875186.02	46875186.12	46875186.24	0.0545	0.0477 *
Venus	123628-03-23 04:02 G	46875341.48	46875341.67	46875341.86	0.0546	0.0146
Mercury	123628-08-10 15:05 G	46875482.00	46875482.13	46875482.26	0.0544	0.0230
Venus	123634-01-26 03:48 G	46877476.51	46877476.66	46877476.82	0.0483	0.0316
Mercury	123634-09-21 14:21 G	46877714.94	46877715.10	46877715.25	0.0485	0.0116
Moon	123639-10-24 17:29 G	46879574.02	46879574.23	46879574.45	0.0546	0.0201
Earth	123639-10-24 20:36 G	46879574.15	46879574.36	46879574.58	0.0546	0.0170 *
Venus	123639-11-26 18:55 G	46879607.24	46879607.29	46879607.34	0.0546	0.0523
Mercury	123640-05-29 16:45 G	46879792.12	46879792.20	46879792.29	0.0544	0.0423
Mercury	123640-08-27 09:19 G	46879881.79	46879881.89	46879881.99	0.0543	0.0379
Venus	123646-05-25 06:12 G	46881978.65	46881978.76	46881978.89	0.0484	0.0390
Mercury	123646-07-10 16:02 G	46882025.04	46882025.17	46882025.30	0.0485	0.0272
Mercury	123646-10-08 08:21 G	46882114.75	46882114.85	46882114.96	0.0486	0.0369
Earth	123651-10-30 03:33 G	46883962.43	46883962.65	46883962.87	0.0545	0.0139
Moon	123651-10-30 06:26 G	46883962.55	46883962.77	46883962.99	0.0545	0.0108 *
Venus	123652-03-26 11:14 G	46884110.88	46884110.97	46884111.07	0.0544	0.0475
Mercury	123652-06-15 11:14 G	46884191.83	46884191.97	46884192.10	0.0543	0.0187
Venus	123658-01-28 10:45 G	46886244.75	46886244.95	46886245.15	0.0484	0.0121
Mercury	123658-04-28 17:57 G	46886335.18	46886335.25	46886335.33	0.0484	0.0419
Mercury	123658-07-27 10:02 G	46886424.78	46886424.92	46886425.07	0.0486	0.0213
Moon	123663-11-04 00:55 G	46888350.39	46888350.54	46888350.69	0.0545	0.0423
Earth	123663-11-04 04:02 G	46888350.54	46888350.67	46888350.82	0.0545	0.0431 *
Venus	123663-11-29 20:50 G	46888376.17	46888376.37	46888376.57	0.0545	0.0075
Mercury	123664-04-03 11:43 G	46888501.85	46888501.99	46888502.13	0.0543	0.0032
Moon	123669-04-25 03:05 G	46890349.46	46890349.63	46890349.81	0.0484	0.0316

Earth	123669-04-25 04:02 G	46890349.48	46890349.67	46890349.85	0.0484	0.0302 *
Venus	123669-10-03 14:36 G	46890510.91	46890511.11	46890511.30	0.0483	0.0153
Mercury	123670-05-15 11:43 G	46890734.83	46890734.99	46890735.15	0.0485	0.0055
Venus	123675-08-04 09:19 G	46892641.73	46892641.89	46892642.06	0.0545	0.0313
Mercury	123676-01-21 12:55 G	46892811.91	46892812.04	46892812.17	0.0544	0.0236
Mars	123677-10-06 23:43 G	46893436.25	46893436.49	46893436.73	0.0523	0.0168
Earth	123681-04-29 10:31 G	46894736.71	46894736.94	46894737.17	0.0483	0.0091
Moon	123681-04-29 11:00 G	46894736.71	46894736.96	46894737.20	0.0483	0.0080 *
Venus	123681-06-08 17:00 G	46894777.12	46894777.21	46894777.31	0.0483	0.0429
Mercury	123682-03-03 12:55 G	46895044.89	46895045.04	46895045.20	0.0485	0.0109
Mercury	123687-11-09 14:36 G	46897122.03	46897122.11	46897122.20	0.0544	0.0433
Mercury	123688-02-07 07:09 G	46897211.70	46897211.80	46897211.91	0.0543	0.0371
Earth	123693-05-03 17:29 G	46899124.01	46899124.23	46899124.47	0.0483	0.0120
Moon	123693-05-03 17:57 G	46899124.03	46899124.25	46899124.47	0.0483	0.0148 *
Venus	123693-10-05 20:21 G	46899279.18	46899279.35	46899279.52	0.0484	0.0279
Mercury	123693-12-20 14:50 G	46899354.98	46899355.12	46899355.25	0.0484	0.0263
Mercury	123694-03-20 07:09 G	46899444.70	46899444.80	46899444.90	0.0486	0.0377
Venus	123699-08-07 16:45 G	46901411.04	46901411.20	46901411.37	0.0545	0.0309
Mercury	123699-11-26 09:33 G	46901521.77	46901521.90	46901522.03	0.0543	0.0187
Moon	123705-05-08 22:02 G	46903511.26	46903511.42	46903511.59	0.0483	0.0355
Earth	123705-05-08 23:29 G	46903511.31	46903511.48	46903511.66	0.0483	0.0326 *
Venus	123705-06-11 23:29 G	46903545.27	46903545.48	46903545.68	0.0483	0.0011
Mercury	123705-10-09 16:31 G	46903665.11	46903665.19	46903665.27	0.0484	0.0416
Mercury	123706-01-07 08:21 G	46903754.71	46903754.85	46903755.00	0.0485	0.0215
Earth	123710-10-19 18:12 G	46905501.18	46905501.26	46905501.35	0.0545	0.0504
Moon	123710-10-19 22:17 G	46905501.38	46905501.43	46905501.48	0.0545	0.0529
Venus	123711-04-13 06:26 G	46905676.57	46905676.77	46905676.97	0.0545	0.0076
Mercury	123711-09-15 11:14 G	46905831.83	46905831.97	46905832.11	0.0543	0.0011
Venus	123717-02-15 03:19 G	46907811.47	46907811.64	46907811.82	0.0483	0.0266
Mercury	123717-10-26 10:17 G	46908064.77	46908064.93	46908065.09	0.0485	0.0060

Moon	123722-10-24 15:05 G	46909888.92	46909889.13	46909889.35	0.0545	0.0208
Earth	123722-10-24 18:55 G	46909889.08	46909889.29	46909889.51	0.0545	0.0212 *
Venus	123722-12-16 16:45 G	46909942.10	46909942.20	46909942.29	0.0545	0.0474
Mercury	123723-07-04 11:43 G	46910141.86	46910141.99	46910142.12	0.0544	0.0229
Venus	123729-06-14 06:41 G	46912313.69	46912313.78	46912313.86	0.0484	0.0442
Mercury	123729-08-14 11:57 G	46912374.84	46912375.00	46912375.15	0.0485	0.0097
Earth	123734-10-29 22:45 G	46914277.23	46914277.45	46914277.68	0.0545	0.0088
Moon	123734-10-30 02:21 G	46914277.38	46914277.60	46914277.83	0.0545	0.0123 *
Venus	123735-04-16 07:09 G	46914445.75	46914445.80	46914445.87	0.0544	0.0518
Mercury	123735-04-22 12:41 G	46914451.95	46914452.03	46914452.12	0.0544	0.0438
Mercury	123735-07-21 05:14 G	46914541.62	46914541.72	46914541.83	0.0543	0.0365
Venus	123741-02-17 09:19 G	46916579.70	46916579.89	46916580.09	0.0484	0.0165
Mercury	123741-06-02 13:09 G	46916684.92	46916685.05	46916685.19	0.0484	0.0258
Mercury	123741-08-31 05:29 G	46916774.64	46916774.73	46916774.84	0.0486	0.0383
Moon	123746-11-04 01:53 G	46918665.44	46918665.58	46918665.73	0.0545	0.0417
Earth	123746-11-04 05:29 G	46918665.58	46918665.73	46918665.89	0.0545	0.0396 *
Venus	123746-12-19 20:50 G	46918711.18	46918711.37	46918711.56	0.0545	0.0133
Mercury	123747-05-09 07:24 G	46918851.67	46918851.81	46918851.94	0.0543	0.0176
Earth	123752-04-25 11:29 G	46920664.81	46920664.98	46920665.16	0.0483	0.0318
Moon	123752-04-25 12:41 G	46920664.85	46920665.03	46920665.22	0.0483	0.0289 *
Venus	123752-10-23 12:55 G	46920845.84	46920846.04	46920846.24	0.0483	0.0108
Mercury	123753-03-21 15:05 G	46920995.05	46920995.13	46920995.21	0.0484	0.0409
Mercury	123753-06-19 06:55 G	46921084.65	46921084.79	46921084.94	0.0485	0.0221
Venus	123758-08-24 11:29 G	46922976.80	46922976.98	46922977.16	0.0546	0.0247
Mercury	123759-02-25 09:19 G	46923161.75	46923161.89	46923162.04	0.0544	0.0020
Moon	123764-04-29 16:02 G	46925051.93	46925052.17	46925052.41	0.0483	0.0094
Earth	123764-04-29 17:57 G	46925052.02	46925052.25	46925052.48	0.0483	0.0109 *
Venus	123764-06-28 15:19 G	46925112.03	46925112.14	46925112.28	0.0483	0.0384
Mercury	123765-04-07 08:21 G	46925394.69	46925394.85	46925395.01	0.0485	0.0060
Mars	123767-03-18 15:05 G	46926104.86	46926105.13	46926105.41	0.0506	0.0173

Mercury 123770-12-14 11:00 G 46927471.83 46927471.96 46927472.09 0.0544 0.0209

Earth 123776-05-04 01:24 G 46929439.33 46929439.56 46929439.79 0.0483 0.0102

Moon 123776-05-04 03:33 G 46929439.42 46929439.65 46929439.87 0.0483 0.0092 *

Venus 123776-10-25 19:09 G 46929614.16 46929614.30 46929614.46 0.0484 0.0328

Mercury 123777-01-24 10:17 G 46929704.77 46929704.93 46929705.09 0.0485 0.0093

Venus 123782-08-27 14:07 G 46931745.94 46931746.09 46931746.24 0.0544 0.0355

Mercury 123782-10-02 11:14 G 46931781.89 46931781.97 46931782.06 0.0544 0.0433

Mercury 123782-12-31 03:48 G 46931871.56 46931871.66 46931871.76 0.0542 0.0369

Moon 123788-05-08 05:43 G 46933826.55 46933826.74 46933826.94 0.0484 0.0285

Earth 123788-05-08 08:07 G 46933826.66 46933826.84 46933827.02 0.0484 0.0314 *

Venus 123788-06-30 22:45 G 46933880.24 46933880.45 46933880.65 0.0484 0.0054

Mercury 123788-11-12 11:57 G 46934014.87 46934015.00 46934015.14 0.0485 0.0248

Mercury 123789-02-10 04:31 G 46934104.60 46934104.69 46934104.78 0.0486 0.0393

Moon 123793-10-18 17:43 G 46935816.18 46935816.24 46935816.32 0.0544 0.0514

Venus 123794-05-02 02:07 G 46936011.40 46936011.59 46936011.79 0.0545 0.0038

Mercury 123794-10-19 05:14 G 46936181.59 46936181.72 46936181.86 0.0543 0.0170

Venus 123800-03-07 01:09 G 46938146.37 46938146.55 46938146.74 0.0483 0.0225

Mercury 123800-09-01 13:24 G 46938324.98 46938325.06 46938325.14 0.0484 0.0407

Mercury 123800-11-30 05:14 G 46938414.58 46938414.72 46938414.87 0.0485 0.0224

Moon 123805-10-24 14:21 G 46940203.89 46940204.10 46940204.30 0.0545 0.0240

Earth 123805-10-24 18:12 G 46940204.06 46940204.26 46940204.46 0.0545 0.0252 *

Venus 123806-01-05 15:19 G 46940277.01 46940277.14 46940277.26 0.0545 0.0424

Mercury 123806-08-08 06:55 G 46940491.65 46940491.79 46940491.94 0.0544 0.0029

Venus 123812-07-04 03:48 G 46942648.66 46942648.66 46942648.68 0.0484 0.0483

Mercury 123812-09-18 06:55 G 46942724.63 46942724.79 46942724.94 0.0485 0.0065

Earth 123817-10-30 01:53 G 46944592.36 46944592.58 46944592.81 0.0546 0.0058

Moon 123817-10-30 05:57 G 46944592.52 46944592.75 46944592.98 0.0546 0.0034 *

Mercury 123818-05-27 08:50 G 46944801.74 46944801.87 46944802.01 0.0544 0.0218

Venus 123824-03-09 07:09 G 46946914.62 46946914.80 46946914.99 0.0484 0.0209

Mercury 123824-07-07 08:21 G 46947034.69 46947034.85 46947035.00 0.0485 0.0096

Moon	123829-11-04 05:43 G	46948980.57	46948980.74	46948980.93	0.0545	0.0328
Earth	123829-11-04 09:33 G	46948980.74	46948980.90	46948981.08	0.0545	0.0365 *
Venus	123830-01-08 22:17 G	46949046.24	46949046.43	46949046.61	0.0545	0.0199
Mercury	123830-03-15 10:31 G	46949111.85	46949111.94	46949112.03	0.0544	0.0417
Mercury	123830-06-13 03:05 G	46949201.53	46949201.63	46949201.73	0.0543	0.0386
Mars	123832-01-03 04:02 G	46949770.43	46949770.67	46949770.92	0.0522	0.0161
Earth	123835-04-26 17:43 G	46950980.07	46950980.24	46950980.41	0.0484	0.0337
Moon	123835-04-26 19:24 G	46950980.17	46950980.31	46950980.47	0.0484	0.0368 *
Venus	123835-11-13 11:00 G	46951180.75	46951180.96	46951181.17	0.0483	0.0063
Mercury	123836-04-25 10:17 G	46951344.79	46951344.93	46951345.06	0.0485	0.0247
Mercury	123836-07-24 02:36 G	46951434.52	46951434.61	46951434.71	0.0486	0.0394
Venus	123841-09-13 09:05 G	46953311.70	46953311.88	46953312.07	0.0545	0.0200
Mercury	123842-04-01 03:48 G	46953511.53	46953511.66	46953511.80	0.0543	0.0174
Moon	123847-04-30 21:48 G	46955367.18	46955367.41	46955367.65	0.0484	0.0151
Earth	123847-05-01 00:26 G	46955367.29	46955367.52	46955367.75	0.0484	0.0125 *
Venus	123847-07-19 13:53 G	46955446.93	46955447.08	46955447.23	0.0484	0.0340
Mercury	123848-02-12 11:57 G	46955654.92	46955655.00	46955655.09	0.0485	0.0401
Mercury	123848-05-12 04:02 G	46955744.53	46955744.67	46955744.81	0.0486	0.0231
Mercury	123854-01-18 05:00 G	46957821.57	46957821.71	46957821.86	0.0543	0.0034
Earth	123859-05-05 06:26 G	46959754.54	46959754.77	46959755.01	0.0483	0.0085
Moon	123859-05-05 09:33 G	46959754.68	46959754.90	46959755.13	0.0483	0.0082 *
Venus	123859-11-15 16:02 G	46959949.05	46959949.17	46959949.32	0.0484	0.0367
Mercury	123860-02-29 05:00 G	46960054.55	46960054.71	46960054.87	0.0485	0.0064
Venus	123865-09-16 11:57 G	46962080.87	46962081.00	46962081.14	0.0545	0.0405
Mercury	123865-11-06 06:26 G	46962131.64	46962131.77	46962131.90	0.0544	0.0234
Moon	123871-05-09 10:02 G	46964141.73	46964141.92	46964142.10	0.0483	0.0311
Earth	123871-05-09 13:24 G	46964141.88	46964142.06	46964142.26	0.0483	0.0293 *
Venus	123871-07-21 19:53 G	46964215.12	46964215.33	46964215.53	0.0483	0.0094
Mercury	123871-12-18 06:41 G	46964364.62	46964364.78	46964364.93	0.0485	0.0094
Venus	123877-05-22 02:07 G	46966346.39	46966346.59	46966346.79	0.0545	0.0025

Mercury	123877-08-25 08:07 G	46966441.76	46966441.84	46966441.93	0.0544	0.0430
Mercury	123877-11-23 00:55 G	46966531.44	46966531.54	46966531.64	0.0543	0.0376
Venus	123883-03-26 22:31 G	46968481.25	46968481.44	46968481.64	0.0483	0.0183
Mercury	123883-10-06 08:07 G	46968674.71	46968674.84	46968674.98	0.0484	0.0251
Mercury	123884-01-04 00:26 G	46968764.43	46968764.52	46968764.62	0.0486	0.0389
Moon	123888-10-23 18:55 G	46970519.11	46970519.29	46970519.47	0.0545	0.0312
Earth	123888-10-23 21:48 G	46970519.22	46970519.41	46970519.61	0.0545	0.0283 *
Venus	123889-01-24 16:17 G	46970612.03	46970612.18	46970612.33	0.0545	0.0361
Mercury	123889-09-11 02:50 G	46970841.48	46970841.62	46970841.75	0.0543	0.0186
Venus	123894-11-30 01:53 G	46972747.52	46972747.58	46972747.65	0.0483	0.0456
Mercury	123895-07-25 10:17 G	46972984.84	46972984.93	46972985.01	0.0484	0.0401
Mercury	123895-10-23 02:07 G	46973074.45	46973074.59	46973074.73	0.0486	0.0231
Earth	123900-10-30 00:26 G	46974907.29	46974907.52	46974907.75	0.0545	0.0016
Moon	123900-10-30 03:48 G	46974907.43	46974907.66	46974907.90	0.0545	0.0027 *
Mercury	123901-07-01 03:33 G	46975151.51	46975151.65	46975151.79	0.0543	0.0029
Venus	123907-03-30 05:00 G	46977249.54	46977249.71	46977249.89	0.0484	0.0252
Mercury	123907-08-12 03:19 G	46977384.49	46977384.64	46977384.80	0.0485	0.0071
Moon	123912-11-04 00:12 G	46979295.34	46979295.51	46979295.69	0.0545	0.0345
Earth	123912-11-04 03:48 G	46979295.47	46979295.66	46979295.85	0.0545	0.0312 *
Venus	123913-01-28 17:29 G	46979381.05	46979381.23	46979381.41	0.0544	0.0236
Mercury	123913-04-19 04:31 G	46979461.56	46979461.69	46979461.82	0.0543	0.0237
Earth	123918-04-26 21:19 G	46981295.24	46981295.39	46981295.56	0.0484	0.0358
Moon	123918-04-27 00:41 G	46981295.37	46981295.53	46981295.70	0.0484	0.0339 *
Venus	123918-12-03 07:38 G	46981515.61	46981515.82	46981516.02	0.0483	0.0028
Mercury	123919-05-31 04:45 G	46981694.54	46981694.70	46981694.85	0.0485	0.0096
Mars	123921-06-13 02:50 G	46982438.52	46982438.62	46982438.74	0.0506	0.0467
Venus	123924-10-03 05:43 G	46983646.55	46983646.74	46983646.93	0.0545	0.0156
Mercury	123925-02-05 05:29 G	46983771.65	46983771.73	46983771.82	0.0544	0.0448
Mercury	123925-05-05 22:17 G	46983861.33	46983861.43	46983861.54	0.0543	0.0360
Moon	123930-05-01 02:07 G	46985682.36	46985682.59	46985682.83	0.0483	0.0118

Earth	123930-05-01 05:29 G	46985682.51	46985682.73	46985682.96	0.0483	0.0147 *
Venus	123930-08-08 10:45 G	46985781.79	46985781.95	46985782.12	0.0483	0.0300
Mercury	123931-03-19 06:26 G	46986004.63	46986004.77	46986004.90	0.0484	0.0250
Mercury	123931-06-16 22:31 G	46986094.35	46986094.44	46986094.54	0.0486	0.0390
Venus	123936-06-07 19:53 G	46987912.30	46987912.33	46987912.37	0.0545	0.0537
Mercury	123937-02-22 00:26 G	46988171.39	46988171.52	46988171.66	0.0543	0.0173
Earth	123942-05-05 11:29 G	46990069.75	46990069.98	46990070.22	0.0483	0.0062
Moon	123942-05-05 14:50 G	46990069.89	46990070.12	46990070.35	0.0483	0.0079 *
Venus	123942-12-05 13:09 G	46990283.94	46990284.05	46990284.16	0.0484	0.0408
Mercury	123943-01-05 08:07 G	46990314.75	46990314.84	46990314.92	0.0484	0.0405
Mercury	123943-04-04 23:57 G	46990404.35	46990404.50	46990404.64	0.0485	0.0225
Venus	123948-10-06 12:41 G	46992415.93	46992416.03	46992416.13	0.0545	0.0466
Mercury	123948-12-11 02:21 G	46992481.45	46992481.60	46992481.74	0.0544	0.0022
Moon	123954-05-09 14:50 G	46994456.93	46994457.12	46994457.33	0.0483	0.0261
Earth	123954-05-09 18:41 G	46994457.09	46994457.28	46994457.48	0.0483	0.0270 *
Venus	123954-08-10 17:00 G	46994550.01	46994550.21	46994550.41	0.0484	0.0135
Mercury	123955-01-22 01:24 G	46994714.41	46994714.56	46994714.72	0.0485	0.0069
Venus	123960-06-11 00:12 G	46996681.31	46996681.51	46996681.71	0.0544	0.0071
Mercury	123960-09-29 03:05 G	46996791.50	46996791.63	46996791.76	0.0543	0.0234
Venus	123966-04-15 19:38 G	46998816.13	46998816.32	46998816.52	0.0484	0.0144
Earth	123966-05-13 23:57 G	46998844.48	46998844.50	46998844.54	0.0484	0.0479
Moon	123966-05-14 04:02 G	46998844.59	46998844.67	46998844.76	0.0484	0.0449
Mercury	123966-11-10 03:05 G	46999024.47	46999024.63	46999024.78	0.0485	0.0092
Moon	123971-10-24 15:05 G	47000833.95	47000834.13	47000834.32	0.0544	0.0296
Earth	123971-10-24 17:14 G	47000834.05	47000834.22	47000834.41	0.0544	0.0331 *
Venus	123972-02-14 12:12 G	47000946.85	47000947.01	47000947.17	0.0545	0.0321
Mercury	123972-07-18 03:48 G	47001101.58	47001101.66	47001101.75	0.0544	0.0447
Mercury	123972-10-15 20:36 G	47001191.26	47001191.36	47001191.47	0.0542	0.0358
Venus	123977-12-19 22:17 G	47003082.33	47003082.43	47003082.53	0.0483	0.0421
Mercury	123978-08-29 04:31 G	47003334.55	47003334.69	47003334.82	0.0484	0.0253

Mercury	123978-11-26 20:36 G	47003424.27	47003424.36	47003424.46	0.0486	0.0387
Earth	123983-10-29 18:55 G	47005222.06	47005222.29	47005222.52	0.0545	0.0038
Moon	123983-10-29 21:05 G	47005222.15	47005222.38	47005222.62	0.0545	0.0018 *
Mercury	123984-08-03 22:02 G	47005501.28	47005501.42	47005501.56	0.0543	0.0157
Mars	123986-03-29 12:12 G	47006103.85	47006104.01	47006104.19	0.0523	0.0392
Venus	123990-04-18 01:38 G	47007584.41	47007584.57	47007584.74	0.0484	0.0291
Mercury	123990-06-17 06:26 G	47007644.68	47007644.77	47007644.85	0.0484	0.0404
Mercury	123990-09-14 22:02 G	47007734.28	47007734.42	47007734.56	0.0485	0.0225
Moon	123995-11-03 23:43 G	47009610.30	47009610.49	47009610.69	0.0545	0.0254
Earth	123995-11-04 02:07 G	47009610.39	47009610.59	47009610.79	0.0545	0.0268 *
Venus	123996-02-17 16:02 G	47009716.00	47009716.17	47009716.34	0.0545	0.0289
Mercury	123996-05-22 23:57 G	47009811.35	47009811.50	47009811.64	0.0544	0.0037

125TH MILLENNIUM CE

This is a list of transits visible from Jupiter in the 125th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	124001-04-26 02:07 G	47011610.46	47011610.59	47011610.75	0.0484	0.0380		
Moon	124001-04-26 05:57 G	47011610.62	47011610.75	47011610.89	0.0484	0.0391 *		
Venus	124001-12-22 04:31 G	47011850.48	47011850.69	47011850.89	0.0483	0.0017		
Mercury	124002-07-03 23:14 G	47012044.31	47012044.47	47012044.63	0.0485	0.0063		
Venus	124007-10-23 06:12 G	47013981.57	47013981.76	47013981.96	0.0545	0.0095		
Moon	124007-11-09 12:55 G	47013999.02	47013999.04	47013999.07	0.0545	0.0542		

Mercury	124008-03-11 01:38 G	47014121.44	47014121.57	47014121.70	0.0544	0.0231
Moon	124013-04-30 05:57 G	47015997.53	47015997.75	47015997.97	0.0484	0.0199
Earth	124013-04-30 10:02 G	47015997.70	47015997.92	47015998.14	0.0484	0.0169 *
Venus	124013-08-27 07:53 G	47016116.66	47016116.83	47016117.01	0.0483	0.0260
Mercury	124014-04-22 01:09 G	47016354.39	47016354.55	47016354.70	0.0485	0.0093
Venus	124019-06-27 18:55 G	47018247.20	47018247.29	47018247.38	0.0545	0.0485
Mercury	124019-12-29 02:21 G	47018431.52	47018431.60	47018431.68	0.0544	0.0444
Mercury	124020-03-27 19:09 G	47018521.20	47018521.30	47018521.40	0.0542	0.0361
Earth	124025-05-04 15:48 G	47020384.92	47020385.16	47020385.39	0.0484	0.0041
Moon	124025-05-04 19:53 G	47020385.09	47020385.33	47020385.56	0.0484	0.0013 *
Venus	124025-12-24 10:17 G	47020618.86	47020618.93	47020619.01	0.0484	0.0448
Mercury	124026-02-08 02:36 G	47020664.48	47020664.61	47020664.75	0.0485	0.0251
Mercury	124026-05-08 18:55 G	47020754.20	47020754.29	47020754.39	0.0486	0.0390
Venus	124031-10-26 08:36 G	47022750.79	47022750.86	47022750.93	0.0544	0.0506
Mercury	124032-01-14 20:21 G	47022831.22	47022831.35	47022831.49	0.0543	0.0159
Moon	124037-05-08 18:12 G	47024772.06	47024772.26	47024772.48	0.0483	0.0234
Earth	124037-05-08 22:17 G	47024772.23	47024772.43	47024772.64	0.0483	0.0248 *
Venus	124037-08-29 13:24 G	47024884.86	47024885.06	47024885.25	0.0484	0.0172
Mercury	124037-11-27 04:17 G	47024974.60	47024974.68	47024974.77	0.0484	0.0407
Mercury	124038-02-24 20:07 G	47025064.19	47025064.34	47025064.48	0.0485	0.0223
Mars	124039-11-30 11:57 G	47025707.88	47025708.00	47025708.14	0.0504	0.0449
Venus	124043-06-30 19:38 G	47027016.13	47027016.32	47027016.52	0.0545	0.0112
Mercury	124043-11-02 21:19 G	47027141.25	47027141.39	47027141.54	0.0544	0.0053
Venus	124049-05-04 17:00 G	47029151.00	47029151.21	47029151.41	0.0483	0.0103
Earth	124049-05-13 05:14 G	47029159.65	47029159.72	47029159.80	0.0483	0.0455
Moon	124049-05-13 08:50 G	47029159.83	47029159.87	47029159.93	0.0483	0.0471
Mercury	124049-12-13 21:33 G	47029374.24	47029374.40	47029374.56	0.0485	0.0063
Moon	124054-10-23 12:55 G	47031148.90	47031149.04	47031149.19	0.0545	0.0406
Earth	124054-10-23 14:07 G	47031148.92	47031149.09	47031149.25	0.0545	0.0378 *
Venus	124055-03-05 09:33 G	47031281.73	47031281.90	47031282.08	0.0545	0.0274

Mercury	124055-08-21 23:00 G	47031451.34	47031451.46	47031451.59	0.0544	0.0247
Venus	124061-01-07 19:24 G	47033417.18	47033417.31	47033417.44	0.0483	0.0379
Mercury	124061-10-01 23:00 G	47033684.30	47033684.46	47033684.62	0.0485	0.0097
Earth	124066-10-28 21:33 G	47035537.17	47035537.40	47035537.63	0.0545	0.0072
Moon	124066-10-28 23:14 G	47035537.23	47035537.47	47035537.70	0.0545	0.0099 *
Mercury	124067-06-10 00:41 G	47035761.45	47035761.53	47035761.61	0.0544	0.0444
Mercury	124067-09-07 17:29 G	47035851.13	47035851.23	47035851.34	0.0543	0.0365
Venus	124073-05-06 22:45 G	47037919.30	47037919.45	47037919.60	0.0484	0.0333
Mercury	124073-07-21 00:55 G	47037994.40	47037994.54	47037994.67	0.0484	0.0250
Mercury	124073-10-18 17:00 G	47038084.12	47038084.21	47038084.31	0.0486	0.0389
Moon	124078-11-03 01:09 G	47039925.36	47039925.55	47039925.76	0.0545	0.0234
Earth	124078-11-03 03:05 G	47039925.42	47039925.63	47039925.84	0.0545	0.0232 *
Venus	124079-03-08 15:19 G	47040050.98	47040051.14	47040051.29	0.0544	0.0343
Mercury	124079-06-26 18:55 G	47040161.16	47040161.29	47040161.43	0.0543	0.0164
Earth	124084-04-25 05:57 G	47041925.62	47041925.75	47041925.88	0.0484	0.0403
Moon	124084-04-25 09:48 G	47041925.79	47041925.91	47041926.03	0.0484	0.0412 *
Venus	124085-01-10 01:24 G	47042185.36	47042185.56	47042185.77	0.0484	0.0055
Mercury	124085-05-09 02:36 G	47042304.53	47042304.61	47042304.70	0.0485	0.0405
Mercury	124085-08-06 18:26 G	47042394.12	47042394.27	47042394.41	0.0486	0.0225
Earth	124090-11-08 06:26 G	47044313.73	47044313.77	47044313.84	0.0545	0.0528
Venus	124090-11-11 03:19 G	47044316.44	47044316.64	47044316.84	0.0545	0.0049
Mercury	124091-04-14 20:07 G	47044471.20	47044471.34	47044471.48	0.0543	0.0043
Moon	124096-04-29 10:02 G	47046312.70	47046312.92	47046313.14	0.0484	0.0176
Earth	124096-04-29 13:38 G	47046312.86	47046313.07	47046313.29	0.0484	0.0193 *
Venus	124096-09-15 04:31 G	47046451.51	47046451.69	47046451.88	0.0483	0.0222
Mercury	124097-05-25 19:38 G	47046704.16	47046704.32	47046704.48	0.0485	0.0062
Venus	124102-07-17 14:07 G	47048581.98	47048582.09	47048582.20	0.0545	0.0447
Mercury	124103-02-01 20:50 G	47048781.24	47048781.37	47048781.50	0.0544	0.0259
Mercury	124103-05-02 13:09 G	47048871.04	47048871.05	47048871.07	0.0543	0.0538
Mars	124104-09-18 12:26 G	47049375.88	47049376.02	47049376.18	0.0525	0.0423

Earth	124108-05-04 22:02 G	47050700.18	47050700.42	47050700.65	0.0483	0.0020
Moon	124108-05-05 01:53 G	47050700.34	47050700.58	47050700.82	0.0483	0.0051 *
Mercury	124109-03-14 21:19 G	47051014.24	47051014.39	47051014.55	0.0485	0.0094
Mercury	124114-11-20 22:17 G	47053091.35	47053091.43	47053091.50	0.0545	0.0460
Mercury	124115-02-18 15:19 G	47053181.03	47053181.14	47053181.24	0.0543	0.0351
Moon	124120-05-09 00:12 G	47055087.31	47055087.51	47055087.71	0.0483	0.0248
Earth	124120-05-09 04:02 G	47055087.46	47055087.67	47055087.88	0.0483	0.0227 *
Venus	124120-09-18 10:45 G	47055219.76	47055219.95	47055220.14	0.0483	0.0214
Mercury	124120-12-31 23:00 G	47055324.32	47055324.46	47055324.59	0.0484	0.0252
Mercury	124121-03-31 15:05 G	47055414.03	47055414.13	47055414.23	0.0485	0.0386
Venus	124126-07-20 20:36 G	47057351.18	47057351.36	47057351.55	0.0545	0.0176
Mercury	124126-12-07 17:14 G	47057491.09	47057491.22	47057491.36	0.0544	0.0165
Earth	124132-05-13 10:45 G	47059474.86	47059474.95	47059475.06	0.0483	0.0434
Moon	124132-05-13 14:36 G	47059475.01	47059475.11	47059475.22	0.0483	0.0431 *
Venus	124132-05-24 14:21 G	47059485.89	47059486.10	47059486.30	0.0483	0.0060
Mercury	124132-10-20 00:55 G	47059634.46	47059634.54	47059634.63	0.0484	0.0402
Mercury	124133-01-17 16:31 G	47059724.05	47059724.19	47059724.34	0.0485	0.0227
Earth	124137-10-23 17:29 G	47061464.08	47061464.23	47061464.38	0.0544	0.0408
Moon	124137-10-23 17:43 G	47061464.09	47061464.24	47061464.39	0.0544	0.0397 *
Venus	124138-03-25 10:02 G	47061616.74	47061616.92	47061617.11	0.0545	0.0214
Mercury	124138-09-25 18:41 G	47061801.14	47061801.28	47061801.43	0.0543	0.0040
Venus	124144-01-28 16:45 G	47063752.05	47063752.20	47063752.34	0.0483	0.0339
Mercury	124144-11-05 17:57 G	47064034.09	47064034.25	47064034.41	0.0485	0.0065
Moon	124149-10-28 20:07 G	47065852.11	47065852.34	47065852.58	0.0545	0.0082
Earth	124149-10-28 20:36 G	47065852.14	47065852.36	47065852.59	0.0545	0.0114 *
Mercury	124150-07-14 19:38 G	47066111.20	47066111.32	47066111.45	0.0544	0.0247
Venus	124156-05-26 19:53 G	47068254.20	47068254.33	47068254.46	0.0484	0.0374
Mercury	124156-08-24 19:38 G	47068344.16	47068344.32	47068344.47	0.0485	0.0094
Earth	124161-11-02 20:36 G	47070240.14	47070240.36	47070240.58	0.0545	0.0175
Moon	124161-11-02 20:36 G	47070240.16	47070240.36	47070240.57	0.0545	0.0197 *

Venus	124162-03-28 11:00 G	47070385.82	47070385.96	47070386.10	0.0545	0.0385
Mercury	124162-05-02 20:07 G	47070421.27	47070421.34	47070421.41	0.0544	0.0469
Mercury	124162-07-31 13:09 G	47070510.94	47070511.05	47070511.16	0.0543	0.0343
Earth	124167-04-26 13:24 G	47072240.95	47072241.06	47072241.18	0.0484	0.0421
Moon	124167-04-26 17:29 G	47072241.10	47072241.23	47072241.37	0.0484	0.0397 *
Venus	124168-01-30 23:57 G	47072520.29	47072520.50	47072520.70	0.0483	0.0102
Mercury	124168-06-12 21:33 G	47072654.26	47072654.40	47072654.53	0.0484	0.0246
Mercury	124168-09-10 13:38 G	47072743.97	47072744.07	47072744.16	0.0485	0.0392
Earth	124173-11-08 03:05 G	47074628.53	47074628.63	47074628.75	0.0545	0.0479
Moon	124173-11-08 03:33 G	47074628.54	47074628.65	47074628.79	0.0545	0.0463 *
Venus	124173-12-01 00:26 G	47074651.32	47074651.52	47074651.72	0.0545	0.0002
Mercury	124174-05-19 15:05 G	47074820.99	47074821.13	47074821.26	0.0544	0.0152
Moon	124179-04-30 17:00 G	47076628.00	47076628.21	47076628.43	0.0484	0.0210
Earth	124179-04-30 20:36 G	47076628.16	47076628.36	47076628.58	0.0484	0.0211 *
Venus	124179-10-06 02:36 G	47076786.42	47076786.61	47076786.81	0.0483	0.0177
Mercury	124180-03-31 23:14 G	47076964.38	47076964.47	47076964.56	0.0484	0.0401
Mercury	124180-06-29 14:36 G	47077053.97	47077054.11	47077054.26	0.0485	0.0227
Venus	124185-08-05 15:19 G	47078917.00	47078917.14	47078917.28	0.0546	0.0383
Mercury	124186-03-07 17:00 G	47079131.07	47079131.21	47079131.35	0.0544	0.0039
Earth	124191-05-05 04:17 G	47081015.45	47081015.68	47081015.92	0.0483	0.0009
Moon	124191-05-05 07:53 G	47081015.58	47081015.83	47081016.07	0.0483	0.0025 *
Venus	124191-06-11 05:43 G	47081052.68	47081052.74	47081052.82	0.0483	0.0451
Mercury	124192-04-17 16:31 G	47081364.03	47081364.19	47081364.35	0.0485	0.0070
Mars	124194-02-24 08:07 G	47082041.55	47082041.84	47082042.13	0.0504	0.0118
Mercury	124197-12-24 18:26 G	47083441.14	47083441.27	47083441.40	0.0544	0.0240
Moon	124203-05-10 07:09 G	47085402.58	47085402.80	47085403.01	0.0483	0.0178
Earth	124203-05-10 10:02 G	47085402.71	47085402.92	47085403.14	0.0483	0.0207 *
Venus	124203-10-09 08:50 G	47085554.69	47085554.87	47085555.04	0.0484	0.0259
Mercury	124204-02-05 17:57 G	47085674.10	47085674.25	47085674.41	0.0485	0.0089
Venus	124209-08-09 19:38 G	47087686.15	47087686.32	47087686.51	0.0545	0.0231

Mercury	124209-10-13 19:24 G	47087751.23	47087751.31	47087751.39	0.0544	0.0450
Mercury	124210-01-11 12:12 G	47087840.91	47087841.01	47087841.12	0.0543	0.0359
Earth	124215-05-14 17:00 G	47089790.10	47089790.21	47089790.34	0.0483	0.0415
Moon	124215-05-14 20:07 G	47089790.22	47089790.34	47089790.48	0.0483	0.0402 *
Venus	124215-06-14 12:12 G	47089820.80	47089821.01	47089821.22	0.0483	0.0016
Mercury	124215-11-24 19:53 G	47089984.19	47089984.33	47089984.47	0.0484	0.0243
Mercury	124216-02-22 11:43 G	47090073.91	47090073.99	47090074.09	0.0486	0.0396
Earth	124220-10-23 11:57 G	47091778.88	47091779.00	47091779.11	0.0544	0.0462
Moon	124220-10-23 13:09 G	47091778.93	47091779.05	47091779.17	0.0544	0.0456 *
Venus	124221-04-14 05:57 G	47091951.56	47091951.75	47091951.93	0.0545	0.0172
Mercury	124221-10-30 13:09 G	47092150.91	47092151.05	47092151.18	0.0544	0.0147
Venus	124227-02-17 16:02 G	47094087.00	47094087.17	47094087.34	0.0483	0.0289
Mercury	124227-09-12 22:02 G	47094294.33	47094294.42	47094294.51	0.0484	0.0392
Mercury	124227-12-11 13:24 G	47094383.92	47094384.06	47094384.20	0.0485	0.0236
Moon	124232-10-28 15:33 G	47096166.93	47096167.15	47096167.38	0.0545	0.0191
Earth	124232-10-28 16:45 G	47096166.99	47096167.20	47096167.42	0.0545	0.0164 *
Mercury	124233-08-18 14:50 G	47096460.97	47096461.12	47096461.26	0.0544	0.0052
Venus	124239-06-16 18:26 G	47098589.17	47098589.27	47098589.37	0.0484	0.0420
Mercury	124239-09-29 14:50 G	47098693.96	47098694.12	47098694.28	0.0485	0.0073
Earth	124244-11-03 00:55 G	47100555.32	47100555.54	47100555.76	0.0546	0.0146
Moon	124244-11-03 02:07 G	47100555.37	47100555.59	47100555.81	0.0546	0.0112 *
Venus	124245-04-17 12:41 G	47100720.93	47100721.03	47100721.15	0.0545	0.0453
Mercury	124245-06-06 16:31 G	47100771.07	47100771.19	47100771.32	0.0544	0.0243
Earth	124250-04-26 20:50 G	47102556.27	47102556.37	47102556.48	0.0484	0.0437
Moon	124250-04-27 00:26 G	47102556.46	47102556.52	47102556.59	0.0484	0.0463 *
Venus	124251-02-19 22:17 G	47102855.24	47102855.43	47102855.63	0.0483	0.0148
Mercury	124251-07-18 16:45 G	47103004.04	47103004.20	47103004.35	0.0484	0.0082
Moon	124256-11-08 07:38 G	47104943.69	47104943.82	47104943.96	0.0545	0.0443
Earth	124256-11-08 08:50 G	47104943.75	47104943.87	47104944.00	0.0545	0.0452 *
Venus	124256-12-21 02:36 G	47104986.42	47104986.61	47104986.81	0.0545	0.0068

Mercury	124257-03-25 17:57 G	47105081.17	47105081.25	47105081.34	0.0544	0.0443
Mercury	124257-06-23 11:00 G	47105170.86	47105170.96	47105171.07	0.0543	0.0368
Mars	124258-12-14 15:19 G	47105709.89	47105710.14	47105710.39	0.0524	0.0102
Moon	124262-04-30 23:57 G	47106943.30	47106943.50	47106943.70	0.0484	0.0240
Earth	124262-05-01 03:19 G	47106943.43	47106943.64	47106943.85	0.0484	0.0230 *
Venus	124262-10-26 01:09 G	47107121.35	47107121.55	47107121.75	0.0483	0.0131
Mercury	124263-05-06 18:26 G	47107314.13	47107314.27	47107314.40	0.0485	0.0238
Mercury	124263-08-04 10:17 G	47107403.85	47107403.93	47107404.02	0.0486	0.0401
Venus	124268-08-25 15:33 G	47109252.00	47109252.15	47109252.32	0.0545	0.0323
Mercury	124269-04-11 12:26 G	47109480.89	47109481.02	47109481.16	0.0543	0.0168
Earth	124274-05-05 11:43 G	47111330.75	47111330.99	47111331.23	0.0484	0.0019
Moon	124274-05-05 15:05 G	47111330.88	47111331.13	47111331.37	0.0484	0.0008 *
Venus	124274-07-01 04:17 G	47111387.58	47111387.68	47111387.80	0.0483	0.0404
Mercury	124275-02-22 20:21 G	47111624.26	47111624.35	47111624.45	0.0484	0.0387
Mercury	124275-05-23 11:57 G	47111713.86	47111714.00	47111714.14	0.0485	0.0241
Mercury	124281-01-28 12:55 G	47113790.90	47113791.04	47113791.19	0.0544	0.0051
Moon	124286-05-09 17:29 G	47115718.03	47115718.23	47115718.44	0.0483	0.0223
Earth	124286-05-09 20:07 G	47115718.12	47115718.34	47115718.56	0.0483	0.0193 *
Venus	124286-10-28 08:36 G	47115889.70	47115889.86	47115890.02	0.0483	0.0311
Mercury	124287-03-11 13:38 G	47116023.92	47116024.07	47116024.23	0.0485	0.0086
Venus	124292-08-28 17:14 G	47118021.05	47118021.22	47118021.39	0.0545	0.0280
Mercury	124292-11-16 14:21 G	47118100.97	47118101.10	47118101.23	0.0544	0.0252
Earth	124298-05-14 02:21 G	47120105.47	47120105.60	47120105.73	0.0483	0.0399
Moon	124298-05-14 04:17 G	47120105.57	47120105.68	47120105.80	0.0483	0.0426 *
Venus	124298-07-03 11:29 G	47120155.78	47120155.98	47120156.19	0.0483	0.0035
Mercury	124298-12-28 15:05 G	47120333.98	47120334.13	47120334.29	0.0484	0.0076
Earth	124303-10-24 16:45 G	47122094.10	47122094.20	47122094.30	0.0544	0.0489
Moon	124303-10-24 19:38 G	47122094.26	47122094.32	47122094.39	0.0544	0.0518 *
Venus	124304-05-04 07:53 G	47122286.64	47122286.83	47122287.03	0.0546	0.0104
Mercury	124304-09-05 16:02 G	47122411.09	47122411.17	47122411.26	0.0545	0.0447

Mercury	124304-12-04 09:19 G	47122500.79	47122500.89	47122500.99	0.0543	0.0367
Venus	124310-03-09 15:05 G	47124421.96	47124422.13	47124422.32	0.0483	0.0240
Mercury	124310-10-17 17:14 G	47124644.08	47124644.22	47124644.36	0.0484	0.0227
Mercury	124311-01-15 09:05 G	47124733.80	47124733.88	47124733.97	0.0485	0.0410
Moon	124315-10-29 21:33 G	47126482.18	47126482.40	47126482.62	0.0545	0.0183
Earth	124315-10-30 00:26 G	47126482.30	47126482.52	47126482.73	0.0545	0.0185 *
Venus	124316-01-07 22:31 G	47126552.36	47126552.44	47126552.53	0.0545	0.0485
Mercury	124316-09-22 11:14 G	47126810.84	47126810.97	47126811.11	0.0543	0.0177
Venus	124322-07-06 17:43 G	47128924.19	47128924.24	47128924.29	0.0484	0.0470
Mercury	124322-08-05 18:55 G	47128954.20	47128954.29	47128954.39	0.0484	0.0381
Mercury	124322-11-03 10:31 G	47129043.80	47129043.94	47129044.08	0.0485	0.0248
Earth	124327-11-04 05:14 G	47130870.50	47130870.72	47130870.95	0.0545	0.0114
Moon	124327-11-04 07:38 G	47130870.60	47130870.82	47130871.03	0.0545	0.0147 *
Venus	124328-05-07 13:53 G	47131056.02	47131056.08	47131056.14	0.0544	0.0516
Mercury	124328-07-11 12:41 G	47131120.88	47131121.03	47131121.17	0.0544	0.0025
Earth	124333-04-27 04:45 G	47132871.62	47132871.70	47132871.78	0.0485	0.0454
Moon	124333-04-27 07:09 G	47132871.69	47132871.80	47132871.93	0.0485	0.0424 *
Venus	124334-03-11 21:48 G	47133190.22	47133190.41	47133190.60	0.0483	0.0199
Mercury	124334-08-22 12:12 G	47133353.86	47133354.01	47133354.17	0.0485	0.0094
Moon	124339-11-09 02:36 G	47135258.47	47135258.61	47135258.76	0.0545	0.0425
Earth	124339-11-09 04:45 G	47135258.56	47135258.70	47135258.86	0.0545	0.0401 *
Venus	124340-01-10 23:29 G	47135321.28	47135321.48	47135321.67	0.0545	0.0114
Mercury	124340-04-29 12:55 G	47135430.91	47135431.04	47135431.17	0.0544	0.0249
Moon	124345-05-01 12:26 G	47137258.82	47137259.02	47137259.23	0.0484	0.0214
Earth	124345-05-01 14:21 G	47137258.89	47137259.10	47137259.31	0.0484	0.0240 *
Venus	124345-11-15 01:53 G	47137456.37	47137456.58	47137456.78	0.0483	0.0075
Mercury	124346-06-10 14:21 G	47137663.94	47137664.10	47137664.25	0.0484	0.0061
Mars	124348-05-22 08:07 G	47138375.58	47138375.84	47138376.10	0.0504	0.0226
Venus	124351-09-15 12:55 G	47139586.87	47139587.04	47139587.21	0.0545	0.0275
Mercury	124352-02-16 14:07 G	47139741.01	47139741.09	47139741.17	0.0545	0.0454

Mercury	124352-05-16 07:24 G	47139830.70	47139830.81	47139830.91	0.0543	0.0361
Earth	124357-05-05 21:48 G	47141646.17	47141646.41	47141646.65	0.0483	0.0029
Moon	124357-05-05 23:14 G	47141646.23	47141646.47	47141646.72	0.0483	0.0023 *
Venus	124357-07-21 04:31 G	47141722.55	47141722.69	47141722.84	0.0483	0.0353
Mercury	124358-03-29 15:48 G	47141974.02	47141974.16	47141974.31	0.0484	0.0219
Mercury	124358-06-27 07:38 G	47142063.75	47142063.82	47142063.91	0.0485	0.0419
Mercury	124364-03-04 09:33 G	47144140.76	47144140.90	47144141.03	0.0544	0.0175
Moon	124369-05-10 04:17 G	47146033.47	47146033.68	47146033.90	0.0483	0.0164
Earth	124369-05-10 05:29 G	47146033.51	47146033.73	47146033.95	0.0483	0.0180 *
Venus	124369-11-17 08:07 G	47146224.70	47146224.84	47146224.98	0.0483	0.0361
Mercury	124370-01-15 17:57 G	47146284.15	47146284.25	47146284.35	0.0484	0.0368
Mercury	124370-04-15 09:33 G	47146373.76	47146373.90	47146374.03	0.0485	0.0260
Venus	124375-09-18 20:50 G	47148356.22	47148356.37	47148356.52	0.0545	0.0355
Mercury	124375-12-22 11:29 G	47148450.83	47148450.98	47148451.12	0.0544	0.0020
Earth	124381-05-14 11:14 G	47150420.84	47150420.97	47150421.12	0.0483	0.0386
Moon	124381-05-14 12:12 G	47150420.85	47150421.01	47150421.18	0.0483	0.0356 *
Venus	124381-07-23 11:00 G	47150490.76	47150490.96	47150491.17	0.0483	0.0086
Mercury	124382-02-01 11:00 G	47150683.80	47150683.96	47150684.11	0.0485	0.0100
Earth	124386-10-23 23:14 G	47152409.40	47152409.47	47152409.54	0.0544	0.0513
Moon	124386-10-24 02:50 G	47152409.51	47152409.62	47152409.72	0.0544	0.0477 *
Venus	124387-05-24 10:02 G	47152621.72	47152621.92	47152622.12	0.0545	0.0035
Mercury	124387-10-10 12:41 G	47152760.90	47152761.03	47152761.16	0.0544	0.0220
Venus	124393-03-28 15:05 G	47154756.94	47154757.13	47154757.32	0.0483	0.0188
Mercury	124393-11-20 12:55 G	47154993.88	47154994.04	47154994.20	0.0485	0.0052
Moon	124398-10-28 17:57 G	47156797.04	47156797.25	47156797.47	0.0544	0.0213
Earth	124398-10-28 21:48 G	47156797.21	47156797.41	47156797.62	0.0544	0.0232 *
Venus	124399-01-26 19:53 G	47156887.21	47156887.33	47156887.45	0.0545	0.0438
Mercury	124399-07-29 12:41 G	47157070.95	47157071.03	47157071.11	0.0545	0.0449
Mercury	124399-10-27 05:57 G	47157160.64	47157160.75	47157160.85	0.0543	0.0366
Venus	124404-12-01 18:41 G	47159023.23	47159023.28	47159023.34	0.0483	0.0462

Mercury 124405-09-08 15:05 G 47159303.98 47159304.13 47159304.27 0.0484 0.0203

Mercury 124405-12-07 06:55 G 47159393.72 47159393.79 47159393.86 0.0485 0.0436

Earth 124410-11-03 02:36 G 47161185.38 47161185.61 47161185.83 0.0545 0.0068

Moon 124410-11-03 06:26 G 47161185.54 47161185.77 47161185.99 0.0545 0.0052 *

Mercury 124411-08-15 07:24 G 47161470.68 47161470.81 47161470.95 0.0544 0.0171

Mars 124413-03-10 16:17 G 47162043.95 47162044.18 47162044.42 0.0525 0.0206

Earth 124416-04-26 15:19 G 47163187.08 47163187.14 47163187.21 0.0485 0.0462

Moon 124416-04-26 16:45 G 47163187.18 47163187.20 47163187.24 0.0485 0.0480 *

Venus 124417-03-30 22:02 G 47163525.24 47163525.42 47163525.60 0.0483 0.0251

Mercury 124417-06-27 16:45 G 47163614.10 47163614.20 47163614.31 0.0484 0.0358

Mercury 124417-09-25 08:07 G 47163703.71 47163703.84 47163703.98 0.0485 0.0270

Moon 124422-11-08 06:55 G 47165573.61 47165573.79 47165573.97 0.0546 0.0338

Earth 124422-11-08 10:31 G 47165573.78 47165573.94 47165574.11 0.0546 0.0376 *

Venus 124423-01-30 01:53 G 47165656.39 47165656.58 47165656.77 0.0546 0.0184

Mercury 124423-06-03 09:33 G 47165780.75 47165780.90 47165781.04 0.0544 0.0021

Moon 124428-04-30 23:14 G 47167574.29 47167574.47 47167574.66 0.0484 0.0282

Earth 124428-05-01 00:12 G 47167574.31 47167574.51 47167574.71 0.0484 0.0250 *

Venus 124428-12-04 01:38 G 47167791.36 47167791.57 47167791.78 0.0483 0.0024

Mercury 124429-07-14 10:02 G 47168013.76 47168013.92 47168014.07 0.0485 0.0114

Venus 124434-10-04 17:00 G 47169922.02 47169922.21 47169922.39 0.0545 0.0199

Mercury 124435-03-22 11:14 G 47170090.84 47170090.97 47170091.11 0.0544 0.0213

Moon 124440-05-05 06:41 G 47171961.54 47171961.78 47171962.02 0.0484 0.0070

Earth 124440-05-05 06:55 G 47171961.55 47171961.79 47171962.03 0.0484 0.0044 *

Venus 124440-08-09 04:17 G 47172057.52 47172057.68 47172057.85 0.0483 0.0301

Mercury 124441-05-02 11:29 G 47172323.83 47172323.98 47172324.14 0.0485 0.0047

Mercury 124447-01-08 12:26 G 47174400.93 47174401.02 47174401.12 0.0544 0.0418

Mercury 124447-04-08 05:43 G 47174490.64 47174490.74 47174490.84 0.0543 0.0395

Earth 124452-05-09 15:19 G 47176348.92 47176349.14 47176349.37 0.0483 0.0167

Moon 124452-05-09 16:45 G 47176348.98 47176349.20 47176349.42 0.0483 0.0158 *

Venus 124452-12-06 08:21 G 47176559.75 47176559.85 47176559.96 0.0484 0.0417

Mercury	124453-02-18 13:53 G	47176633.93	47176634.08	47176634.22	0.0484	0.0194
Mercury	124453-05-19 05:43 G	47176723.68	47176723.74	47176723.80	0.0485	0.0445
Venus	124458-10-07 18:26 G	47178691.14	47178691.27	47178691.40	0.0545	0.0405
Mercury	124459-01-25 06:12 G	47178800.62	47178800.76	47178800.89	0.0544	0.0177
Moon	124464-05-13 20:50 G	47180736.24	47180736.37	47180736.53	0.0483	0.0387
Earth	124464-05-13 23:43 G	47180736.34	47180736.49	47180736.64	0.0483	0.0376 *
Venus	124464-08-11 12:26 G	47180825.83	47180826.02	47180826.22	0.0483	0.0144
Mercury	124464-12-07 16:02 G	47180944.06	47180944.17	47180944.28	0.0484	0.0342
Mercury	124465-03-07 07:24 G	47181033.68	47181033.81	47181033.94	0.0485	0.0288
Venus	124470-06-12 07:24 G	47182956.61	47182956.81	47182957.00	0.0545	0.0019
Mercury	124470-11-13 07:38 G	47183110.67	47183110.82	47183110.96	0.0544	0.0024
Venus	124476-04-16 15:33 G	47185091.95	47185092.15	47185092.35	0.0483	0.0135
Mercury	124476-12-24 08:50 G	47185343.71	47185343.87	47185344.02	0.0484	0.0124
Moon	124481-10-27 23:57 G	47187112.32	47187112.50	47187112.69	0.0545	0.0292
Earth	124481-10-28 02:50 G	47187112.42	47187112.62	47187112.83	0.0545	0.0258 *
Venus	124482-02-14 21:48 G	47187222.27	47187222.41	47187222.56	0.0546	0.0371
Mercury	124482-09-01 09:19 G	47187420.76	47187420.89	47187421.03	0.0545	0.0218
Venus	124487-12-21 18:55 G	47189358.18	47189358.29	47189358.40	0.0483	0.0410
Mercury	124488-10-12 10:31 G	47189653.79	47189653.94	47189654.10	0.0484	0.0034
Earth	124493-11-02 11:00 G	47191500.74	47191500.96	47191501.19	0.0545	0.0050
Moon	124493-11-02 14:21 G	47191500.86	47191501.10	47191501.33	0.0545	0.0031 *
Mercury	124494-06-20 11:14 G	47191730.87	47191730.97	47191731.06	0.0545	0.0413
Mercury	124494-09-18 04:17 G	47191820.59	47191820.68	47191820.78	0.0543	0.0402
Earth	124499-04-27 00:12 G	47193502.48	47193502.51	47193502.56	0.0485	0.0476
Venus	124500-04-19 21:48 G	47193860.25	47193860.41	47193860.58	0.0483	0.0304
Mercury	124500-08-01 12:26 G	47193963.87	47193964.02	47193964.16	0.0484	0.0186
Mercury	124500-10-30 04:17 G	47194053.63	47194053.68	47194053.74	0.0485	0.0452
Moon	124505-11-08 14:36 G	47195888.94	47195889.11	47195889.27	0.0545	0.0363
Earth	124505-11-08 17:43 G	47195889.07	47195889.24	47195889.42	0.0545	0.0350 *
Venus	124506-02-19 04:45 G	47195991.53	47195991.70	47195991.88	0.0545	0.0257

Mercury	124506-07-08 05:57 G	47196130.62	47196130.75	47196130.89	0.0544	0.0207
Earth	124511-05-02 09:33 G	47197889.70	47197889.90	47197890.10	0.0484	0.0265
Moon	124511-05-02 12:55 G	47197889.85	47197890.04	47197890.24	0.0484	0.0266 *
Venus	124511-12-25 01:53 G	47198126.38	47198126.58	47198126.79	0.0483	0.0033
Mercury	124512-05-20 14:36 G	47198274.00	47198274.11	47198274.23	0.0484	0.0333
Mercury	124512-08-18 06:12 G	47198363.63	47198363.76	47198363.88	0.0485	0.0297
Venus	124517-10-24 14:50 G	47200256.93	47200257.12	47200257.31	0.0545	0.0148
Mercury	124518-04-26 06:26 G	47200440.62	47200440.77	47200440.91	0.0544	0.0023
Moon	124523-05-06 14:36 G	47202276.88	47202277.11	47202277.36	0.0484	0.0035
Earth	124523-05-06 18:26 G	47202277.03	47202277.27	47202277.51	0.0484	0.0052 *
Venus	124523-08-30 05:43 G	47202392.56	47202392.74	47202392.92	0.0483	0.0245
Mercury	124524-03-08 17:00 G	47202584.20	47202584.21	47202584.23	0.0484	0.0480
Mercury	124524-06-06 07:53 G	47202673.68	47202673.83	47202673.98	0.0485	0.0141
Venus	124529-06-29 03:48 G	47204522.64	47204522.66	47204522.70	0.0545	0.0537
Mercury	124530-02-12 07:24 G	47204750.68	47204750.81	47204750.95	0.0544	0.0222
Earth	124535-05-11 01:24 G	47206664.34	47206664.56	47206664.79	0.0483	0.0158
Moon	124535-05-11 05:14 G	47206664.50	47206664.72	47206664.94	0.0483	0.0188 *
Venus	124535-12-27 08:21 G	47206894.80	47206894.85	47206894.90	0.0483	0.0467
Mercury	124536-03-25 09:19 G	47206983.73	47206983.89	47206984.05	0.0484	0.0023
Venus	124541-10-27 20:21 G	47209026.25	47209026.35	47209026.44	0.0545	0.0473
Mercury	124541-12-01 09:05 G	47209060.79	47209060.88	47209060.97	0.0545	0.0420
Mercury	124542-03-01 02:21 G	47209150.50	47209150.60	47209150.70	0.0544	0.0396
Moon	124547-05-15 05:29 G	47211051.59	47211051.73	47211051.87	0.0483	0.0385
Earth	124547-05-15 09:05 G	47211051.73	47211051.88	47211052.04	0.0483	0.0365 *
Venus	124547-09-01 12:12 G	47211160.82	47211161.01	47211161.20	0.0483	0.0193
Mercury	124548-01-12 11:14 G	47211293.83	47211293.97	47211294.12	0.0484	0.0175
Mercury	124548-04-11 03:05 G	47211383.59	47211383.63	47211383.68	0.0485	0.0464
Venus	124553-07-02 11:00 G	47213291.77	47213291.96	47213292.16	0.0546	0.0090
Mercury	124553-12-18 04:31 G	47213460.56	47213460.69	47213460.82	0.0544	0.0210
Venus	124559-05-07 15:19 G	47215426.93	47215427.14	47215427.34	0.0483	0.0084

Mercury 124559-10-31 13:09 G 47215603.94 47215604.05 47215604.17 0.0484 0.0328

Mercury 124560-01-29 04:31 G 47215693.57 47215693.69 47215693.82 0.0485 0.0302

Earth 124564-10-28 10:31 G 47217427.75 47217427.94 47217428.14 0.0544 0.0279

Moon 124564-10-28 10:45 G 47217427.76 47217427.95 47217428.14 0.0544 0.0273 *

Venus 124565-03-07 00:55 G 47217557.38 47217557.54 47217557.71 0.0545 0.0298

Mercury 124565-10-06 05:57 G 47217770.61 47217770.75 47217770.90 0.0544 0.0022

Venus 124571-01-10 18:41 G 47219693.15 47219693.28 47219693.43 0.0483 0.0359

Mercury 124571-08-19 15:33 G 47219914.12 47219914.15 47219914.18 0.0484 0.0473

Mercury 124571-11-17 06:41 G 47220003.62 47220003.78 47220003.93 0.0485 0.0149

Moon 124576-11-02 09:33 G 47221815.66 47221815.90 47221816.14 0.0544 0.0039

Earth 124576-11-02 10:31 G 47221815.71 47221815.94 47221816.17 0.0544 0.0011 *

Mercury 124577-07-25 06:12 G 47222080.63 47222080.76 47222080.89 0.0544 0.0213

Moon 124582-04-27 06:26 G 47223817.70 47223817.77 47223817.85 0.0486 0.0459

Venus 124583-05-09 22:45 G 47224195.32 47224195.45 47224195.59 0.0484 0.0359

Mercury 124583-09-05 08:36 G 47224313.70 47224313.86 47224314.02 0.0485 0.0013

Earth 124588-11-07 14:21 G 47226203.91 47226204.10 47226204.29 0.0545 0.0303

Moon 124588-11-07 15:33 G 47226203.98 47226204.15 47226204.33 0.0545 0.0339 *

Venus 124589-03-10 01:38 G 47226326.41 47226326.57 47226326.74 0.0545 0.0303

Mercury 124589-05-13 07:09 G 47226390.71 47226390.80 47226390.89 0.0544 0.0423

Mercury 124589-08-11 00:26 G 47226480.43 47226480.52 47226480.62 0.0543 0.0392

Earth 124594-05-01 18:41 G 47228205.08 47228205.28 47228205.48 0.0485 0.0275

Moon 124594-05-01 22:17 G 47228205.23 47228205.43 47228205.64 0.0485 0.0247 *

Venus 124595-01-13 01:38 G 47228461.37 47228461.57 47228461.78 0.0483 0.0080

Mercury 124595-06-24 10:02 G 47228623.77 47228623.92 47228624.07 0.0484 0.0166

Mercury 124595-09-22 01:53 G 47228713.55 47228713.58 47228713.62 0.0485 0.0473

Venus 124600-11-13 15:48 G 47230591.96 47230592.16 47230592.35 0.0546 0.0087

Mercury 124601-05-31 02:21 G 47230790.47 47230790.60 47230790.74 0.0544 0.0202

Moon 124606-05-07 00:12 G 47232592.28 47232592.51 47232592.74 0.0484 0.0053

Earth 124606-05-07 03:19 G 47232592.41 47232592.64 47232592.88 0.0484 0.0064 *

Venus 124606-09-19 05:14 G 47232727.53 47232727.72 47232727.91 0.0483 0.0196

Mercury	124607-04-13 12:12 G	47232933.89	47232934.01	47232934.13	0.0484	0.0317
Mercury	124607-07-12 03:19 G	47233023.53	47233023.64	47233023.77	0.0485	0.0313
Venus	124612-07-19 06:40 G	47234857.69	47234857.78	47234857.89	0.0545	0.0468
Mercury	124613-03-19 04:31 G	47235100.54	47235100.69	47235100.83	0.0544	0.0020
Earth	124618-05-11 10:02 G	47236979.69	47236979.92	47236980.15	0.0483	0.0142
Moon	124618-05-11 12:40 G	47236979.80	47236980.03	47236980.27	0.0483	0.0132 *
Venus	124618-05-25 07:38 G	47236993.79	47236993.82	47236993.86	0.0483	0.0474
Mercury	124619-01-30 14:07 G	47237244.06	47237244.09	47237244.13	0.0484	0.0468
Mercury	124619-04-30 05:00 G	47237333.56	47237333.71	47237333.86	0.0485	0.0152
Mars	124621-02-04 19:09 G	47237980.03	47237980.30	47237980.57	0.0502	0.0226
Venus	124624-11-16 23:00 G	47239361.45	47239361.46	47239361.47	0.0545	0.0544
Mercury	124625-01-05 05:57 G	47239410.61	47239410.75	47239410.88	0.0544	0.0188
Moon	124630-05-15 16:45 G	47241367.03	47241367.20	47241367.37	0.0483	0.0325
Earth	124630-05-15 18:12 G	47241367.10	47241367.26	47241367.42	0.0483	0.0351 *
Venus	124630-09-21 11:57 G	47241495.82	47241496.00	47241496.18	0.0483	0.0246
Mercury	124631-02-16 07:09 G	47241643.64	47241643.80	47241643.95	0.0485	0.0012
Venus	124636-07-22 09:04 G	47243626.69	47243626.88	47243627.07	0.0545	0.0140
Mercury	124636-10-24 05:57 G	47243720.66	47243720.75	47243720.84	0.0544	0.0415
Mercury	124637-01-21 23:14 G	47243810.37	47243810.47	47243810.56	0.0543	0.0399
Venus	124642-05-27 15:19 G	47245761.94	47245762.14	47245762.35	0.0484	0.0034
Mercury	124642-12-05 09:04 G	47245953.73	47245953.88	47245954.03	0.0484	0.0154
Earth	124647-10-29 07:38 G	47247742.64	47247742.82	47247743.01	0.0543	0.0322
Moon	124647-10-29 11:28 G	47247742.79	47247742.98	47247743.18	0.0543	0.0285 *
Venus	124648-03-26 21:48 G	47247892.23	47247892.41	47247892.59	0.0545	0.0254
Mercury	124648-11-10 00:26 G	47248120.39	47248120.52	47248120.66	0.0544	0.0198
Venus	124654-01-30 17:57 G	47250028.09	47250028.25	47250028.41	0.0483	0.0312
Mercury	124654-09-23 10:45 G	47250263.83	47250263.95	47250264.07	0.0484	0.0311
Mercury	124654-12-22 01:52 G	47250353.47	47250353.58	47250353.71	0.0485	0.0319
Moon	124659-11-03 08:07 G	47252130.61	47252130.84	47252131.07	0.0545	0.0012
Earth	124659-11-03 11:43 G	47252130.77	47252130.99	47252131.22	0.0545	0.0029 *

Mercury	124660-08-29 02:07 G	47252430.45	47252430.59	47252430.74	0.0544	0.0006
Venus	124666-05-29 21:33 G	47254530.29	47254530.40	47254530.51	0.0483	0.0405
Mercury	124666-07-12 12:55 G	47254573.99	47254574.04	47254574.08	0.0484	0.0460
Mercury	124666-10-10 03:33 G	47254663.50	47254663.65	47254663.81	0.0485	0.0161
Earth	124671-11-08 19:24 G	47256519.12	47256519.31	47256519.51	0.0545	0.0278
Moon	124671-11-08 23:00 G	47256519.26	47256519.46	47256519.66	0.0545	0.0257 *
Venus	124672-03-30 04:02 G	47256661.53	47256661.67	47256661.82	0.0545	0.0373
Mercury	124672-06-17 03:48 G	47256740.53	47256740.66	47256740.80	0.0545	0.0193
Moon	124677-05-02 02:07 G	47258520.40	47258520.59	47258520.79	0.0485	0.0306
Earth	124677-05-02 02:07 G	47258520.41	47258520.59	47258520.78	0.0485	0.0291 *
Venus	124678-02-02 00:26 G	47258796.32	47258796.52	47258796.72	0.0483	0.0128
Mercury	124678-07-29 05:14 G	47258973.56	47258973.72	47258973.88	0.0484	0.0006
Moon	124683-11-13 23:00 G	47260907.44	47260907.46	47260907.48	0.0545	0.0542
Venus	124683-12-03 18:12 G	47260927.06	47260927.26	47260927.45	0.0545	0.0020
Mercury	124684-04-05 05:14 G	47261050.62	47261050.72	47261050.82	0.0545	0.0394
Mercury	124684-07-03 22:31 G	47261140.36	47261140.44	47261140.53	0.0543	0.0421
Mars	124685-11-26 12:12 G	47261650.78	47261651.01	47261651.24	0.0526	0.0214
Earth	124689-05-06 10:45 G	47262907.72	47262907.95	47262908.19	0.0484	0.0080
Moon	124689-05-06 11:43 G	47262907.77	47262907.99	47262908.22	0.0484	0.0109 *
Venus	124689-10-08 04:16 G	47263062.48	47263062.68	47263062.88	0.0483	0.0147
Mercury	124690-05-17 07:24 G	47263283.66	47263283.81	47263283.96	0.0484	0.0149
Venus	124695-08-08 05:14 G	47265192.60	47265192.72	47265192.85	0.0545	0.0416
Mercury	124696-04-21 23:14 G	47265450.34	47265450.47	47265450.60	0.0543	0.0205
Moon	124701-05-11 16:31 G	47267294.95	47267295.19	47267295.43	0.0484	0.0103
Earth	124701-05-11 18:12 G	47267295.03	47267295.26	47267295.49	0.0484	0.0130 *
Venus	124701-06-14 06:55 G	47267328.69	47267328.79	47267328.88	0.0484	0.0428
Mercury	124702-03-06 09:19 G	47267593.77	47267593.89	47267594.02	0.0484	0.0302
Mercury	124702-06-04 00:55 G	47267683.42	47267683.54	47267683.65	0.0485	0.0330
Mercury	124708-02-10 00:12 G	47269760.37	47269760.51	47269760.66	0.0544	0.0014
Earth	124713-05-16 00:40 G	47271682.37	47271682.53	47271682.71	0.0483	0.0337

Moon	124713-05-16 03:04 G	47271682.47	47271682.63	47271682.80	0.0483	0.0328	*
Venus	124713-10-11 10:16 G	47271830.76	47271830.93	47271831.09	0.0483	0.0289	
Mercury	124713-12-23 11:14 G	47271903.92	47271903.97	47271904.02	0.0484	0.0457	
Mercury	124714-03-23 02:07 G	47271993.44	47271993.59	47271993.74	0.0485	0.0164	
Venus	124719-08-12 08:07 G	47273961.65	47273961.84	47273962.03	0.0545	0.0194	
Mercury	124719-11-29 01:38 G	47274070.43	47274070.57	47274070.70	0.0545	0.0205	
Venus	124725-06-16 13:38 G	47276096.86	47276097.07	47276097.28	0.0483	0.0013	
Mercury	124726-01-09 03:48 G	47276303.50	47276303.66	47276303.82	0.0484	0.0013	
Earth	124730-10-29 10:45 G	47278057.78	47278057.95	47278058.12	0.0544	0.0352	
Moon	124730-10-29 13:52 G	47278057.91	47278058.08	47278058.25	0.0544	0.0374	*
Venus	124731-04-16 22:45 G	47278227.27	47278227.45	47278227.64	0.0545	0.0191	
Mercury	124731-09-17 03:04 G	47278380.54	47278380.63	47278380.73	0.0545	0.0403	
Mercury	124731-12-15 20:36 G	47278470.27	47278470.36	47278470.45	0.0544	0.0414	
Venus	124737-02-19 16:02 G	47280363.00	47280363.17	47280363.35	0.0483	0.0268	
Mercury	124737-10-28 05:28 G	47280613.59	47280613.73	47280613.88	0.0484	0.0151	
Moon	124742-11-03 14:21 G	47282445.88	47282446.10	47282446.32	0.0544	0.0090	
Earth	124742-11-03 17:00 G	47282445.99	47282446.21	47282446.44	0.0544	0.0055	*
Mercury	124743-10-03 22:16 G	47282780.30	47282780.43	47282780.57	0.0544	0.0222	
Venus	124749-06-18 19:52 G	47284865.26	47284865.33	47284865.41	0.0484	0.0452	
Mercury	124749-08-16 07:52 G	47284923.70	47284923.83	47284923.95	0.0484	0.0299	
Mercury	124749-11-13 23:00 G	47285013.35	47285013.46	47285013.58	0.0485	0.0332	
Earth	124754-11-08 18:40 G	47286834.08	47286834.28	47286834.49	0.0544	0.0240	
Moon	124754-11-08 21:19 G	47286834.18	47286834.39	47286834.61	0.0544	0.0217	*
Venus	124755-04-20 02:07 G	47286996.46	47286996.59	47286996.71	0.0544	0.0421	
Mercury	124755-07-22 23:00 G	47287090.31	47287090.46	47287090.60	0.0544	0.0014	
Moon	124760-05-02 04:45 G	47288835.53	47288835.70	47288835.89	0.0485	0.0327	
Earth	124760-05-02 08:07 G	47288835.65	47288835.84	47288836.02	0.0485	0.0308	*
Venus	124761-02-21 23:14 G	47289131.27	47289131.47	47289131.66	0.0484	0.0174	
Mercury	124761-06-04 09:48 G	47289233.86	47289233.91	47289233.97	0.0484	0.0451	
Mercury	124761-09-02 00:40 G	47289323.38	47289323.53	47289323.68	0.0485	0.0172	

Moon	124766-11-13 19:52 G	47291222.30	47291222.33	47291222.37	0.0545	0.0537
Earth	124766-11-13 21:48 G	47291222.36	47291222.41	47291222.47	0.0545	0.0529 *
Venus	124766-12-23 14:07 G	47291261.89	47291262.09	47291262.29	0.0545	0.0025
Mercury	124767-05-10 23:43 G	47291400.36	47291400.49	47291400.63	0.0544	0.0208
Earth	124772-05-06 15:48 G	47293222.93	47293223.16	47293223.40	0.0484	0.0098
Moon	124772-05-06 19:24 G	47293223.08	47293223.31	47293223.54	0.0484	0.0091 *
Venus	124772-10-28 01:38 G	47293397.37	47293397.57	47293397.77	0.0483	0.0107
Mercury	124773-06-21 02:07 G	47293633.43	47293633.59	47293633.75	0.0484	0.0008
Mars	124775-05-02 13:24 G	47294313.77	47294314.06	47294314.36	0.0502	0.0096
Venus	124778-08-28 02:50 G	47295527.48	47295527.62	47295527.77	0.0545	0.0369
Mercury	124779-02-27 00:40 G	47295710.44	47295710.53	47295710.62	0.0545	0.0419
Mercury	124779-05-27 18:12 G	47295800.16	47295800.26	47295800.35	0.0544	0.0400
Moon	124784-05-10 20:36 G	47297610.13	47297610.36	47297610.59	0.0484	0.0136
Earth	124784-05-11 00:26 G	47297610.29	47297610.52	47297610.75	0.0484	0.0111 *
Venus	124784-07-03 04:31 G	47297663.57	47297663.69	47297663.82	0.0483	0.0385
Mercury	124785-04-09 04:02 G	47297943.52	47297943.67	47297943.82	0.0484	0.0147
Mercury	124791-03-15 20:07 G	47300110.21	47300110.34	47300110.47	0.0544	0.0211
Earth	124796-05-15 06:40 G	47301997.61	47301997.78	47301997.96	0.0483	0.0315
Moon	124796-05-15 10:45 G	47301997.79	47301997.95	47301998.12	0.0483	0.0349 *
Venus	124796-10-30 07:38 G	47302165.68	47302165.82	47302165.98	0.0483	0.0333
Mercury	124797-01-26 05:43 G	47302253.62	47302253.74	47302253.87	0.0484	0.0302
Mercury	124797-04-25 21:04 G	47302343.26	47302343.38	47302343.50	0.0485	0.0328
Venus	124802-08-31 09:19 G	47304296.72	47304296.89	47304297.07	0.0545	0.0260
Mercury	124803-01-01 21:48 G	47304420.26	47304420.41	47304420.55	0.0544	0.0016
Venus	124808-07-05 11:14 G	47306431.77	47306431.97	47306432.18	0.0483	0.0057
Mercury	124808-11-14 08:07 G	47306563.78	47306563.84	47306563.89	0.0484	0.0449
Mercury	124809-02-11 22:45 G	47306653.31	47306653.45	47306653.60	0.0485	0.0173
Moon	124813-10-28 10:16 G	47308372.78	47308372.93	47308373.09	0.0543	0.0411
Earth	124813-10-28 11:43 G	47308372.83	47308372.99	47308373.15	0.0543	0.0385 *
Venus	124814-05-05 21:04 G	47308562.19	47308562.38	47308562.57	0.0545	0.0141

Mercury 124814-10-20 22:16 G 47308730.30 47308730.43 47308730.57 0.0544 0.0203

Venus 124820-03-10 13:52 G 47310697.89 47310698.08 47310698.26 0.0484 0.0226

Mercury 124820-12-01 00:26 G 47310963.37 47310963.52 47310963.68 0.0485 0.0019

Earth 124825-11-02 13:09 G 47312760.83 47312761.05 47312761.28 0.0543 0.0100

Moon 124825-11-02 15:04 G 47312760.91 47312761.13 47312761.34 0.0543 0.0098 *

Venus 124826-01-08 09:33 G 47312827.87 47312827.90 47312827.94 0.0544 0.0533

Mercury 124826-08-08 23:00 G 47313040.37 47313040.46 47313040.55 0.0544 0.0419

Mercury 124826-11-06 16:16 G 47313130.09 47313130.18 47313130.28 0.0543 0.0398

Mercury 124832-09-19 02:07 G 47315273.44 47315273.59 47315273.74 0.0484 0.0147

Moon 124837-11-07 12:55 G 47317148.82 47317149.04 47317149.26 0.0545 0.0215

Earth 124837-11-07 14:50 G 47317148.91 47317149.12 47317149.34 0.0545 0.0190 *

Venus 124838-05-08 23:00 G 47317331.36 47317331.46 47317331.56 0.0545 0.0467

Mercury 124838-08-25 17:43 G 47317440.10 47317440.24 47317440.37 0.0544 0.0196

Mars 124840-02-20 22:16 G 47317984.17 47317984.43 47317984.68 0.0527 0.0027

Moon 124843-05-02 10:02 G 47319150.73 47319150.92 47319151.10 0.0485 0.0298

Earth 124843-05-02 13:38 G 47319150.90 47319151.07 47319151.25 0.0485 0.0328 *

Venus 124844-03-12 20:07 G 47319466.16 47319466.34 47319466.53 0.0483 0.0216

Mercury 124844-07-08 04:02 G 47319583.55 47319583.67 47319583.80 0.0484 0.0300

Mercury 124844-10-05 19:24 G 47319673.19 47319673.31 47319673.42 0.0485 0.0330

Earth 124849-11-12 21:33 G 47321537.30 47321537.40 47321537.50 0.0545 0.0490

Moon 124849-11-12 23:00 G 47321537.41 47321537.46 47321537.53 0.0545 0.0520 *

Venus 124850-01-11 12:55 G 47321596.85 47321597.04 47321597.24 0.0545 0.0081

Mercury 124850-06-13 19:24 G 47321750.17 47321750.31 47321750.46 0.0544 0.0003

Earth 124855-05-06 21:04 G 47323538.15 47323538.38 47323538.61 0.0484 0.0119

Moon 124855-05-07 00:12 G 47323538.27 47323538.51 47323538.75 0.0484 0.0089 *

Venus 124855-11-16 22:45 G 47323732.25 47323732.45 47323732.66 0.0483 0.0065

Mercury 124856-04-26 06:12 G 47323893.70 47323893.76 47323893.81 0.0484 0.0453

Mercury 124856-07-24 20:50 G 47323983.22 47323983.37 47323983.52 0.0485 0.0167

Venus 124861-09-16 03:33 G 47325862.49 47325862.65 47325862.82 0.0545 0.0307

Mercury 124862-04-01 20:50 G 47326060.24 47326060.37 47326060.51 0.0544 0.0198

Moon	124867-05-11 03:04 G	47327925.41	47327925.63	47327925.86	0.0484	0.0104
Earth	124867-05-11 05:14 G	47327925.49	47327925.72	47327925.96	0.0484	0.0089 *
Venus	124867-07-23 01:52 G	47327998.43	47327998.58	47327998.72	0.0484	0.0343
Mercury	124868-05-12 22:45 G	47328293.29	47328293.45	47328293.61	0.0485	0.0014
Mercury	124874-01-18 21:19 G	47330370.30	47330370.39	47330370.49	0.0544	0.0416
Mercury	124874-04-18 14:50 G	47330460.03	47330460.12	47330460.22	0.0543	0.0401
Earth	124879-05-15 11:00 G	47332312.78	47332312.96	47332313.16	0.0484	0.0296
Moon	124879-05-15 12:40 G	47332312.83	47332313.03	47332313.23	0.0484	0.0286 *
Venus	124879-11-19 05:00 G	47332500.58	47332500.71	47332500.84	0.0484	0.0374
Mercury	124880-03-01 00:26 G	47332603.37	47332603.52	47332603.67	0.0485	0.0145
Venus	124885-09-19 05:14 G	47334631.56	47334631.72	47334631.89	0.0544	0.0300
Mercury	124886-02-04 16:02 G	47334770.03	47334770.17	47334770.30	0.0543	0.0196
Moon	124891-05-19 17:14 G	47336700.19	47336700.22	47336700.26	0.0484	0.0476
Venus	124891-07-25 07:38 G	47336766.62	47336766.82	47336767.02	0.0483	0.0094
Mercury	124891-12-19 02:07 G	47336913.47	47336913.59	47336913.71	0.0484	0.0302
Mercury	124892-03-17 17:14 G	47337003.11	47337003.22	47337003.34	0.0485	0.0328
Moon	124896-10-27 02:50 G	47338687.47	47338687.62	47338687.77	0.0543	0.0408
Earth	124896-10-27 06:26 G	47338687.64	47338687.77	47338687.90	0.0543	0.0437 *
Venus	124897-05-24 16:45 G	47338897.01	47338897.20	47338897.40	0.0545	0.0100
Mercury	124897-11-23 17:00 G	47339080.06	47339080.21	47339080.35	0.0544	0.0019
Venus	124903-03-31 11:00 G	47341032.77	47341032.96	47341033.15	0.0483	0.0184
Mercury	124903-10-08 04:16 G	47341223.63	47341223.68	47341223.74	0.0484	0.0452
Mercury	124904-01-05 18:55 G	47341313.14	47341313.29	47341313.44	0.0484	0.0168
Earth	124908-11-02 11:00 G	47343075.74	47343075.96	47343076.18	0.0544	0.0145
Moon	124908-11-02 14:36 G	47343075.89	47343076.11	47343076.34	0.0544	0.0113 *
Venus	124909-01-28 07:09 G	47343162.71	47343162.80	47343162.89	0.0545	0.0485
Mercury	124909-09-12 18:26 G	47343390.13	47343390.27	47343390.40	0.0545	0.0213
Venus	124914-12-04 12:55 G	47345298.99	47345299.04	47345299.10	0.0484	0.0465
Mercury	124915-10-24 20:36 G	47345623.20	47345623.36	47345623.52	0.0484	0.0010
Moon	124920-11-07 13:38 G	47347463.85	47347464.07	47347464.29	0.0545	0.0162

Earth 124920-11-07 17:28 G 47347464.02 47347464.23 47347464.45 0.0545 0.0157 *
 Venus 124921-05-28 23:28 G 47347666.44 47347666.48 47347666.52 0.0545 0.0530
 Mercury 124921-07-01 19:38 G 47347700.23 47347700.32 47347700.42 0.0545 0.0415
 Mercury 124921-09-29 13:24 G 47347789.97 47347790.06 47347790.15 0.0543 0.0406
 Moon 124926-05-02 17:28 G 47349466.07 47349466.23 47349466.39 0.0485 0.0349
 Earth 124926-05-02 17:43 G 47349466.08 47349466.24 47349466.40 0.0485 0.0350 *
 Venus 124927-04-02 17:14 G 47349801.05 47349801.22 47349801.40 0.0483 0.0257
 Mercury 124927-08-12 22:31 G 47349933.29 47349933.44 47349933.59 0.0484 0.0145
 Mars 124929-07-27 07:09 G 47350647.64 47350647.80 47350647.97 0.0503 0.0418
 Earth 124932-11-12 21:48 G 47351852.29 47351852.41 47351852.54 0.0544 0.0453
 Moon 124932-11-13 01:52 G 47351852.45 47351852.58 47351852.73 0.0544 0.0428 *
 Venus 124933-01-31 11:43 G 47351931.80 47351931.99 47351932.19 0.0545 0.0134
 Mercury 124933-07-18 14:21 G 47352099.97 47352100.10 47352100.24 0.0543 0.0200
 Moon 124938-05-06 23:28 G 47353853.25 47353853.48 47353853.72 0.0485 0.0160
 Earth 124938-05-07 00:12 G 47353853.28 47353853.51 47353853.74 0.0485 0.0143 *
 Venus 124938-12-06 19:24 G 47354067.11 47354067.31 47354067.52 0.0484 0.0027
 Mercury 124939-06-01 00:26 G 47354243.40 47354243.52 47354243.64 0.0484 0.0301
 Mercury 124939-08-29 15:33 G 47354333.04 47354333.15 47354333.27 0.0485 0.0329
 Venus 124944-10-06 00:12 G 47356197.34 47356197.51 47356197.69 0.0544 0.0262
 Mercury 124945-05-06 15:19 G 47356410.00 47356410.14 47356410.29 0.0544 0.0015
 Earth 124950-05-11 08:07 G 47358240.61 47358240.84 47358241.08 0.0484 0.0066
 Moon 124950-05-11 09:19 G 47358240.66 47358240.89 47358241.12 0.0484 0.0038 *
 Venus 124950-08-11 21:48 G 47358333.26 47358333.41 47358333.58 0.0484 0.0307
 Mercury 124951-03-20 02:21 G 47358553.55 47358553.60 47358553.65 0.0484 0.0454
 Mercury 124951-06-17 17:00 G 47358643.06 47358643.21 47358643.36 0.0485 0.0166
 Mercury 124957-02-22 16:02 G 47360720.03 47360720.17 47360720.30 0.0544 0.0228
 Moon 124962-05-15 14:21 G 47362627.90 47362628.10 47362628.32 0.0484 0.0248
 Earth 124962-05-15 16:31 G 47362628.00 47362628.19 47362628.39 0.0484 0.0275 *
 Venus 124962-12-09 01:52 G 47362835.48 47362835.58 47362835.69 0.0483 0.0415
 Mercury 124963-04-05 18:55 G 47362953.13 47362953.29 47362953.45 0.0484 0.0012

Venus	124968-10-09 02:50 G	47364966.47	47364966.62	47364966.77	0.0545	0.0350
Mercury	124968-12-11 17:14 G	47365030.13	47365030.22	47365030.31	0.0545	0.0432
Mercury	124969-03-11 11:00 G	47365119.86	47365119.96	47365120.06	0.0544	0.0391
Earth	124974-05-19 23:00 G	47367015.43	47367015.46	47367015.50	0.0483	0.0477
Moon	124974-05-20 01:52 G	47367015.54	47367015.58	47367015.64	0.0483	0.0472
Venus	124974-08-14 04:31 G	47367101.50	47367101.69	47367101.90	0.0483	0.0136
Mercury	124975-01-22 20:36 G	47367263.21	47367263.36	47367263.51	0.0484	0.0149
Moon	124979-10-28 06:40 G	47369002.67	47369002.78	47369002.90	0.0543	0.0459
Earth	124979-10-28 08:50 G	47369002.77	47369002.87	47369002.99	0.0543	0.0470 *
Venus	124980-06-13 17:14 G	47369232.02	47369232.22	47369232.42	0.0545	0.0037
Mercury	124980-12-28 12:40 G	47369429.90	47369430.03	47369430.17	0.0544	0.0201
Venus	124986-04-19 07:52 G	47371367.63	47371367.83	47371368.03	0.0483	0.0142
Mercury	124986-11-10 22:45 G	47371573.33	47371573.45	47371573.57	0.0484	0.0300
Mercury	124987-02-08 13:38 G	47371662.96	47371663.07	47371663.19	0.0485	0.0330
Earth	124991-11-02 13:09 G	47373390.84	47373391.05	47373391.27	0.0543	0.0176
Moon	124991-11-02 15:04 G	47373390.91	47373391.13	47373391.35	0.0543	0.0194 *
Venus	124992-02-17 06:55 G	47373497.67	47373497.79	47373497.91	0.0544	0.0428
Mercury	124992-10-16 13:52 G	47373739.94	47373740.08	47373740.23	0.0544	0.0009
Mars	124994-05-17 12:26 G	47374317.81	47374318.02	47374318.24	0.0526	0.0284
Venus	124997-12-23 09:33 G	47375633.81	47375633.90	47375634.00	0.0484	0.0427
Mercury	124998-08-30 00:40 G	47375883.48	47375883.53	47375883.58	0.0484	0.0454
Mercury	124998-11-27 15:19 G	47375972.99	47375973.14	47375973.29	0.0485	0.0167